UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	03/20/2018	9924124	075425-0047	1257

20277 7590 02/28/2018

MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Masayuki HIRABAYASHI, Ibaraki, JAPAN;
HITACHI MAXELL, LTD., Ibaraki-shi, Osaka, JAPAN;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PART B–FEE(S) TRANSMITTAL

Complete and send this form, together with the applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22314-1450
or Fax **(571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note Use Block 1 for any change of address)

MCDERMOTT WILL & EMERY LLP
500 North Capitol Street, N.W
Washington, DC 20001

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, EFS-Web transmitted, or facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's Name)
(S-signature)
(Date)

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

TITLE OF INVENTION: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

APPLN: TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1,000.00			$1,000.00	02/28/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
M. Rahman	2422	

1. Change of correspondence address or indication of "Fee Address" (37CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered attorney or agent. If no name is listed, no name will be printed

1. McDermott Will & Emery LLP
2.
3.

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

1a. NAME OF ASSIGNEE: HITACHI MAXELL, LTD.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): OSAKA, JAPAN

Please check the appropriate assignee categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies

4b. Payment of Fees(s): **(Please first reapply and previously paid fee shown above)**

☐ A check is enclosed

☐ Payment be credit card. Form PTO-2038 is attached

☒ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number 50-0417 (enclose an extra copy of this form)

5. Change of Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29
NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

☐ Applicant asserting small entity status. See 37 CFR 1.27
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

☐ Applicant changing to regular undiscounted fee status.
NOTE: Checking this box will be taken to be notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature	/Tomoki Tanida/	Date	February 7, 2018
Typed or printed name	Tomoki Tanida	Registration No.	60,453

Maxell, Ltd.
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Electronic Patent Application Fee Transmittal

Application Number:	14649895
Filing Date:	04-Jun-2015
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Filer:	Tomoki Tanida/Marcus Cunningham
Attorney Docket Number:	075425-0047

Filed as Large Entity

Filing Fees for U.S. National Stage under 35 USC 371

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	960	960

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**960**

Electronic Acknowledgement Receipt	
EFS ID:	31725350
Application Number:	14649895
International Application Number:	
Confirmation Number:	1257
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Customer Number:	20277
Filer:	Tomoki Tanida/Marcus Cunningham
Filer Authorized By:	Tomoki Tanida
Attorney Docket Number:	075425-0047
Receipt Date:	07-FEB-2018
Filing Date:	04-JUN-2015
Time Stamp:	13:53:59
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$960
RAM confirmation Number	020718INTEFSW00011537500417
Deposit Account	500417
Authorized User	Marc Cunningham
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.20 (Post Issuance fees) 37 CFR 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	Issue_Fee.pdf	76816 0c7b310d0e2a66a0a650b0a8d2d5f1d2bada86af	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30640 d434e67148d1f7fe1648a4c5141d2a81173a5fd1	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	107456		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.
National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.
New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

20277 7590 11/29/2017

MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

EXAMINER	
RAHMAN, MUSTAFIZUR	
ART UNIT	PAPER NUMBER
2422	

DATE MAILED: 11/29/2017

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

TITLE OF INVENTION: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	02/28/2018

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

Maxell, Ltd.
Ex. 2001 - Part 1
Page 7 of 546

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20277 7590 11/29/2017
MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

TITLE OF INVENTION: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	02/28/2018

EXAMINER	ART UNIT	CLASS-SUBCLASS
RAHMAN, MUSTAFIZUR	2422	348-731000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ Applicant certifying micro entity status. See 37 CFR 1.29
  NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27
  NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ❑ Applicant changing to regular undiscounted fee status.
  NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Maxell, Ltd.
Ex. 2001 - Part 1
Page 8 of 546

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

20277 7590 11/29/2017

MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

EXAMINER	
RAHMAN, MUSTAFIZUR	
ART UNIT	PAPER NUMBER
2422	

DATE MAILED: 11/29/2017

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 02/11)

Maxell, Ltd.
Ex. 2001 - Part 1
Page 9 of 546

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/649,895	Applicant(s) HIRABAYASHI, MASAYUKI	
	Examiner MUSTAFIZUR RAHMAN	Art Unit 2422	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/25/2017*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☐ The allowed claim(s) is/are _____. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 10/25/2017
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/MUSTAFIZUR RAHMAN/ Examiner, Art Unit 2422	/JEFFEREY F HAROLD/ Supervisory Patent Examiner, Art Unit 2422

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The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/25/2017 was filed after the mailing date of the Notice of Allowance on 07/27/2017. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUSTAFIZUR RAHMAN whose telephone number is (571)270-1717. The examiner can normally be reached on Monday thru Friday, 7:30 AM-5:00PM, EST, Alternate Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFEREY HAROLD can be reached on 571-272-7519. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MUSTAFIZUR RAHMAN/
Examiner, Art Unit 2422
/JEFFEREY F HAROLD/
Supervisory Patent Examiner, Art Unit 2422

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 19:20
S2	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 19:55
S3	40	((Masayuki) near2 (HIRABAYASHI)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/14 20:27
S4	6	("20030043789" | "20090070840").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 20:29
S5	2	("20030043789" | "20090070840").PN.	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:29
S6	1	"20150304591"	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:31
S7	1	"20150304591" and (terminal near apparatus)	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:32
S8	1	"20150304591" and (receives near status)	US-PGPUB; USPAT	OR	OFF	2015/12/15 07:42
S9	6	(transmit or transmitting or Communicate) near5 (setting or lacation) near5 (video near display)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:57
S10	0	(transmit or transmitting or Communicate) near5 (setting or lacation) near5 (video near display) near5 ((receive or receiving or received) near information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:59
S11	627	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 07:59

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		received) near information or data)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S12	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) near5 (output or outputting) near5 (broadcast near station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S13	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) same (output or outputting) near5 (broadcast near station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S14	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) same ((output or outputting) near5 (broadcast near station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S15	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) and ((output or outputting) near5 (broadcast near station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:02
S16	627	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:02
S17	12	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:03
S18	0	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:04
S19	0	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:05
S20	9	((transmit or transmitting or	US-PGPUB;	OR	OFF	2015/12/15

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		Communicate) near5 (setting or location or place or surroundings or background) near5 (video near display) near5 ((receive or receiving or received) near information or data))	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			08:07
S21	6742	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:11
S22	80	((transmit or transmitting or Communicate) near5 (setting or location or place or surroundings or background) near5 (television) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:11
S23	18	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:12
S24	0	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:14
S25	31	((transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:14
S26	25	((transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT	OR	OFF	2015/12/15 08:15
S27	11	(transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 (receive or receiving or received) near3 (information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:16
S28	16	(transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) same (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 08:17

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		near3 (information or data)	DERWENT; IBM_TDB			
S29	10	("5319735" | "5822360" | "5828325" | "5940135" | "6233347" | "6611607" | "6650762" | "6737957" | "6738744" | "6751337").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 08:24
S30	71	("6751337").URPN.	USPAT	OR	OFF	2015/12/15 08:24
S31	185202	(receive or receiving or received) near5 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:41
S32	1347	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:41
S33	41	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near3 (station or position or place or lacation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:43
S34	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near3 (station or position or place or lacation)near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:43
S35	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:44
S36	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:44
S37	246494	(receive or receiving or received) near10 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:45
S38	2642	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 08:45

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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S39	169	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:46
S40	1	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:46
S41	1	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:47
S42	4	(receive or receiving or received) near10 (output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:47
S43	2	"20100158109"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:51
S44	1	"20150304591" and (RAM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:52
S45	1	"20100158109" and (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:53
S46	0	"20100158109" and (memory or store or stroage or RAM or ROM) same (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:53
S47	0	"20100158109" and (memory or store	US-PGPUB;	OR	OFF	2015/12/15

		or stroage or RAM or ROM) same (video near content)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			08:55
S48	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S49	0	"20100058414" and (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S50	48	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:56
S51	5	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:57
S52	0	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:59
S53	3	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near control)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:59
S54	3	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near control) same (channel) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:00
S55	10	("2010/0031288").URPN.	USPAT	OR	OFF	2015/12/15 09:03
S56	87	("20020069037" | "20020100052" | "20020147728" | "20050021470" | "20050073991" | "20050132018" | "20050132297" | "20060019632" |	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 09:12

		"20060101350" | "20060184897" | "20060280050" | "20060288112" | "20070033402" | "20070100834" | "20070198746" | "20080004978" | "20080005179" | "20080040028" | "20080059908" | "20080059909" | "20080059911" | "20080189255" | "20080194276" | "20080194296" | "20090017860" | "20090018898" | "20090076881" | "20090132453" | "20090157842" | "20090182546" | "20090257804" | "20090287841" | "20090307135" | "20100022270" | "20100031288" | "20100031366" | "20100049862" | "20100057852" | "20100082448" | "20100111278" | "20100113065" | "20100169832" | "20100185776" | "20100235476" | "20100311391" | "20100324977" | "20110060764" | "20110066633" | "20110082572" | "20110087665" | "20110087690" | "20110093913" | "20110111278" | "20110141887" | "20110158406" | "20110185278" | "20110196953" | "20110251995" | "20110304685" | "20120022967" | "20120059748" | "20120059910" | "20120088477" | "20120089951" | "20120096056" | "20120109997" | "20120110074" | "20120117026" | "20120117185" | "20120117197" | "20120117620" | "20120124162" | "20120124177" | "20120149338" | "20120203871" | "20130094402" | "20130189942" | "6813733" | "6990638" | "7216301" | "7466807" | "7596761" | "7706778" | "8161411" | "8171419" | "8254829" | "8290471").PN.				
S57	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:12
S58	17616	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:15
S59	1	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (mobile near remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:29
S60	0	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 09:34

		(code) near (mobile near remote near control)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S61	478	(receive or receiving or received) near10 (channel) near5 (television) near5 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:49
S62	4	(receive or receiving or received) near10 (channel) near15 (television) near15 ((RC) or (remote near (control or controller))) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:50
S63	15	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:52
S64	1	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:53
S65	1	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM) same (decode or decoding or decoded) same (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:53
S66	4	(receive or receiving or received) near (channel) near5 (television) near5 ((RC) or (remote near (control or controller))) near5 (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:05
S67	112	(video near content) near5 (channel) near5 (memory or store or stored or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:11
S68	4	(video near content) near5 (channel) near5 (memory or store or stored or stroage or RAM or ROM) near5 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/15 10:12

			IBM_TDB			
S69	5	(video near content) near5 (channel) near15 (memory or store or stored or stroage or RAM or ROM) near15 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:13
S70	0	(status near information) near5 (receive or receiving or received) near10 (channel) near5 (television) near5 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:20
S71	80	(receive or receiving or received) near3 (channel) near3 (television) near3 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:21
S72	26	(receive or receiving or received) near3 (channel) near3 (television) near3 ((RC) or (remote near (control or controller))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:25
S73	14	("4375651" | "4394691" | "4488179" | "4527194" | "4706121" | "4737993" | "4802114" | "4807052" | "4841368" | "4908713" | "4977455" | "5123046" | "5151789" | "5353121").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:27
S74	315	("5727060").URPN.	USPAT	OR	OFF	2015/12/15 10:27
S75	329	("4375651" | "4394691" | "4488179" | "4527194" | "4706121" | "4737993" | "4802114" | "4807052" | "4841368" | "4908713" | "4977455" | "5123046" | "5151789" | "5353121").PN. OR ("5727060").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:27
S76	0	(receive or receiving or received) near (channel) near (television) near3 ((RC) or (remote near (control or controller))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:31
S77	44	("20010042043" | "20020056123" | "20020083121" | "20020140963" | "20020171872" | "20030088557" | "20030200459" | "20030225700" | "20040055018" | "20040128317" | "20040190854" | "20050066165" | "20050081138" | "20050094191" | "20050114672" | "20050132416" | "20060064716" | "20060074992" | "20060107289" | "20060117379" | "20070092079" | "4603966" | "4858032" | "5262860" | "5715403" |	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:36

		"5881287" | "6139197" | "6223213" | "6636329" | "6912002" | "6930788" | "6963858" | "7076469" | "7079191" | "7197535" | "7281272" | "7305713" | "7388605" | "7395245" | "7480382" | "7568234" | "7631184" | "7792517" | "8139768").PN.				
S78	610	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:44
S79	116	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable) near5 (command or information)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:45
S80	610	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:45
S81	2	(communication near unit) near5 (transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:48
S82	11	(communication near unit) same ((transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:49
S83	393	((transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:54
S84	246	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:55
S85	15	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 10:56

		same (display or displayed or displaying)	DERWENT; IBM_TDB			
S86	22	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device))) and (display or displayed or displaying) and (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:59
S87	0	"20150304591" and (security)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:05
S88	0	"20150304591" and (computer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:06
S89	0	"20150304591" and (web)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:06
S90	0	"20150304591" and (online)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:07
S91	337497	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:49
S92	15512	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:50
S93	7201	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:52

		data)				
S94	7201	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:53
S95	124	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:53
S96	29	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:54
S97	43	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) with ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:00
S98	9	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) with ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) same (wireless or wirelessly) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:12
S99	1	("2007/0127408").URPN.	USPAT	OR	OFF	2015/12/15 12:15
S100	16848	(signal near receiving near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:17

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S101	41	(signal near receiving near unit) near5 (simultaneously or simultaneous) near5 (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:19
S102	0	(signal near receiving near unit) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near5 (plurality or multiple) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:20
S103	0	(signal near receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near5 (plurality or multiple) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:21
S104	1037	(signal near receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:21
S105	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near15 (plurality or multiple) near15 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:22
S106	1	(signal near2 receiving) with (simultaneously or simultaneous) with (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:22
S107	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S108	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) same (plurality or multiple) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S109	1	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (plurality or multiple) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 12:23

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			DERWENT; IBM_TDB			
S110	1	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:24
S111	2	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (video near contents)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:24
S112	23	(simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:25
S113	2	(simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content) same (tv or television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:33
S114	4356	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:42
S115	20	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S116	24	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S117	11	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S118	0	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 12:46

		same (video near3 content) near5 (channel) near5 (decoded or decode or decoding)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S119	1	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) and (video near3 content) near5 (channel) near5 (decoded or decode or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:47
S120	11	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near content) same (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:50
S121	87	(video near2 content) near5 (channel) near3 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:00
S122	1	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S123	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near3 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S124	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near5 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S125	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) same (receiving or receive or received) near5 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:05
S126	1	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) same (output or outputting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:06
S127	344	(video near3 content) same (channel)	US-PGPUB;	OR	OFF	2015/12/15

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		same (decode or decoded or decoding) same (output or outputting)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:07
S128	10	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:10
S129	4	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast) same (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:11
S130	2	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast) same (display or displayed or displaying) same (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:18
S131	6860	(channel) same ((identification or ID) near code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:24
S132	2005	(channel) same ((identification or ID) near code) same (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:24
S133	51	(channel) same ((identification or ID) near code) same (memory or store or stored or storage or RAM or ROM) same (memory near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:25
S134	155509	(channel near (receive or received or receiving))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:34
S135	314	(channel near (receive or received or receiving)) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 13:35

			DERWENT; IBM_TDB			
S136	2776	((identification or ID) near code) near3 (differs or different or unlike or dissimilar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:41
S137	232	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:42
S138	232	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:43
S139	0	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:45
S140	26	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:45
S141	0	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate) same (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:46
S142	11	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:47
S143	35342	(television or TV) near5 (remote near (control or controlling))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:04

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S144	4390	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:05
S145	311	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:05
S146	213	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying) near5 (channel) and (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:06
S147	25	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) and (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:08
S148	5	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) same (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:08
S149	40	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:09
S150	37	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) same (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:22
S151	2	"20080201736"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:32
S152	1	"20080201736" and (output or outputting) same (broadcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 14:33

			DERWENT; IBM_TDB			
S153	359096	(memory or store or stored or storage or RAM or ROM) near5 (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:43
S154	20095	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:45
S155	23	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:45
S156	27	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near3 (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S157	0	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S158	1430	(memory or store or stored or storage or RAM or ROM) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S159	8	(memory or store or stored or storage or RAM or ROM) near3 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:49
S160	16	(memory or store or stored or storage or RAM or ROM) near5 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:50
S161	1	(memory or store or stored or storage or RAM or ROM) near5 (content) near5 (identification or ID) near3	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 14:51

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		(code) near5 (cell-phone or PDA or computer or (portable near device)) near5 (transmit or transmitted or transmitting)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S162	362	(memory or store or stored or storage or RAM or ROM) near5 (record) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:06
S163	1	(memory near unit) near5 (memory or store or stored or storage or RAM or ROM) near5 (record) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:07
S164	2	(memory near unit) near5 (memory or store or stored or storage or RAM or ROM) near5 (record or recording or recorded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:08
S165	6	(memory near unit) near5 (record or recording or recorded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:08
S166	1	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:32
S167	1	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:33
S168	24	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:34
S169	1	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content) same (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:34
S170	1	(((identification or ID) near code)	US-PGPUB;	OR	OFF	2015/12/15

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		same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content) same (decode or decoding or decoded)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:36
S171	24	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:37
S172	752	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:39
S173	1	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:39
S174	10	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near10 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:40
S175	752	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:42
S176	148	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:46
S177	3	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:46
S178	110	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 15:48

			DERWENT; IBM_TDB			
S179	1	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (television)and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:49
S180	11	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and (video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:50
S181	0	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (meory) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:53
S182	0	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (meory)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:53
S183	12	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:54
S184	2796	(video near content) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:57
S185	134	(video near content) near5 (channel) near5 ((memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:57
S186	13	(video near content) near5 (channel) near5 ((memory or store or stored or storage or RAM or ROM)) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:58
S187	16759	(video near content) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 16:12

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S188	1558	((video near content) near5 (display or displayed or displaying)) same (video near content) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:15
S189	11	((video near content) near5 (display or displayed or displaying)) same (video near content) near5 (memory or store or stored or storage or RAM or ROM) near5 (reproduced or duplicate or replicate or repeated)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:17
S190	181	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:36
S191	123	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((identification or ID) near code) near3((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:38
S192	123	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:40
S193	440	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) same ((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:40
S194	440	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:41
S195	343	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:41
S196	16	(((identification or ID) near code)	US-PGPUB;	OR	OFF	2015/12/15

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		near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and 348/$.ccls.	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			17:42
S197	8	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) near20(((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:45
S198	4	("5752202" | "5774065" | "5798693" | "5999799").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 17:46
S199	326760	(display near unit) near4 (display or displayed or displying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:02
S200	300299	(display near unit) near3 (display or displayed or displying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:03
S201	217	(display near unit) near3 (display or displayed or displying) near2 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:03
S202	59	(display near unit) near3 (display or displayed or displying) near2 (video near content) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:04
S203	5	(display near unit) near3 (display or displayed or displying) near2 (video near content) same (channel) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:08
S204	79	(television near signal near receiving near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:26
S205	38	(television near signal near receiving near unit) near3 (receive or receives or received or receiving) near2	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 18:27

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		(television near signal)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S206	39	(television near signal near receiving near unit) near5 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:28
S207	42	(television near signal near receiving near unit) near15 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:31
S208	37	(television near signal near receiving near unit) near15 ((receive or receives or received or receiving) near (television near signal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:31
S209	2762	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:37
S210	2	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 ("without") near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:38
S211	0	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 ("not") near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:39
S212	60	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:40
S213	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermined near2 period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:41
S214	1	(memory or store or stored or storage	US-PGPUB;	OR	OFF	2015/12/15

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		or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset) near3 (period near2 time)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:42
S215	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset or se or fixed) near3 (period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:43
S216	4	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset or se or fixed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:44
S217	5	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) same (predetermine or predetermined or preset or se or fixed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:45
S218	16397	(television) near5 (detect or detecting or detected)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:52
S219	8	(television) near5 (detect or detecting or detected) near3 (start near time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:52
S220	16	(television) near5 (detect or detecting or detected) near3 (start near3 end)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:53
S221	0	(television) near5 (detect or detecting or detected) near3 (start near3 end) same (advertisement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:54
S222	0	(television) near5 (detect or detecting or detected) near3 (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/15 18:55

			IBM_TDB			
S223	0	(television) same (detect or detecting or detected) same (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:55
S224	1	(television) same (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:56
S225	950	(television) same (start near3 end) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:57
S226	48	(television) same (start near3 end) same (video) same (comercial or advertisement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:57
S227	26	(television) same (start near3 end) same (video) same (comercial or advertisement) same (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:59
S228	173	(channel) near3 (select or selection) near3 (button) near3 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:05
S229	0	(channel) near3 (select or selection) near3 (button) near3 (remote near (control or controller)) near4 (start near3 end) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:07
S230	21	(channel) same (select or selection) same (button) same (remote near (control or controller)) same (start near3 end) same (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:07
S231	153	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/15 19:15

		storage or RAM or ROM)	EPO; JPO; DERWENT; IBM_TDB			
S232	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:16
S233	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) same (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S234	94	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S235	1243	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same (end or ending) same (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S236	49	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same ((end or ending) near (time or timening))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:18
S237	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:21
S238	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) same (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:21
S239	6786	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:22
S240	98	(transmit or transmitting or Communicate) near5 (channel) near5	US-PGPUB; USPAT;	OR	OFF	2015/12/15 19:23

		(memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S241	3	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near3 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:23
S242	3	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near5 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S243	4	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near10 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S244	5	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near10 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S245	5	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) with (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:25
S246	47	(channel) near5 (display or displayed or displaying) near3 ((two or dual) near screen)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:33
S247	8	(select or selection) near3 (channel) near5 (display or displayed or displaying) near3 ((two or dual) near screen)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:36
S248	89	((two or dual) near screen) near5 (display or displayed or displaying) near3 (end or close or finale)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:42

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S249	2	((two or dual) near screen) near5 (display or displayed or displaying) near3 (end or close or finale) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:42
S250	164	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:43
S251	3	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing) near5 (end or finish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:43
S252	104	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:44
S253	88	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:45
S254	5	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) same (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:47
S255	53	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) and (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:51
S256	125	((two or dual) near screen) near3 (display or displayed or displaying) near3 (end or ending or ended or done or over or finish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:54
S257	70	((two or dual) near screen) near3 (display or displayed or displaying) near3 (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/16 11:54

			DERWENT; IBM_TDB			
S258	0	((two or dual) near screen) near3 (display or displayed or displaying) near3 (channel) near3 (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:57
S259	16967	(switch or switching or switched or switches) near3 (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:02
S260	2035	(switch or switching or switched or switches) near3 (channel) near3 (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:04
S261	30	(switch or switching or switched or switches) near3 (channel) near3 (television) near5 (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:05
S262	1263	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:11
S263	103	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:11
S264	93	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:12
S265	4508	(television near broadcast near program)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:15
S266	37	(television near broadcast near program) near3 (end or ended or ending)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/16 12:16

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S267	1	(television near broadcast near program) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:19
S268	1	(television or tv) near3 (broadcast or broadcasting or broadcasted) near3 (program) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S269	3	(television or tv) near3 (broadcast or broadcasting or broadcasted) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S270	3	(television or tv) near5 (broadcast or broadcasting or broadcasted) near5 (end or ended or ending) near5 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S271	11	(television or tv) near15 (broadcast or broadcasting or broadcasted) near15 (end or ended or ending) near15 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:22
S272	2	"20090220209"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:55
S274	6	"20110085088"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:56
S275	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:58
S276	2	"20080201736"	US-PGPUB;	OR	OFF	2015/12/16

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:58
S277	5	"20100031288"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:59
S278	2	"20120223819"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:00
S279	2	"20060234677"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:55
S280	3	"20120281141"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:56
S281	4	"20070127408"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:58
S282	3	"20080165906"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:00
S283	6	"20090129689"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:01
S284	4	"20090058597"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/16 14:03

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			IBM_TDB			
S285	8	"20100023975"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:57
S286	3	"20060204229"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 15:47
S287	3	"20060245734"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 15:49
S288	3	"20080238755"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:52
S289	5	"20090055540"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:52
S290	2	"20110314510"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:53
S291	2	"6317168".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:55
S292	2	"20120159536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:56
S293	3	"20100235862"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/16 17:33

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			EPO; JPO; DERWENT; IBM_TDB			
S294	6	"20050030427"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:34
S295	3	"20050235331"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:35
S296	5	"20110072459"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:49
S297	5	"20120026299"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:50
S298	1	(14/649895).APP.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:09
S299	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:10
S300	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:10
S301	2	"20150304591" and (display near apparatus)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:12
S302	2	"20150304591" and (display near apparatus) and television	US-PGPUB; USPAT;	OR	OFF	2016/08/24 09:15

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S303	2	(video near content near delivery near source)	USPAT	OR	OFF	2016/08/24 09:17
S304	5	(video near content near delivery near source)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:19
S305	7325694	(display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:20
S306	15566	(display or displaying or displayed or displayes) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:21
S307	373	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:22
S308	5	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:22
S309	12	(display or displaying or displayed or displays) near5 (video near content) near5 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:26
S310	9687612	(executes or execute or executed or executing or achieve or complete or accomplish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:32
S311	2775	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 10:42

			DERWENT; IBM_TDB			
S312	584	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:44
S313	1	"20150304591" and (terminal near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:45
S314	0	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:58
S315	0	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate) same (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:59
S316	2	"20150304591" and (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:00
S317	2	"20150304591" and (terminal) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:00
S318	1	"20150304591" and (terminal near device) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:01
S319	0	"20150304591" and (terminal near device) and television and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:03
S320	1	"20150304591" and router	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 11:03

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S321	560	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:11
S322	25	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S323	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S324	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S325	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:14
S326	2	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) and without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:15
S328	8	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:19
S329	0	(router) near5 (second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:31
S330	0	(router) with (second or secondary)	US-PGPUB;	OR	OFF	2016/08/24

		near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			11:32
S331	8	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:32
S333	1	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:35
S334	1	(second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:37
S335	4	(second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:37
S336	50	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:40
S337	0	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:41
S338	40	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:44
S339	0	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 11:46

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		((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same communication same (bi-directional or bidirectional)	EPO; JPO; DERWENT; IBM_TDB			
S340	97	((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:01
S341	65	((first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver))) same (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:01
S342	5	((first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver))) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:02
S343	2	(first near3 second) near4 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:05
S344	2	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal near device) or (television near receiver)) near4 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:07
S345	3	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal near device) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:07
S346	195	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:09
S347	156	(first near3 second) near4 (wireless or wirelessly) near4 (terminal) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:10

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S348	195	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:10
S349	111	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S350	57	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S351	24	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S352	28	(first near3 second) near4 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:15
S353	32	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:15
S354	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:22
S355	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:24
S356	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 12:28

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		network and router same wireless same communication	DERWENT; IBM_TDB			
S357	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:28
S358	284654	(network near3 communication)	USPAT	OR	OFF	2016/08/24 12:31
S359	3539	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish)	USPAT	OR	OFF	2016/08/24 12:32
S360	172105	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish) nea4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S361	11	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S362	435	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S363	155	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication)	USPAT	OR	OFF	2016/08/24 12:33
S364	4	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	USPAT	OR	OFF	2016/08/24 12:34
S365	6	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:35
S366	1	(network near3 communication) same (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:39
S367	81452	(infrared near rays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 12:48

			DERWENT; IBM_TDB			
S368	1233	(infrared near rays) near2 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:48
S369	8	(infrared near receiver) near2 (infrared near rays) near2 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:49
S370	132	(control or controller) near3 (display or displaying or displayed or displayes) same (direct near communication)	USPAT	OR	OFF	2016/08/24 12:54
S371	0	(control or controller) near3 (display or displaying or displayed or displayes) same (direct near communication) same (network near communication)	USPAT	OR	OFF	2016/08/24 12:55
S372	7	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication)	USPAT	OR	OFF	2016/08/24 12:55
S373	2	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote)	USPAT	OR	OFF	2016/08/24 12:56
S374	6	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:57
S375	1	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:15
S376	240	(display or displaying or displayed or displayes) near3 (first near video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:20
S377	16	(display or displaying or displayed or displayes) near3 (first near video near content) near3 (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:21

S378	0	(display or displaying or displayed or displayes) near3 (first near video near content) near3 (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:22
S379	2	(display or displaying or displayed or displayes) near3 (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:23
S380	13	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:23
S381	0	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless) near terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:25
S382	0	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless) same terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:25
S383	5	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:27
S384	12	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:28
S385	16	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:29
S386	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 13:29

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		near5 (terminal)	DERWENT; IBM_TDB			
S387	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near5 (terminal near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S388	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S389	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S390	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:32
S391	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) near20 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:32
S392	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:33
S393	2	"20150304591" and (video content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:34
S394	2	"20150304591" and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:35
S395	2	"20150304591" and (content)	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 13:37

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S396	2	"20150304591" and (content) same channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:39
S397	0	((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:41
S398	3	(display or displaying or displayed or displayes) and ((video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:44
S399	789	(first or primary) with (video near2 content) near3 (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:47
S400	1827	(first or primary) with (video near2 content) with (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:48
S401	15407	(video near2 content) with (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:49
S402	3048	(video near2 content) with (select or selected or selecting) same (first wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:50
S403	67	(video near2 content) with (select or selected or selecting) same (first wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:51
S404	36	(video near2 content) with (select or	US-PGPUB;	OR	OFF	2016/08/24

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		selected or selecting) same (first wireless) near3 (terminal or station) same (display or displaying or displayed or displayes)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:51
S405	0	(video near2 content) with (select or selected or selecting) same (first near2 wireless) near3 (terminal or station) same (display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:52
S406	0	(video near2 content) with (select or selected or selecting) same (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:53
S407	16513	(first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:53
S408	8	(video near2 content) with (select or selected or selecting) and (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:54
S409	0	(video near2 content) with (select or selected or selecting) same (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:57
S410	0	"20150304591" and (camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:01
S411	9	(change or changing) near (video near content) near3 (second near video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:13
S412	1	(change or changing) near (video near content) near3 (second near video near content) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 14:15

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			IBM_TDB			
S413	0	(change or changing) near5 (video near content) near10 (second near video near content) same communication same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:16
S414	2	(change or changing) near5 (video near content) near10 (second near video near content) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:18
S415	1	(change or changing) with (video near content) with (second near video near content) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:20
S416	8782	(network near3 communication near3 router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:23
S417	8	(network near3 communication near3 router) and (first near video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:25
S418	0	(video near2 (channel or content)) near5 (change or changing) near5 (second or secondary) near3 (vide near2 (contern or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:29
S419	0	(change or changing or switch or switching) near5 (video near2 (channel or content)) near5 (second or secondary) near3 (vide near2 (contern or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:30
S420	282	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:34
S421	49	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 14:35

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		secondary) near3 (display or displaying or displayed or displays)	EPO; JPO; DERWENT; IBM_TDB			
S422	3	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) near3 (display or displaying or displayed or displays) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:36
S423	11	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:39
S424	5	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:42
S425	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:43
S426	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:43
S427	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:47
S428	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless and network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:49
S429	3	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 14:50

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		secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless same network	EPO; JPO; DERWENT; IBM_TDB			
S430	5482	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly)	USPAT	OR	OFF	2016/08/24 15:08
S431	3269	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:08
S432	0	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) near10 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:11
S433	392823	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) samr (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:12
S434	0	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:12
S435	24	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) and (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:13
S436	4	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays) and (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:19
S437	3	"20130332956"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:22
S438	0	"20130332956" and (video near content)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 15:22

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			EPO; JPO; DERWENT; IBM_TDB			
S439	997	(display or displaying or displayed or displays) near5 (first or primary) near5 (video near2 (content or channel)) same (second or secondary) near5 (video near2 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:28
S440	18	(display or displaying or displayed or displays) same (first or primary) near5 (video near2 (content or channel)) same (starts or start) near5 (second or secondary) near5 (video near2 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:29
S441	18	(display or displaying or displayed or displays) same ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:42
S442	16	(display or displaying or displayed or displays) with ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:46
S443	9	(display or displaying or displayed or displays) with ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel))) with (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:47
S444	11	(video near2 content) with (select or selected or selecting) and (second near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:56
S445	1	(video near2 content) with (select or selected or selecting) and (second near3 wireless) near3 (terminal or station) same (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:57
S446	0	"20140229994"	USPAT	OR	OFF	2016/08/24 16:13
S447	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:13

S448	1	"20140229994" and (second) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:14
S449	0	"20140229994" and (frrst) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:16
S450	0	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content) near5 (another or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:22
S451	0	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content) near5 (another or alternative) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:25
S452	485	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:25
S453	523	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:26
S454	304	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:28
S455	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:29
S456	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another near video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 16:31

			DERWENT; IBM_TDB			
S457	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another or other) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:31
S458	4	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:34
S459	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) near5 (video) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:36
S460	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) and (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:37
S461	136730	(remote near (control or controller)) same (change or changing or switch or switching or shift)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:38
S462	35	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:39
S463	1	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:39
S464	1	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content) near5 (different or unlike or unalike or additional or extra or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:40
S465	32	(display or displaying or displayed or displays) near15 (second or	US-PGPUB; USPAT;	OR	OFF	2016/08/24 16:49

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		secondary) near5 (content or channel) near5 (router)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S466	0	(display or displaying or displayed or displays) near15 (second or secondary) near5 (content or channel) near5 (router) same network same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:49
S467	28	((display or displaying or displayed or displays) near15 (second or secondary) near3 (content or channel) near5 (router))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:51
S468	78	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:52
S469	5	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (router) same ((wireless or wirelessly) near5 (terminal or station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:54
S470	0	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (start or start) near3 (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:13
S471	25204	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:14
S472	0	((start or start) near3 (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S473	17	((start or start) with (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 17:16

			IBM_TDB			
S474	2728	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S475	3000	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S476	757	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel)) and ((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:17
S477	2	((starts or start) with (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel)) and ((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:18
S478	147	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:30
S479	4	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:31
S480	5	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:32
S481	5	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:32
S482	213	(display or displaying or displayed or	US-PGPUB;	OR	OFF	2016/08/24

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		displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			17:39
S483	0	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:40
S484	5	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:40
S485	427	(display or displaying or displayed or displays) same (first or primary) near15 (content or channel) same (first or primary) near15 (wireless or wirelessly) same (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:53
S486	7	(display or displaying or displayed or displays) same (first or primary) near15 (content or channel) same (first or primary) near15 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:54
S487	424	(first or primary) near15 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S488	325	(first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S489	130	(first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S490	55	communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 18:05

			IBM_TDB			
S491	12	communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near3 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:06
S492	0	(bi-directional or bi-directional) and communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near3 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:10
S493	1	"20150304591" and audio	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:12
S494	0	"20150304591" and image	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:14
S495	1	"20150304591" and mobile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:14
S496	2	"20100053441"	US-PGPUB; USPAT	OR	OFF	2016/08/24 23:22
S497	5	"20100053441"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:22
S498	3	"20130312040"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:24
S499	3	"20140033900"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:25
S500	2	"20140229994"	US-PGPUB;	OR	OFF	2016/08/24

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			23:26
S501	3	"20120173753"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:28
S502	4	"20130031162"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:29
S503	7	"20120054790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:30
S504	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:31
S505	2	"8749426".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:33
S506	4	"20130031594"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:34
S507	2	"20080218148"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/25 12:13
S508	3	"20100329247"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/25 12:15

			IBM_TDB			
S509	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:42
S510	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:43
S511	0	("2015/0304591").URPN.	USPAT	OR	OFF	2017/01/17 18:43
S512	0	("direct communication unit executes bi-directional communication directly first wireless terminal device without going via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:44
S513	0	("network communication unit executes bi-directional communication router second wireless terminal device different from first wireless terminal").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:54
S514	0	("infrared receiver unit receives infrared rays from remote controller").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:55
S515	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:55
S516	0	("during display on the display unit first video content selected first wireless terminal device ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:56
S517	0	("if first command changing video content display unit from first video content second video content").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:57
S518	0	("transmitted from first second	US-PGPUB;	OR	OFF	2017/01/17

		wireless terminal device network communication unit via router").clm.	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:58
S519	0	("display unit terminates displaying first content and starts display the second ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:54
S520	0	("content and the direct communication unit sends first information for informing termination of the displaying first content directly first wireless terminal device going via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:57
S521	0	("during display display unit second video content selected second wireless terminal device").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:58
S522	0	("if second command changing video content display unit from second video content another video content").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:59
S523	0	("transmitted from remote controller infrared receiver unit by infrared rays").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:59
S524	0	("display unit terminates displaying second content ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:00
S525	0	("starts display video content and network communication unit sends second information informing termination the displaying second content via router to second wireless terminal ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:01
S526	0	("displaying step display video content broadcast station or video content delivery source display unit video display apparatus ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/01/17 20:02

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			IBM_TDB			
S527	0	"20100158109"	USPAT	OR	OFF	2017/01/17 20:09
S528	1	"20100031288"	USPAT	OR	OFF	2017/01/17 20:10
S529	12	("2010/0031288").URPN.	USPAT	OR	OFF	2017/01/17 20:10
S530	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:10
S531	9	("20040177378" | "20060210050" | "20070274486" | "20100031288" | "5623537" | "6292210" | "6741684" | "6842622" | "7515698").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:11
S532	128	("5623537").URPN.	USPAT	OR	OFF	2017/01/17 20:12
S533	10	("20040177378" | "20060210050" | "20070274486" | "20100031288" | "5623537" | "6292210" | "6741684" | "6842622" | "7515698").PN. OR ("8369249").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:12
S534	17	("2007/0101370").URPN.	USPAT	OR	OFF	2017/01/17 20:13
S535	0	("2008/0186411").URPN.	USPAT	OR	OFF	2017/01/17 20:15
S536	0	"20080186411"	USPAT	OR	OFF	2017/01/17 20:16
S537	34	("2008/0201736").URPN.	USPAT	OR	OFF	2017/01/17 20:17
S538	3	"20130227622"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:17
S539	22	("20020129364" | "20030145338" | "20030149983" | "20030229900" | "20040261130" | "20070094352" | "20070250901" | "20080152305" | "20080201736" | "20090132349" | "20090327894" | "20100058397" | "20100312596" | "20110131602" | "20110224992" | "20110292992" | "20110320627" | "20130031587" | "20150271572" | "7536706" | "8424037" | "9009339").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:17
S540	3	"20110320627"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:18

S541	5	"20030229900"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:19
S542	9	("5532748" | "5898463" | "5900915" | "5969767" | "5982411" | "6014178" | "6128352" | "6137537" | "6208388").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:20
S543	1	"6208388".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:20
S560	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:42
S561	2	"20100157978" and (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:52
S562	0	"20100157978" and (display or displaying or displayed) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:53
S563	2	"20100157978" and (display or displaying or displayed) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:54
S564	0	"20100157978" and (display or displaying or displayed) same (video) same (broadcast or broadcasting or broadcasted)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:55
S565	2	"20100157978" and (display or displaying or displayed) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:24
S566	0	"20100157978" and bi-directional	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/03/15 11:27

			DERWENT; IBM_TDB			
S567	3	"20100157978" and wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:35
S568	0	"20100157978" and wireless same router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:36
S569	2	"20100157978" and wireless and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:36
S570	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:06
S571	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:06
S572	1	"20150304591" and (hardware)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:24
S573	1	"20150304591" and (hardware) and (software)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:24
S574	7	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:45
S575	15	(display or displaying or displayed or displays) near5 (video near content) near5 (broadcast or broadcasting or	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/08 13:45

		broadcasted) near4 (station)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S576	8	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:01
S577	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:23
S578	2	(network near3 communication) same (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:25
S579	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:45
S580	0	"20150304591" and ("wireless terminal device")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:48
S581	1	"20150304591" and ("terminal device")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:49
S582	2	"20150304591" and (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:50
S583	1	"20150304591" and (mobile)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:33
S584	2	"20150304591" and (channel)	US-PGPUB;	OR	OFF	2017/05/08

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:34
S585	0	"20150304591" and (first near wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:45
S586	0	"20150304591" and (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:46
S587	1	"20150304591" and (first)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:46
S588	1	"20150304591" and (first) and (second)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:48
S589	1	"20150304591" and without	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:58
S590	2	"20100157978" and (remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 17:23
S591	2	"20100157978" and (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 17:28
S592	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/05/09 10:41

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			IBM_TDB			
S593	0	"20100157978" and channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:41
S594	2	"20100157978" and channels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:42
S595	2	"20100157978" and (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:13
S596	2	"20100157978" and (display or displaying or displayed) and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:21
S597	1	"20150304591" and mobile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:24
S598	0	"20150304591" and mobile and smart	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:25
S599	0	"20150304591" and mobile and phone	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:25
S600	1	"20150304591" and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:36
S601	116	(first or primary) near3 (wireless or wirelessly) near3 (mobile) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/09 11:43

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			EPO; JPO; DERWENT; IBM_TDB			
S602	518	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:46
S603	0	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly) with (mobile) same (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:47
S604	14	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly) with (mobile)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:47
S605	3	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:48
S606	12	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:52
S607	55	(first or primary) near3 (wireless or wirelessly) near3 (mobile) and ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:53
S608	2	(first or primary) near3 (wireless or wirelessly) near3 (mobile) same ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:54
S609	2	(first or primary) near3 (wireless or wirelessly) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:59
S610	5	(first or primary) near3 (mobile) same ((without or absence or absent or	US-PGPUB; USPAT;	OR	OFF	2017/05/09 11:59

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		minus or nonattendance or nonappearance or absenteeism) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S611	28	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:02
S612	5	(first or primary) near3 (mobile) near15 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:03
S613	8	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:05
S614	1	(first or primary) near3 (mobile) same ((absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:09
S615	21	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near2 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:12
S616	11	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:12
S617	45	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:17
S618	94	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:18

S619	2	"20100157978" and ((router) or (Wi-Fi) or ("wireless LAN"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:21
S620	1432	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network nea router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:33
S621	94	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:34
S622	40	(first or primary) near3 (mobile) near10 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:35
S623	403029	((second or secondary) neae3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near10 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:17
S624	402852	(((second or secondary) neae3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:18
S625	131627	(((second or secondary) near3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:19
S626	0	(((second or secondary) near3 (first or primary)) near3 (wireless or wirelessly) with (terminal) with ((router) or (Wi-Fi) or ("wireless LAN")	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/09 13:19

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		or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	EPO; JPO; DERWENT; IBM_TDB			
S627	0	(((second or secondary) near3 (first or primary)) with (wireless or wirelessly) with (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:20
S628	1467	((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:35
S629	1194	((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:35
S630	0	((first or primary) near terminal) near2 ((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:37
S631	0	((first or primary) near terminal) near5 ((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:37
S632	0	((first or primary) near terminal) near5 ((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:38
S633	0	((first or second) near terminal) near5 ((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:40
S634	41	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/09 13:43

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		or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router))	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S635	41	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:44
S636	0	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (bi-directional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:44
S637	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:45
S638	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:47
S639	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:48
S640	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (wireless or wirelessly) and (without or absence or absent)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:49
S641	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (without or absence or absent)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:54
S642	18	((first or primary) near terminal) near5	US-PGPUB;	OR	OFF	2017/05/09

		(wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:55
S643	3	"20100157978" and network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:11
S644	0	"20100157978" and network and (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:16
S645	0	"20100157978" and (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:16
S646	5	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:27
S647	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:32
S648	11	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and ((router) or (Wi-Fi) or ("wireless LAN") or ("network router"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:33
S649	2	"20100157978" and (call or calling) and (caller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:44
S650	3	"20130330053"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/09 15:14

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			EPO; JPO; DERWENT; IBM_TDB			
S651	1	("2013/0330053").URPN.	USPAT	OR	OFF	2017/05/09 15:30
S652	5	("20030021254" | "20060098174" | "20120166388" | "20130330053" | "20150222843").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/09 15:30
S653	2	"20130330053" and channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:35
S654	3	"20130330053" and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:36
S655	2	"20100157978" and remote same television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:23
S656	2	"20100157978" and remote same television same infrared	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:23
S657	0	"20100157978" and remote same television same infrared same channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:32
S658	2	"20100157978" and remote same television same infrared same channels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:32
S659	0	"20100157978" and anotherchannels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:37
S660	0	"20100157978" and another	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/09 16:37

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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S661	3	"20100157978" and user	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:41
S662	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 14:45
S663	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 14:45
S664	11117	(H04N5/4403).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
S665	10946	(H04N5/44).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
S666	11271	(H04N5/50).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
S667	3697	(H04N21/433).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
S668	459	(H04N2005/4442).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:03
S669	468	(H04N2005/4444).CPC.	US-PGPUB;	OR	OFF	2017/07/18

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:03
S670	1659	(H04N2005/443).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:03
S671	423	(H04N2005/4433).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:03
S672	6	(S664 AND S665 AND S666 AND S667 AND S668 AND S670 AND S671)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:04
S673	35152	(S664 OR S665 OR S666 OR S667 OR S668 OR S670 OR S671)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:05
S674	6547	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:06
S675	4220	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:06
S676	2	"20150304591" AND CONTENT	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:08
S677	2358	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/07/18 15:09

			IBM_TDB			
S678	1601	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:09
S679	454	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:10
S680	65	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE) SAME (WIRELESS OR WIRELESSLY)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:11
S681	4	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE) SAME (WIRELESS OR WIRELESSLY) SAME (VIDEO NEAR (CONTENT OR CHANNEL))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:12
S682	22	S673 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE) SAME (WIRELESS OR WIRELESSLY) SAME (VIDEO)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:14

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S544	0	("direct communication unit executes bi-directional communication directly first wireless terminal device without going via router").clm.	USPAT	OR	OFF	2017/01/17 20:02
S545	0	("network communication unit executes bi-directional communication router second wireless terminal device different from first wireless terminal").clm.	USPAT	OR	OFF	2017/01/17 20:03
S546	0	("infrared receiver unit receives infrared rays from remote controller").clm.	USPAT	OR	OFF	2017/01/17 20:03
S547	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	USPAT	OR	OFF	2017/01/17 20:03
S548	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	USPAT	OR	OFF	2017/01/17 20:03
S549	0	("during display on the display unit first video content selected first wireless terminal device	USPAT	OR	OFF	2017/01/17 20:03

		").clm.				
S550	0	("if first command changing video content display unit from first video content second video content").clm.	USPAT	OR	OFF	2017/01/17 20:04
S551	0	("transmitted from first second wireless terminal device network communication unit via router").clm.	USPAT	OR	OFF	2017/01/17 20:04
S552	0	("display unit terminates displaying first content and starts display the second ").clm.	USPAT	OR	OFF	2017/01/17 20:04
S553	0	("content and the direct communication unit sends first information for informing termination of the displaying first content directly first wireless terminal device going via router").clm.	USPAT	OR	OFF	2017/01/17 20:04
S554	0	("during display display unit second video content selected second wireless terminal device").clm.	USPAT	OR	OFF	2017/01/17 20:04
S555	0	("if second command changing video content display unit from second video content another video content").clm.	USPAT	OR	OFF	2017/01/17 20:04
S556	0	("transmitted from remote controller infrared receiver unit by infrared rays").clm.	USPAT	OR	OFF	2017/01/17 20:04
S557	0	("display unit terminates displaying second content ").clm.	USPAT	OR	OFF	2017/01/17 20:05
S558	0	("starts display video content and network communication unit sends second information informing termination the displaying second content via router to second wireless terminal ").clm.	USPAT	OR	OFF	2017/01/17 20:05
S559	0	("displaying step display video content broadcast station or video content delivery source display unit video display apparatus ").clm.	USPAT	OR	OFF	2017/01/17 20:05
S683	0	("display displays video content broadcast station or video content delivery source").clm.	USPAT	OR	OFF	2017/07/18 15:18

11/9/2017 4:02:59 PM
C:\Users\mrahman1\Documents\EAST\Workspaces\14649895.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	Art Unit
	MUSTAFIZUR RAHMAN	2422

CPC- SEARCHED		
Symbol	Date	Examiner
H04N 21/433, 4852; 5/50, 4403, 44, 50; 7/173; 2005/443, 4433, 4442, 4444;	07/18/2017	MR

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
348	731	07/18/2017	MR
348	732	07/18/2017	MR
348	725	07/18/2017	MR
348	723	07/18/2017	MR
348	719	07/18/2017	MR
348	716	07/18/2017	MR
348	714	07/18/2017	MR
348	706	07/18/2017	MR
348	705	07/18/2017	MR
348	14.07; 158; 231.3; 376; 510; 552; 553; 563; 564; 567; 576;	07/18/2017	MR
725	30; 32; 34; 37; 38; 40; 60; 54; 100; 110; 114;	07/18/2017	MR
455	343.3; 428;	07/18/2017	MR
340	10.42	07/18/2017	MR
709	231; 203;	07/18/2017	MR

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
Consulted with Primary Examiner Brian Yenke Class 348	07/18/2017	MR

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
Consulted with Primary Examiner Michael Lee Class 348	07/18/2017	MR
Please See East Search History	07/18/2017	MR
Text Search with Clasiffication	07/18/2017	MR
Inventor Search	07/18/2017	MR
PALM Search	07/18/2017	MR
BackWard/ForWard Citations Search	07/18/2017	MR
Google Search	07/18/2017	MR
Consulted with Primary Examiner Golam Sorowar Class 455	07/18/2017	MR

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
348	731; 732; 725; 723; 719; 716; 714; 706; 705; 14.07; 158; 231.3; 376;	07/18/2017	MR
348	510; 552; 553; 563; 564; 567; 576;	07/18/2017	MR
725	30; 32; 34; 37; 38; 40; 60; 54; 100; 110; 114;	07/18/2017	MR
455	343.3; 428;	07/18/2017	MR
340	10.42	07/18/2017	MR
709	231; 203;	07/18/2017	MR

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	**Art Unit**
	MUSTAFIZUR RAHMAN	2422

CPC								
Symbol							**Type**	**Version**
H04N	/	5	/	4403			F	2013-01-01
H04N	/	21	/	433			I	2013-01-01
G06Q	/	30	/	0267			I	2013-01-01
H04N	/	5	/	44			I	2013-01-01
H04N	/	5	/	50			I	2013-01-01
H04N	/	2005	/	4442			A	2013-01-01
H04N	/	2005	/	4444			A	2013-01-01
H04N	/	2005	/	443			A	2013-01-01
H04N	/	2005	/	4433			A	2013-01-01

CPC Combination Sets								
Symbol							**Type**	**Set**	**Ranking**	**Version**

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	07/18/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	2	
/JEFFEREY F HAROLD/ Supervisory Patent Examiner.Art Unit 2422	07/20/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	**Art Unit**
	MUSTAFIZUR RAHMAN	2422

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION										
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED					
348	731	H	0	4	N	5 / 50						

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
348	731	732	725	723	719
348	716	714	706	705	14.07
348	158	231.3	376	510	552
348	553	563	564	567	576
725	30	32	34	37	38
725	40	60	54	100	114
455	343.3	428			
340	10.42				
709	231	203			

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	07/18/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	2	
/JEFFEREY F HAROLD/ Supervisory Patent Examiner.Art Unit 2422	07/20/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	**Art Unit**
	MUSTAFIZUR RAHMAN	2422

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1														
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-	9														
-	10														
-	11														
1	12														
2	13														

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	07/18/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	2	
/JEFFEREY F HAROLD/ Supervisory Patent Examiner.Art Unit 2422	07/20/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14649895
Filing Date	2015-06-04
First Named Inventor	Masayuki HIRABAYASHI
Art Unit	2422
Examiner Name	M. Rahman
Attorney Docket Number	075425-0047

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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	1	101510965	CN	A	2009-08-19	Shenzhen Temobi Technology Development Co., Ltd.	(With English Abstract and Translation)	X
	2	101951368	CN	A	2011-01-19	Shenzhen Coship Electronics Co., Ltd.	(With English Abstract and Translation)	☒

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Office Action issued in corresponding Chinese Patent Application No. 201380063530.4, dated July 4, 2017 with English Translation.	X

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EXAMINER SIGNATURE

Examiner Signature	/MUSTAFIZUR RAHMAN/	Date Considered	11/09/2017

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.R/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Tomoki Tanida/	Date (YYYY-MM-DD)	2017-10-25
Name/Print	Tomoki Tanida	Registration Number	60,453

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.R/

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

20277 7590 11/22/2017

MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

EXAMINER
RAHMAN, MUSTAFIZUR

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
11/22/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketmwe@mwe.com

Corrected Notice of Allowability	**Application No.** 14/649,895	**Applicant(s)** HIRABAYASHI, MASAYUKI	
	Examiner MUSTAFIZUR RAHMAN	**Art Unit** 2422	**AIA (First Inventor to File) Status** No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/19/2017*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☐ The allowed claim(s) is/are _____. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 10/19/2017
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/MUSTAFIZUR RAHMAN/ Examiner, Art Unit 2422	/JEFFEREY F HAROLD/ Supervisory Patent Examiner, Art Unit 2422

Maxell, Ltd.
Ex. 2001 - Part 1
Page 101 of 546

Response to Rule 312 Communication	Application No.	Applicant(s)
	14/649,895	HIRABAYASHI, MASAYUKI
	Examiner	Art Unit
	MUSTAFIZUR RAHMAN	2422

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

1. ☒ The amendment filed on *19 October 2017* under 37 CFR 1.312 has been considered, and has been:

   a) ☒ entered.

   b) ☐ entered as directed to matters of form not affecting the scope of the invention.

   c) ☐ disapproved because the amendment was filed after the payment of the issue fee.
   Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.

   d) ☐ disapproved. See explanation below.

   e) ☐ entered in part. See explanation below.

/JEFFEREY F HAROLD/ Supervisory Patent Examiner, Art Unit 2422	/MUSTAFIZUR RAHMAN/ Examiner, Art Unit 2422

Maxell, Ltd.
Ex. 2001 - Part 1
Page 102 of 546

OK TO ENTER: /M.R/

Docket No.: 075425-0047
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Masayuki HIRABAYASHI	:	Customer Number: 20277
Application No.: 14/649,895	:	Confirmation No.: 1257
Filed: June 4, 2015	:	Art Unit: 2422
For: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS	:	Examiner: Mustafizur Rahman

AMENDMENT AFTER ALLOWANCE UNDER 37 C.F.R. 1.312

MS AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

Prior to issuance of the patent, applicant respectfully requests entry of this amendment under 37 C.F.R. 1.312 for the above-captioned patent application.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page __ of this paper.

Maxell, Ltd.
Ex. 2001 - Part 1
Page 103 of 546

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14649895
Filing Date	2015-06-04
First Named Inventor	Masayuki HIRABAYASHI
Art Unit	2422
Examiner Name	M. Rahman
Attorney Docket Number	075425-0047

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	101510965	CN	A	2009-08-19	Shenzhen Temobi Technology Development Co., Ltd.	(With English Abstract and Translation)	X
	2	101951368	CN	A	2011-01-19	Shenzhen Coship Electronics Co., Ltd.	(With English Abstract and Translation)	☒

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Office Action issued in corresponding Chinese Patent Application No. 201380063530.4, dated July 4, 2017 with English Translation.	X

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/MUSTAFIZUR RAHMAN/	Date Considered	11/09/2017

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.R/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Tomoki Tanida/	Date (YYYY-MM-DD)	2017-10-19
Name/Print	Tomoki Tanida	Registration Number	60,453

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.R/

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.R/

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	14649895	Filing Date	2015-06-04	Docket Number (if applicable)	075425-0047	Art Unit	2422
First Named Inventor	Masayuki HIRABAYASHI			Examiner Name	M. Rahman		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, to any international application that does not comply with the requirements of 35 U.S.C. 371, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV.

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☐ Amendment/Reply

☒ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 50-0417

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

PTO/SB/30EFS (07-14)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Tomoki Tanida/	Date (YYYY-MM-DD)	2017-10-25
Name	Tomoki Tanida	Registration Number	60453

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14649895
Filing Date	2015-06-04
First Named Inventor	Masayuki HIRABAYASHI
Art Unit	2422
Examiner Name	M. Rahman
Attorney Docket Number	075425-0047

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	101510965	CN	A	2009-08-19	Shenzhen Temobi Technology Development Co., Ltd.	(With English Abstract and Translation)	X
	2	101951368	CN	A	2011-01-19	Shenzhen Coship Electronics Co., Ltd.	(With English Abstract and Translation)	☒

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Office Action issued in corresponding Chinese Patent Application No. 201380063530.4, dated July 4, 2017 with English Translation.	X

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

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Signature	/Tomoki Tanida/	Date (YYYY-MM-DD)	2017-10-25
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Classification access system and method for multiple mobile terminals of digital television set-top box

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Abstract of CN101510965 (A)

The invention relates to a multi-mobile terminals grade visiting system of a digital TV set-top box and a method thereof. The system comprises: a TV set-top box which is used for receiving TV program signals; a household network which is composed of a household gateway, a TV set-top box and a signal converting device, the signal converting device comprises a program signal receiving module, a long distance program signal radio frequency emitting module, a remote controlling instruction receiving module, a remote controlling instruction converting module and a remote controlling radio frequency distributing module; the mobile terminals are above one and comprise a controlling grade mobile terminal and an ordinary grade mobile terminal, the grade of priority of remote controlling is set between the mobile terminals and the controllers by the controlling grade mobile terminal, wherein, the grade of priority is from high to low; when a mobile terminal and the controller or a plurality of mobile terminals send out remote controlling instruction to the TV set-top box, the signal converting device receives the instruction with high priority grade, wherein, the only one is the controlling grade mobile terminal and the priority grade is higher than the ordinary controlling mobile terminal and the remote controller.

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[57]ABSTRACT: The invention relates to a multi-mobile terminals grade visiting system of a digital TV set-top box and a method thereof. The system comprises: a TV set-top box which is used for receiving TV program signals; a household network which is composed of a household gateway, a TV set-top box and a signal converting device, the signal converting device comprises a program signal receiving module, a long distance program signal radio frequency emitting module, a remote controlling instruction receiving module, a remote controlling instruction converting module and a remote controlling radio frequency distributing module; the mobile terminals are above one and comprise a controlling grade mobile terminal and an ordinary grade mobile terminal, the grade of priority of remote controlling is set between the mobile terminals and the controllers by the controlling grade mobile terminal, wherein, the grade of priority is from high to low; when a mobile terminal and the controller or a plurality of mobile terminals send out remote controlling instruction to the TV set-top box, the signal converting device receives the instruction with high priority grade, wherein, the only one is the controllinggrade mobile terminal and the priority grade is higher than the ordinary controlling mobile terminal and the remote controller.

¶17 # Description

¶18 **Hierarchical access system and method of many mobile terminals of a digital television set-top box**

¶19 Technical field

¶20 The invention relates to technical field of the digital television, especially relate to a hierarchical access system and method of many mobile terminals of set-top box of digital television.

¶21 Background Art

¶22 The digital television technique has already moved the digital television after developing many years, let users watch the excellent television program whenever and wherever possible.Especially with the development of communication skill, mobile phone, personal digital assistant (Personal Digital Assistant, have been

abbreviated as pocket terminals such as PDA), hand-held game machine,etc. and become the mainstream to move digital television gradually.But the digital television system of bodily movement has not been ripe at present yet, it is mobile phone TVs that what everybody relatively pays close attention to is more, home movement operator, TV station, content provider / service provider (CP/SP), terminal manufacturer and some system integrators, have already begun to pay close attention to this new businesses of the mobile phone TV, and carried on the commissioning within the specific limits, including specially making, adjustment, appropriate popularization of the fee of flowrate of data,etc. of program, the operator is training the mobile subscriber to watch the viewing habit of the mobile phone TV whenever and wherever possible progressively, popularizing with the intellectual mobile terminal day by day and decline, constant downward modulation and movie & TV content of the cellular data service expenses of the price are not more abundant, the TV set business of Mobile can be expected to become the mainstream that 3G employs, become one of the most popular business in 3G serve in the future.

¶23 According to technological aspect, the content of the mobile phone set TV propagates already comparative maturity of the technology at present, provide it mainly in two kinds of ways: A is because of the flow media business of the data; A is based on the digital broadcast mode.Wherein the mobile phone TV of the flow media business of the data moves the operator to utilize the existing mobile communication network to provide the video business of the mobile phone for user, if U.S.A. burns in communication company Sprint of the name, China Mobile and CHINAUNICOM of our country have introduced the TV business of the mobile phone in this means.The mobile phone TV business of China Mobile is based on the common wireless packet traffic (General Packet Radio Service, abbreviated as GPRS) network, CHINAUNICOM depends on its network of code division multiple access (CDMA1X), this business needs to install the corresponding playout software on the cell phone termina equipped with operating system.

¶24 Restricting a developmental key factor of mobile phone TV at present is that a programme source is insufficient, but on the other hand, spreadThe digital television of the interconnected system has already been developed for many years, and on the basis of analogue TV develop, the program resources that have decades are accumulated, there are profuse programme sources.But the mobile phone TV adopts different standards, these digital televisions and analog television programs are

unable to broadcast on the mobile phone directly, must pass certain data translation.To solve this problem, moving the operator introduces the system of set-top box of digital television in the remote access family of the mobile phone, dispose a digital television program transponder at home, the transponder is connected with set-top box of digital television, can obtain digital TV program content, user's hands, through installing the software of customer end, set up wireless connections with the digital television program transponder in the family, can watch the television program, can watch or have a look around the digital television program of the high-definition whenever and wherever possible, and until mobile phone go on control to set-top box television program remotely, display remote controller and program of the digital television the screen transfer to mobile phone in other words.

¶25 Above-mentioned technology will bring one question, control digital television program transponder in house remotely remotely at the same time as one multiple member of family, will produce the conflict among these mobile phones.

¶26 Invention content

¶27 The technical matter that the invention should solve is to overcome the disadvantage of the prior art, hierarchical access system and method of many mobile terminals offering a digital television set-top box.When multiple mobile phones control a particular digital television program transponder remotely at the same time, solve the remote control collision problem among many mobile phones effectively.The system comprising:

¶28 The TV set-top box, the various program signal that the receiving carrier provides;

¶29 The network domain of family, it is made up of Family gate, TV set-top box sum signal switching device, the said signal switching device includes the receiving module of programme signal, remote programme signal radio frequency transmitter module, remote controlate command receiving module, remote controlate command conversion module and radio frequency of the remote controlate command release the module; Characterized by that, the said mobile terminal is more than one, divided into mobile terminal and ordinary level mobile terminal of a control stage, presume the remote-operated preference rank between remote controller of the set-top box and the mobile terminal by mobile terminal of the control stage, preferential rank, from high to low, remote controller or multiple mobile terminal of mobile terminal and set-top box send the remote control command out to TV set set-top box at the

same time, when the top remote control command is sent out for the mobile terminal, the signal switching device receives the remote control command that the preferential rank is high, the signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern, when send out as top remote controlate command machine top for box remote controller, TV set-top box receive remote control command directly, until controlate stage mobile terminal one and preferential rank higher than ordinary level mobile terminal and set-top box remote controller only among them.

¶30 The invention provides a digital television a method of hierarchical access system of many mobile terminals of set-top boxes, including the following step:

¶31 (1)The TV set-top box, mix the remote controller of organic top box, the various programme signal that the receiving carrier provides;

¶32 (2)Make up the Family gate, TV set-top box sum signal switching device in the network domain of family, the TV set-top box inputs the programme signal to the signal switching device;

¶33 (3)Multiple mobile terminals, through registering in the Family gate separately, presume one of these is mobile terminals of control stages, the others are ordinary level mobile terminals;

¶34 (4)Multiple mobile terminals are through moving the network domain of network access family, the network domain of family logs on to the Family gate after verifying, initiate and join mobile terminal and signal switching device;

¶35 (5)Control stage mobile terminal has the highest remote-operated preferential rank, presume the preference ranks of ordinary level mobile terminal and set-top box remote controller from high to low through the mobile terminal of the control stage;

¶36 (6)Programme signal that the receiving signal conversion equipment of multiple mobile terminals sends, multiple mobile terminal and remote controller of the set-top box or multiple mobile terminals send out the remote control command to the TV set-top box at the same time;

¶37 (7)When the top remote control command is sent out for the mobile terminal, the passing signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern; When the top remote control command is sent out for the remote controller of the set-top box, the TV set-top box receives the

remote control command directly.

¶38 Beneficial results of the invention lie in use technology of the invention, one multiple member of family can watch or have a look around digital television program of high-definition whenever and wherever possible, and through setting up the operation authority of different mobile terminals, control the set-top box television program remotely effectively.

¶39 Brief description of the drawing

¶40 Fig. 1 is that the system of the invention employs the schematic diagram;

¶41 Fig. 2 is implementing the flow diagram of this invention.

¶42 Concrete mode of execution

¶43 Do the further description to the invention in conjuction with drawings and embodiments as follows.

¶44 Do the further description to the invention in conjuction with drawings and embodiments as follows.

¶45 Fig. 1 shows the overall structure of embodiment system of the invention.Please see Fig. 1 and is shown, the program signal (take DVB signal as examples) that the operation organization of digital television releases is transferred to the TV set-top box after the wired tv circuit enters the family, the set-top box links with display, the display in this embodiment is a television, TV set-top box decode numeric portion in cable TV signal until decoded program signal input TV set to and show all the way among them.

¶46 TV set-top box link with signal switching device, convey signal switching device to all the way in addition program signal decode, connecting to the Family gate makes up the network domain of family separately in TV set-top box, television, signal switching device.

¶47 According to mobile terminal personal identification module (SIM) at first, signal user id of switching device turn off go on register in family net, the mobile terminal travels across the network to the network domain of family to send to the Connection request according to the user id, the Family gate proves the personal identification module of the mobile terminal is after a registered user, set up the connection between network domain of family and mobile terminal.

¶48 The signal switching device includes the receiving module of programme signal, remote programme signal radio frequency transmitter module, remote controlate

command receiving module, remote controlate command conversion module and radio frequency of the remote controlate command release the module; The said mobile terminal is through moving the Family gate of network access, the Family gate is logged on after verifying, the signal switching device withdraws the programme signal of the TV set-top box, receive the programme signal by the programme signal receiving module of the signal switching device and carry on the compressed encoding, to the air-launch through the radio frequency transmitter module of remote programme signal, the mobile terminal carries on the presentation through the programme signal that the receiving signal conversion equipment of the mobile network sends, the mobile terminal installs the software of customer end, receive the programme signal and carry on the presentation.The said mobile terminal can send the remote control command to the switching device of said signal through the mobile network, the remote control command receiving module of the signal switching device will receive the remote control command that the mobile terminal will be sent out, the conversion module of the remote control command changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern, release the module to send out the infrared remote control signal to the TV set-top box by the radio frequency of the remote control command, implement controlling remotely remotely to the TV set-top box of mobile terminal, such as the turning on/off device, vary program channel, set for turning on/off device time, when the television is in alert status too can go on control to television remotely if turning on/off device, vary the program channel, size of regulating volume, setting for the time of turning on/off device,etc..

¶49 The program signal corresponds to channel number of the TV and TV channel designation separately, e.g. the TV channel number is 01, the TV channel designation is the channel designation of digital television, e.g. the name is " CCTV1 ", moving endAt the time of the end and first connection of video system, e.g. first connect time is 2006/01/01, the signal switching device produces TV channel number " 01 ", TV channel designation " CCTV1 " and " 2006/01/01 " of connect time a parameter file, and on recent update date to record the parameter file, e.g. record refresh time is " 2006/01/01 ", and send the parameter file to the mobile terminal, the mobile terminal is kept after accepting, the mobile terminal is logged on or broadcast and needed to change the television channel in the program course later, can withdraw the new channel number to send to the signal switching device from

the parameter file that the mobile terminal is kept directly.

¶50 The TV set-top box is furnished with the remote controller, the customer end software that the said mobile terminal installs also has module of remote control, when controlling the module remotely in call of the mobile terminal, will display the interface of remote control on the display screen of the mobile terminal, the interface of remote control associates the arrangement with key set corresponding to remote controller, study keys on the interface of remote control, the cellphone subscriber can be through what has been touched the display screen of the mobile terminal control the interface remotely or through controlling the interface remotely and sending out the remote control command of display screen of key operation of the mobile phone, when pushing and studying the key, mobile terminal learn the parameter file to use remote controlate interface associate with parameter file, e.g. the first study is the mobile terminal, with the parameter file kept at the time of the switching device wireless connections of signal for the first time, the e.g. above-mentioned one: TV channel number " 01 ", TV channel designation " CCTV1 " and " 2006/01/01 " of connect time, when the said program signal corresponds to the channel number of the TV separately to upgrade with the TV channel designation, the signal switching device will produce a parameter file that new parameter document replacement was turned into originally, e.g. the channel designation of correspondent TV of " 01 " of channel number of TV is " CCTV3 ", when the switching device of the sum signal is connected again on the mobile terminal 2006/01/10, the signal switching device will send out pointing out to the mobile terminal that studies the new parameter file, push and study the key with the cellphone subscriber, the mobile terminal will obtain the up-to-date parameter file and pay and study from the signal switching device, the new parameter file after the study is: TV channel number " 01 ", TV channel designation " CCTV3 " and " 2006/01/10 " of connect time.When the mobile terminal is in the network domain of family, the mobile terminal is through the family directly and controls the set-top box remotely for the programme signal that the network domain receiving signal conversion equipment sends.

¶51 Can shut and register multiple mobile terminals in the family net, is divided into mobile terminal and ordinary level mobile terminal of a control stage, multiple registered mobile terminals can watch the programme signal that the signal switching device transmits at the same time, presume the remote-operated preference rank between remote controller and the mobile terminal by mobile

terminal of the control stage, preferential rank from high to low, when mobile terminal, remote controller or multiple mobile terminals send out the remote control command to the TV set-top box at the same time, TV set-top box receive preferential rank high order, controlate stage mobile terminal one have priority only whereinThe rank is higher than ordinary level mobile terminal and remote controller.Presume multiple mobile terminals and precedence ranks of the TV set-top box remote controller separately herein, e.g., multiple registered mobile terminals: Mobile terminal A, mobile terminal B, mobile terminal C and a remote controller D, wherein mobile terminal A is a control stage, mobile terminal B and C is the ordinary level, the mobile terminal A preferential rank is the highest, mobile terminal B and C, the preference of remote controller D can be presumed by mobile terminal A, e.g. presume B is higher than C, C is higher than D, then A, B, C, D correspondent right rank is 1, 2, 3, 4, presume preferential rank 1> 2> 3> 4, work as mobile terminal A, mobile terminal B, in mobile terminal C and set-top box remote controller D when two or more members send out the remote control command to the TV set-top box at the same time, if when the top remote control command is sent out for mobile terminal B, the signal switching device receives the remote control command that the preferential rank is high, the signal switching device changes the remote control command that mobile terminal B sends out into the infrared remote control signal that the TV set-top box can receive and discern, when send out as top remote control command for set-top box remote controller D, the TV set-top box receives the remote control command directly.

¶52 The signal switching device will record watching long and watching the frequency time of channel number of the TV and correspondent TV channel designation, when the mobile terminal logs on the system, the signal switching device will be according to TV channel number and watching the frequency of the name at first, will watch the frequency topgallant TV channel number to send and step on acquiescing to watch to the mobile terminal to the name, under watching the identical situation of the frequency, and then according to watching the time long longest seeing the frequency topgallant TV channel number to send and step on acquiescing to watch to the mobile terminal to the name.E.g., the channel number 01, it is 10 times that the name CCTV1 one watches the frequency, it is 2 hours to watch time long, the channel number 02, it is 20 times that the name CCTV2 one watches the frequency, it is an hour to watch time long, according to watching frequency 20 times for greater than 10 times at first, the channel number 02, name CCTV2 sends and steps

on acquiescing to watch to the mobile terminal; And for example, the channel number 03, it is 15 times that the name CCTV3 one watches the frequency, it is 4 hours to watch time long, the channel number 04, it is 15 times that the name CCTV4 one watches the frequency, it is 3 hours to watch time long, watch the same frequency 15, according to watch time long for greater than 03 channel number 3 hour 4 hour, name CCTV3 send publish and acquiesce watching to the mobile terminal.

¶53 When the mobile terminal is in the network domain of family, programme signal that the mobile terminal sends through the network domain receiving signal conversion equipment of the family directly after logging on and controlling the set-top box remotely, do not need to set up the connection between network domain of family and mobile terminal by mobile network.

¶54 If Fig. 2 is the conspectus of embodiment of method of the invention, as shown, the procedure implemented is:

¶55 Step 101, the TV set-top box, mix the remote controller of organic top box, the various programme signal that the receiving carrier provides;

¶56 Step 102, make up the Family gate, TV set-top box sum signal switching device in the network domain of family, the TV set-top box inputs the programme signal to the signal switching device;

¶57 Step 103, multiple mobile terminals are through registering in the Family gate separately, presume one of these is mobile terminals of control stages, the others are ordinary level mobile terminals;

¶58 Step 104, multiple mobile terminals are through moving the network domain of network access family, the network domain of family logs on to the Family gate after verifying, initiate and join mobile terminal and signal switching device;

¶59 Step 105, control stage mobile terminal has remote-operated preferential ranks, presume the preference ranks of ordinary level mobile terminal and set-top box remote controller from high to low through the mobile terminal of the control stage;

¶60 Step 106, the programme signal that the receiving signal conversion equipment of multiple mobile terminals sends, multiple mobile terminal and remote controller of the set-top box or multiple mobile terminals send out the remote control command to the TV set-top box at the same time;

¶61 Step 107, when the top remote control command is sent out for the mobile terminal, the passing signal switching device changes the remote control command that the

mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern; When the top remote control command is sent out for the remote controller of the set-top box, the TV set-top box receives the remote control command directly.

¶62 The above said control stage mobile terminal can preset program time opening and program channel, send to the signal switching device and keep presetting good Pgmtime and program channel, the signal switching device will be when Pgmtime begins for the first 15 minutes, will send out a enlightening information to the mobile terminal through five minutes, logging on the system to watch the television program stops sending the enlightening information after sending three enlightening informations to the mobile terminal of time opening of the program, the first such as the mobile terminal when Pgmtime begins and logs on and watches the television program systematically after receiving enlightening informations once every 15 minutes, then the signal switching device no longer sends the enlightening information, the mobile terminal can preset program time opening and program channel, send to the signal switching device and keep presetting good Pgmtime and program channel, the general mobile terminal user finds out about the program time opening of some program channel, e.g. set time opening of program as in advance: At 10:30 a.m. of sun on 2006/01/20, the program channel is " CCTV1 ", in order to guarantee users can watch to and preset the program channel in time, the switching device of the programme signal will be when Pgmtime begins for ten minutes, the signal switching device will send out the information to find at first whether the mobile terminal is in starting shooting state, if in starting shooting state, send out a enlightening information to the mobile terminal through five minutes, send out the first suggestion at 10:20, send out the second suggestion at 10:25, send out the third suggestion at 10:30, logging on the system to watch the television program stops sending briefing on after sending three enlightening informations to the program mobile terminal of time opening at 10:30The information, such as the mobile terminal is logged on and watched the television program while receiving the first time or second enlightening information in ten minutes when Pgmtime begins systematically, then the signal switching device is too subsequent to send for the second time or the third enlightening information again.

¶63 The mobile terminal has personal identification number (such as the card number of the SIM card of the mobile terminal), the signal switching device has user id (it has the only card number that signal switching device is inserted Subscriber Identity

Module Card USIM), the network domain of family judges whether the personal identification number corresponds to user id to register, if the mobile terminal is logged on to the Family gate.

¶64 The said step (3) also includes the following steps:

¶65 The signal switching device sends the video flowing data packet information of the programme signal to the mobile terminal continuously, divide the course to send information into multiple time slices automatically, at the end of each time slice, produce a transmission data statistical package automatically, the statistical package is comprised the number of bytes of data packet that the present time slice has already sent S, and send the feedback command of a piece of accepting of data to the terminal station;

¶66 The signal switching device accepts the data feedback that the mobile terminal sends, the data feedback packet mobile terminal is received the number of bytes of the data packet C, send the authentication device of data feedback to carry on the analysis to difference Q that S deducts C, if Q is less than or equal to the scope that sets up, prove that passes, continue the sending of the next fragment data,

¶67 If Q is greater than the threshold value scope set up, send to the exception record a datum, if has not received the number of bytes C, suspends the sending of the next fragment data, until resuming data transmission while receiving the number of bytes C, it has not received the number of bytes C if exceed certain time, stop the transfer process of this data.Transmit a frame of programme signals in an above-mentioned time slice, it is a time slice from 0.04 seconds to one second that the time slice presumes the scope.

¶68 Arbitrary value while lying in to the further improvement of the above-mentioned technological scheme, the said length of time slice is from 0.04 seconds to one second.Under this passage, in order to broadcast 25 frames per second in 0.04 seconds, it is the smooth frame rate of ideal that the human eye is watched, the animation effect limit that stand the eyes in one second, if exceed for one second, the fluency of the picture is very bad, have lost the effect that the video broadcast.

¶69 Can further limit the length of time slice in the above-mentioned technological scheme for 0.1 seconds, under these time slice, it is the cheapest that the use of resources can up to, satisfied under the environment of unstable mobile network very, many mobile phones visit the digital television set-top box of the long run family at the same time.

¶70 Can also further optimize the above-mentioned technological scheme, the channel variation of family's network domain system dynamic automatic detection mobile network, and according to the quantity of the mobile terminal in connection with it, since between one second and 0.04 secondsMove and adjust the time slice value, if the network is in good condition, when being less likely to move terminal access, adopt the little time slice, in order to improve the broadcasting quality at the mobile terminal, in network being in bad condition, move terminal access more, adopt the loud time slice, ensure receiving the television program in the set-top box each mobile terminal by sacrificing some broadcasting quality, phenomenon of stagnant or some mobile terminal unable accessing of preventing the system.

¶71 State the preferred embodiment that is only the invention above, do not need in order to limit the invention, any modification, identity doing within the spirit of the invention and principle are replaced and improved etc., should include within the protective range of the invention.

¶72

¶73 ## Claims

¶74 1, Hierarchical access system of many mobile terminals of a digital television set-top box, the system comprising:

¶75 The TV set-top box, the various program signal that the receiving carrier provides;

¶76 The network domain of family, it is made up of Family gate, TV set-top box sum signal switching device, the said signal switching device includes the receiving module of programme signal, remote programme signal radio frequency transmitter module, remote controlate command receiving module, remote controlate command conversion module and radio frequency of the remote controlate command release the module; Characterized by that, the said mobile terminal is more than one, divided into mobile terminal and ordinary level mobile terminal of a control stage, presume the remote-operated preference rank between remote controller of the set-top box and the mobile terminal by mobile terminal of the control stage, preferential rank, from high to low, remote controller or multiple mobile terminal of mobile terminal and set-top box send the remote control command out to TV set set-top box at the same time, when the top remote control command is sent out for the mobile terminal, the signal switching device receives the remote control command that the preferential rank is high, the signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal

that the TV set-top box can receive and discern, when send out as top remote control command for set-top box remote controller, TV set-top box receive remote control command directly, until controlate stage mobile terminal one and preferential rank higher than ordinary level mobile terminal and set-top box remote controller only among them.

¶77

¶78 2, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, characterized by that, the said program signal corresponds to channel number of the TV and TV channel designation separately, in the mobile terminal and first connection of video system, the signal switching device produces TV channel number and TV channel designation a parameter file, and mark out the recent update date of the parameter file, and send the parameter file to the mobile terminal, the mobile terminal is kept after accepting, the mobile terminal is logged on or broadcast and needed to change the television channel in the program course later, can withdraw the new channel number to send to the signal switching device from the parameter file that the mobile terminal is kept directly.

¶79

¶80 3, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 2, characterized by that, the said mobile terminal has module of remote control, when controlling the module remotely in call of the mobile terminal, the display screen general of the mobile terminal displays the interface of remote control, the interface of said remote control associates the arrangement with key set corresponding to remote controller, said remote controlate interface have study key, push study key, mobile terminal make remote controlate interface associate with parameter file studying said parameter filing, it is distant through what has been touched the display screen of the mobile terminalAccuse of the interface or through controlling the interface remotely and sending out the remote control command of display screen of key operation of the mobile phone, when the said program signal corresponds to the channel number of the TV separately to upgrade with the TV channel designation, the signal switching device will produce a parameter file that new parameter document replacement was turned into originally, in the mobile terminal again when the switching device of the sum signal is connected, the signal switching device will send out pointing out to the mobile terminal that studies the new parameter file, push and study the key, the mobile

terminal will obtain the up-to-date parameter file and pay and study from the signal switching device, when the mobile terminal is in the network domain of family, the mobile terminal is through the family directly and controls the set-top box remotely for the programme signal that the network domain receiving signal conversion equipment sends.

¶81

¶824, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, the switching device of said signal has user id, the user terminal installs the software of customer end, there is personal identification number, the user terminal logs on the signal switching device according to the personal identification number, the signal switching device discerns the subscriber personality, judge whether the user id is registered, it is not registered user to logging on for the first time, record its user id of the user terminal at first, store in users and log on in the storehouse.

¶83

¶845, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, characterized by that, the said mobile terminal is through moving the Family gate of network access, the Family gate is logged on after verifying, the signal switching device withdraws the programme signal of the TV set-top box, receive the programme signal by the programme signal receiving module of the signal switching device and carry on the compressed encoding, the remote programme signal radio frequency transmitter module of the switching device of the passing signal is to the air-launch, the mobile terminal carries on the presentation through the programme signal that the receiving signal conversion equipment of the mobile network sends; The said mobile terminal can send the remote control command to the switching device of said signal through the mobile network, the remote control command receiving module of the signal switching device will receive the remote control command that the mobile terminal will be sent out, the conversion module of the remote control command changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern, release the module to send out the infrared remote control signal to the TV set-top box by the radio frequency of the remote control command, implement controlling remotely remotely to the TV set-top box of mobile terminal.

¶85

¶86 6, Method of hierarchical access system of many mobile terminals of a digital television set-top box, including the following step:

¶87 (1)The TV set-top box, mix the remote controller of organic top box, the various programme signal that the receiving carrier provides;

¶88 (2)Make up the Family gate, TV set-top box sum signal switching device in the network domain of family, TVThe set-top box inputs the programme signal to the signal switching device;

¶89 (3)Multiple mobile terminals, through registering in the Family gate separately, presume one of these is mobile terminals of control stages, the others are ordinary level mobile terminals;

¶90 (4)Multiple mobile terminals are through moving the network domain of network access family, the network domain of family logs on to the Family gate after verifying, initiate and join mobile terminal and signal switching device;

¶91 (5)Control stage mobile terminal has the highest remote-operated preferential rank, presume the preference ranks of ordinary level mobile terminal and set-top box remote controller from high to low through the mobile terminal of the control stage;

¶92 (6)Programme signal that the receiving signal conversion equipment of multiple mobile terminals sends, multiple mobile terminal and remote controller of the set-top box or multiple mobile terminals send out the remote control command to the TV set-top box at the same time;

¶93 (7)When the top remote control command is sent out for the mobile terminal, the passing signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern; When the top remote control command is sent out for the remote controller of the set-top box, the TV set-top box receives the remote control command directly.

¶94

¶95 7, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, characterized by that, said control stage mobile terminal can preset program time opening and program channel, send to the signal switching device and keep presetting good Pgmtime and program channel, the signal switching device will be when Pgmtime begins for the first 15 minutes, will send out a enlightening information to the mobile terminal through five

minutes, logging on the system to watch the television program stops sending the enlightening information after sending three enlightening informations to the mobile terminal of time opening of the program, the first such as the mobile terminal when Pgmtime begins and logs on and watches the television program systematically after receiving enlightening informations once every 15 minutes, then the signal switching device does not send the enlightening information again.

¶96

¶97 8, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 7, characterized by that, also include in the switching device of said signal one sends verifying module of data feedback, while sending the data packet information of the video flowing to the mobile terminal continuously, carry on the information authentication of phased feedback, divide the course to send information into multiple time slices automatically, at the end of each time slice, produce a transmission data statistical package automatically, the statistical package is comprised the number of bytes of data packet that the present time slice has already sent S, and send the feedback command of a piece of accepting of data to the terminal station and accept the number that the mobile terminal sendsAccording to feedback, the data feedback packet mobile terminal accept according to bag number of bytes C, send the authentication device of data feedback to carry on the analysis to difference Q that S deducts C, if Q is less than or equal to the scope that sets up, prove that passes, continue the sending of the next fragment data, if Q is greater than the threshold value scope set up, send to the exception record a datum, if has not received the number of bytes C, has suspended the sending of the next fragment data, resume data transmission until receive the number of bytes C, achieve the number of bytes C if has not exceed certain time, stop the transfer process of this data.

¶98

¶99 9, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 8, arbitrary value when characterized by that, the said length of time slice is from 0.04 seconds to one second.

¶100

¶101 10, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 9, characterized by that, the said length of time slice is 0.1 seconds.

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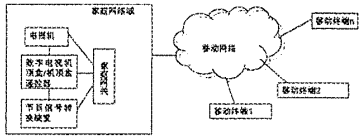
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一种数字电视机顶盒的多移动终端分级访问系统及方法

[57] 摘要

本发明涉及一种数字电视机顶盒的多移动终端分级访问系统及方法，系统包括：电视机顶盒，接收电视节目信号；家庭网络域，由家庭网关、电视机顶盒和信号转换装置组成，所述信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；移动终端为一个以上，分为控制级移动终端和普通级移动终端，移动终端与遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，当移动终端与遥控器或者多个移动终端同时对电视机顶盒发出遥控指令时，信号转换装置接收优先级别高的指令，其中控制级移动终端只有一个且优先级别高于普通级移动终端和遥控器。



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1、一种数字电视机顶盒的多移动终端分级访问系统，该系统包括：

电视机顶盒，接收运营商提供的各种形式的电视节目信号；

家庭网络域，由家庭网关、电视机顶盒和信号转换装置组成，所述信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；其特征在于，所述移动终端为一个以上，分为控制级移动终端和普通级移动终端，移动终端与机顶盒遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令，当最高级别的遥控指令为移动终端发出时，信号转换装置接收优先级别高的遥控指令，信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，当最高级别的遥控指令为机顶盒遥控器发出的时，电视机顶盒直接接收遥控指令，由其中控制级移动终端只有一个且优先级别高于普通级移动终端和机顶盒遥控器。

2、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统，其特征在于，所述电视节目信号分别对应电视频道序号和电视频道名称，在移动终端与视频系统首次连接时，信号转换装置将电视频道序号和电视频道名称生成一个参数文件，并注明该参数文件的最近更新日期时间，并将该参数文件发送给移动终端，移动终端接受后保存起来，以后移动终端登录或播放节目过程中需要更换电视频道，可以从移动终端保存的参数文件中直接提取新的频道编号发送给信号转换装置。

3、如权利要求2所述的数字电视机顶盒的多移动终端分级访问系统，其特征在于，所述移动终端设有遥控模块，当移动终端调用遥控模块时，移动终端显示屏上将显示遥控界面，所述遥控界面与对应遥控器的按键对应设置，所述遥控界面设有学习键，按下学习键时，移动终端将学习所述参数文件使遥控界面与参数文件对应起来，通过触摸移动终端显示屏的遥

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控界面或者通过手机按键操作显示屏的遥控界面发出遥控指令，所述电视节目信号分别对应电视频道序号和电视频道名称发生更新时，信号转换装置将生成一个新参数文件替换原来生成的参数文件，当移动终端再次和信号转换装置连接时，信号转换装置将向移动终端发出提示学习新的参数文件，按下学习键，移动终端将从信号转换装置获取最新的参数文件并进行学习，当移动终端处于家庭网络域当中时，移动终端直接通过家庭网络域接收信号转换装置发送的节目信号并对机顶盒进行遥控。

4、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统，所述信号转换装置设有用户识别号，用户终端安装有客户端软件，设有个人识别号，用户终端根据个人识别号登录信号转换装置，信号转换装置对用户身份进行识别，判断用户识别号是否注册，对首次登录的非注册用户，记录其首先用户终端的用户识别号，存入用户登录库中。

5、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统，其特征在于，所述移动终端通过移动网络访问家庭网关，家庭网关验证后登录，信号转换装置提取电视机顶盒的节目信号，由信号转换装置的节目信号接收模块接收节目信号并进行压缩编码，通过信号转换装置的远距离节目信号射频发射模块向空中发射，移动终端通过移动网络接收信号转换装置发送的节目信号进行播放；所述移动终端可通过移动网络向所述信号转换装置发送遥控指令，信号转换装置的遥控指令接收模块将接收移动终端发出的遥控指令，遥控指令转换模块将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，由遥控指令射频发布模块向电视机顶盒发出红外遥控信号，实现移动终端对电视机顶盒的远程遥控。

6、一种数字电视机顶盒的多移动终端分级访问系统的方法，包括如下步骤：

（1）电视机顶盒，配有机顶盒遥控器，接收运营商提供的各种形式的节目信号；

（2）将家庭网关、电视机顶盒和信号转换装置组成家庭网络域，电视

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机顶盒将节目信号输入至信号转换装置；

（3）多个移动终端通过在家庭网关分别注册，设定其中一个为控制级移动终端，其余为普通级移动终端；

（4）多个移动终端通过移动网络访问家庭网络域，家庭网络域验证后登录至家庭网关，对移动终端和信号转换装置发起连接；

（5）控制级移动终端具有最高遥控的优先级别，通过控制级移动终端由高到低来设定普通级移动终端和机顶盒遥控器的优先级别；

（6）多个移动终端接收信号转换装置发送的节目信号，多个移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令；

（7）当最高级别的遥控指令为移动终端发出时，通过信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号；当最高级别的遥控指令为机顶盒遥控器发出时，电视机顶盒直接接收遥控指令。

7、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述控制级移动终端可预设节目开始时间和节目频道，并将预设好的节目时间和节目频道发送到信号转换装置并保存，信号转换装置将在节目时间开始时前十五分钟，隔五分钟向移动终端发出一次提示信息，到节目开始时间移动终端没有登录系统收看电视节目则在发送三次提示信息后停止发送提示信息，如移动终端在节目时间开始时前十五分钟收到一次提示信息后并登录系统收看电视节目，则信号转换装置不再发送提示信息。

8、如权利要求7所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述信号转换装置中还包括一个发送数据反馈验证模块，向移动终端持续发送视频流数据包信息时，进行阶段性反馈信息验证，将发送信息的过程自动划分为多个时间片段，在每个时间片段结束时，自动生成一个发送数据统计包，该统计包中包括当前时间片段已发送的数据包字节数S，并向终端发送一个接受数据反馈指令，接受移动终端发来的数

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据反馈，该数据反馈包移动终端接受的据包字节数C，发送数据反馈验证装置对S减去C的差值Q进行分析，如果Q小于或等于设置的范围，验证通过，继续下一片段数据的发送，如果Q大于设置的阈值范围，进行一次数据发送异常记录，如果未收到字节数C，则暂停下一片段数据的发送，直到收到字节数C时恢复数据发送，如果超过一定时间未收到字节数C，则终止本数据发送过程。

9、如权利要求8所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述的时间片段长度为0.04秒至1秒之间的任意值。

10、如权利要求9所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述的时间片段长度为0.1秒。

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一种数字电视机顶盒的多移动终端分级访问系统及方法

技术领域

本发明涉及数字电视技术领域，尤其涉及一种数字电视机顶盒的多移动终端分级访问系统及方法。

背景技术

数字电视技术在发展多年后，已经出现了移动数字电视，让用户随时随地收看精彩的电视节目。尤其随着通信技术的发展，手机、个人数字助理(Personal Digital Assistant,简称PDA)、掌上游戏机等便携式终端渐渐成为移动数字电视的主流。但目前整体移动数字电视体系尚未成熟，大家比较关注的更多是手机电视，国内的移动运营商、电视台、内容提供商/服务提供商(CP/SP)、终端厂商和一些系统集成商，都已经开始关注手机电视这项新业务，并在一定范围内进行了试运行，包括节目的专门制作、数据流量费的调整、适当的推广等，运营商正在逐步培养移动用户随时随地看手机电视的收视习惯，随着智能移动终端日渐普及和价格的下降、移动数据业务资费的不断下调以及影视内容的更别丰富，手机电视业务可望成为3G应用的主流，成为未来3G服务中最受欢迎的业务之一。

从技术层面来看，目前移动手机电视的内容传播技术已经比较成熟，提供主要通过两种方式：一种基于数据流媒体业务；一种是基于数字广播方式。其中数据流媒体业务的手机电视就是移动运营商利用现有移动通信网络向用户提供手机视频业务，如美国著名的通讯公司Sprint、我国的中国移动和中国联通用这种方式推出了手机电视业务。中国移动的手机电视业务是基于通用无线分组业务(General Packet Radio Service,简称GPRS)网络，中国联通则是依靠其码分多址（CDMA1X）网络，这种业务都需要在装有操作系统的手机终端上安装相应的播放软件。

目前制约手机电视发展的一个主要因素就是节目源不足，但另一方面，传

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统的数字电视已经发展多年，而且是在模拟电视的基础上发展起来的，有着几十年的节目资源积累，有非常丰富的节目源。但手机电视采用不同的标准，这些数字电视及模拟电视节目无法直接在手机上播放，必须经过一定的数据转换。为了解决这个问题，有移动运营商推出了手机远程访问家庭中数字电视机顶盒的系统，在家中配置一个数字电视节目转发器，该转发器与数字电视机顶盒连接，可获取数字电视节目内容，用户手通过安装客户端软件，与家中的数字电视节目转发器建立无线连接，就可以收看电视节目了，可以随时随地的收看或浏览高清的数字电视节目，并通过手机对机顶盒电视节目进行遥控，相当于将数字电视的遥控器及节目显示屏幕转移到手机上。

上述技术会带来一个问题，就是当一个家庭的多个成员同时远程遥控家中的数字电视节目转发器，这些手机间就会产生冲突。

发明内容

本发明所要解决的技术问题是克服现有技术的缺点，提供一种数字电视机顶盒的多移动终端分级访问系统及方法。当多个手机同时对特定的一个数字电视节目转发器进行遥控时，有效地解决多手机间的遥控冲突问题。该系统包括：

电视机顶盒，接收运营商提供的各种形式的电视节目信号；

家庭网络域，由家庭网关、电视机顶盒和信号转换装置组成，所述信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；其特征在于，所述移动终端为一个以上，分为控制级移动终端和普通级移动终端，移动终端与机顶盒遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令，当最高级别的遥控指令为移动终端发出时，信号转换装置接收优先级别高的遥控指令，信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，当最高级别的遥控指令机顶为盒遥控器发出的时，电视机顶盒直接接收遥控指令，由其中控制级移动终端只有一个且优先级别高于普通级移动终端和机顶盒遥控器。

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本发明还提供一种数字电视机顶盒的多移动终端分级访问系统的方法，包括如下步骤：

（1）电视机顶盒，配有机顶盒遥控器，接收运营商提供的各种形式的节目信号；

（2）将家庭网关、电视机顶盒和信号转换装置组成家庭网络域，电视机顶盒将节目信号输入至信号转换装置；

（3）多个移动终端通过在家庭网关分别注册，设定其中一个为控制级移动终端，其余为普通级移动终端；

（4）多个移动终端通过移动网络访问家庭网络域，家庭网络域验证后登录至家庭网关，对移动终端和信号转换装置发起连接；

（5）控制级移动终端具有最高遥控的优先级别，通过控制级移动终端由高到低来设定普通级移动终端和机顶盒遥控器的优先级别；

（6）多个移动终端接收信号转换装置发送的节目信号，多个移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令；

（7）当最高级别的遥控指令为移动终端发出时，通过信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号；当最高级别的遥控指令为机顶盒遥控器发出时，电视机顶盒直接接收遥控指令。

本发明的有益效果在于，使用本发明的技术，一个家庭的多个成员可以随时随地的收看或浏览高清的数字电视节目，而且通过设置不同移动终端的操作权限，对机顶盒电视节目进行有效遥控。

附图说明

图1是本发明的系统应用原理图；

图2是本发明方法的实现流程图。

具体实施方式

下面结合附图和实施例对本发明作进一步的描述。

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下面结合附图和实施例对本发明作进一步的描述。

图 1 示出了本发明实施例系统的整体结构。请参见图 1 所示，数字电视运营机构发布的电视节目信号(以 DVB 信号为例)经过有线电视线路进入家庭后传送到电视机顶盒，机顶盒与显示器相连接，本实施例中显示器为电视机，电视机顶盒解码有线电视信号中的数字部分将其中一路已解码的电视节目信号输入至电视并播放。

电视机顶盒与信号转换装置相连接，并将解码后的电视节目信号中另外一路传送至信号转换装置，电视机顶盒、电视机、信号转换装置分别连接至家庭网关组成家庭网络域。

首先根据移动终端的个人识别模块(SIM)、信号转换装置的用户识别号在家庭网关上进行注册，移动终端根据用户识别号移动通过网络向家庭网络域发送连接请求，家庭网关验证移动终端的个人识别模块为注册用户后，建立移动终端与家庭网络域之间的连接。

信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；所述移动终端通过移动网络访问家庭网关，家庭网关验证后登录，信号转换装置提取电视机顶盒的节目信号，由信号转换装置的节目信号接收模块接收节目信号并进行压缩编码，通过远距离节目信号射频发射模块向空中发射，移动终端通过移动网络接收信号转换装置发送的节目信号进行播放，移动终端安装有客户端软件，接收节目信号并进行播放。所述移动终端可通过移动网络向所述信号转换装置发送遥控指令，信号转换装置的遥控指令接收模块将接收移动终端发出的遥控指令，遥控指令转换模块将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，由遥控指令射频发布模块向电视机顶盒发出红外遥控信号，实现移动终端对电视机顶盒的远程遥控，如开关机，变换节目频道、设定开关机时间，当电视机处于待机状态时也可以对电视机进行遥控如开关机，变换节目频道、调节音量大小、设定开关机时间等。

电视节目信号分别对应电视频道序号和电视频道名称，例如电视频道序号为 01，电视频道名称为数字电视频道名称、例如名称为“CCTV1”，在移动终

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端与视频系统首次连接时，例如首次连接时间日期为2006/01/01,信号转换装置将电视频道序号“01”、电视频道名称“CCTV1”以及连接时间日期“2006/01/01”生成一个参数文件，并记录参数文件的最近更新日期时间，例如记录更新时间为“2006/01/01”，并将该参数文件发送给移动终端，移动终端接受后保存起来，以后移动终端登录或播放节目过程中需要更换电视频道，可以从移动终端保存的参数文件中直接提取新的频道编号发送给信号转换装置。

电视机顶盒配有遥控器，所述移动终端安装的客户端软件还设有遥控模块，当移动终端调用遥控模块时，移动终端显示屏上将显示遥控界面，遥控界面与对应遥控器的按键对应设置，遥控界面上设有学习键，手机用户可以通过触摸移动终端显示屏的遥控界面或者通过手机按键操作显示屏的遥控界面发出遥控指令，当按下学习键时，移动终端将学习参数文件使遥控界面与参数文件对应起来，例如第一次学习的是移动终端首次与信号转换装置无线连接时保存的参数文件，例如上述的：电视频道序号“01”、电视频道名称“CCTV1”以及连接时间日期“2006/01/01”，所述电视节目信号分别对应电视频道序号和电视频道名称发生更新时，信号转换装置将生成一个新参数文件替换原来生成的参数文件，例如电视频道序号“01”对应的电视频道名称为“CCTV3”，当移动终端2006/01/10再次和信号转换装置连接时，信号转换装置将向移动终端发出提示学习新的参数文件，用手机用户按下学习键，移动终端将从信号转换装置获取最新的参数文件并进行学习，学习后的新参数文件为：电视频道序号“01”、电视频道名称“CCTV3”以及连接时间日期“2006/01/10”。当移动终端处于家庭网络域当中时，移动终端直接通过家庭网络域接收信号转换装置发送的节目信号并对机顶盒进行遥控。

可在家庭网关上注册多个移动终端，分为控制级移动终端和普通级移动终端，多个已注册的移动终端可以同时收看信号转换装置发射的节目信号，移动终端与遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，当移动终端与遥控器或者多个移动终端同时对电视机顶盒发出遥控指令时，电视机顶盒接收优先级别高的指令，其中控制级移动终端只有一个且优先

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级别高于普通级移动终端和遥控器。在这里分别设定多个移动终端以及电视机顶盒遥控器的优先权级别，例如，多个注册的移动终端：移动终端 A、移动终端 B、移动终端 C 以及一个遥控器 D，其中移动终端 A 为控制级，移动终端 B 和 C 为普通级，移动终端 A 优先级别最高，移动终端 B 和 C、遥控器 D 的优先可以通过移动终端 A 来设定，例如设定 B 高于 C、C 高于 D，则 A、B、C、D 对应的权级别为 1、2、3、4，设定优先级别 1>2>3>4，当移动终端 A、移动终端 B、移动终端 C 以及机顶盒遥控器 D 的中二个或二个以上成员同时对电视机顶盒发出遥控指令时，如果最高级别的遥控指令为移动终端 B 发出时，信号转换装置接收优先级别高的遥控指令，信号转换装置将移动终端 B 发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，当最高级别的遥控指令为机顶盒遥控器 D 发出的时，电视机顶盒直接接收遥控指令。

信号转换装置将记录电视频道序号和对应的电视频道名称的收看时间长和收看频率，在移动终端登录系统时，信号转换装置首先将根据电视频道序号和名称的收看频率，将收看频率最高的电视频道序号和名称发送至移动终端登默认收看，在收看频率相同的情况下，再根据收看时间长最长的看频率最高的电视频道序号和名称发送至移动终端登默认收看。例如，频道序号01、名称CCTV1的收看频率为10次，收看时间长为2小时，频道序号02、名称CCTV2的收看频率为20次，收看时间长为1小时，则首先根据收看频率20次大于10次，将频道序号02、名称CCTV2发送至移动终端登默认收看；又如，频道序号03、名称CCTV3的收看频率为15次，收看时间长为4小时，频道序号04、名称CCTV4的收看频率为15次，收看时间长为3小时，收看频率相同为15次，则根据收看时间长为4小时大于3小时将频道序号03、名称CCTV3发送至移动终端登默认收看。

当移动终端处于家庭网络域当中时，移动终端登录后直接通过家庭网络域接收信号转换装置发送的节目信号及对机顶盒进行遥控，不需要通过移动网络来建立移动终端与家庭网络域之间的连接。

如图2是本发明的方法实施例的流程示意图，如图所示，实施的流程为：

步骤101，电视机顶盒，配有机顶盒遥控器，接收运营商提供的各种形式的节目信号；

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步骤102，将家庭网关、电视机顶盒和信号转换装置组成家庭网络域，电视机顶盒将节目信号输入至信号转换装置；

步骤103，多个移动终端通过在家庭网关分别注册，设定其中一个为控制级移动终端，其余为普通级移动终端；

步骤104，多个移动终端通过移动网络访问家庭网络域，家庭网络域验证后登录至家庭网关，对移动终端和信号转换装置发起连接；

步骤105，控制级移动终端具有遥控的优先级别，通过控制级移动终端由高到低来设定普通级移动终端和机顶盒遥控器的优先级别；

步骤106，多个移动终端接收信号转换装置发送的节目信号，多个移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令；

步骤107，当最高级别的遥控指令为移动终端发出时，通过信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号；当最高级别的遥控指令为机顶盒遥控器发出时，电视机顶盒直接接收遥控指令。

以上所述控制级移动终端可预设节目开始时间和节目频道，并将预设好的节目时间和节目频道发送到信号转换装置并保存，信号转换装置将在节目时间开始时前十五分钟，隔五分钟向移动终端发出一次提示信息，到节目开始时间移动终端没有登录系统收看电视节目则在发送三次提示信息后停止发送提示信息，如移动终端在节目时间开始时前十五分钟收到一次提示信息后并登录系统收看电视节目，则信号转换装置不再发送提示信息，移动终端可预设节目开始时间和节目频道，并将预设好的节目时间和节目频道发送到信号转换装置并保存，一般移动终端用户了解某节目频道的节目开始时间，例如预设节目开始时间为：2006/01/20日上午10：30，节目频道为“CCTV1”，为了保证用户能够及时收看到预设节目频道，节目信号转换装置将在节目时间开始时前十分钟，首先信号转换装置将发出检测信息检测移动终端是否处于开机状态，若处于开机状态，隔五分钟向移动终端发出一次提示信息，在10：20发出第一次提示，10：25发出第二次提示，10：30发出第三次提示，到10：30节目开始时间移动终端没有登录系统收看电视节目则在发送三次提示信息后停止发送提示

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信息，如移动终端在节目时间开始时前十分钟收到第一次或第二提示信息时登录系统收看电视节目，则信号转换装置后续不再发送第二次或第三次提示信息。。

移动终端具有个人识别号（例如移动终端SIM卡的卡号），信号转换装置具有用户识别号（信号转换装置插装有用户识别卡USIM具有唯一的卡号），家庭网络域判断个人识别号是否与用户识别号对应注册，如果是则移动终端登录到家庭网关。

所述步骤（3）还包括以下步骤：

信号转换装置向移动终端持续发送节目信号的视频流数据包信息，将发送信息的过程自动划分为多个时间片段，在每个时间片段结束时，自动生成一个发送数据统计包，该统计包中包括当前时间片段已发送的数据包字节数S，并向终端发送一个接受数据反馈指令；

信号转换装置接受移动终端发来的数据反馈，该数据反馈包移动终端接收数据包的字节数C，发送数据反馈验证装置对S减去C的差值Q进行分析，如果Q小于或等于设置的范围，验证通过，继续下一片段数据的发送，

如果Q大于设置的阈值范围，进行一次数据发送异常记录，如果未收到字节数C，则暂停下一片段数据的发送，直到收到字节数C时恢复数据发送，如果超过一定时间未收到字节数C，则终止本数据发送过程。上述的一个时间片段内发射一帧节目信号，时间片段设定范围为0.04秒至1秒为一个时间片段。

对上述技术方案的进一步改进在于，所述的时间片段长度为0.04秒至1秒之间的任意值。在这个片段下，0.04秒为每秒播放25帧画面，是人眼观看的理想流畅帧率，1秒为人眼忍受的动画效果极限，如果多于1秒，画面的流畅性就很差，失去视频播放的效果了。

对上述技术方案中的时间片段长度可进一步限定为0.1秒，在这个时间片段下，对资源的利用可达到最经济，可满足在不稳定的移动网络环境下，多手机同时访问远程的家庭数字电视机顶盒。

对上述的技术方案还可以进一步优化，家庭网络域系统动态自动检测移动网络的信道变化，并根据与之连接的移动终端的数量，在 0.04 秒至 1 秒间自

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动调整时间片段值，如网络状态良好，较少移动终端访问时，采用将小的时间片段，以提高移动终端上的播放质量，在网络状态不好，较多移动终端访问时，采用将大的时间片段，通过牺牲一部分播放质量来保障每部移动终端都能收到机顶盒中的电视节目，防止出现系统停滞或部分移动终端无法访问的现象。

以上所述仅为本发明的较佳实施例而已，并不用以限制本发明，凡在本发明的精神和原则之内所作的任何修改、等同替换和改进等，均应包含在本发明的保护范围之内。

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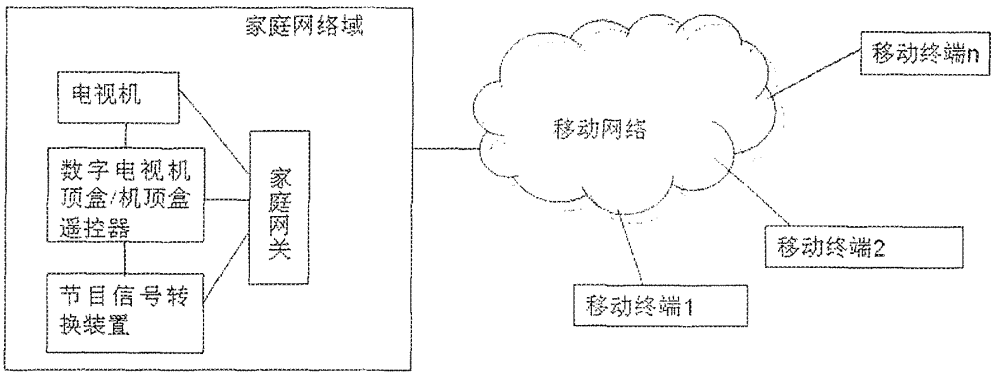


图1

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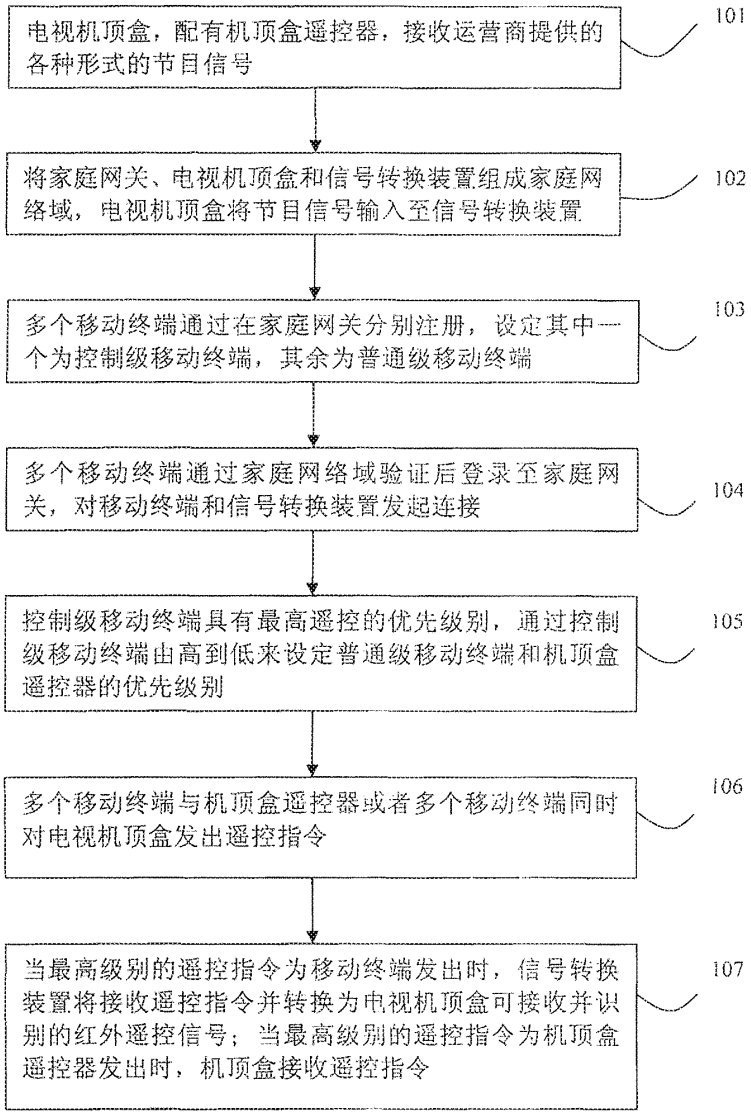


图2

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Espacenet

Bibliographic data: CN101951368 (A) — 2011-01-19

Service authority control method, terminal and system based on subnet

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Classification: - international: *H04L12/851; H04L29/06*
- cooperative:

Application number: CN20101278460 20100910 Global Dossier

Priority number (s): CN20101278460 20100910

Abstract of CN101951368 (A)

The invention relates to a service authority control method, a terminal and a system based on a subnet, wherein the method comprises the steps of: receiving a service command carrying identity identification, sent by a control device, by a controlled device; identifying the priority of the control device according to the identity identification in the service command and a preset priority table; and executing the service command of the control device with highest priority. When a plurality of control devices send the service commands to the controlled device, the controlled device identifies the priority of all control devices according to the identity identification of the control device and executes the service command of the control device with the highest priority, which avoids the problem of chaotic service authority.

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[57]ABSTRACT: The invention relates to a service authority control method, a terminal and a system based on a subnet, wherein the method comprises the steps of: receiving a service command carrying identity identification, sent by a control device, by a controlled device; identifying the priority of the control device according to the identity identification in the service command and a preset priority table; and executing the service command of the control device with highest priority. When a plurality of control devices send the service commands to the controlled device, the controlled device identifies the priority of all control devices according to the identity identification of the control device and executes the service command of the control device with the highest priority, which avoids the problem of chaotic service authority.

¶11 # Description

¶12 **On the basis of service authority control method, terminal station and system of the subnet**

¶13 Technical field

¶14 The invention relates to correlative technology field of tri-networks integration, especially relate to a authority control method of service based on UPNP subnet, terminal station and system.

¶15 Background Art

¶16 At present, UPNP (Universal Plug and Play, common plug-and-play agreement) sub network system gets the increasingly extensive application in the family, in the UPNP sub network system, when there is a controlled apparatus (such as the set-top box) of simultaneous operation of multiple control appliances (such as all mobile phones of kinsfolks in a family), the controlled apparatus can't send out the control apparatus to serve control command and service to all at the same time, which control which controls the apparatus controlled apparatus should accept to be among them, therefore produced and served the confused problem of access control.

¶17 Invention content

¶18 The technical matter that the invention wants to solve lies in providing authority control methods, terminal station and system of a service based on subnet, aim at the confused problem of service authority caused while preventing multiple control appliances from operating a controlled apparatus at the same time.

¶19 The invention proposes a service authority control method based on subnet, comprising:

¶20 Carrying the service order of the identification label of receive control equipment sending of the controlled apparatus;

¶21 According to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶22 Service order of the topgallant control appliance of executive priority.

¶23 Preferably, receive control equipment sending of the said controlled apparatus also includes before carrying the step of the service order of the identification label:

¶24 The controlled apparatus establishes and includes controlling apparatus identification label and said priority list of the corresponding relation of the priority.

¶25 Preferably, the said identification label in the order according to serving, and the priority list of initialization includes the step in which the said control appliance carries on priority qualification specifically:

¶26 Look for the priority of corresponding to identification label of the said control appliance in the controlled apparatus is from the said priority list;

¶27 Set out and send and serve the topgallant control appliance of priority in every control appliance of the order according to the said priority qualification.

¶28 Preferably, the step of the service order of carrying the identification label of receive control equipment sending of the said controlled apparatus includes specifically:

¶29 The controlled apparatus, through carrying the service order of the identification label of common plug-and-play agreement UPNP receive control equipment sending.

¶30 Preferably, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶31 The invention proposes a service authority control terminal based on subnet, including:

¶32 The receiving module, the service order used for carrying the identification label of equipment sending of receive control;

¶33 The qualification module of priority, for according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶34 Control the service module, the service order used for topgallant control appliance of executive priority.

¶35 Preferably, the said terminal station also includes:

¶36 Establish module, connects with said receiving module, the said priority list used for establishing and including identification label and corresponding relation of the priority of the control appliance.

¶37 Preferably, the qualification module of said priority includes:

¶38 Find out the unit, is used for looking for the priority of corresponding to identification label of the said control appliance from the said priority list;

¶39 Appraise unit, use for set out give serve every of order control priority supreme controlate apparatus under apparatus according to said priority qualification.

¶40 The invention still proposes a service authority control system based on subnet, including control appliance and controlled apparatus connecting said control appliance through said subnet, wherein:

¶41 Said control appliance, use for to controll equipment sending carry should control apparatus service order of identification label;

¶42 The said controlled apparatus, used for receiving the said service order, and according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance; And the service order of the topgallant control appliance of executive priority.

¶43 Preferably, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶44 The invention proposes a authority control method of service based on subnet, terminal station and system, pass identification label and corresponding relation of the priority of the control appliance, when the multiple control apparatus is ordered to the routing service of the controlled apparatus to existing, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, and the service order of the topgallant control appliance of executive priority, thus has avoided serving the confused problem of the authority.

¶45 Brief description of the drawing

¶46 Fig. 1 is the conspectus of embodiment of the first method of access control of service that the invention is based on the subnet;

¶47 Fig. 2 is according to serving the identification label in the order in the first method embodiments of access control of service based on subnet of the invention, and the priority list of initialization carries on the concrete conspectus of priority qualification to the control appliance;

¶48 Fig. 3 is another embodiment conspectus of control method of service authority that the invention is based on the subnet;

¶49 Fig. 4 is one embodiment structural representation of service authority control terminal that the invention is based on the subnet;

¶50 Fig. 5 is the structural representation of qualification module of priority in one embodiment of service authority control terminal that the invention is based on the subnet;

¶51 Fig. 6 is another embodiment structural representation of control terminal of service authority that the invention is based on the subnet;

¶52 Fig. 7 is an embodiment structural representation of service authority control system that the invention is based on the subnet.

¶53 To make the technological scheme of the invention clearer, clear, will now further enlarge on in conjuction with drawings.

¶54 Concrete mode of execution

¶55 The embodiment solution of the invention is mainly: Pass identification label and corresponding relation of the priority of the control appliance, when the multiple control apparatus is ordered to the routing service of the controlled apparatus to existing, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, and the service order of the topgallant control appliance of executive priority.

¶56 As shown in Fig. 1, an embodiment of the invention proposes a service authority control method based on subnet, including:

¶57 Step S101, carrying the service order of the identification label of receive control equipment sending of the controlled apparatus;

¶58 Step S102, according to serving the identification label in the order, and the priority list of initialization carries on the priority qualification to the control appliance;

¶59 Step S103, the service order of the topgallant control appliance of executive priority.

¶60 Sub network system of running environment based on UPNP subnet or other interconnections Interworking protocol of the method of this embodiment, taking UPNP subnet as examples, this embodiment controlled apparatus and control the apparatus to link to the UPNP subnet, control appliance to controll equipment sending carry should control apparatus service order of identification label through UPNP.

¶61 In this embodiment, the control appliance can be a mobile terminal, the controlled

apparatus can be a set-top box.

¶62 This embodiment regards controlled apparatus as the set-top box, controls the apparatus to explain for the example for the mobile phone, but it is a set-top box not to restrictive of the controlled apparatus, controls the situation of the apparatus as the mobile phone.

¶63 When multiple mobile phones require the set-top box to carry out and serve the order to the routing service order of the set-top box, identification label of every mobile phone that the service order according to each mobile phone sending carries of set-top box, find out the priority list of initialization stored in the set-top box, has recorded each mobile phone identification label and corresponding relation of the priority of the service authority in the priority list, through find out the priority list, can obtain all routing service priority topgallant the Mobile under mobile phone of order already, thus, the set-top box accepts the control of the topgallant mobile phone of the priority, that the topgallant mobile phone of the priority offers service of corresponding to his service order, and such as the current priority topgallant mobile phone demanded to request a certain television program for the service order of the mobile phone before break execution, the set-top box carries out the service order of the mobile phone, leave the original television program shelf, regulate to the television program shelf that the mobile phone of the priority requests at present the most.

¶64 Need to prove, the priority list of initialization, the all right initialization is on controlled apparatus such as set-top box, can be imported by oneself through the interface of editor on the controlled apparatus by users too.Regard subnet set up between set-top box and all mobile phones of kinsfolks in a family as the example, can set up the priority of every mobile phone in the priority list on the set-top box in advance, corresponding identification label of mobile phone of every priority.Later, the set-top box can accept the service order of the corresponding mobile phone services for it according to the priority of every mobile phone.

¶65 As shown in Fig. 2, step S102 includes:

¶66 Step S1021, the priority that the controlled apparatus finds out and controls the identification label of the apparatus to be corresponding from the priority list;

¶67 Step S1022, the priority qualification of the foundation set out and sent and served the topgallant control appliance of priority in every control appliance of the order.

¶68 As shown in Fig. 3, another embodiment of the invention proposes a service authority control method based on subnet, on the basis of above-mentioned embodiment,

wherein, also include before step S101:

¶69 Step S100, the controlled apparatus establishes and includes controlling apparatus identification label and priority list of the corresponding relation of the priority.

¶70 In this embodiment, can be established and include controlling apparatus identification label and priority list of the corresponding relation of the priority by the controlled apparatus, then, store the preset priority list in the controlled apparatus, the priority list can be set in controlled apparatus such as set-top box directly, can be imported by oneself through the interface of editor on the controlled apparatus by users too.

¶71 This embodiment passes identification label and corresponding relation of the priority of the control appliance, when multiple control appliances are ordered to the routing service of the controlled apparatus, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, the service order of the topgallant control appliance of executive priority, thus has avoided serving the confused problem of the authority.

¶72 As shown in Fig. 4, an embodiment of the invention proposes a service authority control terminal based on subnet, including: The receiving module 401, the qualification module 402 of priority and control the service module 403, wherein,

¶73 The receiving module 401, the service orders used for carrying the identification label of equipment sending of receive control;

¶74 The qualification module 402 of priority, for according to serving the identification label in the order, and the priority list of initialization carries on the priority qualification to the control appliance;

¶75 Control the service module 403, the service orders used for topgallant control appliance of executive priority.

¶76 The terminal station of this embodiment can be a set-top box, control the apparatus can be a mobile terminal, such as the mobile phone.

¶77 This embodiment until terminal station for set-top box, control apparatus go on prove for mobile phone for example, but it is a set-top box not to restrictive of the terminal station, controls the situation of the apparatus as the mobile phone.

¶78, identification label of every mobile phone that the service order according to each mobile phone sending carries of set-top box, find out the priority list of initialization stored in the set-top box, has recorded each mobile phone identification label and corresponding relation of the priority of the service authority in the priority list, through find out the priority list, can obtain all routing service priority topgallant the Mobile

under mobile phone of order already, thus, the set-top box accepts the control of the topgallant mobile phone of the priority, that the topgallant mobile phone of the priority offers service of corresponding to his service order, and such as the current priority topgallant mobile phone demanded to request a certain television program for the service order of the mobile phone before break execution, the set-top box carries out the service order of the mobile phone, leave the original television program shelf, regulate to the priority at present the mostMobile phone that institute more request than television program for.

¶79 Need to prove, the priority list of initialization, the all right initialization is on controlled apparatus such as set-top box, can be imported by oneself through the interface of editor on the controlled apparatus by users too.Regard subnet set up between set-top box and all mobile phones of kinsfolks in a family as the example, can set up the priority of every mobile phone in the priority list on the set-top box in advance, corresponding identification label of mobile phone of every priority.Later, the set-top box can accept the service order of the corresponding mobile phone services for it according to the priority of every mobile phone.

¶80 As shown in Fig. 5, in this embodiment, the qualification module 402 of priority includes:

¶81 Find out unit 4021, is used for looking for the priority of corresponding to identification label of the said control appliance from the priority list;

¶82 Appraise 4022 unit, use for set out give serve every of order control priority supreme controlate apparatus under apparatus according to priority qualification.

¶83 As shown in Fig. 6, another embodiment of the invention proposes a service authority control terminal based on subnet, on the basis of above-mentioned embodiment, the terminal station also includes:

¶84 Establish the module 400, connects with receiving module 401, the priority list used for establishing and including identification label and corresponding relation of the priority of the control appliance.

¶85 In this embodiment, can be established and includes controlling apparatus identification label and priority list of the corresponding relation of the priority by the terminal establishment module 400, then, store the preset priority list in the controlled apparatus, the priority list can be set in controlled apparatus such as set-top box directly, can be imported by oneself through the interface of editor on the controlled apparatus by users too.

¶86 As shown in Fig. 7, an embodiment of the invention proposes a service authority control

system based on subnet, include the control appliance 701 and controlled apparatus 702 connecting control appliance 701 through subnet, wherein:

¶87 The control appliance 701, is used for sending and carrying the service order that should control the identification label of the apparatus 701 to the controlled apparatus 702;

¶88 The controlled apparatus 702, used for receiving and serving the order, and according to serving the identification label in the order, and the priority list of initialization carries on the priority qualification to the said control appliance; And the service order of the topgallant control appliance of executive priority.

¶89 In this embodiment, control the apparatus 701 to be preferably the mobile terminal such as mobile phone, the controlled apparatus 702 is preferably the set-top box.

¶90 This embodiment regards controlled apparatus 702 as the set-top box, controls the apparatus 701 to explain for the example for the mobile phone, but it is the set-top box not to restrictive of the controlled apparatus 702, control the apparatus 701 to be the situation of the mobile phone.

¶91 , identification label of every mobile phone that the service order according to each mobile phone sending carries of set-top box, find out the priority list of initialization stored in the set-top box, has recorded each mobile phone identification label and corresponding relation of the priority of the service authority in the priority list, through find out the priority list, can obtain all routing service priority topgallant the Mobile under mobile phone of order already, thus, the set-top box accepts the control of the topgallant mobile phone of the priority, that the topgallant mobile phone of the priority offers service of corresponding to his service order, and such as the current priority topgallant mobile phone demanded to request a certain television program for the service order of the mobile phone before break execution, the set-top box carries out the service order of the mobile phone, leave the original television program shelf, regulate to the television program shelf that the mobile phone of the priority requests at present the most.

¶92 Need to prove, the priority list of initialization, the all right initialization is on controlled apparatus such as set-top box, can be imported by oneself through the interface of editor on the controlled apparatus by users too.Regard subnet set up between set-top box and all mobile phones of kinsfolks in a family as the example, can set up the priority of every mobile phone in the priority list on the set-top box in advance, corresponding identification label of mobile phone of every priority.Later, the set-top box can accept

the service order of the corresponding mobile phone services for it according to the priority of every mobile phone.

¶93 The embodiments of the invention pass identification label and corresponding relation of the priority of the control appliance, when multiple control appliances are ordered to the routing service of the controlled apparatus, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, the service order of the topgallant control appliance of executive priority, thus has avoided serving the confused problem of the authority.

¶94 State the preferred embodiments that is only the invention above, do not limit the patent scope of the invention, every utilizes equivalent structure or procedure that this description of invention and drawing content does to vary, or use in other associated technical fields directly or indirectly, the same is included in scope of patent protection of the invention.

¶95

¶96 ## Claims

¶97 1.A service authority control method based on subnet, characterized by, comprising:

¶98 Carrying the service order of the identification label of receive control equipment sending of the controlled apparatus;

¶99 According to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶100 Service order of the topgallant control appliance of executive priority.

¶101

¶102 2.Method as stated in Claim 1, characterized by that, also include before receive control equipment sending of the said controlled apparatus carries the step of the service order of the identification label:

¶103 The controlled apparatus establishes and includes controlling apparatus identification label and said priority list of the corresponding relation of the priority.

¶104

¶105 3.The method as stated in Claim 1 or 2, characterized by, the said identification label in the order according to serving, and the priority list of initialization includes the step in which the said control appliance carries on priority qualification specifically:

¶106 Look for the priority of corresponding to identification label of the said control

appliance in the controlled apparatus is from the said priority list;

¶107 Set out and send and serve the topgallant control appliance of priority in every control appliance of the order according to the said priority qualification.

¶108

¶109 4.Method as stated in Claim 3, characterized by that, the step of the service order of carrying the identification label of receive control equipment sending of the said controlled apparatus includes specifically:

¶110 The controlled apparatus, through carrying the service order of the identification label of common plug-and-play agreement UPNP receive control equipment sending.

¶111

¶112 5.The method as stated in Claim 4, characterized by, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶113

¶114 6.A service authority control terminal based on subnet, characterized by, including:

¶115 The receiving module, use for the service order of carrying the identification label of equipment sending of receive control;

¶116 The qualification module of priority, for according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶117 Control the service module, the service order used for topgallant control appliance of executive priority.

¶118

¶119 7.The terminal station as stated in Claim 6, characterized by, the said terminal station also includes:

¶120 Establish module, connects with said receiving module, the said priority list used for establishing and including identification label and corresponding relation of the priority of the control appliance.

¶121

¶122 8.The terminal station as stated in Claim 6 or 7, characterized by, the qualification module of said priority includes:

¶123 Find out the unit, is used for looking for the priority of corresponding to identification label of the said control appliance from the said priority list;

¶124 Appraise unit, use for set out give serve every of order control priority supreme

controlate apparatus under apparatus according to said priority qualification.

¶125

¶126 9.A service authority control system based on subnet, characterized by, including control appliance and controlled apparatus connecting said control appliance through said subnet, wherein:

¶127 Said control appliance, use for to controll equipment sending carry should control apparatus service order of identification label;

¶128 The said controlled apparatus, used for receiving the said service order, and according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance; And the service order of the topgallant control appliance of executive priority.

¶129

¶130 10.The system as stated in Claim 9, characterized by, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶131

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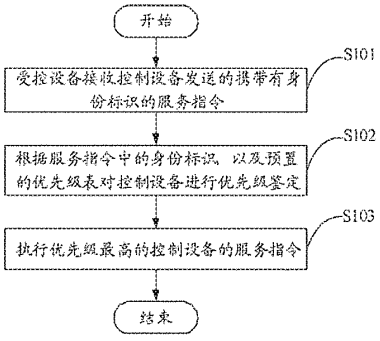
权利要求书 1 页 说明书 5 页 附图 3 页

(54)发明名称

基于子网络的服务权限控制方法、终端及系统

(57)摘要

本发明涉及一种基于子网络的服务权限控制方法、终端及系统，其中方法包括：受控设备接收控制设备发送的携带有身份标识的服务指令；根据服务指令中的身份标识，以及预置的优先级表对控制设备进行优先级鉴定；执行优先级最高的控制设备的服务指令。本发明当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，并执行优先级最高的控制设备的服务指令，避免了服务权限混乱的问题。



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1. 一种基于子网络的服务权限控制方法，其特征在于，包括以下步骤：

受控设备接收控制设备发送的携带有身份标识的服务指令；

根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

执行优先级最高的控制设备的服务指令。

2. 根据权利要求 1 所述的方法，其特征在于，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤之前还包括：

受控设备创建包含控制设备身份标识与优先级对应关系的所述优先级表。

3. 根据权利要求 1 或 2 所述的方法，其特征在于，所述根据服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定的步骤具体包括：

受控设备从所述优先级表中查找与所述控制设备身份标识对应的优先级；

根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

4. 根据权利要求 3 所述的方法，其特征在于，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤具体包括：

受控设备通过通用即插即用协议 UPNP 接收控制设备发送的携带有身份标识的服务指令。

5. 根据权利要求 4 所述的方法，其特征在于，所述控制设备为移动终端；所述受控设备为机顶盒。

6. 一种基于子网络的服务权限控制终端，其特征在于，包括：

接收模块，用于接收控制设备发送的携带有身份标识的服务指令；

优先级鉴定模块，用于根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

控制服务模块，用于执行优先级最高的控制设备的服务指令。

7. 根据权利要求 6 所述的终端，其特征在于，所述终端还包括：

创建模块，与所述接收模块连接，用于创建包含控制设备身份标识与优先级对应关系的所述优先级表。

8. 根据权利要求 6 或 7 所述的终端，其特征在于，所述优先级鉴定模块包括：

查找单元，用于从所述优先级表中查找与所述控制设备身份标识对应的优先级；

鉴定单元，用于根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

9. 一种基于子网络的服务权限控制系统，其特征在于，包括控制设备以及与所述控制设备通过所述子网络连接的受控设备，其中：

所述控制设备，用于向受控设备发送携带有该控制设备身份标识的服务指令；

所述受控设备，用于接收所述服务指令，并根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；以及执行优先级最高的控制设备的服务指令。

10. 根据权利要求 9 所述的系统，其特征在于，所述控制设备为移动终端；所述受控设备为机顶盒。

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基于子网络的服务权限控制方法、终端及系统

技术领域

[0001] 本发明涉及三网融合相关技术领域，尤其涉及一种基于 UPNP 子网络的服务权限控制方法、终端及系统。

背景技术

[0002] 目前，UPNP(Universal Plug and Play，通用即插即用协议）子网络系统在家庭中得到越来越广泛的应用，在该 UPNP 子网络系统中，当存在多个控制设备（比如一个家庭中各家庭成员手机）同时操作一个受控设备（比如机顶盒）时，受控设备不能同时为所有发出服务控制指令的控制设备提供服务，受控设备该接受其中哪台控制设备的控制，由此产生服务权限控制混乱的问题。

发明内容

[0003] 本发明所欲解决的技术问题在于提供一种基于子网络的服务权限控制方法、终端及系统，旨在避免多个控制设备同时操作一个受控设备时造成的服务权限混乱的问题。

[0004] 本发明提出一种基于子网络的服务权限控制方法，包括以下步骤：

[0005] 受控设备接收控制设备发送的携带有身份标识的服务指令；

[0006] 根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

[0007] 执行优先级最高的控制设备的服务指令。

[0008] 优选地，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤之前还包括：

[0009] 受控设备创建包含控制设备身份标识与优先级对应关系的所述优先级表。

[0010] 优选地，所述根据服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定的步骤具体包括：

[0011] 受控设备从所述优先级表中查找与所述控制设备身份标识对应的优先级；

[0012] 根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0013] 优选地，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤具体包括：

[0014] 受控设备通过通用即插即用协议 UPNP 接收控制设备发送的携带有身份标识的服务指令。

[0015] 优选地，所述控制设备为移动终端；所述受控设备为机顶盒。

[0016] 本发明提出一种基于子网络的服务权限控制终端，包括：

[0017] 接收模块，用于接收控制设备发送的携带有身份标识的服务指令；

[0018] 优先级鉴定模块，用于根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

[0019] 控制服务模块，用于执行优先级最高的控制设备的服务指令。

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[0020] 优选地，所述终端还包括：

[0021] 创建模块，与所述接收模块连接，用于创建包含控制设备身份标识与优先级对应关系的所述优先级表。

[0022] 优选地，所述优先级鉴定模块包括：

[0023] 查找单元，用于从所述优先级表中查找与所述控制设备身份标识对应的优先级；

[0024] 鉴定单元，用于根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0025] 本发明还提出一种基于子网络的服务权限控制系统，包括控制设备以及与所述控制设备通过所述子网络连接的受控设备，其中：

[0026] 所述控制设备，用于向受控设备发送携带有该控制设备身份标识的服务指令；

[0027] 所述受控设备，用于接收所述服务指令，并根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；以及执行优先级最高的控制设备的服务指令。

[0028] 优选地，所述控制设备为移动终端；所述受控设备为机顶盒。

[0029] 本发明提出一种基于子网络的服务权限控制方法、终端及系统，通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，并执行优先级最高的控制设备的服务指令，从而避免了服务权限混乱的问题。

附图说明

[0030] 图 1 是本发明基于子网络的服务权限控制方法一实施例流程示意图；

[0031] 图 2 是本发明基于子网络的服务权限控制方法一实施例中根据服务指令中身份标识，以及预置的优先级表对控制设备进行优先级鉴定的具体流程示意图；

[0032] 图 3 是本发明基于子网络的服务权限控制方法另一实施例流程示意图；

[0033] 图 4 是本发明基于子网络的服务权限控制终端一实施例结构示意图；

[0034] 图 5 是本发明基于子网络的服务权限控制终端一实施例中优先级鉴定模块的结构示意图；

[0035] 图 6 是本发明基于子网络的服务权限控制终端另一实施例结构示意图；

[0036] 图 7 是本发明基于子网络的服务权限控制系统一实施例结构示意图。

[0037] 为了使本发明的技术方案更加清楚、明了，下面将结合附图作进一步详述。

具体实施方式

[0038] 本发明实施例解决方案主要是：通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，并执行优先级最高的控制设备的服务指令。

[0039] 如图 1 所示，本发明一实施例提出一种基于子网络的服务权限控制方法，包括：

[0040] 步骤 S101，受控设备接收控制设备发送的携带有身份标识的服务指令；

[0041] 步骤 S102，根据服务指令中的身份标识，以及预置的优先级表对控制设备进行优先级鉴定；

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[0042] 步骤 S103，执行优先级最高的控制设备的服务指令。

[0043] 本实施例方法运行环境基于 UPNP 子网络或其它互连互通协议之上的子网络系统，以 UPNP 子网络为例，本实施例受控设备与控制设备连接于该 UPNP 子网络中，控制设备通过 UPNP 向受控设备发送携带有该控制设备身份标识的服务指令。

[0044] 本实施例中，控制设备可以为移动终端，受控设备可以为机顶盒。

[0045] 本实施例以受控设备为机顶盒、控制设备为手机为例进行说明，但不限于受控设备为机顶盒、控制设备为手机的情形。

[0046] 当有多个手机对机顶盒发送服务指令要求机顶盒执行服务指令时，机顶盒则根据各个手机发送的服务指令携带的各手机的身份标识，查找存储在机顶盒内的预置的优先级表，该优先级表中记录了各个手机身份标识与服务权限的优先级的对应关系，通过查找该优先级表，则可得出所有已发送服务指令的手机中优先级最高的那个手机，从而，机顶盒接受该优先级最高的手机的控制，即为该优先级最高的手机提供对应其服务指令的服务，而中断执行之前手机的服务指令，比如当前优先级最高的手机要求点播某一档电视节目，机顶盒便执行该手机的服务指令，离开原有电视节目档，调至当前最优先级的手机所点播的电视节目档。

[0047] 需要说明的是，预置的优先级表，可以预置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。以一个家庭中各家庭成员手机与机顶盒之间建立的子网络为例，可以预先在机顶盒上的优先级表内设置各手机的优先级，每一优先级对应一个手机的身份标识。之后，机顶盒便可根据各手机的优先级接受相应的手机的服务指令为其提供服务。

[0048] 如图 2 所示，步骤 S102 包括：

[0049] 步骤 S1021，受控设备从优先级表中查找与控制设备身份标识对应的优先级；

[0050] 步骤 S1022，根据优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0051] 如图 3 所示，本发明另一实施例提出一种基于子网络的服务权限控制方法，在上述实施例的基础上，其中，在步骤 S101 之前还包括：

[0052] 步骤 S100，受控设备创建包含控制设备身份标识与优先级对应关系的优先级表。

[0053] 在本实施例中，可以由受控设备创建包含控制设备身份标识与优先级对应关系的优先级表，然后，将该预置的优先级表存储在受控设备上，该优先级表可以直接设置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。

[0054] 本实施例通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，执行优先级最高的控制设备的服务指令，从而避免了服务权限混乱的问题。

[0055] 如图 4 所示，本发明一实施例提出一种基于子网络的服务权限控制终端，包括：接收模块 401、优先级鉴定模块 402 以及控制服务模块 403，其中，

[0056] 接收模块 401，用于接收控制设备发送的携带有身份标识的服务指令；

[0057] 优先级鉴定模块 402，用于根据服务指令中的身份标识，以及预置的优先级表对控制设备进行优先级鉴定；

[0058] 控制服务模块 403，用于执行优先级最高的控制设备的服务指令。

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[0059] 本实施例终端可以为机顶盒，控制设备可以为移动终端，比如手机。

[0060] 本实施例以终端为机顶盒、控制设备为手机为例进行说明，但不限于终端为机顶盒、控制设备为手机的情形。

[0061] 当有多个手机对机顶盒发送服务指令要求机顶盒执行服务指令时，机顶盒则根据各个手机发送的服务指令携带的各手机的身份标识，查找存储在机顶盒内的预置的优先级表，该优先级表中记录了各个手机身份标识与服务权限的优先级的对应关系，通过查找该优先级表，则可得出所有已发送服务指令的手机中优先级最高的那个手机，从而，机顶盒接受该优先级最高的手机的控制，即为该优先级最高的手机提供对应其服务指令的服务，而中断执行之前手机的服务指令，比如当前优先级最高的手机要求点播某一档电视节目，机顶盒便执行该手机的服务指令，离开原有电视节目档，调至当前最优先级的手机所点播的电视节目档。

[0062] 需要说明的是，预置的优先级表，可以预置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。以一个家庭中各家庭成员手机与机顶盒之间建立的子网络为例，可以预先在机顶盒上的优先级表内设置各手机的优先级，每一优先级对应一个手机的身份标识。之后，机顶盒便可根据各手机的优先级接受相应的手机的服务指令为其提供服务。

[0063] 如图 5 所示，在本实施例中，优先级鉴定模块 402 包括：

[0064] 查找单元 4021，用于从优先级表中查找与所述控制设备身份标识对应的优先级；

[0065] 鉴定单元 4022，用于根据优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0066] 如图 6 所示，本发明另一实施例提出一种基于子网络的服务权限控制终端，在上述实施例的基础上，该终端还包括：

[0067] 创建模块 400，与接收模块 401 连接，用于创建包含控制设备身份标识与优先级对应关系的优先级表。

[0068] 在本实施例中，可以由终端的创建模块 400 创建包含控制设备身份标识与优先级对应关系的优先级表，然后，将该预置的优先级表存储在受控设备上，该优先级表可以直接设置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。

[0069] 如图 7 所示，本发明一实施例提出一种基于子网络的服务权限控制系统，包括控制设备 701 以及与控制设备 701 通过子网络连接的受控设备 702，其中：

[0070] 控制设备 701，用于向受控设备 702 发送携带有该控制设备 701 身份标识的服务指令；

[0071] 受控设备 702，用于接收服务指令，并根据服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；以及执行优先级最高的控制设备的服务指令。

[0072] 在本实施例中，控制设备 701 优选为移动终端，比如手机，受控设备 702 优选为机顶盒。

[0073] 本实施例以受控设备 702 为机顶盒、控制设备 701 为手机为例进行说明，但不限于受控设备 702 为机顶盒、控制设备 701 为手机的情形。

[0074] 当有多个手机对机顶盒发送服务指令要求机顶盒执行服务指令时，机顶盒则根据各个手机发送的服务指令携带的各手机的身份标识，查找存储在机顶盒内的预置的优先级

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表，该优先级表中记录了各个手机身份标识与服务权限的优先级的对应关系，通过查找该优先级表，则可得出所有已发送服务指令的手机中优先级最高的那个手机，从而，机顶盒接受该优先级最高的手机的控制，即为该优先级最高的手机提供对应其服务指令的服务，而中断执行之前手机的服务指令，比如当前优先级最高的手机要求点播某一档电视节目，机顶盒便执行该手机的服务指令，离开原有电视节目档，调至当前最优先级的手机所点播的电视节目档。

[0075] 需要说明的是，预置的优先级表，可以预置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。以一个家庭中各家庭成员手机与机顶盒之间建立的子网络为例，可以预先在机顶盒上的优先级表内设置各手机的优先级，每一优先级对应一个手机的身份标识。之后，机顶盒便可根据各手机的优先级接受相应的手机的服务指令为其提供服务。

[0076] 本发明实施例通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，执行优先级最高的控制设备的服务指令，从而避免了服务权限混乱的问题。

[0077] 以上所述仅为本发明的优选实施例，并非因此限制本发明的专利范围，凡是利用本发明说明书及附图内容所作的等效结构或流程变换，或直接或间接运用在其他相关的技术领域，均同理包括在本发明的专利保护范围内。

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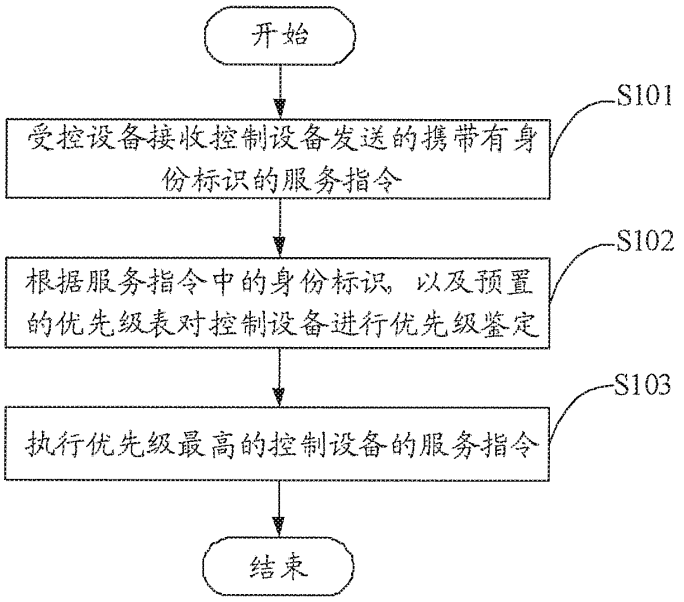


图 1

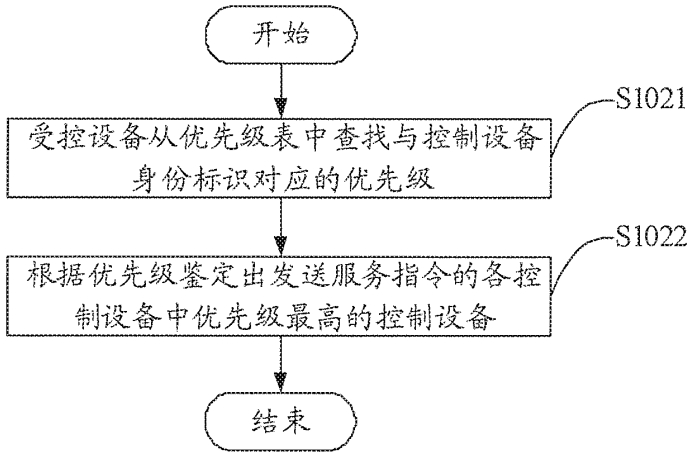


图 2

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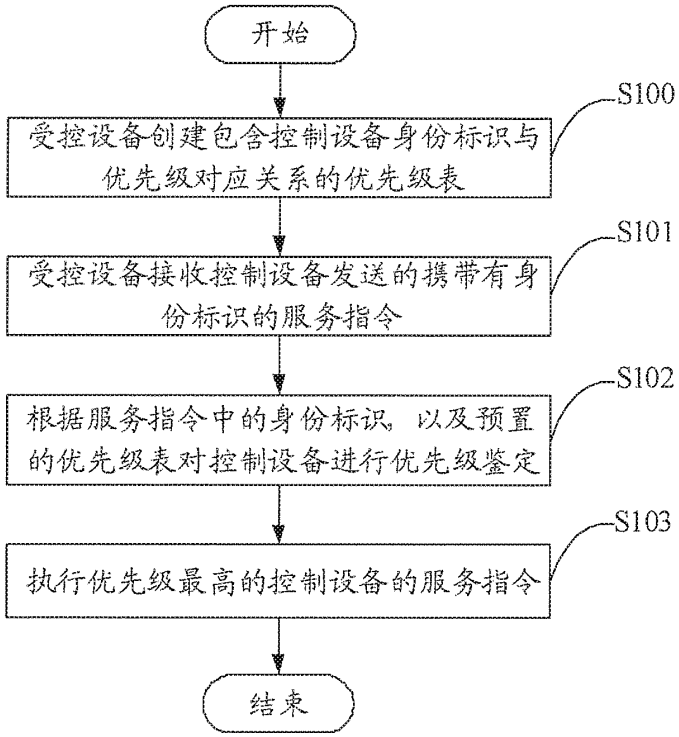


图 3

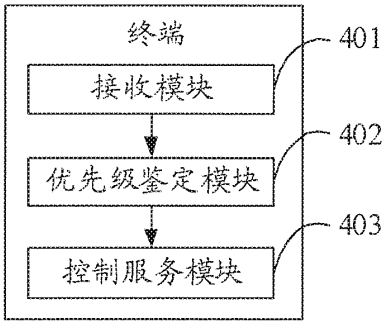


图 4

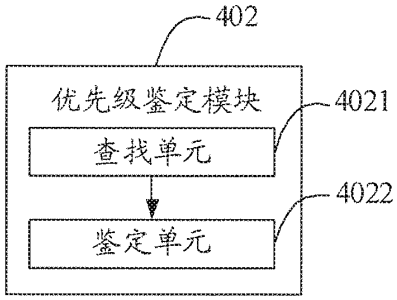


图 5

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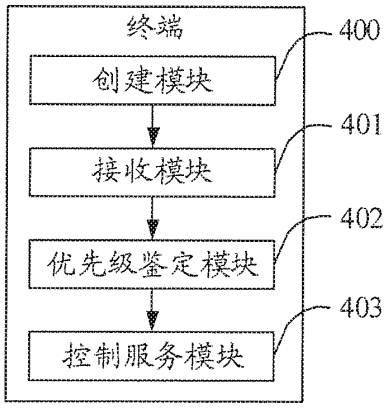


图 6

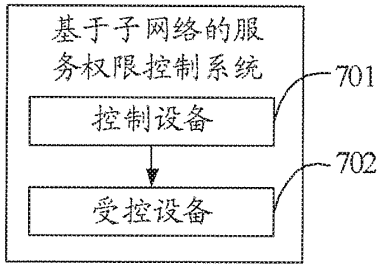


图 7

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Electronic Patent Application Fee Transmittal

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Filing Date:	04-Jun-2015
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Filer:	Tomoki Tanida/Marcus Cunningham
Attorney Docket Number:	075425-0047

Filed as Large Entity

Filing Fees for U.S. National Stage under 35 USC 371

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
RCE- 2ND AND SUBSEQUENT REQUEST	1820	1	1700	1700
		Total in USD ($)		**1700**

Electronic Acknowledgement Receipt	
EFS ID:	30757099
Application Number:	14649895
International Application Number:	
Confirmation Number:	1257
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Customer Number:	20277
Filer:	Tomoki Tanida/Marcus Cunningham
Filer Authorized By:	Tomoki Tanida
Attorney Docket Number:	075425-0047
Receipt Date:	25-OCT-2017
Filing Date:	04-JUN-2015
Time Stamp:	14:57:27
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1700
RAM confirmation Number	102617INTEFSW00001680500417
Deposit Account	500417
Authorized User	Marc Cunningham
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.17 (Patent application and reexamination processing fees) 37 CFR 1.19 (Document supply fees)	

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

37 CFR 1.492 (National application filing, search, and examination fees)

37 CFR 1.492(a) (Basic national fee only)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	RCE.pdf	1349835 4fa595d17ca1807cf4b20a3b1e90bae5a50986d1	no	3
Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	IDS.pdf	1035059 be51d82eb01aa1809fabb08c208c15af40230cca	no	4
Warnings:					
Information:					
A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.					
3	Foreign Reference	CN101510965_.pdf	7446536 55426735d3ff39c66fe3e2f6ddb741e8a2f0b44e	no	33
Warnings:					
Information:					
4	Foreign Reference	CN101951368_.pdf	4607663 1c5fac05f79c09e962b7aaafb04ae829384bdc5c	no	22
Warnings:					
Information:					
5	Non Patent Literature	CNOA_.pdf	2690827 70dee2bbf0d1a579646a23267386c688dce2f386	no	17
Warnings:					
Information:					

6	Fee Worksheet (SB06)	fee-info.pdf	30483 3172b8d173116fa93ba31ab71cbb1c5522994b8b	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	17160403	

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
14/649,895	06/04/2015	

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **10/19/2017**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 2	Minus	** 20	= 0	X $80 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $420 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
BRENDA J. DENNY

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Docket No.: 075425-0047
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Masayuki HIRABAYASHI	:	Customer Number: 20277
Application No.: 14/649,895	:	Confirmation No.: 1257
Filed: June 4, 2015	:	Art Unit: 2422
For: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS	:	Examiner: Mustafizur Rahman

AMENDMENT AFTER ALLOWANCE UNDER 37 C.F.R. 1.312

MS AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

Prior to issuance of the patent, applicant respectfully requests entry of this amendment under 37 C.F.R. 1.312 for the above-captioned patent application.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page __ of this paper.

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AMENDMENTS TO THE CLAIMS

1–11. (Cancelled).

12. (Currently Amended) A video display apparatus comprising:

a display unit that displays a video content from a broadcast station or from a video content delivery source;

a direct communication unit that executes bi-directional communication directly with a first wireless terminal device without going via a router;

a network communication unit that executes bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal;

an infrared receiver unit that receives infrared rays from a remote controller; and

a controller that controls the display unit, the direct communication unit, the network communication unit, and the infrared receiver.

wherein, during display on the display unit of a first video content selected with the first wireless terminal device , if a first command for changing a video content on the display unit from the first video content to a second video content is transmitted from the second wireless terminal device to the network communication unit via the router, the display unit terminates displaying the first video content and starts to display the second video content and the direct communication unit sends first information for informing termination of the displaying of the first video content directly to the first wireless terminal device without going via a router, and

wherein, during display on the display unit of the second video content selected with the second wireless terminal device, if a second command for changing a video content on the display unit from the second video content to another video content is transmitted from the remote controller to the infrared receiver unit by infrared rays, the display unit terminates

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displaying the second video content and starts to display another video content and the network communication unit sends second information for informing termination of the displaying of the second video content via the router to the second wireless terminal.

13. (Currently Amended) A method for changing a content on the video display apparatus comprising:

displaying step to display a video content from a broadcast station or from a video content delivery source, on a display unit of the video display apparatus;

direct communication step to execute bi-directional communication directly with a first wireless terminal device without going via a ~~route~~ router;

network communication step to execute bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal device; and

infrared ray receiving step to receive infrared rays from a remote controller;

wherein, during display on the display unit of a first video content selected with the first wireless terminal device, if a first command for changing a video content on the display unit from the first video content to a second video content is transmitted from the second wireless terminal device to the video display apparatus via the router, the video display apparatus terminates displaying the first video content and starts to display the second video content and the video display apparatus sends first information for informing termination of the displaying of the first video content directly to the first wireless terminal device without going via a router, and

wherein, during display on the display unit of the second video content selected with the second wireless terminal device, if a second command for changing a video content on the display unit from the second video content to another video content is transmitted from the remote controller to the video display apparatus by infrared rays, the display unit terminates

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displaying the second video content and starts to display another video content and the video display apparatus sends second information for informing termination of the displaying of the second video content via the router to the second wireless terminal.

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REMARKS

The subject Amendment to the claims is being filed to correct minor errors. There is no question of new matter and entry of this amendment is respectfully requested.

If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT WILL & EMERY LLP

/Alexander P. Ott/

Alexander P. Ott
Registration No. 63,110

500 North Capitol Street, N.W.
Washington, DC 20001
Phone: (202) 756-8496 APO:llg
Facsimile: (202) 756-8087
Date: October 18, 2017

Please recognize our Customer No. 20277 as our correspondence address.

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Page 180 of 546

PTO/SB/08a (03-15)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14649895
Filing Date	2015-06-04
First Named Inventor	Masayuki HIRABAYASHI
Art Unit	2422
Examiner Name	M. Rahman
Attorney Docket Number	075425-0047

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	1	101510965	CN	A	2009-08-19	Shenzhen Temobi Technology Development Co., Ltd.	(With English Abstract and Translation)	X
	2	101951368	CN	A	2011-01-19	Shenzhen Coship Electronics Co., Ltd.	(With English Abstract and Translation)	☒

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Office Action issued in corresponding Chinese Patent Application No. 201380063530.4, dated July 4, 2017 with English Translation.	X

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14649895
	Filing Date	2015-06-04
	First Named Inventor	Masayuki HIRABAYASHI
	Art Unit	2422
	Examiner Name	M. Rahman
	Attorney Docket Number	075425-0047

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Tomoki Tanida/	Date (YYYY-MM-DD)	2017-10-19
Name/Print	Tomoki Tanida	Registration Number	60,453

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Espacenet

Bibliographic data: CN101510965 (A) — 2009-08-19

Classification access system and method for multiple mobile terminals of digital television set-top box

Inventor(s): ZHONGHUA ZHAO [CN] ± (ZHAO ZHONGHUA)

Applicant(s): SHENZHEN TEMOBI TECHNOLOGY DEV [CN] ± (SHENZHEN TEMOBI TECHNOLOGY DEVELOPMENT CO., LTD, ; SHENZHEN TEMOBI SCIENCE & TECH DEVELOPMENT CO., LTD)

Classification: **- international:** ***G08C23/04; H04L12/28; H04N21/43; H04N21/45***
- cooperative:

Application number: CN20091106007 20090311

Priority number (s): CN20091106007 20090311

Also published as: CN101510965 (B)

Abstract of CN101510965 (A)

The invention relates to a multi-mobile terminals grade visiting system of a digital TV set-top box and a method thereof. The system comprises: a TV set-top box which is used for receiving TV program signals; a household network which is composed of a household gateway, a TV set-top box and a signal converting device, the signal converting device comprises a program signal receiving module, a long distance program signal radio frequency emitting module, a remote controlling instruction receiving module, a remote controlling instruction converting module and a remote controlling radio frequency distributing module; the mobile terminals are above one and comprise a controlling grade mobile terminal and an ordinary grade mobile terminal, the grade of priority of remote controlling is set between the mobile terminals and the controllers by the controlling grade mobile terminal, wherein, the grade of priority is from high to low; when a mobile terminal and the controller or a plurality of mobile terminals send out remote controlling instruction to the TV set-top box, the signal converting device receives the instruction with high priority grade, wherein, the only one is the controlling grade mobile terminal and the priority grade is higher than the ordinary controlling mobile terminal and the remote controller.

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[57]ABSTRACT: The invention relates to a multi-mobile terminals grade visiting system of a digital TV set-top box and a method thereof. The system comprises: a TV set-top box which is used for receiving TV program signals; a household network which is composed of a household gateway, a TV set-top box and a signal converting device, the signal converting device comprises a program signal receiving module, a long distance program signal radio frequency emitting module, a remote controlling instruction receiving module, a remote controlling instruction converting module and a remote controlling radio frequency distributing module; the mobile terminals are above one and comprise a controlling grade mobile terminal and an ordinary grade mobile terminal, the grade of priority of remote controlling is set between the mobile terminals and the controllers by the controlling grade mobile terminal, wherein, the grade of priority is from high to low; when a mobile terminal and the controller or a plurality of mobile terminals send out remote controlling instruction to the TV set-top box, the signal converting device receives the instruction with high priority grade, wherein, the only one is the controllinggrade mobile terminal and the priority grade is higher than the ordinary controlling mobile terminal and the remote controller.

¶17 # Description

¶18 **Hierarchical access system and method of many mobile terminals of a digital television set-top box**

¶19 Technical field

¶20 The invention relates to technical field of the digital television, especially relate to a hierarchical access system and method of many mobile terminals of set-top box of digital television.

¶21 Background Art

¶22 The digital television technique has already moved the digital television after developing many years, let users watch the excellent television program whenever and wherever possible.Especially with the development of communication skill, mobile phone, personal digital assistant (Personal Digital Assistant, have been

abbreviated as pocket terminals such as PDA), hand-held game machine,etc. and become the mainstream to move digital television gradually.But the digital television system of bodily movement has not been ripe at present yet, it is mobile phone TVs that what everybody relatively pays close attention to is more, home movement operator, TV station, content provider / service provider (CP/SP), terminal manufacturer and some system integrators, have already begun to pay close attention to this new businesses of the mobile phone TV, and carried on the commissioning within the specific limits, including specially making, adjustment, appropriate popularization of the fee of flowrate of data,etc. of program, the operator is training the mobile subscriber to watch the viewing habit of the mobile phone TV whenever and wherever possible progressively, popularizing with the intellectual mobile terminal day by day and decline, constant downward modulation and movie & TV content of the cellular data service expenses of the price are not more abundant, the TV set business of Mobile can be expected to become the mainstream that 3G employs, become one of the most popular business in 3G serve in the future.

¶23 According to technological aspect, the content of the mobile phone set TV propagates already comparative maturity of the technology at present, provide it mainly in two kinds of ways: A is because of the flow media business of the data; A is based on the digital broadcast mode.Wherein the mobile phone TV of the flow media business of the data moves the operator to utilize the existing mobile communication network to provide the video business of the mobile phone for user, if U.S.A. burns in communication company Sprint of the name, China Mobile and CHINAUNICOM of our country have introduced the TV business of the mobile phone in this means.The mobile phone TV business of China Mobile is based on the common wireless packet traffic (General Packet Radio Service, abbreviated as GPRS) network, CHINAUNICOM depends on its network of code division multiple access (CDMA1X), this business needs to install the corresponding playout software on the cell phone termina equipped with operating system.

¶24 Restricting a developmental key factor of mobile phone TV at present is that a programme source is insufficient, but on the other hand, spreadThe digital television of the interconnected system has already been developed for many years, and on the basis of analogue TV develop, the program resources that have decades are accumulated, there are profuse programme sources.But the mobile phone TV adopts different standards, these digital televisions and analog television programs are

unable to broadcast on the mobile phone directly, must pass certain data translation.To solve this problem, moving the operator introduces the system of set-top box of digital television in the remote access family of the mobile phone, dispose a digital television program transponder at home, the transponder is connected with set-top box of digital television, can obtain digital TV program content, user's hands, through installing the software of customer end, set up wireless connections with the digital television program transponder in the family, can watch the television program, can watch or have a look around the digital television program of the high-definition whenever and wherever possible, and until mobile phone go on control to set-top box television program remotely, display remote controller and program of the digital television the screen transfer to mobile phone in other words.

¶25 Above-mentioned technology will bring one question, control digital television program transponder in house remotely remotely at the same time as one multiple member of family, will produce the conflict among these mobile phones.

¶26 Invention content

¶27 The technical matter that the invention should solve is to overcome the disadvantage of the prior art, hierarchical access system and method of many mobile terminals offering a digital television set-top box.When multiple mobile phones control a particular digital television program transponder remotely at the same time, solve the remote control collision problem among many mobile phones effectively.The system comprising:

¶28 The TV set-top box, the various program signal that the receiving carrier provides;

¶29 The network domain of family, it is made up of Family gate, TV set-top box sum signal switching device, the said signal switching device includes the receiving module of programme signal, remote programme signal radio frequency transmitter module, remote controlate command receiving module, remote controlate command conversion module and radio frequency of the remote controlate command release the module; Characterized by that, the said mobile terminal is more than one, divided into mobile terminal and ordinary level mobile terminal of a control stage, presume the remote-operated preference rank between remote controller of the set-top box and the mobile terminal by mobile terminal of the control stage, preferential rank, from high to low, remote controller or multiple mobile terminal of mobile terminal and set-top box send the remote control command out to TV set set-top box at the

same time, when the top remote control command is sent out for the mobile terminal, the signal switching device receives the remote control command that the preferential rank is high, the signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern, when send out as top remote controlate command machine top for box remote controller, TV set-top box receive remote control command directly, until controlate stage mobile terminal one and preferential rank higher than ordinary level mobile terminal and set-top box remote controller only among them.

¶30 The invention provides a digital television a method of hierarchical access system of many mobile terminals of set-top boxes, including the following step:

¶31 (1)The TV set-top box, mix the remote controller of organic top box, the various programme signal that the receiving carrier provides;

¶32 (2)Make up the Family gate, TV set-top box sum signal switching device in the network domain of family, the TV set-top box inputs the programme signal to the signal switching device;

¶33 (3)Multiple mobile terminals, through registering in the Family gate separately, presume one of these is mobile terminals of control stages, the others are ordinary level mobile terminals;

¶34 (4)Multiple mobile terminals are through moving the network domain of network access family, the network domain of family logs on to the Family gate after verifying, initiate and join mobile terminal and signal switching device;

¶35 (5)Control stage mobile terminal has the highest remote-operated preferential rank, presume the preference ranks of ordinary level mobile terminal and set-top box remote controller from high to low through the mobile terminal of the control stage;

¶36 (6)Programme signal that the receiving signal conversion equipment of multiple mobile terminals sends, multiple mobile terminal and remote controller of the set-top box or multiple mobile terminals send out the remote control command to the TV set-top box at the same time;

¶37 (7)When the top remote control command is sent out for the mobile terminal, the passing signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern; When the top remote control command is sent out for the remote controller of the set-top box, the TV set-top box receives the

remote control command directly.

¶38 Beneficial results of the invention lie in use technology of the invention, one multiple member of family can watch or have a look around digital television program of high-definition whenever and wherever possible, and through setting up the operation authority of different mobile terminals, control the set-top box television program remotely effectively.

¶39 Brief description of the drawing

¶40 Fig. 1 is that the system of the invention employs the schematic diagram;

¶41 Fig. 2 is implementing the flow diagram of this invention.

¶42 Concrete mode of execution

¶43 Do the further description to the invention in conjuction with drawings and embodiments as follows.

¶44 Do the further description to the invention in conjuction with drawings and embodiments as follows.

¶45 Fig. 1 shows the overall structure of embodiment system of the invention.Please see Fig. 1 and is shown, the program signal (take DVB signal as examples) that the operation organization of digital television releases is transferred to the TV set-top box after the wired tv circuit enters the family, the set-top box links with display, the display in this embodiment is a television, TV set-top box decode numeric portion in cable TV signal until decoded program signal input TV set to and show all the way among them.

¶46 TV set-top box link with signal switching device, convey signal switching device to all the way in addition program signal decode, connecting to the Family gate makes up the network domain of family separately in TV set-top box, television, signal switching device.

¶47 According to mobile terminal personal identification module (SIM) at first, signal user id of switching device turn off go on register in family net, the mobile terminal travels across the network to the network domain of family to send to the Connection request according to the user id, the Family gate proves the personal identification module of the mobile terminal is after a registered user, set up the connection between network domain of family and mobile terminal.

¶48 The signal switching device includes the receiving module of programme signal, remote programme signal radio frequency transmitter module, remote controlate

command receiving module, remote controlate command conversion module and radio frequency of the remote controlate command release the module; The said mobile terminal is through moving the Family gate of network access, the Family gate is logged on after verifying, the signal switching device withdraws the programme signal of the TV set-top box, receive the programme signal by the programme signal receiving module of the signal switching device and carry on the compressed encoding, to the air-launch through the radio frequency transmitter module of remote programme signal, the mobile terminal carries on the presentation through the programme signal that the receiving signal conversion equipment of the mobile network sends, the mobile terminal installs the software of customer end, receive the programme signal and carry on the presentation.The said mobile terminal can send the remote control command to the switching device of said signal through the mobile network, the remote control command receiving module of the signal switching device will receive the remote control command that the mobile terminal will be sent out, the conversion module of the remote control command changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern, release the module to send out the infrared remote control signal to the TV set-top box by the radio frequency of the remote control command, implement controlling remotely remotely to the TV set-top box of mobile terminal, such as the turning on/off device, vary program channel, set for turning on/off device time, when the television is in alert status too can go on control to television remotely if turning on/off device, vary the program channel, size of regulating volume, setting for the time of turning on/off device,etc..

¶49 The program signal corresponds to channel number of the TV and TV channel designation separately, e.g. the TV channel number is 01, the TV channel designation is the channel designation of digital television, e.g. the name is " CCTV1 ", moving endAt the time of the end and first connection of video system, e.g. first connect time is 2006/01/01, the signal switching device produces TV channel number " 01 ", TV channel designation " CCTV1 " and " 2006/01/01 " of connect time a parameter file, and on recent update date to record the parameter file, e.g. record refresh time is " 2006/01/01 ", and send the parameter file to the mobile terminal, the mobile terminal is kept after accepting, the mobile terminal is logged on or broadcast and needed to change the television channel in the program course later, can withdraw the new channel number to send to the signal switching device from

the parameter file that the mobile terminal is kept directly.

¶50 The TV set-top box is furnished with the remote controller, the customer end software that the said mobile terminal installs also has module of remote control, when controlling the module remotely in call of the mobile terminal, will display the interface of remote control on the display screen of the mobile terminal, the interface of remote control associates the arrangement with key set corresponding to remote controller, study keys on the interface of remote control, the cellphone subscriber can be through what has been touched the display screen of the mobile terminal control the interface remotely or through controlling the interface remotely and sending out the remote control command of display screen of key operation of the mobile phone, when pushing and studying the key, mobile terminal learn the parameter file to use remote controlate interface associate with parameter file, e.g. the first study is the mobile terminal, with the parameter file kept at the time of the switching device wireless connections of signal for the first time, the e.g. above-mentioned one: TV channel number " 01 ", TV channel designation " CCTV1 " and " 2006/01/01 " of connect time, when the said program signal corresponds to the channel number of the TV separately to upgrade with the TV channel designation, the signal switching device will produce a parameter file that new parameter document replacement was turned into originally, e.g. the channel designation of correspondent TV of " 01 " of channel number of TV is " CCTV3 ", when the switching device of the sum signal is connected again on the mobile terminal 2006/01/10, the signal switching device will send out pointing out to the mobile terminal that studies the new parameter file, push and study the key with the cellphone subscriber, the mobile terminal will obtain the up-to-date parameter file and pay and study from the signal switching device, the new parameter file after the study is: TV channel number " 01 ", TV channel designation " CCTV3 " and " 2006/01/10 " of connect time.When the mobile terminal is in the network domain of family, the mobile terminal is through the family directly and controls the set-top box remotely for the programme signal that the network domain receiving signal conversion equipment sends.

¶51 Can shut and register multiple mobile terminals in the family net, is divided into mobile terminal and ordinary level mobile terminal of a control stage, multiple registered mobile terminals can watch the programme signal that the signal switching device transmits at the same time, presume the remote-operated preference rank between remote controller and the mobile terminal by mobile

terminal of the control stage, preferential rank from high to low, when mobile terminal, remote controller or multiple mobile terminals send out the remote control command to the TV set-top box at the same time, TV set-top box receive preferential rank high order, controlate stage mobile terminal one have priority only whereinThe rank is higher than ordinary level mobile terminal and remote controller.Presume multiple mobile terminals and precedence ranks of the TV set-top box remote controller separately herein, e.g., multiple registered mobile terminals: Mobile terminal A, mobile terminal B, mobile terminal C and a remote controller D, wherein mobile terminal A is a control stage, mobile terminal B and C is the ordinary level, the mobile terminal A preferential rank is the highest, mobile terminal B and C, the preference of remote controller D can be presumed by mobile terminal A, e.g. presume B is higher than C, C is higher than D, then A, B, C, D correspondent right rank is 1, 2, 3, 4, presume preferential rank 1> 2> 3> 4, work as mobile terminal A, mobile terminal B, in mobile terminal C and set-top box remote controller D when two or more members send out the remote control command to the TV set-top box at the same time, if when the top remote control command is sent out for mobile terminal B, the signal switching device receives the remote control command that the preferential rank is high, the signal switching device changes the remote control command that mobile terminal B sends out into the infrared remote control signal that the TV set-top box can receive and discern, when send out as top remote control command for set-top box remote controller D, the TV set-top box receives the remote control command directly.

¶52 The signal switching device will record watching long and watching the frequency time of channel number of the TV and correspondent TV channel designation, when the mobile terminal logs on the system, the signal switching device will be according to TV channel number and watching the frequency of the name at first, will watch the frequency topgallant TV channel number to send and step on acquiescing to watch to the mobile terminal to the name, under watching the identical situation of the frequency, and then according to watching the time long longest seeing the frequency topgallant TV channel number to send and step on acquiescing to watch to the mobile terminal to the name.E.g., the channel number 01, it is 10 times that the name CCTV1 one watches the frequency, it is 2 hours to watch time long, the channel number 02, it is 20 times that the name CCTV2 one watches the frequency, it is an hour to watch time long, according to watching frequency 20 times for greater than 10 times at first, the channel number 02, name CCTV2 sends and steps

on acquiescing to watch to the mobile terminal; And for example, the channel number 03, it is 15 times that the name CCTV3 one watches the frequency, it is 4 hours to watch time long, the channel number 04, it is 15 times that the name CCTV4 one watches the frequency, it is 3 hours to watch time long, watch the same frequency 15, according to watch time long for greater than 03 channel number 3 hour 4 hour, name CCTV3 send publish and acquiesce watching to the mobile terminal.

¶53 When the mobile terminal is in the network domain of family, programme signal that the mobile terminal sends through the network domain receiving signal conversion equipment of the family directly after logging on and controlling the set-top box remotely, do not need to set up the connection between network domain of family and mobile terminal by mobile network.

¶54 If Fig. 2 is the conspectus of embodiment of method of the invention, as shown, the procedure implemented is:

¶55 Step 101, the TV set-top box, mix the remote controller of organic top box, the various programme signal that the receiving carrier provides;

¶56 Step 102, make up the Family gate, TV set-top box sum signal switching device in the network domain of family, the TV set-top box inputs the programme signal to the signal switching device;

¶57 Step 103, multiple mobile terminals are through registering in the Family gate separately, presume one of these is mobile terminals of control stages, the others are ordinary level mobile terminals;

¶58 Step 104, multiple mobile terminals are through moving the network domain of network access family, the network domain of family logs on to the Family gate after verifying, initiate and join mobile terminal and signal switching device;

¶59 Step 105, control stage mobile terminal has remote-operated preferential ranks, presume the preference ranks of ordinary level mobile terminal and set-top box remote controller from high to low through the mobile terminal of the control stage;

¶60 Step 106, the programme signal that the receiving signal conversion equipment of multiple mobile terminals sends, multiple mobile terminal and remote controller of the set-top box or multiple mobile terminals send out the remote control command to the TV set-top box at the same time;

¶61 Step 107, when the top remote control command is sent out for the mobile terminal, the passing signal switching device changes the remote control command that the

mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern; When the top remote control command is sent out for the remote controller of the set-top box, the TV set-top box receives the remote control command directly.

¶62 The above said control stage mobile terminal can preset program time opening and program channel, send to the signal switching device and keep presetting good Pgmtime and program channel, the signal switching device will be when Pgmtime begins for the first 15 minutes, will send out a enlightening information to the mobile terminal through five minutes, logging on the system to watch the television program stops sending the enlightening information after sending three enlightening informations to the mobile terminal of time opening of the program, the first such as the mobile terminal when Pgmtime begins and logs on and watches the television program systematically after receiving enlightening informations once every 15 minutes, then the signal switching device no longer sends the enlightening information, the mobile terminal can preset program time opening and program channel, send to the signal switching device and keep presetting good Pgmtime and program channel, the general mobile terminal user finds out about the program time opening of some program channel, e.g. set time opening of program as in advance: At 10:30 a.m. of sun on 2006/01/20, the program channel is " CCTV1 ", in order to guarantee users can watch to and preset the program channel in time, the switching device of the programme signal will be when Pgmtime begins for ten minutes, the signal switching device will send out the information to find at first whether the mobile terminal is in starting shooting state, if in starting shooting state, send out a enlightening information to the mobile terminal through five minutes, send out the first suggestion at 10:20, send out the second suggestion at 10:25, send out the third suggestion at 10:30, logging on the system to watch the television program stops sending briefing on after sending three enlightening informations to the program mobile terminal of time opening at 10:30The information, such as the mobile terminal is logged on and watched the television program while receiving the first time or second enlightening information in ten minutes when Pgmtime begins systematically, then the signal switching device is too subsequent to send for the second time or the third enlightening information again.

¶63 The mobile terminal has personal identification number (such as the card number of the SIM card of the mobile terminal), the signal switching device has user id (it has the only card number that signal switching device is inserted Subscriber Identity

Module Card USIM), the network domain of family judges whether the personal identification number corresponds to user id to register, if the mobile terminal is logged on to the Family gate.

¶64 The said step (3) also includes the following steps:

¶65 The signal switching device sends the video flowing data packet information of the programme signal to the mobile terminal continuously, divide the course to send information into multiple time slices automatically, at the end of each time slice, produce a transmission data statistical package automatically, the statistical package is comprised the number of bytes of data packet that the present time slice has already sent S, and send the feedback command of a piece of accepting of data to the terminal station;

¶66 The signal switching device accepts the data feedback that the mobile terminal sends, the data feedback packet mobile terminal is received the number of bytes of the data packet C, send the authentication device of data feedback to carry on the analysis to difference Q that S deducts C, if Q is less than or equal to the scope that sets up, prove that passes, continue the sending of the next fragment data,

¶67 If Q is greater than the threshold value scope set up, send to the exception record a datum, if has not received the number of bytes C, suspends the sending of the next fragment data, until resuming data transmission while receiving the number of bytes C, it has not received the number of bytes C if exceed certain time, stop the transfer process of this data.Transmit a frame of programme signals in an above-mentioned time slice, it is a time slice from 0.04 seconds to one second that the time slice presumes the scope.

¶68 Arbitrary value while lying in to the further improvement of the above-mentioned technological scheme, the said length of time slice is from 0.04 seconds to one second.Under this passage, in order to broadcast 25 frames per second in 0.04 seconds, it is the smooth frame rate of ideal that the human eye is watched, the animation effect limit that stand the eyes in one second, if exceed for one second, the fluency of the picture is very bad, have lost the effect that the video broadcast.

¶69 Can further limit the length of time slice in the above-mentioned technological scheme for 0.1 seconds, under these time slice, it is the cheapest that the use of resources can up to, satisfied under the environment of unstable mobile network very, many mobile phones visit the digital television set-top box of the long run family at the same time.

¶70 Can also further optimize the above-mentioned technological scheme, the channel variation of family's network domain system dynamic automatic detection mobile network, and according to the quantity of the mobile terminal in connection with it, since between one second and 0.04 secondsMove and adjust the time slice value, if the network is in good condition, when being less likely to move terminal access, adopt the little time slice, in order to improve the broadcasting quality at the mobile terminal, in network being in bad condition, move terminal access more, adopt the loud time slice, ensure receiving the television program in the set-top box each mobile terminal by sacrificing some broadcasting quality, phenomenon of stagnant or some mobile terminal unable accessing of preventing the system.

¶71 State the preferred embodiment that is only the invention above, do not need in order to limit the invention, any modification, identity doing within the spirit of the invention and principle are replaced and improved etc., should include within the protective range of the invention.

¶72

¶73 ## Claims

¶74 1, Hierarchical access system of many mobile terminals of a digital television set-top box, the system comprising:

¶75 The TV set-top box, the various program signal that the receiving carrier provides;

¶76 The network domain of family, it is made up of Family gate, TV set-top box sum signal switching device, the said signal switching device includes the receiving module of programme signal, remote programme signal radio frequency transmitter module, remote controlate command receiving module, remote controlate command conversion module and radio frequency of the remote controlate command release the module; Characterized by that, the said mobile terminal is more than one, divided into mobile terminal and ordinary level mobile terminal of a control stage, presume the remote-operated preference rank between remote controller of the set-top box and the mobile terminal by mobile terminal of the control stage, preferential rank, from high to low, remote controller or multiple mobile terminal of mobile terminal and set-top box send the remote control command out to TV set set-top box at the same time, when the top remote control command is sent out for the mobile terminal, the signal switching device receives the remote control command that the preferential rank is high, the signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal

that the TV set-top box can receive and discern, when send out as top remote control command for set-top box remote controller, TV set-top box receive remote control command directly, until controlate stage mobile terminal one and preferential rank higher than ordinary level mobile terminal and set-top box remote controller only among them.

¶77

¶78 2, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, characterized by that, the said program signal corresponds to channel number of the TV and TV channel designation separately, in the mobile terminal and first connection of video system, the signal switching device produces TV channel number and TV channel designation a parameter file, and mark out the recent update date of the parameter file, and send the parameter file to the mobile terminal, the mobile terminal is kept after accepting, the mobile terminal is logged on or broadcast and needed to change the television channel in the program course later, can withdraw the new channel number to send to the signal switching device from the parameter file that the mobile terminal is kept directly.

¶79

¶80 3, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 2, characterized by that, the said mobile terminal has module of remote control, when controlling the module remotely in call of the mobile terminal, the display screen general of the mobile terminal displays the interface of remote control, the interface of said remote control associates the arrangement with key set corresponding to remote controller, said remote controlate interface have study key, push study key, mobile terminal make remote controlate interface associate with parameter file studying said parameter filing, it is distant through what has been touched the display screen of the mobile terminalAccuse of the interface or through controlling the interface remotely and sending out the remote control command of display screen of key operation of the mobile phone, when the said program signal corresponds to the channel number of the TV separately to upgrade with the TV channel designation, the signal switching device will produce a parameter file that new parameter document replacement was turned into originally, in the mobile terminal again when the switching device of the sum signal is connected, the signal switching device will send out pointing out to the mobile terminal that studies the new parameter file, push and study the key, the mobile

terminal will obtain the up-to-date parameter file and pay and study from the signal switching device, when the mobile terminal is in the network domain of family, the mobile terminal is through the family directly and controls the set-top box remotely for the programme signal that the network domain receiving signal conversion equipment sends.

¶81

¶824, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, the switching device of said signal has user id, the user terminal installs the software of customer end, there is personal identification number, the user terminal logs on the signal switching device according to the personal identification number, the signal switching device discerns the subscriber personality, judge whether the user id is registered, it is not registered user to logging on for the first time, record its user id of the user terminal at first, store in users and log on in the storehouse.

¶83

¶845, Hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, characterized by that, the said mobile terminal is through moving the Family gate of network access, the Family gate is logged on after verifying, the signal switching device withdraws the programme signal of the TV set-top box, receive the programme signal by the programme signal receiving module of the signal switching device and carry on the compressed encoding, the remote programme signal radio frequency transmitter module of the switching device of the passing signal is to the air-launch, the mobile terminal carries on the presentation through the programme signal that the receiving signal conversion equipment of the mobile network sends; The said mobile terminal can send the remote control command to the switching device of said signal through the mobile network, the remote control command receiving module of the signal switching device will receive the remote control command that the mobile terminal will be sent out, the conversion module of the remote control command changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern, release the module to send out the infrared remote control signal to the TV set-top box by the radio frequency of the remote control command, implement controlling remotely remotely to the TV set-top box of mobile terminal.

¶85

¶86 6, Method of hierarchical access system of many mobile terminals of a digital television set-top box, including the following step:

¶87 (1)The TV set-top box, mix the remote controller of organic top box, the various programme signal that the receiving carrier provides;

¶88 (2)Make up the Family gate, TV set-top box sum signal switching device in the network domain of family, TVThe set-top box inputs the programme signal to the signal switching device;

¶89 (3)Multiple mobile terminals, through registering in the Family gate separately, presume one of these is mobile terminals of control stages, the others are ordinary level mobile terminals;

¶90 (4)Multiple mobile terminals are through moving the network domain of network access family, the network domain of family logs on to the Family gate after verifying, initiate and join mobile terminal and signal switching device;

¶91 (5)Control stage mobile terminal has the highest remote-operated preferential rank, presume the preference ranks of ordinary level mobile terminal and set-top box remote controller from high to low through the mobile terminal of the control stage;

¶92 (6)Programme signal that the receiving signal conversion equipment of multiple mobile terminals sends, multiple mobile terminal and remote controller of the set-top box or multiple mobile terminals send out the remote control command to the TV set-top box at the same time;

¶93 (7)When the top remote control command is sent out for the mobile terminal, the passing signal switching device changes the remote control command that the mobile terminal sends out into the infrared remote control signal that the TV set-top box can receive and discern; When the top remote control command is sent out for the remote controller of the set-top box, the TV set-top box receives the remote control command directly.

¶94

¶95 7, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 1, characterized by that, said control stage mobile terminal can preset program time opening and program channel, send to the signal switching device and keep presetting good Pgmtime and program channel, the signal switching device will be when Pgmtime begins for the first 15 minutes, will send out a enlightening information to the mobile terminal through five

minutes, logging on the system to watch the television program stops sending the enlightening information after sending three enlightening informations to the mobile terminal of time opening of the program, the first such as the mobile terminal when Pgmtime begins and logs on and watches the television program systematically after receiving enlightening informations once every 15 minutes, then the signal switching device does not send the enlightening information again.

¶96

¶97 8, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 7, characterized by that, also include in the switching device of said signal one sends verifying module of data feedback, while sending the data packet information of the video flowing to the mobile terminal continuously, carry on the information authentication of phased feedback, divide the course to send information into multiple time slices automatically, at the end of each time slice, produce a transmission data statistical package automatically, the statistical package is comprised the number of bytes of data packet that the present time slice has already sent S, and send the feedback command of a piece of accepting of data to the terminal station and accept the number that the mobile terminal sendsAccording to feedback, the data feedback packet mobile terminal accept according to bag number of bytes C, send the authentication device of data feedback to carry on the analysis to difference Q that S deducts C, if Q is less than or equal to the scope that sets up, prove that passes, continue the sending of the next fragment data, if Q is greater than the threshold value scope set up, send to the exception record a datum, if has not received the number of bytes C, has suspended the sending of the next fragment data, resume data transmission until receive the number of bytes C, achieve the number of bytes C if has not exceed certain time, stop the transfer process of this data.

¶98

¶99 9, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 8, arbitrary value when characterized by that, the said length of time slice is from 0.04 seconds to one second.

¶100

¶101 10, Method of hierarchical access system of many mobile terminals of the set-top box of digital television according to Claim 9, characterized by that, the said length of time slice is 0.1 seconds.

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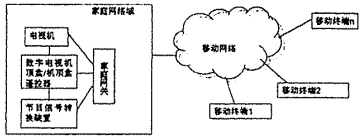
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一种数字电视机顶盒的多移动终端分级访问系统及方法

[57] 摘要

本发明涉及一种数字电视机顶盒的多移动终端分级访问系统及方法，系统包括：电视机顶盒，接收电视节目信号；家庭网络域，由家庭网关、电视机顶盒和信号转换装置组成，所述信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；移动终端为一个以上，分为控制级移动终端和普通级移动终端，移动终端与遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，当移动终端与遥控器或者多个移动终端同时对电视机顶盒发出遥控指令时，信号转换装置接收优先级别高的指令，其中控制级移动终端只有一个且优先级别高于普通级移动终端和遥控器。



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1、一种数字电视机顶盒的多移动终端分级访问系统，该系统包括：

电视机顶盒，接收运营商提供的各种形式的电视节目信号；

家庭网络域，由家庭网关、电视机顶盒和信号转换装置组成，所述信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；其特征在于，所述移动终端为一个以上，分为控制级移动终端和普通级移动终端，移动终端与机顶盒遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令，当最高级别的遥控指令为移动终端发出时，信号转换装置接收优先级别高的遥控指令，信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，当最高级别的遥控指令为机顶盒遥控器发出的时，电视机顶盒直接接收遥控指令，由其中控制级移动终端只有一个且优先级别高于普通级移动终端和机顶盒遥控器。

2、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统，其特征在于，所述电视节目信号分别对应电视频道序号和电视频道名称，在移动终端与视频系统首次连接时，信号转换装置将电视频道序号和电视频道名称生成一个参数文件，并注明该参数文件的最近更新日期时间，并将该参数文件发送给移动终端，移动终端接受后保存起来，以后移动终端登录或播放节目过程中需要更换电视频道，可以从移动终端保存的参数文件中直接提取新的频道编号发送给信号转换装置。

3、如权利要求2所述的数字电视机顶盒的多移动终端分级访问系统，其特征在于，所述移动终端设有遥控模块，当移动终端调用遥控模块时，移动终端显示屏上将显示遥控界面，所述遥控界面与对应遥控器的按键对应设置，所述遥控界面设有学习键，按下学习键时，移动终端将学习所述参数文件使遥控界面与参数文件对应起来，通过触摸移动终端显示屏的遥

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控界面或者通过手机按键操作显示屏的遥控界面发出遥控指令，所述电视节目信号分别对应电视频道序号和电视频道名称发生更新时，信号转换装置将生成一个新参数文件替换原来生成的参数文件，当移动终端再次和信号转换装置连接时，信号转换装置将向移动终端发出提示学习新的参数文件，按下学习键，移动终端将从信号转换装置获取最新的参数文件并进行学习，当移动终端处于家庭网络域当中时，移动终端直接通过家庭网络域接收信号转换装置发送的节目信号并对机顶盒进行遥控。

4、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统，所述信号转换装置设有用户识别号，用户终端安装有客户端软件，设有个人识别号，用户终端根据个人识别号登录信号转换装置，信号转换装置对用户身份进行识别，判断用户识别号是否注册，对首次登录的非注册用户，记录其首先用户终端的用户识别号，存入用户登录库中。

5、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统，其特征在于，所述移动终端通过移动网络访问家庭网关，家庭网关验证后登录，信号转换装置提取电视机顶盒的节目信号，由信号转换装置的节目信号接收模块接收节目信号并进行压缩编码，通过信号转换装置的远距离节目信号射频发射模块向空中发射，移动终端通过移动网络接收信号转换装置发送的节目信号进行播放；所述移动终端可通过移动网络向所述信号转换装置发送遥控指令，信号转换装置的遥控指令接收模块将接收移动终端发出的遥控指令，遥控指令转换模块将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，由遥控指令射频发布模块向电视机顶盒发出红外遥控信号，实现移动终端对电视机顶盒的远程遥控。

6、一种数字电视机顶盒的多移动终端分级访问系统的方法，包括如下步骤：

（1）电视机顶盒，配有机顶盒遥控器，接收运营商提供的各种形式的节目信号；

（2）将家庭网关、电视机顶盒和信号转换装置组成家庭网络域，电视

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机顶盒将节目信号输入至信号转换装置；

（3）多个移动终端通过在家庭网关分别注册，设定其中一个为控制级移动终端，其余为普通级移动终端；

（4）多个移动终端通过移动网络访问家庭网络域，家庭网络域验证后登录至家庭网关，对移动终端和信号转换装置发起连接；

（5）控制级移动终端具有最高遥控的优先级别，通过控制级移动终端由高到低来设定普通级移动终端和机顶盒遥控器的优先级别；

（6）多个移动终端接收信号转换装置发送的节目信号，多个移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令；

（7）当最高级别的遥控指令为移动终端发出时，通过信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号；当最高级别的遥控指令为机顶盒遥控器发出时，电视机顶盒直接接收遥控指令。

7、如权利要求1所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述控制级移动终端可预设节目开始时间和节目频道，并将预设好的节目时间和节目频道发送到信号转换装置并保存，信号转换装置将在节目时间开始时前十五分钟，隔五分钟向移动终端发出一次提示信息，到节目开始时间移动终端没有登录系统收看电视节目则在发送三次提示信息后停止发送提示信息，如移动终端在节目时间开始时前十五分钟收到一次提示信息后并登录系统收看电视节目，则信号转换装置不再发送提示信息。

8、如权利要求7所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述信号转换装置中还包括一个发送数据反馈验证模块，向移动终端持续发送视频流数据包信息时，进行阶段性反馈信息验证，将发送信息的过程自动划分为多个时间片段，在每个时间片段结束时，自动生成一个发送数据统计包，该统计包中包括当前时间片段已发送的数据包字节数S，并向终端发送一个接受数据反馈指令，接受移动终端发来的数

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据反馈，该数据反馈包移动终端接受的据包字节数C，发送数据反馈验证装置对S减去C的差值Q进行分析，如果Q小于或等于设置的范围，验证通过，继续下一片段数据的发送，如果Q大于设置的阈值范围，进行一次数据发送异常记录，如果未收到字节数C，则暂停下一片段数据的发送，直到收到字节数C时恢复数据发送，如果超过一定时间未收到字节数C，则终止本数据发送过程。

9、如权利要求8所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述的时间片段长度为0.04秒至1秒之间的任意值。

10、如权利要求9所述的数字电视机顶盒的多移动终端分级访问系统的方法，其特征在于，所述的时间片段长度为0.1秒。

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一种数字电视机顶盒的多移动终端分级访问系统及方法

技术领域

本发明涉及数字电视技术领域，尤其涉及一种数字电视机顶盒的多移动终端分级访问系统及方法。

背景技术

数字电视技术在发展多年后，已经出现了移动数字电视，让用户随时随地收看精彩的电视节目。尤其随着通信技术的发展，手机、个人数字助理(Personal Digital Assistant,简称PDA)、掌上游戏机等便携式终端渐渐成为移动数字电视的主流。但目前整体移动数字电视体系尚未成熟，大家比较关注的更多是手机电视，国内的移动运营商、电视台、内容提供商/服务提供商(CP/SP)、终端厂商和一些系统集成商，都已经开始关注手机电视这项新业务，并在一定范围内进行了试运行，包括节目的专门制作、数据流量费的调整、适当的推广等，运营商正在逐步培养移动用户随时随地看手机电视的收视习惯，随着智能移动终端日渐普及和价格的下降、移动数据业务资费的不断下调以及影视内容的更别丰富，手机电视业务可望成为3G应用的主流，成为未来3G服务中最受欢迎的业务之一。

从技术层面来看，目前移动手机电视的内容传播技术已经比较成熟，提供主要通过两种方式：一种基于数据流媒体业务；一种是基于数字广播方式。其中数据流媒体业务的手机电视就是移动运营商利用现有移动通信网络向用户提供手机视频业务，如美国著名的通讯公司Sprint、我国的中国移动和中国联通用这种方式推出了手机电视业务。中国移动的手机电视业务是基于通用无线分组业务(General Packet Radio Service,简称GPRS)网络，中国联通则是依靠其码分多址（CDMA1X）网络，这种业务都需要在装有操作系统的手机终端上安装相应的播放软件。

目前制约手机电视发展的一个主要因素就是节目源不足，但另一方面，传

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统的数字电视已经发展多年，而且是在模拟电视的基础上发展起来的，有着几十年的节目资源积累，有非常丰富的节目源。但手机电视采用不同的标准，这些数字电视及模拟电视节目无法直接在手机上播放，必须经过一定的数据转换。为了解决这个问题，有移动运营商推出了手机远程访问家庭中数字电视机顶盒的系统，在家中配置一个数字电视节目转发器，该转发器与数字电视机顶盒连接，可获取数字电视节目内容，用户手通过安装客户端软件，与家中的数字电视节目转发器建立无线连接，就可以收看电视节目了，可以随时随地的收看或浏览高清的数字电视节目，并通过手机对机顶盒电视节目进行遥控，相当于将数字电视的遥控器及节目显示屏幕转移到手机上。

上述技术会带来一个问题，就是当一个家庭的多个成员同时远程遥控家中的数字电视节目转发器，这些手机间就会产生冲突。

发明内容

本发明所要解决的技术问题是克服现有技术的缺点，提供一种数字电视机顶盒的多移动终端分级访问系统及方法。当多个手机同时对特定的一个数字电视节目转发器进行遥控时，有效地解决多手机间的遥控冲突问题。该系统包括：

电视机顶盒，接收运营商提供的各种形式的电视节目信号；

家庭网络域，由家庭网关、电视机顶盒和信号转换装置组成，所述信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；其特征在于，所述移动终端为一个以上，分为控制级移动终端和普通级移动终端，移动终端与机顶盒遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令，当最高级别的遥控指令为移动终端发出时，信号转换装置接收优先级别高的遥控指令，信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，当最高级别的遥控指令机顶为盒遥控器发出的时，电视机顶盒直接接收遥控指令，由其中控制级移动终端只有一个且优先级别高于普通级移动终端和机顶盒遥控器。

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本发明还提供一种数字电视机顶盒的多移动终端分级访问系统的方法，包括如下步骤：

（1）电视机顶盒，配有机顶盒遥控器，接收运营商提供的各种形式的节目信号；

（2）将家庭网关、电视机顶盒和信号转换装置组成家庭网络域，电视机顶盒将节目信号输入至信号转换装置；

（3）多个移动终端通过在家庭网关分别注册，设定其中一个为控制级移动终端，其余为普通级移动终端；

（4）多个移动终端通过移动网络访问家庭网络域，家庭网络域验证后登录至家庭网关，对移动终端和信号转换装置发起连接；

（5）控制级移动终端具有最高遥控的优先级别，通过控制级移动终端由高到低来设定普通级移动终端和机顶盒遥控器的优先级别；

（6）多个移动终端接收信号转换装置发送的节目信号，多个移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令；

（7）当最高级别的遥控指令为移动终端发出时，通过信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号；当最高级别的遥控指令为机顶盒遥控器发出时，电视机顶盒直接接收遥控指令。

本发明的有益效果在于，使用本发明的技术，一个家庭的多个成员可以随时随地的收看或浏览高清的数字电视节目，而且通过设置不同移动终端的操作权限，对机顶盒电视节目进行有效遥控。

附图说明

图1是本发明的系统应用原理图；

图2是本发明方法的实现流程图。

具体实施方式

下面结合附图和实施例对本发明作进一步的描述。

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下面结合附图和实施例对本发明作进一步的描述。

图 1 示出了本发明实施例系统的整体结构。请参见图 1 所示，数字电视运营机构发布的电视节目信号(以 DVB 信号为例)经过有线电视线路进入家庭后传送到电视机顶盒，机顶盒与显示器相连接，本实施例中显示器为电视机，电视机顶盒解码有线电视信号中的数字部分将其中一路已解码的电视节目信号输入至电视并播放。

电视机顶盒与信号转换装置相连接，并将解码后的电视节目信号中另外一路传送至信号转换装置，电视机顶盒、电视机、信号转换装置分别连接至家庭网关组成家庭网络域。

首先根据移动终端的个人识别模块(SIM)、信号转换装置的用户识别号在家庭网关上进行注册，移动终端根据用户识别号移动通过网络向家庭网络域发送连接请求，家庭网关验证移动终端的个人识别模块为注册用户后，建立移动终端与家庭网络域之间的连接。

信号转换装置包括节目信号接收模块、远距离节目信号射频发射模块、遥控指令接收模块、遥控指令转换模块以及遥控指令射频发布模块；所述移动终端通过移动网络访问家庭网关，家庭网关验证后登录，信号转换装置提取电视机顶盒的节目信号，由信号转换装置的节目信号接收模块接收节目信号并进行压缩编码，通过远距离节目信号射频发射模块向空中发射，移动终端通过移动网络接收信号转换装置发送的节目信号进行播放，移动终端安装有客户端软件，接收节目信号并进行播放。所述移动终端可通过移动网络向所述信号转换装置发送遥控指令，信号转换装置的遥控指令接收模块将接收移动终端发出的遥控指令，遥控指令转换模块将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，由遥控指令射频发布模块向电视机顶盒发出红外遥控信号，实现移动终端对电视机顶盒的远程遥控，如开关机，变换节目频道、设定开关机时间，当电视机处于待机状态时也可以对电视机进行遥控如开关机，变换节目频道、调节音量大小、设定开关机时间等。

电视节目信号分别对应电视频道序号和电视频道名称，例如电视频道序号为 01，电视频道名称为数字电视频道名称、例如名称为“CCTV1”，在移动终

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端与视频系统首次连接时，例如首次连接时间日期为2006/01/01,信号转换装置将电视频道序号“01”、电视频道名称“CCTV1”以及连接时间日期“2006/01/01”生成一个参数文件，并记录参数文件的最近更新日期时间，例如记录更新时间为“2006/01/01”，并将该参数文件发送给移动终端，移动终端接受后保存起来，以后移动终端登录或播放节目过程中需要更换电视频道，可以从移动终端保存的参数文件中直接提取新的频道编号发送给信号转换装置。

电视机顶盒配有遥控器，所述移动终端安装的客户端软件还设有遥控模块，当移动终端调用遥控模块时，移动终端显示屏上将显示遥控界面，遥控界面与对应遥控器的按键对应设置，遥控界面上设有学习键，手机用户可以通过触摸移动终端显示屏的遥控界面或者通过手机按键操作显示屏的遥控界面发出遥控指令，当按下学习键时，移动终端将学习参数文件使遥控界面与参数文件对应起来，例如第一次学习的是移动终端首次与信号转换装置无线连接时保存的参数文件，例如上述的：电视频道序号“01”、电视频道名称“CCTV1”以及连接时间日期“2006/01/01”，所述电视节目信号分别对应电视频道序号和电视频道名称发生更新时，信号转换装置将生成一个新参数文件替换原来生成的参数文件，例如电视频道序号“01”对应的电视频道名称为“CCTV3”，当移动终端2006/01/10再次和信号转换装置连接时，信号转换装置将向移动终端发出提示学习新的参数文件，用手机用户按下学习键，移动终端将从信号转换装置获取最新的参数文件并进行学习，学习后的新参数文件为：电视频道序号“01”、电视频道名称“CCTV3”以及连接时间日期“2006/01/10”。当移动终端处于家庭网络域当中时，移动终端直接通过家庭网络域接收信号转换装置发送的节目信号并对机顶盒进行遥控。

可在家庭网关上注册多个移动终端，分为控制级移动终端和普通级移动终端，多个已注册的移动终端可以同时收看信号转换装置发射的节目信号，移动终端与遥控器之间通过控制级移动终端来设定遥控的优先级别，优先级别由高到低，当移动终端与遥控器或者多个移动终端同时对电视机顶盒发出遥控指令时，电视机顶盒接收优先级别高的指令，其中控制级移动终端只有一个且优先

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级别高于普通级移动终端和遥控器。在这里分别设定多个移动终端以及电视机顶盒遥控器的优先权级别，例如，多个注册的移动终端：移动终端 A、移动终端 B、移动终端 C 以及一个遥控器 D，其中移动终端 A 为控制级，移动终端 B 和 C 为普通级，移动终端 A 优先级别最高，移动终端 B 和 C、遥控器 D 的优先可以通过移动终端 A 来设定，例如设定 B 高于 C、C 高于 D，则 A、B、C、D 对应的权级别为 1、2、3、4，设定优先级别 1>2>3>4，当移动终端 A、移动终端 B、移动终端 C 以及机顶盒遥控器 D 的中二个或二个以上成员同时对电视机顶盒发出遥控指令时，如果最高级别的遥控指令为移动终端 B 发出时，信号转换装置接收优先级别高的遥控指令，信号转换装置将移动终端 B 发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号，当最高级别的遥控指令为机顶盒遥控器 D 发出的时，电视机顶盒直接接收遥控指令。

信号转换装置将记录电视频道序号和对应的电视频道名称的收看时间长和收看频率，在移动终端登录系统时，信号转换装置首先将根据电视频道序号和名称的收看频率，将收看频率最高的电视频道序号和名称发送至移动终端登默认收看，在收看频率相同的情况下，再根据收看时间长最长的看频率最高的电视频道序号和名称发送至移动终端登默认收看。例如，频道序号01、名称CCTV1的收看频率为10次，收看时间长为2小时，频道序号02、名称CCTV2的收看频率为20次，收看时间长为1小时，则首先根据收看频率20次大于10次，将频道序号02、名称CCTV2发送至移动终端登默认收看；又如，频道序号03、名称CCTV3的收看频率为15次，收看时间长为4小时，频道序号04、名称CCTV4的收看频率为15次，收看时间长为3小时，收看频率相同为15次，则根据收看时间长为4小时大于3小时将频道序号03、名称CCTV3发送至移动终端登默认收看。

当移动终端处于家庭网络域当中时，移动终端登录后直接通过家庭网络域接收信号转换装置发送的节目信号及对机顶盒进行遥控，不需要通过移动网络来建立移动终端与家庭网络域之间的连接。

如图2是本发明的方法实施例的流程示意图，如图所示，实施的流程为：

步骤101，电视机顶盒，配有机顶盒遥控器，接收运营商提供的各种形式的节目信号；

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步骤102，将家庭网关、电视机顶盒和信号转换装置组成家庭网络域，电视机顶盒将节目信号输入至信号转换装置；

步骤103，多个移动终端通过在家庭网关分别注册，设定其中一个为控制级移动终端，其余为普通级移动终端；

步骤104，多个移动终端通过移动网络访问家庭网络域，家庭网络域验证后登录至家庭网关，对移动终端和信号转换装置发起连接；

步骤105，控制级移动终端具有遥控的优先级别，通过控制级移动终端由高到低来设定普通级移动终端和机顶盒遥控器的优先级别；

步骤106，多个移动终端接收信号转换装置发送的节目信号，多个移动终端与机顶盒遥控器或者多个移动终端同时对电视机顶盒发出遥控指令；

步骤107，当最高级别的遥控指令为移动终端发出时，通过信号转换装置将移动终端发出的遥控指令转换为电视机顶盒可接收并识别的红外遥控信号；当最高级别的遥控指令为机顶盒遥控器发出时，电视机顶盒直接接收遥控指令。

以上所述控制级移动终端可预设节目开始时间和节目频道，并将预设好的节目时间和节目频道发送到信号转换装置并保存，信号转换装置将在节目时间开始时前十五分钟，隔五分钟向移动终端发出一次提示信息，到节目开始时间移动终端没有登录系统收看电视节目则在发送三次提示信息后停止发送提示信息，如移动终端在节目时间开始时前十五分钟收到一次提示信息后并登录系统收看电视节目，则信号转换装置不再发送提示信息，移动终端可预设节目开始时间和节目频道，并将预设好的节目时间和节目频道发送到信号转换装置并保存，一般移动终端用户了解某节目频道的节目开始时间，例如预设节目开始时间为：2006/01/20日上午10：30，节目频道为“CCTV1”，为了保证用户能够及时收看到预设节目频道，节目信号转换装置将在节目时间开始时前十分钟，首先信号转换装置将发出检测信息检测移动终端是否处于开机状态，若处于开机状态，隔五分钟向移动终端发出一次提示信息，在10：20发出第一次提示，10：25发出第二次提示，10：30发出第三次提示，到10：30节目开始时间移动终端没有登录系统收看电视节目则在发送三次提示信息后停止发送提示

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信息，如移动终端在节目时间开始时前十分钟收到第一次或第二提示信息时登录系统收看电视节目，则信号转换装置后续不再发送第二次或第三次提示信息。。

移动终端具有个人识别号（例如移动终端SIM卡的卡号），信号转换装置具有用户识别号（信号转换装置插装有用户识别卡USIM具有唯一的卡号），家庭网络域判断个人识别号是否与用户识别号对应注册，如果是则移动终端登录到家庭网关。

所述步骤（3）还包括以下步骤：

信号转换装置向移动终端持续发送节目信号的视频流数据包信息，将发送信息的过程自动划分为多个时间片段，在每个时间片段结束时，自动生成一个发送数据统计包，该统计包中包括当前时间片段已发送的数据包字节数S，并向终端发送一个接受数据反馈指令；

信号转换装置接受移动终端发来的数据反馈，该数据反馈包移动终端接收数据包的字节数C，发送数据反馈验证装置对S减去C的差值Q进行分析，如果Q小于或等于设置的范围，验证通过，继续下一片段数据的发送，

如果Q大于设置的阈值范围，进行一次数据发送异常记录，如果未收到字节数C，则暂停下一片段数据的发送，直到收到字节数C时恢复数据发送，如果超过一定时间未收到字节数C，则终止本数据发送过程。上述的一个时间片段内发射一帧节目信号，时间片段设定范围为0.04秒至1秒为一个时间片段。

对上述技术方案的进一步改进在于，所述的时间片段长度为0.04秒至1秒之间的任意值。在这个片段下，0.04秒为每秒播放25帧画面，是人眼观看的理想流畅帧率，1秒为人眼忍受的动画效果极限，如果多于1秒，画面的流畅性就很差，失去视频播放的效果了。

对上述技术方案中的时间片段长度可进一步限定为0.1秒，在这个时间片段下，对资源的利用可达到最经济，可满足在不稳定的移动网络环境下，多手机同时访问远程的家庭数字电视机顶盒。

对上述的技术方案还可以进一步优化，家庭网络域系统动态自动检测移动网络的信道变化，并根据与之连接的移动终端的数量，在 0.04 秒至 1 秒间自

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动调整时间片段值，如网络状态良好，较少移动终端访问时，采用将小的时间片段，以提高移动终端上的播放质量，在网络状态不好，较多移动终端访问时，采用将大的时间片段，通过牺牲一部分播放质量来保障每部移动终端都能收到机顶盒中的电视节目，防止出现系统停滞或部分移动终端无法访问的现象。

以上所述仅为本发明的较佳实施例而已，并不用以限制本发明，凡在本发明的精神和原则之内所作的任何修改、等同替换和改进等，均应包含在本发明的保护范围之内。

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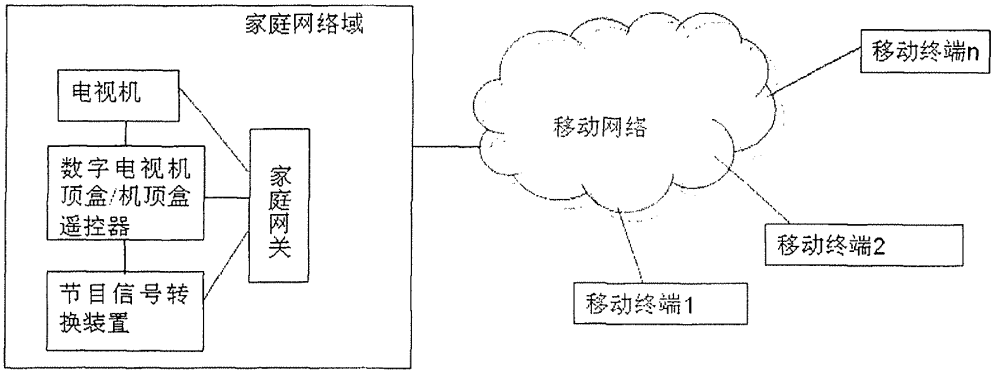


图1

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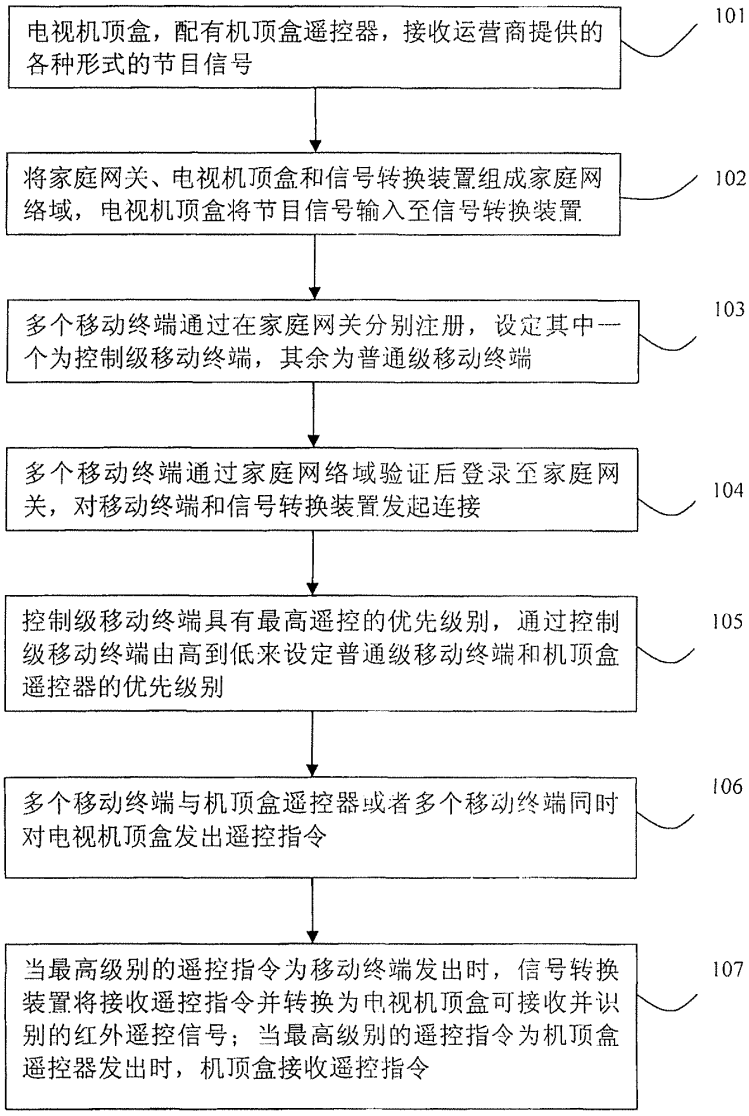


图2

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Espacenet

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Service authority control method, terminal and system based on subnet

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- cooperative:

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Priority number (s): CN20101278460 20100910

Abstract of CN101951368 (A)

The invention relates to a service authority control method, a terminal and a system based on a subnet, wherein the method comprises the steps of: receiving a service command carrying identity identification, sent by a control device, by a controlled device; identifying the priority of the control device according to the identity identification in the service command and a preset priority table; and executing the service command of the control device with highest priority. When a plurality of control devices send the service commands to the controlled device, the controlled device identifies the priority of all control devices according to the identity identification of the control device and executes the service command of the control device with the highest priority, which avoids the problem of chaotic service authority.

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[57]ABSTRACT: The invention relates to a service authority control method, a terminal and a system based on a subnet, wherein the method comprises the steps of: receiving a service command carrying identity identification, sent by a control device, by a controlled device; identifying the priority of the control device according to the identity identification in the service command and a preset priority table; and executing the service command of the control device with highest priority. When a plurality of control devices send the service commands to the controlled device, the controlled device identifies the priority of all control devices according to the identity identification of the control device and executes the service command of the control device with the highest priority, which avoids the problem of chaotic service authority.

¶11 # Description

¶12 **On the basis of service authority control method, terminal station and system of the subnet**

¶13 Technical field

¶14 The invention relates to correlative technology field of tri-networks integration, especially relate to a authority control method of service based on UPNP subnet, terminal station and system.

¶15 Background Art

¶16 At present, UPNP (Universal Plug and Play, common plug-and-play agreement) sub network system gets the increasingly extensive application in the family, in the UPNP sub network system, when there is a controlled apparatus (such as the set-top box) of simultaneous operation of multiple control appliances (such as all mobile phones of kinsfolks in a family), the controlled apparatus can't send out the control apparatus to serve control command and service to all at the same time, which control which controls the apparatus controlled apparatus should accept to be among them, therefore produced and served the confused problem of access control.

¶17 Invention content

¶18 The technical matter that the invention wants to solve lies in providing authority control methods, terminal station and system of a service based on subnet, aim at the confused problem of service authority caused while preventing multiple control appliances from operating a controlled apparatus at the same time.

¶19 The invention proposes a service authority control method based on subnet, comprising:

¶20 Carrying the service order of the identification label of receive control equipment sending of the controlled apparatus;

¶21 According to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶22 Service order of the topgallant control appliance of executive priority.

¶23 Preferably, receive control equipment sending of the said controlled apparatus also includes before carrying the step of the service order of the identification label:

¶24 The controlled apparatus establishes and includes controlling apparatus identification label and said priority list of the corresponding relation of the priority.

¶25 Preferably, the said identification label in the order according to serving, and the priority list of initialization includes the step in which the said control appliance carries on priority qualification specifically:

¶26 Look for the priority of corresponding to identification label of the said control appliance in the controlled apparatus is from the said priority list;

¶27 Set out and send and serve the topgallant control appliance of priority in every control appliance of the order according to the said priority qualification.

¶28 Preferably, the step of the service order of carrying the identification label of receive control equipment sending of the said controlled apparatus includes specifically:

¶29 The controlled apparatus, through carrying the service order of the identification label of common plug-and-play agreement UPNP receive control equipment sending.

¶30 Preferably, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶31 The invention proposes a service authority control terminal based on subnet, including:

¶32 The receiving module, the service order used for carrying the identification label of equipment sending of receive control;

¶33 The qualification module of priority, for according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶34 Control the service module, the service order used for topgallant control appliance of executive priority.

¶35 Preferably, the said terminal station also includes:

¶36 Establish module, connects with said receiving module, the said priority list used for establishing and including identification label and corresponding relation of the priority of the control appliance.

¶37 Preferably, the qualification module of said priority includes:

¶38 Find out the unit, is used for looking for the priority of corresponding to identification label of the said control appliance from the said priority list;

¶39 Appraise unit, use for set out give serve every of order control priority supreme controlate apparatus under apparatus according to said priority qualification.

¶40 The invention still proposes a service authority control system based on subnet, including control appliance and controlled apparatus connecting said control appliance through said subnet, wherein:

¶41 Said control appliance, use for to controll equipment sending carry should control apparatus service order of identification label;

¶42 The said controlled apparatus, used for receiving the said service order, and according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance; And the service order of the topgallant control appliance of executive priority.

¶43 Preferably, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶44 The invention proposes a authority control method of service based on subnet, terminal station and system, pass identification label and corresponding relation of the priority of the control appliance, when the multiple control apparatus is ordered to the routing service of the controlled apparatus to existing, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, and the service order of the topgallant control appliance of executive priority, thus has avoided serving the confused problem of the authority.

¶45 Brief description of the drawing

¶46 Fig. 1 is the conspectus of embodiment of the first method of access control of service that the invention is based on the subnet;

¶47 Fig. 2 is according to serving the identification label in the order in the first method embodiments of access control of service based on subnet of the invention, and the priority list of initialization carries on the concrete conspectus of priority qualification to the control appliance;

¶48 Fig. 3 is another embodiment conspectus of control method of service authority that the invention is based on the subnet;

¶49 Fig. 4 is one embodiment structural representation of service authority control terminal that the invention is based on the subnet;

¶50 Fig. 5 is the structural representation of qualification module of priority in one embodiment of service authority control terminal that the invention is based on the subnet;

¶51 Fig. 6 is another embodiment structural representation of control terminal of service authority that the invention is based on the subnet;

¶52 Fig. 7 is an embodiment structural representation of service authority control system that the invention is based on the subnet.

¶53 To make the technological scheme of the invention clearer, clear, will now further enlarge on in conjuction with drawings.

¶54 Concrete mode of execution

¶55 The embodiment solution of the invention is mainly: Pass identification label and corresponding relation of the priority of the control appliance, when the multiple control apparatus is ordered to the routing service of the controlled apparatus to existing, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, and the service order of the topgallant control appliance of executive priority.

¶56 As shown in Fig. 1, an embodiment of the invention proposes a service authority control method based on subnet, including:

¶57 Step S101, carrying the service order of the identification label of receive control equipment sending of the controlled apparatus;

¶58 Step S102, according to serving the identification label in the order, and the priority list of initialization carries on the priority qualification to the control appliance;

¶59 Step S103, the service order of the topgallant control appliance of executive priority.

¶60 Sub network system of running environment based on UPNP subnet or other interconnections Interworking protocol of the method of this embodiment, taking UPNP subnet as examples, this embodiment controlled apparatus and control the apparatus to link to the UPNP subnet, control appliance to controll equipment sending carry should control apparatus service order of identification label through UPNP.

¶61 In this embodiment, the control appliance can be a mobile terminal, the controlled

apparatus can be a set-top box.

¶62 This embodiment regards controlled apparatus as the set-top box, controls the apparatus to explain for the example for the mobile phone, but it is a set-top box not to restrictive of the controlled apparatus, controls the situation of the apparatus as the mobile phone.

¶63 When multiple mobile phones require the set-top box to carry out and serve the order to the routing service order of the set-top box, identification label of every mobile phone that the service order according to each mobile phone sending carries of set-top box, find out the priority list of initialization stored in the set-top box, has recorded each mobile phone identification label and corresponding relation of the priority of the service authority in the priority list, through find out the priority list, can obtain all routing service priority topgallant the Mobile under mobile phone of order already, thus, the set-top box accepts the control of the topgallant mobile phone of the priority, that the topgallant mobile phone of the priority offers service of corresponding to his service order, and such as the current priority topgallant mobile phone demanded to request a certain television program for the service order of the mobile phone before break execution, the set-top box carries out the service order of the mobile phone, leave the original television program shelf, regulate to the television program shelf that the mobile phone of the priority requests at present the most.

¶64 Need to prove, the priority list of initialization, the all right initialization is on controlled apparatus such as set-top box, can be imported by oneself through the interface of editor on the controlled apparatus by users too.Regard subnet set up between set-top box and all mobile phones of kinsfolks in a family as the example, can set up the priority of every mobile phone in the priority list on the set-top box in advance, corresponding identification label of mobile phone of every priority.Later, the set-top box can accept the service order of the corresponding mobile phone services for it according to the priority of every mobile phone.

¶65 As shown in Fig. 2, step S102 includes:

¶66 Step S1021, the priority that the controlled apparatus finds out and controls the identification label of the apparatus to be corresponding from the priority list;

¶67 Step S1022, the priority qualification of the foundation set out and sent and served the topgallant control appliance of priority in every control appliance of the order.

¶68 As shown in Fig. 3, another embodiment of the invention proposes a service authority control method based on subnet, on the basis of above-mentioned embodiment,

wherein, also include before step S101:

¶69 Step S100, the controlled apparatus establishes and includes controlling apparatus identification label and priority list of the corresponding relation of the priority.

¶70 In this embodiment, can be established and include controlling apparatus identification label and priority list of the corresponding relation of the priority by the controlled apparatus, then, store the preset priority list in the controlled apparatus, the priority list can be set in controlled apparatus such as set-top box directly, can be imported by oneself through the interface of editor on the controlled apparatus by users too.

¶71 This embodiment passes identification label and corresponding relation of the priority of the control appliance, when multiple control appliances are ordered to the routing service of the controlled apparatus, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, the service order of the topgallant control appliance of executive priority, thus has avoided serving the confused problem of the authority.

¶72 As shown in Fig. 4, an embodiment of the invention proposes a service authority control terminal based on subnet, including: The receiving module 401, the qualification module 402 of priority and control the service module 403, wherein,

¶73 The receiving module 401, the service orders used for carrying the identification label of equipment sending of receive control;

¶74 The qualification module 402 of priority, for according to serving the identification label in the order, and the priority list of initialization carries on the priority qualification to the control appliance;

¶75 Control the service module 403, the service orders used for topgallant control appliance of executive priority.

¶76 The terminal station of this embodiment can be a set-top box, control the apparatus can be a mobile terminal, such as the mobile phone.

¶77 This embodiment until terminal station for set-top box, control apparatus go on prove for mobile phone for example, but it is a set-top box not to restrictive of the terminal station, controls the situation of the apparatus as the mobile phone.

¶78, identification label of every mobile phone that the service order according to each mobile phone sending carries of set-top box, find out the priority list of initialization stored in the set-top box, has recorded each mobile phone identification label and corresponding relation of the priority of the service authority in the priority list, through find out the priority list, can obtain all routing service priority topgallant the Mobile

under mobile phone of order already, thus, the set-top box accepts the control of the topgallant mobile phone of the priority, that the topgallant mobile phone of the priority offers service of corresponding to his service order, and such as the current priority topgallant mobile phone demanded to request a certain television program for the service order of the mobile phone before break execution, the set-top box carries out the service order of the mobile phone, leave the original television program shelf, regulate to the priority at present the mostMobile phone that institute more request than television program for.

¶79 Need to prove, the priority list of initialization, the all right initialization is on controlled apparatus such as set-top box, can be imported by oneself through the interface of editor on the controlled apparatus by users too.Regard subnet set up between set-top box and all mobile phones of kinsfolks in a family as the example, can set up the priority of every mobile phone in the priority list on the set-top box in advance, corresponding identification label of mobile phone of every priority.Later, the set-top box can accept the service order of the corresponding mobile phone services for it according to the priority of every mobile phone.

¶80 As shown in Fig. 5, in this embodiment, the qualification module 402 of priority includes:

¶81 Find out unit 4021, is used for looking for the priority of corresponding to identification label of the said control appliance from the priority list;

¶82 Appraise 4022 unit, use for set out give serve every of order control priority supreme controlate apparatus under apparatus according to priority qualification.

¶83 As shown in Fig. 6, another embodiment of the invention proposes a service authority control terminal based on subnet, on the basis of above-mentioned embodiment, the terminal station also includes:

¶84 Establish the module 400, connects with receiving module 401, the priority list used for establishing and including identification label and corresponding relation of the priority of the control appliance.

¶85 In this embodiment, can be established and includes controlling apparatus identification label and priority list of the corresponding relation of the priority by the terminal establishment module 400, then, store the preset priority list in the controlled apparatus, the priority list can be set in controlled apparatus such as set-top box directly, can be imported by oneself through the interface of editor on the controlled apparatus by users too.

¶86 As shown in Fig. 7, an embodiment of the invention proposes a service authority control

system based on subnet, include the control appliance 701 and controlled apparatus 702 connecting control appliance 701 through subnet, wherein:

¶87 The control appliance 701, is used for sending and carrying the service order that should control the identification label of the apparatus 701 to the controlled apparatus 702;

¶88 The controlled apparatus 702, used for receiving and serving the order, and according to serving the identification label in the order, and the priority list of initialization carries on the priority qualification to the said control appliance; And the service order of the topgallant control appliance of executive priority.

¶89 In this embodiment, control the apparatus 701 to be preferably the mobile terminal such as mobile phone, the controlled apparatus 702 is preferably the set-top box.

¶90 This embodiment regards controlled apparatus 702 as the set-top box, controls the apparatus 701 to explain for the example for the mobile phone, but it is the set-top box not to restrictive of the controlled apparatus 702, control the apparatus 701 to be the situation of the mobile phone.

¶91 , identification label of every mobile phone that the service order according to each mobile phone sending carries of set-top box, find out the priority list of initialization stored in the set-top box, has recorded each mobile phone identification label and corresponding relation of the priority of the service authority in the priority list, through find out the priority list, can obtain all routing service priority topgallant the Mobile under mobile phone of order already, thus, the set-top box accepts the control of the topgallant mobile phone of the priority, that the topgallant mobile phone of the priority offers service of corresponding to his service order, and such as the current priority topgallant mobile phone demanded to request a certain television program for the service order of the mobile phone before break execution, the set-top box carries out the service order of the mobile phone, leave the original television program shelf, regulate to the television program shelf that the mobile phone of the priority requests at present the most.

¶92 Need to prove, the priority list of initialization, the all right initialization is on controlled apparatus such as set-top box, can be imported by oneself through the interface of editor on the controlled apparatus by users too.Regard subnet set up between set-top box and all mobile phones of kinsfolks in a family as the example, can set up the priority of every mobile phone in the priority list on the set-top box in advance, corresponding identification label of mobile phone of every priority.Later, the set-top box can accept

the service order of the corresponding mobile phone services for it according to the priority of every mobile phone.

¶93 The embodiments of the invention pass identification label and corresponding relation of the priority of the control appliance, when multiple control appliances are ordered to the routing service of the controlled apparatus, controlled apparatus according to control identification label of apparatus control the apparatus to go on the priority qualification to all, the service order of the topgallant control appliance of executive priority, thus has avoided serving the confused problem of the authority.

¶94 State the preferred embodiments that is only the invention above, do not limit the patent scope of the invention, every utilizes equivalent structure or procedure that this description of invention and drawing content does to vary, or use in other associated technical fields directly or indirectly, the same is included in scope of patent protection of the invention.

¶95

¶96 ## Claims

¶97 1.A service authority control method based on subnet, characterized by, comprising:

¶98 Carrying the service order of the identification label of receive control equipment sending of the controlled apparatus;

¶99 According to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶100 Service order of the topgallant control appliance of executive priority.

¶101

¶102 2.Method as stated in Claim 1, characterized by that, also include before receive control equipment sending of the said controlled apparatus carries the step of the service order of the identification label:

¶103 The controlled apparatus establishes and includes controlling apparatus identification label and said priority list of the corresponding relation of the priority.

¶104

¶105 3.The method as stated in Claim 1 or 2, characterized by, the said identification label in the order according to serving, and the priority list of initialization includes the step in which the said control appliance carries on priority qualification specifically:

¶106 Look for the priority of corresponding to identification label of the said control

appliance in the controlled apparatus is from the said priority list;

¶107 Set out and send and serve the topgallant control appliance of priority in every control appliance of the order according to the said priority qualification.

¶108

¶109 4.Method as stated in Claim 3, characterized by that, the step of the service order of carrying the identification label of receive control equipment sending of the said controlled apparatus includes specifically:

¶110 The controlled apparatus, through carrying the service order of the identification label of common plug-and-play agreement UPNP receive control equipment sending.

¶111

¶112 5.The method as stated in Claim 4, characterized by, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶113

¶114 6.A service authority control terminal based on subnet, characterized by, including:

¶115 The receiving module, use for the service order of carrying the identification label of equipment sending of receive control;

¶116 The qualification module of priority, for according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance;

¶117 Control the service module, the service order used for topgallant control appliance of executive priority.

¶118

¶119 7.The terminal station as stated in Claim 6, characterized by, the said terminal station also includes:

¶120 Establish module, connects with said receiving module, the said priority list used for establishing and including identification label and corresponding relation of the priority of the control appliance.

¶121

¶122 8.The terminal station as stated in Claim 6 or 7, characterized by, the qualification module of said priority includes:

¶123 Find out the unit, is used for looking for the priority of corresponding to identification label of the said control appliance from the said priority list;

¶124 Appraise unit, use for set out give serve every of order control priority supreme

controlate apparatus under apparatus according to said priority qualification.

¶125

¶126 9.A service authority control system based on subnet, characterized by, including control appliance and controlled apparatus connecting said control appliance through said subnet, wherein:

¶127 Said control appliance, use for to controll equipment sending carry should control apparatus service order of identification label;

¶128 The said controlled apparatus, used for receiving the said service order, and according to the identification label in the said service order, and the priority list of initialization carries on the priority qualification to the said control appliance; And the service order of the topgallant control appliance of executive priority.

¶129

¶130 10.The system as stated in Claim 9, characterized by, the said control appliance is a mobile terminal; The said controlled apparatus is a set-top box.

¶131

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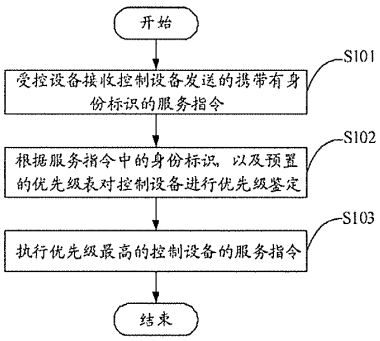
权利要求书 1 页 说明书 5 页 附图 3 页

(54)发明名称

基于子网络的服务权限控制方法、终端及系统

(57)摘要

本发明涉及一种基于子网络的服务权限控制方法、终端及系统，其中方法包括：受控设备接收控制设备发送的携带有身份标识的服务指令；根据服务指令中的身份标识，以及预置的优先级表对控制设备进行优先级鉴定；执行优先级最高的控制设备的服务指令。本发明当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，并执行优先级最高的控制设备的服务指令，避免了服务权限混乱的问题。



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1. 一种基于子网络的服务权限控制方法，其特征在于，包括以下步骤：

受控设备接收控制设备发送的携带有身份标识的服务指令；

根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

执行优先级最高的控制设备的服务指令。

2. 根据权利要求 1 所述的方法，其特征在于，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤之前还包括：

受控设备创建包含控制设备身份标识与优先级对应关系的所述优先级表。

3. 根据权利要求 1 或 2 所述的方法，其特征在于，所述根据服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定的步骤具体包括：

受控设备从所述优先级表中查找与所述控制设备身份标识对应的优先级；

根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

4. 根据权利要求 3 所述的方法，其特征在于，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤具体包括：

受控设备通过通用即插即用协议 UPNP 接收控制设备发送的携带有身份标识的服务指令。

5. 根据权利要求 4 所述的方法，其特征在于，所述控制设备为移动终端；所述受控设备为机顶盒。

6. 一种基于子网络的服务权限控制终端，其特征在于，包括：

接收模块，用于接收控制设备发送的携带有身份标识的服务指令；

优先级鉴定模块，用于根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

控制服务模块，用于执行优先级最高的控制设备的服务指令。

7. 根据权利要求 6 所述的终端，其特征在于，所述终端还包括：

创建模块，与所述接收模块连接，用于创建包含控制设备身份标识与优先级对应关系的所述优先级表。

8. 根据权利要求 6 或 7 所述的终端，其特征在于，所述优先级鉴定模块包括：

查找单元，用于从所述优先级表中查找与所述控制设备身份标识对应的优先级；

鉴定单元，用于根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

9. 一种基于子网络的服务权限控制系统，其特征在于，包括控制设备以及与所述控制设备通过所述子网络连接的受控设备，其中：

所述控制设备，用于向受控设备发送携带有该控制设备身份标识的服务指令；

所述受控设备，用于接收所述服务指令，并根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；以及执行优先级最高的控制设备的服务指令。

10. 根据权利要求 9 所述的系统，其特征在于，所述控制设备为移动终端；所述受控设备为机顶盒。

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基于子网络的服务权限控制方法、终端及系统

技术领域

[0001] 本发明涉及三网融合相关技术领域，尤其涉及一种基于 UPNP 子网络的服务权限控制方法、终端及系统。

背景技术

[0002] 目前，UPNP(Universal Plug and Play，通用即插即用协议）子网络系统在家庭中得到越来越广泛的应用，在该 UPNP 子网络系统中，当存在多个控制设备（比如一个家庭中各家庭成员手机）同时操作一个受控设备（比如机顶盒）时，受控设备不能同时为所有发出服务控制指令的控制设备提供服务，受控设备该接受其中哪台控制设备的控制，由此产生服务权限控制混乱的问题。

发明内容

[0003] 本发明所欲解决的技术问题在于提供一种基于子网络的服务权限控制方法、终端及系统，旨在避免多个控制设备同时操作一个受控设备时造成的服务权限混乱的问题。

[0004] 本发明提出一种基于子网络的服务权限控制方法，包括以下步骤：

[0005] 受控设备接收控制设备发送的携带有身份标识的服务指令；

[0006] 根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

[0007] 执行优先级最高的控制设备的服务指令。

[0008] 优选地，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤之前还包括：

[0009] 受控设备创建包含控制设备身份标识与优先级对应关系的所述优先级表。

[0010] 优选地，所述根据服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定的步骤具体包括：

[0011] 受控设备从所述优先级表中查找与所述控制设备身份标识对应的优先级；

[0012] 根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0013] 优选地，所述受控设备接收控制设备发送的携带有身份标识的服务指令的步骤具体包括：

[0014] 受控设备通过通用即插即用协议 UPNP 接收控制设备发送的携带有身份标识的服务指令。

[0015] 优选地，所述控制设备为移动终端；所述受控设备为机顶盒。

[0016] 本发明提出一种基于子网络的服务权限控制终端，包括：

[0017] 接收模块，用于接收控制设备发送的携带有身份标识的服务指令；

[0018] 优先级鉴定模块，用于根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；

[0019] 控制服务模块，用于执行优先级最高的控制设备的服务指令。

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[0020] 优选地，所述终端还包括：

[0021] 创建模块，与所述接收模块连接，用于创建包含控制设备身份标识与优先级对应关系的所述优先级表。

[0022] 优选地，所述优先级鉴定模块包括：

[0023] 查找单元，用于从所述优先级表中查找与所述控制设备身份标识对应的优先级；

[0024] 鉴定单元，用于根据所述优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0025] 本发明还提出一种基于子网络的服务权限控制系统，包括控制设备以及与所述控制设备通过所述子网络连接的受控设备，其中：

[0026] 所述控制设备，用于向受控设备发送携带有该控制设备身份标识的服务指令；

[0027] 所述受控设备，用于接收所述服务指令，并根据所述服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；以及执行优先级最高的控制设备的服务指令。

[0028] 优选地，所述控制设备为移动终端；所述受控设备为机顶盒。

[0029] 本发明提出一种基于子网络的服务权限控制方法、终端及系统，通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，并执行优先级最高的控制设备的服务指令，从而避免了服务权限混乱的问题。

附图说明

[0030] 图 1 是本发明基于子网络的服务权限控制方法一实施例流程示意图；

[0031] 图 2 是本发明基于子网络的服务权限控制方法一实施例中根据服务指令中身份标识，以及预置的优先级表对控制设备进行优先级鉴定的具体流程示意图；

[0032] 图 3 是本发明基于子网络的服务权限控制方法另一实施例流程示意图；

[0033] 图 4 是本发明基于子网络的服务权限控制终端一实施例结构示意图；

[0034] 图 5 是本发明基于子网络的服务权限控制终端一实施例中优先级鉴定模块的结构示意图；

[0035] 图 6 是本发明基于子网络的服务权限控制终端另一实施例结构示意图；

[0036] 图 7 是本发明基于子网络的服务权限控制系统一实施例结构示意图。

[0037] 为了使本发明的技术方案更加清楚、明了，下面将结合附图作进一步详述。

具体实施方式

[0038] 本发明实施例解决方案主要是：通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，并执行优先级最高的控制设备的服务指令。

[0039] 如图 1 所示，本发明一实施例提出一种基于子网络的服务权限控制方法，包括：

[0040] 步骤 S101，受控设备接收控制设备发送的携带有身份标识的服务指令；

[0041] 步骤 S102，根据服务指令中的身份标识，以及预置的优先级表对控制设备进行优先级鉴定；

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[0042] 步骤 S103，执行优先级最高的控制设备的服务指令。

[0043] 本实施例方法运行环境基于 UPNP 子网络或其它互连互通协议之上的子网络系统，以 UPNP 子网络为例，本实施例受控设备与控制设备连接于该 UPNP 子网络中，控制设备通过 UPNP 向受控设备发送携带有该控制设备身份标识的服务指令。

[0044] 本实施例中，控制设备可以为移动终端，受控设备可以为机顶盒。

[0045] 本实施例以受控设备为机顶盒、控制设备为手机为例进行说明，但不限于受控设备为机顶盒、控制设备为手机的情形。

[0046] 当有多个手机对机顶盒发送服务指令要求机顶盒执行服务指令时，机顶盒则根据各个手机发送的服务指令携带的各手机的身份标识，查找存储在机顶盒内的预置的优先级表，该优先级表中记录了各个手机身份标识与服务权限的优先级的对应关系，通过查找该优先级表，则可得出所有已发送服务指令的手机中优先级最高的那个手机，从而，机顶盒接受该优先级最高的手机的控制，即为该优先级最高的手机提供对应其服务指令的服务，而中断执行之前手机的服务指令，比如当前优先级最高的手机要求点播某一档电视节目，机顶盒便执行该手机的服务指令，离开原有电视节目档，调至当前最优先级的手机所点播的电视节目档。

[0047] 需要说明的是，预置的优先级表，可以预置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。以一个家庭中各家庭成员手机与机顶盒之间建立的子网络为例，可以预先在机顶盒上的优先级表内设置各手机的优先级，每一优先级对应一个手机的身份标识。之后，机顶盒便可根据各手机的优先级接受相应的手机的服务指令为其提供服务。

[0048] 如图 2 所示，步骤 S102 包括：

[0049] 步骤 S1021，受控设备从优先级表中查找与控制设备身份标识对应的优先级；

[0050] 步骤 S1022，根据优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0051] 如图 3 所示，本发明另一实施例提出一种基于子网络的服务权限控制方法，在上述实施例的基础上，其中，在步骤 S101 之前还包括：

[0052] 步骤 S100，受控设备创建包含控制设备身份标识与优先级对应关系的优先级表。

[0053] 在本实施例中，可以由受控设备创建包含控制设备身份标识与优先级对应关系的优先级表，然后，将该预置的优先级表存储在受控设备上，该优先级表可以直接设置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。

[0054] 本实施例通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，执行优先级最高的控制设备的服务指令，从而避免了服务权限混乱的问题。

[0055] 如图 4 所示，本发明一实施例提出一种基于子网络的服务权限控制终端，包括：接收模块 401、优先级鉴定模块 402 以及控制服务模块 403，其中，

[0056] 接收模块 401，用于接收控制设备发送的携带有身份标识的服务指令；

[0057] 优先级鉴定模块 402，用于根据服务指令中的身份标识，以及预置的优先级表对控制设备进行优先级鉴定；

[0058] 控制服务模块 403，用于执行优先级最高的控制设备的服务指令。

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[0059] 本实施例终端可以为机顶盒，控制设备可以为移动终端，比如手机。

[0060] 本实施例以终端为机顶盒、控制设备为手机为例进行说明，但不限于终端为机顶盒、控制设备为手机的情形。

[0061] 当有多个手机对机顶盒发送服务指令要求机顶盒执行服务指令时，机顶盒则根据各个手机发送的服务指令携带的各手机的身份标识，查找存储在机顶盒内的预置的优先级表，该优先级表中记录了各个手机身份标识与服务权限的优先级的对应关系，通过查找该优先级表，则可得出所有已发送服务指令的手机中优先级最高的那个手机，从而，机顶盒接受该优先级最高的手机的控制，即为该优先级最高的手机提供对应其服务指令的服务，而中断执行之前手机的服务指令，比如当前优先级最高的手机要求点播某一档电视节目，机顶盒便执行该手机的服务指令，离开原有电视节目档，调至当前最优先级的手机所点播的电视节目档。

[0062] 需要说明的是，预置的优先级表，可以预置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。以一个家庭中各家庭成员手机与机顶盒之间建立的子网络为例，可以预先在机顶盒上的优先级表内设置各手机的优先级，每一优先级对应一个手机的身份标识。之后，机顶盒便可根据各手机的优先级接受相应的手机的服务指令为其提供服务。

[0063] 如图 5 所示，在本实施例中，优先级鉴定模块 402 包括：

[0064] 查找单元 4021，用于从优先级表中查找与所述控制设备身份标识对应的优先级；

[0065] 鉴定单元 4022，用于根据优先级鉴定出发送服务指令的各控制设备中优先级最高的控制设备。

[0066] 如图 6 所示，本发明另一实施例提出一种基于子网络的服务权限控制终端，在上述实施例的基础上，该终端还包括：

[0067] 创建模块 400，与接收模块 401 连接，用于创建包含控制设备身份标识与优先级对应关系的优先级表。

[0068] 在本实施例中，可以由终端的创建模块 400 创建包含控制设备身份标识与优先级对应关系的优先级表，然后，将该预置的优先级表存储在受控设备上，该优先级表可以直接设置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。

[0069] 如图 7 所示，本发明一实施例提出一种基于子网络的服务权限控制系统，包括控制设备 701 以及与控制设备 701 通过子网络连接的受控设备 702，其中：

[0070] 控制设备 701，用于向受控设备 702 发送携带有该控制设备 701 身份标识的服务指令；

[0071] 受控设备 702，用于接收服务指令，并根据服务指令中的身份标识，以及预置的优先级表对所述控制设备进行优先级鉴定；以及执行优先级最高的控制设备的服务指令。

[0072] 在本实施例中，控制设备 701 优选为移动终端，比如手机，受控设备 702 优选为机顶盒。

[0073] 本实施例以受控设备 702 为机顶盒、控制设备 701 为手机为例进行说明，但不限于受控设备 702 为机顶盒、控制设备 701 为手机的情形。

[0074] 当有多个手机对机顶盒发送服务指令要求机顶盒执行服务指令时，机顶盒则根据各个手机发送的服务指令携带的各手机的身份标识，查找存储在机顶盒内的预置的优先级

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表，该优先级表中记录了各个手机身份标识与服务权限的优先级的对应关系，通过查找该优先级表，则可得出所有已发送服务指令的手机中优先级最高的那个手机，从而，机顶盒接受该优先级最高的手机的控制，即为该优先级最高的手机提供对应其服务指令的服务，而中断执行之前手机的服务指令，比如当前优先级最高的手机要求点播某一档电视节目，机顶盒便执行该手机的服务指令，离开原有电视节目档，调至当前最优先级的手机所点播的电视节目档。

[0075] 需要说明的是，预置的优先级表，可以预置在受控设备比如机顶盒上，也可以由用户通过受控设备上的编辑界面自行输入。以一个家庭中各家庭成员手机与机顶盒之间建立的子网络为例，可以预先在机顶盒上的优先级表内设置各手机的优先级，每一优先级对应一个手机的身份标识。之后，机顶盒便可根据各手机的优先级接受相应的手机的服务指令为其提供服务。

[0076] 本发明实施例通过控制设备身份标识与优先级的对应关系，当存在多个控制设备向受控设备发送服务指令时，受控设备根据控制设备的身份标识对各控制设备进行优先级鉴定，执行优先级最高的控制设备的服务指令，从而避免了服务权限混乱的问题。

[0077] 以上所述仅为本发明的优选实施例，并非因此限制本发明的专利范围，凡是利用本发明说明书及附图内容所作的等效结构或流程变换，或直接或间接运用在其他相关的技术领域，均同理包括在本发明的专利保护范围内。

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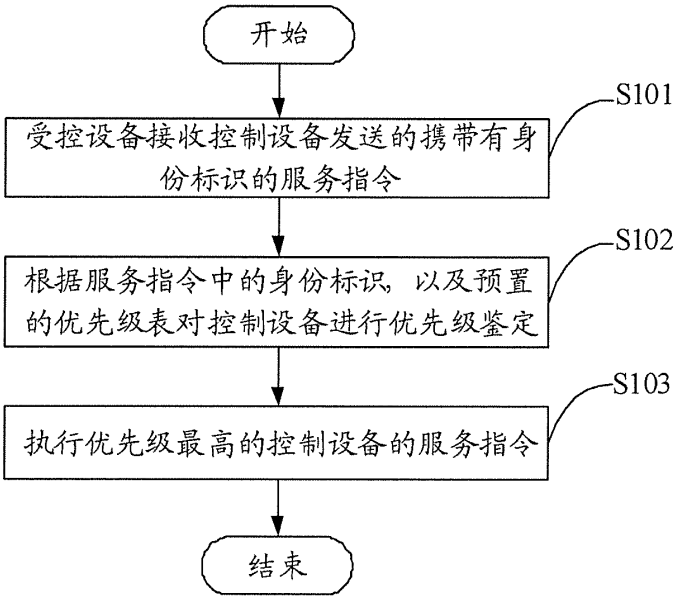


图 1

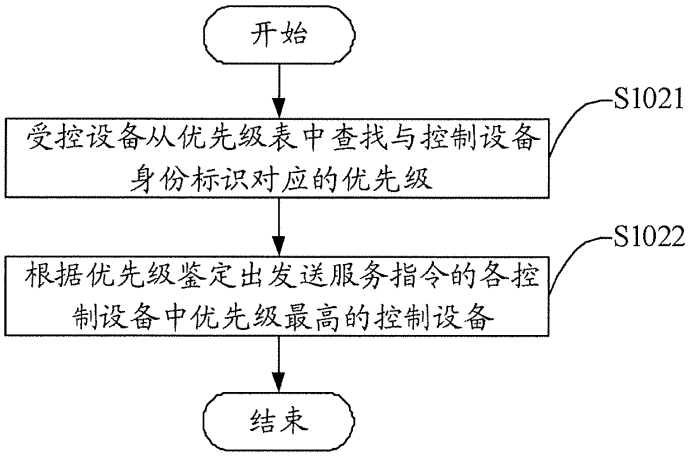


图 2

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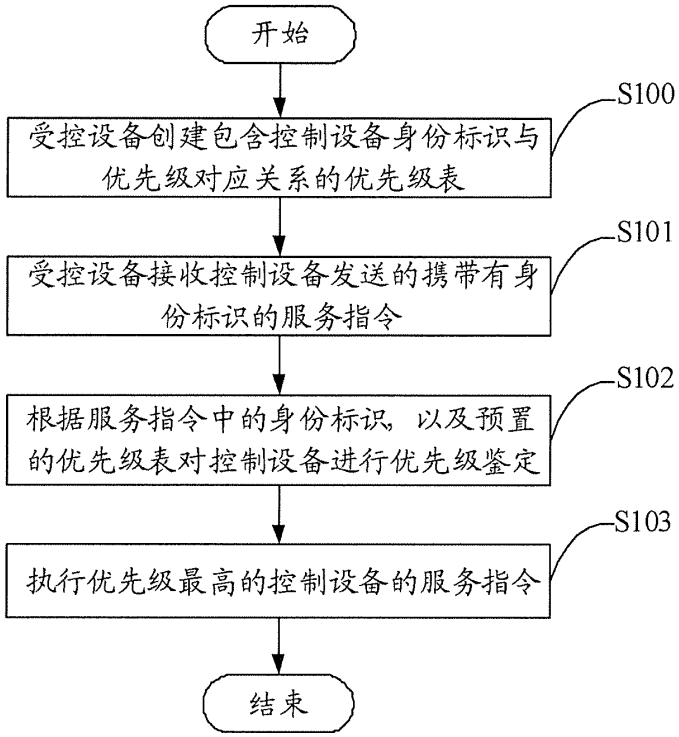


图 3

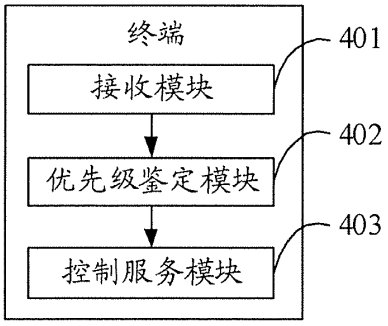


图 4

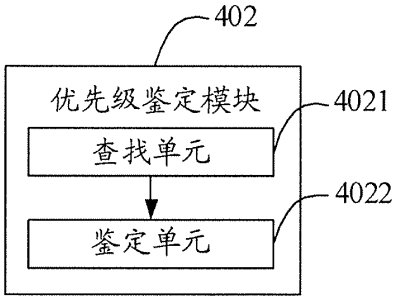


图 5

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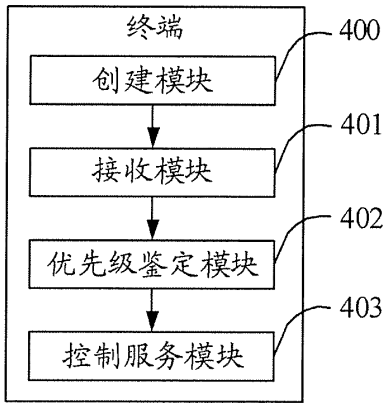


图 6

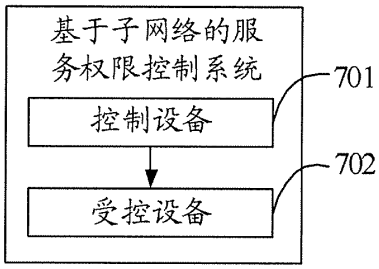


图 7

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Electronic Patent Application Fee Transmittal

Application Number:	14649895
Filing Date:	04-Jun-2015
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Filer:	Tomoki Tanida/Renell Feimster
Attorney Docket Number:	075425-0047

Filed as Large Entity

Filing Fees for U.S. National Stage under 35 USC 371

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

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Application Number:	14649895
International Application Number:	
Confirmation Number:	1257
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Customer Number:	20277
Filer:	Tomoki Tanida/Renell Feimster
Filer Authorized By:	Tomoki Tanida
Attorney Docket Number:	075425-0047
Receipt Date:	19-OCT-2017
Filing Date:	04-JUN-2015
Time Stamp:	13:46:40
Application Type:	U.S. National Stage under 35 USC 371

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RAM confirmation Number	102017INTEFSW00000043500417
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37 CFR 1.492 (National application filing, search, and examination fees)

37 CFR 1.492(a) (Basic national fee only)

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Warnings:					
Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	IDS_SB08.pdf	1035123 a3bc0de8cbfa3632018666d60a103593732f07c7	no	4
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RAHMAN, MUSTAFIZUR

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TITLE OF INVENTION: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	10/27/2017

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Maxell, Ltd.
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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20277 7590 07/27/2017
MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

TITLE OF INVENTION: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	10/27/2017

EXAMINER	ART UNIT	CLASS-SUBCLASS
RAHMAN, MUSTAFIZUR	2422	348-731000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ Applicant certifying micro entity status. See 37 CFR 1.29
  NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27
  NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ❑ Applicant changing to regular undiscounted fee status.
  NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

20277 7590 07/27/2017

MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

EXAMINER	
RAHMAN, MUSTAFIZUR	
ART UNIT	PAPER NUMBER
2422	

DATE MAILED: 07/27/2017

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 02/11)

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OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/649,895	Applicant(s) HIRABAYASHI, MASAYUKI	
	Examiner MUSTAFIZUR RAHMAN	Art Unit 2422	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *01/06/2017*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are *12 and 13*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   Certified copies:
   a) ☒ All b) ☐ Some *c) ☐ None of the:
   1. ☒ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☒ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/MUSTAFIZUR RAHMAN/ Examiner, Art Unit 2422	/JEFFEREY F HAROLD/ Supervisory Patent Examiner, Art Unit 2422

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Allowable Subject Matter

Claims 12 and 13 are allowed.

The following is an examiner's statement of reasons for allowance:

Upon conclusion of a comprehensive search of the pertinent prior art, the examiner indicates the claims are allowable.

Regarding independent claims 12 and 13, the closet prior art Robbins et al. (US 20100157978),teaches

"a display unit that displays a video content from a broadcast station or from a video content delivery source;"

However, the closet prior art does not teach, "a direct communication unit that executes bi-directional communication directly with a first wireless terminal device without going via a router; a network communication unit that executes bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal; an infrared receiver unit that receives infrared rays from a remote controller; and a controller that controls the display unit, the direct

communication unit, the network communication unit, and the infrared receiver. wherein, during display on the display unit of a first video content selected with the first wireless terminal device , if a first command for changing a video content on the display unit from the first video content to a second video content is transmitted from the first second wireless terminal device to the network communication unit via the router, the display unit terminates displaying the first content and starts to display the second content and the direct communication unit sends first information for informing termination of the displaying of the first content directly to the first wireless terminal device without going via a router, and wherein, during display on the display unit of the second video content selected with the second wireless terminal device, if a second command for changing a video content on the display unit from the second video content to another video content is transmitted from the remote controller to the infrared receiver unit by infrared rays, the display unit terminates displaying the second content and starts to display another video content and the network communication unit sends second information for informing termination of the displaying of the second content via the router to the second wireless terminal (Claim 1)."

"displaying step to display a video content from a broadcast station or from a video content delivery source, on a display unit of the video display apparatus;"

However, the closet prior art does not teach, "direct communication step to execute bi-directional communication directly with a first wireless terminal device without going via a route; network communication step to execute bi-directional communication via a router with a second wireless terminal device that is different from

the first wireless terminal device; and infrared ray receiving step to receive infrared rays from a remote controller; wherein, during display on the display unit of a first video content selected with the first wireless terminal device, if a first command for changing a video content on the display unit from the first video content to a second video content is transmitted from the first second wireless terminal device to the video display apparatus via the router, the video display apparatus terminates displaying the first content and starts to display the second content and the video display apparatus sends first information for informing termination of the displaying of the first content directly to the first wireless terminal device without going via a router, and wherein, during display on the display unit of the second video content selected with the second wireless terminal device, if a second command for changing a video content on the display unit from the second video content to another video content is transmitted from the remote controller to the video display apparatus by infrared rays, the display unit terminates displaying the second content and starts to display another video content and the video display apparatus sends second information for informing termination of the displaying of the second content via the router to the second wireless terminal (Claim 13)."

Therefore, the following is an examiner's statement of reasons for allowance: Claimed subject matter (claims 12 and 13) as a whole is not taught or suggested by the closest prior art.

However the pertinent prior art cannot be reasonably construed as fairly teaching or suggesting all of the elements, features or method steps of the claimed invention as arranged, disposed or provided in the manner as claimed by the applicant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUSTAFIZUR RAHMAN whose telephone number is (571)270-1717. The examiner can normally be reached on Monday thru Friday, 7:30 AM-5:00PM, EST, Alternate Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, JEFFEREY HAROLD can be reached on 571-272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MUSTAFIZUR RAHMAN/
Examiner, Art Unit 2422
/JEFFEREY F HAROLD/
Supervisory Patent Examiner, Art Unit 2422

Notice of References Cited	Application/Control No. 14/649,895	Applicant(s)/Patent Under Reexamination HIRABAYASHI, MASAYUKI	
	Examiner MUSTAFIZUR RAHMAN	Art Unit 2422	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2014/0118625 A1	05-2014	CHO; Young Suk	H04N5/44513	348/734
*	B	US-2011/0164188 A1	07-2011	Karaoguz; Jeyhan	G06F3/011	348/734
*	C	US-2011/0032424 A1	02-2011	VanDuyn; Luke	H04N5/4403	348/553
*	D	US-6,476,825 B1	11-2002	Croy ; Clemens	H04N5/4403	348/14.05
*	E	US-2012/0084653 A1	04-2012	Kota; Kalyana	G06F3/14	715/720
*	F	US-2010/0254670 A1	10-2010	Amsterdam; Jeffrey	H04N5/44543	386/248
*	G	US-2008/0240283 A1	10-2008	Iwamura; Ryuichi	G08C23/04	375/295
	H	US-				
	I	US-				
	J	US-				
	K	US-				
	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	Art Unit
	MUSTAFIZUR RAHMAN	2422

CPC- SEARCHED		
Symbol	Date	Examiner
H04N 21/433, 4852; 5/50, 4403, 44, 50; 7/173; 2005/443, 4433, 4442, 4444;	07/18/2017	MR

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
348	731	07/18/2017	MR
348	732	07/18/2017	MR
348	725	07/18/2017	MR
348	723	07/18/2017	MR
348	719	07/18/2017	MR
348	716	07/18/2017	MR
348	714	07/18/2017	MR
348	706	07/18/2017	MR
348	705	07/18/2017	MR
348	14.07; 158; 231.3; 376; 510; 552; 553; 563; 564; 567; 576;	07/18/2017	MR
725	30; 32; 34; 37; 38; 40; 60; 54; 100; 110; 114;	07/18/2017	MR
455	343.3; 428;	07/18/2017	MR
340	10.42	07/18/2017	MR
709	231; 203;	07/18/2017	MR

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

SEARCH NOTES		
Search Notes	Date	Examiner
Consulted with Primary Examiner Brian Yenke Class 348	07/18/2017	MR

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	

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SEARCH NOTES		
Search Notes	**Date**	**Examiner**
Consulted with Primary Examiner Michael Lee Class 348	07/18/2017	MR
Please See East Search History	07/18/2017	MR
Text Search with Clasiffication	07/18/2017	MR
Inventor Search	07/18/2017	MR
PALM Search	07/18/2017	MR
BackWard/ForWard Citations Search	07/18/2017	MR
Google Search	07/18/2017	MR
Consulted with Primary Examiner Golam Sorowar Class 455	07/18/2017	MR

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
348	731; 732; 725; 723; 719; 716; 714; 706; 705; 14.07; 158; 231.3; 376;	07/18/2017	MR
348	510; 552; 553; 563; 564; 567; 576;	07/18/2017	MR
725	30; 32; 34; 37; 38; 40; 60; 54; 100; 110; 114;	07/18/2017	MR
455	343.3; 428;	07/18/2017	MR
340	10.42	07/18/2017	MR
709	231; 203;	07/18/2017	MR

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 14:45
L2	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 14:45
L3	11117	(H04N5/4403).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
L4	10946	(H04N5/44).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
L5	11271	(H04N5/50).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
L6	3697	(H04N21/433).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:02
L7	459	(H04N2005/4442).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:03
L8	468	(H04N2005/4444).CPC.	US-PGPUB;	OR	OFF	2017/07/18

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:03
L9	1659	(H04N2005/443).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:03
L10	423	(H04N2005/4433).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:03
L11	6	(L3 AND L4 AND L5 AND L6 AND L7 AND L9 AND L10)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:04
L12	35152	(L3 OR L4 OR L5 OR L6 OR L7 OR L9 OR L10)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:05
L13	6547	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:06
L14	4220	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:06
L15	2	"20150304591" AND CONTENT	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:08
L16	2358	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/07/18 15:09

			IBM_TDB			
L17	1601	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:09
L18	454	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:10
L19	65	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE) SAME (WIRELESS OR WIRELESSLY)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:11
L20	4	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE) SAME (WIRELESS OR WIRELESSLY) SAME (VIDEO NEAR (CONTENT OR CHANNEL))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:12
L21	22	L12 AND (REMOTE NEAR (CONTROL OR CONTROLLER)) SAME (TV OR TELEVISION) SAME (DISPLAY$3) SAME (CONTENT OR CHANNEL) SAME (USER) SAME (USER NEAR INTERFACE) SAME (WIRELESS OR WIRELESSLY) SAME (VIDEO)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/18 15:14
S1	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 19:20
S2	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 19:55
S3	40	((Masayuki) near2 (HIRABAYASHI)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/14 20:27
S4	6	("20030043789" | "20090070840").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 20:29

S5	2	("20030043789" | "20090070840").PN.	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:29
S6	1	"20150304591"	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:31
S7	1	"20150304591" and (terminal near apparatus)	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:32
S8	1	"20150304591" and (receives near status)	US-PGPUB; USPAT	OR	OFF	2015/12/15 07:42
S9	6	(transmit or transmitting or Communicate) near5 (setting or lacation) near5 (video near display)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:57
S10	0	(transmit or transmitting or Communicate) near5 (setting or lacation) near5 (video near display) near5 ((receive or receiving or received) near information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:59
S11	627	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:59
S12	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) near5 (output or outputting) near5 (broadcast near station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S13	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) same (output or outputting) near5 (broadcast near station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S14	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) same ((output or outputting) near5 (broadcast near station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S15	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) and ((output or outputting) near5 (broadcast near station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:02
S16	627	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 08:02

		received) near information or data))	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S17	12	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:03
S18	0	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:04
S19	0	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:05
S20	9	((transmit or transmitting or Communicate) near5 (setting or location or place or surroundings or background) near5 (video near display) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:07
S21	6742	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:11
S22	80	((transmit or transmitting or Communicate) near5 (setting or location or place or surroundings or background) near5 (television) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:11
S23	18	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:12
S24	0	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:14

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		near3 (video near content)				
S25	31	((transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:14
S26	25	((transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT	OR	OFF	2015/12/15 08:15
S27	11	(transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 (receive or receiving or received) near3 (information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:16
S28	16	(transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) same (receive or receiving or received) near3 (information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:17
S29	10	("5319735" | "5822360" | "5828325" | "5940135" | "6233347" | "6611607" | "6650762" | "6737957" | "6738744" | "6751337").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 08:24
S30	71	("6751337").URPN.	USPAT	OR	OFF	2015/12/15 08:24
S31	185202	(receive or receiving or received) near5 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:41
S32	1347	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:41
S33	41	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near3 (station or position or place or lacation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:43
S34	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near3 (station or position or place or lacation)near5 (decodes or decoding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 08:43

		or decoded) near3 (video near content)	DERWENT; IBM_TDB			
S35	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:44
S36	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:44
S37	246494	(receive or receiving or received) near10 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:45
S38	2642	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:45
S39	169	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:46
S40	1	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:46
S41	1	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:47
S42	4	(receive or receiving or received) near10 (output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:47
S43	2	"20100158109"	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 08:51

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S44	1	"20150304591" and (RAM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:52
S45	1	"20100158109" and (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:53
S46	0	"20100158109" and (memory or store or stroage or RAM or ROM) same (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:53
S47	0	"20100158109" and (memory or store or stroage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S48	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S49	0	"20100058414" and (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S50	48	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:56
S51	5	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:57
S52	0	(memory or store or stroage or RAM	US-PGPUB;	OR	OFF	2015/12/15

		or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near device)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			08:59
S53	3	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near control)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:59
S54	3	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near control) same (channel) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:00
S55	10	("2010/0031288").URPN.	USPAT	OR	OFF	2015/12/15 09:03
S56	87	("20020069037" | "20020100052" | "20020147728" | "20050021470" | "20050073991" | "20050132018" | "20050132297" | "20060019632" | "20060101350" | "20060184897" | "20060280050" | "20060288112" | "20070033402" | "20070100834" | "20070198746" | "20080004978" | "20080005179" | "20080040028" | "20080059908" | "20080059909" | "20080059911" | "20080189255" | "20080194276" | "20080194296" | "20090017860" | "20090018898" | "20090076881" | "20090132453" | "20090157842" | "20090182546" | "20090257804" | "20090287841" | "20090307135" | "20100022270" | "20100031288" | "20100031366" | "20100049862" | "20100057852" | "20100082448" | "20100111278" | "20100113065" | "20100169832" | "20100185776" | "20100235476" | "20100311391" | "20100324977" | "20110060764" | "20110066633" | "20110082572" | "20110087665" | "20110087690" | "20110093913" | "20110111278" | "20110141887" | "20110158406" | "20110185278" | "20110196953" | "20110251995" | "20110304685" | "20120022967" | "20120059748" | "20120059910" | "20120088477" | "20120089951" | "20120096056" | "20120109997" | "20120110074" | "20120117026" | "20120117185" | "20120117197" | "20120117620" | "20120124162" | "20120124177" | "20120149338" | "20120203871" | "20130094402" | "20130189942" | "6813733" | "6990638" | "7216301" | "7466807" | "7596761" | "7706778" | "8161411" |	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 09:12

		"8171419" | "8254829" | "8290471").PN.				
S57	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:12
S58	17616	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:15
S59	1	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (mobile near remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:29
S60	0	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (mobile near remote near control)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:34
S61	478	(receive or receiving or received) near10 (channel) near5 (television) near5 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:49
S62	4	(receive or receiving or received) near10 (channel) near15 (television) near15 ((RC) or (remote near (control or controller))) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:50
S63	15	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:52
S64	1	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:53
S65	1	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 09:53

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		controller))) same (video near content) same (memory or store or stroage or RAM or ROM) same (decode or decoding or decoded) same (display or displaying or displayed)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S66	4	(receive or receiving or received) near (channel) near5 (television) near5 ((RC) or (remote near (control or controller))) near5 (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:05
S67	112	(video near content) near5 (channel) near5 (memory or store or stored or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:11
S68	4	(video near content) near5 (channel) near5 (memory or store or stored or stroage or RAM or ROM) near5 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:12
S69	5	(video near content) near5 (channel) near15 (memory or store or stored or stroage or RAM or ROM) near15 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:13
S70	0	(status near information) near5 (receive or receiving or received) near10 (channel) near5 (television) near5 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:20
S71	80	(receive or receiving or received) near3 (channel) near3 (television) near3 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:21
S72	26	(receive or receiving or received) near3 (channel) near3 (television) near3 ((RC) or (remote near (control or controller))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:25
S73	14	("4375651" | "4394691" | "4488179" | "4527194" | "4706121" | "4737993" | "4802114" | "4807052" | "4841368" | "4908713" | "4977455" | "5123046" | "5151789" | "5353121").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:27
S74	315	("5727060").URPN.	USPAT	OR	OFF	2015/12/15

						10:27
S75	329	("4375651" | "4394691" | "4488179" | "4527194" | "4706121" | "4737993" | "4802114" | "4807052" | "4841368" | "4908713" | "4977455" | "5123046" | "5151789" | "5353121").PN. OR ("5727060").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:27
S76	0	(receive or receiving or received) near (channel) near (television) near3 ((RC) or (remote near (control or controller))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:31
S77	44	("20010042043" | "20020056123" | "20020083121" | "20020140963" | "20020171872" | "20030088557" | "20030200459" | "20030225700" | "20040055018" | "20040128317" | "20040190854" | "20050066165" | "20050081138" | "20050094191" | "20050114672" | "20050132416" | "20060064716" | "20060074992" | "20060107289" | "20060117379" | "20070092079" | "4603966" | "4858032" | "5262860" | "5715403" | "5881287" | "6139197" | "6223213" | "6636329" | "6912002" | "6930788" | "6963858" | "7076469" | "7079191" | "7197535" | "7281272" | "7305713" | "7388605" | "7395245" | "7480382" | "7568234" | "7631184" | "7792517" | "8139768").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:36
S78	610	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:44
S79	116	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable) near5 (command or information)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:45
S80	610	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:45
S81	2	(communication near unit) near5 (transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:48

S82	11	(communication near unit) same ((transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:49
S83	393	((transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:54
S84	246	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:55
S85	15	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device))) same (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:56
S86	22	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device))) and (display or displayed or displaying) and (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:59
S87	0	"20150304591" and (security)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:05
S88	0	"20150304591" and (computer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:06
S89	0	"20150304591" and (web)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:06
S90	0	"20150304591" and (online)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/15 11:07

			EPO; JPO; DERWENT; IBM_TDB			
S91	337497	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:49
S92	15512	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:50
S93	7201	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:52
S94	7201	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:53
S95	124	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:53
S96	29	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:54
S97	43	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/15 12:00

		Communicate) near5 (cell-phone or PDA or computer or (portable near device)) with ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) and 348/$.ccls.	EPO; JPO; DERWENT; IBM_TDB			
S98	9	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) with ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) same (wireless or wirelessly) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:12
S99	1	("2007/0127408").URPN.	USPAT	OR	OFF	2015/12/15 12:15
S100	16848	(signal near receiving near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:17
S101	41	(signal near receiving near unit) near5 (simultaneously or simultaneous) near5 (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:19
S102	0	(signal near receiving near unit) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near5 (plurality or multiple) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:20
S103	0	(signal near receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near5 (plurality or multiple) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:21
S104	1037	(signal near receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:21
S105	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near15 (plurality or multiple) near15 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:22

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S106	1	(signal near2 receiving) with (simultaneously or simultaneous) with (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:22
S107	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S108	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) same (plurality or multiple) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S109	1	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (plurality or multiple) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S110	1	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:24
S111	2	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (video near contents)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:24
S112	23	(simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:25
S113	2	(simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content) same (tv or television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:33
S114	4356	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 12:42

			DERWENT; IBM_TDB			
S115	20	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S116	24	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S117	11	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S118	0	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content) near5 (channel) near5 (decoded or decode or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:46
S119	1	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) and (video near3 content) near5 (channel) near5 (decoded or decode or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:47
S120	11	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near content) same (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:50
S121	87	(video near2 content) near5 (channel) near3 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:00
S122	1	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S123	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 13:04

		or received) near3 (unit)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S124	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near5 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S125	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) same (receiving or receive or received) near5 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:05
S126	1	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) same (output or outputting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:06
S127	344	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:07
S128	10	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:10
S129	4	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast) same (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:11
S130	2	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast) same (display or displayed or displaying) same (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:18
S131	6860	(channel) same ((identification or ID) near code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:24

S132	2005	(channel) same ((identification or ID) near code) same (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:24
S133	51	(channel) same ((identification or ID) near code) same (memory or store or stored or storage or RAM or ROM) same (memory near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:25
S134	155509	(channel near (receive or received or receiving))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:34
S135	314	(channel near (receive or received or receiving)) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:35
S136	2776	((identification or ID) near code) near3 (differs or different or unlike or dissimilar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:41
S137	232	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:42
S138	232	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:43
S139	0	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:45
S140	26	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/15 13:45

		same (transmit or transmitting or Communicate)	EPO; JPO; DERWENT; IBM_TDB			
S141	0	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate) same (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:46
S142	11	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:47
S143	35342	(television or TV) near5 (remote near (control or controlling))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:04
S144	4390	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:05
S145	311	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:05
S146	213	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying) near5 (channel) and (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:06
S147	25	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) and (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:08
S148	5	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) same (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:08

S149	40	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:09
S150	37	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) same (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:22
S151	2	"20080201736"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:32
S152	1	"20080201736" and (output or outputting) same (broadcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:33
S153	359096	(memory or store or stored or storage or RAM or ROM) near5 (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:43
S154	20095	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:45
S155	23	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:45
S156	27	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near3 (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S157	0	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 14:46

		or (portable near device))	DERWENT; IBM_TDB			
S158	1430	(memory or store or stored or storage or RAM or ROM) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S159	8	(memory or store or stored or storage or RAM or ROM) near3 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:49
S160	16	(memory or store or stored or storage or RAM or ROM) near5 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:50
S161	1	(memory or store or stored or storage or RAM or ROM) near5 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device)) near5 (transmit or transmitted or transmitting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:51
S162	362	(memory or store or stored or storage or RAM or ROM) near5 (record) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:06
S163	1	(memory near unit) near5 (memory or store or stored or storage or RAM or ROM) near5 (record) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:07
S164	2	(memory near unit) near5 (memory or store or stored or storage or RAM or ROM) near5 (record or recording or recorded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:08
S165	6	(memory near unit) near5 (record or recording or recorded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:08
S166	1	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 15:32

		stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near5 (video near content)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S167	1	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:33
S168	24	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:34
S169	1	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content) same (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:34
S170	1	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:36
S171	24	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:37
S172	752	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:39
S173	1	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:39
S174	10	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near10 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:40

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S175	752	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:42
S176	148	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:46
S177	3	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:46
S178	110	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:48
S179	1	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (television)and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:49
S180	11	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and (video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:50
S181	0	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (meory) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:53
S182	0	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (meory)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:53
S183	12	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 15:54

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			DERWENT; IBM_TDB			
S184	2796	(video near content) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:57
S185	134	(video near content) near5 (channel) near5 ((memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:57
S186	13	(video near content) near5 (channel) near5 ((memory or store or stored or storage or RAM or ROM)) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:58
S187	16759	(video near content) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:12
S188	1558	((video near content) near5 (display or displayed or displaying)) same (video near content) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:15
S189	11	((video near content) near5 (display or displayed or displaying)) same (video near content) near5 (memory or store or stored or storage or RAM or ROM) near5 (reproduced or duplicate or replicate or repeated)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:17
S190	181	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:36
S191	123	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((identification or ID) near code) near3((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:38
S192	123	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((identification or ID)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 17:40

		near code) near3 (memory or store or stored or storage or RAM or ROM) and @py<"2012"	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S193	440	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) same ((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:40
S194	440	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:41
S195	343	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:41
S196	16	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:42
S197	8	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) near20(((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:45
S198	4	("5752202" | "5774065" | "5798693" | "5999799").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 17:46
S199	326760	(display near unit) near4 (display or displayed or displying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:02
S200	300299	(display near unit) near3 (display or displayed or displying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:03
S201	217	(display near unit) near3 (display or displayed or displying) near2 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 18:03

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			DERWENT; IBM_TDB			
S202	59	(display near unit) near3 (display or displayed or displying) near2 (video near content) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:04
S203	5	(display near unit) near3 (display or displayed or displying) near2 (video near content) same (channel) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:08
S204	79	(television near signal near receiving near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:26
S205	38	(television near signal near receiving near unit) near3 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:27
S206	39	(television near signal near receiving near unit) near5 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:28
S207	42	(television near signal near receiving near unit) near15 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:31
S208	37	(television near signal near receiving near unit) near15 ((receive or receives or received or receiving) near (television near signal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:31
S209	2762	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:37
S210	2	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 18:38

		near5 ("without") near5 (switch or switched or switching)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S211	0	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 ("not") near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:39
S212	60	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:40
S213	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermined near2 period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:41
S214	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset) near3 (period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:42
S215	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset or se or fixed) near3 (period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:43
S216	4	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset or se or fixed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:44
S217	5	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) same (predetermine or predetermined or preset or se or fixed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:45
S218	16397	(television) near5 (detect or detecting or detected)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:52
S219	8	(television) near5 (detect or detecting	US-PGPUB;	OR	OFF	2015/12/15

		or detected) near3 (start near time)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:52
S220	16	(television) near5 (detect or detecting or detected) near3 (start near3 end)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:53
S221	0	(television) near5 (detect or detecting or detected) near3 (start near3 end) same (advertisement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:54
S222	0	(television) near5 (detect or detecting or detected) near3 (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:55
S223	0	(television) same (detect or detecting or detected) same (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:55
S224	1	(television) same (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:56
S225	950	(television) same (start near3 end) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:57
S226	48	(television) same (start near3 end) same (video) same (comercial or advertisement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:57
S227	26	(television) same (start near3 end) same (video) same (comercial or advertisement) same (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/15 18:59

			IBM_TDB			
S228	173	(channel) near3 (select or selection) near3 (button) near3 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:05
S229	0	(channel) near3 (select or selection) near3 (button) near3 (remote near (control or controller)) near4 (start near3 end) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:07
S230	21	(channel) same (select or selection) same (button) same (remote near (control or controller)) same (start near3 end) same (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:07
S231	153	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:15
S232	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:16
S233	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) same (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S234	94	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S235	1243	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same (end or ending) same (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S236	49	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/15 19:18

		storage or RAM or ROM) same ((end or ending) near (time or timening))	EPO; JPO; DERWENT; IBM_TDB			
S237	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:21
S238	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) same (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:21
S239	6786	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:22
S240	98	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:23
S241	3	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near3 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:23
S242	3	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near5 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S243	4	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near10 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S244	5	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near10 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S245	5	(transmit or transmitting or Communicate) near5 (channel) near5	US-PGPUB; USPAT;	OR	OFF	2015/12/15 19:25

		(memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) with (time or timing)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S246	47	(channel) near5 (display or displayed or displaying) near3 ((two or dual) near screen)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:33
S247	8	(select or selection) near3 (channel) near5 (display or displayed or displaying) near3 ((two or dual) near screen)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:36
S248	89	((two or dual) near screen) near5 (display or displayed or displaying) near3 (end or close or finale)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:42
S249	2	((two or dual) near screen) near5 (display or displayed or displaying) near3 (end or close or finale) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:42
S250	164	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:43
S251	3	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing) near5 (end or finish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:43
S252	104	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:44
S253	88	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:45

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S254	5	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) same (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:47
S255	53	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) and (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:51
S256	125	((two or dual) near screen) near3 (display or displayed or displaying) near3 (end or ending or ended or done or over or finish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:54
S257	70	((two or dual) near screen) near3 (display or displayed or displaying) near3 (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:54
S258	0	((two or dual) near screen) near3 (display or displayed or displaying) near3 (channel) near3 (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:57
S259	16967	(switch or switching or switched or switches) near3 (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:02
S260	2035	(switch or switching or switched or switches) near3 (channel) near3 (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:04
S261	30	(switch or switching or switched or switches) near3 (channel) near3 (television) near5 (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:05
S262	1263	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/16 12:11

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			DERWENT; IBM_TDB			
S263	103	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:11
S264	93	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:12
S265	4508	(television near broadcast near program)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:15
S266	37	(television near broadcast near program) near3 (end or ended or ending)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:16
S267	1	(television near broadcast near program) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:19
S268	1	(television or tv) near3 (broadcast or broadcasting or broadcasted) near3 (program) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S269	3	(television or tv) near3 (broadcast or broadcasting or broadcasted) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S270	3	(television or tv) near5 (broadcast or broadcasting or broadcasted) near5 (end or ended or ending) near5 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S271	11	(television or tv) near15 (broadcast or broadcasting or broadcasted) near15 (end or ended or ending) near15	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/16 12:22

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		(exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S272	2	"20090220209"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:55
S274	6	"20110085088"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:56
S275	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:58
S276	2	"20080201736"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:58
S277	5	"20100031288"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:59
S278	2	"20120223819"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:00
S279	2	"20060234677"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:55
S280	3	"20120281141"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:56
S281	4	"20070127408"	US-PGPUB;	OR	OFF	2015/12/16

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:58
S282	3	"20080165906"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:00
S283	6	"20090129689"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:01
S284	4	"20090058597"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:03
S285	8	"20100023975"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:57
S286	3	"20060204229"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 15:47
S287	3	"20060245734"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 15:49
S288	3	"20080238755"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:52
S289	5	"20090055540"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/16 16:52

			IBM_TDB			
S290	2	"20110314510"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:53
S291	2	"6317168".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:55
S292	2	"20120159536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:56
S293	3	"20100235862"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:33
S294	6	"20050030427"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:34
S295	3	"20050235331"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:35
S296	5	"20110072459"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:49
S297	5	"20120026299"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:50
S298	1	(14/649895).APP.	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 09:09

			EPO; JPO; DERWENT; IBM_TDB			
S299	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:10
S300	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:10
S301	2	"20150304591" and (display near apparatus)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:12
S302	2	"20150304591" and (display near apparatus) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:15
S303	2	(video near content near delivery near source)	USPAT	OR	OFF	2016/08/24 09:17
S304	5	(video near content near delivery near source)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:19
S305	7325694	(display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:20
S306	15566	(display or displaying or displayed or displayes) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:21
S307	373	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:22

S308	5	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:22
S309	12	(display or displaying or displayed or displays) near5 (video near content) near5 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:26
S310	9687612	(executes or execute or executed or executing or achieve or complete or accomplish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:32
S311	2775	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:42
S312	584	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:44
S313	1	"20150304591" and (terminal near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:45
S314	0	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:58
S315	0	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate) same (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:59
S316	2	"20150304591" and (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 11:00

			DERWENT; IBM_TDB			
S317	2	"20150304591" and (terminal) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:00
S318	1	"20150304591" and (terminal near device) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:01
S319	0	"20150304591" and (terminal near device) and television and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:03
S320	1	"20150304591" and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:03
S321	560	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:11
S322	25	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S323	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S324	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S325	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same (without or absence)	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 11:14

		with router	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S326	2	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) and without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:15
S328	8	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:19
S329	0	(router) near5 (second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:31
S330	0	(router) with (second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:32
S331	8	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:32
S333	1	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:35
S334	1	(second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:37
S335	4	(second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:37
S336	50	((second or secondary) near3	US-PGPUB;	OR	OFF	2016/08/24

		(wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)))	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			11:40
S337	0	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:41
S338	40	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:44
S339	0	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same communication same (bi-directional or bidirectional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:46
S340	97	((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:01
S341	65	((first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver))) same (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:01
S342	5	((first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver))) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:02
S343	2	(first near3 second) near4 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:05
S344	2	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal near	US-PGPUB; USPAT;	OR	OFF	2016/08/24 12:07

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		device) or (television near receiver)) near4 (different or dissimilar or unalike or unlike)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S345	3	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal near device) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:07
S346	195	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:09
S347	156	(first near3 second) near4 (wireless or wirelessly) near4 (terminal) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:10
S348	195	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:10
S349	111	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S350	57	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S351	24	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S352	28	(first near3 second) near4 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:15

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S353	32	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:15
S354	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:22
S355	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:24
S356	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:28
S357	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:28
S358	284654	(network near3 communication)	USPAT	OR	OFF	2016/08/24 12:31
S359	3539	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish)	USPAT	OR	OFF	2016/08/24 12:32
S360	172105	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish) nea4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S361	11	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S362	435	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S363	155	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or	USPAT	OR	OFF	2016/08/24 12:33

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		bidirectional) near4 (communication)				
S364	4	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	USPAT	OR	OFF	2016/08/24 12:34
S365	6	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:35
S366	1	(network near3 communication) same (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:39
S367	81452	(infrared near rays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:48
S368	1233	(infrared near rays) near2 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:48
S369	8	(infrared near receiver) near2 (infrared near rays) near2 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:49
S370	132	(control or controller) near3 (display or displaying or displayed or displayes) same (direct near communication)	USPAT	OR	OFF	2016/08/24 12:54
S371	0	(control or controller) near3 (display or displaying or displayed or displayes) same (direct near communication) same (network near communication)	USPAT	OR	OFF	2016/08/24 12:55
S372	7	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication)	USPAT	OR	OFF	2016/08/24 12:55
S373	2	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote)	USPAT	OR	OFF	2016/08/24 12:56
S374	6	(control or controller) same (display or displaying or displayed or displayes)	US-PGPUB; USPAT;	OR	OFF	2016/08/24 12:57

		same (direct near communication) same (network near communication) same (remote)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S375	1	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:15
S376	240	(display or displaying or displayed or displayes) near3 (first near video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:20
S377	16	(display or displaying or displayed or displayes) near3 (first near video near content) near3 (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:21
S378	0	(display or displaying or displayed or displayes) near3 (first near video near content) near3 (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:22
S379	2	(display or displaying or displayed or displayes) near3 (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:23
S380	13	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:23
S381	0	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless) near terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:25
S382	0	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless) same terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:25

S383	5	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:27
S384	12	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:28
S385	16	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:29
S386	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first or primary) near3 (wireless or wirelessly) near5 (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:29
S387	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near5 (terminal near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S388	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S389	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S390	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:32
S391	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 13:32

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		near20 (terminal))	DERWENT; IBM_TDB			
S392	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:33
S393	2	"20150304591" and (video content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:34
S394	2	"20150304591" and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:35
S395	2	"20150304591" and (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:37
S396	2	"20150304591" and (content) same channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:39
S397	0	((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:41
S398	3	(display or displaying or displayed or displayes) and ((video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:44
S399	789	(first or primary) with (video near2 content) near3 (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:47
S400	1827	(first or primary) with (video near2 content) with (select or selected or selecting)	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 13:48

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S401	15407	(video near2 content) with (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:49
S402	3048	(video near2 content) with (select or selected or selecting) same (first wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:50
S403	67	(video near2 content) with (select or selected or selecting) same (first wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:51
S404	36	(video near2 content) with (select or selected or selecting) same (first wireless) near3 (terminal or station) same (display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:51
S405	0	(video near2 content) with (select or selected or selecting) same (first near2 wireless) near3 (terminal or station) same (display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:52
S406	0	(video near2 content) with (select or selected or selecting) same (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:53
S407	16513	(first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:53
S408	8	(video near2 content) with (select or selected or selecting) and (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:54
S409	0	(video near2 content) with (select or	US-PGPUB;	OR	OFF	2016/08/24

		selected or selecting) same (first near3 wireless) near3 (terminal or station)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:57
S410	0	"20150304591" and (camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:01
S411	9	(change or changing) near (video near content) near3 (second near video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:13
S412	1	(change or changing) near (video near content) near3 (second near video near content) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:15
S413	0	(change or changing) near5 (video near content) near10 (second near video near content) same communication same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:16
S414	2	(change or changing) near5 (video near content) near10 (second near video near content) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:18
S415	1	(change or changing) with (video near content) with (second near video near content) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:20
S416	8782	(network near3 communication near3 router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:23
S417	8	(network near3 communication near3 router) and (first near video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 14:25

			IBM_TDB			
S418	0	(video near2 (channel or content)) near5 (change or changing) near5 (second or secondary) near3 (vide near2 (contern or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:29
S419	0	(change or changing or switch or switching) near5 (video near2 (channel or content)) near5 (second or secondary) near3 (vide near2 (contern or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:30
S420	282	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:34
S421	49	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) near3 (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:35
S422	3	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) near3 (display or displaying or displayed or displays) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:36
S423	11	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:39
S424	5	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:42
S425	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:43
S426	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 14:43

		or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S427	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:47
S428	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless and network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:49
S429	3	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:50
S430	5482	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly)	USPAT	OR	OFF	2016/08/24 15:08
S431	3269	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:08
S432	0	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) near10 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:11
S433	392823	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) samr (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:12
S434	0	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 15:12

			IBM_TDB			
S435	24	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) and (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:13
S436	4	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays) and (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:19
S437	3	"20130332956"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:22
S438	0	"20130332956" and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:22
S439	997	(display or displaying or displayed or displays) near5 (first or primary) near5 (video near2 (content or channel)) same (second or secondary) near5 (video near2 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:28
S440	18	(display or displaying or displayed or displays) same (first or primary) near5 (video near2 (content or channel)) same (starts or start) near5 (second or secondary) near5 (video near2 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:29
S441	18	(display or displaying or displayed or displays) same ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:42
S442	16	(display or displaying or displayed or displays) with ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:46
S443	9	(display or displaying or displayed or displays) with ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 15:47

		or secondary) near5 (video near2 (content or channel))) with (display or displaying or displayed or displays)	EPO; JPO; DERWENT; IBM_TDB			
S444	11	(video near2 content) with (select or selected or selecting) and (second near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:56
S445	1	(video near2 content) with (select or selected or selecting) and (second near3 wireless) near3 (terminal or station) same (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:57
S446	0	"20140229994"	USPAT	OR	OFF	2016/08/24 16:13
S447	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:13
S448	1	"20140229994" and (second) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:14
S449	0	"20140229994" and (frrst) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:16
S450	0	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content) near5 (another or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:22
S451	0	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content) near5 (another or alternative) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:25
S452	485	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:25

S453	523	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:26
S454	304	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:28
S455	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:29
S456	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another near video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:31
S457	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another or other) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:31
S458	4	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:34
S459	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) near5 (video) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:36
S460	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) and (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:37
S461	136730	(remote near (control or controller)) same (change or changing or switch or switching or shift)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 16:38

			EPO; JPO; DERWENT; IBM_TDB			
S462	35	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:39
S463	1	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:39
S464	1	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content) near5 (different or unlike or unalike or additional or extra or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:40
S465	32	(display or displaying or displayed or displays) near15 (second or secondary) near5 (content or channel) near5 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:49
S466	0	(display or displaying or displayed or displays) near15 (second or secondary) near5 (content or channel) near5 (router) same network same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:49
S467	28	((display or displaying or displayed or displays) near15 (second or secondary) near3 (content or channel) near5 (router))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:51
S468	78	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:52
S469	5	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (router) same ((wireless or wirelessly) near5 (terminal or station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:54
S470	0	((display or displaying or displayed or displays) near15 ((second or	US-PGPUB; USPAT;	OR	OFF	2016/08/24 17:13

		secondary) near3 (content or channel))) same (start or start) near3 (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S471	25204	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:14
S472	0	((start or start) near3 (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S473	17	((start or start) with (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S474	2728	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S475	3000	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S476	757	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel)) and ((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:17
S477	2	((starts or start) with (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel)) and ((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:18
S478	147	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 17:30

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		or station) same (display or displaying or displayed or displays)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S479	4	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:31
S480	5	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:32
S481	5	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:32
S482	213	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:39
S483	0	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:40
S484	5	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:40
S485	427	(display or displaying or displayed or displays) same (first or primary) near15 (content or channel) same (first or primary) near15 (wireless or wirelessly) same (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:53
S486	7	(display or displaying or displayed or displays) same (first or primary) near15 (content or channel) same (first or primary) near15 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:54
S487	424	(first or primary) near15 (wireless or	US-PGPUB;	OR	OFF	2016/08/24

		wirelessly) same (terminal or station) and (without or with-out or absence) near15 (router)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:04
S488	325	(first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S489	130	(first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S490	55	communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:05
S491	12	communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near3 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:06
S492	0	(bi-directional or bi-directional) and communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near3 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:10
S493	1	"20150304591" and audio	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:12
S494	0	"20150304591" and image	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:14
S495	1	"20150304591" and mobile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 18:14

			IBM_TDB			
S496	2	"20100053441"	US-PGPUB; USPAT	OR	OFF	2016/08/24 23:22
S497	5	"20100053441"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:22
S498	3	"20130312040"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:24
S499	3	"20140033900"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:25
S500	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:26
S501	3	"20120173753"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:28
S502	4	"20130031162"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:29
S503	7	"20120054790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:30
S504	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:31
S505	2	"8749426".pn.	US-PGPUB;	OR	OFF	2016/08/24

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			23:33
S506	4	"20130031594"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:34
S507	2	"20080218148"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/25 12:13
S508	3	"20100329247"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/25 12:15
S509	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:42
S510	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:43
S511	0	("2015/0304591").URPN.	USPAT	OR	OFF	2017/01/17 18:43
S512	0	("direct communication unit executes bi-directional communication directly first wireless terminal device without going via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:44
S513	0	("network communication unit executes bi-directional communication router second wireless terminal device different from first wireless terminal").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:54
S514	0	("infrared receiver unit receives infrared rays from remote controller").clm.	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/01/17 18:55

			EPO; JPO; DERWENT; IBM_TDB			
S515	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:55
S516	0	("during display on the display unit first video content selected first wireless terminal device ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:56
S517	0	("if first command changing video content display unit from first video content second video content").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:57
S518	0	("transmitted from first second wireless terminal device network communication unit via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:58
S519	0	("display unit terminates displaying first content and starts display the second ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:54
S520	0	("content and the direct communication unit sends first information for informing termination of the displaying first content directly first wireless terminal device going via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:57
S521	0	("during display display unit second video content selected second wireless terminal device").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:58
S522	0	("if second command changing video content display unit from second video content another video content").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:59
S523	0	("transmitted from remote controller infrared receiver unit by infrared	US-PGPUB; USPAT;	OR	OFF	2017/01/17 19:59

		rays").clm.	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S524	0	("display unit terminates displaying second content ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:00
S525	0	("starts display video content and network communication unit sends second information informing termination the displaying second content via router to second wireless terminal ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:01
S526	0	("displaying step display video content broadcast station or video content delivery source display unit video display apparatus ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:02
S527	0	"20100158109"	USPAT	OR	OFF	2017/01/17 20:09
S528	1	"20100031288"	USPAT	OR	OFF	2017/01/17 20:10
S529	12	("2010/0031288").URPN.	USPAT	OR	OFF	2017/01/17 20:10
S530	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:10
S531	9	("20040177378" | "20060210050" | "20070274486" | "20100031288" | "5623537" | "6292210" | "6741684" | "6842622" | "7515698").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:11
S532	128	("5623537").URPN.	USPAT	OR	OFF	2017/01/17 20:12
S533	10	("20040177378" | "20060210050" | "20070274486" | "20100031288" | "5623537" | "6292210" | "6741684" | "6842622" | "7515698").PN. OR ("8369249").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:12
S534	17	("2007/0101370").URPN.	USPAT	OR	OFF	2017/01/17 20:13
S535	0	("2008/0186411").URPN.	USPAT	OR	OFF	2017/01/17 20:15
S536	0	"20080186411"	USPAT	OR	OFF	2017/01/17 20:16
S537	34	("2008/0201736").URPN.	USPAT	OR	OFF	2017/01/17 20:17

S538	3	"20130227622"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:17
S539	22	("20020129364" | "20030145338" | "20030149983" | "20030229900" | "20040261130" | "20070094352" | "20070250901" | "20080152305" | "20080201736" | "20090132349" | "20090327894" | "20100058397" | "20100312596" | "20110131602" | "20110224992" | "20110292992" | "20110320627" | "20130031587" | "20150271572" | "7536706" | "8424037" | "9009339").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:17
S540	3	"20110320627"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:18
S541	5	"20030229900"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:19
S542	9	("5532748" | "5898463" | "5900915" | "5969767" | "5982411" | "6014178" | "6128352" | "6137537" | "6208388").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:20
S543	1	"6208388".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:20
S560	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:42
S561	2	"20100157978" and (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:52
S562	0	"20100157978" and (display or displaying or displayed) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:53
S563	2	"20100157978" and (display or	US-PGPUB;	OR	OFF	2017/03/15

		displaying or displayed) same (video)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			10:54
S564	0	"20100157978" and (display or displaying or displayed) same (video) same (broadcast or broadcasting or broadcasted)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:55
S565	2	"20100157978" and (display or displaying or displayed) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:24
S566	0	"20100157978" and bi-directional	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:27
S567	3	"20100157978" and wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:35
S568	0	"20100157978" and wireless same router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:36
S569	2	"20100157978" and wireless and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:36
S570	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:06
S571	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/05/08 13:06

			IBM_TDB			
S572	1	"20150304591" and (hardware)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:24
S573	1	"20150304591" and (hardware) and (software)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:24
S574	7	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:45
S575	15	(display or displaying or displayed or displays) near5 (video near content) near5 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:45
S576	8	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:01
S577	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:23
S578	2	(network near3 communication) same (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:25
S579	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:45
S580	0	"20150304591" and ("wireless terminal device")	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/08 14:48

			EPO; JPO; DERWENT; IBM_TDB			
S581	1	"20150304591" and ("terminal device")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:49
S582	2	"20150304591" and (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:50
S583	1	"20150304591" and (mobile)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:33
S584	2	"20150304591" and (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:34
S585	0	"20150304591" and (first near wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:45
S586	0	"20150304591" and (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:46
S587	1	"20150304591" and (first)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:46
S588	1	"20150304591" and (first) and (second)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:48
S589	1	"20150304591" and without	US-PGPUB; USPAT;	OR	OFF	2017/05/08 15:58

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			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S590	2	"20100157978" and (remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 17:23
S591	2	"20100157978" and (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 17:28
S592	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:41
S593	0	"20100157978" and channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:41
S594	2	"20100157978" and channels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:42
S595	2	"20100157978" and (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:13
S596	2	"20100157978" and (display or displaying or displayed) and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:21
S597	1	"20150304591" and mobile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:24

S598	0	"20150304591" and mobile and smart	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:25
S599	0	"20150304591" and mobile and phone	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:25
S600	1	"20150304591" and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:36
S601	116	(first or primary) near3 (wireless or wirelessly) near3 (mobile) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:43
S602	518	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:46
S603	0	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly) with (mobile) same (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:47
S604	14	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly) with (mobile)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:47
S605	3	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:48
S606	12	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/05/09 11:52

		or ("wireless LAN")))	DERWENT; IBM_TDB			
S607	55	(first or primary) near3 (wireless or wirelessly) near3 (mobile) and ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:53
S608	2	(first or primary) near3 (wireless or wirelessly) near3 (mobile) same ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:54
S609	2	(first or primary) near3 (wireless or wirelessly) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:59
S610	5	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:59
S611	28	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:02
S612	5	(first or primary) near3 (mobile) near15 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:03
S613	8	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:05
S614	1	(first or primary) near3 (mobile) same ((absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:09
S615	21	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/09 12:12

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		nonappearance or absenteeism) near2 ((router) or (Wi-Fi) or ("wireless LAN")))	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S616	11	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:12
S617	45	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:17
S618	94	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:18
S619	2	"20100157978" and ((router) or (Wi-Fi) or ("wireless LAN"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:21
S620	1432	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network nea router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:33
S621	94	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:34
S622	40	(first or primary) near3 (mobile) near10 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:35
S623	403029	((second or secondary) neae3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near10 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:17

		or ("wireless LAN") or (network near router)))				
S624	402852	(((second or secondary) neae3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:18
S625	131627	(((second or secondary) near3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:19
S626	0	(((second or secondary) near3 (first or primary)) near3 (wireless or wirelessly) with (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:19
S627	0	(((second or secondary) near3 (first or primary)) with (wireless or wirelessly) with (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:20
S628	1467	((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:35
S629	1194	((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:35
S630	0	((first or primary) near terminal) near2 ((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/05/09 13:37

			IBM_TDB			
S631	0	((first or primary) near terminal) near5 ((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:37
S632	0	((first or primary) near terminal) near5 ((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:38
S633	0	((first or second) near terminal) near5 ((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:40
S634	41	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:43
S635	41	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:44
S636	0	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (bi-directional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:44
S637	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:45
S638	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:47
S639	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without	US-PGPUB; USPAT;	OR	OFF	2017/05/09 13:48

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		or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (wireless or wirelessly)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S640	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (wireless or wirelessly) and (without or absence or absent)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:49
S641	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (without or absence or absent)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:54
S642	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:55
S643	3	"20100157978" and network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:11
S644	0	"20100157978" and network and (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:16
S645	0	"20100157978" and (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:16
S646	5	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:27
S647	5	(first near3 second) near4 (wireless or	US-PGPUB;	OR	OFF	2017/05/09

		wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			14:32
S648	11	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and ((router) or (Wi-Fi) or ("wireless LAN") or ("network router"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:33
S649	2	"20100157978" and (call or calling) and (caller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:44
S650	3	"20130330053"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:14
S651	1	("2013/0330053").URPN.	USPAT	OR	OFF	2017/05/09 15:30
S652	5	("20030021254" | "20060098174" | "20120166388" | "20130330053" | "20150222843").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/09 15:30
S653	2	"20130330053" and channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:35
S654	3	"20130330053" and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:36
S655	2	"20100157978" and remote same television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:23
S656	2	"20100157978" and remote same television same infrared	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:23

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S657	0	"20100157978" and remote same television same infrared same channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:32
S658	2	"20100157978" and remote same television same infrared same channels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:32
S659	0	"20100157978" and anotherchannels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:37
S660	0	"20100157978" and another	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:37
S661	3	"20100157978" and user	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:41

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L22	0	("display displays video content broadcast station or video content delivery source").clm.	USPAT	OR	OFF	2017/07/18 15:18
S544	0	("direct communication unit executes bi-directional communication directly first wireless terminal device without going via router").clm.	USPAT	OR	OFF	2017/01/17 20:02
S545	0	("network communication unit executes bi-directional communication router second wireless terminal device different from first wireless terminal").clm.	USPAT	OR	OFF	2017/01/17 20:03
S546	0	("infrared receiver unit receives infrared rays from remote controller").clm.	USPAT	OR	OFF	2017/01/17 20:03
S547	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	USPAT	OR	OFF	2017/01/17 20:03
S548	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	USPAT	OR	OFF	2017/01/17 20:03
S549	0	("during display on the display unit first video	USPAT	OR	OFF	2017/01/17

		content selected first wireless terminal device ").clm.				20:03
S550	0	("if first command changing video content display unit from first video content second video content").clm.	USPAT	OR	OFF	2017/01/17 20:04
S551	0	("transmitted from first second wireless terminal device network communication unit via router").clm.	USPAT	OR	OFF	2017/01/17 20:04
S552	0	("display unit terminates displaying first content and starts display the second ").clm.	USPAT	OR	OFF	2017/01/17 20:04
S553	0	("content and the direct communication unit sends first information for informing termination of the displaying first content directly first wireless terminal device going via router").clm.	USPAT	OR	OFF	2017/01/17 20:04
S554	0	("during display display unit second video content selected second wireless terminal device").clm.	USPAT	OR	OFF	2017/01/17 20:04
S555	0	("if second command changing video content display unit from second video content another video content").clm.	USPAT	OR	OFF	2017/01/17 20:04
S556	0	("transmitted from remote controller infrared receiver unit by infrared rays").clm.	USPAT	OR	OFF	2017/01/17 20:04
S557	0	("display unit terminates displaying second content ").clm.	USPAT	OR	OFF	2017/01/17 20:05
S558	0	("starts display video content and network communication unit sends second information informing termination the displaying second content via router to second wireless terminal ").clm.	USPAT	OR	OFF	2017/01/17 20:05
S559	0	("displaying step display video content broadcast station or video content delivery source display unit video display apparatus ").clm.	USPAT	OR	OFF	2017/01/17 20:05

7/ 18/ 2017 3:20:32 PM
C:\ Users\ mrahman1\ Documents\ EAST\ Workspaces\ 14649895.wsp

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	**Art Unit**
	MUSTAFIZUR RAHMAN	2422

CPC						
Symbol					**Type**	**Version**
H04N		5	/	4403	F	2013-01-01
H04N		21	/	433	I	2013-01-01
G06Q		30	/	0267	I	2013-01-01
H04N		5	/	44	I	2013-01-01
H04N		5	/	50	I	2013-01-01
H04N		2005	/	4442	A	2013-01-01
H04N		2005	/	4444	A	2013-01-01
H04N		2005	/	443	A	2013-01-01
H04N		2005	/	4433	A	2013-01-01
			/			
			/			
			/			
			/			
			/			
			/			

CPC Combination Sets							
Symbol				**Type**	**Set**	**Ranking**	**Version**
			/				
			/				

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	07/18/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	2	
/JEFFEREY F HAROLD/ Supervisory Patent Examiner.Art Unit 2422	07/20/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	**Art Unit**
	MUSTAFIZUR RAHMAN	2422

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION										
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED					
348	731	H	0	4	N	5 / 50 (2006.0)						
CROSS REFERENCE(S)												
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)											
348	731	732	725	723	719							
348	716	714	706	705	14.07							
348	158	231.3	376	510	552							
348	553	563	564	567	576							
725	30	32	34	37	38							
725	40	60	54	100	114							
455	343.3	428										
340	10.42											
709	231	203										

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	07/18/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	2	
/JEFFEREY F HAROLD/ Supervisory Patent Examiner.Art Unit 2422	07/20/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	**Art Unit**
	MUSTAFIZUR RAHMAN	2422

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1														
-	2														
-	3														
-	4														
-	5														
-	6														
-	7														
-	8														
-	9														
-	10														
-	11														
1	12														
2	13														

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	07/18/2017	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	2	
/JEFFEREY F HAROLD/ Supervisory Patent Examiner.Art Unit 2422	07/20/2017	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	11	Fig. 1

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Docket No.: 075425-0047
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Masayuki HIRABAYASHI	:	Customer Number: 20277
Application No.: 14/649,895	:	Confirmation No.: 1257
Filed: June 4, 2015	:	Art Unit: 2422
For: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS	:	Examiner: Mustafizur Rahman

RESPONSE TO NON-FINAL OFFICE ACTION

MS Response
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

In response to the Non-Final Office Action dated May 26, 2017, having a three-month shortened statutory period for response set to expire August 26, 2017, Applicant respectfully requests reconsideration of the above-identified application in view of the following remarks.

Remarks begin on page 2 of this paper.

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REMARKS

Claims 12 and 13 are pending in this application. Entry of various comments regarding the claims and/or the art, in the Office Action, should not be construed as any acquiescence or agreement by Applicant with the stated reasoning, regardless of whether or not these remarks specifically address any particular comment from the Office Action. Reconsideration of this application for allowance of all pending claims is hereby respectfully requested in view of the following remarks.

Examiner Interview

Applicant thanks the Examiner for the time and courtesy of the telephonic interview conducted on June 19, 2017. During that interview, the following was discussed.

Claims 12 and 13 were rejected under 35 U.S.C. § 103 based on the combination of U.S. Pub. No. 2010/0157978 (Robbins) and U.S. Pub. No. 2013/0330053 ("Lee"). As noted in the prior response, Lee was published after the November 6, 2013 international filing date of the present application and has an effective filing date of March 15, 2013 for the purpose of being utilized as prior art against pending U.S. patent applications via 35 U.S.C. § 102(e) (pre-AIA). The instant application has a priority date of December 7, 2012 based on the claim of priority to JP 2012-267765. Thus, Lee does not constitute prior art to the instant application, and the asserted combination including Lee cannot render any claim unpatentable.

Applicant thus submits that the rejections should be withdrawn and all claims be allowed.

Conclusion

In view of the above remarks, Applicant submits that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

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Respectfully submitted,

MCDERMOTT WILL & EMERY LLP

/Alexander P. Ott/

Alexander P. Ott
Registration No. 63,110

500 North Capitol Street, N.W.
Washington, DC 20001
Phone: (202) 756-8496 APO:ajb
Facsimile: (202) 756-8087
Date: June 29, 2017

Please recognize our Customer No. 20277 as our correspondence address.

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Page 340 of 546

Electronic Acknowledgement Receipt	
EFS ID:	29652535
Application Number:	14649895
International Application Number:	
Confirmation Number:	1257
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Customer Number:	20277
Filer:	Tomoki Tanida/TIANA GLASCOE
Filer Authorized By:	Tomoki Tanida
Attorney Docket Number:	075425-0047
Receipt Date:	29-JUN-2017
Filing Date:	04-JUN-2015
Time Stamp:	15:47:09
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		075425_0047_RESPONSE.pdf	83670 55c3cbee7331f5cd1ce24afdebf903744e58a1bc	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Applicant Arguments/Remarks Made in an Amendment	2	3
Warnings:			
Information:			
	Total Files Size (in bytes):	83670	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.
National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.
New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/649,895	Filing Date 06/04/2015	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 06/29/2017	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 2	Minus	** 20	= 0	X $80 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $420 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
LAVINIA JOHNSON

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

20277 7590 05/26/2017
MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

EXAMINER
RAHMAN, MUSTAFIZUR

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
05/26/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketmwe@mwe.com

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Office Action Summary	Application No. 14/649,895	Applicant(s) HIRABAYASHI, MASAYUKI	
	Examiner MUSTAFIZUR RAHMAN	Art Unit 2422	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/06/2017*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *12 and 13* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *12 and 13* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *01/06/2017* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☒ All b)☐ Some** c)☐ None of the:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

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The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/06/2017 has been entered.

Response to Amendment

The amendment filed January 06, 2017 has been entered. Claims 1-11 has been cancelled. Therefore, claims 12-13 are currently pending in the application.

Response to Arguments

Applicant's arguments with respect to claims 12-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robbins et al. (20100157978) in view of LEE et al. (US 20130330053), hereinafter referenced as **Robbins** and **LEE**, respectively.

Regarding claim 1, Robbins disclose, a video display apparatus comprising:

(a), a display unit that **displays** a **video content** from a **broadcast station** or from a video content delivery source (i.e.

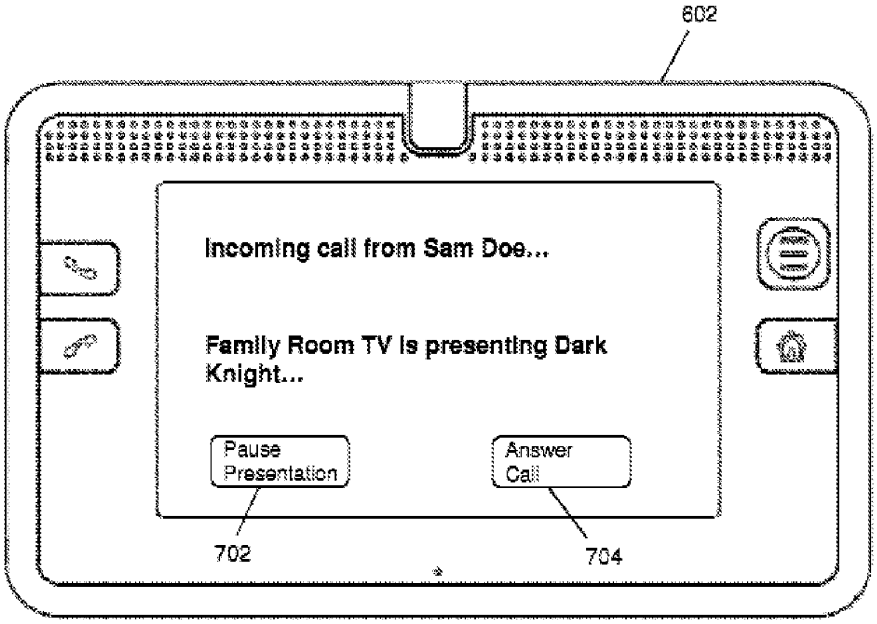
[See in para. 0017 of the reference Robbins et al. (20100157978); See Fig. 1] It will be appreciated by an artisan of ordinary skill in the art that a satellite broadcast television system can be used in place of the IPTV media system. In this embodiment, signals transmitted by a satellite 115 supplying media content can be intercepted by a common satellite dish receiver 131 coupled to the building 102. Modulated signals

intercepted by the satellite dish receiver 131 can be submitted to the media processors 106 for **generating broadcast** signals which can be **presented at the media devices 108** ***(i.e. computers or television)***. The media processors 106 can be equipped with a broadband port to the ISP network 132 to enable infrastructure services such as VoD and EPG described above.

(d), an infrared receiver unit that receives infrared rays from a **remote controller**; and

[See in para. 0014 of the reference Robbins et al. (20100157978)] The VHS 114 can distribute multimedia broadcast programs via an access network 118 to commercial and/or residential buildings 102 housing a gateway 104 (such as a common residential or commercial gateway). The access network 118 can represent a group of digital subscriber line access multiplexers (DSLAMs) located in a central office or a service area interface that provide broadband services over optical links or copper twisted pairs to buildings 102. The gateway 104 can use common communication technology to distribute broadcast signals to media processors 106 such as Set-Top Boxes (STBs) which in turn present broadcast channels to media devices 108 such as computers or television sets managed in some instances by a media controller 107 (**such as an infrared or RF remote control**).

(f), wherein, during display on the display unit of a first **video content selected** with the first wireless terminal device, **if** a first command for **changing** a **video content** on the display unit from the **first video content** to a **second video content** is transmitted from the **second wireless terminal device** to the network communication unit via the router, the display unit terminates **displaying** the **first content** and starts to **display** the **second content** and the direct communication unit sends first information for informing termination of the **displaying** of the **first content** directly to the first wireless terminal device **without** going via a router, and (g), wherein, during display on the display unit of the **second video content selected** with the second wireless terminal device, if a **second** command for **changing** a **video content** on the display unit from the **second video content** to **another video content** is transmitted from the **remote controller** to the infrared receiver unit by infrared rays, the display unit terminates **displaying** the **second content** and starts to **display** another **video content** and the network communication unit sends second information for informing termination of the **displaying** of the **second content** via the **router** to the second wireless terminal.



700

FIG. 7

[See in para. 0042 of the reference Robbins et al. (20100157978), See Fig. 7 as above, also see fig. 5] In this illustration, the tablet 602 presents a GUI with a **message indicating Sam Doe is calling**. The **notice also shows that the Family Room TV is presenting the movie the Dark Knight**. To mitigate an interruption to the **voice call** with Sam Doe, **the tablet 602 can offer the user an option to pause the presentation of the movie by pressing button 702**. If the **selection of button 702** is detected in step 516, the tablet 602 proceeds to step 520 where **it directs the STB 106** to **pause the movie.** Steps 522-526 can be used to record the presentation if it is a live

broadcast. If the movie is derived from a DVD player, the pause request can occur with no loss of content and steps 522-526 would be skipped.

[See in para. 0043 of the reference Robbins et al. (20100157978); See Fig. 7 as above, also see fig. 5] If the user does not care to pause the presentation in step 516, the user can select button 704 to **answer the call**, which directs the tablet 602 to accept the communication request in step 518 **without mitigation**. In this instance, the user of the tablet 602 may have decided that the presentation of the movie was acceptable while engaging in a voice communication with Sam Doe. *(See also, para. 0014)*

(b), a direct communication unit that executes **bi-directional** communication directly with a first wireless terminal device without going via a router;

- However, **Robbins et al. (20100157978)** fails to disclose: **(b)**

In the similar field of endeavor, **LEE et al. (US 20130330053)** discloses, (b), a direct communication unit that executes **bi-directional** communication directly with a first wireless terminal device without going via a router (i.e.

[See in para. 0009 of the reference LEE et al. (US 20130330053)] In accordance with an aspect of the invention, the above and other objects can be accomplished by the provision of a method for operating an image display apparatus including entering a wireless audio transmission mode, performing synchronization with a mobile terminal using a first wireless communication method, extracting audio data from multimedia data, and transmitting the extracted audio data to the mobile terminal using a second wireless communication method different from the first wireless communication method.

[See in para. 0063 of the reference LEE et al. (US 20130330053)] unlike FIG. 1, wireless data communication between the image display apparatus 100 and the mobile terminals 600a and 600b is possible without the network router 500. At this time, Wi-Fi Direct based data communication may be performed between the image display apparatus 100 and the mobile terminals 600a and 600b.

[See in para. 0176 of the reference LEE et al. (US 20130330053)] Referring to FIG. 7, first, the image display apparatus 100 enters a wireless audio transmission mode when receiving a wireless audio reception mode entrance signal from the mobile

terminal (S725). Then, synchronization with the mobile terminal 600 is performed using a first wireless communication method (S730).

Therefore, it would have been obvious to one ordinary skill in the art at the time of the applicant's invention to modify for *"(b), a direct communication unit that executes* ***bi-directional*** *communication directly with a first wireless terminal device without going via a router"* taught by **LEE** for the benefit of the apparatus transmits audio data of encoding level corresponding to decoding information received from the mobile terminal, where the audio data corresponding to multimedia data is played back by the apparatus. The apparatus provides the service according to user preference such that the multimedia data playback is synchronized with audio data playback of the mobile terminal, and transmits and plays back audio data between the apparatus and the mobile terminal in a wireless manner, thus improving user convenience, and improving transmission efficiency when wirelessly transmitting the audio data.

(c), a network communication unit that executes bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal;

- However, **Robbins et al. (20100157978)** fails to disclose: **(c)**

In the similar field of endeavor, **LEE et al. (US 20130330053)** discloses, (c), a network communication unit that executes bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal (i.e.

[See in para. 0047 of the reference LEE et al. (US 20130330053)] that is, the network [omitted] 500 may allocate a first wireless channel to the image [omitted] display apparatus 100 in correspondence with a first virtual IP address, allocate a second wireless channel to a first mobile terminal 600a in correspondence with a second virtual IP address, and allocate a third [omitted] wireless channel to a second mobile terminal 600b in correspondence with a third virtual IP address.

[See in para. 0176 of the reference LEE et al. (US 20130330053)] Referring to FIG. 7, first, the image display apparatus 100 enters a wireless audio transmission mode when receiving a wireless audio reception mode entrance signal from the mobile terminal (S725). Then, synchronization with the mobile [omitted] terminal 600 is performed using a first wireless communication method (S730).

[See in para. 0303 of the reference LEE et al. (US 20130330053)] According to an embodiment of the invention, an image display apparatus performs synchronization

with a mobile terminal using a first wireless communication method according to wireless transmission mode and transmits extracted audio data to the mobile terminal using a second wireless communication method different from the first wireless communication method. By performing synchronization and audio data transmission using different wireless communication methods, it is possible to efficiently perform wireless audio data transmission. Accordingly, it is possible to improve user convenience.

Therefore, it would have been obvious to one ordinary skill in the art at the time of the applicant's invention to modify for *"(c), a network communication unit that executes bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal"* taught by **LEE** for the benefit of the apparatus transmits audio data of encoding level corresponding to decoding information received from the mobile terminal, where the audio data corresponding to multimedia data is played back by the apparatus. The apparatus provides the service according to user preference such that the multimedia data playback is synchronized with audio data playback of the mobile terminal, and transmits and plays back audio data between the apparatus and the mobile terminal in a wireless manner, thus improving user convenience, and improving transmission efficiency when wirelessly transmitting the audio data.

(e), a controller that controls the display unit ***(i.e. see above limitation (a))***, the direct communication unit ***(i.e. see above limitation (b))***, the network communication unit ***(i.e. see above limitation (c))*** and the infrared receiver ***(i.e. see above limitation (d))***.

"Claim 13 is rejected for the same reasons stated above in claim 12"

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MUSTAFIZUR RAHMAN whose telephone number is (571)270-1717. The examiner can normally be reached on Monday thru Friday, 7:30 AM-5:00PM, EST, Alternate Friday.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JEFFEREY HAROLD can be reached on 571-272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MUSTAFIZUR RAHMAN/
Examiner, Art Unit 2422
/JEFFEREY F HAROLD/
Supervisory Patent Examiner, Art Unit 2422

Notice of References Cited	Application/Control No. 14/649,895	Applicant(s)/Patent Under Reexamination HIRABAYASHI, MASAYUKI	
	Examiner MUSTAFIZUR RAHMAN	Art Unit 2422	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2010/0157978 A1	06-2010	Robbins; William S.	H04N21/8545	370/352
*	B	US-8,223,662 B2	07-2012	Deshpande; Manoj	H04W52/0216	370/252
*	C	US-2003/0064709 A1	04-2003	Gailey, Michael L.	G10L15/22	455/412.1
*	D	US-2013/0031162 A1	01-2013	Willis; Myk	H04L67/02	709/203
*	E	US-2009/0201855 A1	08-2009	Weniger; Kilian	H04W8/082	370/328
*	F	US-2003/0091030 A1	05-2003	Yegin, Alper E.	H04L63/0823	370/352
	G	US-				
	H	US-				
	I	US-				
	J	US-				
	K	US-				
	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	Art Unit
	MUSTAFIZUR RAHMAN	2422

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	12/16/2015	08/24/2016	05/09/2017						
	1	✓	-	-						
	2	✓	-	-						
	3	✓	-	-						
	4	✓	-	-						
	5	✓	-	-						
	6	✓	-	-						
	7	✓	-	-						
	8	✓	-	-						
	9	✓	-	-						
	10	✓	-	-						
	11	✓	-	-						
	12		✓	✓						
	13		✓	✓						

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 19:20
S2	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 19:55
S3	40	((Masayuki) near2 (HIRABAYASHI)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/14 20:27
S4	6	("20030043789" | "20090070840").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/14 20:29
S5	2	("20030043789" | "20090070840").PN.	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:29
S6	1	"20150304591"	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:31
S7	1	"20150304591" and (terminal near apparatus)	US-PGPUB; USPAT	OR	OFF	2015/12/14 20:32
S8	1	"20150304591" and (receives near status)	US-PGPUB; USPAT	OR	OFF	2015/12/15 07:42
S9	6	(transmit or transmitting or Communicate) near5 (setting or lacation) near5 (video near display)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:57
S10	0	(transmit or transmitting or Communicate) near5 (setting or lacation) near5 (video near display) near5 ((receive or receiving or received) near information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 07:59
S11	627	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 07:59

		received) near information or data)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S12	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) near5 (output or outputting) near5 (broadcast near station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S13	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) same (output or outputting) near5 (broadcast near station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S14	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) same ((output or outputting) near5 (broadcast near station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:01
S15	0	(transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data) and ((output or outputting) near5 (broadcast near station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:02
S16	627	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:02
S17	12	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:03
S18	0	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:04
S19	0	((transmit or transmitting or Communicate) near5 (video near display) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:05
S20	9	((transmit or transmitting or	US-PGPUB;	OR	OFF	2015/12/15

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		Communicate) near5 (setting or location or place or surroundings or background) near5 (video near display) near5 ((receive or receiving or received) near information or data))	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			08:07
S21	6742	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:11
S22	80	((transmit or transmitting or Communicate) near5 (setting or location or place or surroundings or background) near5 (television) near5 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:11
S23	18	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:12
S24	0	((transmit or transmitting or Communicate) near5 (television) near5 ((receive or receiving or received) near information or data)) and (receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:14
S25	31	((transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:14
S26	25	((transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 ((receive or receiving or received) near information or data))	US-PGPUB; USPAT	OR	OFF	2015/12/15 08:15
S27	11	(transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) near3 (receive or receiving or received) near3 (information or data)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:16
S28	16	(transmit or transmitting or Communicate) near3 (setting or location or place or surroundings or background) near3 (television) same (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 08:17

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		near3 (information or data)	DERWENT; IBM_TDB			
S29	10	("5319735" | "5822360" | "5828325" | "5940135" | "6233347" | "6611607" | "6650762" | "6737957" | "6738744" | "6751337").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 08:24
S30	71	("6751337").URPN.	USPAT	OR	OFF	2015/12/15 08:24
S31	185202	(receive or receiving or received) near5 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:41
S32	1347	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:41
S33	41	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near3 (station or position or place or lacation)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:43
S34	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near3 (station or position or place or lacation)near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:43
S35	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:44
S36	1	(receive or receiving or received) near5 (signal near output) near5 (broadcast or broadcasting) near5 (decodes or decoding or decoded) near3 (video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:44
S37	246494	(receive or receiving or received) near10 (signal near output)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:45
S38	2642	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 08:45

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S39	169	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:46
S40	1	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:46
S41	1	(receive or receiving or received) near10 (signal near output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:47
S42	4	(receive or receiving or received) near10 (output) near15 (broadcast or broadcasting) near15 (decodes or decoding or decoded) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:47
S43	2	"20100158109"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:51
S44	1	"20150304591" and (RAM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:52
S45	1	"20100158109" and (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:53
S46	0	"20100158109" and (memory or store or stroage or RAM or ROM) same (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:53
S47	0	"20100158109" and (memory or store	US-PGPUB;	OR	OFF	2015/12/15

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		or stroage or RAM or ROM) same (video near content)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			08:55
S48	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S49	0	"20100058414" and (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:55
S50	48	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:56
S51	5	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:57
S52	0	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:59
S53	3	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near control)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 08:59
S54	3	(memory or store or stroage or RAM or ROM) near5 (channel) near3 (video near content) near5 (display or displayed or displaying) same (remote near control) same (channel) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:00
S55	10	("2010/0031288").URPN.	USPAT	OR	OFF	2015/12/15 09:03
S56	87	("20020069037" | "20020100052" | "20020147728" | "20050021470" | "20050073991" | "20050132018" | "20050132297" | "20060019632" |	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 09:12

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		"20060101350" | "20060184897" | "20060280050" | "20060288112" | "20070033402" | "20070100834" | "20070198746" | "20080004978" | "20080005179" | "20080040028" | "20080059908" | "20080059909" | "20080059911" | "20080189255" | "20080194276" | "20080194296" | "20090017860" | "20090018898" | "20090076881" | "20090132453" | "20090157842" | "20090182546" | "20090257804" | "20090287841" | "20090307135" | "20100022270" | "20100031288" | "20100031366" | "20100049862" | "20100057852" | "20100082448" | "20100111278" | "20100113065" | "20100169832" | "20100185776" | "20100235476" | "20100311391" | "20100324977" | "20110060764" | "20110066633" | "20110082572" | "20110087665" | "20110087690" | "20110093913" | "20110111278" | "20110141887" | "20110158406" | "20110185278" | "20110196953" | "20110251995" | "20110304685" | "20120022967" | "20120059748" | "20120059910" | "20120088477" | "20120089951" | "20120096056" | "20120109997" | "20120110074" | "20120117026" | "20120117185" | "20120117197" | "20120117620" | "20120124162" | "20120124177" | "20120149338" | "20120203871" | "20130094402" | "20130189942" | "6813733" | "6990638" | "7216301" | "7466807" | "7596761" | "7706778" | "8161411" | "8171419" | "8254829" | "8290471").PN.				
S57	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:12
S58	17616	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:15
S59	1	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (mobile near remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:29
S60	0	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 09:34

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		(code) near (mobile near remote near control)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S61	478	(receive or receiving or received) near10 (channel) near5 (television) near5 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:49
S62	4	(receive or receiving or received) near10 (channel) near15 (television) near15 ((RC) or (remote near (control or controller))) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:50
S63	15	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:52
S64	1	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:53
S65	1	(receive or receiving or received) same (channel) same (television) same ((RC) or (remote near (control or controller))) same (video near content) same (memory or store or stroage or RAM or ROM) same (decode or decoding or decoded) same (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 09:53
S66	4	(receive or receiving or received) near (channel) near5 (television) near5 ((RC) or (remote near (control or controller))) near5 (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:05
S67	112	(video near content) near5 (channel) near5 (memory or store or stored or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:11
S68	4	(video near content) near5 (channel) near5 (memory or store or stored or stroage or RAM or ROM) near5 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/15 10:12

			IBM_TDB			
S69	5	(video near content) near5 (channel) near15 (memory or store or stored or stroage or RAM or ROM) near15 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:13
S70	0	(status near information) near5 (receive or receiving or received) near10 (channel) near5 (television) near5 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:20
S71	80	(receive or receiving or received) near3 (channel) near3 (television) near3 ((RC) or (remote near (control or controller)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:21
S72	26	(receive or receiving or received) near3 (channel) near3 (television) near3 ((RC) or (remote near (control or controller))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:25
S73	14	("4375651" | "4394691" | "4488179" | "4527194" | "4706121" | "4737993" | "4802114" | "4807052" | "4841368" | "4908713" | "4977455" | "5123046" | "5151789" | "5353121").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:27
S74	315	("5727060").URPN.	USPAT	OR	OFF	2015/12/15 10:27
S75	329	("4375651" | "4394691" | "4488179" | "4527194" | "4706121" | "4737993" | "4802114" | "4807052" | "4841368" | "4908713" | "4977455" | "5123046" | "5151789" | "5353121").PN. OR ("5727060").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:27
S76	0	(receive or receiving or received) near (channel) near (television) near3 ((RC) or (remote near (control or controller))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:31
S77	44	("20010042043" | "20020056123" | "20020083121" | "20020140963" | "20020171872" | "20030088557" | "20030200459" | "20030225700" | "20040055018" | "20040128317" | "20040190854" | "20050066165" | "20050081138" | "20050094191" | "20050114672" | "20050132416" | "20060064716" | "20060074992" | "20060107289" | "20060117379" | "20070092079" | "4603966" | "4858032" | "5262860" | "5715403" |	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 10:36

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		"5881287" | "6139197" | "6223213" | "6636329" | "6912002" | "6930788" | "6963858" | "7076469" | "7079191" | "7197535" | "7281272" | "7305713" | "7388605" | "7395245" | "7480382" | "7568234" | "7631184" | "7792517" | "8139768").PN.				
S78	610	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:44
S79	116	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable) near5 (command or information)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:45
S80	610	(transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or portable)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:45
S81	2	(communication near unit) near5 (transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:48
S82	11	(communication near unit) same ((transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:49
S83	393	((transmit or transmitting or Communicate or communication) near5 (identification or ID) near5 (code) near (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:54
S84	246	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:55
S85	15	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 10:56

		same (display or displayed or displaying)	DERWENT; IBM_TDB			
S86	22	((transmit or transmitting or Communicate or communication) near2 (identification or ID) near2 (code) near2 (cell-phone or computer or PDA or (portable near device))) and (display or displayed or displaying) and (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 10:59
S87	0	"20150304591" and (security)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:05
S88	0	"20150304591" and (computer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:06
S89	0	"20150304591" and (web)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:06
S90	0	"20150304591" and (online)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:07
S91	337497	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:49
S92	15512	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:50
S93	7201	(receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:52

		data)				
S94	7201	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:53
S95	124	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:53
S96	29	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) near5 ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 11:54
S97	43	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) with ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:00
S98	9	((receive or receives or receiving or received) near5 (command or information) near5 (transmit or transmitted or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device)) with ((transmit or transmitted or transmitting or Communicate) near information or data)) same (tv or television) same (wireless or wirelessly) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:12
S99	1	("2007/0127408").URPN.	USPAT	OR	OFF	2015/12/15 12:15
S100	16848	(signal near receiving near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:17

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S101	41	(signal near receiving near unit) near5 (simultaneously or simultaneous) near5 (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:19
S102	0	(signal near receiving near unit) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near5 (plurality or multiple) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:20
S103	0	(signal near receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near5 (plurality or multiple) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:21
S104	1037	(signal near receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:21
S105	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) near15 (plurality or multiple) near15 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:22
S106	1	(signal near2 receiving) with (simultaneously or simultaneous) with (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:22
S107	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S108	1	(signal near2 receiving) near5 (simultaneously or simultaneous) near5 (receive or receiving or received) same (plurality or multiple) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:23
S109	1	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (plurality or multiple) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 12:23

			DERWENT; IBM_TDB			
S110	1	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:24
S111	2	(signal near2 receiving) near15 (simultaneously or simultaneous) near15 (receive or receiving or received) same (video near contents)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:24
S112	23	(simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:25
S113	2	(simultaneously or simultaneous) near5 (receive or receiving or received) with (plurality or multiple) with (video near content) same (tv or television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:33
S114	4356	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:42
S115	20	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S116	24	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S117	11	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near3 content) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:45
S118	0	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 12:46

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		same (video near3 content) near5 (channel) near5 (decoded or decode or decoding)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S119	1	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) and (video near3 content) near5 (channel) near5 (decoded or decode or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:47
S120	11	(channel) near5 (receive or received or receiving) near5 (cell-phone or PDA or computer or (portable near device)) same (video near content) same (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 12:50
S121	87	(video near2 content) near5 (channel) near3 (decode or decoded or decoding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:00
S122	1	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S123	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near3 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S124	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) near5 (receiving or receive or received) near5 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:04
S125	2	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) same (receiving or receive or received) near5 (unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:05
S126	1	(video near2 content) near5 (channel) near3 (decode or decoded or decoding) same (output or outputting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:06
S127	344	(video near3 content) same (channel)	US-PGPUB;	OR	OFF	2015/12/15

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		same (decode or decoded or decoding) same (output or outputting)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:07
S128	10	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:10
S129	4	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast) same (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:11
S130	2	(video near3 content) same (channel) same (decode or decoded or decoding) same (output or outputting) near5 (broadcast or broadcasting or telecast or webcast) same (display or displayed or displaying) same (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:18
S131	6860	(channel) same ((identification or ID) near code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:24
S132	2005	(channel) same ((identification or ID) near code) same (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:24
S133	51	(channel) same ((identification or ID) near code) same (memory or store or stored or storage or RAM or ROM) same (memory near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:25
S134	155509	(channel near (receive or received or receiving))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:34
S135	314	(channel near (receive or received or receiving)) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 13:35

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			DERWENT; IBM_TDB			
S136	2776	((identification or ID) near code) near3 (differs or different or unlike or dissimilar)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:41
S137	232	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:42
S138	232	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:43
S139	0	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:45
S140	26	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:45
S141	0	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) same (transmit or transmitting or Communicate) same (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:46
S142	11	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 13:47
S143	35342	(television or TV) near5 (remote near (control or controlling))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:04

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S144	4390	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:05
S145	311	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:05
S146	213	(television or TV) near5 (remote near (control or controlling)) near5 (display or displayed or displaying) near5 (channel) and (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:06
S147	25	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) and (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:08
S148	5	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) same (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:08
S149	40	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:09
S150	37	(television or TV) near2 (remote near (control or controlling)) near2 (display or displayed or displaying) near2 (channel) same (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:22
S151	2	"20080201736"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:32
S152	1	"20080201736" and (output or outputting) same (broadcast)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 14:33

			DERWENT; IBM_TDB			
S153	359096	(memory or store or stored or storage or RAM or ROM) near5 (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:43
S154	20095	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:45
S155	23	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:45
S156	27	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near3 (code)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S157	0	(memory or store or stored or storage or RAM or ROM) near5 (content near (command or information)) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S158	1430	(memory or store or stored or storage or RAM or ROM) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:46
S159	8	(memory or store or stored or storage or RAM or ROM) near3 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:49
S160	16	(memory or store or stored or storage or RAM or ROM) near5 (content) near5 (identification or ID) near3 (code) near5 (cell-phone or PDA or computer or (portable near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 14:50
S161	1	(memory or store or stored or storage or RAM or ROM) near5 (content) near5 (identification or ID) near3	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 14:51

		(code) near5 (cell-phone or PDA or computer or (portable near device)) near5 (transmit or transmitted or transmitting)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S162	362	(memory or store or stored or storage or RAM or ROM) near5 (record) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:06
S163	1	(memory near unit) near5 (memory or store or stored or storage or RAM or ROM) near5 (record) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:07
S164	2	(memory near unit) near5 (memory or store or stored or storage or RAM or ROM) near5 (record or recording or recorded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:08
S165	6	(memory near unit) near5 (record or recording or recorded) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:08
S166	1	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near5 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:32
S167	1	(((identification or ID) near code) near5 (differs or different or unlike or dissimilar) near5 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:33
S168	24	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:34
S169	1	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content) same (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:34
S170	1	(((identification or ID) near code)	US-PGPUB;	OR	OFF	2015/12/15

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		same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content) same (decode or decoding or decoded)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:36
S171	24	(((identification or ID) near code) same (differs or different or unlike or dissimilar) same ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:37
S172	752	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:39
S173	1	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near10 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:39
S174	10	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM))) same (memory or store or stored or storage or RAM or ROM) near10 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:40
S175	752	(((identification or ID) near code) near10 (differs or different or unlike or dissimilar) near10 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:42
S176	148	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:46
S177	3	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:46
S178	110	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/15 15:48

			DERWENT; IBM_TDB			
S179	1	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (television)and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:49
S180	11	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) and (video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:50
S181	0	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (meory) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:53
S182	0	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (meory)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:53
S183	12	(((identification or ID) near code) near2 (differs or different or unlike or dissimilar) near2 ((memory or store or stored or storage or RAM or ROM))) same (content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:54
S184	2796	(video near content) near5 (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:57
S185	134	(video near content) near5 (channel) near5 ((memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:57
S186	13	(video near content) near5 (channel) near5 ((memory or store or stored or storage or RAM or ROM)) same (decode or decoding or decoded)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 15:58
S187	16759	(video near content) near5 (display or displayed or displaying)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 16:12

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S188	1558	((video near content) near5 (display or displayed or displaying)) same (video near content) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:15
S189	11	((video near content) near5 (display or displayed or displaying)) same (video near content) near5 (memory or store or stored or storage or RAM or ROM) near5 (reproduced or duplicate or replicate or repeated)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 16:17
S190	181	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:36
S191	123	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((identification or ID) near code) near3((memory or store or stored or storage or RAM or ROM))) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:38
S192	123	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) near3 ((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:40
S193	440	((identification or ID) near code) near3 (differs or different or unlike or dissimilar) same ((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:40
S194	440	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:41
S195	343	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:41
S196	16	(((identification or ID) near code)	US-PGPUB;	OR	OFF	2015/12/15

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		near3 (differs or different or unlike or dissimilar)) same (((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and 348/$.ccls.	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			17:42
S197	8	(((identification or ID) near code) near3 (differs or different or unlike or dissimilar)) near20(((identification or ID) near code) near3 (memory or store or stored or storage or RAM or ROM)) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 17:45
S198	4	("5752202" | "5774065" | "5798693" | "5999799").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/12/15 17:46
S199	326760	(display near unit) near4 (display or displayed or displying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:02
S200	300299	(display near unit) near3 (display or displayed or displying)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:03
S201	217	(display near unit) near3 (display or displayed or displying) near2 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:03
S202	59	(display near unit) near3 (display or displayed or displying) near2 (video near content) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:04
S203	5	(display near unit) near3 (display or displayed or displying) near2 (video near content) same (channel) and 348/$.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:08
S204	79	(television near signal near receiving near unit)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:26
S205	38	(television near signal near receiving near unit) near3 (receive or receives or received or receiving) near2	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/15 18:27

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		(television near signal)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S206	39	(television near signal near receiving near unit) near5 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:28
S207	42	(television near signal near receiving near unit) near15 (receive or receives or received or receiving) near2 (television near signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:31
S208	37	(television near signal near receiving near unit) near15 ((receive or receives or received or receiving) near (television near signal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:31
S209	2762	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:37
S210	2	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 ("without") near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:38
S211	0	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 ("not") near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:39
S212	60	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:40
S213	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermined near2 period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:41
S214	1	(memory or store or stored or storage	US-PGPUB;	OR	OFF	2015/12/15

		or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset) near3 (period near2 time)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:42
S215	1	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset or se or fixed) near3 (period near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:43
S216	4	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) near5 (predetermine or predetermined or preset or se or fixed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:44
S217	5	(memory or store or stored or storage or RAM or ROM) near5 (channel) near5 (view or viewing or viewed) near5 (switch or switched or switching) same (predetermine or predetermined or preset or se or fixed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:45
S218	16397	(television) near5 (detect or detecting or detected)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:52
S219	8	(television) near5 (detect or detecting or detected) near3 (start near time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:52
S220	16	(television) near5 (detect or detecting or detected) near3 (start near3 end)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:53
S221	0	(television) near5 (detect or detecting or detected) near3 (start near3 end) same (advertisement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:54
S222	0	(television) near5 (detect or detecting or detected) near3 (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/15 18:55

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			IBM_TDB			
S223	0	(television) same (detect or detecting or detected) same (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:55
S224	1	(television) same (start near3 end) same (video near serving)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:56
S225	950	(television) same (start near3 end) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:57
S226	48	(television) same (start near3 end) same (video) same (comercial or advertisement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:57
S227	26	(television) same (start near3 end) same (video) same (comercial or advertisement) same (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 18:59
S228	173	(channel) near3 (select or selection) near3 (button) near3 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:05
S229	0	(channel) near3 (select or selection) near3 (button) near3 (remote near (control or controller)) near4 (start near3 end) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:07
S230	21	(channel) same (select or selection) same (button) same (remote near (control or controller)) same (start near3 end) same (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:07
S231	153	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/15 19:15

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		storage or RAM or ROM)	EPO; JPO; DERWENT; IBM_TDB			
S232	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:16
S233	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) same (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S234	94	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same (end or ending) near2 (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S235	1243	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same (end or ending) same (time or timening)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:17
S236	49	(transmit or transmitting or Communicate) same (setting or location or place) same (channel) same (memory or store or stored or storage or RAM or ROM) same ((end or ending) near (time or timening))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:18
S237	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:21
S238	0	(transmit or transmitting or Communicate) near5 (setting or location or place) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) same (end or finish or finale or close)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:21
S239	6786	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:22
S240	98	(transmit or transmitting or Communicate) near5 (channel) near5	US-PGPUB; USPAT;	OR	OFF	2015/12/15 19:23

		(memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S241	3	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near3 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:23
S242	3	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near5 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S243	4	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near10 (time or timining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S244	5	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) near10 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:24
S245	5	(transmit or transmitting or Communicate) near5 (channel) near5 (memory or store or stored or storage or RAM or ROM) near5 (end or finish or finale or close) with (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/15 19:25
S246	47	(channel) near5 (display or displayed or displaying) near3 ((two or dual) near screen)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:33
S247	8	(select or selection) near3 (channel) near5 (display or displayed or displaying) near3 ((two or dual) near screen)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:36
S248	89	((two or dual) near screen) near5 (display or displayed or displaying) near3 (end or close or finale)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:42

S249	2	((two or dual) near screen) near5 (display or displayed or displaying) near3 (end or close or finale) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:42
S250	164	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:43
S251	3	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing) near5 (end or finish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:43
S252	104	((two or dual) near screen) near5 (display or displayed or displaying) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:44
S253	88	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:45
S254	5	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) same (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:47
S255	53	((two or dual) near screen) near3 (display or displayed or displaying) near3 (time or timing) and (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:51
S256	125	((two or dual) near screen) near3 (display or displayed or displaying) near3 (end or ending or ended or done or over or finish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:54
S257	70	((two or dual) near screen) near3 (display or displayed or displaying) near3 (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2015/12/16 11:54

			DERWENT; IBM_TDB			
S258	0	((two or dual) near screen) near3 (display or displayed or displaying) near3 (channel) near3 (end or ending or ended or done or over or finish) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 11:57
S259	16967	(switch or switching or switched or switches) near3 (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:02
S260	2035	(switch or switching or switched or switches) near3 (channel) near3 (television)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:04
S261	30	(switch or switching or switched or switches) near3 (channel) near3 (television) near5 (memory or store or stroage or RAM or ROM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:05
S262	1263	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:11
S263	103	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending) near3 (time or timing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:11
S264	93	(channel) near5 (memory or store or stroage or RAM or ROM) near3 (end or ended or ending) near3 (time or timing) and @py<"2012"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:12
S265	4508	(television near broadcast near program)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:15
S266	37	(television near broadcast near program) near3 (end or ended or ending)	US-PGPUB; USPAT; USOCR;	OR	OFF	2015/12/16 12:16

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S267	1	(television near broadcast near program) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:19
S268	1	(television or tv) near3 (broadcast or broadcasting or broadcasted) near3 (program) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S269	3	(television or tv) near3 (broadcast or broadcasting or broadcasted) near3 (end or ended or ending) near3 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S270	3	(television or tv) near5 (broadcast or broadcasting or broadcasted) near5 (end or ended or ending) near5 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:21
S271	11	(television or tv) near15 (broadcast or broadcasting or broadcasted) near15 (end or ended or ending) near15 (exclude or excluded or remove or eliminate or omitted or omitte or disqualified)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:22
S272	2	"20090220209"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:55
S274	6	"20110085088"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:56
S275	7	"20100058414"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:58
S276	2	"20080201736"	US-PGPUB;	OR	OFF	2015/12/16

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:58
S277	5	"20100031288"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 12:59
S278	2	"20120223819"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:00
S279	2	"20060234677"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:55
S280	3	"20120281141"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:56
S281	4	"20070127408"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 13:58
S282	3	"20080165906"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:00
S283	6	"20090129689"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:01
S284	4	"20090058597"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2015/12/16 14:03

			IBM_TDB			
S285	8	"20100023975"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 14:57
S286	3	"20060204229"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 15:47
S287	3	"20060245734"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 15:49
S288	3	"20080238755"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:52
S289	5	"20090055540"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:52
S290	2	"20110314510"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:53
S291	2	"6317168".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:55
S292	2	"20120159536"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 16:56
S293	3	"20100235862"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2015/12/16 17:33

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			EPO; JPO; DERWENT; IBM_TDB			
S294	6	"20050030427"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:34
S295	3	"20050235331"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:35
S296	5	"20110072459"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:49
S297	5	"20120026299"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2015/12/16 17:50
S298	1	(14/649895).APP.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:09
S299	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:10
S300	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:10
S301	2	"20150304591" and (display near apparatus)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:12
S302	2	"20150304591" and (display near apparatus) and television	US-PGPUB; USPAT;	OR	OFF	2016/08/24 09:15

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S303	2	(video near content near delivery near source)	USPAT	OR	OFF	2016/08/24 09:17
S304	5	(video near content near delivery near source)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:19
S305	7325694	(display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:20
S306	15566	(display or displaying or displayed or displayes) near3 (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:21
S307	373	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:22
S308	5	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:22
S309	12	(display or displaying or displayed or displays) near5 (video near content) near5 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 09:26
S310	9687612	(executes or execute or executed or executing or achieve or complete or accomplish)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:32
S311	2775	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 10:42

			DERWENT; IBM_TDB			
S312	584	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:44
S313	1	"20150304591" and (terminal near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:45
S314	0	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:58
S315	0	(executes or execute or executed or executing or achieve or complete or accomplish) near5 (bi-directional) near5 (communication or communicating or communicate) same (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 10:59
S316	2	"20150304591" and (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:00
S317	2	"20150304591" and (terminal) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:00
S318	1	"20150304591" and (terminal near device) and television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:01
S319	0	"20150304591" and (terminal near device) and television and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:03
S320	1	"20150304591" and router	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 11:03

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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S321	560	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:11
S322	25	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S323	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S324	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:12
S325	0	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) same (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:14
S326	2	(first or primary) near3 (wireless or wirelessly) near3 (terminal near device) and without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:15
S328	8	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:19
S329	0	(router) near5 (second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:31
S330	0	(router) with (second or secondary)	US-PGPUB;	OR	OFF	2016/08/24

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		near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			11:32
S331	8	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:32
S333	1	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:35
S334	1	(second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:37
S335	4	(second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:37
S336	50	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:40
S337	0	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:41
S338	40	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same ((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 11:44
S339	0	((second or secondary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different) same	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 11:46

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		((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same communication same (bi-directional or bidirectional)	EPO; JPO; DERWENT; IBM_TDB			
S340	97	((first or primary) near3 (wireless or wirelessly) with ((terminal near device) or (television near receiver))) same (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:01
S341	65	((first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver))) same (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:01
S342	5	((first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver))) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:02
S343	2	(first near3 second) near4 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:05
S344	2	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal near device) or (television near receiver)) near4 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:07
S345	3	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal near device) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:07
S346	195	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:09
S347	156	(first near3 second) near4 (wireless or wirelessly) near4 (terminal) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:10

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S348	195	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near5 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:10
S349	111	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S350	57	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S351	24	(first near3 second) near3 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:11
S352	28	(first near3 second) near4 (wireless or wirelessly) near3 ((terminal) or (television near receiver)) near3 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:15
S353	32	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:15
S354	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:22
S355	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:24
S356	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 12:28

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		network and router same wireless same communication	DERWENT; IBM_TDB			
S357	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:28
S358	284654	(network near3 communication)	USPAT	OR	OFF	2016/08/24 12:31
S359	3539	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish)	USPAT	OR	OFF	2016/08/24 12:32
S360	172105	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish) nea4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S361	11	(network near3 communication) near3 (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S362	435	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional)	USPAT	OR	OFF	2016/08/24 12:33
S363	155	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication)	USPAT	OR	OFF	2016/08/24 12:33
S364	4	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	USPAT	OR	OFF	2016/08/24 12:34
S365	6	(network near3 communication) and (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:35
S366	1	(network near3 communication) same (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:39
S367	81452	(infrared near rays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 12:48

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			DERWENT; IBM_TDB			
S368	1233	(infrared near rays) near2 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:48
S369	8	(infrared near receiver) near2 (infrared near rays) near2 (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:49
S370	132	(control or controller) near3 (display or displaying or displayed or displayes) same (direct near communication)	USPAT	OR	OFF	2016/08/24 12:54
S371	0	(control or controller) near3 (display or displaying or displayed or displayes) same (direct near communication) same (network near communication)	USPAT	OR	OFF	2016/08/24 12:55
S372	7	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication)	USPAT	OR	OFF	2016/08/24 12:55
S373	2	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote)	USPAT	OR	OFF	2016/08/24 12:56
S374	6	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 12:57
S375	1	(control or controller) same (display or displaying or displayed or displayes) same (direct near communication) same (network near communication) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:15
S376	240	(display or displaying or displayed or displayes) near3 (first near video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:20
S377	16	(display or displaying or displayed or displayes) near3 (first near video near content) near3 (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:21

S378	0	(display or displaying or displayed or displayes) near3 (first near video near content) near3 (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:22
S379	2	(display or displaying or displayed or displayes) near3 (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:23
S380	13	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:23
S381	0	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless) near terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:25
S382	0	(display or displaying or displayed or displayes) same (first or primary) near3 (video near2 content) same (select or selected or selecting) same (first near3 wireless) same terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:25
S383	5	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) same (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:27
S384	12	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:28
S385	16	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:29
S386	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 13:29

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		near5 (terminal)	DERWENT; IBM_TDB			
S387	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near5 (terminal near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S388	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal near device))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S389	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:31
S390	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near3 (wireless or wirelessly) near15 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:32
S391	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) near20 (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:32
S392	0	(display or displaying or displayed or displayes) and ((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:33
S393	2	"20150304591" and (video content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:34
S394	2	"20150304591" and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:35
S395	2	"20150304591" and (content)	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/08/24 13:37

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S396	2	"20150304591" and (content) same channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:39
S397	0	((first or primary) near3 (video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:41
S398	3	(display or displaying or displayed or displayes) and ((video near2 content) near3 (select or selected or selecting)) and ((first or primary) near5 (wireless or wirelessly) with (terminal))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:44
S399	789	(first or primary) with (video near2 content) near3 (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:47
S400	1827	(first or primary) with (video near2 content) with (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:48
S401	15407	(video near2 content) with (select or selected or selecting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:49
S402	3048	(video near2 content) with (select or selected or selecting) same (first wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:50
S403	67	(video near2 content) with (select or selected or selecting) same (first wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:51
S404	36	(video near2 content) with (select or	US-PGPUB;	OR	OFF	2016/08/24

		selected or selecting) same (first wireless) near3 (terminal or station) same (display or displaying or displayed or displayes)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:51
S405	0	(video near2 content) with (select or selected or selecting) same (first near2 wireless) near3 (terminal or station) same (display or displaying or displayed or displayes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:52
S406	0	(video near2 content) with (select or selected or selecting) same (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:53
S407	16513	(first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:53
S408	8	(video near2 content) with (select or selected or selecting) and (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:54
S409	0	(video near2 content) with (select or selected or selecting) same (first near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 13:57
S410	0	"20150304591" and (camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:01
S411	9	(change or changing) near (video near content) near3 (second near video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:13
S412	1	(change or changing) near (video near content) near3 (second near video near content) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 14:15

			IBM_TDB			
S413	0	(change or changing) near5 (video near content) near10 (second near video near content) same communication same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:16
S414	2	(change or changing) near5 (video near content) near10 (second near video near content) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:18
S415	1	(change or changing) with (video near content) with (second near video near content) same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:20
S416	8782	(network near3 communication near3 router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:23
S417	8	(network near3 communication near3 router) and (first near video near2 content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:25
S418	0	(video near2 (channel or content)) near5 (change or changing) near5 (second or secondary) near3 (vide near2 (contern or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:29
S419	0	(change or changing or switch or switching) near5 (video near2 (channel or content)) near5 (second or secondary) near3 (vide near2 (contern or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:30
S420	282	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:34
S421	49	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 14:35

		secondary) near3 (display or displaying or displayed or displays)	EPO; JPO; DERWENT; IBM_TDB			
S422	3	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) near3 (display or displaying or displayed or displays) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:36
S423	11	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:39
S424	5	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:42
S425	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:43
S426	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:43
S427	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:47
S428	10	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless and network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 14:49
S429	3	(change or changing or switch or switching or shift) near5 (first or primary) near5 (video) near3 (channel or content) near5 (second or	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 14:50

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		secondary) same (display or displaying or displayed or displays) and router and communication and (video near content) and (channel) and wireless same network	EPO; JPO; DERWENT; IBM_TDB			
S430	5482	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly)	USPAT	OR	OFF	2016/08/24 15:08
S431	3269	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:08
S432	0	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) near10 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:11
S433	392823	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) samr (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:12
S434	0	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:12
S435	24	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) and (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:13
S436	4	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays) and (without or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:19
S437	3	"20130332956"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:22
S438	0	"20130332956" and (video near content)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/08/24 15:22

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			EPO; JPO; DERWENT; IBM_TDB			
S439	997	(display or displaying or displayed or displays) near5 (first or primary) near5 (video near2 (content or channel)) same (second or secondary) near5 (video near2 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:28
S440	18	(display or displaying or displayed or displays) same (first or primary) near5 (video near2 (content or channel)) same (starts or start) near5 (second or secondary) near5 (video near2 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:29
S441	18	(display or displaying or displayed or displays) same ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:42
S442	16	(display or displaying or displayed or displays) with ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:46
S443	9	(display or displaying or displayed or displays) with ((first or primary) near5 (video near2 (content or channel))) same ((starts or start) near5 (second or secondary) near5 (video near2 (content or channel))) with (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:47
S444	11	(video near2 content) with (select or selected or selecting) and (second near3 wireless) near3 (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:56
S445	1	(video near2 content) with (select or selected or selecting) and (second near3 wireless) near3 (terminal or station) same (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 15:57
S446	0	"20140229994"	USPAT	OR	OFF	2016/08/24 16:13
S447	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:13

S448	1	"20140229994" and (second) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:14
S449	0	"20140229994" and (frrst) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:16
S450	0	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content) near5 (another or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:22
S451	0	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content) near5 (another or alternative) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:25
S452	485	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near3 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:25
S453	523	(change or changing or switch or switching or shift) near5 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:26
S454	304	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:28
S455	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:29
S456	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another near video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/08/24 16:31

			DERWENT; IBM_TDB			
S457	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (another or other) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:31
S458	4	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:34
S459	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) near5 (video) same (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:36
S460	0	(change or changing or switch or switching or shift) near3 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative) and (remote near (control or controller))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:37
S461	136730	(remote near (control or controller)) same (change or changing or switch or switching or shift)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:38
S462	35	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:39
S463	1	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content) near3 (different or unlike or unalike or additional or extra or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:39
S464	1	(remote near (control or controller)) same (change or changing or switch or switching or shift) near15 (second or secondary) near5 (video) near5 (channel or content) near5 (different or unlike or unalike or additional or extra or alternative)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:40
S465	32	(display or displaying or displayed or displays) near15 (second or	US-PGPUB; USPAT;	OR	OFF	2016/08/24 16:49

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		secondary) near5 (content or channel) near5 (router)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S466	0	(display or displaying or displayed or displays) near15 (second or secondary) near5 (content or channel) near5 (router) same network same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:49
S467	28	((display or displaying or displayed or displays) near15 (second or secondary) near3 (content or channel) near5 (router))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:51
S468	78	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:52
S469	5	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (router) same ((wireless or wirelessly) near5 (terminal or station))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 16:54
S470	0	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel))) same (start or start) near3 (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:13
S471	25204	((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:14
S472	0	((start or start) near3 (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S473	17	((start or start) with (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 17:16

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			IBM_TDB			
S474	2728	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near3 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S475	3000	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:16
S476	757	((display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel)) and ((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:17
S477	2	((starts or start) with (display or displaying or displayed or displays) near10 (different or unlike or unalike or additional or extra or alternative) near5 (video) near5 (content or channel)) and ((display or displaying or displayed or displays) near15 ((second or secondary) near3 (content or channel)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:18
S478	147	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:30
S479	4	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) near5 (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:31
S480	5	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:32
S481	5	(first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (display or displaying or displayed or displays) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:32
S482	213	(display or displaying or displayed or	US-PGPUB;	OR	OFF	2016/08/24

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		displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			17:39
S483	0	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) same (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:40
S484	5	(display or displaying or displayed or displays) same (first or primary) near5 (content or channel) same (first or primary) near5 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) same (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:40
S485	427	(display or displaying or displayed or displays) same (first or primary) near15 (content or channel) same (first or primary) near15 (wireless or wirelessly) same (terminal or station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:53
S486	7	(display or displaying or displayed or displays) same (first or primary) near15 (content or channel) same (first or primary) near15 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 17:54
S487	424	(first or primary) near15 (wireless or wirelessly) same (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S488	325	(first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S489	130	(first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:04
S490	55	communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near15 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/24 18:05

			IBM_TDB			
S491	12	communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near3 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:06
S492	0	(bi-directional or bi-directional) and communication with (first or primary) near15 (wireless or wirelessly) near20 (terminal or station) and (without or with-out or absence) near3 (router) same communication	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:10
S493	1	"20150304591" and audio	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:12
S494	0	"20150304591" and image	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:14
S495	1	"20150304591" and mobile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 18:14
S496	2	"20100053441"	US-PGPUB; USPAT	OR	OFF	2016/08/24 23:22
S497	5	"20100053441"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:22
S498	3	"20130312040"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:24
S499	3	"20140033900"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:25
S500	2	"20140229994"	US-PGPUB;	OR	OFF	2016/08/24

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			23:26
S501	3	"20120173753"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:28
S502	4	"20130031162"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:29
S503	7	"20120054790"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:30
S504	2	"20140229994"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:31
S505	2	"8749426".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:33
S506	4	"20130031594"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/24 23:34
S507	2	"20080218148"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/08/25 12:13
S508	3	"20100329247"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2016/08/25 12:15

			IBM_TDB			
S509	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:42
S510	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:43
S511	0	("2015/0304591").URPN.	USPAT	OR	OFF	2017/01/17 18:43
S512	0	("direct communication unit executes bi-directional communication directly first wireless terminal device without going via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:44
S513	0	("network communication unit executes bi-directional communication router second wireless terminal device different from first wireless terminal").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:54
S514	0	("infrared receiver unit receives infrared rays from remote controller").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:55
S515	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:55
S516	0	("during display on the display unit first video content selected first wireless terminal device ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:56
S517	0	("if first command changing video content display unit from first video content second video content").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 18:57
S518	0	("transmitted from first second	US-PGPUB;	OR	OFF	2017/01/17

		wireless terminal device network communication unit via router").clm.	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:58
S519	0	("display unit terminates displaying first content and starts display the second ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:54
S520	0	("content and the direct communication unit sends first information for informing termination of the displaying first content directly first wireless terminal device going via router").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:57
S521	0	("during display display unit second video content selected second wireless terminal device").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:58
S522	0	("if second command changing video content display unit from second video content another video content").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:59
S523	0	("transmitted from remote controller infrared receiver unit by infrared rays").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 19:59
S524	0	("display unit terminates displaying second content ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:00
S525	0	("starts display video content and network communication unit sends second information informing termination the displaying second content via router to second wireless terminal ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:01
S526	0	("displaying step display video content broadcast station or video content delivery source display unit video display apparatus ").clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/01/17 20:02

			IBM_TDB			
S527	0	"20100158109"	USPAT	OR	OFF	2017/01/17 20:09
S528	1	"20100031288"	USPAT	OR	OFF	2017/01/17 20:10
S529	12	("2010/0031288").URPN.	USPAT	OR	OFF	2017/01/17 20:10
S530	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:10
S531	9	("20040177378" | "20060210050" | "20070274486" | "20100031288" | "5623537" | "6292210" | "6741684" | "6842622" | "7515698").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:11
S532	128	("5623537").URPN.	USPAT	OR	OFF	2017/01/17 20:12
S533	10	("20040177378" | "20060210050" | "20070274486" | "20100031288" | "5623537" | "6292210" | "6741684" | "6842622" | "7515698").PN. OR ("8369249").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:12
S534	17	("2007/0101370").URPN.	USPAT	OR	OFF	2017/01/17 20:13
S535	0	("2008/0186411").URPN.	USPAT	OR	OFF	2017/01/17 20:15
S536	0	"20080186411"	USPAT	OR	OFF	2017/01/17 20:16
S537	34	("2008/0201736").URPN.	USPAT	OR	OFF	2017/01/17 20:17
S538	3	"20130227622"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:17
S539	22	("20020129364" | "20030145338" | "20030149983" | "20030229900" | "20040261130" | "20070094352" | "20070250901" | "20080152305" | "20080201736" | "20090132349" | "20090327894" | "20100058397" | "20100312596" | "20110131602" | "20110224992" | "20110292992" | "20110320627" | "20130031587" | "20150271572" | "7536706" | "8424037" | "9009339").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:17
S540	3	"20110320627"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:18

S541	5	"20030229900"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/01/17 20:19
S542	9	("5532748" | "5898463" | "5900915" | "5969767" | "5982411" | "6014178" | "6128352" | "6137537" | "6208388").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:20
S543	1	"6208388".pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/01/17 20:20
S560	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:42
S561	2	"20100157978" and (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:52
S562	0	"20100157978" and (display or displaying or displayed) same (video near content)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:53
S563	2	"20100157978" and (display or displaying or displayed) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:54
S564	0	"20100157978" and (display or displaying or displayed) same (video) same (broadcast or broadcasting or broadcasted)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 10:55
S565	2	"20100157978" and (display or displaying or displayed) same (video)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:24
S566	0	"20100157978" and bi-directional	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/03/15 11:27

			DERWENT; IBM_TDB			
S567	3	"20100157978" and wireless	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:35
S568	0	"20100157978" and wireless same router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:36
S569	2	"20100157978" and wireless and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/15 11:36
S570	2	"14649895"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:06
S571	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:06
S572	1	"20150304591" and (hardware)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:24
S573	1	"20150304591" and (hardware) and (software)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:24
S574	7	(display or displaying or displayed or displayes) near3 (video near content) near4 (broadcast or broadcasting or broadcasted) near4 (station)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 13:45
S575	15	(display or displaying or displayed or displays) near5 (video near content) near5 (broadcast or broadcasting or	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/08 13:45

		broadcasted) near4 (station)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S576	8	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:01
S577	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router same wireless same communication same network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:23
S578	2	(network near3 communication) same (executes or execute or executed or executing or achieve or complete or accomplish) near4 (bi-directional or bidirectional) near4 (communication) near4 (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:25
S579	2	"20150304591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:45
S580	0	"20150304591" and ("wireless terminal device")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:48
S581	1	"20150304591" and ("terminal device")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:49
S582	2	"20150304591" and (terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 14:50
S583	1	"20150304591" and (mobile)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:33
S584	2	"20150304591" and (channel)	US-PGPUB;	OR	OFF	2017/05/08

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			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:34
S585	0	"20150304591" and (first near wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:45
S586	0	"20150304591" and (first near3 wireless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:46
S587	1	"20150304591" and (first)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:46
S588	1	"20150304591" and (first) and (second)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:48
S589	1	"20150304591" and without	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 15:58
S590	2	"20100157978" and (remote)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 17:23
S591	2	"20100157978" and (display or displaying or displayed or displays)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/08 17:28
S592	3	"20100157978"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/05/09 10:41

			IBM_TDB			
S593	0	"20100157978" and channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:41
S594	2	"20100157978" and channels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 10:42
S595	2	"20100157978" and (display or displaying or displayed)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:13
S596	2	"20100157978" and (display or displaying or displayed) and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:21
S597	1	"20150304591" and mobile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:24
S598	0	"20150304591" and mobile and smart	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:25
S599	0	"20150304591" and mobile and phone	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:25
S600	1	"20150304591" and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:36
S601	116	(first or primary) near3 (wireless or wirelessly) near3 (mobile) and (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/09 11:43

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			EPO; JPO; DERWENT; IBM_TDB			
S602	518	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:46
S603	0	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly) with (mobile) same (without or absence) with router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:47
S604	14	(bi-directional) near5 (communication or communicating or communicate) near5 (first or primary) near3 (wireless or wirelessly) with (mobile)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:47
S605	3	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and without near5 router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:48
S606	12	(first or primary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) and ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:52
S607	55	(first or primary) near3 (wireless or wirelessly) near3 (mobile) and ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:53
S608	2	(first or primary) near3 (wireless or wirelessly) near3 (mobile) same ((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:54
S609	2	(first or primary) near3 (wireless or wirelessly) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 11:59
S610	5	(first or primary) near3 (mobile) same ((without or absence or absent or	US-PGPUB; USPAT;	OR	OFF	2017/05/09 11:59

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		minus or nonattendance or nonappearance or absenteeism) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN")))	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S611	28	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:02
S612	5	(first or primary) near3 (mobile) near15 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:03
S613	8	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:05
S614	1	(first or primary) near3 (mobile) same ((absence or absent or minus or nonattendance or nonappearance or absenteeism) near3 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:09
S615	21	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near2 ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:12
S616	11	(first or primary) near3 (mobile) same ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) near ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:12
S617	45	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:17
S618	94	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:18

S619	2	"20100157978" and ((router) or (Wi-Fi) or ("wireless LAN"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:21
S620	1432	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network nea router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:33
S621	94	(first or primary) near3 (mobile) with ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:34
S622	40	(first or primary) near3 (mobile) near10 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism or "off") with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 12:35
S623	403029	((second or secondary) neae3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near10 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:17
S624	402852	(((second or secondary) neae3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:18
S625	131627	(((second or secondary) near3 (first or primary)) with (wireless or wirelessly) wtth (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:19
S626	0	(((second or secondary) near3 (first or primary)) near3 (wireless or wirelessly) with (terminal) with ((router) or (Wi-Fi) or ("wireless LAN")	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/09 13:19

		or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	EPO; JPO; DERWENT; IBM_TDB			
S627	0	(((second or secondary) near3 (first or primary)) with (wireless or wirelessly) with (terminal) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router)) near5 ((without or absence or absent or minus or nonattendance or nonappearance or absenteeism) with ((router) or (Wi-Fi) or ("wireless LAN") or (network near router))))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:20
S628	1467	((without) near3 (wireless or wirelessly) near5 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:35
S629	1194	((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:35
S630	0	((first or primary) near terminal) near2 ((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or ("network router")))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:37
S631	0	((first or primary) near terminal) near5 ((without) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:37
S632	0	((first or primary) near terminal) near5 ((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:38
S633	0	((first or second) near terminal) near5 ((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:40
S634	41	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/09 13:43

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		or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router))	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S635	41	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:44
S636	0	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (bi-directional)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:44
S637	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:45
S638	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:47
S639	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:48
S640	31	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (wireless or wirelessly) and (without or absence or absent)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:49
S641	18	((first or primary) near terminal) near5 (wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router) and (without or absence or absent)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 13:54
S642	18	((first or primary) near terminal) near5	US-PGPUB;	OR	OFF	2017/05/09

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		(wireless or wirelessly)) and((without or absence or absent) near3 (wireless or wirelessly) near3 ((router) or (Wi-Fi) or ("wireless LAN") or (network near3 router)) and (communication or communicating or communicate) and (router)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:55
S643	3	"20100157978" and network	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:11
S644	0	"20100157978" and network and (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:16
S645	0	"20100157978" and (different or dissimilar or unalike or unlike)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:16
S646	5	(second or secondary) near3 (wireless or wirelessly) near3 ((terminal near device) or (television near receiver)) near5 (different) near5 (first or primary) near3 (wireless or wirelessly)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:27
S647	5	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:32
S648	11	(first near3 second) near4 (wireless or wirelessly) near4 ((terminal) or (television near receiver)) near4 (different or dissimilar or unalike or unlike) same communication same network and ((router) or (Wi-Fi) or ("wireless LAN") or ("network router"))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:33
S649	2	"20100157978" and (call or calling) and (caller)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 14:44
S650	3	"20130330053"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/05/09 15:14

			EPO; JPO; DERWENT; IBM_TDB			
S651	1	("2013/0330053").URPN.	USPAT	OR	OFF	2017/05/09 15:30
S652	5	("20030021254" | "20060098174" | "20120166388" | "20130330053" | "20150222843").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/05/09 15:30
S653	2	"20130330053" and channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:35
S654	3	"20130330053" and router	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 15:36
S655	2	"20100157978" and remote same television	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:23
S656	2	"20100157978" and remote same television same infrared	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:23
S657	0	"20100157978" and remote same television same infrared same channel	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:32
S658	2	"20100157978" and remote same television same infrared same channels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:32
S659	0	"20100157978" and anotherchannels	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:37
S660	0	"20100157978" and another	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/05/09 16:37

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			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S661	3	"20100157978" and user	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/05/09 16:41

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S544	0	("direct communication unit executes bi-directional communication directly first wireless terminal device without going via router").clm.	USPAT	OR	OFF	2017/01/17 20:02
S545	0	("network communication unit executes bi-directional communication router second wireless terminal device different from first wireless terminal").clm.	USPAT	OR	OFF	2017/01/17 20:03
S546	0	("infrared receiver unit receives infrared rays from remote controller").clm.	USPAT	OR	OFF	2017/01/17 20:03
S547	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	USPAT	OR	OFF	2017/01/17 20:03
S548	0	("controller controls the display unit, direct communication unit, network communication unit, infrared receiver").clm.	USPAT	OR	OFF	2017/01/17 20:03
S549	0	("during display on the display unit first video content selected first wireless terminal device ").clm.	USPAT	OR	OFF	2017/01/17 20:03
S550	0	("if first command changing video content display unit from first video content second video content").clm.	USPAT	OR	OFF	2017/01/17 20:04
S551	0	("transmitted from first second wireless terminal device network communication unit via router").clm.	USPAT	OR	OFF	2017/01/17 20:04
S552	0	("display unit terminates displaying first content and starts display the second ").clm.	USPAT	OR	OFF	2017/01/17 20:04
S553	0	("content and the direct communication unit sends first information for informing termination of the displaying first content directly first wireless terminal device going via router").clm.	USPAT	OR	OFF	2017/01/17 20:04
S554	0	("during display display unit second video content selected second wireless terminal device").clm.	USPAT	OR	OFF	2017/01/17 20:04
S555	0	("if second command changing video content display unit from second video content another video content").clm.	USPAT	OR	OFF	2017/01/17 20:04
S556	0	("transmitted from remote controller infrared receiver unit by infrared rays").clm.	USPAT	OR	OFF	2017/01/17 20:04
S557	0	("display unit terminates displaying second content ").clm.	USPAT	OR	OFF	2017/01/17 20:05

S558	0	("starts display video content and network communication unit sends second information informing termination the displaying second content via router to second wireless terminal ").clm.	USPAT	OR	OFF	2017/01/17 20:05
S559	0	("displaying step display video content broadcast station or video content delivery source display unit video display apparatus ").clm.	USPAT	OR	OFF	2017/01/17 20:05

5/9/2017 10:23:28 PM
C:\Users\mrahman1\Documents\EAST\Workspaces\14649895.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14649895	HIRABAYASHI, MASAYUKI
	Examiner	Art Unit
	MUSTAFIZUR RAHMAN	2422

CPC- SEARCHED		
Symbol	Date	Examiner
H04N	05/09/2017	MR

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner
H04N 21/4852; 5/50, 4403, 44, 7/173;	05/09/2017	MR

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
348	731	05/09/2017	MR
348	732	05/09/2017	MR
348	725	05/09/2017	MR
348	723	05/09/2017	MR
348	719	05/09/2017	MR
348	716	05/09/2017	MR
348	714	05/09/2017	MR
348	706	05/09/2017	MR
348	705	05/09/2017	MR
348	14.07; 158; 231.3; 376; 510; 552; 553; 563; 564; 567; 576;	05/09/2017	MR
725	30; 32; 34; 37; 38; 40; 60; 54; 100; 110; 114;	05/09/2017	MR
455	343.3; 428;	05/09/2017	MR
340	10.42	05/09/2017	MR
709	231; 203;	05/09/2017	MR

SEARCH NOTES		
Search Notes	Date	Examiner
Consulted with Primary Examiner Brian Yenke Class 348	05/09/2017	MR
Consulted with Primary Examiner Michael Lee Class 348	05/09/2017	MR
Please See East Search History	05/09/2017	MR
Text Search with Clasiffication	05/09/2017	MR
Inventor Search	05/09/2017	MR

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
PALM Search	05/09/2017	MR
BackWard/ForWard Citations Search	05/09/2017	MR
Google Search	05/09/2017	MR
Consulted with Primary Examiner Golam Sorowar Class 455	05/09/2017	MR

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
348	731; 732; 725; 723; 719; 716; 714; 706; 705; 14.07; 158; 231.3; 376;	05/09/2017	MR
348	510; 552; 553; 563; 564; 567; 576;	05/09/2017	MR
725	30; 32; 34; 37; 38; 40; 60; 54; 100; 110; 114;	05/09/2017	MR
455	343.3; 428;	05/09/2017	MR
340	10.42	05/09/2017	MR
709	231; 203;	05/09/2017	MR

/MUSTAFIZUR RAHMAN/ Examiner.Art Unit 2422	

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/649,895	06/04/2015	Masayuki HIRABAYASHI	075425-0047	1257

20277 7590 03/09/2017
MCDERMOTT WILL & EMERY LLP
The McDermott Building
500 North Capitol Street, N.W.
WASHINGTON, DC 20001

EXAMINER
RAHMAN, MUSTAFIZUR

ART UNIT	PAPER NUMBER
2422	

NOTIFICATION DATE	DELIVERY MODE
03/09/2017	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipdocketmwe@mwe.com

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 14/649,895	**Applicant(s)** HIRABAYASHI, MASAYUKI	
	Examiner BRIAN YENKE	**Art Unit** 2422	**AIA (First Inventor to File) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 January 2017 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires *4* months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
   c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.
   Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.
   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
    The examienr notes the translation of the priority document to overcome the prior art was filed after a Final rejection. Since prosecution is closed and since the examiner must establish that the priority document satisfies the enablement and description requirements of the 35 USC 112, this raises new issues requireing further consideration (and/or search). Since zero time is given for an After Final request as filed, the examiner notes the filing of a RCE would provide the examiner proper time for the above. The examiner also notes the examiner of record for this application is currently on leave, and thus this paperwork has been sent out in his absence. .
13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:
    Claim(s) allowed:

/BRIAN YENKE/
Primary Examiner, Art Unit 2422

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Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-14)
Approved for use through 07/31/2016. OMB 0651-0031
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	14649895	Filing Date	2015-06-04	Docket Number (if applicable)	075425-0047	Art Unit	2422
First Named Inventor	Masayuki HIRABAYASHI			Examiner Name	M. Rahman		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, to any international application that does not comply with the requirements of 35 U.S.C. 371, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV.

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☒ Other Amendment Under Final Office Action, filed January 6, 2017

☐ Enclosed

☐ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 50-0417

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

☐ Applicant Signature

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Page 439 of 546

PTO/SB/30EFS (07-14)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Signature of Registered U.S. Patent Practitioner			
Signature	/Alexander Ott/	Date (YYYY-MM-DD)	2017-03-08
Name	Alexander Ott	Registration Number	63110

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/AIA/22 (03-13)
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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Docket Number (Optional): 075425-0047

Application Number	14/649,895-Conf. #1257	Filed	June 4, 2015

For: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

Art Unit	2422	Examiner	M. Rahman

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

		Fee	Small Entity Fee	Micro Entity Fee	
☐	One month (37 CFR 1.17(a)(1))	$200	$100	$50	$
☐	Two months (37 CFR 1.17(a)(2))	$600	$300	$150	$
☒	Three months (37 CFR 1.17(a)(3))	$1,400	$700	$350	$ 1200
☐	Four months (37 CFR 1.17(a)(4))	$2,200	$1,100	$550	$
☐	Five months (37 CFR 1.17(a)(5))	$3,000	$1,500	$750	$

☒ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☒ The Director has already been authorized to charge fees in this application to a Deposit Account.

☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-0417 .

☒ Payment made via EFS-Web.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ applicant.

☒ attorney or agent of record. Registration number 63,110 .

☐ attorney or agent acting under 37 CFR 1.34. Registration number _____ .

/Alexander Ott/	March 8, 2017
Signature	Date
Alexander Ott	(202) 756-8496
Typed or printed name	Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

☐ * Total of 1 forms are submitted.

Electronic Patent Application Fee Transmittal	
Application Number:	14649895
Filing Date:	04-Jun-2015
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Filer:	Alexander P. Ott/Kimberly Pollard
Attorney Docket Number:	075425-0047
Filed as Large Entity	

Filing Fees for U.S. National Stage under 35 USC 371

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $200 paid	1253	1	1200	1200
Miscellaneous:				
RCE- 1st Request	1801	1	1200	1200
		Total in USD ($)		**2400**

Electronic Acknowledgement Receipt	
EFS ID:	28573500
Application Number:	14649895
International Application Number:	
Confirmation Number:	1257
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Customer Number:	20277
Filer:	Alexander P. Ott/Kimberly Pollard
Filer Authorized By:	Alexander P. Ott
Attorney Docket Number:	075425-0047
Receipt Date:	08-MAR-2017
Filing Date:	04-JUN-2015
Time Stamp:	16:42:15
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$2400
RAM confirmation Number	030917INTEFSW00003530500417
Deposit Account	500417
Authorized User	Kimberly Pollard
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		075425-0047_RCEEXTENSION.pdf	109496 7e1287f5f0dff963deac489400ee477b6ae5dfc4	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Request for Continued Examination (RCE)	1	2
	Extension of Time	3	3

Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	32866 ebf91029b76771d0549f81f91eb93bc99d714ae4	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	142362		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/649,895	Filing Date 06/04/2015	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **03/08/2017**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 2	Minus	** 20	= 0	X $80 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $420 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
PARTHENIA D. MERRILL

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Docket No.: 075425-0047
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of: Masayuki HIRABAYASHI	:	Customer Number: 20277
Application No.: 14/649,895	:	Confirmation No.: 1257
Filed: June 4, 2015	:	Art Unit: 2422
For: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS	:	Examiner: Mustafizur Rahman

AMENDMENT AFTER FINAL OFFICE ACTION

MS AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INTRODUCTORY COMMENTS

In response to the final Office Action dated September 9, 2016, having a three-month shortened statutory period for response set to expire December 9, 2016, and one-month extension of time up to and including January 9, 2017, being filed concurrently herewith, Applicant respectfully requests reconsideration of the above-identified application in view of the following amendments and remarks.

Amendments to the Claims begin on page 2 of this paper.

Remarks begin on page 5 of this paper.

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AMENDMENT TO THE CLAIMS

1–11. (Cancelled).

12. (Currently Amended) A video display apparatus comprising:

a display unit that displays a video content from a broadcast station or from a video content delivery source;

a direct communication unit that executes bi-directional communication directly with a first wireless terminal device without going via a router;

a network communication unit that executes bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal;

an infrared receiver unit that receives infrared rays from a remote controller; and

a controller that controls the display unit, the direct communication unit, the network communication unit, and the infrared receiver.

wherein, during display on the display unit of a first video content selected with the first wireless terminal device , if a first command for changing a video content on the display unit from the first video content to a second video content is transmitted from the ~~first~~ second wireless terminal device to the network communication unit via the router, the display unit terminates displaying the first content and starts to display the second content and the direct communication unit sends first information for informing termination of the displaying of the first content directly to the first wireless terminal device without going via a router, and

wherein, during display on the display unit of the second video content selected with the second wireless terminal device, if a second command for changing a video content on the display unit from the second video content to another video content is transmitted from the remote controller to the infrared receiver unit by infrared rays, the display unit terminates

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displaying the second content and starts to display another video content and the network communication unit sends second information for informing termination of the displaying of the second content via the router to the second wireless terminal.

13. (Currently Amended) A method for changing a content on the video display apparatus comprising:

displaying step to display a video content from a broadcast station or from a video content delivery source, on a display unit of the video display apparatus;

direct communication step to execute bi-directional communication directly with a first wireless terminal device without going via a route;

network communication step to execute bi-directional communication via a router with a second wireless terminal device that is different from the first wireless terminal device; and

infrared ray receiving step to receive infrared rays from a remote controller;

wherein, during display on the display unit of a first video content selected with the first wireless terminal device, if a first command for changing a video content on the display unit from the first video content to a second video content is transmitted from the ~~first~~ second wireless terminal device to the video display apparatus via the router, the video display apparatus terminates displaying the first content and starts to display the second content and the video display apparatus sends first information for informing termination of the displaying of the first content directly to the first wireless terminal device without going via a router, and

wherein, during display on the display unit of the second video content selected with the second wireless terminal device, if a second command for changing a video content on the display unit from the second video content to another video content is transmitted from the remote controller to the video display apparatus by infrared rays, the display unit terminates

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displaying the second content and starts to display another video content and the video display apparatus sends second information for informing termination of the displaying of the second content via the router to the second wireless terminal.

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REMARKS

Claims 12 and 13 are pending in this application. By this response, claims 12 and 13 are amended for clarity. All amendments made to the claims are fully supported by the specification as originally filed. Hence, no new matter has been introduced.

Entry of various comments regarding the claims and/or the art, in the Office Action, should not be construed as any acquiescence or agreement by Applicant with the stated reasoning, regardless of whether or not these remarks specifically address any particular comment from the Office Action.

Reconsideration of this application for allowance of all pending claims is hereby respectfully requested in view of the amendments to the claims and following remarks.

Claim Rejection Under 35 U.S.C. § 103

Claims 12 and 13 were rejected under pre-AIA 35 U.S.C. § 103(a) for allegedly being unpatentable over U.S. Pub. No. 2013/0330053 ("Lee") in view of U.S. Pub. No. 2010/0053441 ("Tokashiki"), U.S. Pub. No. 2013/0312040 ("Kim '040"), U.S. Pub. No. 2014/0033900 ("Chapman"), U.S. Pub. No. 2014/0229994 ("Fell"), U.S. Pub. No. 2012/0173753 ("Moorthy"), U.S. Pub. No. 2013/0031162 ("Willis"), U.S. Pub. No. 2012/0054790 ("Kim '790"), U.S. Pub. No. ("Hastings"), and U.S. Pub. No. 2013/0031594 ("Sansom"). Applicant respectfully traverses these rejections because Lee and Kim are not prior art to the present application.

Lee and Kim '040 were published after the November 6, 2013 international filing date of the present application and have effective filing dates of March 15, 2013 and April 26, 2013, respectively, for the purposes of being utilized as prior art against pending U.S. patent applications under 35 U.S.C. § 102(e) (pre-AIA). However, the instant application has a priority date of December 7, 2012 based on the claim of priority to JP 2012-267765. Applicant submits a certified translation of the priority document in order to perfect the claim of priority. Thus, Lee and Kim do not constitute prior art to the instant application.

Because Lee and Kim '040 do not constitute prior art to this application, the Office Action's asserted combination of Lee, Tokashiki, Kim '040, Chapman, Fell, Moorthy, Willis, Kim '790, Hastings, and Sansom cannot render the claims unpatentable. Applicant therefore submits that the rejection of claims 12 and 13 under 35 U.S.C. § 103 for obviousness predicated upon those references is not viable and requests that it be withdrawn.

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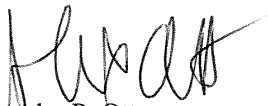
Conclusion

In view of the above amendments and remarks, Applicant submits that this application should be allowed and the case passed to issue. If there are any questions regarding this Amendment or the application in general, a telephone call to the undersigned would be appreciated to expedite the prosecution of the application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT WILL & EMERY LLP



Alexander P. Ott
Registration No. 63,110

500 North Capitol Street, N.W.
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Phone: (202) 756-8496 APO:ajb
Facsimile: (202) 756-8087
Date: January 6, 2017

Please recognize our Customer No. 20277 as our correspondence address.

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VERIFICATION OF TRANSLATION

Patent Application Number

14/649,895

I, Ryota TSUJIHASHI

Of c/o TSUTSUI & ASSOCIATES of
3F, Shinjuku Gyoen Bldg.,
3-10, Shinjuku 2-chome, Shinjuku-ku,
Tokyo 160-0022, JAPAN

am a translator of the documents attached, and state that the following is a true translation to the best of my knowledge and belief of Japanese Patent Application Number 2012-267765

DATED this 5th day of January, 2017

Signature of the Translator Ryota TSUJIHASHI

Translation of priority document of Japanese Patent Application No. 2012-267765

[Document] Patent Application

[Docket Number] D12505291A

[Date of Application] December 7, 2012

[Destination] Commissioner, Patent Office

[I.P.C.] H04N 7/173

[Inventor]

[Residence or Post Office Address]

c/o HITACHI MAXELL, LTD., of

1-88, Ushitora 1-chome, Ibaraki-shi, Osaka 567-8567, Japan

[Name] Masayuki HIRABAYASHI

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[Patent Attorney]

[Name]	Shigemi IWASAKI	
[Official Fee]		
[Account Number]	013088	
[Amount]	¥15,000	
[List of Submitted Articles]		
[Article]	Specification	1
[Article]	Claims	1
[Article]	Drawings	1
[Article]	Abstract	1

Information of Past Record of Applicant

Identification Number [000005810]

1. Date of Conversion September 8, 2014

[Reason of Conversion] Change of Applicant

Successor HITACHI MAXELL, LTD.

[DOCUMENT NAME] SPECIFICATION

[TITLE OF THE INVENTION] VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

[TECHNICAL FIELD]

[0001]

The present invention relates to a video display apparatus and a terminal apparatus.

[BACKGROUND ART]

[0002]

As a background art in this technical field, there is Japanese Patent Application Laid-Open Publication No. 2009-65305 (Patent Document 1). An object of the invention described in this publication is "To provide a technique for appropriately providing a seamless viewing style without depending on places by a terminal apparatus and a large-screen information receiving terminal apparatus".

[0003]

As a solution to this issue, the publication describes "An information receiving terminal apparatus includes means for transmitting mobile viewing information to a terminal apparatus, and a video information system controls a viewing environment for satisfying respective requests from two or more users, and is configured to enable the continuous viewing of a content viewed at the information receiving terminal apparatus by the transmission and reception of the content to and from the terminal apparatus and enable the continuous viewing conversely at the information receiving terminal of the content viewed at the terminal apparatus based on inter-terminal cooperation and center cooperation of time code information for continuing content viewing from the information receiving terminal apparatus to the terminal apparatus".

[0004]

Also, as another background art, there is Japanese Patent Application Laid-Open Publication No. 2001-275090 (Patent Document 2). An object described in this publication is "To provide a broadcast receiving apparatus capable of preventing a main story after a CM from being missed".

[0005]

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As a solution to this issue, the publication describes "A broadcast receiving apparatus 10 includes first and second tuners 13a and 13b that receive broadcasting and a RAM 18 that stores a received video, when a program on a channel which is being received by the first tuner 13a is being output, a predetermined amount of video of the program immediately before a most recent CM is stored in the RAM 18, when an instruction to switch the channel to another channel is issued during the CM, the other channel is received by the second tuner 13b and a program on the other channel is output instead of the program on the channel being received by the first tuner 13a, and when the video immediately before the CM stored in the RAM 18 and the video on the channel being received by the first tuner 13a are approximate to each other, the end of the CM is output".

[PRIOR ART DOCUMENT]

[PATENT DOCUMENT]

[0006]

[PATENT DOCUMENT 1] Japanese Patent Application Laid-Open Publication No. 2009-65305

[PATENT DOCUMENT 2] Japanese Patent Application Laid-Open Publication No. 2001-275090

[SUMMARY OF THE INVENTION]

[PROBLEMS TO BE SOLVED BY THE INVENTION]

[0007]

As an effect of the invention, the above-mentioned Patent Document 1 describes "While viewing a content with a family in a living room by a large-screen receiving terminal apparatus (e.g., a television receiver), each individual can acquire information and data for the convenience of the individual by a terminal apparatus which is held at hand and carried by each individual.", and this is convenient to use when a plurality of users continue to view the same content. However, the Patent Document 1 does not take into consideration the case where the plurality of users respectively view different contents.

[0008]

For example, Patent Document 1 does not particularly take into consideration the fact that, when a plurality of users view a television broadcasting by one video display apparatus

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and one of the users switches a channel, the other users cannot continue to view the channel before the switching.

[0009]

Also, according to Patent Document 2, it is possible to prevent a main story after a CM from being missed.

[0010]

However, Patent Document 2 describes "Event information including a type, a title, and a start time of an event such as a CM is incorporated into data for digital broadcasting.", and has an issue that the CM cannot be specified without such an operation.

[0011]

Thus, an object of the present invention is to provide user-friendly video display apparatus and terminal apparatus.

[MEANS FOR SOLVING THE PROBLEMS]

[0012]

To solve the above-mentioned issue, for example, a configuration described in the scope of the claims is adopted.

[0013]

The present application includes a plurality of means for solving the issue mentioned above, and one example thereof is a terminal apparatus having a remote control function of a video display apparatus, and the terminal apparatus includes: a communication unit that transmits a command related to setting of the video display apparatus and receives status information; a signal receiving unit that receives a signal output from a broadcast station and decodes a video content; a memory unit that stores a content of a command including a channel of the video content; and a display unit that displays the video content and various types of information. In the terminal apparatus, the communication unit transmits an identification code specific to the terminal apparatus when transmitting the command, and when the status information is received after a channel of the video display apparatus is set by remote control, the video content of the channel stored in the memory unit is decoded by the signal receiving unit and is displayed on the display unit.

[0014]

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Also, another example thereof is a terminal apparatus having a function of remotely controlling a video display apparatus that displays a video of a television program and a video serving as advertisement means accompanying a television program, and the terminal apparatus includes: a transmission unit that transmits a command related to setting of the video display apparatus; a television signal receiving unit that receives a television signal; and a memory unit that stores a channel that has been viewed without being switched for a predetermined period of time. In the terminal apparatus, the television signal receiving unit detects a start timing and an end timing of the video serving as the advertisement means, and when a channel selection button of a remote control function is pressed in a period of time from the start timing to the end timing, the transmission unit transmits a setting command of the channel, and further transmits a setting command of the channel stored in the memory unit in response to the end timing.

[EFFECTS OF THE INVENTION]

[0015]

According to the present invention, it is possible to provide user-friendly video display apparatus and terminal apparatus.

[0016]

Issues, configurations, and effects other than the foregoing will become apparent from the following description of embodiments.

[BRIEF DESCRIPTION OF THE DRAWINGS]

[0017]

[FIG. 1] A diagram illustrating a configuration of a video display system according to the first embodiment.

[FIG. 2] A block diagram illustrating a configuration of a terminal apparatus according to the first embodiment.

[FIG. 3] A block diagram illustrating a configuration of a video display apparatus according to the first embodiment.

[FIG. 4] A flowchart illustrating a process of the terminal apparatus according to the first embodiment.

[FIG. 5(a)] An example of display on a screen of the terminal apparatus according to the first embodiment.

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[FIG. 5(b)] An example of display on a screen of the terminal apparatus according to the first embodiment.

[FIG. 5(c)] An example of display on a screen of the terminal apparatus according to the first embodiment.

[FIG. 5(d)] An example of display on a screen of the terminal apparatus according to the first embodiment.

[FIG. 6] A flowchart illustrating a process of the video display apparatus according to the first embodiment.

[FIG. 7] A flowchart illustrating a process of a video display apparatus according to the second embodiment.

[FIG. 8] A flowchart illustrating a process of a terminal apparatus according to the third embodiment.

[FIG. 9] A flowchart illustrating a process of a video display apparatus according to the third embodiment.

[FIG. 10] A flowchart illustrating a process of a video display apparatus according to the fourth embodiment.

[FIG. 11] A diagram illustrating a configuration of a video display system according to the fifth embodiment.

[FIG. 12] A flowchart illustrating a process of a terminal apparatus according to the fifth embodiment.

[FIG. 13(a)] An example of display on a screen of the terminal apparatus according to the third embodiment.

[FIG. 13(b)] An example of display on a screen of the terminal apparatus according to the third embodiment.

[FIG. 13(c)] An example of display on a screen of the terminal apparatus according to the fifth embodiment.

[FIG. 13(d)] An example of display on a screen of the terminal apparatus according to the fifth embodiment.

[FIG. 14] A flowchart illustrating a process of a video display apparatus according to the sixth embodiment.

[FIG. 15] A flowchart illustrating a process of a terminal apparatus according to the seventh embodiment.

[FIG. 16] A flowchart illustrating a missing prevention process of the terminal apparatus according to the seventh embodiment.

[FIG. 17] A flowchart illustrating a process of a video display apparatus according to the seventh embodiment.

[FIG. 18] A flowchart illustrating a missing prevention

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process of a terminal apparatus according to the eighth embodiment.

[FIG. 19] A flowchart illustrating a missing prevention process of a terminal apparatus according to the ninth embodiment.

[FIG. 20] A flowchart illustrating a missing prevention process of a terminal apparatus according to the tenth embodiment.

[FIG. 21] A flowchart illustrating a missing prevention process of a terminal apparatus according to the eleventh embodiment.

[FIG. 22] A flowchart illustrating a missing prevention process of a terminal apparatus according to the twelfth embodiment.

[FIG. 23] An example of display on a screen of the terminal apparatus according to the seventh embodiment.

[FIG. 24] A flowchart illustrating a process of a terminal apparatus according to the thirteenth embodiment.

[FIG. 25] A flowchart illustrating a process of a video display apparatus according to the thirteenth embodiment.

[FIG. 26] A flowchart illustrating a process of a terminal apparatus according to the fourteenth embodiment.

[FIG. 27] A flowchart illustrating a missing prevention process of the terminal apparatus according to the fourteenth embodiment.

[BEST MODE FOR CARRYING OUT THE INVENTION]

[0018]

Hereinafter, embodiments will be described with reference to the drawings.

[First Embodiment]

[0019]

FIG. 1 is a diagram illustrating a configuration of a video display system according to the first embodiment of the present invention. The video display system according to the present embodiment includes a plurality of terminal apparatuses 1 and a video display apparatus 3.

[0020]

The terminal apparatus 1 has a wireless communication

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function, and can transmit and receive various types of information to and from an Internet network. Also, the terminal apparatus 1 has a function of performing the control of the video display apparatus 3 in a remote place (hereinafter referred to as "remote control"), and a user can control a channel and an audio volume of the video display apparatus 3 by using the terminal apparatus 1. When the plurality of terminal apparatuses 1 need to be distinguished from one another, the terminal apparatuses 1 are written as terminal apparatuses 1a, 1b, 1c, ... and the like.

[0021]

A remote controller 2 is a control apparatus dedicated to the video display apparatus 3, and can operate the video display apparatus 3 by infrared rays.

[0022]

The video display apparatus 3 is an apparatus that receives and displays a video content, and can receive, for example, a television signal by wireless or by wire from a broadcast station 5 and display a video content based on the television signal. Also, the video display apparatus 3 can display a video content received from a network 7 via a wireless router 6, for example, an Internet content of a URL (Uniform Resource Locator) specified by the user or the like. Thus, the video display apparatus 3 can receive and display a video content delivered from a delivery source specified by the user or the like, for example, a specific broadcast station 5 and URL. The number of video display apparatuses 3 is not limited to one and a plurality of video display apparatuses 3 may be provided. Further, the terminal apparatus 1 also can receive and display the video content.

[0023]

The broadcast station 5 is an apparatus that outputs a television signal.

[0024]

The wireless router 6 has a wireless LAN (Local Area Network) function such as Wi-Fi (Wireless Fidelity), and can be connected to the network 7 via a communication network. The terminal apparatus 1 and the video display apparatus 3 can

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acquire and display a video content and various types of information from the internet network by being connected to the wireless router 6. Alternatively, although an example in which the wireless router 6 and the video display apparatus 3 are connected to each other by wireless has been illustrated, they may be connected to each other by wire.

[0025]

FIG. 2 is a block diagram illustrating a configuration of the terminal apparatus 1 illustrated in FIG. 1.

[0026]

A control unit 20 controls each of the units in the terminal apparatus 1. The control unit 20 is made up of a CPU (Central Processing Unit) or any control circuit or a dedicated circuit such as an ASIC (Appreciation Specific IC).

[0027]

A television signal receiving unit 21 is made up of a signal processing circuit including a tuner, a decoding circuit and others in addition to an antenna, and receives a television signal output from the broadcast station 5, decodes a video and an audio, and sends the decoded video and audio to a display unit 22 and an audio output unit 23.

[0028]

The display unit 22 is, for example, a liquid crystal panel and displays various types of information. The audio output unit 23 is made up of, for example, an amplifier and a speaker, and outputs various types of audios. An operation unit 24 is, for example, a touch pad, and receives an operation by the user and transmits an instruction based on the operation to the control unit 20. An apparatus obtained by integrating and combining the liquid crystal panel and the touch pad is generally referred to as a touch panel, and an example using the touch panel is described in the present embodiment.

[0029]

A memory unit 25 is made up of a ROM (Read Only Memory), a RAM (Random Access Memory), a flash ROM, and the like, and stores a program for controlling the terminal apparatus 1, various types of setting values and video contents, and the like.

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[0030]

A LAN communication unit 26 transmits various types of commands to the video display apparatus 3 via the wireless router 6 or the like by using, for example, Wi-Fi. Further, the LAN communication unit 26 receives status information or the like from the video display apparatus 3. The command is information with which the terminal apparatus 1 performs the remote control of the video display apparatus 3, and examples of the command include a power supply command for issuing an instruction to switch ON and OFF of a power supply and a setting command for designating a specific channel and audio volume. The status information includes information capable of specifying whether remote control can be performed. Alternatively, the LAN communication unit 26 may directly transmit and receive the command and the status information to and from the video display apparatus 3 without the wireless router 6 and the like by using, for example, infrared rays, Wi-Fi Direct, or Bluetooth (registered trademark).

[0031]

When the command is transmitted, an identification code specific to the terminal apparatus 1 is also transmitted. An ID (identification) individually assigned to the terminal apparatus 1, a telephone number, and the like can be applied as the identification code. Generally, since it is assumed that one user possesses one terminal apparatus 1, for example, a user ID given to each user by a manufacturer of the terminal apparatus 1 may be applied. In this case, the user ID is previously stored in the terminal apparatus 1 based on an operation by the user or the like.

[0032]

FIG. 3 is a block diagram illustrating a configuration of the video display apparatus 3 illustrated in FIG. 1.

[0033]

A control unit 30 controls each of the units in the video display apparatus 3. The control unit 30 is made up of a CPU or any control circuit or a dedicated circuit such as an ASIC.

[0034]

A television signal receiving unit 31 is made up of, for

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example, a signal processing circuit including a tuner and a decoding circuit in addition to an antenna, and receives a television signal output from the broadcast station 5, decodes a video and an audio, and sends the decoded video and audio to a display unit 32 and an audio output unit 33. The television signal receiving unit 31 includes a plurality of signal processing circuits described above or the like, and can simultaneously receive a plurality of channels.

[0035]

The display unit 32 is made up of, for example, a liquid crystal panel, a plasma panel, or an organic EL (ElectroLuminescence) panel, and displays various types of video contents and various types of information.

[0036]

An audio output unit 33 is made up of, for example, an amplifier and a speaker, and outputs various types of audios.

[0037]

An infrared communication unit 34 receives a control command transmitted from a terminal apparatus having an infrared communication function or the dedicated remote controller 2 by using, for example, infrared rays, and transmits the instruction to the control unit 30.

[0038]

A memory unit 35 is made up of a ROM, a RAM, a flash ROM, and the like, and stores an identification code of the terminal apparatus 1, which has transmitted a power supply command, in addition to a program for controlling the video display apparatus 3 and various types of setting and video contents. A storage such as an HDD (Hard Disc Drive) or a BD (Blu-ray (registered trademark) Disc) drive may be equipped.

[0039]

A LAN communication unit 36 is connected to the wireless router 6 by wire or by wireless, and can receive a video content or the like from the Internet network or the like. Also, the LAN communication unit 36 receives various types of commands from the terminal apparatus 1 via the wireless router 6 or the like by using, for example, Wi-Fi. Also, the LAN communication unit 36 transmits status information to the

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terminal apparatus 1. The LAN communication unit 36 may directly transit and receive the command and the status information to and from the terminal apparatus 1 without the wireless router 6 or the like by using, for example, infrared rays, Wi-Fi Direct, or Bluetooth.

[0040]

FIG. 4 is a flowchart illustrating a process of the terminal apparatus 1 according to the first embodiment of the present invention. This flowchart illustrates the process in the case where the terminal apparatus 1 performs the remote control of the video display apparatus 3.

[0041]

In step S401, the terminal apparatus 1 waits until application software for performing the remote control of the video display apparatus 3 (hereinafter referred to as "operation application") is started based on an operation by a user.

[0042]

FIG. 5 illustrates an example of various types of display on the touch-panel display unit 22 in the terminal apparatus 1. FIG. 5(a) illustrates a menu screen on which various types of application software are arranged in the terminal apparatus 1. When the user presses, for example, a "television" button displayed on the touch panel, the operation application is started.

[0043]

In step S402, the terminal apparatus 1 selects the video display apparatus 3 serving as a target of the remote control based on the operation by the user. FIG. 5(b) illustrates an example of display on a selection screen in the case where there are two video display apparatuses 3 that can be selected as a target of the remote control. Here, it is assumed that a "television A" is selected.

[0044]

When the video display apparatus 3 serving as a target of the remote control is selected, the terminal apparatus 1 displays various types of instructions that can be transmitted to the video display apparatus 3. FIG. 5(c) illustrates an

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example of display on an operation screen of the video display apparatus 3 in that case.

[0045]

Next, in step S403, the terminal apparatus 1 confirms whether the user has performed an operation for ending the operation application. When the operation for ending the operation application, for example, the operation of pressing an "end" button displayed on the terminal apparatus 1 has been performed, the terminal apparatus 1 returns to a process of displaying a menu screen.

[0046]

In step S404, the terminal apparatus 1 confirms whether the user has pressed a "power" button. When the "power" button displayed on the terminal apparatus 1 has been pressed, the terminal apparatus 1 transmits a power supply command and an identification code to the video display apparatus 3 (step S405), and repeats the process from step S403.

[0047]

When the "power" button displayed on the terminal apparatus 1 has not been pressed, in step S406, the terminal apparatus 1 confirms whether the user has pressed a channel setting button of a remote control function. When a channel setting button such as a "1" button or a "2" button displayed on the terminal apparatus 1 has been pressed, the process proceeds to step S407, and the corresponding channel is stored in the memory unit 25.

[0048]

When the "1" button has been pressed, for example, "1" is stored in the memory unit 25. However, when "Ch+" has been then pressed, "2" is stored in the memory unit 25. When a setting command is specified by a relative value such as "Ch+" or "Ch-" like this, an absolute value such as "2" is substituted and stored.

[0049]

Next, in step S408, the terminal apparatus 1 transmits a selection command and an identification code of the corresponding channel to the video display apparatus 3, and repeats the process from step S403.

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[0050]

When the channel setting button displayed on the terminal apparatus 1 has not been pressed, in step S409, the terminal apparatus 1 confirms whether the other button has been pressed. Examples of the other button include an audio volume setting button.

[0051]

When the user has issued an instruction to change setting of the video display apparatus 3, the terminal apparatus 1 transmits a corresponding setting command and identification code to the video display apparatus 3 (step S410), and repeats the process from step S403.

[0052]

When the other button displayed on the terminal apparatus 1 has not been pressed, in step S411, the terminal apparatus 1 confirms whether a channel switching notification has been received as status information.

[0053]

When the channel switching notification has been received, the terminal apparatus 1 sets the channel stored in the memory unit 25 to the television signal receiving unit 31, and displays a received video on the display unit 22 and outputs an audio from the audio output unit 23 (step S412), and repeats the process from step S403.

[0054]

The channel switching notification is transmitted from the video display apparatus 3. For example, when channel switching by the terminal apparatus 1b other than the terminal apparatus 1a, which has powered on the video display apparatus 3, has occurred, the video display apparatus 3 transmits the channel switching notification as status information to the terminal apparatus 1a.

[0055]

When the terminal apparatus 1 has not received the channel switching notification, the terminal apparatus 1 repeats the process from step S403.

[0056]

FIG. 6 is a flowchart illustrating a process of the video

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display apparatus according to the first embodiment of the present invention. This flowchart illustrates the process performed when the video display apparatus 3 is remotely controlled by the terminal apparatus 1.

[0057]

In step S601, the video display apparatus 3 waits for receiving of a power supply command. When the power supply command has been received, the process proceeds to step S602, and the video display apparatus 3 is powered on. Then, in step S603, an identification code when the power supply command has been received is stored in the memory unit 35. Here, it is assumed that an identification code of the terminal apparatus 1a has been received.

[0058]

Next, in step S604, the video display apparatus 3 confirms whether the power supply command has been received again. When the power supply command has been received, the process proceeds to step S605, and the video display apparatus 3 is powered off, and the process ends.

[0059]

While toggle control to repeat power on/off every time the video display apparatus 3 receives the power supply command is illustrated as an example in the present embodiment, a power-on command and a power-off command may be separated from each other.

[0060]

When the video display apparatus 3 has not received the power supply command in step S604, the process proceeds to step S606, and the video display apparatus 3 confirms whether a channel setting command has been received. When the channel setting command has been received, the process proceeds to step S607, and the command is executed as instructed.

[0061]

Next, in step S608, the video display apparatus 3 confirms whether an identification code when the channel setting command has been received matches the identification code stored in the memory unit 35. When the identification codes match each other, the process from step S604 is repeated.

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[0062]

When the identification codes do not match each other, the video display apparatus 3 transmits a channel switching notification as status information to the terminal apparatus 1a corresponding to the identification code stored in the memory unit 35 (step S609), and repeats the process from step S604.

[0063]

Also, when the video display apparatus 3 has not received the channel setting command in step S606, the process proceeds to step S610, and the video display apparatus 3 confirms whether the other command has been received. When the other command has been received, the video display apparatus 3 executes the command as instructed (step S611), and repeats the process from step S604. Examples of the other command include an audio volume setting command.

[0064]

When the other command has not been received, the process from step S604 is repeated.

[0065]

When the terminal apparatus 1a powers on the video display apparatus 3 by remote control in the above-described manner, the video display apparatus 3 is powered on.

[0066]

Next, when the terminal apparatus 1a performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed. When another terminal apparatus 1b performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and a channel switching notification is transmitted as status information to the terminal apparatus 1a.

[0067]

When the terminal apparatus 1a has received the channel switching notification, the terminal apparatus 1a displays the video of the channel prior to the switching by the terminal apparatus 1b on the display unit 22, and outputs the audio thereof from the audio output unit 23.

[0068]

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Note that it is also possible to ask the user whether the start of the display of the video and the output of the audio is permitted before the display of the video and the output of the audio are started. FIG. 5(d) illustrates an example of display on a screen of the terminal apparatus 1 at this time. Alternatively, it is also possible to ask the user whether the display and output may be continued after they are started.

[0069]

By the foregoing configuration, in the first embodiment of the present invention, when the channel of the video display apparatus set by the remote control from a terminal apparatus is switched by another terminal apparatus, a content displayed on the video display apparatus prior to the switching is displayed on the terminal apparatus. Even if a channel set by a user is switched by another user, the user can view the channel by using the terminal apparatus at hand without any particular operation. Thus, it is possible to prevent the content from being missed.

[Second Embodiment]

[0070]

FIG. 7 is a flowchart illustrating a process of a video display apparatus according to the second embodiment of the present invention.

[0071]

Since steps S701 to S707 are similar to steps S601 to S607 illustrated in FIG. 6, the description thereof is omitted.

[0072]

In step S708, the video display apparatus 3 confirms whether an identification code when a channel setting command has been received matches an identification code stored in the memory unit 35. When the identification codes match each other, the video display apparatus 3 repeats the process from step S704.

[0073]

When the identification codes do not match each other, the video display apparatus 3 transmits a channel switching notification as status information to the terminal apparatus 1a corresponding to the identification code stored in the memory

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unit 35 (step S709). Next, the video display apparatus 3 stores the identification code when the channel setting command has been received in the memory unit 35 (step S712), and repeats the process from step S704. Here, it is assumed that an identification code of the terminal apparatus 1b has been received.

[0074]

Since steps S710 to S711 are similar to steps S610 to S611 illustrated in FIG. 6, description thereof is omitted.

[0075]

When the terminal apparatus 1a powers on the video display apparatus 3 by remote control in this manner, the video display apparatus 3 is powered on.

[0076]

Next, when the terminal apparatus 1a performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed. When another terminal apparatus 1b performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and a channel switching notification is transmitted as status information to the terminal apparatus 1a.

[0077]

When the terminal apparatus 1a receives the channel switching notification, the terminal apparatus 1a displays the video of the channel prior to the switching by the terminal apparatus 1b on the display unit 22, and outputs an audio thereof from the audio output unit 23.

[0078]

When a terminal apparatus 1c further switches the channel of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and a channel switching notification is transmitted as status information to the terminal apparatus 1b.

[0079]

When the terminal apparatus 1b receives the channel switching notification, the terminal apparatus 1b displays the video of the channel prior to the switching by the terminal

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apparatus 1c on the display unit 22, and outputs an audio thereof from the audio output unit 23.

[0080]

By the foregoing configuration, in the second embodiment of the present invention, a similar effect to that in the first embodiment can be obtained.

[0081]

Thus, when the channel of the video display apparatus set by the remote control from a terminal apparatus is switched by another terminal apparatus and the channel is further switched by still another terminal apparatus, a content displayed on the video display apparatus prior to the switching is displayed on each of the terminal apparatuses. Even if a channel set by a user is switched by another user, the user can view the channel by using the terminal apparatus at hand without any particular operation. Thus, it is possible to prevent the content from being missed.

[Third Embodiment]

[0082]

FIG. 8 is a flowchart illustrating a process of a terminal apparatus 1 according to the third embodiment of the present invention. This flowchart illustrates the process performed when the terminal apparatus 1 performs the remote control of a video display apparatus 3.

[0083]

Since steps S801 to S810 are similar to steps S401 to S410 illustrated in FIG. 4, description thereof is omitted.

[0084]

In step S811, the terminal apparatus 1 confirms whether a channel switching notification has been received as status information.

[0085]

When the channel switching notification has been received, the terminal apparatus 1 displays, on a display unit 22, the start of recording of the video on the channel, which the user has viewed on the video display apparatus 3 so far, into the memory unit 35 of the video display apparatus 3 (step S812), and repeats the process from step S803. FIG. 13(a) illustrates

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an example of display on a screen of the terminal apparatus 1.

[0086]

The channel switching notification is transmitted from the video display apparatus 3. When channel switching by a terminal apparatus 1 other than the terminal apparatus 1, which has powered on the video display apparatus 3, has occurred, for example, the video display apparatus 3 transmits the channel switching notification as status information.

[0087]

When the terminal apparatus 1 has not received the channel switching notification, it repeats the process from step S803.

[0088]

FIG. 9 is a flowchart illustrating a process of the video display apparatus according to the third embodiment of the present invention. This flowchart illustrates the process performed when the video display apparatus 3 is remotely controlled by the terminal apparatus 1.

[0089]

Since steps S901 to S907 are similar to steps S601 to S607 illustrated in FIG. 6, description thereof is omitted.

[0090]

In step S908, the video display apparatus 3 confirms whether an identification code when a channel setting command has been received matches an identification code stored in the memory unit 35. When the identification codes match each other, the video display apparatus 3 repeats the process from step S904.

[0091]

When the identification codes do not match each other, the video display apparatus 3 transmits a channel switching notification as status information to the terminal apparatus 1a corresponding to the identification code stored in the memory unit 35 (step S909). Next, in step S912, the video display apparatus 3 stores, in the memory unit 35, the identification code and channel when the channel setting command has been received. Here, it is assumed that an identification code of the terminal apparatus 1b has been received. Next, the video

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display apparatus 3 sets the channel prior to the switching to a television signal receiving unit 31, records the received video and audio to the memory unit 35 (step S913), and repeats the process from step S904.

[0092]

The television signal receiving unit 31 can simultaneously receive a plurality of channels by setting the plurality of channels. When the channel stored in the memory unit 35 is set in the television signal receiving unit 31, the channel setting displayed on the display unit 32 is left as it is.

[0093]

Since steps S910 to S911 are similar to steps S610 to S611 illustrated in FIG. 6, description thereof is omitted.

[0094]

When the terminal apparatus 1a powers on the video display apparatus 3 by remote control in this manner, the video display apparatus 3 is powered on.

[0095]

Next, when the terminal apparatus 1a performs channel switching of the video display apparatus 3 by remote control, a channel of the video display apparatus 3 is switched as instructed. When another terminal apparatus 1b performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and a channel switching notification is transmitted as status information to the terminal apparatus 1a.

[0096]

Furthermore, the video display apparatus 3 records the content of the channel prior to the switching by the terminal apparatus 1b in the recording unit 35.

[0097]

Note that it is also possible to ask the user whether the start of the recording of the content is permitted before the recording of the content is started. FIG. 13(b) illustrates an example of display on a screen of the terminal apparatus 1 at this time. Alternatively, it is also possible to ask the user whether the recording may be continued after it is started.

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[0098]

By the foregoing configuration, in the third embodiment of the present invention, a similar effect to that in the first embodiment can be obtained.

[0099]

Furthermore, when the channel of the video display apparatus set by remote control from a terminal apparatus is switched by another terminal apparatus, a content displayed on the video display apparatus prior to the switching is recorded in the video display apparatus. Even if the channel set by a user is switched by another user, the content can be recorded in the video display apparatus without any particular operation by the user. Thus, it is possible to prevent the content from being missed.

[Fourth Embodiment]

[0100]

FIG. 10 is a flowchart illustrating an operation of a terminal apparatus according to the fourth embodiment of the present invention. This flowchart illustrates a process performed when the terminal apparatus 1 remotely controls a video display apparatus 3.

[0101]

Since steps S1001 to S1010 are similar to steps S401 to S410 illustrated in FIG. 4, description thereof is omitted.

[0102]

In step S1011, the terminal apparatus 1 confirms whether a channel switching notification has been received.

[0103]

When the channel switching notification has been received, the terminal apparatus 1 sets the channel stored in the memory unit 25 to the television signal receiving unit 21, and records a received content in the memory unit 25 (step S1012), and repeats the process from step S1003.

[0104]

The channel switching notification is transmitted from the video display apparatus 3. For example, when channel switching by a terminal apparatus 1 other than the terminal apparatus 1, which has powered on the video display apparatus 3,

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has occurred, the video display apparatus 3 transmits the channel switching notification as status information.

[0105]

When the channel switching notification has not been received, the terminal apparatus 1 repeats the process from step S1003.

[0106]

When a terminal apparatus 1a powers on the video display apparatus 3 by remote control in this manner, the video display apparatus 3 is powered on.

[0107]

Next, when the terminal apparatus 1a performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed. When another terminal apparatus 1b performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and the channel switching notification is transmitted as status information to the terminal apparatus 1a.

[0108]

The terminal apparatus 1a records a content of the channel prior to the switching by the terminal apparatus 1b in the memory unit 25.

[0109]

Note that it is also possible to ask the user whether the start of the recording of the content is permitted before the recording is started. Alternatively, it is also possible to ask the user whether the recording may be continued after the recording is started.

[0110]

By the foregoing configuration, in the fourth embodiment of the present invention, a similar effect to that in the first embodiment can be obtained.

[0111]

Furthermore, when the channel of the video display apparatus set by remote control from a terminal apparatus is switched by another terminal apparatus, the content displayed on the video display apparatus prior to the switching is

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recorded in the terminal apparatus. Even if the channel set by a user is switched by another user, the content can be recorded in the terminal apparatus without any particular operation by the user. Thus, it is possible to prevent the content from being missed.

[Fifth Embodiment]

[0112]

FIG. 11 is a diagram illustrating a configuration of a video display system according to the fifth embodiment of the present invention. The video display system according to the present embodiment includes a plurality of terminal apparatuses 1 and a video display apparatus 3.

[0113]

Since the terminal apparatuses 1, a remote controller 2, the video display apparatus 3, a broadcast station 5, a wireless router 6, and a network 7 are similar to those illustrated in FIG. 1, description thereof is omitted.

[0114]

A VOD (Video On Demand) server 8 stores the same content as the content broadcasted from the broadcast station 5, and delivers the stored content to the terminal apparatus 1 and the video display apparatus 3 through the network 7.

[0115]

FIG. 12 is a flowchart illustrating an operation of the terminal apparatus according to the fifth embodiment of the present invention. This flowchart illustrates the process performed when the terminal apparatus 1 remotely controls the video display apparatus 3.

[0116]

Since steps S1201 to S1206 are similar to steps S401 to S406 illustrated in FIG. 4, description thereof is omitted.

[0117]

In step S1207, the terminal apparatus 1 stores content information of a corresponding channel in the memory unit 25.

[0118]

Since steps S1208 to S1210 are similar to steps S408 to S410 illustrated in FIG. 4, description thereof is omitted.

[0119]

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In step S1211, the terminal apparatus 1 confirms whether a channel switching notification has been received as status information.

[0120]

When the channel switching notification has been received, the terminal apparatus 1 retrieves the VOD server 8 for a content based on content information stored in the memory unit 25 (step S1212).

[0121]

Next, in step S1213, the terminal apparatus 1 enters a VOD playback mode, and repeats the process from step S1203 when the VOD playback mode ends. FIG. 13(c) illustrates an example of display on an operation screen of the terminal apparatus 1 in the VOD playback mode. In addition to playback, fast-forward and rewind, a user can view the content from the point where the channel has been switched if the time when the channel has been switched is stored. Alternatively, the content can be viewed from the beginning or can also be viewed later.

[0122]

The channel switching notification is transmitted from the video display apparatus 3. For example, when channel switching by a terminal apparatus 1 other than the terminal apparatus 1 which has switched the channel of the video display apparatus 3 has occurred, the video display apparatus 3 transmits the channel switching notification as status information.

[0123]

When the channel switching notification has not been received, the terminal apparatus 1 repeats the process from step S1203.

[0124]

When a terminal apparatus 1a powers on the video display apparatus 3 by remote control in this manner, the video display apparatus 3 is powered on.

[0125]

Next, when the terminal apparatus 1a performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as

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instructed. When another terminal apparatus 1b then performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and the channel switching notification is transmitted as status information to the terminal apparatus 1a.

[0126]

When the channel switching notification is received, the terminal apparatus 1a retrieves the VOD for a content of the channel prior to the switching by the terminal apparatus 1b.

[0127]

Note that it is also possible to ask the user whether the start of the retrieval for the content is permitted before the retrieval is started. FIG. 13(d) illustrates an example of display on a screen of the terminal apparatus 1 at this time. For example, only when a "YES" button displayed on the screen is pressed, the terminal apparatus 1 may enter the VOD playback mode.

[0128]

By the foregoing configuration, in the fourth embodiment of the present invention, a similar effect to that in the first embodiment can be obtained.

[0129]

Furthermore, when the channel of the video display apparatus set by remote control from a terminal apparatus is switched by another terminal apparatus, a content displayed on the video display apparatus prior to the switching can be retrieved from the VOD and displayed on the terminal apparatus. Even if the channel set by a user is switched by another user, the user can retrieve the VOD without any particular operation and can view the channel by using the terminal apparatus at hand. Thus, it is possible to prevent the content from being missed.

[Sixth Embodiment]

[0130]

FIG. 14 is a flowchart illustrating a process of a video display apparatus according to the sixth embodiment of the present invention. This flowchart illustrates the process

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performed when the video display apparatus 3 is remotely controlled by a terminal apparatus 1.

[0131]

Since steps S1401 to S1407 are similar to steps S601 to S607 lustrated in FIG. 6, description thereof is omitted.

[0132]

Since steps S1408 to S1409 are similar to steps S908 to S909 illustrated in FIG. 9, description thereof is omitted. Since steps S1412 to S1413 are similar to steps S912 to S913 illustrated in FIG. 9, description thereof is omitted.

[0133]

In step S1410, it is confirmed whether another command has been received. When the other command has been received, the process proceeds to step S1411. When the other command has not been received, the process proceeds to step S1414. Since step S1411 is similar to step S611 illustrated in FIG. 6, description thereof is omitted.

[0134]

In step S1414, it is confirmed whether a content after channel switching has ended. When the content after the channel switching has ended, the process proceeds to step S1415, and the video display apparatus 3 reproduces a recorded content. When the content after the channel switching has not ended, the video display apparatus 3 repeats the process from step S1404.

[0135]

When the terminal apparatus 1a powers on the video display apparatus 3 by remote control in this manner, the video display apparatus 3 is powered on.

[0136]

Next, when the terminal apparatus 1a performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed. When another terminal apparatus 1b performs channel switching of the video display apparatus 3 by remote control, the channel of the video display apparatus 3 is switched as instructed, and a channel switching notification is transmitted as status information to the terminal apparatus 1a.

[0137]

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Furthermore, the video display apparatus 3 records a content of the channel prior to the switching by the terminal apparatus 1b in the memory unit 35, and reproduces the content when the content of the channel after the switching ends.

[0138]

By the foregoing configuration, in the sixth embodiment of the present invention, a similar effect to that in the first embodiment can be obtained.

[0139]

Furthermore, when the channel of the video display apparatus set by remote control from a terminal apparatus is switched by another terminal apparatus, the content displayed on the video display apparatus prior to the switching is recorded in the video display apparatus, and the content is reproduced when the content of the channel after the switching ends. Even if a channel set by a user is switched by another user, the content is recorded and reproduced by the video display apparatus without any particular operation by the user. Thus, it is possible to prevent the content from being missed.

[Seventh Embodiment]

[0140]

FIG. 15 is a flowchart illustrating an operation of a terminal apparatus 1 when the terminal apparatus 1 remotely controls a video display apparatus 3.

[0141]

In step S1501, the terminal apparatus 1 waits until application software for performing the remote control of the video display apparatus 3 (hereinafter referred to as "operation application") is started based on an operation by the user.

[0142]

FIG. 5 and FIG. 23 illustrate an example of various types of display on the touch-panel display unit 22 in the terminal apparatus 1. FIG. 5(a) illustrates a menu screen on which various types of application software are arranged in the terminal apparatus 1. When the user presses, for example, a "television" button displayed on the touch panel, the operation application is started.

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[0143]

In step S1502, the terminal apparatus 1 selects the video display apparatus 3 serving as a target of the remote control based on the operation by the user. FIG. 5(b) illustrates an example of display on a selection screen in the case where there are two video display apparatuses 3 that can be selected as a target of the remote control. Here, it is assumed that a "television A" is selected.

[0144]

When the video display apparatus 3 serving as a target of the remote control is selected, the terminal apparatus 1 displays various types of instructions that can be transmitted to the video display apparatus 3. FIG. 23 illustrates an example of display on an operation screen of the video display apparatus 3 in that case.

[0145]

Next, in step S1503, the terminal apparatus 1 confirms whether the user has performed an operation for ending the operation application. When the user has performed the operation for ending the operation application, for example, the operation of pressing an "end" button displayed on the terminal apparatus 1, the terminal apparatus 1 returns to a process for displaying a menu screen.

[0146]

In step S1504, the terminal apparatus 1 confirms whether the user has pressed a "power" button. When the user has pressed the "power" button displayed on the terminal apparatus 1, the terminal apparatus 1 transmits a power supply command to the video display apparatus 3 (step S1505), and repeats the process from step S1503.

[0147]

When the user has not pressed the "power" button displayed on the terminal apparatus 1, the terminal apparatus 1 confirms whether the user has pressed a "missing prevention" mode button in step S1506. When the user has pressed the "missing prevention" mode button displayed on the terminal apparatus 1, the terminal apparatus 1 switches ON and OFF of a missing prevention mode (step S1507). When the missing

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prevention mode is ON, the terminal apparatus 1 turns off the missing prevention mode in step S1508, and when the missing prevention mode is OFF, the terminal apparatus 1 turns on the missing prevention mode in step S1509. Then, the process from step S1503 is repeated.

[0148]

The missing prevention mode is for preventing a television program on an original channel from being missed after the end of a video of advertisement means accompanying the television program such as CM (Commercial Message, hereinafter referred to as "commercial") or announcement means such as an announcement of a program. More specifically, even if the user switches the channel after the start of the video of the advertisement means or the announcement means, the channel is switched to the original channel at the timing of the end of the video. Thus, for example, even if the user is viewing a television program on a channel A and switches the channel A to a channel B or a channel C after the television program is switched to a commercial, the display on the video display apparatus 3 is switched to the channel A at the timing at which the commercial on the channel A ends and is switched to the television program.

[0149]

When the user has not pressed the "missing prevention" mode button displayed on the terminal apparatus 1, the terminal apparatus 1 confirms whether the user has pressed a channel selection button of a remote control function in step S1510. When the user has pressed a channel selection button such as a "1" button or a "2" button displayed on the terminal apparatus 1, the process proceeds to step S1511, and a selection command of a corresponding channel is transmitted to the video display apparatus 3 and the process from step S1503 is repeated.

[0150]

When the user has not pressed the channel selection button displayed on the terminal apparatus 1, the terminal apparatus 1 confirms whether the user has pressed the other button in step S1512. Examples of other setting changes include switching of an audio volume.

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[0151]

When the user has issued an instruction to change setting of the video display apparatus 3, the terminal apparatus 1 transmits a corresponding setting command to the video display apparatus 3 (step S1513), and the process from step S1503 is repeated.

[0152]

FIG. 16 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0153]

When the missing prevention mode of the terminal apparatus 1 is ON in step S1600, the process proceeds to step S1601, and when the missing prevention mode is OFF, the process ends.

[0154]

In step S1601, the terminal apparatus 1 waits for an elapse of a predetermined period of time, e.g., five minutes during which the user does not change a channel and there is no commercial switching, and the terminal apparatus 1 stores the channel in the memory unit 25 in step S1602. The commercial switching mentioned here means switching from a television program to a commercial and switching from a commercial to a television program. Generally, there is a point in which an audio is silent between a television program and a commercial, and the timing at which the commercial switching occurs can be detected when a television signal is received by a television signal receiving unit 21 and a scene change where an audio is silent is detected.

[0155]

Next, in step S1603, the terminal apparatus 1 receives a television signal of the channel stored in the memory unit 25 by using the television signal receiving unit 21, and waits for the occurrence of the commercial switching. When the user has pressed a channel selection button of a remote control function while waiting for the occurrence of the commercial switching (step S1604), the terminal apparatus 1 transmits a selection command of a corresponding channel to the video display apparatus 3 (step S1605), and repeats the process from step

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S1601.

[0156]

Through steps S1601 to S1605, the terminal apparatus 1 detects the commercial switching after an elapse of a predetermined period of time without the channel change by the user, and determines that a commercial start timing has come (step S1606).

[0157]

Next, in step S1607, the terminal apparatus 1 receives the television signal of the channel stored in the memory unit 25 by the television signal receiving unit 21, and waits for the occurrence of the commercial switching. When the user has pressed the channel selection button of a remote control function while waiting for the occurrence of the commercial switching (step S1608), the terminal apparatus 1 transmits a selection command of a corresponding channel to the video display apparatus 3 (step S1609).

[0158]

Also when the channel of the video display apparatus 3 is switched in step S1609, the terminal apparatus 1 waits for the occurrence of the commercial switching of the channel stored in the memory unit 25 in step S1607.

[0159]

Through steps S1607 to S1609, the terminal apparatus 1 detects the commercial switching after the start of the commercial, and determines that a commercial end timing has come (step S1610).

[0160]

Next, in step S1611, the terminal apparatus 1 transmits the selection command of the channel stored in the memory unit 25 to the video display apparatus 3, and repeats the process from step S1600. When the channel selection button of a remote control function has not been pressed in step S1608, the terminal apparatus 1 does not have to transmit the selection command of the channel stored in the memory unit 25 to the video display apparatus 3.

[0161]

FIG. 17 is a flowchart illustrating an operation of the

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video display apparatus 3.

[0162]

In step S1701, the video display apparatus 3 waits for receiving of a power supply command. When the power supply command has been received, the video display apparatus 3 is powered on (step S1702).

[0163]

Next, in step S1703, it is confirmed whether the video display apparatus 3 has received the power supply command again. When the power supply command has been received, the video display apparatus 3 is powered off (step S1704). When the power supply command has not been received, the video display apparatus 3 confirms whether a channel selection command has been received in step S1705. When the channel selection command has been received, the video display apparatus 3 executes the channel selection command as instructed (step S1706), and repeats the process from step S1703.

[0164]

When the channel selection command has not been received, the video display apparatus 3 confirms whether another command has been received in step S1707. When the other command has been received, the video display apparatus 3 executes the command as instructed (step S1708), and repeats the process from step S1703.

[0165]

By the foregoing configuration, in the seventh embodiment of the present invention, the terminal apparatus 1 stores the channel when the user does not change a channel for a predetermined period of time, and transmits a selection command of the channel to the video display apparatus 3 in response to a commercial end timing.

[0166]

Even if the user switches a channel during a commercial, the channel returns to the channel prior to the switching when the commercial ends. Thus, it is possible to prevent a television program on the channel, which has been being viewed by the user, from being missed.

[0167]

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Instead of the terminal apparatus 1, the video display apparatus 3 may store the channel when the channel is not changed for a predetermined period of time, and the video display apparatus 3 itself may detect a commercial end timing and switch the channel to a corresponding channel.

[0168]

Alternatively, instead of the configuration in which the terminal apparatus 1 or the video display apparatus 3 switches the channel in response to the commercial end timing, the user may be notified of the end of the commercial by a video or an audio, and the user himself/herself may operate the terminal apparatus 1 to switch the channel.

[Eighth Embodiment]

[0169]

Next, the eighth embodiment of the present invention will be described below. A configuration, an effect, and the like in the present embodiment are similar to those in the seventh embodiment unless otherwise noted. Thus, a difference between the present embodiment and the seventh embodiment will be mainly described below, and description of common points is omitted as much as possible in order to avoid an overlap of the description.

[0170]

FIG. 18 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0171]

When a missing prevention mode of the terminal apparatus 1 is ON in step S1800, the process proceeds to step S1801, and when the missing prevention mode is OFF, the process ends.

[0172]

When a user has not changed a channel for a predetermined period of time, e.g., five minutes in step S1801, the terminal apparatus 1 stores the channel in the memory unit 25 in step S1802.

[0173]

Next, in step S1803, the terminal apparatus 1 receives a television signal of the channel stored in the memory unit 25 by a television signal receiving unit 21, and waits for the

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occurrence of commercial switching. When the user has pressed a channel selection button of a remote control function while the terminal apparatus 1 waits for the occurrence of the commercial switching (step S1804), the terminal apparatus 1 transmits a selection command of a corresponding channel to the video display apparatus 3 (step S1805), and repeats the process from step S1801.

[0174]

Through steps S1801 to S1805, the terminal apparatus 1 detects the commercial switching after an elapse of a predetermined period of time without the channel change by the user, and determines that a commercial start or end timing has come (step S1806).

[0175]

Next, in step S1807, the terminal apparatus 1 transmits the selection command of the channel stored in the memory unit 25 to the video display apparatus 3, and repeats the process from step S1800.

[0176]

By the foregoing configuration, in the eighth embodiment of the present invention, a similar effect to that in the seventh embodiment can be obtained.

[0177]

Furthermore, since the terminal apparatus 1 stores the channel when the user does not change the channel for a predetermined period of time, and transmits a selection command of the channel to the video display apparatus 3 at the timing of start and end of the commercial, it is not necessary to distinguish the start and the end of the commercial, and the missing prevention process can be simplified.

[0178]

Instead of the terminal apparatus 1, the video display apparatus 3 may store the channel when the channel is not changed for a predetermined period of time, and the video display apparatus 3 itself may switch the channel to the corresponding channel at the timing of start or end of the commercial.

[0179]

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Alternatively, instead of the configuration in which the terminal apparatus 1 or the video display apparatus 3 switches the channel at the timing of start or end of the commercial, the user may be notified of the start or end of the commercial by a video or an audio, and the user himself/herself may operate the terminal apparatus 1 to switch the channel.

[Ninth Embodiment]

[0180]

Next, the ninth embodiment of the present invention will be described below. A configuration, an effect, and the like in the present embodiment are also similar to those in the seventh embodiment unless otherwise noted. Thus, a difference between the present embodiment and the seventh embodiment will be mainly described below.

[0181]

FIG. 19 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0182]

When a missing prevention mode of the terminal apparatus 1 is ON in step S1900, the process proceeds to step S1901, and when the missing prevention mode is OFF, the process ends.

[0183]

Since steps S1901 to S1905 are similar to steps S1601 to S1605 illustrated in FIG. 16, description thereof is omitted. Through steps S1901 to S1905, the terminal apparatus 1 detects commercial switching after an elapse of a predetermined period of time without the channel change by the user, and determines that a commercial start timing has come (step S1906).

[0184]

Next, in step S1907, the terminal apparatus 1 receives a television signal of the channel stored in the memory unit 25 by a television signal receiving unit 21, and waits for the occurrence of the commercial switching. When the user has pressed a channel selection button of a remote control function while the terminal apparatus 1 waits for the occurrence of the commercial switching (step S1908), the terminal apparatus 1 transmits a two-screen display start command to the video display apparatus 3 (step S1909), and transmits a selection

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command of a corresponding channel for an added screen to the video display apparatus 3 (step S1910). When the user has pressed the channel selection button of a remote control function again while the terminal apparatus 1 waits for the occurrence of the commercial switching, the terminal apparatus 1 does not have to transmit the two-screen display start command in step S1909.

[0185]

Also when a channel of the video display apparatus 3 has been switched in step S1909, the terminal apparatus 1 waits for the occurrence of the commercial switching of the channel stored in the memory unit 25 in step S1907.

[0186]

Through steps S1907 to S1910, the terminal apparatus 1 detects the commercial switching after the start of the commercial, and determines that a commercial end timing has come (step S1911).

[0187]

Next, in step S1912, the terminal apparatus 1 transmits a two-screen display end command to the video display apparatus 3, and repeats the process from step S1900. The screen added later is erased when the two-screen display ends. The two-screen display end command does not have to be transmitted when the screen has not been switched to the two-screen display.

[0188]

By the foregoing configuration, in the ninth embodiment of the present invention, a similar effect to that in the seventh embodiment can be obtained.

[0189]

Furthermore, the terminal apparatus 1 stores the channel when the user does not change a channel for a predetermined period of time, and when the channel selection button is pressed during the commercial, the terminal apparatus 1 switches the video display apparatus 3 to the two-screen display and displays the channel on the added screen. Then, the terminal apparatus 1 ends the two-screen display in response to the timing of the end of the commercial.

[0190]

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Since the video on the original channel can be confirmed by the two-screen display even when the channel is switched, the user can switch the channel without worrying about missing a television program.

[0191]

Instead of the terminal apparatus 1, the video display apparatus 3 may store the channel when the channel is not changed for a predetermined period of time, and the video display apparatus 3 itself may start and end the two-screen display.

[0192]

Also, since the user can confirm both of the video on the original channel and the video on the channel after the switching by the two-screen display, the user himself/herself may operate the terminal apparatus 1 to end the two-screen display instead of the configuration in which the terminal apparatus 1 ends the two-screen display in response to the timing of the end of the commercial.

[Tenth Embodiment]

[0193]

Next, the tenth embodiment of the present invention will be described below. A configuration, an effect, and the like in the present embodiment are similar to those in the seventh embodiment unless otherwise noted. Thus, a difference between the present embodiment and the seventh embodiment will be mainly described below.

[0194]

FIG. 20 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0195]

When a missing prevention mode of the terminal apparatus 1 is ON in step S2000, the process proceeds to step S2001, and when the missing prevention mode is OFF, the process ends.

[0196]

Since steps S2001 to S2005 are similar to steps S1601 to S1605 illustrated in FIG. 16, description thereof is omitted. Through steps S2001 to S2005, the terminal apparatus 1 detects commercial switching after an elapse of a predetermined period

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of time without the channel change by the user, and determines that a commercial start timing has come (step S2006).

[0197]

Next, in step S2007, the terminal apparatus 1 receives a television signal of the channel stored in the memory unit 25 by a television signal receiving unit 21, and waits for the occurrence of the commercial switching. When the user has pressed a channel selection button of a remote control function while the terminal apparatus 1 waits for the occurrence of the commercial switching (step S2008), the terminal apparatus 1 transmits a selection command of a corresponding channel to the video display apparatus 3 (step S2009), and displays a video on the channel stored in the memory unit 25 in the terminal apparatus 1 on the display unit 22 (step S2010).

[0198]

Also when a channel of the video display apparatus 3 has been switched in step S2009, the terminal apparatus 1 waits for the occurrence of the commercial switching of the channel stored in the memory unit 25 in step S2007.

[0199]

Through steps S2007 to S2010, the terminal apparatus 1 detects the commercial switching after determining the commercial start timing, and determines that a commercial end timing has come (step S2011).

[0200]

Next, in step S2012, the terminal apparatus 1 transmits a selection command of the channel stored in the memory unit 25 to the video display apparatus 3, and repeats the process from step S2000.

[0201]

By the foregoing configuration, in the tenth embodiment of the present invention, a similar effect to that in the seventh embodiment can be obtained.

[0202]

Furthermore, the terminal apparatus 1 stores the channel when the user does not change a channel for a predetermined period of time, switches the channel of the video display apparatus 3 when a channel selection button is pressed during a

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commercial, and displays a video on the original channel on the screen of the terminal apparatus 1. Then, the terminal apparatus 1 returns the channel of the video display apparatus 3 to the original channel in response to the commercial end timing.

[0203]

Since the video on the original channel can be confirmed by the terminal apparatus 1 even when the channel has been switched, the user can switch the channel without worrying about missing a television program.

[0204]

The video display apparatus 3 as well as the terminal apparatus 1 may also store the channel when the channel is not changed for a predetermined period of time, and the video display apparatus 3 itself may detect the commercial end timing to switch the channel to a corresponding channel.

[0205]

Also, since the user can confirm the video on the original channel by the terminal apparatus 1, the user himself/herself may operate the terminal apparatus 1 to end the two-screen display instead of the configuration in which the terminal apparatus 1 ends the two-screen display in response to the commercial end timing.

[Eleventh Embodiment]

[0206]

Next, the eleventh embodiment of the present invention will be described below. A configuration, an effect, and the like in the present embodiment are similar to those in the seventh embodiment unless otherwise noted. Thus, a difference between the present embodiment and the seventh embodiment will be mainly described below.

[0207]

FIG. 21 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0208]

When a missing prevention mode of the terminal apparatus 1 is ON in step S2100, the process proceeds to step S2101, and when the missing prevention mode is OFF, the process ends.

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[0209]

Since steps S2101 to S2105 are similar to steps S1601 to S1605 illustrated in FIG. 16, description thereof is omitted. Through steps S2101 to S2105, the terminal apparatus 1 detects the commercial switching after an elapse of a predetermined period of time without the channel change by the user, and determines that a commercial start timing has come (step S2106).

[0210]

Since steps S2107 to S2109 are similar to steps S1607 to S1609 illustrated in FIG. 16, description thereof is omitted.

[0211]

Through steps S2107 to S2109, the terminal apparatus 1 detects the commercial switching after the start of the commercial, and determines that a commercial end timing has come (step S2110).

[0212]

Next, in step S2112, the process is changed depending on whether a program on an original channel has ended. When the program has not ended, the process proceeds to step S2111, and the terminal apparatus 1 transmits a selection command of the channel stored in the memory unit 25 to the video display apparatus 3 and repeats the process from step S2100. When the program has ended, the process does not proceed to step S2111, and the process from step S2100 is repeated.

[0213]

By the foregoing configuration, in the eleventh embodiment of the present invention, a similar effect to that in the seventh embodiment can be obtained.

[0214]

Furthermore, since the terminal apparatus 1 does not return the channel to the original channel when the program has ended, the terminal apparatus 1 does not erroneously switch the channel which the user wishes to view next.

[0215]

Instead of the terminal apparatus 1, the video display apparatus 3 may store the channel when the channel is not changed for a predetermined period of time, and the video display apparatus 3 itself may detect the commercial end timing

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and switch the channel to a corresponding channel.

[Twelfth Embodiment]

[0216]

Next, the twelfth embodiment of the present invention will be described below. A configuration, an effect, and the like in the present embodiment are similar to those in the seventh embodiment unless otherwise noted. Thus, a difference between the present embodiment and the seventh embodiment will be mainly described below.

[0217]

FIG. 22 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0218]

When a missing prevention mode of the terminal apparatus 1 is ON in step S2200, the process proceeds to step S2201, and when the missing prevention mode is OFF, the process ends.

[0219]

Since steps S2201 to S2202 are similar to steps S1601 to S1602 illustrated in FIG. 16, description thereof is omitted.

[0220]

Next, in step S2212, the process is changed depending on whether the channel has a commercial. When the channel has a commercial, the process proceeds to step S2203, and when the channel has no commercial, the process does not proceed to step S2203 and the process from step S2200 is repeated. For example, whether or not the channel has a commercial can be determined by storing a list of channels having no commercial in the memory unit 25 in advance and comparing the list of channels with the channel stored in step S2202.

[0221]

Since steps S2203 to S2205 are similar to steps S1603 to S1605 illustrated in FIG. 16, description thereof is omitted.

[0222]

Through steps S2201 to S2205 and step S2212, the terminal apparatus 1 detects the commercial switching in the channel having a commercial after an elapse of a predetermined period of time without the channel change by the user, and determines that a commercial start timing has come (step S2206).

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[0223]

Since steps S2201 to S2205 are similar to steps S1601 to S1605 illustrated in FIG. 16, description thereof is omitted. Through steps S2201 to S2205, the terminal apparatus 1 detects the commercial switching after an elapse of a predetermined period of time without the channel change by the user, and determines that a commercial start timing has come (step S2206).

[0224]

Since steps S2207 to S2209 are similar to steps S1607 to S1609 illustrated in FIG. 16, description thereof is omitted.

[0225]

Through steps S2207 to S2209, the terminal apparatus 1 detects the commercial switching after the start of a commercial, and determines that a commercial end timing has come (step S2210).

[0226]

Next, in step S2211, the terminal apparatus 1 transmits a selection command of the channel stored in the memory unit 25 to the video display apparatus 3, and repeats the process from step S2200.

[0227]

By the foregoing configuration, in the twelfth embodiment of the present invention, a similar effect to that in the seventh embodiment can be obtained.

[0228]

Furthermore, since the terminal apparatus 1 does not perform the missing prevention process for the channel having no commercial, the missing prevention process is not erroneously performed when the channel is switched to the channel having no commercial. Since there is a scene change where an audio is silent even on the channel having no commercial, there is the possibility that the terminal apparatus 1 determines that the commercial switching has occurred, but it is possible to prevent this.

[0229]

Instead of the terminal apparatus 1, the video display apparatus 3 may store the channel when the channel is not changed for a predetermined period of time, and the video

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display apparatus 3 itself may detect the commercial end timing and switch the channel to a corresponding channel.

[0230]

Also, instead of the configuration in which the terminal apparatus 1 or the video display apparatus 3 switches the channel in response to the commercial end timing, the user may be notified of the end of the commercial by a video or an audio, and the user himself/herself may operate the terminal apparatus 1 to switch the channel.

[Thirteenth Embodiment]

[0231]

Next, the thirteenth embodiment of the present invention will be described below. A configuration, an effect, and the like in the present embodiment are similar to those in the seventh embodiment unless otherwise noted. Thus, a difference between the present embodiment and the seventh embodiment will be mainly described below.

[0232]

FIG. 24 is a flowchart illustrating an operation of the terminal apparatus 1 when the terminal apparatus 1 remotely controls the video display apparatus 3.

[0233]

Since steps S2401 to S2409 are similar to steps S1501 to S1509 illustrated in FIG. 15, description thereof is omitted.

[0234]

In step S2410, the terminal apparatus 1 confirms whether a user has pressed a channel selection button of a remote control function. When the user has pressed a channel selection button such as a "1" button or a "2" button displayed on the terminal apparatus 1, the process proceeds to step S2411. Since step S2411 is similar to step S1511 illustrated in FIG. 15, description thereof is omitted.

[0235]

Next, in step S2414, the process is changed depending on whether the terminal apparatus 1 has received a status indicating that there is no channel selection authority. Only when the status has been received, the process proceeds to step S2415, and a video on a corresponding channel is displayed on

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the display unit 22 in the terminal apparatus 1. Then, the process from step S2403 is repeated. The status indicating that there is no channel selection authority is sent from the video display apparatus 3 when there is no channel selection authority.

[0236]

When the user has not pressed the channel selection button of a remote control function displayed on the terminal apparatus 1 in step S2410, the process proceeds to step S2412. Since steps S2412 to S2413 are similar to steps S1512 to S1513 illustrated in FIG. 15, description thereof is omitted.

[0237]

Thus, when there is no channel selection authority of the video display apparatus 3, the video on the corresponding channel is displayed on the terminal apparatus 1.

[0238]

FIG. 25 is a flowchart illustrating an operation of the video display apparatus 3.

[0239]

In step S2501, the video display apparatus 3 waits for receiving of a power supply command. When the power supply command has been received, the video display apparatus 3 is powered on (step S2502), and stores, in the memory unit 35, information indicating which of terminal apparatuses 1 has transmitted the power supply command, namely, an identification code which has been transmitted together with the power supply command (step S2509). Here, it is assumed that the terminal apparatus 1a has transmitted the power supply command.

[0240]

An IP (Internet Protocol) address, an ID (Identification) individually assigned to the terminal apparatus 1, a telephone number and the like are applicable to the identification code. Generally, since it is assumed that one user possesses one terminal apparatus 1, a user ID given to each user by a manufacturer of the terminal apparatus 1 may be applied. In this case, the user ID is previously stored in the terminal apparatus 1 based on an operation by the user or the like.

[0241]

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Since steps S2503 to S2504 are similar to steps S1703 to S1704 illustrated in FIG. 17, description thereof is omitted.

[0242]

Next, in step S2505, the video display apparatus 3 confirms whether a channel selection command has been received. When the channel selection command has been received, the video display apparatus 3 confirms whether the channel selection command is a setting command from a specific terminal apparatus 1, namely, the terminal apparatus 1 that has issued an instruction to turn on power (step S2510). When the channel selection command is the setting command from the terminal apparatus 1 that has issued the instruction to turn on power, the video display apparatus 3 executes the channel selection command as instructed (step S2506), and repeats the process from step S2503.

[0243]

When the channel selection command is not the setting command from the terminal apparatus 1 that has issued the instruction to turn on power in step S2510, the video display apparatus 3 confirms whether a channel being displayed is during a commercial (step S2511). When the channel is during the commercial, the video display apparatus 3 executes the command as instructed (step S2506), and repeats the process from step S2503. When the channel is not during the commercial, the video display apparatus 3 sends status information indicating that there is no channel selection authority to the corresponding terminal apparatus 1 (step S2512), and then repeats the process from step S2503. Whether the channel is during the commercial may be transmitted from the terminal apparatus 1 in addition to being determined by the video display apparatus 3.

[0244]

Since steps S2507 to S2508 are similar to steps S1707 to S1708 illustrated in FIG. 17, description thereof is omitted.

[0245]

Thus, selection of the channel of the video display apparatus 3 can be performed only when it is instructed from the terminal apparatus 1a that has powered on the video display

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apparatus 3 during a television program, and can be performed also when it is instructed from the terminal apparatus 1b in addition to the terminal apparatus 1a during a commercial. Also, an operation other than the selection of the channel can be performed from both of the terminal apparatus 1a and the terminal apparatus 1b.

[0246]

By the foregoing configuration, in the thirteenth embodiment of the present invention, a similar effect to that in the seventh embodiment can be obtained.

[0247]

Furthermore, the selection of the channel of the video display apparatus 3 can be performed only when it is instructed from the terminal apparatus 1a that has powered on the video display apparatus 3 during a television program, and a video is displayed on the terminal apparatus 1b when it is instructed from the terminal apparatus 1b. In addition, during the commercial, the channel selection can be performed also when it is instructed from the terminal apparatus 1b in addition to the terminal apparatus 1a.

[Fourteenth Embodiment]

[0248]

FIG. 26 is a flowchart illustrating an operation of the terminal apparatus 1 when the terminal apparatus 1 remotely controls the video display apparatus 3.

[0249]

Since steps S2601 to S2605 are similar to steps S1501 to S1505 illustrated in FIG. 15, description thereof is omitted.

[0250]

In step S2606, the terminal apparatus 1 confirms whether a user has pressed a "missing prevention" mode button. When the user has pressed the "missing prevention" mode button displayed on the terminal apparatus 1, the terminal apparatus 1 turns on a missing prevention mode, and repeats the process from step S2603.

[0251]

When the user has not pressed the "missing prevention" mode button displayed on the terminal apparatus 1, the process

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proceeds to step S2610. Since steps S2610 to S2613 are similar to steps S1510 to S1513 illustrated in FIG. 15, description thereof is omitted.

[0252]

FIG. 27 is a flowchart illustrating a missing prevention process of the terminal apparatus 1.

[0253]

When the missing prevention mode of the terminal apparatus 1 is ON in step S2700, the process proceeds to step S2701, and when the missing prevention mode is OFF, the process ends.

[0254]

In step S2701, the terminal apparatus 1 stores a channel previously set by the user.

[0255]

Since steps S2707 to S2710 are similar to steps S1507 to S1510 illustrated in FIG. 15, description thereof is omitted. Through steps S2707 to S2709, the terminal apparatus 1 detects commercial switching after the start of a commercial, and determines that a commercial end timing has come (step S2710).

[0256]

Next, in step S2711, the terminal apparatus 1 transmits a selection command of the channel stored in the memory unit 25 to the video display apparatus 3, and turns off the missing prevention mode in step S2712. When the channel selection button of a remote control function has not been pressed in step S2708, the selection command of the channel stored in the memory unit 25 does not have to be transmitted to the video display apparatus 3.

[0257]

By the foregoing configuration, in the fourteenth embodiment of the present invention, the terminal apparatus 1 stores the channel which is being viewed when the user has pressed the "missing prevention" mode button, and transmits the selection command of the channel to the video display apparatus 3 in response to the timing of the end of the commercial.

[0258]

If the user has pressed the "channel" button after

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pressing the "missing prevention" mode button during the commercial, the channel returns to the channel prior to the switching at the end of the commercial even when the user switches the channel during the commercial. Thus, it is possible to prevent the television program on the channel which has been being viewed by the user from being missed.

[0259]

Furthermore, when the "missing prevention" mode button is pressed during the commercial, a missing prevention mode is entered, and the missing prevention mode is canceled when the commercial ends. Therefore, the power consumption of the terminal apparatus 1 can be suppressed.

[0260]

Instead of the terminal apparatus 1, the video display apparatus 3 may store the channel, and the video display apparatus 3 itself may detect the commercial end timing and switch the channel.

[0261]

Also, instead of the configuration in which the terminal apparatus 1 or the video display apparatus 3 switches the channel in response to the commercial end timing, the user may be notified of the end of the commercial by a video or an audio, and the user himself/herself may operate the terminal apparatus 1 to switch the channel.

[0262]

Note that the embodiments above have been described in detail so as to make the present invention easily understood, and the present invention is not limited to the embodiment having all of the described constituent elements. Also, a part of the configuration of one embodiment may be replaced with the configuration of another embodiment, and the configuration of one embodiment may be added to the configuration of another embodiment. Furthermore, another configuration may be added to a part of the configuration of each embodiment, and a part of the configuration of each embodiment may be eliminated or replaced with another configuration.

[0263]

Some or all of the above-mentioned configurations,

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functions, processing units, and processing means may be implemented by hardware by designing them with integrated circuits or the like. Also, the above-mentioned configurations and functions may be implemented by software by interpreting and executing programs for implementing the respective functions by processors. Information such as a program, a table, a file, and the like for implementing each of the functions can be placed in a recording device such as a memory, a hard disk, or an SSD (Solid State Drive) or a recording medium such as an IC card or an SD card.

[0264]

Control lines and information lines, which are considered to be necessary in description, are illustrated, and all control lines and information lines in products are not necessarily illustrated. In practice, it is right to think that almost all configurations are connected to one another.

[Explanation of Reference Signs]

[0265]

1... TERMINAL APPARATUS, 2... REMOTE CONTROLLER, 3... VIDEO DISPLAY APPARATUS, 5... BROADCAST STATION, 6... WIRELESS ROUTER, 7... NETWORK, 20... CONTROL UNIT, 21... TELEVISION SIGNAL RECEIVING UNIT, 22... DISPLAY UNIT, 23... AUDIO OUTPUT UNIT, 24... OPERATION UNIT, 25... MEMORY UNIT, 26... LAN COMMUNICATION UNIT, 30... CONTROL UNIT, 31... TELEVISION SIGNAL RECEIVING UNIT, 32... DISPLAY UNIT, 33... AUDIO OUTPUT UNIT, 34... INFRARED COMMUNICATION UNIT, 35... MEMORY UNIT, 36... LAN COMMUNICATION UNIT

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[DOCUMENT NAME] CLAIMS FOR PATENT

[CLAIM 1]

A terminal apparatus having a remote control function of a video display apparatus, comprising:

a communication unit that transmits a command related to setting of the video display apparatus and receives status information;

a signal receiving unit that receives a signal output from a broadcast station and decodes a video content;

a memory unit that stores a content of a command including a channel of the video content; and

a display unit that displays the video content and various types of information,

wherein the communication unit transmits an identification code specific to the terminal apparatus when transmitting the command, and

when the status information is received after a channel of the video display apparatus is set by remote control, the video content of the channel stored in the memory unit is decoded by the signal receiving unit and is displayed on the display unit.

[CLAIM 2]

A video display apparatus comprising:

a signal receiving unit that receives a signal output from a broadcast station and decodes a video content;

a display unit that displays the video content;

a communication unit that receives a command transmitted by a terminal apparatus and transmits status information; and

a memory unit that stores a content of the command and an identification code of the terminal apparatus that has transmitted the command,

wherein the signal receiving unit can simultaneously receive a plurality of video contents,

when a command for setting a channel is received from the terminal apparatus, a video content of the channel is decoded by the signal receiving unit and is displayed on the display unit, and the channel and an identification code are stored in the memory unit, and

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when a command for setting a channel is received next, the video content of the channel is decoded by the signal receiving unit and is displayed on the display unit, and if the identification code differs from the identification code stored in the memory unit, status information is transmitted to the terminal apparatus having the identification code stored in the memory unit.

[CLAIM 3]

The video display apparatus according to claim 2,

wherein the memory unit can further record a video content,

when a command for setting a channel is received from the terminal apparatus, a video content of the channel is decoded by the signal receiving unit and is displayed on the display unit, and the channel and an identification code are stored in the memory unit, and

when a command for setting a channel is received next, the video content of the channel is decoded by the signal receiving unit and is displayed on the display unit, and if the identification code differs from the identification code stored in the memory unit, the video content of the channel stored in the memory unit is decoded by the signal receiving unit and is recorded in the memory unit.

[CLAIM 4]

The terminal apparatus according to claim 1,

wherein the memory unit can further record a video content, and

when the status information is received after the channel of the video display apparatus is set by remote control, the video content of the channel stored in the memory unit is decoded by the signal receiving unit and is recorded in the memory unit.

[CLAIM 5]

The video display apparatus according to claim 3,

wherein, when the command for setting the channel is received from the terminal apparatus, the video content of the channel is decoded by the signal receiving unit and is displayed on the display unit, and the channel and the

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identification code are stored in the memory unit,

when the command for setting the channel is received next, the video content of the channel is decoded by the signal receiving unit and is displayed on the display unit, and if the identification code differs from the identification code stored in the memory unit, the video content of the channel stored in the memory unit is decoded by the signal receiving unit and is recorded in the memory unit, and

when the video content displayed on the display unit ends, the video content recorded in the memory unit is reproduced.

[CLAIM 6]

A terminal apparatus having a function of remotely controlling a video display apparatus that displays a video of a television program and a video serving as advertisement means accompanying a television program, the terminal apparatus comprising:

a transmission unit that transmits a command related to setting of the video display apparatus;

a television signal receiving unit that receives a television signal; and

a memory unit that stores a channel that has been viewed without being switched for a predetermined period of time,

wherein the television signal receiving unit detects a start timing and an end timing of the video serving as the advertisement means, and

when a channel selection button of a remote control function is pressed in a period of time from the start timing to the end timing, the transmission unit transmits a setting command of the channel, and further transmits a setting command of the channel stored in the memory unit in response to the end timing.

[CLAIM 7]

The terminal apparatus according to claim 6,

wherein the television signal receiving unit determines a silent scene change point, which is generated after a channel has been viewed without being switched for a predetermined period of time, as the start timing, and determines a silent scene change point, which is next generated, as the end timing.

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[CLAIM 8]

The terminal apparatus according to claim 6,

wherein, when the channel selection button of the remote control function is pressed in the period of time from the start timing to the end timing, the transmission unit transmits a selection command of the channel, and further transmits a selection command of the channel stored in the memory unit in response to the start timing and the end timing.

[CLAIM 9]

The terminal apparatus according to claim 6,

wherein, when the channel selection button of the remote control function is pressed in the period of time from the start timing to the end timing, the transmission unit transmits a two-screen display start command, transmits a selection command of the channel to an added screen, further transmits a two-screen display end command in response to the end timing, and switches the video display apparatus to only display of a video of the channel stored in the memory unit.

[CLAIM 10]

The terminal apparatus according to claim 6, further comprising:

a display unit that displays a video received by the television signal receiving unit,

wherein, when the channel selection button of the remote control function is pressed in the period of time from the start timing to the end timing, the transmission unit transmits a selection command of the channel, the display unit displays a video of the channel stored in the memory unit, and

the transmission unit further transmits a selection command of the channel stored in the memory unit in response to the end timing.

[CLAIM 11]

The terminal apparatus according to claim 6,

wherein, when a selection command of the channel stored in the memory unit is transmitted in response to the end timing, a case where a television broadcast program ends is excluded.

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[DOCUMENT NAME] ABSTRACT

[ABSTRACT]

[PROBLEM] The present invention provides user-friendly video display apparatus and terminal apparatus.

[SOLVING MEANS] In the present invention, a terminal apparatus having a function of remotely controlling a video display apparatus includes a communication unit that transmits a command related to setting of the video display apparatus and receives status information, a signal receiving unit that receives a signal output from a broadcast station and decodes a video content, a memory unit that stores a content of a command including a channel of the video content, and a display unit that displays the video content and various types of information. In this terminal apparatus, the communication unit transmits an identification code specific to the terminal apparatus when transmitting the command, and when the status information is received after a channel of the video display apparatus is set by remote control, the video content of the channel stored in the memory unit is decoded by the signal receiving unit and is displayed on the display unit.

[SELECTED DRAWING] FIG. 4

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FIG. 1

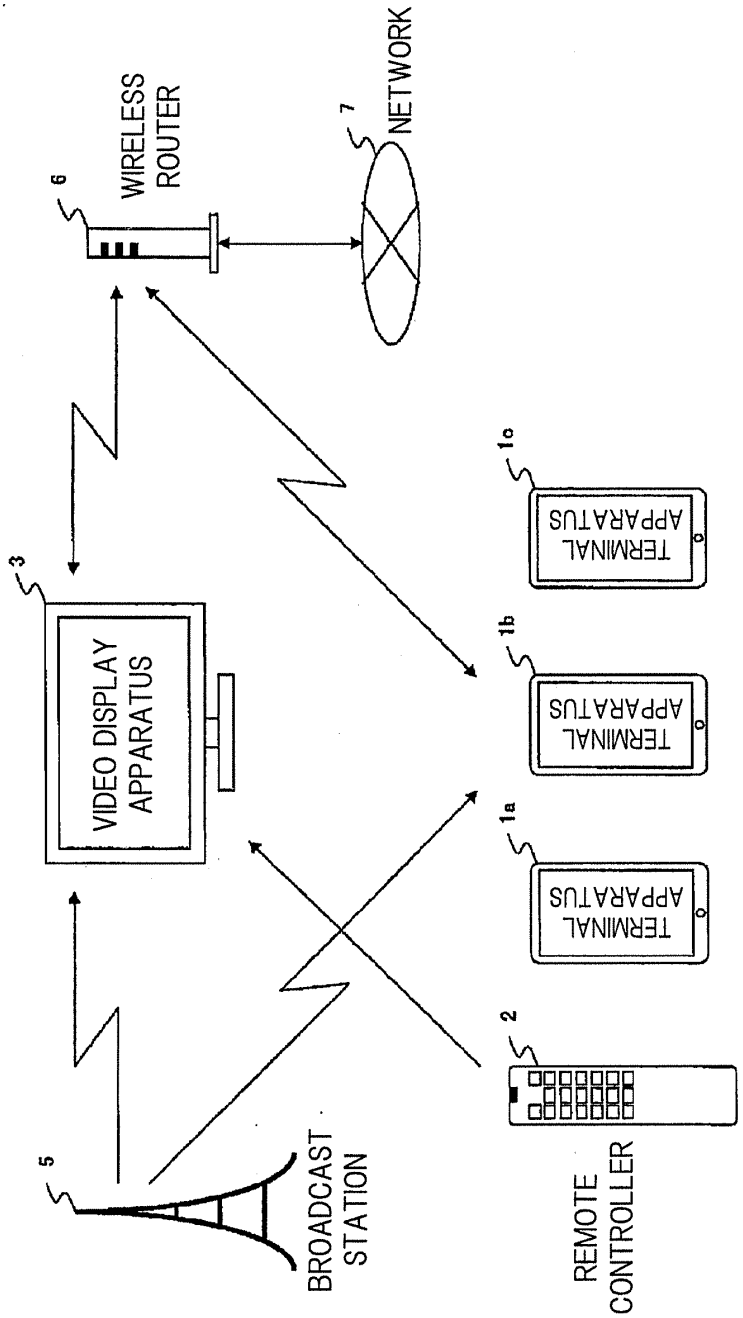

WIRELESS ROUTER
6
NETWORK
7
VIDEO DISPLAY APPARATUS
3
TERMINAL APPARATUS
1c
TERMINAL APPARATUS
1b
TERMINAL APPARATUS
1a
REMOTE CONTROLLER
2
BROADCAST STATION
5

FIG. 2

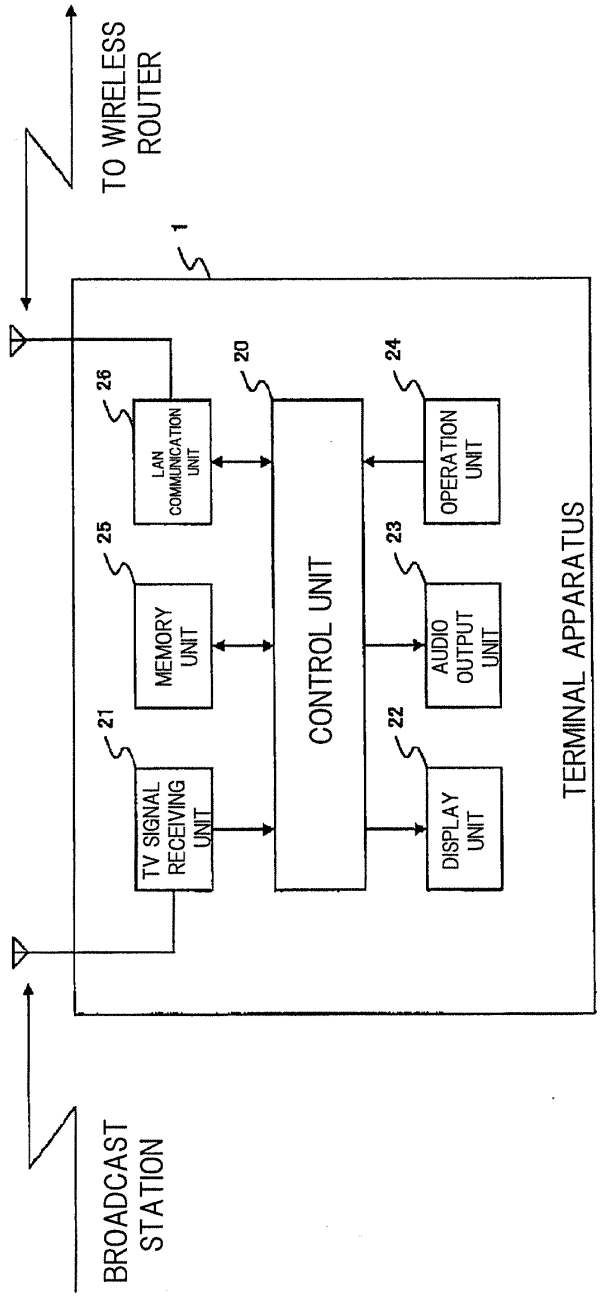

TO WIRELESS ROUTER
BROADCAST STATION
TERMINAL APPARATUS
1
CONTROL UNIT
20
TV SIGNAL RECEIVING UNIT
21
DISPLAY UNIT
22
AUDIO OUTPUT UNIT
23
OPERATION UNIT
24
MEMORY UNIT
25
LAN COMMUNICATION UNIT
26

FIG. 3

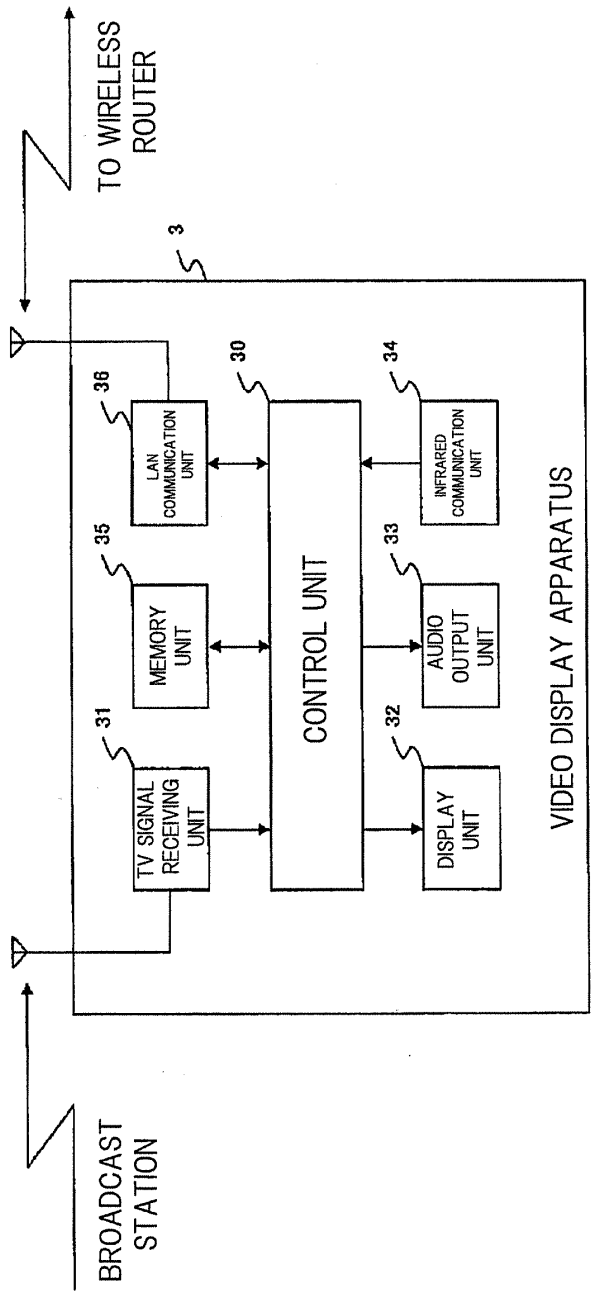

TO WIRELESS ROUTER
3
VIDEO DISPLAY APPARATUS
CONTROL UNIT
30
LAN COMMUNICATION UNIT
36
INFRARED COMMUNICATION UNIT
34
MEMORY UNIT
35
AUDIO OUTPUT UNIT
33
TV SIGNAL RECEIVING UNIT
31
DISPLAY UNIT
32
BROADCAST STATION

FIG. 4

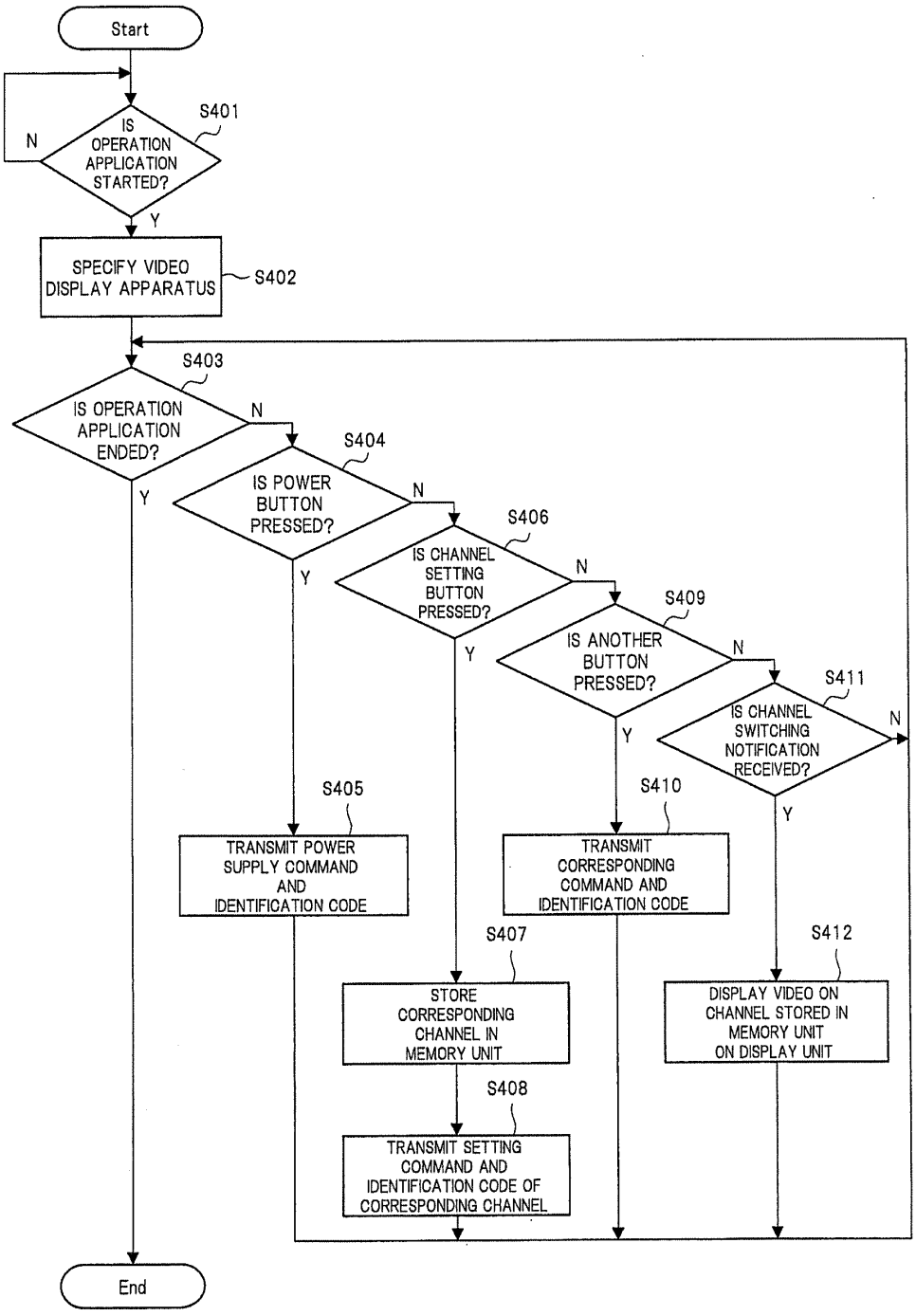

Start
S401
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S402
S403
IS OPERATION APPLICATION ENDED?
N
Y
S404
IS POWER BUTTON PRESSED?
N
Y
S406
IS CHANNEL SETTING BUTTON PRESSED?
N
Y
S409
IS ANOTHER BUTTON PRESSED?
N
Y
S411
IS CHANNEL SWITCHING NOTIFICATION RECEIVED?
N
Y
S405
TRANSMIT POWER SUPPLY COMMAND AND IDENTIFICATION CODE
S410
TRANSMIT CORRESPONDING COMMAND AND IDENTIFICATION CODE
S407
STORE CORRESPONDING CHANNEL IN MEMORY UNIT
S408
TRANSMIT SETTING COMMAND AND IDENTIFICATION CODE OF CORRESPONDING CHANNEL
S412
DISPLAY VIDEO ON CHANNEL STORED IN MEMORY UNIT ON DISPLAY UNIT
End

FIG. 5 (a)

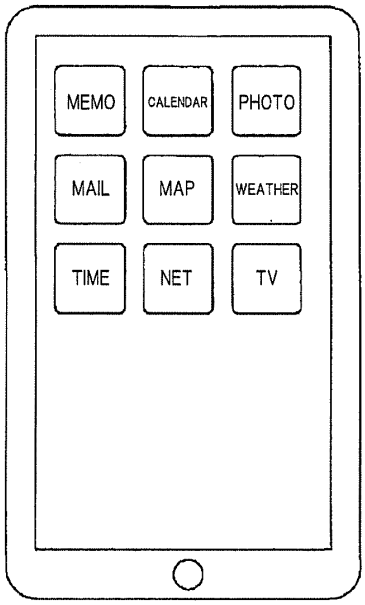

MEMO
CALENDAR
PHOTO
MAIL
MAP
WEATHER
TIME
NET
TV

FIG. 5 (b)

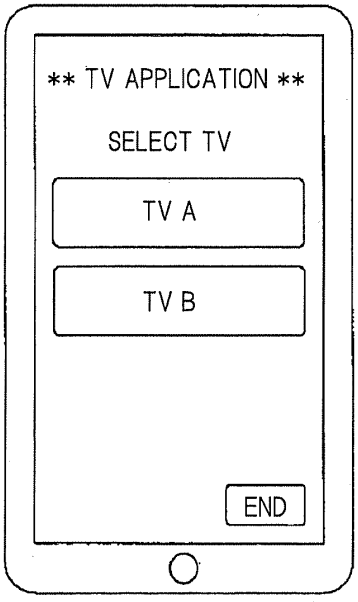

** TV APPLICATION **
SELECT TV
TV A
TV B
END

FIG. 5 (c)

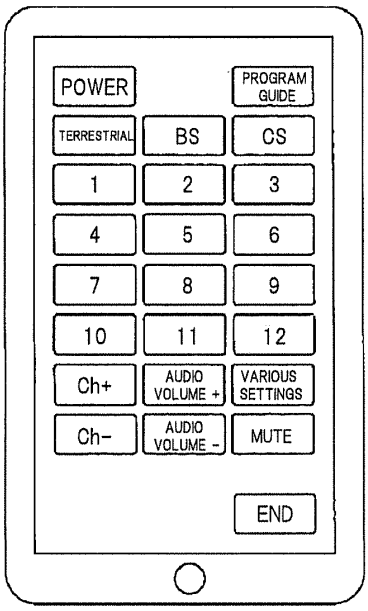

POWER
PROGRAM GUIDE
TERRESTRIAL
BS
CS
1
2
3
4
5
6
7
8
9
10
11
12
Ch+
AUDIO VOLUME +
VARIOUS SETTINGS
Ch-
AUDIO VOLUME -
MUTE
END

FIG. 5 (d)

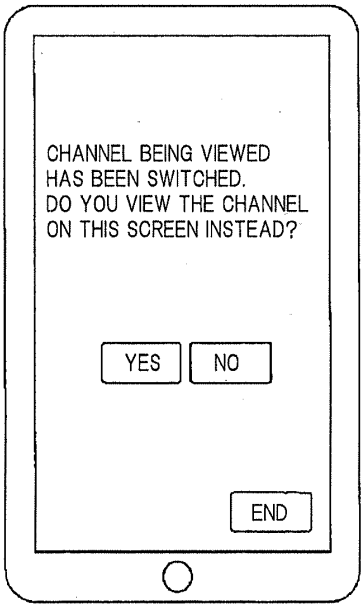

CHANNEL BEING VIEWED
HAS BEEN SWITCHED.
DO YOU VIEW THE CHANNEL
ON THIS SCREEN INSTEAD?
YES
NO
END

FIG. 6

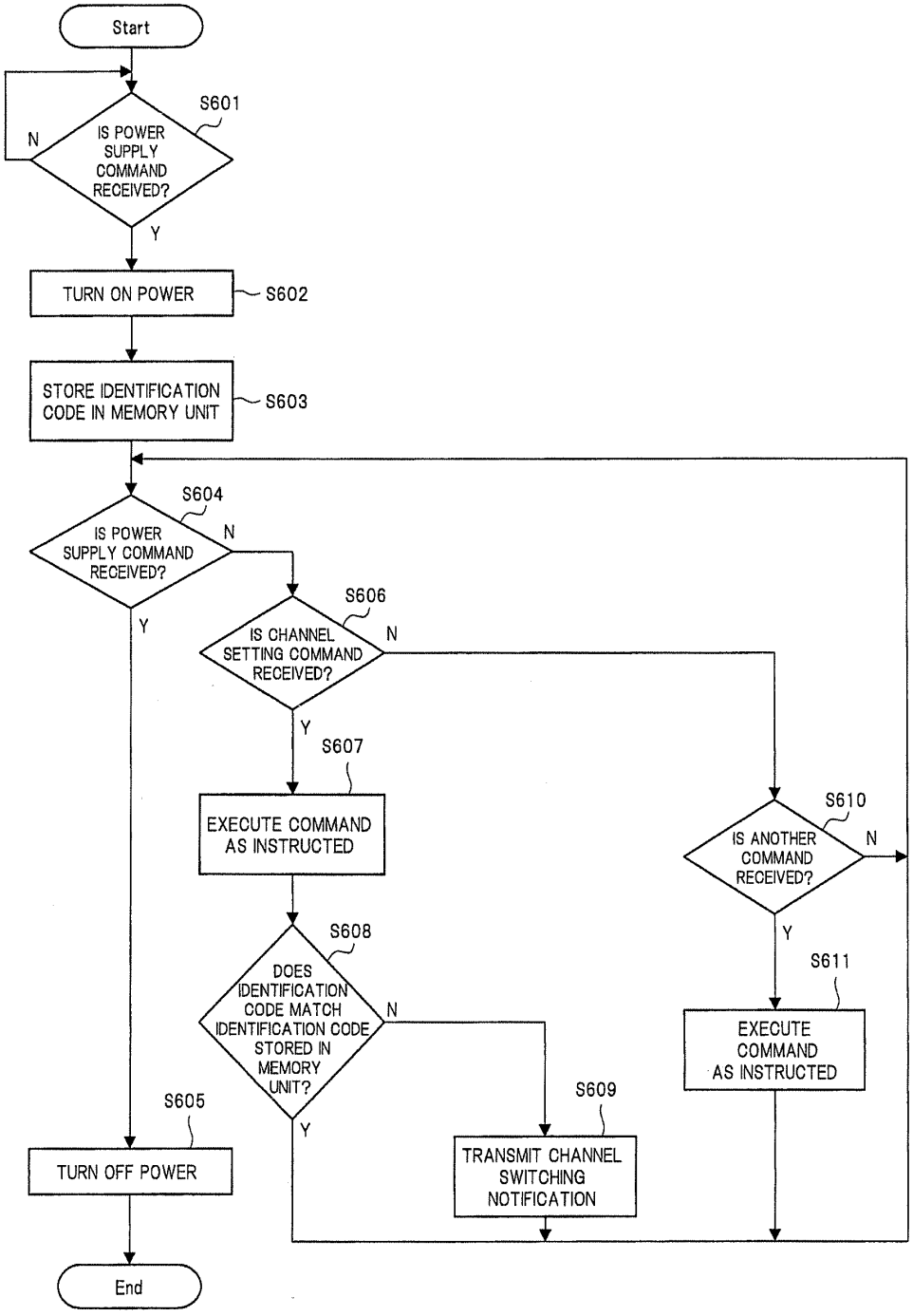

Start
S601
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
TURN ON POWER
S602
STORE IDENTIFICATION CODE IN MEMORY UNIT
S603
S604
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
S606
IS CHANNEL SETTING COMMAND RECEIVED?
N
Y
S607
EXECUTE COMMAND AS INSTRUCTED
S608
DOES IDENTIFICATION CODE MATCH IDENTIFICATION CODE STORED IN MEMORY UNIT?
N
Y
S609
TRANSMIT CHANNEL SWITCHING NOTIFICATION
S610
IS ANOTHER COMMAND RECEIVED?
N
Y
S611
EXECUTE COMMAND AS INSTRUCTED
S605
TURN OFF POWER
End

FIG. 7

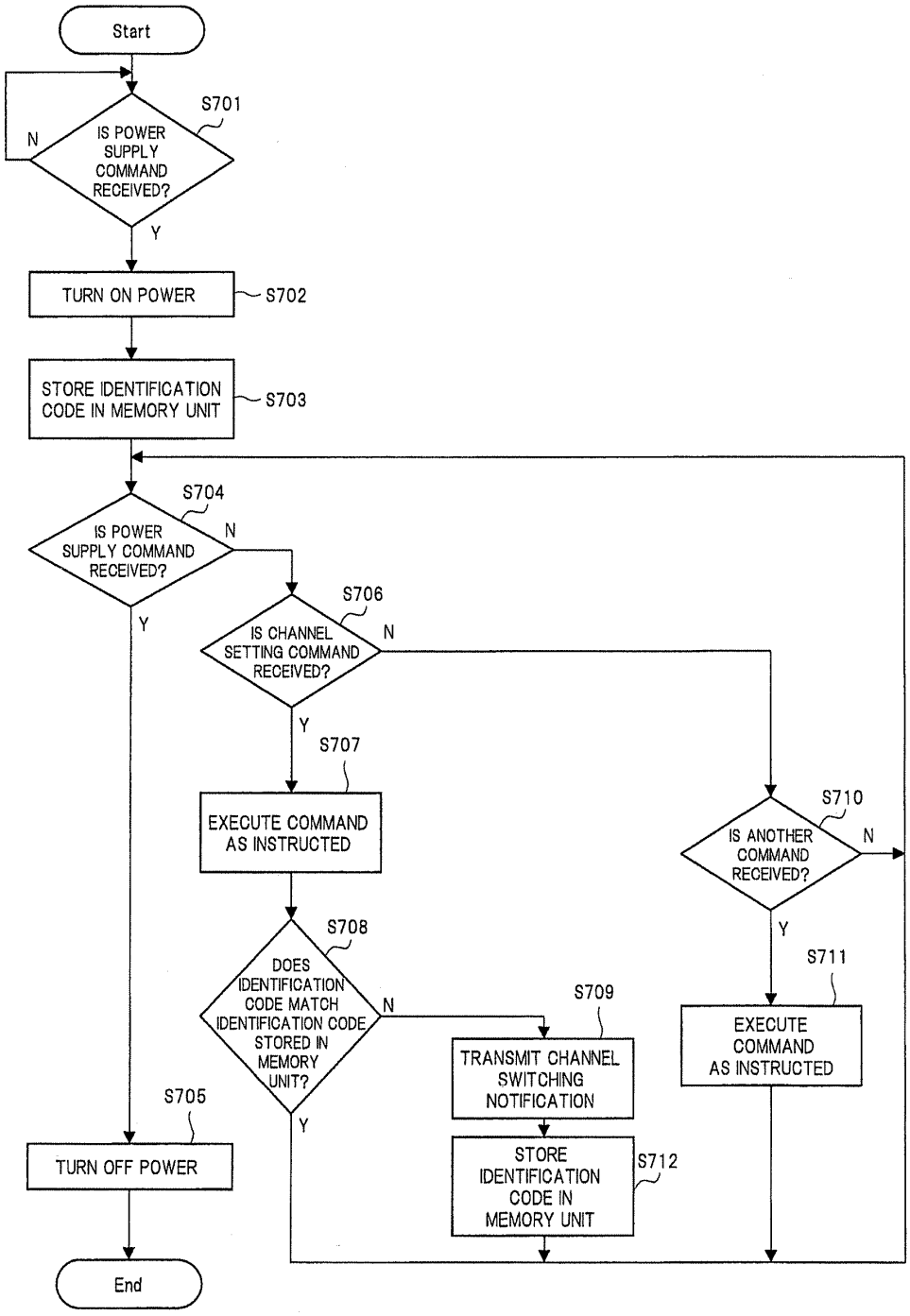

Start
S701
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
TURN ON POWER
S702
STORE IDENTIFICATION CODE IN MEMORY UNIT
S703
S704
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
S706
IS CHANNEL SETTING COMMAND RECEIVED?
N
Y
S707
EXECUTE COMMAND AS INSTRUCTED
S708
DOES IDENTIFICATION CODE MATCH IDENTIFICATION CODE STORED IN MEMORY UNIT?
N
Y
S709
TRANSMIT CHANNEL SWITCHING NOTIFICATION
STORE IDENTIFICATION CODE IN MEMORY UNIT
S712
S710
IS ANOTHER COMMAND RECEIVED?
N
Y
S711
EXECUTE COMMAND AS INSTRUCTED
S705
TURN OFF POWER
End

FIG. 8

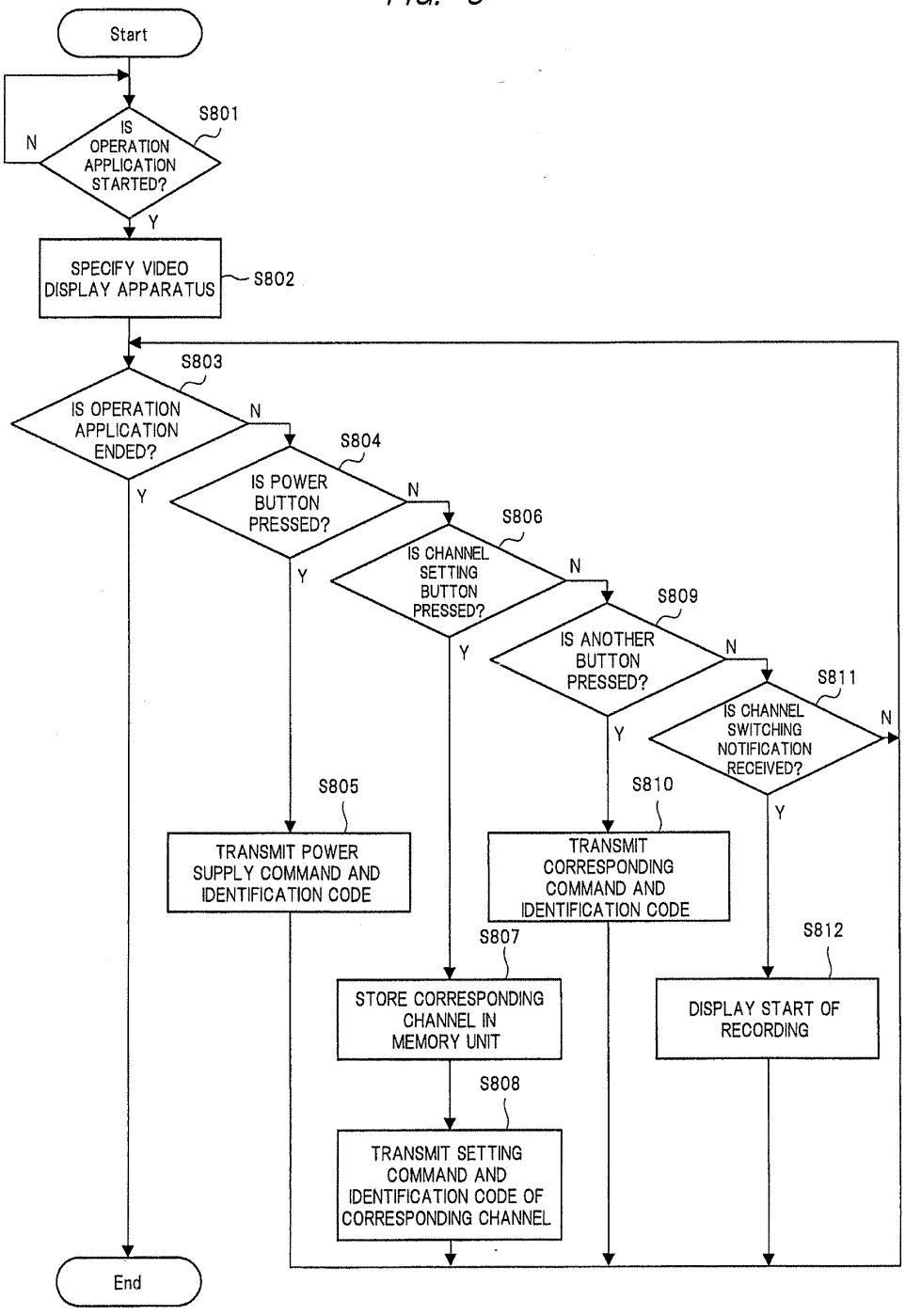

Start
S801
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S802
S803
IS OPERATION APPLICATION ENDED?
N
Y
S804
IS POWER BUTTON PRESSED?
N
Y
S806
IS CHANNEL SETTING BUTTON PRESSED?
N
Y
S809
IS ANOTHER BUTTON PRESSED?
N
Y
S811
IS CHANNEL SWITCHING NOTIFICATION RECEIVED?
N
Y
S805
TRANSMIT POWER SUPPLY COMMAND AND IDENTIFICATION CODE
S810
TRANSMIT CORRESPONDING COMMAND AND IDENTIFICATION CODE
S807
STORE CORRESPONDING CHANNEL IN MEMORY UNIT
S808
TRANSMIT SETTING COMMAND AND IDENTIFICATION CODE OF CORRESPONDING CHANNEL
S812
DISPLAY START OF RECORDING
End

FIG. 9

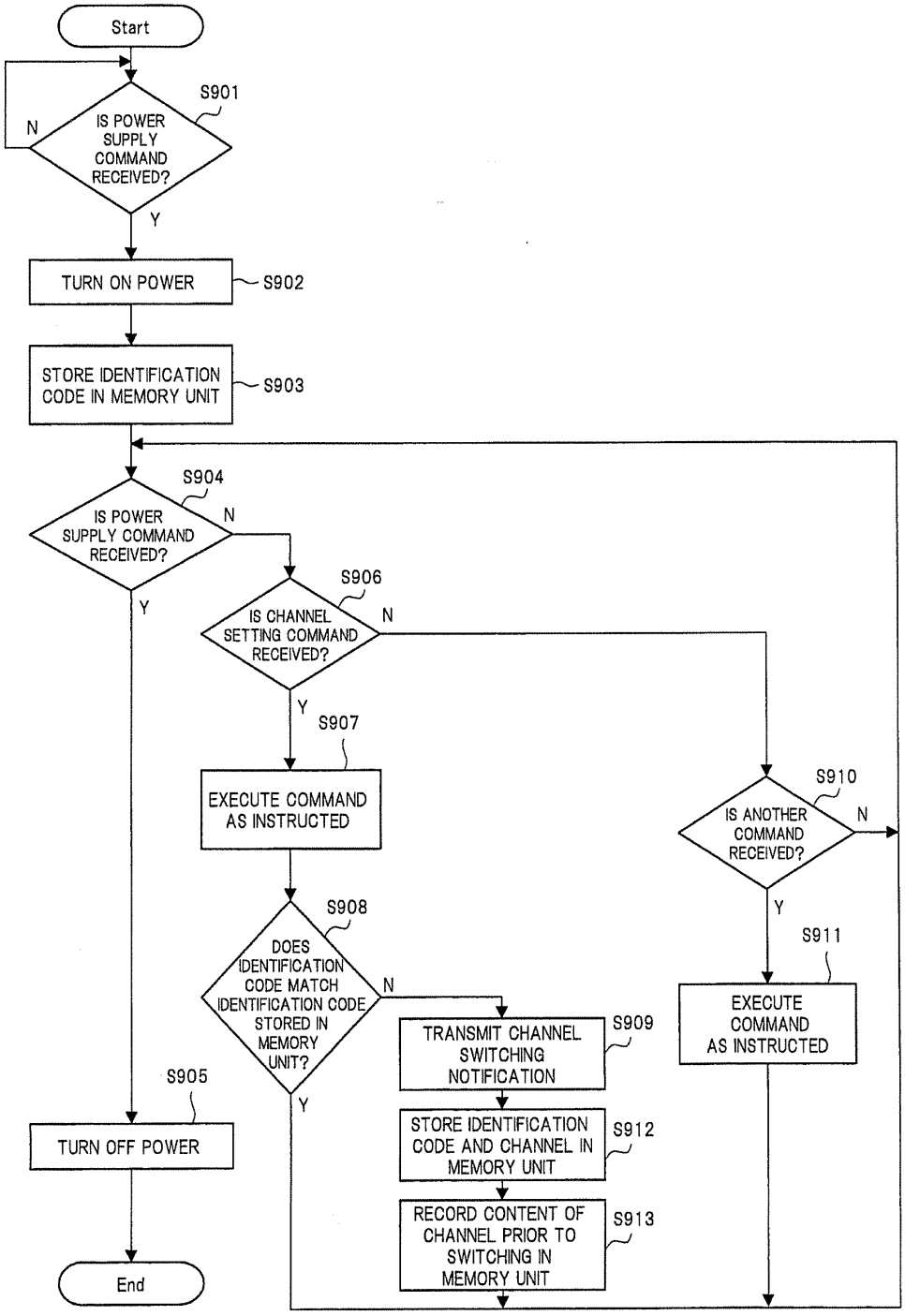

Start
S901
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
TURN ON POWER
S902
STORE IDENTIFICATION CODE IN MEMORY UNIT
S903
S904
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
S906
IS CHANNEL SETTING COMMAND RECEIVED?
N
Y
S907
EXECUTE COMMAND AS INSTRUCTED
S908
DOES IDENTIFICATION CODE MATCH IDENTIFICATION CODE STORED IN MEMORY UNIT?
N
Y
S909
TRANSMIT CHANNEL SWITCHING NOTIFICATION
S912
STORE IDENTIFICATION CODE AND CHANNEL IN MEMORY UNIT
S913
RECORD CONTENT OF CHANNEL PRIOR TO SWITCHING IN MEMORY UNIT
S910
IS ANOTHER COMMAND RECEIVED?
N
Y
S911
EXECUTE COMMAND AS INSTRUCTED
S905
TURN OFF POWER
End

FIG. 10

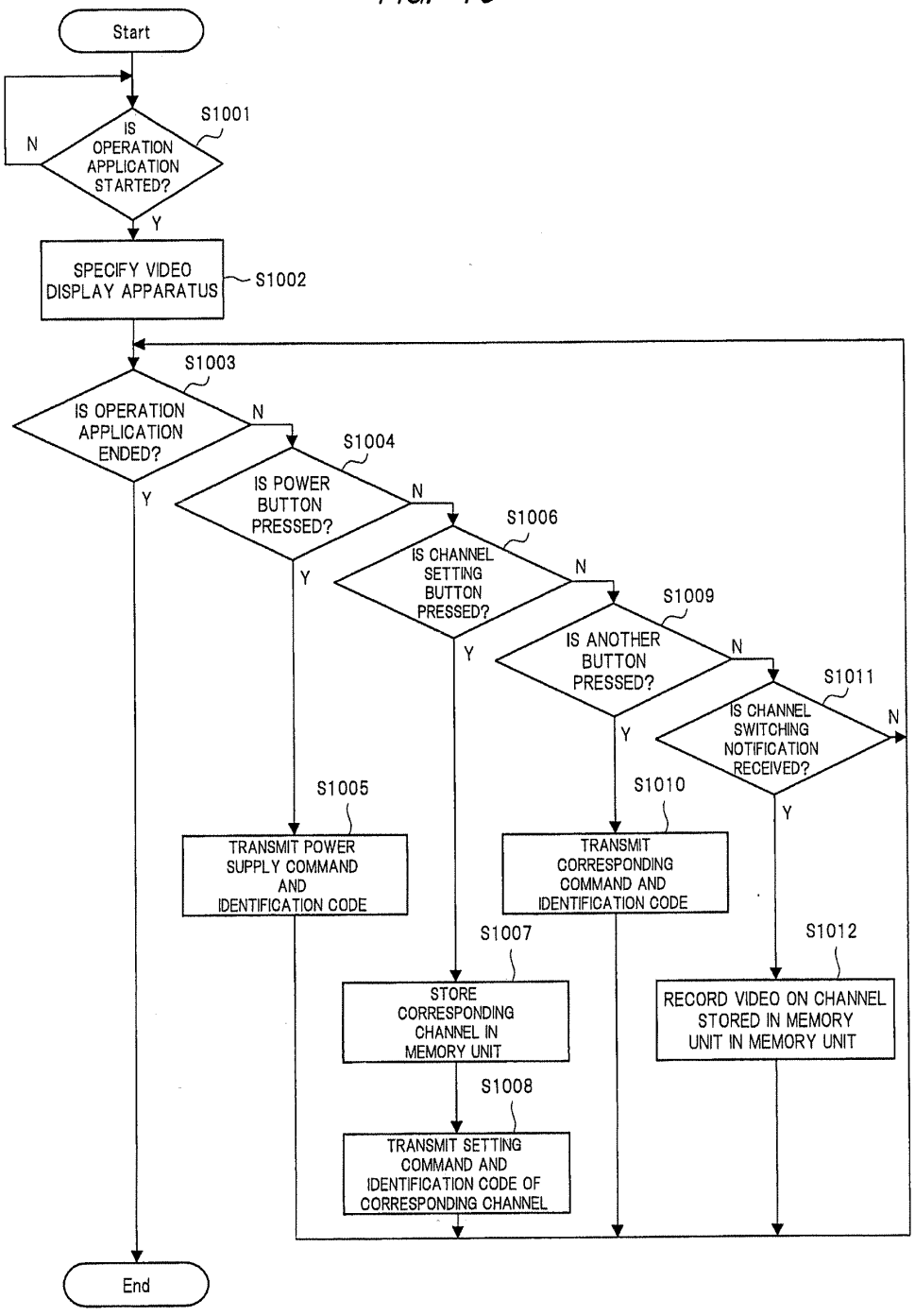

Start
S1001
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S1002
S1003
IS OPERATION APPLICATION ENDED?
N
Y
S1004
IS POWER BUTTON PRESSED?
N
Y
S1006
IS CHANNEL SETTING BUTTON PRESSED?
N
Y
S1009
IS ANOTHER BUTTON PRESSED?
N
Y
S1011
IS CHANNEL SWITCHING NOTIFICATION RECEIVED?
N
Y
S1005
TRANSMIT POWER SUPPLY COMMAND AND IDENTIFICATION CODE
S1010
TRANSMIT CORRESPONDING COMMAND AND IDENTIFICATION CODE
S1007
STORE CORRESPONDING CHANNEL IN MEMORY UNIT
S1008
TRANSMIT SETTING COMMAND AND IDENTIFICATION CODE OF CORRESPONDING CHANNEL
S1012
RECORD VIDEO ON CHANNEL STORED IN MEMORY UNIT IN MEMORY UNIT
End

FIG. 11

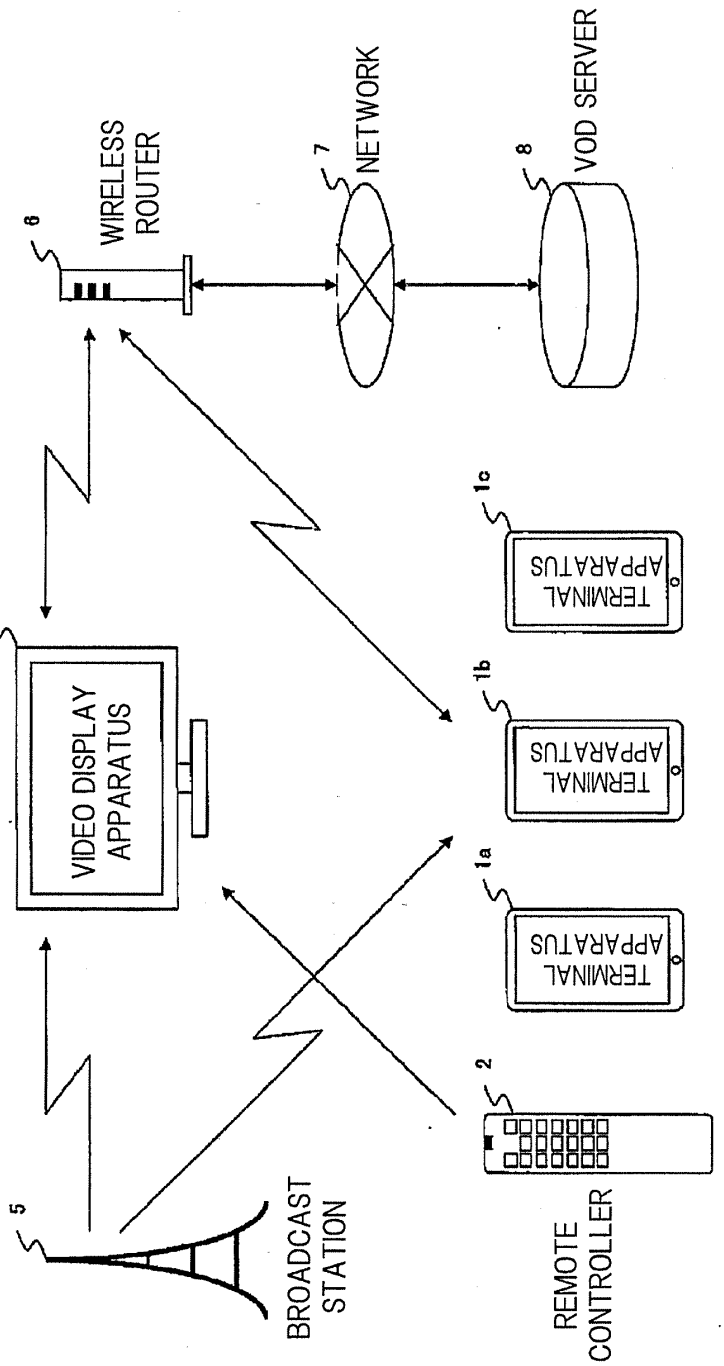

WIRELESS ROUTER
6
NETWORK
7
VOD SERVER
8
VIDEO DISPLAY APPARATUS
3
TERMINAL APPARATUS
1c
TERMINAL APPARATUS
1b
TERMINAL APPARATUS
1a
REMOTE CONTROLLER
2
BROADCAST STATION
5

FIG. 12

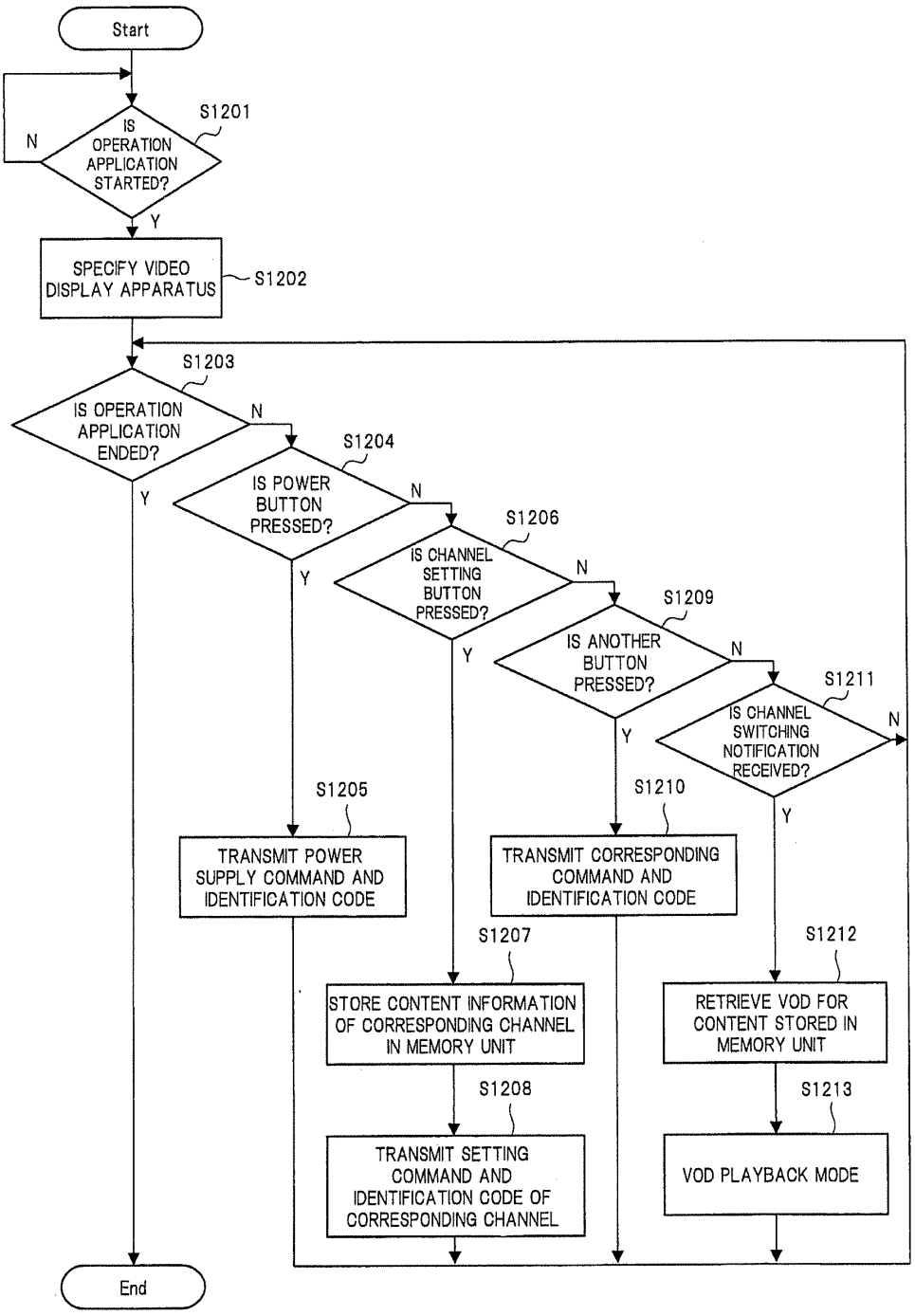

Start
S1201
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S1202
S1203
IS OPERATION APPLICATION ENDED?
N
Y
S1204
IS POWER BUTTON PRESSED?
N
Y
S1206
IS CHANNEL SETTING BUTTON PRESSED?
N
Y
S1209
IS ANOTHER BUTTON PRESSED?
N
Y
S1211
IS CHANNEL SWITCHING NOTIFICATION RECEIVED?
N
Y
S1205
TRANSMIT POWER SUPPLY COMMAND AND IDENTIFICATION CODE
S1210
TRANSMIT CORRESPONDING COMMAND AND IDENTIFICATION CODE
S1207
STORE CONTENT INFORMATION OF CORRESPONDING CHANNEL IN MEMORY UNIT
S1208
TRANSMIT SETTING COMMAND AND IDENTIFICATION CODE OF CORRESPONDING CHANNEL
S1212
RETRIEVE VOD FOR CONTENT STORED IN MEMORY UNIT
S1213
VOD PLAYBACK MODE
End

FIG. 13 (a)

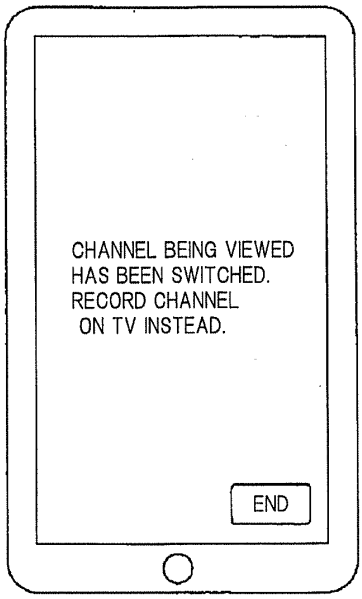


FIG. 13 (b)

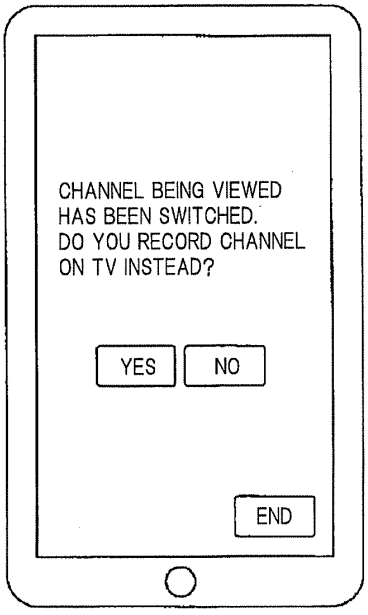


FIG. 13(c)

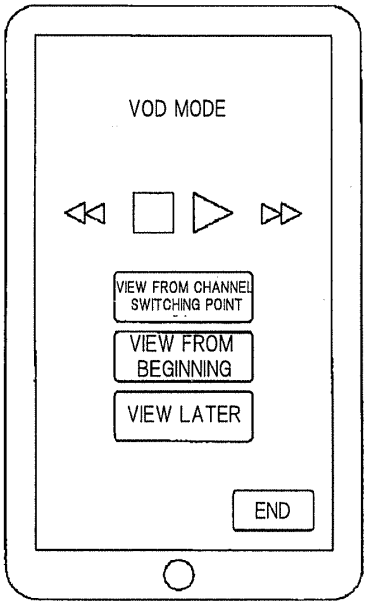


FIG. 13(d)

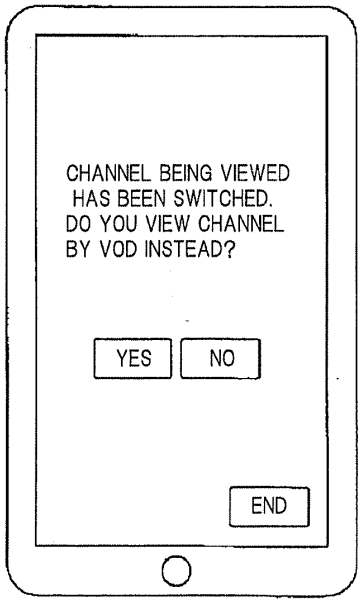


FIG. 14

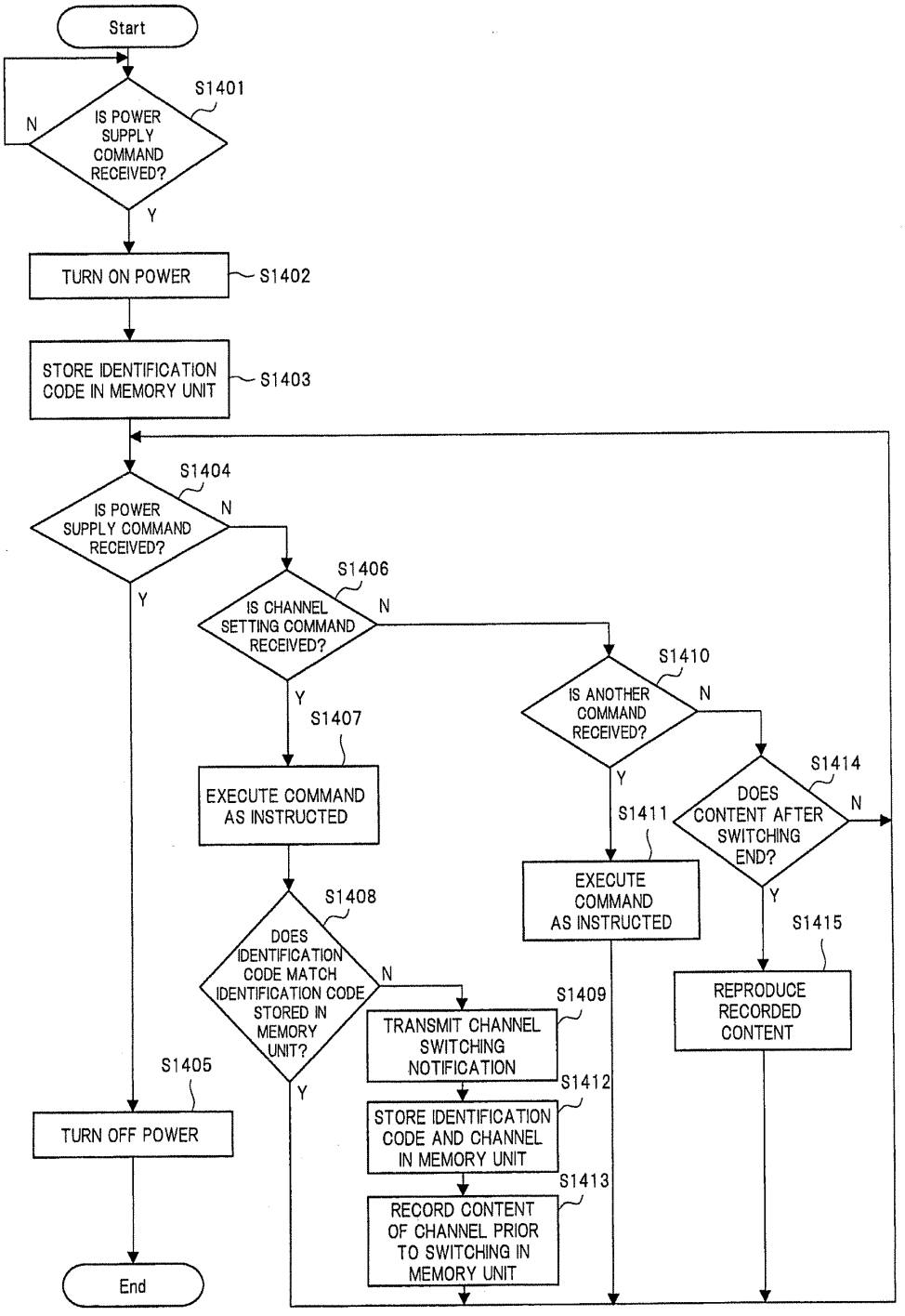

Start
S1401
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
TURN ON POWER
S1402
STORE IDENTIFICATION CODE IN MEMORY UNIT
S1403
S1404
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
S1406
IS CHANNEL SETTING COMMAND RECEIVED?
N
Y
S1407
EXECUTE COMMAND AS INSTRUCTED
S1408
DOES IDENTIFICATION CODE MATCH IDENTIFICATION CODE STORED IN MEMORY UNIT?
N
Y
S1409
TRANSMIT CHANNEL SWITCHING NOTIFICATION
S1412
STORE IDENTIFICATION CODE AND CHANNEL IN MEMORY UNIT
S1413
RECORD CONTENT OF CHANNEL PRIOR TO SWITCHING IN MEMORY UNIT
S1410
IS ANOTHER COMMAND RECEIVED?
N
Y
S1411
EXECUTE COMMAND AS INSTRUCTED
S1414
DOES CONTENT AFTER SWITCHING END?
N
Y
S1415
REPRODUCE RECORDED CONTENT
S1405
TURN OFF POWER
End

FIG. 15

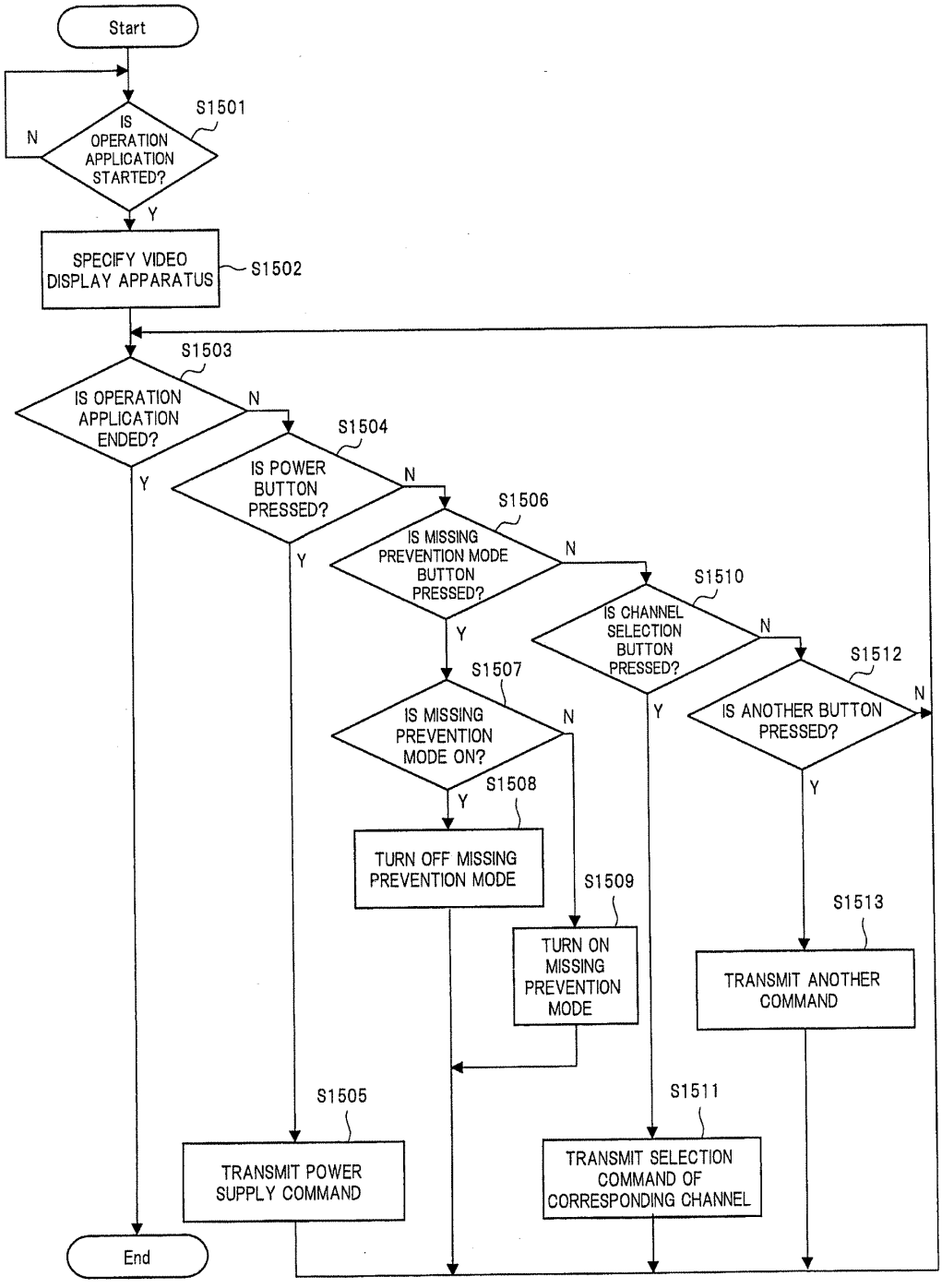

Start
S1501
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S1502
S1503
IS OPERATION APPLICATION ENDED?
N
Y
S1504
IS POWER BUTTON PRESSED?
N
Y
S1506
IS MISSING PREVENTION MODE BUTTON PRESSED?
N
Y
S1510
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S1512
IS ANOTHER BUTTON PRESSED?
N
Y
S1507
IS MISSING PREVENTION MODE ON?
N
Y
S1508
TURN OFF MISSING PREVENTION MODE
S1509
TURN ON MISSING PREVENTION MODE
S1513
TRANSMIT ANOTHER COMMAND
S1505
TRANSMIT POWER SUPPLY COMMAND
S1511
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
End

FIG. 16

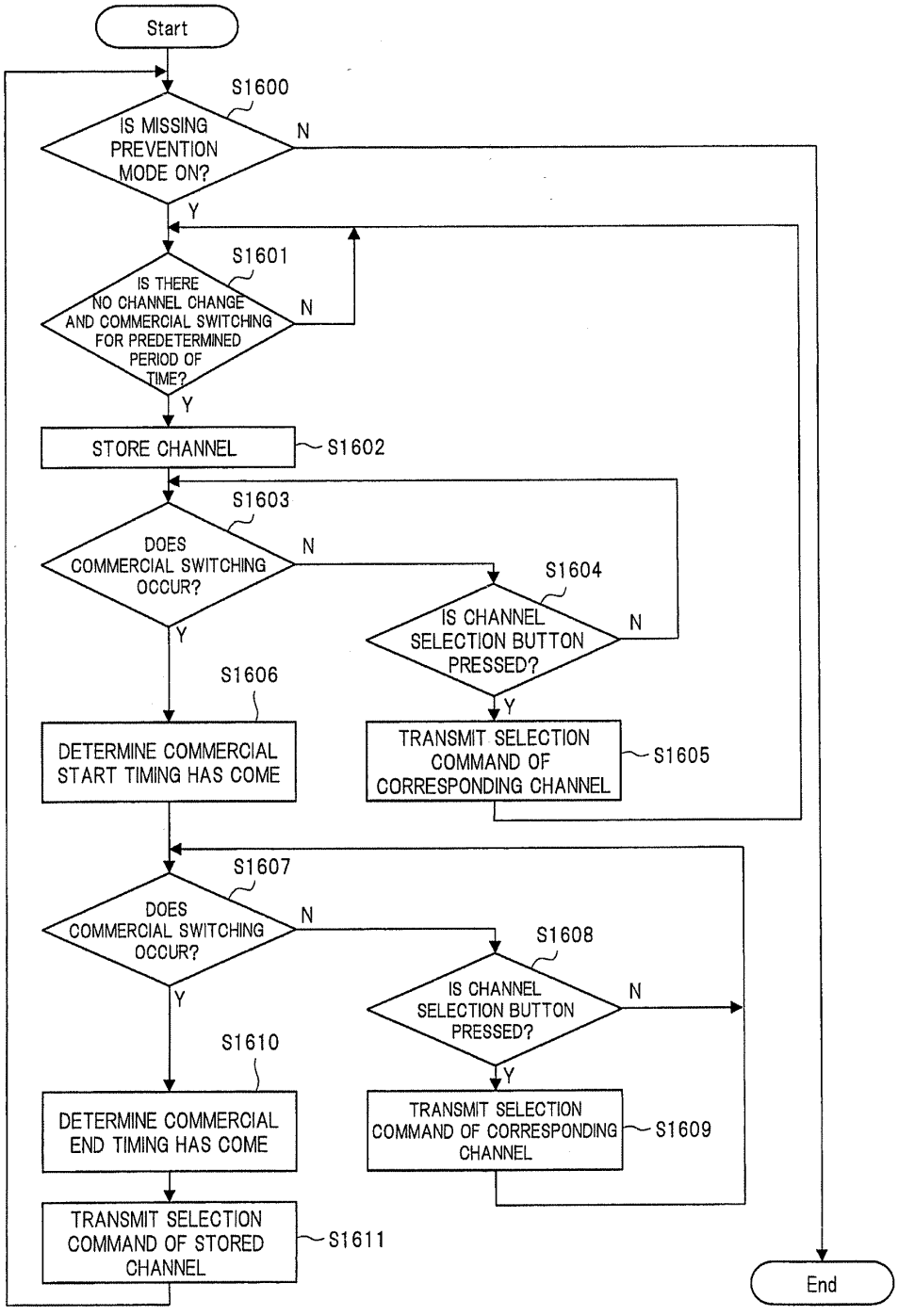

Start
S1600
IS MISSING PREVENTION MODE ON?
N
Y
S1601
IS THERE NO CHANNEL CHANGE AND COMMERCIAL SWITCHING FOR PREDETERMINED PERIOD OF TIME?
N
Y
STORE CHANNEL
S1602
S1603
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S1604
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S1606
DETERMINE COMMERCIAL START TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S1605
S1607
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S1608
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S1610
DETERMINE COMMERCIAL END TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S1609
TRANSMIT SELECTION COMMAND OF STORED CHANNEL
S1611
End

FIG. 17

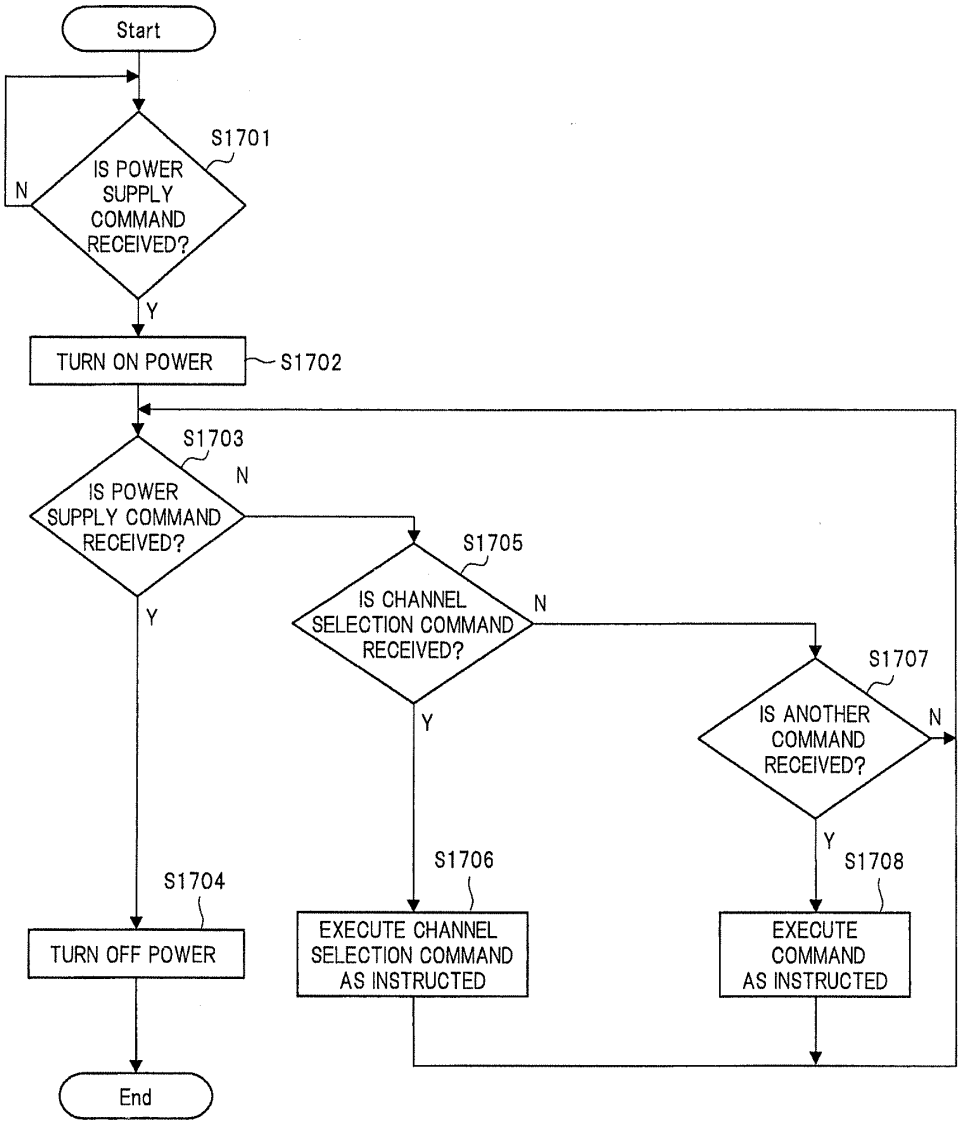

Start
S1701
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
TURN ON POWER
S1702
S1703
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
S1705
IS CHANNEL SELECTION COMMAND RECEIVED?
N
Y
S1707
IS ANOTHER COMMAND RECEIVED?
N
Y
S1704
TURN OFF POWER
S1706
EXECUTE CHANNEL SELECTION COMMAND AS INSTRUCTED
S1708
EXECUTE COMMAND AS INSTRUCTED
End

FIG. 18

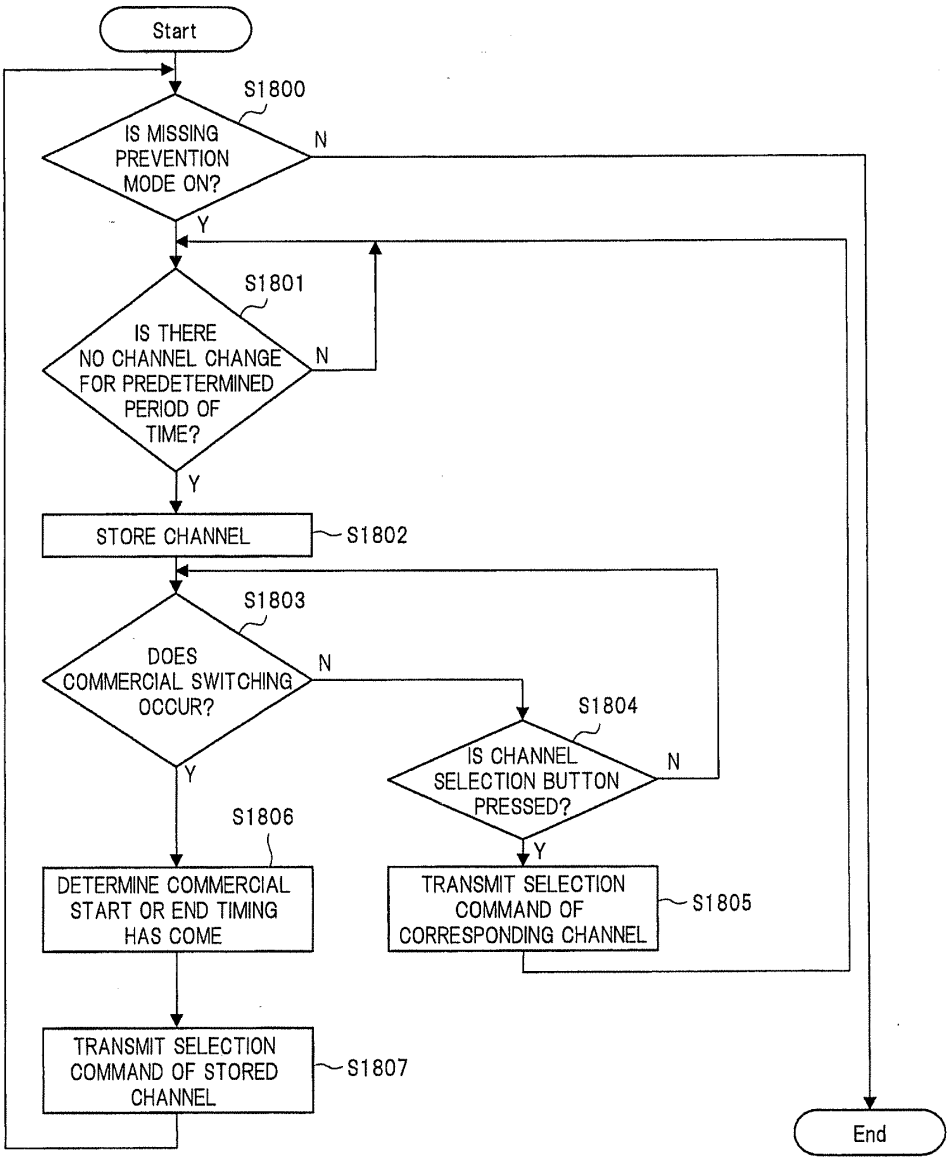

Start
S1800
IS MISSING PREVENTION MODE ON?
N
Y
S1801
IS THERE NO CHANNEL CHANGE FOR PREDETERMINED PERIOD OF TIME?
N
Y
STORE CHANNEL
S1802
S1803
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S1804
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S1806
DETERMINE COMMERCIAL START OR END TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S1805
TRANSMIT SELECTION COMMAND OF STORED CHANNEL
S1807
End

FIG. 19

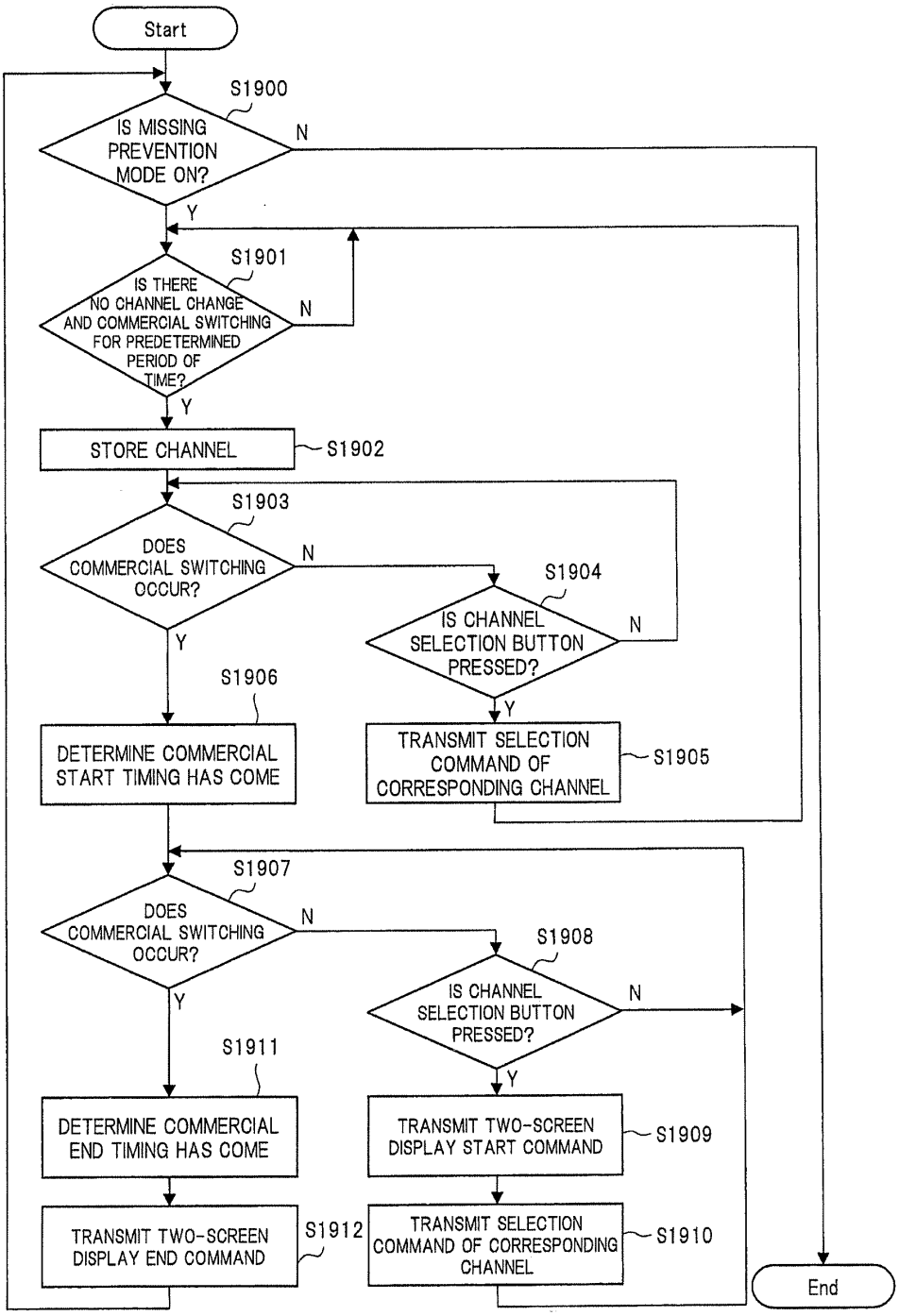

Start
S1900
IS MISSING PREVENTION MODE ON?
N
Y
S1901
IS THERE NO CHANNEL CHANGE AND COMMERCIAL SWITCHING FOR PREDETERMINED PERIOD OF TIME?
N
Y
STORE CHANNEL
S1902
S1903
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S1904
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S1906
DETERMINE COMMERCIAL START TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S1905
S1907
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S1908
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S1911
DETERMINE COMMERCIAL END TIMING HAS COME
TRANSMIT TWO-SCREEN DISPLAY START COMMAND
S1909
TRANSMIT TWO-SCREEN DISPLAY END COMMAND
S1912
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S1910
End

FIG. 20

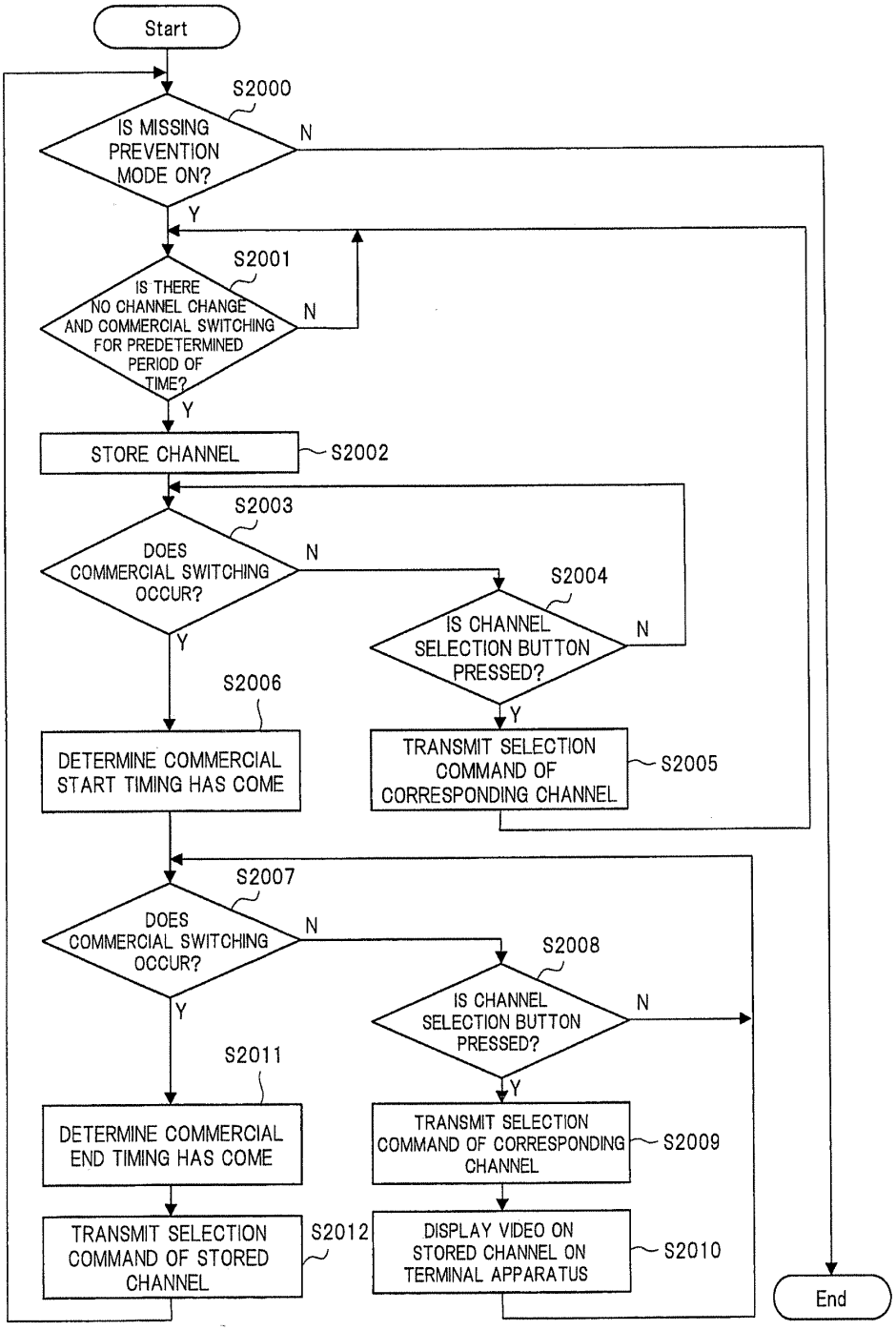

Start
S2000
IS MISSING PREVENTION MODE ON?
N
Y
S2001
IS THERE NO CHANNEL CHANGE AND COMMERCIAL SWITCHING FOR PREDETERMINED PERIOD OF TIME?
N
Y
STORE CHANNEL
S2002
S2003
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S2004
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S2006
DETERMINE COMMERCIAL START TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2005
S2007
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S2008
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S2011
DETERMINE COMMERCIAL END TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2009
TRANSMIT SELECTION COMMAND OF STORED CHANNEL
S2012
DISPLAY VIDEO ON STORED CHANNEL ON TERMINAL APPARATUS
S2010
End

FIG. 21

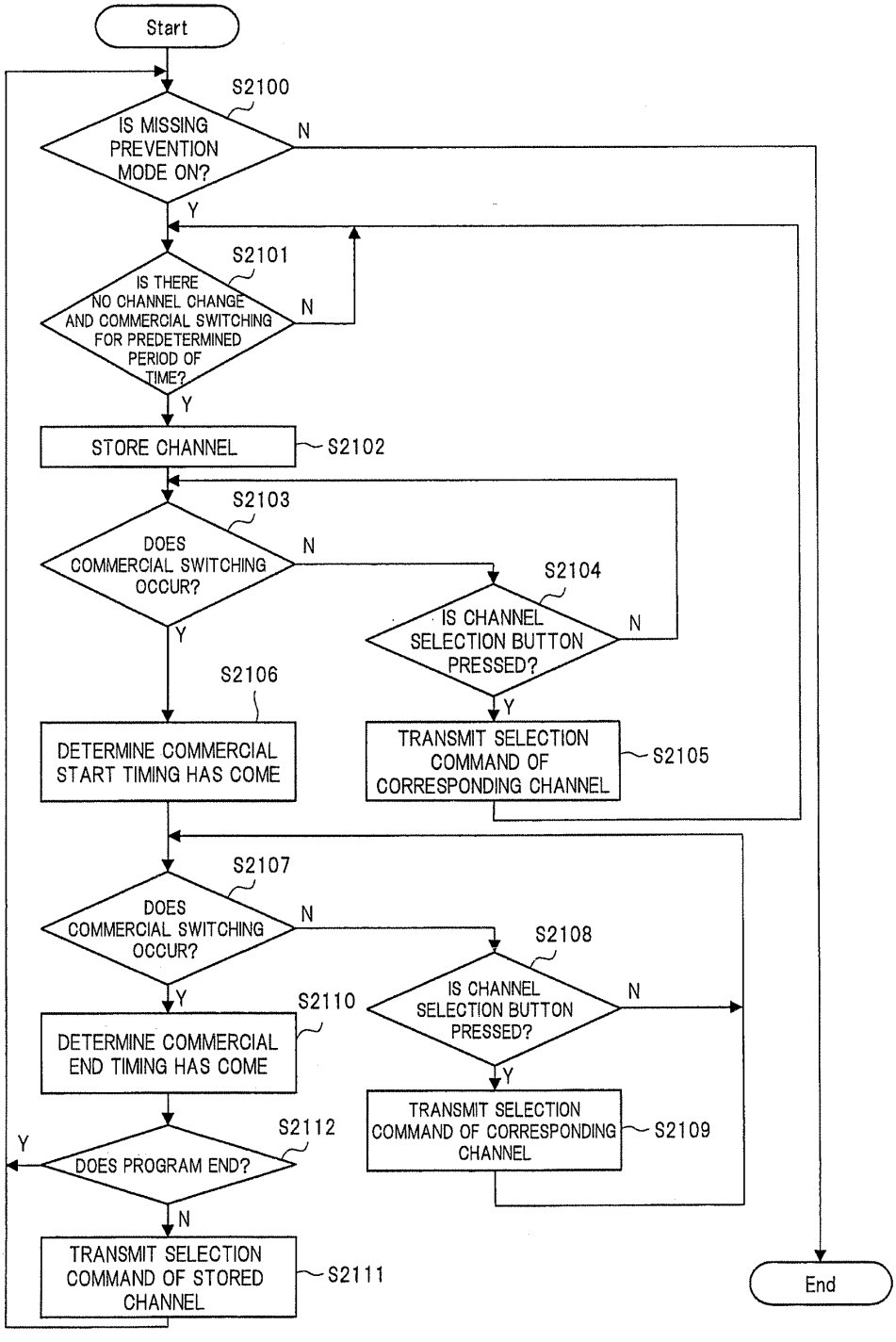

Start
S2100
IS MISSING PREVENTION MODE ON?
N
Y
S2101
IS THERE NO CHANNEL CHANGE AND COMMERCIAL SWITCHING FOR PREDETERMINED PERIOD OF TIME?
N
Y
STORE CHANNEL
S2102
S2103
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S2104
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2105
S2106
DETERMINE COMMERCIAL START TIMING HAS COME
S2107
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S2108
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2109
S2110
DETERMINE COMMERCIAL END TIMING HAS COME
S2112
DOES PROGRAM END?
Y
N
TRANSMIT SELECTION COMMAND OF STORED CHANNEL
S2111
End

FIG. 22

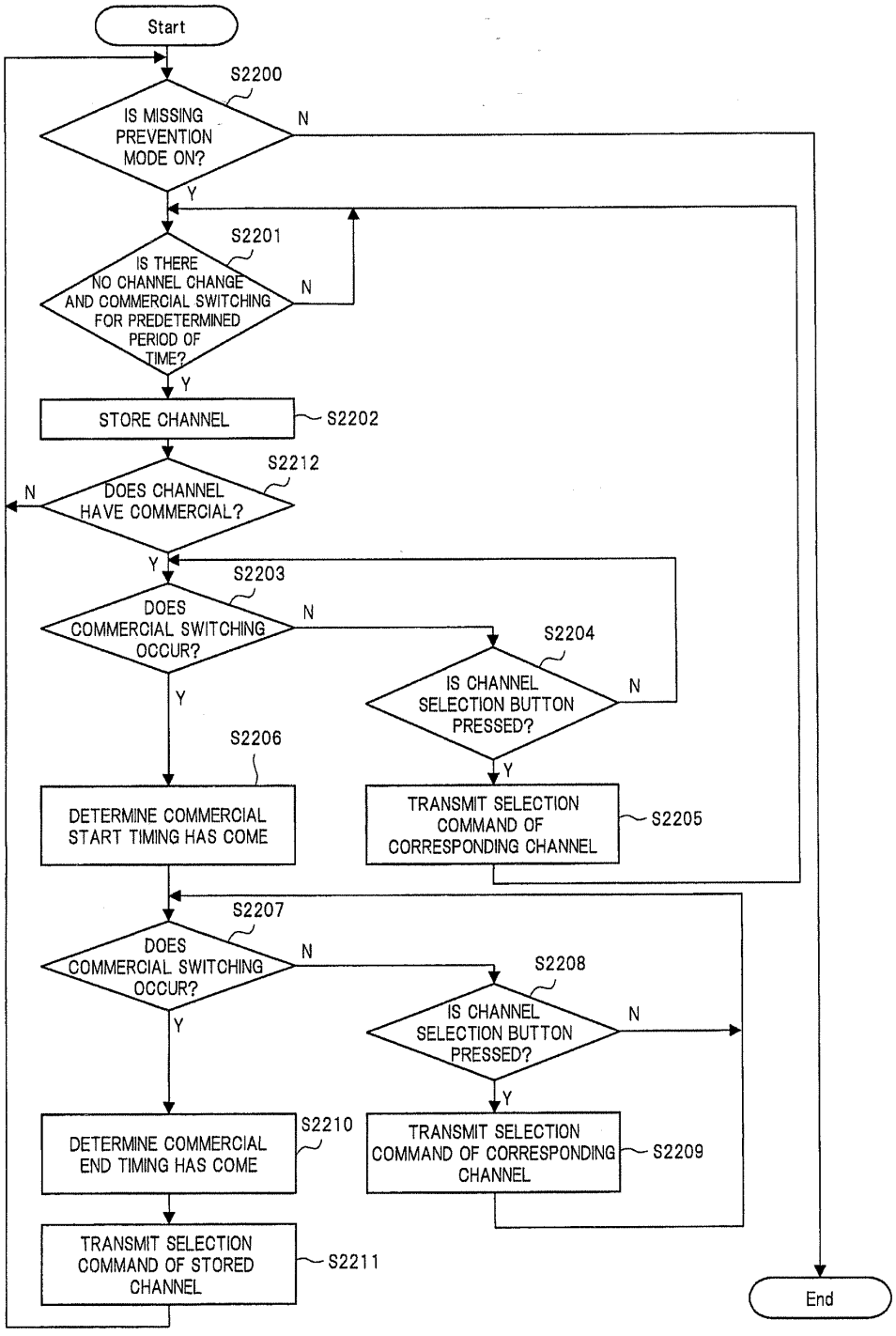

Start
S2200
IS MISSING PREVENTION MODE ON?
N
Y
S2201
IS THERE NO CHANNEL CHANGE AND COMMERCIAL SWITCHING FOR PREDETERMINED PERIOD OF TIME?
N
Y
STORE CHANNEL
S2202
S2212
DOES CHANNEL HAVE COMMERCIAL?
N
Y
S2203
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S2204
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S2206
DETERMINE COMMERCIAL START TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2205
S2207
DOES COMMERCIAL SWITCHING OCCUR?
N
Y
S2208
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S2210
DETERMINE COMMERCIAL END TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2209
TRANSMIT SELECTION COMMAND OF STORED CHANNEL
S2211
End

FIG. 23

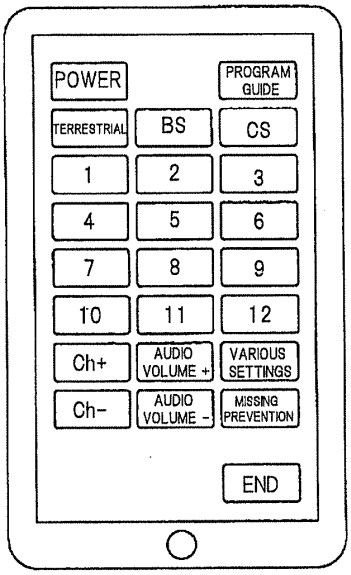

POWER
PROGRAM GUIDE
TERRESTRIAL
BS
CS
1
2
3
4
5
6
7
8
9
10
11
12
Ch+
AUDIO VOLUME +
VARIOUS SETTINGS
Ch-
AUDIO VOLUME -
MISSING PREVENTION
END

FIG. 24

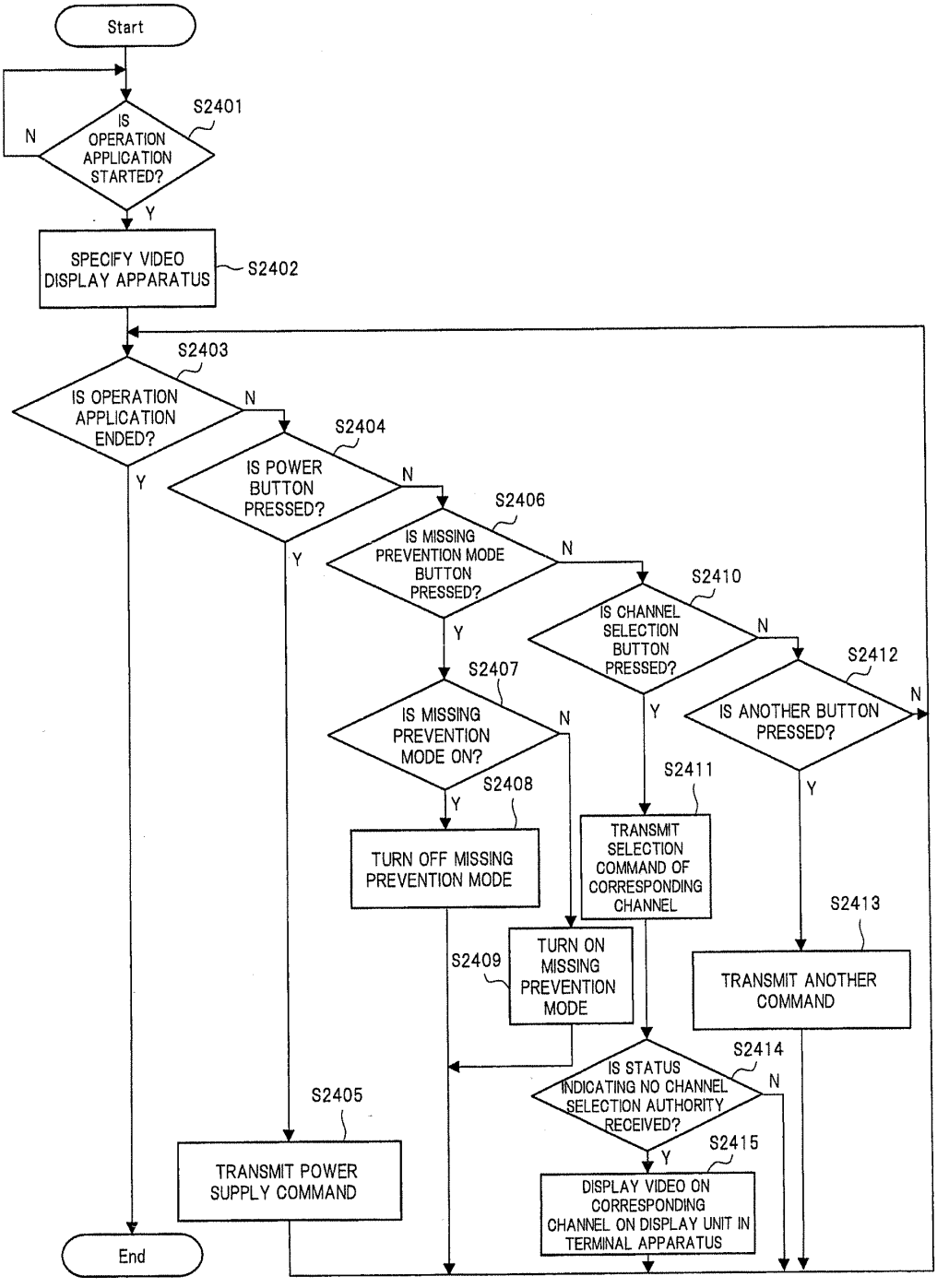

Start
S2401
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S2402
S2403
IS OPERATION APPLICATION ENDED?
N
Y
S2404
IS POWER BUTTON PRESSED?
N
Y
S2406
IS MISSING PREVENTION MODE BUTTON PRESSED?
N
Y
S2410
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S2412
IS ANOTHER BUTTON PRESSED?
N
Y
S2407
IS MISSING PREVENTION MODE ON?
N
Y
S2408
TURN OFF MISSING PREVENTION MODE
S2411
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2413
TRANSMIT ANOTHER COMMAND
S2409
TURN ON MISSING PREVENTION MODE
S2414
IS STATUS INDICATING NO CHANNEL SELECTION AUTHORITY RECEIVED?
N
Y
S2415
DISPLAY VIDEO ON CORRESPONDING CHANNEL ON DISPLAY UNIT IN TERMINAL APPARATUS
S2405
TRANSMIT POWER SUPPLY COMMAND
End

FIG. 25

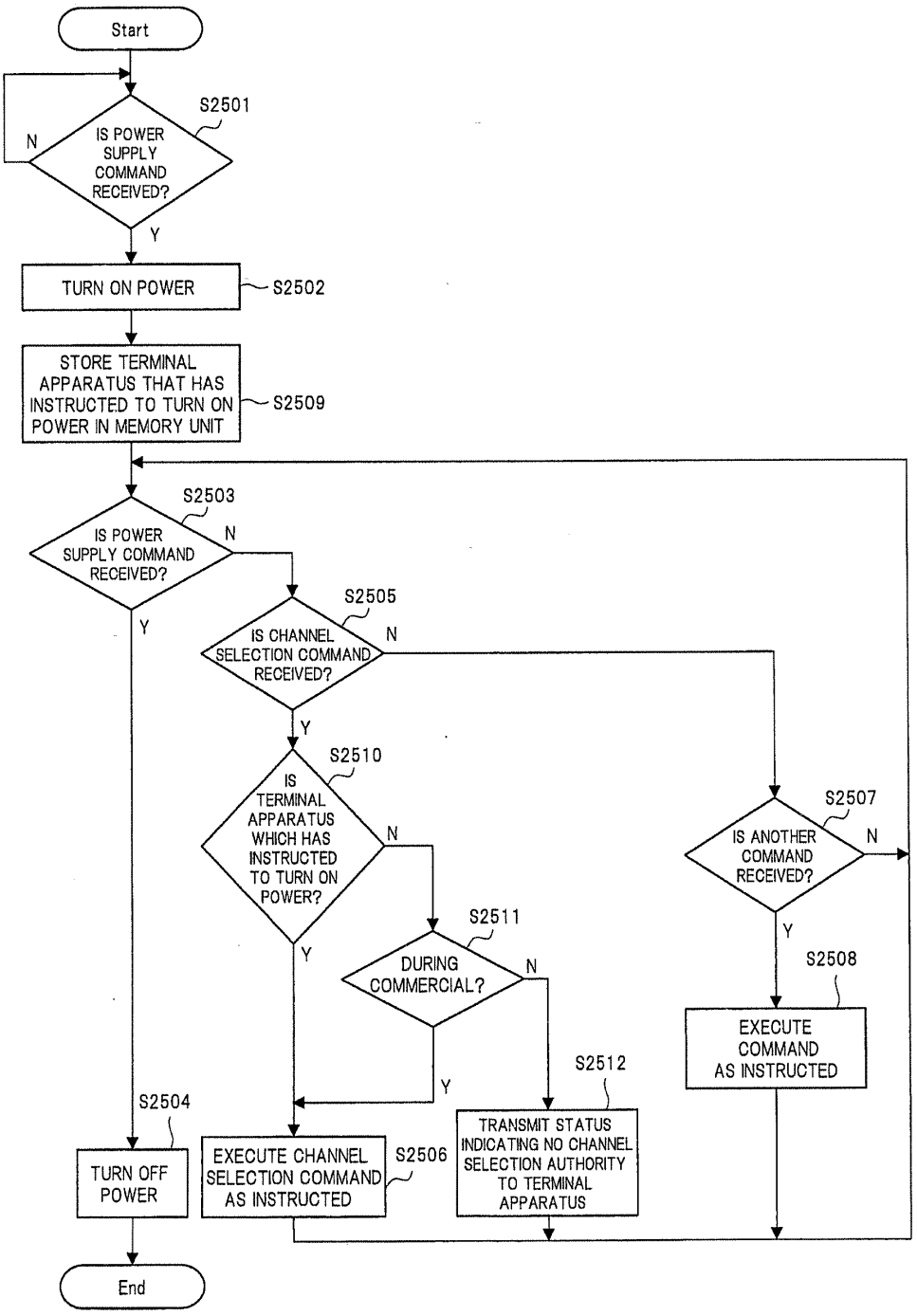

Start
S2501
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
TURN ON POWER
S2502
STORE TERMINAL APPARATUS THAT HAS INSTRUCTED TO TURN ON POWER IN MEMORY UNIT
S2509
S2503
IS POWER SUPPLY COMMAND RECEIVED?
N
Y
S2505
IS CHANNEL SELECTION COMMAND RECEIVED?
N
Y
S2510
IS TERMINAL APPARATUS WHICH HAS INSTRUCTED TO TURN ON POWER?
N
Y
S2511
DURING COMMERCIAL?
N
Y
S2507
IS ANOTHER COMMAND RECEIVED?
N
Y
S2508
EXECUTE COMMAND AS INSTRUCTED
S2512
TRANSMIT STATUS INDICATING NO CHANNEL SELECTION AUTHORITY TO TERMINAL APPARATUS
S2504
TURN OFF POWER
EXECUTE CHANNEL SELECTION COMMAND AS INSTRUCTED
S2506
End

FIG. 26

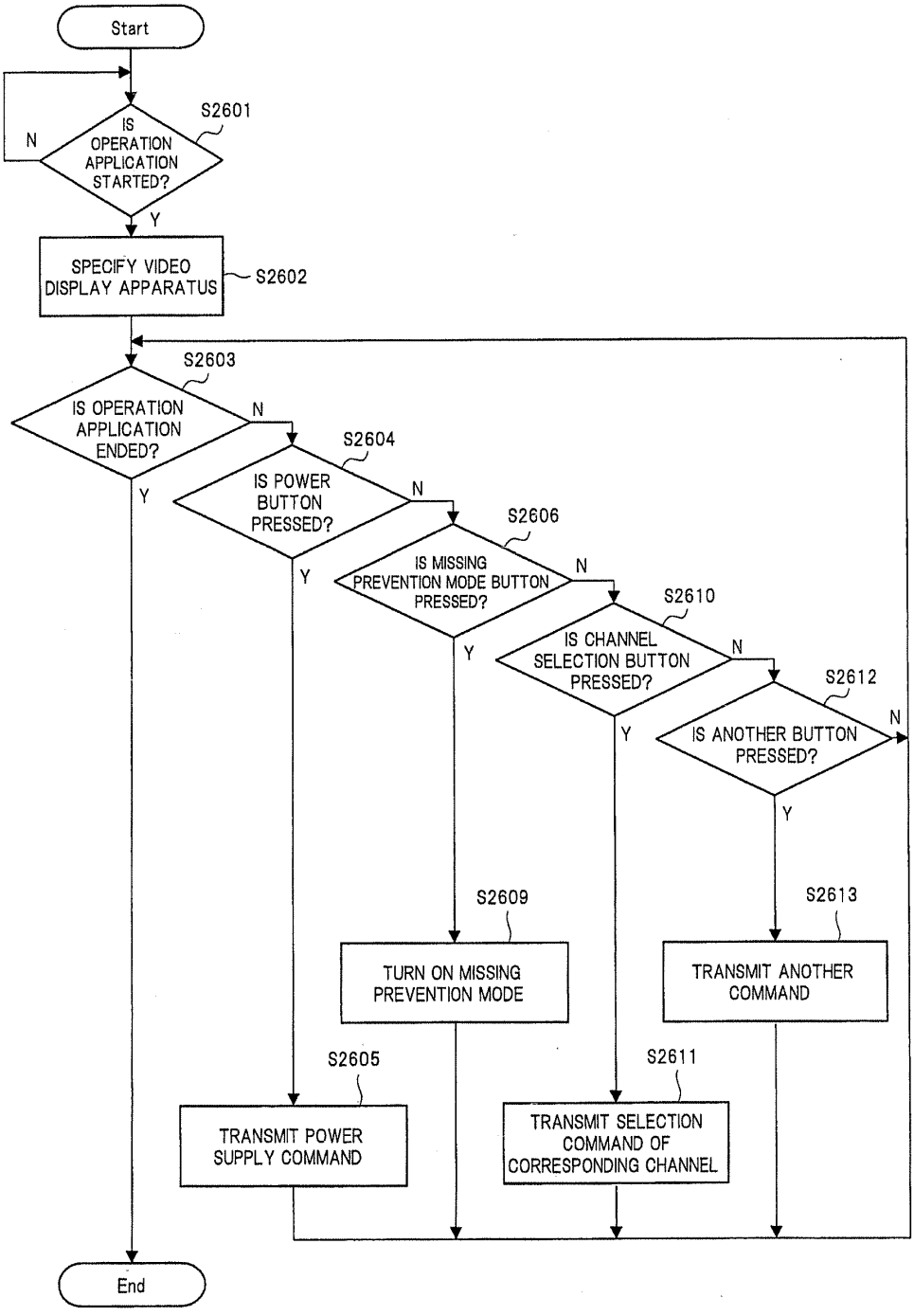
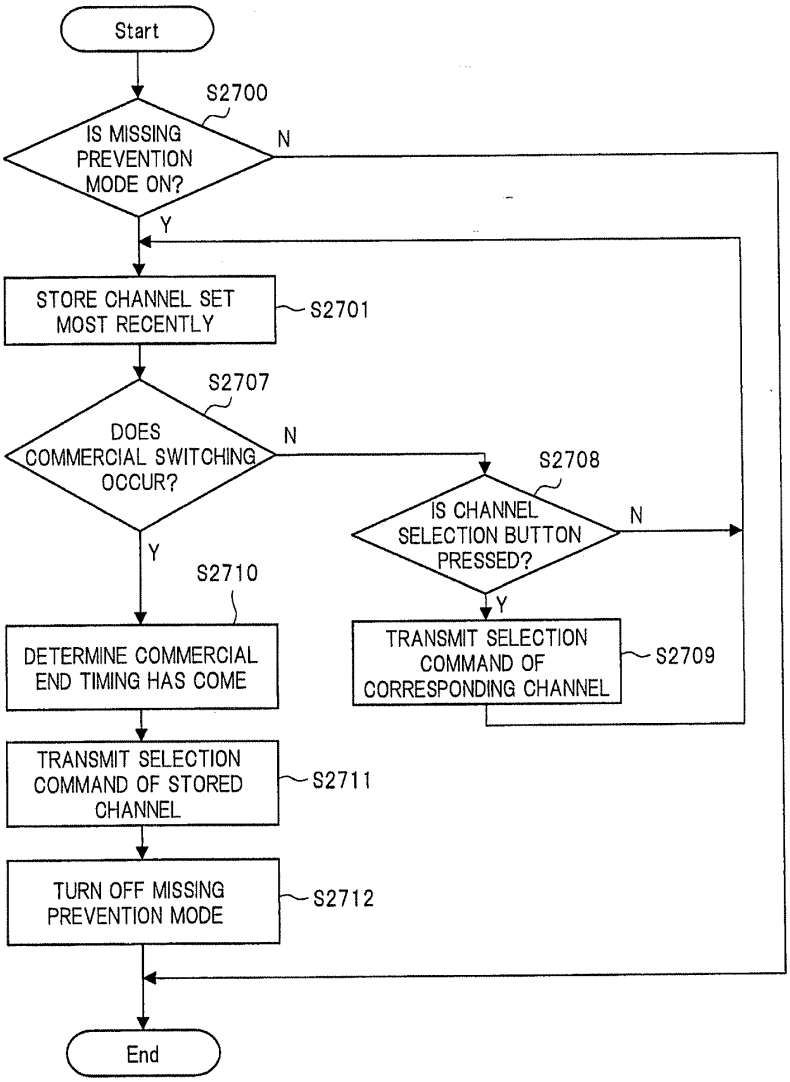

Start
S2601
IS OPERATION APPLICATION STARTED?
N
Y
SPECIFY VIDEO DISPLAY APPARATUS
S2602
S2603
IS OPERATION APPLICATION ENDED?
N
Y
S2604
IS POWER BUTTON PRESSED?
N
Y
S2606
IS MISSING PREVENTION MODE BUTTON PRESSED?
N
Y
S2610
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
S2612
IS ANOTHER BUTTON PRESSED?
N
Y
S2609
TURN ON MISSING PREVENTION MODE
S2613
TRANSMIT ANOTHER COMMAND
S2605
TRANSMIT POWER SUPPLY COMMAND
S2611
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
End

FIG. 27


Start
S2700
IS MISSING PREVENTION MODE ON?
N
Y
STORE CHANNEL SET MOST RECENTLY
S2701
S2707
DOES COMMERCIAL SWITCHING OCCUR?
N
S2708
IS CHANNEL SELECTION BUTTON PRESSED?
N
Y
Y
S2710
DETERMINE COMMERCIAL END TIMING HAS COME
TRANSMIT SELECTION COMMAND OF CORRESPONDING CHANNEL
S2709
TRANSMIT SELECTION COMMAND OF STORED CHANNEL
S2711
TURN OFF MISSING PREVENTION MODE
S2712
End

Electronic Patent Application Fee Transmittal	
Application Number:	14649895
Filing Date:	04-Jun-2015
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Filer:	Alexander P. Ott/Alexis boyd
Attorney Docket Number:	075425-0047
Filed as Large Entity	

Filing Fees for U.S. National Stage under 35 USC 371

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	1251	1	200	200
Miscellaneous:				
		Total in USD ($)		**200**

Electronic Acknowledgement Receipt	
EFS ID:	27988439
Application Number:	14649895
International Application Number:	
Confirmation Number:	1257
Title of Invention:	VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS
First Named Inventor/Applicant Name:	Masayuki HIRABAYASHI
Customer Number:	20277
Filer:	Alexander P. Ott/Alexis boyd
Filer Authorized By:	Alexander P. Ott
Attorney Docket Number:	075425-0047
Receipt Date:	06-JAN-2017
Filing Date:	04-JUN-2015
Time Stamp:	09:54:51
Application Type:	U.S. National Stage under 35 USC 371

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$200
RAM confirmation Number	010617INTEFSW00007875500417
Deposit Account	500417
Authorized User	Alexis Boyd
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		75425-047.pdf	2747107 30b780093400738d527a8a58e20730a94913130a	yes	94

Multipart Description/PDF files in .zip description

Document Description	Start	End
Extension of Time	1	1
Response After Final Action	2	2
Claims	3	4
Applicant Arguments/Remarks Made in an Amendment	5	6
Translation of Foreign Priority Documents	7	94

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Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30917 3514904052 41f7348b819f2f41149ca40e956099	no	2

Warnings:

Information:

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/AIA/22 (03-13)
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Docket Number (Optional): 075425-0047

Application Number	14/649,895-Conf. #1257	Filed	June 4, 2015

For: VIDEO DISPLAY APPARATUS AND TERMINAL APPARATUS

Art Unit	2422	Examiner	M. Rahman

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

	Fee	Small Entity Fee	Micro Entity Fee	
[X] One month (37 CFR 1.17(a)(1))	$200	$100	$50	$ 200.00
[ ] Two months (37 CFR 1.17(a)(2))	$600	$300	$150	$
[ ] Three months (37 CFR 1.17(a)(3))	$1,400	$700	$350	$
[ ] Four months (37 CFR 1.17(a)(4))	$2,200	$1,100	$550	$
[ ] Five months (37 CFR 1.17(a)(5))	$3,000	$1,500	$750	$

[X] Applicant asserts small entity status. See 37 CFR 1.27.

[ ] Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

[ ] A check in the amount of the fee is enclosed.

[ ] Payment by credit card. Form PTO-2038 is attached.

[X] The Director has already been authorized to charge fees in this application to a Deposit Account.

[X] The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-0417 .

[X] Payment made via EFS-Web.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

[ ] applicant.

[X] attorney or agent of record. Registration number 63,110 .

[ ] attorney or agent acting under 37 CFR 1.34. Registration number _____ .

/Alexander Ott/	January 6, 2017
Signature	Date
Alexander Ott	(202) 756-8496
Typed or printed name	Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

[ ] * Total of 1 forms are submitted.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/649,895	Filing Date 06/04/2015	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 01/06/2017	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 2	Minus	** 20	= 0	X $80 =	0
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X $420 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
WANDA MEREDITH

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.