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| APPLICATION NO. | ISSUE DATE | PATENT NO. | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|------------|------------|---------------------|------------------|
| 16/855,012      | 03/15/2022 | 11277650   | SEI-12159-06        | 6885             |

24956 7590 02/23/2022  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314

## 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.

**INVENTOR(s)** (Please see PAIR WEB site <http://pair.uspto.gov> for additional inventors):

Hideki Kamimaki, Fujisawa, JAPAN;  
Akira Date, Kunitachi, JAPAN;  
Akira Tanaka, Kawasaki, JAPAN;

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

MAXELL, LTD., KYOTO, 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](http://SelectUSA.gov).

# PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

By fax, send to: (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)

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.

24956 7590 11/08/2021  
MATTINGLY & MALUR, PC  
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SUITE 210  
ALEXANDRIA, VA 22314

## 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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

|                         |
|-------------------------|
| (Typed or printed name) |
| (Signature)             |
| (Date)                  |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 16/855.012      | 04/22/2020  | Hideki Kamimaki      | SEI-12159-06        | 6885             |

TITLE OF INVENTION: CONTENTS RECEIVING SYSTEM AND CLIENT

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | UNDISCOUNTED  | \$1200        | \$0.00              | \$0.00               | \$1200           | 02/08/2022 |

| EXAMINER          | ART UNIT | CLASS-SUBCLASS |
|-------------------|----------|----------------|
| SAINT CYR, JEAN D | 2425     | 725-005000     |

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 03-09 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 MATTINGLY & MALUR, PC

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 must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

MAXELL, LTD.

KYOTO, JAPAN

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

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 50-1417

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

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

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.

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.

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 /John R. Mattingly/

Date February 7, 2022

Typed or printed name John R. Mattingly

Registration No. 30293

## Electronic Patent Application Fee Transmittal

|                                                       |                                        |                 |               |                             |
|-------------------------------------------------------|----------------------------------------|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                            | 16855012                               |                 |               |                             |
| <b>Filing Date:</b>                                   | 22-Apr-2020                            |                 |               |                             |
| <b>Title of Invention:</b>                            | CONTENTS RECEIVING SYSTEM AND CLIENT   |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>           | Hideki Kamimaki                        |                 |               |                             |
| <b>Filer:</b>                                         | John Roberts Mattingly/Krista Hargrove |                 |               |                             |
| <b>Attorney Docket Number:</b>                        | SEI-12159-06                           |                 |               |                             |
| Filed as Large Entity                                 |                                        |                 |               |                             |
| <b>Filing Fees for    Utility under 35 USC 111(a)</b> |                                        |                 |               |                             |
| <b>Description</b>                                    | <b>Fee Code</b>                        | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                                  |                                        |                 |               |                             |
| <b>Pages:</b>                                         |                                        |                 |               |                             |
| <b>Claims:</b>                                        |                                        |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                          |                                        |                 |               |                             |
| <b>Petition:</b>                                      |                                        |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>               |                                        |                 |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>              |                                        |                 |               |                             |
| UTILITY APPL ISSUE FEE                                | 1501                                   | 1               | 1200          | 1200                        |

| Description        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|--------------------|----------|----------|--------|----------------------|
| Extension-of-Time: |          |          |        |                      |
| Miscellaneous:     |          |          |        |                      |
| Total in USD (\$)  |          |          |        | 1200                 |



## Electronic Acknowledgement Receipt

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| <b>EFS ID:</b>                              | 44927282                               |
| <b>Application Number:</b>                  | 16855012                               |
| <b>International Application Number:</b>    |                                        |
| <b>Confirmation Number:</b>                 | 6885                                   |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT   |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                        |
| <b>Customer Number:</b>                     | 24956                                  |
| <b>Filer:</b>                               | John Roberts Mattingly/Krista Hargrove |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                 |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                           |
| <b>Receipt Date:</b>                        | 07-FEB-2022                            |
| <b>Filing Date:</b>                         | 22-APR-2020                            |
| <b>Time Stamp:</b>                          | 14:32:36                               |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)            |

### Payment information:

|                                          |                  |
|------------------------------------------|------------------|
| Submitted with Payment                   | yes              |
| Payment Type                             | CARD             |
| Payment was successfully received in RAM | \$ 1200          |
| RAM confirmation Number                  | E202227E33033966 |
| Deposit Account                          | 501417           |
| Authorized User                          | Krista Hargrove  |

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

IPR2025-01308; Samsung

37 CFR 1.19 (Document supply fees)  
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)/<br>Message Digest      | Multi Part /.zip | Pages (if appl.) |
|-----------------|-----------------------------|----------------------------------|------------------------------------------|------------------|------------------|
| 1               | Issue Fee Payment (PTO-85B) | 12159-06_IssueFeeTransmittal.pdf | 86261                                    | no               | 1                |
|                 |                             |                                  | 5277b3bf63e3b7279813be9d11779abfdbe67a51 |                  |                  |

### Warnings:

### Information:

|   |                      |              |                                          |    |   |
|---|----------------------|--------------|------------------------------------------|----|---|
| 2 | Fee Worksheet (SB06) | fee-info.pdf | 37965                                    | no | 2 |
|   |                      |              | 12514ba02e2a573bf73d1019d37b53d079cc5939 |    |   |

### Warnings:

### Information:

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|-------------------------------------|--------|
| <b>Total Files Size (in bytes):</b> | 124226 |
|-------------------------------------|--------|

**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.**



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| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 16/855,012         | 04/22/2020            | Hideki Kamimaki       | SEI-12159-06           |

**CONFIRMATION NO. 6885**

**POA ACCEPTANCE LETTER**



24956  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314

Date Mailed: 02/03/2022

**NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 01/31/2022.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/atesfai/

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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

注記：37 CFR 1.5に従い、委任状が示す出願を特定するため、本書類は「出願人による委任状(PTO/AIA/82B)」と共に提出すること。ただし、「出願人による委任状」で出願番号および出願日が特定されている場合を除く。委任状が示す出願が、PTO/AIA/82AおよびPTO/AIA/82Bのどちらにもおいても特定されていない場合、同出願においての代理権は認められない。

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA/82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| 出願番号<br>Application Number          | 16/855,012                           |
| 出願日<br>Filing Date                  | April 22, 2020                       |
| 第一発明者<br>First Named Inventor       | Hideki KAMIMAKI                      |
| 名称<br>Title                         | CONTENTS RECEIVING SYSTEM AND CLIENT |
| 技術審査部門<br>Art Unit                  | 2425                                 |
| 審査官氏名<br>Examiner Name              | JEAN D SAINT CYR                     |
| 特許弁護士整理番号<br>Attorney Docket Number | SEI-12159-06                         |

出願人または特許弁護士の署名  
SIGNATURE of Applicant or Patent Practitioner

|                                                                       |                     |                             |                  |
|-----------------------------------------------------------------------|---------------------|-----------------------------|------------------|
| 署名<br>Signature                                                       | /John R. Mattingly/ | 署名日(任意)<br>Date (Optional)  | January 31, 2022 |
| 氏名<br>Name                                                            | John R. Mattingly   | 登録番号<br>Registration Number | 30,293           |
| 役職(出願人が法人の場合)<br>Title (if Applicant is a juristic entity)            |                     |                             |                  |
| 出願人名(出願人が法人の場合)<br>Applicant Name (if Applicant is a juristic entity) | Maxell, Ltd.        |                             |                  |

注記：本書類は37 CFR 1.33に基づき署名されなければならない。署名に関する要件および証明については37 CFR 1.4(d)を参照。出願人が複数の場合は複数の用紙を使うこと。

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ \*提出書類 計 \_\_\_\_\_ 枚。  
\*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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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POWER OF ATTORNEY BY APPLICANT

私はここに、添付の伝送書もしくは下記枠内で特定された出願に対して、現時点より前に与えられたすべての委任状を破棄します。  
I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

|                            |                    |
|----------------------------|--------------------|
| 出願番号<br>Application Number | 出願日<br>Filing Date |
|                            |                    |

(注記: PTO/AIA/82Aに同じ情報が明記されている場合、上の枠内は空欄でも可)  
(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)



私は、下記顧客番号に関連する特許弁護士を、当方の弁護士あるいは代理人に指名し、添付の伝送書 (PTO/AIA/82A) 内もしくは上記に記載の特許出願に関連した米国特許商標庁との業務の全てを同弁護士あるいは代理人に委任します。

I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

又は  
OR

24956



私は、添付のリスト (PTO/AIA/82C) に記載の特許弁護士を、当方の弁護士あるいは代理人に指名し、添付の伝送書 (PTO/AIA/82A) 内もしくは上記に記載の特許出願に関連した米国特許商標庁との業務の全てを同弁護士あるいは代理人に委任します。(注記: PTO/AIA/82C を記入すること。)

I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

添付の伝送書又は上記枠内にて特定された出願に対する郵便物送付先を下記のいずれかに登録または変更してください。

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:



上記顧客番号に付随する住所

The address associated with the above-mentioned Customer Number

又は  
OR



顧客番号に付随する住所

The address associated with Customer Number:

又は  
OR

|                                             |                  |             |  |  |
|---------------------------------------------|------------------|-------------|--|--|
| 事務所または個人<br>名<br>Firm or<br>Individual Name |                  |             |  |  |
| 住所<br>Address                               |                  |             |  |  |
| 市<br>City                                   | 州<br>State       | 郵便番号<br>Zip |  |  |
| 国<br>Country                                |                  |             |  |  |
| 電話番号<br>Telephone                           | メールアドレス<br>Email |             |  |  |

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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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# 出願人による委任状

## POWER OF ATTORNEY BY APPLICANT

私は出願人であり（出願人が法人の場合、出願人名を下記枠内に記入）：

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Maxell, Ltd.

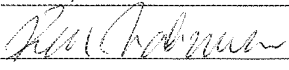
- ☐ 発明者もしくは共同発明者である（下記役職の明記は不要）  
Inventor or Joint Inventor (title not required below)
- ☐ 死亡したもしくは成年被後見人である発明者の法定代理人である（下記役職の明記は不要）  
Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ 被譲渡人もしくは発明者が譲渡する義務を負う人物である  
Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ 上記以外で、十分な独占的所有権を示す人物である（例：37 CFR 1.46(b)(2)に基づく申請が本出願において認められた、又は本書類と共にその申請がなされている場合）（出願人が法人の場合、署名者の役職を明記すること）  
Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

## 特許出願人の署名

## SIGNATURE of Applicant for Patent

下記署名者（役職は下記に記載）は出願人の代理人と認められている（出願人が法人の場合等）

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

|                 |                                                                                   |                            |                    |
|-----------------|-----------------------------------------------------------------------------------|----------------------------|--------------------|
| 署名<br>Signature |  | 署名日（任意）<br>Date (Optional) | January 14th, 2022 |
| 氏名<br>Name      | Keiji Nakamura                                                                    |                            |                    |
| 役職<br>Title     | President and Representative Director                                             |                            |                    |

**注記:** 署名 - 本書類は37 CFR 1.33に基づき署名されなければならない。署名の要件および証明に関しては37 CFR 1.4を参照。出願人が複数いる場合は、複数の書類を使うこと。

**NOTE:** Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ 提出書類 計 \_\_\_\_\_ 枚。  
Total of \_\_\_\_\_ forms are submitted.

## Electronic Acknowledgement Receipt

|                                             |                                            |
|---------------------------------------------|--------------------------------------------|
| <b>EFS ID:</b>                              | 44854785                                   |
| <b>Application Number:</b>                  | 16855012                                   |
| <b>International Application Number:</b>    |                                            |
| <b>Confirmation Number:</b>                 | 6885                                       |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT       |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                            |
| <b>Customer Number:</b>                     | 24956                                      |
| <b>Filer:</b>                               | John Roberts Mattingly/Southchai Vannarath |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                     |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                               |
| <b>Receipt Date:</b>                        | 31-JAN-2022                                |
| <b>Filing Date:</b>                         | 22-APR-2020                                |
| <b>Time Stamp:</b>                          | 19:58:12                                   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                |

### Payment information:

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
|------------------------|----|

### File Listing:

| Document Number | Document Description                          | File Name                  | File Size(Bytes)/<br>Message Digest      | Multi Part /.zip | Pages (if appl.) |
|-----------------|-----------------------------------------------|----------------------------|------------------------------------------|------------------|------------------|
| 1               | Assignee showing of ownership per 37 CFR 3.73 | 12159-06_AIA-373c-form.pdf | 124217                                   | no               | 3                |
|                 |                                               |                            | c3d80fde58966ad0aaebdb15e2e7e796995adb66 |                  |                  |

### Warnings:

IPR2025-01308; Samsung

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                         |                                          |         |   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------|------------------------------------------|---------|---|
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                         |                                          |         |   |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Power of Attorney | 12159-06_POA_Maxell.pdf | 1786564                                  | no      | 3 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                   |                         | 41f74b0ab3eba4e6e229f6df3aaf84a9d69b7c04 |         |   |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                   |                         |                                          |         |   |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                         |                                          |         |   |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                   |                         |                                          | 1910781 |   |
| <p><b>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.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> <b>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.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> <b>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.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> <b>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.</b></p> |                   |                         |                                          |         |   |



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.

**STATEMENT UNDER 37 CFR 3.73(c)**Applicant/Patent Owner: MAXELL, LTD.Application No./Patent No.: 16/855,012Filed/Issue Date: April 22, 2020Titled: CONTENTS RECEIVING SYSTEM AND CLIENTMAXELL, LTD., a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose one of options 1, 2, 3 or 4 below):

1. ☒ The assignee of the entire right, title, and interest.
2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):
- ☐ The extent (by percentage) of its ownership interest is \_\_\_\_\_%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
- ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose one of options A or B below):

- A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.
- B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Hideki KAMIMAKI, et al. To: HITACHI, LTD.

The document was recorded in the United States Patent and Trademark Office at

Reel 020235, Frame 0126, or for which a copy thereof is attached.2. From: HITACHI, LTD. To: HITACHI CONSUMER ELECTRONICS CO., LTD.

The document was recorded in the United States Patent and Trademark Office at

Reel 030622, Frame 0001, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37 CFR 3.73(b). 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. 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.

IPR2025-01308; Samsung

Ex. 1003 - Page 13

**STATEMENT UNDER 37 CFR 3.73(c)**3. From: HITACHI CONSUMER ELECTRONICS CO., LTD. To: HITACHI MAXELL, LTD.

The document was recorded in the United States Patent and Trademark Office at  
 Reel 033694, Frame 0745, or for which a copy thereof is attached.

4. From: HITACHI MAXELL, LTD. To: MAXELL, LTD.

The document was recorded in the United States Patent and Trademark Office at  
 Reel 045142, Frame 0208, or for which a copy thereof is attached.

5. From: MAXELL, LTD. To: MAXELL HOLDINGS, LTD.

The document was recorded in the United States Patent and Trademark Office at  
 Reel 058255, Frame 0579, or for which a copy thereof is attached.

6. From: MAXELL HOLDINGS, LTD. To: MAXELL, LTD.

The document was recorded in the United States Patent and Trademark Office at  
 Reel 058666, Frame 0407, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☒ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/John R. Mattingly/

Signature

John R. Mattingly

Printed or Typed Name

January 31, 2022

Date

30293

Title or Registration 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.

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COMMISSIONER FOR PATENTS  
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ALEXANDRIA VA 22313-1451

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MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314



**Courtesy Reminder for  
Application Serial No: 16/855,012**

Attorney Docket No: SEI-12159-06

Customer Number: 24956

Date of Electronic Notification: 11/08/2021

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:  
ptomail@mmiplaw.com

To view your correspondence online or update your email addresses, please visit us anytime at **<https://ppair-my.uspto.gov/pair/PrivatePair>**.  
If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.



# 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

24956 7590 11/08/2021  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314

EXAMINER

SAINT CYR, JEAN D

ART UNIT

PAPER NUMBER

2425

DATE MAILED: 11/08/2021

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 16/855,012      | 04/22/2020  | Hideki Kamimaki      | SEI-12159-06        | 6885             |

TITLE OF INVENTION: CONTENTS RECEIVING SYSTEM AND CLIENT

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | UNDISCOUNTED  | \$1200        | \$0.00              | \$0.00               | \$1200           | 02/08/2022 |

**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](http://www.uspto.gov/PatentMaintenanceFees).**

# PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

By fax, send to: (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)

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.

24956 7590 11/08/2021  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314

## 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 transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

|                         |
|-------------------------|
| (Typed or printed name) |
| (Signature)             |
| (Date)                  |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 16/855,012      | 04/22/2020  | Hideki Kamimaki      | SEI-12159-06        | 6885             |

TITLE OF INVENTION: CONTENTS RECEIVING SYSTEM AND CLIENT

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | UNDISCOUNTED  | \$1200        | \$0.00              | \$0.00               | \$1200           | 02/08/2022 |

| EXAMINER          | ART UNIT | CLASS-SUBCLASS |
|-------------------|----------|----------------|
| SAINT CYR, JEAN D | 2425     | 725-005000     |

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 03-09 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,

1 \_\_\_\_\_

(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.

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 must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). 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. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. \_\_\_\_\_

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

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

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.

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.

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. \_\_\_\_\_



# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 16/855,012            | 04/22/2020  | Hideki Kamimaki      | SEI-12159-06        | 6885             |
| 24956                 | 7590        | 11/08/2021           | EXAMINER            |                  |
| MATTINGLY & MALUR, PC |             |                      | SAINT CYR, JEAN D   |                  |
| 1800 DIAGONAL ROAD    |             |                      | ART UNIT            |                  |
| SUITE 210             |             |                      | PAPER NUMBER        |                  |
| ALEXANDRIA, VA 22314  |             |                      | 2425                |                  |

DATE MAILED: 11/08/2021

## 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.

## 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 30 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.

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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.
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|                               |                                      |                                        |                                |
|-------------------------------|--------------------------------------|----------------------------------------|--------------------------------|
| <b>Notice of Allowability</b> | <b>Application No.</b><br>16/855,012 | <b>Applicant(s)</b><br>Kamimaki et al. |                                |
|                               | <b>Examiner</b><br>JEAN D SAINT CYR  | <b>Art Unit</b><br>2425                | <b>AIA (FITF) Status</b><br>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 amendment on 10/06/2021.  
☐ 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 2-5. 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](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto: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. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.<br>3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.<br>4. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. | 5. <input type="checkbox"/> Examiner's Amendment/Comment<br>6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance<br>7. <input type="checkbox"/> Other _____. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                               |                                                                   |
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| /JEAN D SAINT CYR/<br>Examiner, Art Unit 2425 | /Brian T Pendleton/<br>Supervisory Patent Examiner, Art Unit 2425 |
|-----------------------------------------------|-------------------------------------------------------------------|

***Notice of Pre-AIA or AIA Status***

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

**Allowable Subject Matter**

Claims 2-5 are allowed. The following is an examiner's statement of reasons for allowance:

The art of record did not teach or suggest the claims taken as whole and particular the limitations pertaining to:

“ wherein the first controller is configured to: store a plurality of device specific identification (ID) information of the subsidiary terminals; store a plurality of content information for identifying each of the contents, and store association information for transmitting one of the contents to one of the subsidiary terminals, wherein the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information; wherein the plurality of subsidiary terminals comprise: a second display displaying the content; and a second controller controlling transmission/reception with the main terminal, the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the association information; then the subsidiary terminal reproduces the received content on the second display” as recited in claim 2.

“wherein the first controller is configured to: store first device specific identification (ID) information of the first subsidiary terminal and second device specific ID information of the second subsidiary terminal, store first content information for identifying first content among the contents and second content information for identifying second content among the contents, and store association information for transmitting one of the first content or the second content to one of the first subsidiary terminal or the second subsidiary terminal, wherein the association information defines that one of the first content or the second content is associated with one of the first device specific ID information or the second device specific ID information, wherein the first subsidiary terminal comprises: a second display displaying the content; and a second controller controlling transmission/reception with the main terminal, the second controller storing the first device specific ID information for identifying the first subsidiary terminal and transmitting the first device specific ID information to the main terminal when connecting to the main terminal, wherein the second subsidiary terminal comprises: a third display displaying the content; and a third controller controlling transmission/reception with the main terminal, the third controller storing the second device specific ID information for identifying the second subsidiary terminal and transmitting the second device specific ID information to the main terminal when connecting to the main terminal, and wherein, when the association information defines that the first content is associated with the first device specific ID information and the second content is associated with the second device specific ID information, the main terminal transmits the first content to the first subsidiary terminal and transmits the second content to the second subsidiary

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terminal, and when the association information defines that the second content is associated with the first device specific ID information and the first content is associated with the second device specific ID information, the main terminal transmits the second content to the first subsidiary terminal and transmits the first content to the second subsidiary terminal” as recited in claim 5.

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.”

### **Conclusions**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN D SAINT CYR whose telephone number is (571)270-3224. The examiner can normally be reached 9-5.

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, Brian Pendleton can be reached on 5712727527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit:

<https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEAN D SAINT CYR/  
Examiner, Art Unit 2425

/Brian T Pendleton/  
Supervisory Patent Examiner, Art Unit 2425

|                                          |                                       |  |                                                               |             |
|------------------------------------------|---------------------------------------|--|---------------------------------------------------------------|-------------|
| <b><i>Notice of References Cited</i></b> | Application/Control No.<br>16/855,012 |  | Applicant(s)/Patent Under<br>Reexamination<br>Kamimaki et al. |             |
|                                          | Examiner<br>JEAN D SAINT CYR          |  | Art Unit<br>2425                                              | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name             | CPC Classification | US Classification |
|---|---|--------------------------------------------------|-----------------|------------------|--------------------|-------------------|
| * | A | US-20050155078-A1                                | 07-2005         | Imada, Hiroshi   | H04N7/163          | 725/114           |
| * | B | US-20010019326-A1                                | 09-2001         | Yuasa, Natsuki   | H04H20/08          | 345/204           |
| * | C | US-20050221826-A1                                | 10-2005         | Lee, Hyun-Jeong  | H04L65/80          | 455/436           |
| * | D | US-20070208789-A1                                | 09-2007         | Reichman; Andrew | H04N21/25883       | 1/1               |
|   | E |                                                  |                 |                  |                    |                   |
|   | F |                                                  |                 |                  |                    |                   |
|   | G |                                                  |                 |                  |                    |                   |
|   | H |                                                  |                 |                  |                    |                   |
|   | I |                                                  |                 |                  |                    |                   |
|   | J |                                                  |                 |                  |                    |                   |
|   | K |                                                  |                 |                  |                    |                   |
|   | L |                                                  |                 |                  |                    |                   |
|   | M |                                                  |                 |                  |                    |                   |

**FOREIGN PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | CPC Classification |
|---|---|--------------------------------------------------|-----------------|---------|------|--------------------|
|   | N |                                                  |                 |         |      |                    |
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|   | 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.



|                                                                                                                 |                                              |                                                                   |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------|
| <b><i>Search Notes</i></b><br> | <b>Application/Control No.</b><br>16/855,012 | <b>Applicant(s)/Patent Under Reexamination</b><br>Kamimaki et al. |
|                                                                                                                 | <b>Examiner</b><br>JEAN D SAINT CYR          | <b>Art Unit</b><br>2425                                           |

| CPC - Searched*            |            |          |
|----------------------------|------------|----------|
| Symbol                     | Date       | Examiner |
| H04n21 and keywords search | 08/26/2020 | JDS      |
| Updated search             | 04/01/2021 | JDS      |
| Updated search             | 10/19/2021 | JDS      |

| CPC Combination Sets - Searched* |      |          |
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| Symbol                           | Date | Examiner |
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|                               |          |      |          |

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| Search Notes                                |            |          |
|---------------------------------------------|------------|----------|
| Search Notes                                | Date       | Examiner |
| Keyword search                              | 08/26/2020 | JDS      |
| Updated search                              | 04/01/2021 | JDS      |
| Google scholar search                       | 04/01/2021 | JDS      |
| Updated search                              | 10/19/2021 | JDS      |
| Google scholar search for related prior art | 10/19/2021 | JDS      |

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| <b><i>Search Notes</i></b><br> | <b>Application/Control No.</b><br>16/855,012 | <b>Applicant(s)/Patent Under Reexamination</b><br>Kamimaki et al. |
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| Interference Search |                       |            |          |
|---------------------|-----------------------|------------|----------|
| US Class/CPC Symbol | US Subclass/CPC Group | Date       | Examiner |
| search              | above                 | 10/21/2021 | JDS      |

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| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>16/855,012 | <b>Applicant(s)/Patent Under Reexamination</b><br>Kamimaki et al. |
|                                                                                                                  | <b>Examiner</b><br>JEAN D SAINT CYR          | <b>Art Unit</b><br>2425                                           |

| CPC    |   |    |   |        |      |            |
|--------|---|----|---|--------|------|------------|
| Symbol |   |    |   |        | Type | Version    |
| H04N   | / | 21 | / | 2543   | F    | 2013-01-01 |
| H04N   | / | 7  | / | 163    | I    | 2013-01-01 |
| H04N   | / | 21 | / | 4126   | I    | 2013-01-01 |
| H04N   | / | 21 | / | 4341   | I    | 2013-01-01 |
| H04N   | / | 21 | / | 4348   | I    | 2013-01-01 |
| H04N   | / | 21 | / | 43615  | I    | 2013-01-01 |
| H04N   | / | 21 | / | 440218 | I    | 2013-01-01 |
| H04N   | / | 21 | / | 440263 | I    | 2013-01-01 |
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| H04N   | / | 21 | / | 4884   | I    | 2013-01-01 |
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| H04N   | / | 21 | / | 478    | I    | 2013-01-01 |
| H04N   | / | 21 | / | 488    | I    | 2013-01-01 |
| H04N   | / | 21 | / | 43637  | I    | 2013-01-01 |

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|-----------------------------------------------------------------------------------------|---------------------------|-----------------------------------|----------------------------|
| /JEAN D SAINT CYR/<br>Examiner, Art Unit 2425<br>(Assistant Examiner)                   | 21 October 2021<br>(Date) | <b>Total Claims Allowed:</b><br>4 |                            |
| /Brian T Pendleton/<br>Supervisory Patent Examiner, Art Unit 2425<br>(Primary Examiner) | 28 October 2021<br>(Date) | O.G. Print Claim(s)<br>Claim 5    | O.G. Print Figure<br>Fig.1 |

|                                                                                                                  |                                              |                                                                   |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------|
| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>16/855,012 | <b>Applicant(s)/Patent Under Reexamination</b><br>Kamimaki et al. |
|                                                                                                                  | <b>Examiner</b><br>JEAN D SAINT CYR          | <b>Art Unit</b><br>2425                                           |

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| <b>INTERNATIONAL CLASSIFICATION</b> |   |    |   |     |  |
| <b>CLAIMED</b>                      |   |    |   |     |  |
| H04N                                | / | 21 | / | 258 |  |
| H04N                                | / | 21 | / | 414 |  |
| H04N                                | / | 21 | / | 418 |  |
| H04N                                | / | 21 | / | 426 |  |
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| <b>CLASS</b>                      | <b>SUBCLASS</b> |
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| /JEAN D SAINT CYR/<br>Examiner, Art Unit 2425<br>(Assistant Examiner)                   | 21 October 2021<br>(Date) | <b>Total Claims Allowed:</b><br>4 |                            |
| /Brian T Pendleton/<br>Supervisory Patent Examiner, Art Unit 2425<br>(Primary Examiner) | 28 October 2021<br>(Date) | O.G. Print Claim(s)<br>Claim 5    | O.G. Print Figure<br>Fig.1 |

|                                                                                                                  |                                              |                                                                   |
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|                                                                                                                  | <b>Examiner</b><br>JEAN D SAINT CYR          | <b>Art Unit</b><br>2425                                           |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| <input type="checkbox"/> Claims renumbered in the same order as presented by applicant <input type="checkbox"/> CPA <input type="checkbox"/> T.D. <input type="checkbox"/> R.1.47 |          |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
| <b>CLAIMS</b>                                                                                                                                                                     |          |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
| Final                                                                                                                                                                             | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original |
| -                                                                                                                                                                                 | 1        |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
| 1                                                                                                                                                                                 | 2        |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
| 2                                                                                                                                                                                 | 3        |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
| 3                                                                                                                                                                                 | 4        |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
| 4                                                                                                                                                                                 | 5        |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
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| /JEAN D SAINT CYR/<br>Examiner, Art Unit 2425<br>(Assistant Examiner)                   | 21 October 2021<br>(Date) | <b>Total Claims Allowed:</b><br>4 |                            |
| /Brian T Pendleton/<br>Supervisory Patent Examiner, Art Unit 2425<br>(Primary Examiner) | 28 October 2021<br>(Date) | O.G. Print Claim(s)<br>Claim 5    | O.G. Print Figure<br>Fig.1 |

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## Remote mobile health monitoring system based on smart phone and browser/server structure

[PDF] hindawi.com

Y Zhang, H Liu, X Su, P Jiang, D Wei - Journal of healthcare ..., 2015 - hindawi.com

... Generally, it is a PDA or a micro-**controller** board that displays corresponding **information** or ... scenario, which allows wireless monitoring and tracking of patients and **first** responders ... These systems are unsuitable to continuously monitor and implement **initial** medical diagnosis ...

Cited by 63 Related articles All 6 versions

## Post-cloud computing paradigms: a survey and comparison

[PDF] ieee.org

Y Zhou, D Zhang, [N Xiong](#) - Tsinghua Science and Technology, 2017 - ieeeexplore.ieee.org... In IoT applications involving an actuator or **controller**, sensor data must be processed in real time for ... The definition we provide here is consistent with the **initial** presentation of fog computing ... The concept of MEC was **first** proposed by ETSI in September 2014[8]. Advocates of the ...

Cited by 77 Related articles All 5 versions

## Future of IoT networks: A survey

[PDF] mdpi.com

[SK Lee](#), M Bae, [H Kim](#) - Applied Sciences, 2017 - mdpi.com

... Furthermore, the IoT environment is not specifically considered at the **device** level ... The result [28] for **first** two years is that the number and the quality of applications ... current WSN technology with the middleware to support heterogeneous **devices** and a centralized **storage** for the ...  
Cited by 109   Related articles   All 5 versions

[Full View](#)

[PDF] Artificial Metrics of Electric Devices and Their Applications

[PDF] core.ac.uk

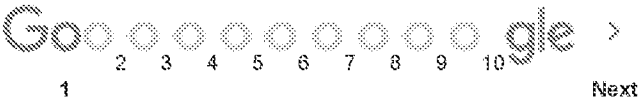
情報研究, 関西大学総合情報学部紀要 - 2017 - core.ac.uk  
... Section 3 reports metrics on memory chips including **controllers** that are used for USB3.0 ... Section 5 describes encoding methods for **storing** metrics **information** in distributed **storage** systems ... **First**, a message is transformed into a pseudo- message by using an all-or-nothing ...  
Related articles   All 2 versions

[HTML] Privacy and the regulation of 2012

[HTML] sciencedirect.com

L Costa, Y Pouillet - Computer Law & Security Review, 2012 - Elsevier  
... As regards the two **first** principles, the **first** one: 'Data protection by design' 8 is ... of notification, which was considered an administrative burden, its counterpart imposes on data **controllers** of a ... by a rule of territorial competence in the case of a data **controller** having **subsidiaries** in ...  
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store a plurality of device specific identification (ID) information of the subsidiary terminals,

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[HTML] Towards secure network computing services for lightweight clients using blockchain

[HTML] hindawi.com

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Y.Xu, G.Wang, J Yang, J.Ren, Y Zhang... - ... and Mobile Computing, 2018 - hindawi.com

... leveraged Hierarchical **Identity** Based Encryption (HIBE) to solve the problem of content **storage** and verification ... turn while the others vote to reach a consensus according to the **plurality** (more than ... The ANs **keep** the validity states of the ESPs and service codes updated by contin ...

Cited by 102 Related articles All 9 versions

[PDF] Patent Application Publication Jul. 12, 2018 Sheet 7 of 10

[PDF] googleapis.com

A ACCUMULA - patentimages.storage.googleapis ...

... 50 user **terminal** 0127] 60 public network [0128] 110, 210 **storage device** [0129] 111 ... to the **identified** accumulation apparatus; causing the **identified** accumulation apparatus to **store** the second ... the key to the **identified** accumulation apparatus, an updater that **stores** the dataset ...

[PDF]

[PDF] googleapis.com

OvOoOoDADAGOODogogorooooongodonovoo00ooooooooADA

V EVALUTION - patentimages.storage.googleapis ...

... the simulation unit evaluation function G for evaluating power consumption 107 executes the second simulation using the respective cost of the **shop** ... from the **storage device** such as the memory 122 (1304) ... the memory **stores** a second evaluation function other than 12 ...

Research on Internet of Things Privacy Security and Coping Strategies

[PDF] ieee.org

B Phommason, Z Jiang, T Zhou - ... International Conference on ..., 2019 - ieeeexplore.ieee.org

... Generally, the WSN of the sensing layer includes at least a **plurality** of source nodes ... The main function of the processing layer is to **store**, process and apply **information** from ... However, nodes are limited by their own size, **storage** capacity, computing power, and communication ...

All 2 versions

[PDF] I RECORDS

[PDF] academia.edu

R FILE - FRUS: 1955, 2014 - academia.edu

... For example, the ?elds used for the **storage** of data may include Computer name, Property num ... and compared to the grid reading 45 stored in the database which **stores** the table ... area associated with each wireless signal generator; and a database con?gured to **store** the prede ...

Cited by 3 Related articles All 3 versions

The HCI Paradigm of HyperPrinting

[PDF] ieee.org

Full Text @ USPTO-STIC

T Kieninger, A Dangel - 2008 The Eighth IAPR International ..., 2008 - ieeeexplore.ieee.org

... form an OCR on the generated PDF before printing and then **store** the bounding ... provided with a communication mechanism, a **storing** mechanism for **storing** a **plurality** of documents ... is provided with a communication mechanism and a **storing** means for **storing specific** document ...

Cited by 2 Related articles All 8 versions

[HTML] Privacy, identity and security in ambient intelligence: A scenario analysis

[HTML] sciencedirect.com

Full Text @ USPTO-STIC

M.Friedewald, E Vikiounaki, Y.Punig... - Telematics and Informatics, 2007 - Elsevier

... the Ami-enabled **store** lets shoppers at the site find and select items for purchase by using ... may include a gift registry, wish or purchase lists, and has the ability to **save** a record ... Another general rule is that scenarios describing smart environments (whether it is a smart **shop** or city ...

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Different worlds broadcasting: a distributed internet live broadcasting system with video and audio effects

[PDF] ieee.org

Full Text @ USPTO-STIC

S Matsumoto, Y Ishi, T Yoshihisa... - ... Information ..., 2017 -

IPR2025-01308; Samsung

Ex. 1003 - Page 35

https://scholar.google.com/...=en&as\_sdt=0%2C47&q=store+a+plurality+of+device+specific+identification+%28ID%29+information+of+the+subsidiary+terminals%2C&btnG=[10/19/2021 8:23:52 PM]

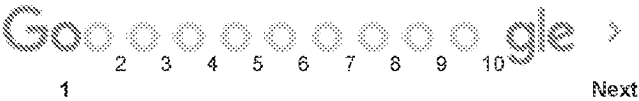
ieeexplore.ieee.org  
... In this method, broadcasting data is shared between **terminals** when a **plurality** of mobile **terminals** is playing the ... The broadcaster must **keep** monitoring the video to add effects in appropriate timing ... and the DVB client occurs only in the case of Mobile w/o, so '**Device-Viewer**' is ...  
Cited by 10   Related articles   All 2 versions

A privacy-preserving group authentication protocol for machine-type communication in LTE/LTE-A networks [PDF] wiley.com  
Full View

A.Fu, J.Song, S.Li, Q.Zhang... - Security and ..., 2016 - Wiley Online Library  
... MTCD leader) from all members of the G1 based on computing power, communication capacity, **storage** capacity, and ... When MME receives GAV and , MME **stores** them ... need to perform a complete mutual authentication with MTCDs, and it will greatly **save** the communication ...  
Cited by 30   Related articles   All 5 versions

[PDF] non e an as mensen me procent [PDF] googleapis.com

YES DOES - patentimages.storage.googleapis ...  
... 35 is set as user **information**, for example, the application 32 embodiments are denoted with the same reference signs and **stores**, as the ... to **storage device** that is able to be used by the **terminal** 3) such the present embodiment causes the **storage** unit 40 to **store** 55 as an ...







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| SERIAL NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FILING or 371(c)<br>DATE                                                                                          | CLASS                                                           | GROUP ART UNIT                           | ATTORNEY DOCKET<br>NO.                                                                                                                                                                                                                                                    |                                  |                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------|
| 16/855,012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/22/2020                                                                                                        | 725                                                             | 2425                                     | SEI-12159-06                                                                                                                                                                                                                                                              |                                  |                                        |
| <b>RULE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |                                                                 |                                          |                                                                                                                                                                                                                                                                           |                                  |                                        |
| <b>APPLICANTS</b><br>MAXELL, LTD., KYOTO, JAPAN;<br><b>INVENTORS</b><br>Hideki Kamimaki, Fujisawa, JAPAN;<br>Akira Date, Kunitachi, JAPAN;<br>Akira Tanaka, Kawasaki, JAPAN;<br><b>** CONTINUING DATA *****</b><br>This application is a CON of 16/387,841 04/18/2019 ABN<br>which is a CON of 15/602,417 05/23/2017 ABN<br>which is a CON of 14/467,076 08/25/2014 ABN<br>which is a CON of 13/972,624 08/21/2013 PAT 8819747<br>which is a CON of 11/861,390 09/26/2007 PAT 8544049<br><b>** FOREIGN APPLICATIONS *****</b><br>JAPAN 2006-261645 09/27/2006<br><b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b><br>04/28/2020 |                                                                                                                   |                                                                 |                                          |                                                                                                                                                                                                                                                                           |                                  |                                        |
| Foreign Priority claimed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>35 USC 119(a-d) conditions met <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Verified and /JEAN D SAINT CYR/<br>Acknowledged Examiner's Signature                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                   | <input type="checkbox"/> Met after Allowance<br>JDS<br>Initials | <b>STATE OR<br/>COUNTRY</b><br><br>JAPAN | <b>SHEETS<br/>DRAWINGS</b><br><br>8                                                                                                                                                                                                                                       | <b>TOTAL<br/>CLAIMS</b><br><br>1 | <b>INDEPENDENT<br/>CLAIMS</b><br><br>1 |
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### New key performance indicators for a smart sustainable city

[PDF] mdpi.com

M Hara, T Nagao, S Hanneo, J Nakamura - Sustainability, 2016 - mdpi.com

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... This study also encouraged the **shops** in the Wi-Fi area to advertise themselves using electric

advertisements ... assessed by the number of **shop** visitors before and after the study by conducting questionnaires at **each shop** ... (In Japanese); Japan Weather **Association** and ALINK ...

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### Differential regulation of transmitter release by presynaptic and glial Ca2+ internal stores at the neuromuscular synapse

[PDF] jneurosci.org

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A Castonguay, R Robitaille - Journal of Neuroscience, 2001 - Soc Neuroscience

... 6, 7). This frequency dependence is confirmed by our observation that BAPTA injection in PSCs had no effect on synaptic **transmission** during a low level of synaptic activity (Fig.6C). Ca 2+ release from PSC internal **stores** potentiates **transmitter** release because ...

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### Basic microbiologic and infection control information to reduce the potential transmission of pathogens to patients via computer hardware

[HTML] oup.com

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AN Neely, DE Sittig - ... American Medical Informatics Association, 2002 - academic.oup.com

... Once the microbe reaches the host, a number of different **associations** are possible ... In Pfeiffer, JA. (ed): APIC Text of Infection Control and Epidemiology, vol 1. Washington, DC.: **Association** for Professionals in Infection Control ... Am **Society** for Microbiol Abstrs. 2001. ; L-1, p 469 ...

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### CNS dopamine transmission mediated by noradrenergic innervation

[PDF] jneurosci.org

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CC Smith, RW Gross - Journal of Neuroscience, 2012 - Soc Neuroscience

... chamber and were continuously perfused with the same perfusate used to **store** slices ... DA from LC fibers is required for the AMPH-mediated increase in glutamate **transmission** ... D. (2006) Dopamine D1/D5 receptors gate the acquisition of novel **information** through hippocampal ...

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### [HTML] Presynaptic calcium stores and synaptic transmission

[HTML] sciencedirect.com

Full Text @ USPTO-STIC

T Collin, A Marty, I Llano - Current opinion in neurobiology, 2005 - Elsevier

... It will also be important to assess whether or not the **store**-driven component of spike ... signaling

pathways distinguish the calcium that is liberated from ryanodine-sensitive **stores** from that ... A very attractive hypothesis is that localization is brought about by **association** of ionotropic ...

Cited by 147 Related articles All 5 versions

### Neuromuscular transmission in amyotrophic lateral sclerosis

RA Maselli, RL Wollman, C Leung... - ... Association of ..., 1993 - Wiley Online Library

... This work was supported in part by a grant from the Amyotrophic Lateral Sclerosis **Association** ... From a clinical perspective, the combination of reduction of quantal **stores** with increased probability of quantal **store** release provides a plausible explanation for the ...

Cited by 143 Related articles All 7 versions

### [BOOK] The information society as post-industrial society

Y Masuda - 1981 - books.google.com

... 3. Development of **an** automated supermarket completed, and a model **shop** opened in Tokyo ... people went at once to the **store**, with the result that the **store** had to ... educational program entitled 'Let Us Discuss Education', on the NHK (Japan **Broadcasting Association**) TV network ...

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### Ion channels in presynaptic nerve terminals and control of transmitter release

[PDF] physiology.org

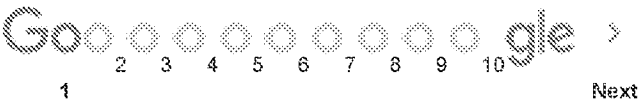
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A Meir, S Ginsburg, A Butkevich... - Physiological ..., 1999 -

journals.physiology.org  
... of the fusion machinery causes the fusion of the synaptic vesicle, which **stores** the neurotransmitter ...  
There is no **information** about the activation and deactivation kinetics ... However, the **association**  
between calcium channel openings and photon emission was found in cases where ...  
Cited by 372   Related articles   All 11 versions

Long-term enhancement of hippocampal synaptic [PDF] jneurosci.org  
**transmission and the acquisition of spatial information** Full Text @ USPTO-STIC  
BL McNaughton, CA Barnes, G Rao ... - Journal of ..., 1986 - Soc Neuroscience  
... Recently, Rawlins (1985) proposed that the hippocampus **stores information** of all types and  
is necessary ... This sug- gests that normal animals may solve the problem by forming **associations**  
among the cues ... of the transfer from a short-term to a long- term **store**, located elsewhere ...  
Cited by 400   Related articles   All 10 versions

[HTML] The tie effect on **information** dissemination: the spread [HTML] sciencedirect.com  
of a commercial rumor in Hong Kong Full Text @ USPTO-STIC  
G Lai, O Wong - Social Networks, 2002 - Elsevier  
... Yaohan Department **Stores** were closed down, many customers who were holding the **store's**  
gift vouchers ... However, there were still people coming to the **shops** to redeem their vouchers the  
next ... bring financial loss to individuals who own cake vouchers of that **shop**, the rumor ...  
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## MAC layer protocols for Internet of Things: A survey

[PDF] mdpi.com

L Oliveira, JPC Rodrigues, SA Kozlov, [RAL Rabêlo](#)... - Future Internet, 2019 - mdpi.com

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... The **third** mode of operation of NB-IoT, which can be seen in Figure 17, is the ... Google Scholar]  
[CrossRef]; Finkenzeller, K. RFID Handbook, **3rd** ed.; Wiley ... International Conference on Digital  
Ecosystems and Technologies (IEEE DEST 2011), Daejeon, Korea, 31 May–3 June 2011 ...  
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## A survey of 5G network: Architecture and emerging technologies

[PDF] ieee.org

[A Gupta](#), [RK Jha](#) - IEEE access, 2015 - ieeeexplore.ieee.org

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... **Third** generation (3G) systems merge high speed mobile access to services based on ... **3rd**  
Generation Partnership Project (3GPP) is presently standardizing Long Term Evolution (LTE)  
Advanced as ... **3**) Atmospheric and rain absorption Within the unlicensed 60-GHz band, the ...  
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## An overview on application of machine learning techniques in optical networks

[PDF] ieee.org

[E Musumeci](#), [C Rottendi](#), [A Nag](#)... - ... Surveys & Tutorials, 2018 - ieeeexplore.ieee.org

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... above the reference level (PRXhigh); 2) BER positive trend (BERTrend); and **3**) BER periodicity ...  
statistical regression and neural network based algorithms that sit in the SDN **controllers** ...  
Add/Drop Multiplexer (ROADM) **controller** which is again **controlled** by a SDN **controller**. VI ...  
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## [HTML] The Internet of Things vision: Key features, applications and open issues

[HTML] sciencedirect.com

[E Borgia](#) - Computer Communications, 2014 - Elsevier

Full Text @ USPTO-STIC

... be equipped with sensors and smart **devices** to efficiently manage the street lighting (thus  
consuming one **third** less than ... automation **devices** (eg, sensors, thermostats, motion detectors,  
air handlers, and chillers), a smart server **controller** connecting **devices** ... 7.2.3. Smart home ...  
Cited by 1442 Related articles All 5 versions

## Medium access control techniques in M2M communication: survey and critical review

[E Hussain](#), [A Annalagan](#)... - Transactions on ..., 2017 - Wiley Online Library

... Also, **3rd** Generation Partnership Project (3GPP) technical specifications group, dealing with  
service and system aspects ... eNB echoes the **device identity** it received in the **third** step on PDSCH ...  
for M2M application having versatile QoS requirements as seen in Table **3**, to operate ...  
Cited by 41 Related articles

## Security aspects in software defined radio and cognitive radio networks: A survey and a way ahead

[PDF] ieee.org

[Q Bakhtiari](#), T Sturman, AR Biswas... - ... Surveys & Tutorials, 2011 - ieeeexplore.ieee.org

Full Text @ USPTO-STIC

... The ACU is responsible for **controlling** the output spectrum to be compliant with the local ... network,  
where a low equatorial orbit (LEO) satellite is the central spectrum **controller**, which collects ... above  
extends from opposite ends, and the convergence of which shall yield (**3**). To this ...  
Cited by 241 Related articles All 4 versions

## A survey of mobile data networks

[PDF] ieee.org

AK Salkintzis - IEEE communications surveys, 1999 - ieeeexplore.ieee.org

... 14. A radio network **controller** is a specialized computer also called a radio  
frequency/network control processor (RF/NCP) [35] ... IEEE Communications Surveys ...  
<http://www.comsoc.org/pubs/surveys> **Third** Quarter 1999, vol. 2 no. **3** 15 Page 15 ...  
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## Atmel avr microcontroller primer: Programming and interfacing

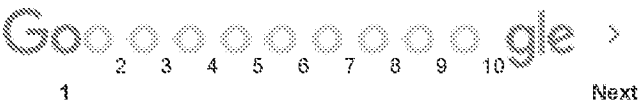
[PDF] academia.edu

SF Barrett, DJ Pack - ... Lectures on Digital Circuits and Systems, 2012 -  
morgandaypool.com  
... test bench for ATMEL AVR ATmega164 **controller** //target **controller**: ATMEL ATmega164 //  
//ATMEL AVR ATmega164 **Controller** Pin Assignments ... **3**. J Hennessy and D Patterson, Computer  
Architecture: A Quantitative Approach, **3rd** ed, Morgan Kaufman, San ... 0 1 2 **3** 4 5 6 7 8 9 ...  
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[HTML] Implementation of SCADA/HMI system for real-time **controlling** and performance monitoring of SDR based flight **termination system** [HTML] sciencedirect.com  
Full Text @ USPTO-STIC

AR.Panda, D.Mishra, HK.Ratha - Journal of Industrial Information ..., 2016 - Elsevier  
... The HMI based C&M unit and SCADA server implemented in host PC of the **controller** takes the  
responsibility for providing the transmission and ... sub routines are working in the same time: first  
one for RTC support, **second** one for HMI client support, **third** one for ... (**3**)) (2014), pp ...  
Cited by 16 Related articles All 2 versions

Data Communication and Networking Technologies  
Q.Zhang, Y He, F Nie, S Xiao - Agricultural Internet of Things, 2021 - Springer  
... To address those issues, the **third** generation (3G) had a wider bandwidth, with a minimum ... to  
sink node and from sink node to user management node; and (**3**) application layer ... is a technology  
standard of RF communication for IoT, developed by the **3rd** Generation Partnership ...  
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# A discrete-time **terminal** sliding-mode control approach applied to a motion control problem

K. Abidi, J.K. Xu, J.H. Shu - IEEE Transactions on Industrial ..., 2008 -  
ieeexplore.ieee.org

... The variation pattern of the second eigenvalue,  $\lambda_2$ , is opposite to the **first** eigenvalue as can be seen ... Now, since the eigenvalue also becomes smaller as the **controller** gain increases, the robustness and ... The tracking errors of both TSMC and PI **controllers** are shown in Fig.14 ...

Cited by 80 Related articles All 6 versions

[PDF] ieee.org

Full Text @ USPTO-STIC

# Requirement of salicylic acid for the induction of systemic **acquired** resistance

T. Gaffney, L. Friedrich, B. Vernooij, D. Negrotto... - ..., 1993 -  
science.sciencemag.org

... The temperature **controller** used in the experiments is capable of millikelvin resolution and is ... To **determine** the effect of nahG gene expression on the accumulation of SA, we inoculated ... either oxidized to benzoic acid and then ortho-hydroxylated to SA or **first** hydroxylated and ...

Cited by 2047 Related articles All 18 versions

[PDF] sciencemag.org

Full Text @ USPTO-STIC

# [PDF] The organizational climate and employees' job satisfaction in the **Terminal** Operation Context of Kaohsiung Port

C. Tsai - The Asian Journal of Shipping and Logistics, 2014 - core.ac.uk

... keeper, yard or **terminal** machine drivers, tallies, custom broker, container yard **controller**, and document ... of the reliability is Cronbach's alpha value which was employed to **determine** whether the ... We **first** examined the effects of the control variables, type of company, education ...

Cited by 61 Related articles All 4 versions

[PDF] core.ac.uk

Full Text @ USPTO-STIC

# High-order sliding mode control design based on adaptive **terminal** sliding mode

WQ Tang, YL Cai - ... Journal of Robust and Nonlinear Control, 2013 - Wiley Online Library

... with the adaptive control method is proposed to design high-order sliding mode **controllers** for SISO ... Consider a Lyapunov function candidate as (22). The sliding variable 19 and its **first** time derivative ... 3.3 Adaptive **terminal** sliding mode **controller** design for integrator systems ...

Cited by 27 Related articles All 2 versions

# Designing inverters' current **controllers** with resonance frequencies cancellation

C. Cifro, P. Siano, C. Cecati - IEEE Transactions on Industrial ..., 2016 -  
ieeexplore.ieee.org

... phase grid-connected converters, the implementation of PWM-based linear current **controllers** can be ... from the previous discussion, by reducing the LCL filter to a **first** order system ... horizontal discrete temporal axis, once **acquired** the sample  $u[h]$ , the **controller** individuates, in ...

Cited by 33 Related articles

[PDF] ieee.org

Full Text @ USPTO-STIC

# [HTML] Adaptive **terminal** sliding mode control for hypersonic flight vehicles with strictly lower convex function based nonlinear disturbance observer

Y. Wu, J. Zuo, L. Sun - ISA transactions, 2017 - Elsevier

... **First**, for the sake of enhancing the anti-interference capability, SDOB is presented to estimate ... for the air-breathing HFV in [12], in which parameters of the **controllers** are updated ... Similar to [12], another adaptive sliding mode **controller** based on **one** robust sliding manifold is put ...

Cited by 31 Related articles All 3 versions

[HTML] sciencedirect.com

Full Text @ USPTO-STIC

# Patterns of hypermetria and **terminal** cocontraction during point-to-point movements demonstrate independent action of trajectory and postural **controllers**

R.A. Schekel, C. Ghez, S. Asnani - Journal of neurophysiology, 2011 - journals.physiology.org

... 5. Journal home; Issues. Archive of all online **content**. December 2020. 1930s; 1940s; 1950s;

[HTML] physiology.org

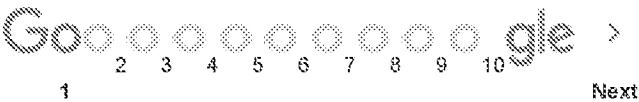
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1960s; 1970s; 1980s; 1990s; 2000s; 2010s; 2020s. 1938; ... August 2020. Pages 309-644. Volume 124, Issue 1 July 2020. Pages 1-307. Volume 123, Issue 6 June 2020. Pages 2099-2514 ...  
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[HTML] Corporate entrepreneurship in network organizations:: How **subsidiary** initiative drives internal market efficiency [HTML] sciencedirect.com  
Full Text @ USPTO-STIC  
J.Burkinshaw - European Management Journal, 1998 - Elsevier  
... As Gordon Brown, the Greenock **controller** commented, "by extending the value chain and ... namely that reconfiguration initiatives rely exclusively on the **subsidiary** to **identify** the opportunity whereas bid ... They are suspicious in the **first** instance because it sounds like an oxymoron ...  
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Data-driven high-order **terminal** iterative learning control with a faster convergence speed [PDF] researchgate.net  
R.Chi, B.Huang, Z.Hou, S.Jin - International Journal of Robust ..., 2016 - Wiley Online Library  
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[HTML] A fuzzy **controller** for maximum energy extraction from variable speed wind power generation systems [HTML] sciencedirect.com  
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... voltages components  $V_{qr}$  and  $V_{dr}$ , obtained by two separate proportional integral (PI) **controllers** ...  $I_{qr\_ref}$  with a faster integration time, typically 10 times smaller than the **first** PI ... Specifically, the maximum power point tracking TSK fuzzy **controller** has two inputs and **one** output ...  
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[PDF] uvm.edu

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... CA, 2003); available at [www2.sims.berkeley.edu/research/projects/how-much-info-2003](http://www2.sims.berkeley.edu/research/projects/how-much-info-2003) ... Japanese Recording-Media Industries **Association**, "Press Releases" (2007); available at [www.jria.org](http://www.jria.org) ... The World's Technological Capacity to Store, Communicate, and Compute **Information** ...

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AQ Sarma, J Girão - Wireless personal communications, 2009 - Springer

... "Attackers" • Curious about user • Want **info** to do business • Want to do harm eg compromise

user Societal & legal requirements ... We also envision a long term kind of **association** ... eu/deliverables. 12. Future of **Identity** in the **Information** Society (FIDIS). <http://www.fidis.net>. 13 ...

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A Huang, K Pulli, L Rudolph - ... of the 4th international conference on ..., 2005 - dl.acm.org

... A **second** policy specification **defines** a default **association** behavior when creating objects ... for pre- sending, organizing, and transferring **information** as well as exploiting context has been addressed by use of **associations** ... 2004-3, Helsinki Institute for **Information** Technology ...

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V Lenders, G Karlsson, M May - ... on Sensor, Mesh and Ad Hoc ..., 2007 - ieeexplore.ieee.org

... **information** can easily be obtained and maintained locally by exploiting the **information** from the ... to finish within a single **association** with a high probability (most **association** times in ... but rather to the assumption that only few entries need several consecutive **associations** to be ...

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Emotions and **information** diffusion in social media--- sentiment of microblogs and sharing behavior

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... following the negativity bias, in h3a, we expect the **associations** between sentiment and retweet quantity to be stronger for tweets with negative sentiment compared to those with positive sentiment ... Atlanta: **Association** for **Information** Systems, 2012, paper 98. 64 ...

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V Kitzie - Journal of the Association for Information Science and ..., 2019 - Wiley Online Library

... However, the **associations** made between individuals can also be problematic, such as between Amina and her coworkers ... 2020 **Association** for **Information** Science & Technology. Additional links. About Wiley Online Library ...

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... No **association** was found between payment model or platform and the transmission of personal **information** ... J Am Med Inform **Assoc**. 2014;21:374-8 ... Corresponding authors. Correspondence to Kit Huckvale or José Tomás Prieto. Additional **information**. Competing interests ...

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... Each selected pair **defines** a trend with set of terms R and **associated** time period ... Technologies: The 2010 Annual Conference of the North American Chapter of the **Association** for Computational ... Temporal and **information** flow based event detection from social text streams ...

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... Each **device** in Perspective **defines** an attribute-based filter called a "view" ... Cimbiosys allows each **device** to express its **individual information** needs as a **content**- based filter, permits **devices** to enter or leave the system without global coordination ... **USENIX Association** ...

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[HTML] Radio frequency **identification** (RFID)

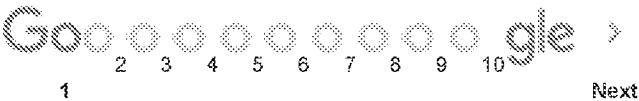
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... Data from radio frequency **identification** – a basic primer, **Association** for Automatic **Identification** and Mobility ... The EPC system **defines** technical protocols and creates a data structure for the stored ... reliably exist for a retailer to drive through a suburb collecting **information** from the ...

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|                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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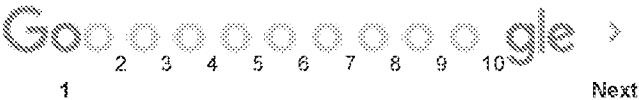
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... The brains were **stored** overnight in the same fixative at 4°C. After the cerebral ... **Second**, a correlation was found between the segregation of direction-selective units and the ... CW, Takahashi E, Collewijn H (1972) Direction-selective retinal ganglion cells and **control** of optokinetic ...

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... 1.4.2 Diversification The **second** paradigm of Pervasive Computing affects the functionality of ...  
on a very **particular** usage segment, like an industrial **controller device** applied in a ... Smart Labels  
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### EAST Search History (Prior Art)

| Ref # | Hits   | Search Query                                                     | DBs                     | Default Operator | Plurals | Time Stamp       |
|-------|--------|------------------------------------------------------------------|-------------------------|------------------|---------|------------------|
| S1    | 48     | 725/11.ccls.                                                     | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 15:26 |
| S2    | 46     | S1 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927")) | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 15:30 |
| S3    | 14     | S2 and (remote near6 display\$3)                                 | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:26 |
| S4    | 33,602 | (remote near4 control\$3) with (screen lcd display)              | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:39 |
| S5    | 18,780 | (remote near4 control\$3) near5 (screen lcd display)             | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:39 |
| S6    | 2,303  | (remote near4 control\$3) near5 (identifier identification)      | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:40 |

|     |       |                                                                                                                                                              |                           |    |     |                  |
|-----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|-----|------------------|
| S7  | 1,554 | (remote near4 control\$3) with (user near5(identifier identification preference profile))                                                                    | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/10 16:41 |
| S8  | 124   | ((remote near4 control\$3)near6(lcd screen display)) with (user near5(identifier identification preference profile))                                         | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/10 16:43 |
| S9  | 92    | S8 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/10 16:43 |
| S10 | 11    | ("4392022"   "4508935"   "5138649"   "5671267"   "5963624"   "6292172"   "6292210"   "6411891"   "6516467"   "6567984"   "6570974").PN. OR ("7266834").URPN. | US-PGPU B; USPA T; USOC R | OR | OFF | 2010/05/10 17:17 |
| S11 | 1     | "4639779".pn.                                                                                                                                                | US-PGPU B; USPA T; USOC R | OR | OFF | 2010/05/11 11:14 |
| S12 | 3,194 | fred.xa.                                                                                                                                                     | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/11 13:42 |
| S13 | 23    | "peng fred".xa.                                                                                                                                              | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/11 13:44 |

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|-----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|-----|-------------------|
| S14 | 2     | "20050155078"                                                                                                                                                | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 11:59 |
| S18 | 1     | "7266834".pn.                                                                                                                                                | USPA T                    | OR | OFF | 2010/05 /17 13:05 |
| S19 | 11    | ("4392022"   "4508935"   "5138649"   "5671267"   "5963624"   "6292172"   "6292210"   "6411891"   "6516467"   "6567984"   "6570974").PN. OR ("7266834").URPN. | US-PGPU B; USPA T; USOC R | OR | OFF | 2010/05 /17 13:07 |
| S20 | 1,490 | (remote near5 control\$4) with (lcd near4 (display screen))                                                                                                  | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:30 |
| S21 | 17    | ((plurality multiple various)near3(remote near5 control\$4)) with (lcd near4 (display screen))                                                               | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:31 |
| S22 | 480   | ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)                                                                           | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:48 |
| S23 | 398   | S22 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                            | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:49 |
| S24 | 273   | S23 and (television tv)                                                                                                                                      | US-PGPU B; USPA T;        | OR | ON  | 2010/05 /17 13:49 |

|     |    |                                                                                         |                                              |    |     |                         |
|-----|----|-----------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|     |    |                                                                                         | USOC<br>R                                    |    |     |                         |
| S25 | 51 | S24 and (user near4 (identifier identification))                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:52 |
| S26 | 48 | ("4546382"   "4930011"   "5155591"   "5497185"  <br>"5638113").PN. OR ("5721583").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2010/05<br>/17<br>14:40 |
| S27 | 2  | "20050155078"                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>16:37 |
| S28 | 1  | "5721583".pn.                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>16:49 |
| S29 | 1  | "7266834".pn.                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/18<br>11:09 |
| S30 | 2  | 10/861390                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/18<br>12:36 |
| S31 | 1  | 11/861390                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON  | 2010/05<br>/18<br>12:37 |

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|-----|-----|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |     |                                                                                                                                     | USOC<br>R                                    |    |    |                         |
| S32 | 460 | ((plurality multiple various)near3(remote near5 control\$4)) near5 (display screen)                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:54 |
| S33 | 5   | S32 and ((primary master) near4(receiver terminal))                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:55 |
| S34 | 0   | S32 same((primary master) near4(receiver terminal))                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:57 |
| S35 | 0   | ((plurality multiple various)near3(remote near5 control\$4)) near5 (display screen))same((primary master) near4(receiver terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:57 |
| S36 | 30  | ((plurality multiple various)near3(remote near5 control\$4)))same((primary master) near4(receiver terminal))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:58 |
| S37 | 18  | S36 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:59 |
| S38 | 5   | 725/105.ccls. and ((plurality various multiple) near5 (remote near4 controller))                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2010/11<br>/06<br>14:05 |



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|-----|-------|------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                                | USOC<br>R                                    |    |    |                         |
| S39 | 12    | (home near5 network)same ((plurality various multiple) near5 (remote near4 controller))        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:08 |
| S40 | 25    | (home near5 network)same2 ((plurality various multiple) near5 (remote near4 controller))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:11 |
| S41 | 13    | S40 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:11 |
| S42 | 7,404 | (home near5 network)same2 ((plurality various multiple) near5 (receiver terminal device unit)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:17 |
| S43 | 3,245 | (home near5 network)same ((plurality various multiple) near5 (receiver terminal device unit))  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:18 |
| S44 | 2,655 | (home near5 network)same ((plurality various multiple) near3 (receiver terminal device unit))  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:18 |
| S45 | 2,101 | S44 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2010/11<br>/06<br>14:18 |

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|-----|----|---------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |    |                                                               | USOC<br>R                                    |    |    |                         |
| S46 | 19 | S45 and (master primary) near5 (transceiver<br>set\$top\$box) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:20 |
| S47 | 2  | "20050155078"                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:28 |
| S48 | 1  | "5721583".pn.                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:57 |
| S49 | 2  | "20050155078"                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/16<br>10:38 |
| S50 | 1  | "5721583".pn.                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/03<br>20:19 |
| S51 | 1  | "6567984".pn.                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>11:34 |
| S52 | 2  | "20050155078"                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/06<br>/04<br>11:59 |

|     |         |                                                                                    |                                              |    |    |                         |
|-----|---------|------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |         |                                                                                    | USOC<br>R                                    |    |    |                         |
| S53 | 1       | "5721583".pn.                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>12:30 |
| S54 | 3,725   | "725"/\$.ccls. and ((primary first master) near5 (receiver stt stb set\$top\$box)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:00 |
| S55 | 405     | "725"/\$.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:01 |
| S56 | 322     | S55 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:02 |
| S57 | 14      | "725"/105.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:02 |
| S58 | 11      | "725"/78.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:16 |
| S59 | 245,280 | ((remote near5 control\$4)or (input near3 device)) with (display screen)           | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/12<br>/21<br>09:44 |

|     |         |                                                                                             |                           |    |    |                  |
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|     |         |                                                                                             | USOC<br>R                 |    |    |                  |
| S60 | 164,921 | ((remote near5 control\$4)or (input near3 device)) near6 (display screen)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:45 |
| S61 | 163,487 | ((remote near3 control\$4)or (input near3 device)) near6 (display screen)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:45 |
| S62 | 6,240   | "725"/\$.ccls. and((remote near3 control\$4)or (input near3 device)) near6 (display screen) | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:46 |
| S63 | 5,030   | "725"/\$.ccls. and((remote near3 control\$4)or (input near3 device)) near4 (display screen) | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:46 |
| S64 | 3,525   | "725"/\$.ccls. and((remote near3 control\$4)) near4 (display screen)                        | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:47 |
| S65 | 141     | "725"/\$.ccls. and((remote near3 control\$4)) near4 ((led lcd)near4(display screen))        | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:48 |
| S66 | 127     | S65 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-PGPU B; USPA T;        | OR | ON | 2011/12/21 09:49 |

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|     |       |                                                                                                     | USOC<br>R                                    |    |    |                         |
| S67 | 1,937 | ((display\$3 present\$3) near4 (video guide epg ipg adv commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:11 |
| S68 | 1,670 | ((display\$3 present\$3) near3 (video guide epg ipg adv commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:11 |
| S69 | 1,574 | ((display\$3 present\$3) near3 (video guide epg ipg adv commercial))near4 (remote adj3 control\$4)  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:12 |
| S70 | 1,180 | S69 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:12 |
| S71 | 586   | S70 and ((primary first second) near4 (screen display))                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:14 |
| S72 | 283   | S71 and ((primary first) near3 (broadcast stream content video))                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:16 |
| S73 | 2     | "20050155078"                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/12<br>/21<br>10:48 |

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|-----|-------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                                                                       | USOC<br>R                                    |    |    |                         |
| S74 | 1     | 11/861390                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>11:39 |
| S75 | 663   | ((plurality multiple various)near3(remote near5<br>control\$4)) near6(display screen)                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:56 |
| S76 | 463   | S75 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:58 |
| S77 | 326   | ((plurality multiple various)near3(remote near5<br>control\$4)) same ((display\$3 present\$3)near4 (video<br>commercial advertis\$5)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:59 |
| S78 | 252   | S77 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:00 |
| S79 | 76    | S78 and ((unique personal) near4 (identifier<br>identification))                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:06 |
| S80 | 4,536 | (remote near5 control\$4) with ((display\$3<br>present\$3)near4 (video commercial advertis\$5))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>14:18 |

|     |            |                                                                                                                                            |                                              |    |    |                         |
|-----|------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |            |                                                                                                                                            | USOC<br>R                                    |    |    |                         |
| S81 | 17         | ((remote near5 control\$4) near3 (LCD LED))with<br>((display\$3 present\$3)near4 (video commercial<br>advertis\$5))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:19 |
| S82 | 47         | ((remote near5 control\$4) near3 (LCD LED))same<br>((display\$3 present\$3)near4 (video commercial<br>advertis\$5))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:22 |
| S83 | 43         | S82 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:23 |
| S84 | 12,95<br>3 | (remote near3 control\$4) same ((display\$3<br>present\$3)near4 (video commercial advertis\$5))                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:28 |
| S85 | 11,44<br>1 | (remote near3 control\$4) same ((display\$3<br>present\$3)near3 (video commercial advertis\$5))                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:29 |
| S86 | 2,283      | "725"/\$.ccls. and ((display\$3 present\$3)near3 (video<br>commercial advertis\$5) near5 ((remote control)or (PDA<br>cell\$phone laptop))) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:32 |
| S87 | 1,729      | S86 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>14:32 |

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|-----|--------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |        |                                                                                                                                            | USOC<br>R                                    |    |    |                         |
| S88 | 328    | S86 and (unique near4 (identifier identification))                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:33 |
| S89 | 1,713  | "725"/\$.ccls. and ((display\$3 present\$3)near3 (video<br>commercial advertis\$5) near3 ((remote control)or (PDA<br>cell\$phone laptop))) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:36 |
| S90 | 182    | S86 and (unique adj (identifier identification))                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:36 |
| S91 | 114    | S90 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:37 |
| S92 | 2      | "20040117819"                                                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:55 |
| S93 | 12,780 | (remote near4 control\$4) with (talk\$3 speak\$3 sound)                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>15:10 |
| S94 | 4,757  | (remote near4 control\$4) near3 (talk\$3 speak\$3 sound)                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>15:10 |



|          |    |                                                                                                                                                                                                                                                                                                               |                                              |    |     |                         |
|----------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |    |                                                                                                                                                                                                                                                                                                               | USOC<br>R                                    |    |     |                         |
| S95      | 1  | "20050166231"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>15:31 |
| S96      | 1  | "20070152964"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>15:37 |
| S97      | 2  | "20050155078"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:01 |
| S98      | 1  | "7263712".pn.                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:54 |
| S99      | 2  | "20070124775"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:55 |
| S10<br>0 | 1  | "6862741".pn.                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:56 |
| S10<br>1 | 70 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338" | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | OFF | 2012/04<br>/19<br>18:01 |

|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |    |     |                         |
|----------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |     | "5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN. | USOC<br>R                                    |    |     |                         |
| S10<br>2 | 1   | "6567984".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:13 |
| S10<br>3 | 1   | "6064420".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:16 |
| S10<br>4 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/20<br>11:03 |
| S10<br>5 | 1   | "6862741".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/20<br>11:21 |
| S10<br>6 | 382 | 725/80.ccls. and ((second\$3 primary subsidiary)<br>near4(video content data stream))                                                                                                                                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2014/03<br>/30<br>13:22 |
| S10<br>7 | 97  | 725/80.ccls. and ((second\$3 primary subsidiary)<br>near4(video content data stream))and (stt stb<br>set\$top\$box)                                                                                                                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON  | 2014/03<br>/30<br>13:23 |

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|----------|------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                            | USOC<br>R                                    |    |    |                         |
| S10<br>8 | 65         | S107 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:24 |
| S10<br>9 | 17,47<br>7 | "725"/\$.ccls. and ((second\$3 subsidiary) near4(video<br>content data stream))                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:56 |
| S11<br>0 | 15,71<br>0 | "725"/\$.ccls. and ((second\$3 subsidiary) near3(video<br>content data stream))                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:56 |
| S11<br>1 | 3,555      | "725"/\$.ccls. and ((second\$3 subsidiary) near3(video<br>content data stream))and (stt stb set\$top\$box) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:57 |
| S11<br>2 | 1,738      | S111 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:57 |
| S11<br>3 | 1          | "8544049".pn.                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>20:20 |
| S11<br>4 | 963        | "725"/\$.ccls. and (main near4 (receiver terminal stt stb<br>set\$top\$box))                               | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2014/04<br>/04<br>21:21 |

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|----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                                                                                                                                                                                                                | USOC<br>R                                    |    |    |                         |
| S11<br>5 | 456        | S114 and ((second\$3 subsidiary) near4 (content video vod commercial advertisement data))                                                                                                                                                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:22 |
| S11<br>6 | 90         | S114 and ((second\$3 subsidiary) near4 (content video vod commercial advertisement data))and ((user subscriber) near4 (identifier identification))                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:24 |
| S11<br>7 | 62         | S116 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:26 |
| S11<br>8 | 1          | "8544049".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:01 |
| S11<br>9 | 50,50<br>5 | (H04N21/2543 or H04N21/4126 or H04N21/488 or H04N21/478 or H04N21/4122 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/454 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/43637 or H04N21/4884).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:56 |
| S12<br>0 | 292        | ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)and S119                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:57 |
| S12<br>1 | 158        | S120 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>18:57 |

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|----------|----|--------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |    |                                                                                            | USOC<br>R                                    |    |    |                         |
| S12<br>2 | 4  | S121 and ((primary master) near4(receiver terminal))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:59 |
| S12<br>3 | 48 | (home near5 network)same ((plurality various multiple)<br>near5 (remote near4 controller)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:00 |
| S12<br>4 | 5  | S123 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:04 |
| S12<br>6 | 2  | "20050155078"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:32 |
| S12<br>7 | 2  | "20070208789"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:59 |
| S12<br>8 | 1  | "20020194299"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:02 |
| S12<br>9 | 2  | "20030007640"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>20:05 |

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|          |       |                                                                                                        | USOC<br>R                                    |    |    |                         |
| S13<br>0 | 1     | "5721583".pn.                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:10 |
| S13<br>1 | 2     | "20050155078"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:12 |
| S13<br>2 | 1     | "20020137496"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:17 |
| S13<br>3 | 3,663 | ((display\$3 present\$3) near4 (video guide epg ipg adv<br>commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>4 | 63    | S133 and ((primary master) near4(receiver terminal))                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>5 | 41    | S134 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>6 | 2     | "20050155078"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/28<br>13:58 |

|          |            |                                                                                                                                                                                                                                                                                                |                                              |    |    |                         |
|----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                                                                                                                                                                                                                | USOC<br>R                                    |    |    |                         |
| S13<br>7 | 1          | "6862741".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/28<br>14:48 |
| S13<br>8 | 53,02<br>4 | (H04N21/2543 or H04N21/43637 or H04N21/488 or H04N21/4122 or H04N21/478 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/4884 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/4126 or H04N21/454).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:02 |
| S13<br>9 | 9,553      | S138 and (user near4 (identifier identification))                                                                                                                                                                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:03 |
| S14<br>0 | 67         | S139 and ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:03 |
| S14<br>1 | 35         | S140 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:04 |
| S14<br>2 | 969        | ((pair\$3 synchroniz\$3)near3(tv television stt stb set\$top\$box))same(pda phone tablet mobile)                                                                                                                                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>14:58 |
| S14<br>3 | 63         | S142 and (down\$convert\$3)                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>14:59 |

|          |     |                                                                                                                                       |                                              |    |    |                         |
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|          |     |                                                                                                                                       | USOC<br>R                                    |    |    |                         |
| S14<br>4 | 43  | S143 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:00 |
| S14<br>5 | 77  | S142 and ((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:11 |
| S14<br>6 | 7   | S145 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:11 |
| S14<br>7 | 32  | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))same ((convert\$3 modif\$4<br>chang\$3)near3(format bit\$rate)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:15 |
| S14<br>8 | 26  | S147 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:16 |
| S14<br>9 | 613 | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))same((mobile wireless)near3(device<br>receiver phone pda))      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:36 |
| S15<br>0 | 19  | S149 and (down\$convert\$3)                                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>15:37 |



|          |       |                                                                                                                                                                    |                                              |    |    |                         |
|----------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |       |                                                                                                                                                                    | USOC<br>R                                    |    |    |                         |
| S15<br>1 | 9     | S150 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:37 |
| S15<br>2 | 9,622 | ((display\$3 present\$3 render\$3)near3(commercial<br>advertisement caption)same (wireless portable<br>mobile)near3(device receiver phone pda tablet<br>terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:52 |
| S15<br>3 | 75    | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))and S152                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:53 |
| S15<br>4 | 24    | S153 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:53 |
| S15<br>5 | 9,622 | ((display\$3 present\$3 render\$3)near3(commercial<br>advertisement caption)same (wireless portable<br>mobile)near3(device receiver phone pda tablet<br>terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>17:59 |
| S15<br>6 | 106   | S155 and (down\$convert\$3)                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:01 |
| S15<br>7 | 4     | S156 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>18:01 |

|          |             |                                                                                                                                        |                                              |    |    |                         |
|----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |             |                                                                                                                                        | USOC<br>R                                    |    |    |                         |
| S15<br>8 | 214,4<br>90 | S155 ((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:05 |
| S15<br>9 | 931         | S155 and((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>0 | 308         | S159 and (converter)                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>1 | 207         | S160 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>2 | 1           | S161 and ((embed\$4 insert\$3<br>mix\$3)near3(supplemental secondary<br>related)near3(video content data commercial<br>advertisement)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:10 |
| S16<br>3 | 7           | S161 and ((embed\$4 insert\$3<br>mix\$3)near3(supplemental secondary related))                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:11 |
| S16<br>4 | 2           | "20050155078"                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>20:20 |

|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |    |     |                         |
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|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | USOC<br>R                                    |    |     |                         |
| S16<br>5 | 8   | ("2005/0155078").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | USPA<br>T                                    | OR | OFF | 2019/07<br>/26<br>20:22 |
| S16<br>6 | 7   | ("20020137496"   "20020150387"   "20050155078"  <br>"5721583"   "6862741"   "7266834").PN. OR<br>("8544049").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/26<br>20:34 |
| S16<br>7 | 123 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/26<br>21:22 |
| S16<br>8 | 2   | "20030208771"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:21 |
| S16<br>9 | 2   | "20040163106"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:25 |
| S17<br>0 | 2   | "20050246746"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:26 |

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| S17<br>1 | 2 | "20070124778" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:37 |
| S17<br>2 | 2 | "20060123126" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:40 |
| S17<br>3 | 1 | "7039116".pn. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:42 |
| S17<br>4 | 1 | "20040225894" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:43 |
| S17<br>5 | 2 | "20090204989" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:47 |
| S17<br>6 | 1 | "5666487".pn. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:53 |
| S17<br>7 | 2 | "20060107302" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:57 |

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|----------|-----|--------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
| S17<br>8 | 1   | "8352986".pn.                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>22:11 |
| S17<br>9 | 1   | "20020137496"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>22:33 |
| S18<br>0 | 461 | ((pair\$3 synchroniz\$3) near3(tv television stt stb<br>set\$top\$box) near4(phone pda mobile tablet)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>10:58 |
| S18<br>1 | 54  | S180 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>10:59 |
| S18<br>2 | 970 | ((pair\$3 synchroniz\$3) near3(tv television stt stb<br>set\$top\$box))same(phone pda mobile tablet)   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>11:22 |
| S18<br>3 | 250 | S182 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>11:22 |
| S18<br>4 | 161 | S183 and (commercial advertisement)                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>11:23 |

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| S185 | 127 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))and ((display\$3 present\$3 render\$3)near3(commercial advertisement web)near3(phone pda mobile tablet)) | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:01 |
| S186 | 88  | S185 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:02 |
| S187 | 42  | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))same ((commercial advertisement web)near3(phone pda mobile tablet))                                      | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:53 |
| S188 | 15  | S187 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:53 |
| S189 | 527 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))and ((commercial advertisement web)near3(phone pda mobile tablet))                                       | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:55 |
| S190 | 245 | S189 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:55 |
| S191 | 741 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same ((commercial advertisement web)near3(phone pda mobile tablet))                                    | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 13:51 |

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| S19<br>2 | 22    | S191 and ((supplemental secondary)near3(content video data commercial avertisement))                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:53 |
| S19<br>3 | 3     | S192 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:53 |
| S19<br>4 | 227   | S191 and ((supplemental secondary))                                                                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:54 |
| S19<br>5 | 118   | S194 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:54 |
| S19<br>6 | 2,506 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))with((phone pda mobile tablet))                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:11 |
| S19<br>7 | 661   | S196 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:12 |
| S19<br>8 | 59    | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:15 |

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| S199 | 12  | S198 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>14:16 |
| S200 | 930 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))and((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet))   | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>14:19 |
| S201 | 294 | S200 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>14:20 |
| S202 | 417 | ((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet)) with(Tv television stt stb set\$top\$box)                                  | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>16:39 |
| S203 | 147 | S202 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>16:39 |
| S204 | 6   | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same((chang\$3 modif\$4 convert\$3)near3(format compression encod\$3)near3(commercial ad advertisement)) | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>17:23 |
| S205 | 3   | S204 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>17:24 |



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| S206 | 123 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))and((chang\$3 modif\$4 convert\$3)near3(format compression encod\$3)near3(commercial ad advertisement))                                                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPU B; USPA T; USOC R | OR | ON  | 2019/07/30 17:25 |
| S207 | 67  | S206 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON  | 2019/07/30 17:26 |
| S208 | 1   | "6862741".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPU B; USPA T; USOC R | OR | ON  | 2019/07/30 19:39 |
| S209 | 1   | "20020137496"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPU B; USPA T; USOC R | OR | ON  | 2019/07/30 20:00 |
| S210 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | US-PGPU B; USPA T; USOC R | OR | ON  | 2019/07/30 20:02 |
| S211 | 8   | ("2005/0155078").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | USPA T                    | OR | OFF | 2019/07/30 20:07 |
| S212 | 123 | ("4115846"   "4697209"   "4706121"   "4751578"   "5151789"   "5353121"   "5410326"   "5500691"   "5532754"   "5550576"   "5559548"   "5614940"   "5625608"   "5629733"   "5635978"   "5657072"   "5686954"   "5689663"   "5699107"   "5706334"   "5708845"   "5710605"   "5721942"   "5732338"   "5751282"   "5751372"   "5758257"   "5760821"   "5781226"   "5793438"   "5794207"   "5801753"   "5801787"   "5805204"   "5805235"   "5815194"   "5831664"   "5857201"   "5864784"   "5877756"   "5883677"   "5889950"   "5898398"   "5911582"   "5929849"   "6002394"   "6002444"   "6002450" | US-PGPU B; USPA T; USOC R | OR | OFF | 2019/07/30 20:12 |

|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |    |     |                         |
|----------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |     | "6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |    |     |                         |
| S21<br>3 | 64  | ("6862741").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | USPA<br>T                                    | OR | OFF | 2019/07<br>/30<br>20:19 |
| S21<br>4 | 59  | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/30<br>20:21 |
| S21<br>5 | 1   | "20060268169"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>12:54 |
| S21<br>6 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>13:28 |
| S21<br>7 | 2   | "20050221826"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>13:43 |
| S21<br>8 | 454 | (menu near3 (order hierachiz\$3))same ((user viewer<br>view\$3)near3(preference history profile))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>17:44 |

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|------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S219 | 9,898 | ((provid\$3 present\$3 display\$3 render\$3) near3(commercial adv advertisement))same((viewer subscriber user)near3(preference profile favorite)) | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:48 |
| S220 | 14    | S218 and S219                                                                                                                                     | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:48 |
| S221 | 1     | S220 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:49 |
| S222 | 4,813 | (menu near3 (order hierachiz\$3))and ((user viewer view\$3)near3(preference history profile))                                                     | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:49 |
| S223 | 211   | S219 and S222                                                                                                                                     | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:50 |
| S224 | 139   | S223 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:50 |
| S225 | 0     | (menu near3 hierachiz\$3)and ((user viewer view\$3)near3(preference history profile))                                                             | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:59 |

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| S226 | 1,152 | (menu near3 (organiz\$3 placement hierachiz\$3))and ((user viewer view\$3)near3(preference history profile))              | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:00 |
| S227 | 199   | S222 and S226                                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:00 |
| S228 | 125   | S227 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                        | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:00 |
| S229 | 92    | S227 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and (pda tablet phone mobile)                           | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:07 |
| S230 | 381   | (menu near3 (organiz\$3 placement hierachiz\$3 hierarchical))same((user viewer view\$3)near3(preference history profile)) | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:19 |
| S231 | 53    | S230 and S219                                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:20 |
| S232 | 12    | S231 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and (pda tablet phone mobile)                           | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:20 |

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| S23<br>3 | 3,929      | (menu near3 (organiz\$3 placement hierachiz\$3 hierarchical))and((user viewer view\$3)near3(preference history profile))                                                                                                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:23 |
| S23<br>4 | 129        | S219 and S233                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:23 |
| S23<br>5 | 0          | S234 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and ((multiple plurality)near3(pda tablet phone mobile))                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:24 |
| S23<br>6 | 75         | S234 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and ((pda tablet wireless phone mobile))                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:25 |
| S23<br>7 | 60,06<br>7 | (H04N21/2543 or H04N21/43637 or H04N21/488 or H04N21/4122 or H04N21/478 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/4884 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/4126 or H04N21/454).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:12 |
| S23<br>8 | 34,01<br>7 | S237 and ((primary master multiple plurality) near4(receiver display device terminal))                                                                                                                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:14 |
| S23<br>9 | 10,83<br>5 | S238 and ((device receiver terminal stt stb set\$top\$box) near4 (identifier identification))                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:16 |

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|------|-------|-------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S240 | 2,580 | S239 and (converter down\$convert\$3)                                                           | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:18 |
| S241 | 1,706 | S240 and ((communication network)near3 interface)                                               | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:19 |
| S242 | 1,498 | S241 and (server)                                                                               | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:20 |
| S243 | 1,299 | S242 and (television tv)                                                                        | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:20 |
| S244 | 621   | S243 and ((user viewer) near4 (identifier identification))                                      | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:21 |
| S245 | 0     | S244 and (home near5 network)and ((plurality various multiple) near5 (remote near4 controller)) | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |
| S246 | 248   | S244 and (home near5 network)                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |

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|------|-----|---------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S247 | 83  | S246 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                              | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |
| S248 | 717 | ((plurality multiple various)near3(remote near5 control\$4)) same ((display\$3 present\$3)near4 (video commercial advertis\$5)) | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:42 |
| S249 | 274 | S248 and (home near5 network)                                                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:43 |
| S250 | 72  | S249 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                              | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:43 |
| S251 | 18  | S250 and (converter down\$convert\$3)                                                                                           | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:44 |
| S252 | 2   | "20010019326"                                                                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 17:20 |
| S253 | 1   | "20060268169"                                                                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 17:22 |

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| S25<br>4 | 2 | "20010019326" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:24 |
| S25<br>5 | 2 | "20050155078" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:27 |
| S25<br>6 | 2 | "20050221826" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:31 |
| S25<br>7 | 1 | "20060268169" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:34 |
| S25<br>8 | 2 | "20070208789" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:35 |
| S25<br>9 | 2 | "20010019326" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:14 |
| S26<br>0 | 2 | "20050221826" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:34 |



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| S26<br>1 | 2          | "20040261112"                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:38 |
| S26<br>2 | 62,04<br>5 | (H04N21/2543 or H04N21/43637 or H04N21/4122 or H04N21/478 or H04N21/488 or H04N7/163 or H04N21/4126 or H04N21/4341 or H04N21/4348 or H04N21/43615 or H04N21/440218 or H04N21/440263 or H04N21/4516 or H04N21/454 or H04N21/4884 or H04N21/8106 or H04N21/812 or H04N21/84 or H04N21/8586).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>10:28 |
| S26<br>3 | 62,04<br>5 | (H04N21/2543 or H04N21/43637 or H04N21/4122 or H04N21/478 or H04N21/488 or H04N7/163 or H04N21/4126 or H04N21/4341 or H04N21/4348 or H04N21/43615 or H04N21/440218 or H04N21/440263 or H04N21/4516 or H04N21/454 or H04N21/4884 or H04N21/8106 or H04N21/812 or H04N21/84 or H04N21/8586).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>12:24 |
| S26<br>4 | 16,31<br>9 | S263 and ((user viewer subscriber) near4 (identifier ID identification))                                                                                                                                                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>12:24 |
| S26<br>5 | 18         | S264 and (master primary) near5 (transceiver set\$top\$box)                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>12:28 |
| S26<br>6 | 13,17<br>3 | (home near5 network)same ((plurality various multiple) near5 (receiver terminal device unit))                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>12:43 |
| S26<br>7 | 4,295      | ((display\$3 present\$3) near4 (video guide epg ipg adv commercial))near4 (remote near3 control\$4)                                                                                                                                                                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>12:56 |

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| S268 | 1,879 | S267 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))       | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 12:57 |
| S269 | 488   | S268 and ((user viewer subscriber) near4 (identifier ID identification)) | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 12:57 |
| S270 | 67    | S269 and (home near3 network)                                            | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 12:58 |
| S271 | 2     | "20050155078"                                                            | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 15:09 |
| S272 | 2     | "20070208789"                                                            | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 16:55 |
| S273 | 2     | "20050221826"                                                            | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 17:39 |
| S274 | 1     | "8819747".pn.                                                            | US-PGPU B; USPA T; USOC R | OR | ON | 2021/10/19 13:28 |

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| S27<br>5 | 1          | "8544049".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>13:31 |
| S27<br>6 | 2          | "20050155078"                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>13:58 |
| S27<br>7 | 2          | "20010019326"                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>13:59 |
| S27<br>8 | 2          | "20050221826"                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:00 |
| S27<br>9 | 2          | "20070208789"                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:01 |
| S28<br>0 | 63,86<br>4 | (H04N21/2543 or H04N21/43637 or H04N21/4122 or H04N21/478 or H04N21/488 or H04N7/163 or H04N21/4126 or H04N21/4341 or H04N21/4348 or H04N21/43615 or H04N21/440218 or H04N21/440263 or H04N21/4516 or H04N21/454 or H04N21/4884 or H04N21/8106 or H04N21/812 or H04N21/84 or H04N21/8586).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:17 |
| S28<br>1 | 36,67<br>2 | S280 and ((primary master multiple plurality) near4(receiver display device terminal))                                                                                                                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:19 |

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| S28<br>2 | 322        | S281 and ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:20 |
| S28<br>3 | 191        | S282 and ((second\$3 primary subsidiary) near4(video content data stream))                                                                                | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:22 |
| S28<br>4 | 32         | S282 and ((second\$3 primary subsidiary) near4(video content data stream)) and (third near3(screen display))                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>14:35 |
| S28<br>5 | 6,776      | ((display\$3 present\$3 render\$3)near3(commercial advertisement caption)with (wireless portable mobile)near3(device receiver phone pda tablet terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>15:11 |
| S28<br>6 | 654        | S285 and (third near3(screen display))                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>15:13 |
| S28<br>7 | 61         | S286 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>15:13 |
| S28<br>8 | 11,57<br>7 | ((display\$3 present\$3 render\$3)near3(commercial advertisement caption)same (wireless portable mobile)near3(device receiver phone pda tablet terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10<br>/19<br>15:52 |

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| S289 | 3,047 | S288 and ((display\$3 present\$3 render\$3)near3(commercial advertisement caption)near3(wireless portable mobile)near3(device receiver phone pda tablet terminal)) | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 15:54 |
| S290 | 9,227 | ((display\$3 present\$3 render\$3)near3(commercial advertisement caption))same ((phone pda tablet))                                                                | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 16:18 |
| S291 | 2,596 | S290 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                 | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 16:18 |
| S292 | 210   | S291 and (third near3(screen display))                                                                                                                             | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 16:18 |
| S293 | 167   | S292 and (Tv television)                                                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 16:19 |
| S294 | 129   | S293 and (controller stb stt set\$top\$box)                                                                                                                        | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 16:20 |
| S295 | 9     | (pair\$3 near3(tv television)) same((plurality multiple various)near3(phone pda laptop tablet))                                                                    | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 16:47 |

|      |       |                                                                                                    |                                          |    |    |                     |
|------|-------|----------------------------------------------------------------------------------------------------|------------------------------------------|----|----|---------------------|
| S296 | 0     | S295 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                              | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>16:48 |
| S297 | 531   | (pair\$3 near3(tv television)) same((phone pda laptop tablet))                                     | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>16:49 |
| S298 | 35    | S297 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                              | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>16:49 |
| S299 | 1,894 | ((pair\$3 link\$3) near3(tv television)) same((phone pda laptop tablet))                           | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>17:03 |
| S300 | 576   | S299 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                              | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>17:03 |
| S301 | 91    | ((display\$3 present\$3 render\$3)near3(commercial advertisement caption))and S300                 | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>17:04 |
| S302 | 1,250 | ((display\$3 present\$3 render\$3)near3(commercial advertisement ) near3(phone pda laptop tablet)) | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/10/19<br>18:01 |

|      |       |                                                                                                                       |                         |    |    |                  |
|------|-------|-----------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|------------------|
| S303 | 264   | ((display\$3 present\$3 render\$3)near3(commercial advertisement ) near3(phone pda laptop tablet))same(tv television) | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:02 |
| S304 | 84    | S303 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                    | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:02 |
| S305 | 2,245 | ((pair\$3 link\$3)near3(phone pda laptop tablet)) same (tv television)                                                | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:42 |
| S306 | 28    | ((display\$3 present\$3 render\$3)near3(commercial advertisement ) near3(phone pda laptop tablet))and S305            | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:42 |
| S307 | 1     | S306 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                    | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:43 |
| S308 | 342   | ((display\$3 present\$3 render\$3)near3(commercial advertisement ))and S305                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:44 |
| S309 | 117   | S308 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                    | US-PGPU B; USPAT; USOCR | OR | ON | 2021/10/19 18:44 |

|          |    |                                                                                                                    |                                              |    |     |                         |
|----------|----|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
| S31<br>0 | 10 | ("2005/0155078").URPN.                                                                                             | USPA<br>T                                    | OR | OFF | 2021/10<br>/19<br>19:18 |
| S31<br>1 | 9  | ("20020137496"   "20020150387"   "20050155078"  <br>"5721583"   "6862741"   "7266834").PN. OR<br>("8544049").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2021/10<br>/19<br>19:22 |

10/19/2021 8:45:02 PM

C:\Users\jsaintcyr\Documents\EAST\Workspaces\16855012.wsp



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

|                      |             |             |            |                               |                   |          |      |
|----------------------|-------------|-------------|------------|-------------------------------|-------------------|----------|------|
| Application Number   | 16855012    | Filing Date | 2020-04-22 | Docket Number (if applicable) | SEI-12159-06      | Art Unit | 2425 |
| First Named Inventor | H. KAMIMAKI |             |            | Examiner Name                 | Jean D. Saint Cyr |          |      |

**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, 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 501417

## **SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

☒ Patent Practitioner Signature  
 Applicant Signature

| Signature of Registered U.S. Patent Practitioner |                    |                     |            |
|--------------------------------------------------|--------------------|---------------------|------------|
| Signature                                        | John R. Mattingly/ | Date (YYYY-MM-DD)   | 2021-10-06 |
| Name                                             | John R. Mattingly  | Registration Number | 30293      |

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

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 records.
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.
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.

## Electronic Patent Application Fee Transmittal

|                                                       |                                        |                 |               |                             |
|-------------------------------------------------------|----------------------------------------|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                            | 16855012                               |                 |               |                             |
| <b>Filing Date:</b>                                   | 22-Apr-2020                            |                 |               |                             |
| <b>Title of Invention:</b>                            | CONTENTS RECEIVING SYSTEM AND CLIENT   |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>           | Hideki Kamimaki                        |                 |               |                             |
| <b>Filer:</b>                                         | John Roberts Mattingly/Krista Hargrove |                 |               |                             |
| <b>Attorney Docket Number:</b>                        | SEI-12159-06                           |                 |               |                             |
| Filed as Large Entity                                 |                                        |                 |               |                             |
| <b>Filing Fees for    Utility under 35 USC 111(a)</b> |                                        |                 |               |                             |
| <b>Description</b>                                    | <b>Fee Code</b>                        | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                                  |                                        |                 |               |                             |
| <b>Pages:</b>                                         |                                        |                 |               |                             |
| <b>Claims:</b>                                        |                                        |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                          |                                        |                 |               |                             |
| <b>Petition:</b>                                      |                                        |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>               |                                        |                 |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>              |                                        |                 |               |                             |
| <b>Extension-of-Time:</b>                             |                                        |                 |               |                             |

| Description                        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|------------------------------------|----------|----------|--------|----------------------|
| Extension - 3 months with \$0 paid | 1253     | 1        | 1480   | 1480                 |
| <b>Miscellaneous:</b>              |          |          |        |                      |
| RCE- 1ST REQUEST                   | 1801     | 1        | 1360   | 1360                 |
| <b>Total in USD (\$)</b>           |          |          |        | <b>2840</b>          |

## Electronic Acknowledgement Receipt

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| <b>EFS ID:</b>                              | 43957559                               |
| <b>Application Number:</b>                  | 16855012                               |
| <b>International Application Number:</b>    |                                        |
| <b>Confirmation Number:</b>                 | 6885                                   |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT   |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                        |
| <b>Customer Number:</b>                     | 24956                                  |
| <b>Filer:</b>                               | John Roberts Mattingly/Krista Hargrove |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                 |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                           |
| <b>Receipt Date:</b>                        | 06-OCT-2021                            |
| <b>Filing Date:</b>                         | 22-APR-2020                            |
| <b>Time Stamp:</b>                          | 12:30:29                               |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)            |

### Payment information:

|                                          |                  |
|------------------------------------------|------------------|
| Submitted with Payment                   | yes              |
| Payment Type                             | CARD             |
| Payment was successfully received in RAM | \$2840           |
| RAM confirmation Number                  | E202106C30571352 |
| Deposit Account                          | 501417           |
| Authorized User                          | Krista Hargrove  |

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)

37 CFR 1.20 (Post Issuance fees)

IPR2025-01308; Samsung

37 CFR 1.19 (Document supply fees)  
37 CFR 1.17 (Patent application and reexamination processing fees)  
37 CFR 1.16 (National application filing, search, and examination fees)

# File Listing:

| Document Number              | Document Description                                | File Name          | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
|------------------------------|-----------------------------------------------------|--------------------|------------------------------------------|------------------|------------------|
| 1                            |                                                     | 12159-06-AMD02.pdf | 83044                                    | yes              | 14               |
|                              |                                                     |                    | 2baca150c61f8f7d0e4a50ed95397ec484670f57 |                  |                  |
|                              | Multipart Description/PDF files in .zip description |                    |                                          |                  |                  |
|                              | Document Description                                |                    | Start                                    | End              |                  |
|                              | Amendment Submitted/Entered with Filing of CPA/RCE  |                    | 1                                        | 1                |                  |
|                              | Claims                                              |                    | 2                                        | 6                |                  |
|                              | Applicant Arguments/Remarks Made in an Amendment    |                    | 7                                        | 14               |                  |
| Warnings:                    |                                                     |                    |                                          |                  |                  |
| Information:                 |                                                     |                    |                                          |                  |                  |
| 2                            | Request for Continued Examination (RCE)             | 12159-06-RCE.pdf   | 1349939                                  | no               | 3                |
|                              |                                                     |                    | f12792b223a18dcf3292de63a5e9ba4c9ba3a4fa |                  |                  |
| Warnings:                    |                                                     |                    |                                          |                  |                  |
| Information:                 |                                                     |                    |                                          |                  |                  |
| 3                            | Fee Worksheet (SB06)                                | fee-info.pdf       | 40872                                    | no               | 2                |
|                              |                                                     |                    | 259cb4acd8a726dde286df43f68e22c63a184e82 |                  |                  |
| Warnings:                    |                                                     |                    |                                          |                  |                  |
| Information:                 |                                                     |                    |                                          |                  |                  |
| Total Files Size (in bytes): |                                                     |                    | 1473855                                  |                  |                  |

**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.**



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : MAXELL, LTD.

Confirmation No.: 6885

Serial No. : 16/855,012

Filed : April 22, 2020

For : CONTENTS RECEIVING SYSTEM AND CLIENT

Group : 2425

Examiner : Jean D. Saint Cyr

Docket No. : SEI-12159-06

Customer No.: 24956

**AMENDMENT AFTER FINAL REJECTION**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

October 6, 2021

Sir:

In response to the Office Action mailed April 7, 2021, please amend the above-identified patent application as follows. A fee for a 3-month Extension of Time accompanies this response.

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

**Remarks / Arguments** are included following the amendments.

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled).

2. (Currently amended) A contents reproducing system comprising:

a main terminal; and

a plurality of subsidiary terminals,

wherein the main terminal comprises:

a storage storing the ~~content~~contents;

a first display displaying the ~~content~~contents; and

a first controller controlling transmission/reception with the subsidiary

terminals,

wherein the first controller is configured to:

store a plurality of device specific identification (ID) information of the

subsidiary terminals.

store a plurality of content information for identifying each of the contents, and

store association information for transmitting one of the contents to one of the

subsidiary terminals.

wherein the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information, the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted; and

wherein the plurality of subsidiary terminals comprise:

a second display displaying the content; and

a second controller controlling transmission/reception with the main terminal, the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and

wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the association information for identifying the content associated with the device specific ID information of the subsidiary terminal, then the subsidiary terminal reproduces the received content on the second display.

3. (Previously presented) The contents reproducing system according to claim 2,

wherein the main terminal includes a converter down-converting the content and transmits the down-converted content to the subsidiary terminal.

4. (Previously presented) The contents reproducing system according to claim 2, wherein the main terminal includes a network interface and acquires the content from an external server via the network interface.

5. (New) A contents reproducing system comprising:

a main terminal; first subsidiary terminal; and  
second subsidiary terminal,

wherein the main terminal comprises:

a storage storing the contents;

a first display displaying the contents; and

a first controller controlling transmission/reception with the first subsidiary terminal and the second subsidiary terminal,

wherein the first controller is configured to:

store first device specific identification (ID) information of the first subsidiary terminal and second device specific ID information of the second subsidiary terminal,

store first content information for identifying first content among the contents and second content information for identifying second content among the contents, and

store association information for transmitting one of the first content or the second content to one of the first subsidiary terminal or the second subsidiary terminal,

wherein the association information defines that one of the first content or the second content is associated with one of the first device specific ID information or the second device specific ID information,

wherein the first subsidiary terminal comprises:

a second display displaying the content; and

a second controller controlling transmission/reception with the main terminal, the second controller storing the first device specific ID information for identifying the first subsidiary terminal and transmitting the first device specific ID information to the main terminal when connecting to the main terminal,

wherein the second subsidiary terminal comprises:

a third display displaying the content; and

a third controller controlling transmission/reception with the main terminal, the third controller storing the second device specific ID information for identifying the second subsidiary terminal and transmitting the second device specific ID information to the main terminal when connecting to the main terminal, and wherein,

when the association information defines that the first content is associated with the first device specific ID information and the second content is associated with the second device specific ID information, the main terminal transmits the first

content to the first subsidiary terminal and transmits the second content to the second subsidiary terminal, and

when the association information defines that the second content is associated with the first device specific ID information and the first content is associated with the second device specific ID information, the main terminal transmits the second content to the first subsidiary terminal and transmits the first content to the second subsidiary terminal.

### **REMARKS**

Claims 2-5 are pending in this application. Claim 2 has been amended.

Claim 5 is new. No new matter has been added.

### **Rejections Under 35 U.S.C. § 103**

Claims 2-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Imada et al. (U.S. Pub. No. 20050155078) in view of Yuasa et al. (U.S. Pub. No. 20010019326) and Lee (U.S. Pub. No. 20050221826) and Reichman (U.S. Pub. No. 20070208789).

Applicants request reconsideration of the rejections in view of the foregoing amendments and for the following reasons.

Amended claim 2 sets forth:

A contents reproducing system comprising:  
a main terminal; and  
a plurality of subsidiary terminals,  
wherein the main terminal comprises:  
a storage storing the contents;  
a first display displaying the contents; and  
a first controller controlling transmission/reception with the  
subsidiary terminals,  
wherein the first controller is configured to:  
store a plurality of device specific identification (ID) information  
of the subsidiary terminals,  
store a plurality of content information for identifying each of the  
contents, and  
store association information for transmitting one of the contents  
to one of the subsidiary terminals,

wherein the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information,

wherein the plurality of subsidiary terminals comprise:

a second display displaying the content; and

a second controller controlling transmission/reception with the main terminal, the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and

wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the association information, then the subsidiary terminal reproduces the received content on the second display.

Accordingly, in claim 2, the first controller of the main terminal stores: a plurality of device specific identification (ID) information of the subsidiary terminals, a plurality of content information for identifying each of the contents, and association information for transmitting one of the contents to one of the subsidiary terminals. Claim 2 further sets forth that the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information. That is, claim 2 stores association information linking a device with content.

The combination of Imada et al., Yuasa et al, Lee and Reichman do not render claim 2 obvious. Imada et al. disclose a CATV system that includes a digital broadcasting transmitting unit 10, a digital broadcasting receiving unit (STB) 30 and a display 40 and a remote controller 70 connected to the STB 30. See Fig. 3. However, Imada et al. are silent with respect to disclosing “wherein the first controller



is configured to: store a plurality of device specific identification (ID) information of the subsidiary terminals, store a plurality of content information for identifying each of the contents, and store association information for transmitting one of the contents to one of the subsidiary terminals, [and] wherein the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information,” as set forth in claim 2. That is Imada et al. do not disclose the association information as set forth in claim 2.

Additionally, as acknowledged in the Office Action, Imada et al. also do not explicitly disclose wherein the main terminal comprises: a storage storing the content; a first controller controlling transmission/reception with the subsidiary terminals, the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted; and a second controller controlling transmission/reception with the main terminal, the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and wherein, the main equipment terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the information for identifying the content

associated with the device specific ID information of the subsidiary terminal, then the subsidiary terminal reproduces the received content on the second display.

Office Action, pp. 3-4.

Rather, Yuasa et al, Lee and Reichman and are relied upon for allegedly curing the deficiencies. According to Reichman (e.g., paras. [0037] – [0038] and [0046] – [0047]; Fig. 2), for example, the EPG content (Fig. 8) of the user ("Dad") can be used on both a PC (e.g., "device1") and a TV (e.g., "device2"). Further, Reichman also disclose "the user may access customized content via his/her EPG at any device identified in the account." Para. [0062]. When using the EPG, the user ("Dad") may perform an authentication operation using own user credential on the wants to use device (PC or TV).

Reichman discloses "the device identifier and user credentials are also received by authentication server 204 at step 250 ... [and] the device identifier is stored with the user credentials in the CIS database 212 at step 258." Para. [0046]. That is, in Reichman, the device ID is stored in association with user credentials, such as a PINs, user names and passwords. Reichman also discuss that

[t]he network convergence application 208 utilizes the user credentials and device identifiers in the network convergence service account to route a sign on request from respective devices to authentication server 204 for providing a single sign on credential.

Para. [0047]. Accordingly, Reichman disclose using the user credential and device ID in the account to route sign on requests to an authentication server 204. However, this is different from the claimed association information as set forth in claim 2. In

claim 2, the association information is for transmitting one of the contents to one of the subsidiary terminals. Also, claim 2 sets forth “the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information.” Reichman does not disclose the association information and does not disclose “store association information for transmitting one of the contents to one of the subsidiary terminals, [and] wherein the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information,” as set forth in claim 2.

Further, in the presently claimed invention, by using the association information, for example, it is possible to realize using different contents for each respective device, such as using EPG1 on a PC and EPG2 on a TV. Reichman does not disclose information to associate the content (EPG1 or EPG2) with the device (PC or TV). Further, Reichman also does not disclose transmission of the content to the subsidiary terminal based on the association information. That is, Reichman also does not disclose “wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the association information, then the subsidiary terminal reproduces the received content on the second display,” as set forth in claim 2.

Yuasa is discussed in the previous response. Similarly, in the system of Yuasa, there is no mention, for example, that the advertisement content is to be displayed on the second information display device 202 is displayed on the screen of

the first information display device 201, and the program content to be displayed on the screen of the first information display device 201 is displayed on the second information display device 202. Thus, the system of Yuasa is also silent respect to disclosing “wherein the first controller is configured to: store a plurality of device specific identification (ID) information of the subsidiary terminals, store a plurality of content information for identifying each of the contents, and store association information for transmitting one of the contents to one of the subsidiary terminals, wherein the association information defines that one of the contents identified by the content information is associated with one of the device specific ID information,” as set forth in claim 2. Yuasa also does not disclose “wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the association information, then the subsidiary terminal reproduces the received content on the second display,” as set forth in claim 2. Further, it is clear from the stated purpose of the disclosed system in Yuasa that such limitations of claim 2 are not considered in Yuasa.

Lee is relied upon for allegedly disclosing “a second controller controlling transmission/reception with the main terminal.” Office Action, p. 5. However, resort to Lee does not cure the deficiencies in Imada et al., Yuasa et al., or Reichman.

For at least the reasons presented herein, the cited combination of documents does not teach or suggest all of the elements of claim 2. Accordingly, Applicant submits that the cited combination of documents does not render independent claims

2 or 5 unpatentable, and respectfully requests that the Office withdraw the § 103 rejection of claims 2 and 5.

The presently pending dependent claims are also allowable over the cited combination of documents at least due to the dependency of these claims from an allowable base claim, as well as for the additional features that each recites. In view of the foregoing, Applicant respectfully requests that the Office withdraw the §103 rejection of the presently pending dependent claims.

#### **Request for Continued Examination**

Applicants submit a Request for Continued Examination to ensure entry and consideration of the foregoing amendments to the claims.

#### **Conclusion**

In view of the foregoing amendments and remarks, Applicants request reconsideration of the rejection and allowance of the claims.

Serial No. 16/855,012  
Amendment filed October 6, 2021  
Responsive to Office Action mailed April 7, 2021

The Commissioner is authorized to charge any shortage in the fees due, or credit any overpayment, to Deposit Account No. 50-1417 (referencing Attorney Docket No. SEI-12159-06).

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/  
John R. Mattingly  
Registration No. 30,293  
703-684-1120



# UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NO.                                                                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|----------------------------------------------------------------------------------|-------------|----------------------|-------------------------------|------------------|
| 16/855,012                                                                       | 04/22/2020  | Hideki Kamimaki      | SEI-12159-06                  | 6885             |
| 24956                                                                            | 7590        | 04/07/2021           |                               |                  |
| MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210<br>ALEXANDRIA, VA 22314 |             |                      | EXAMINER<br>SAINT CYR, JEAN D |                  |
|                                                                                  |             |                      | ART UNIT                      | PAPER NUMBER     |
|                                                                                  |             |                      | 2425                          |                  |
|                                                                                  |             |                      | NOTIFICATION DATE             | DELIVERY MODE    |
|                                                                                  |             |                      | 04/07/2021                    | 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):

ptomail@mmpiaw.com





***Notice of Pre-AIA or AIA Status***

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

**Response to arguments**

Applicant's arguments with respect to all pending claims have been fully considered, but they are not persuasive. Applicant argues that cited references failed to disclose wherein the main terminal comprises a first display displaying the content; a first controller controlling transmission/reception with the subsidiary terminals; the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted.

However, Imada et al show in fig.3 a receiving unit 30 representing a set top box and that receiving is connected to a television receiver 40 having a display 40a for displaying video content received from the set top box 30 and the television receiver 40 could be incorporated into the set top box 30 as a design choice(0021;0023).

And Yuasa et al show in fig.1 and fig.2 having a controller 104 for controlling the functions or operations of the device 202 and the controller is able to divide or separate the data received by the information receiver 103 into a first information data and second information data(0029;0035;0046-0048).

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And Reichman et al disclose a system for allowing users to register their device and each device is associated with an identifier. And there is an account associated with each user for allowing the system to provide contents to specific user device based on authentication and the system is able to track viewing history according to the identification associated with a device and the account associated with user(0047;0073;0064;0046;0062).

Based on that information, the cited references were combined properly to meet the limitations of the claims. And the rejection is considered to be reasonable and acceptable. Applicant filed a TD to overcome the double patenting rejection. This action is made final.

**Claims rejections-35 U.S.C. 103(a)**

The following is a quotation of pre-AIA 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 through the invention is not identically disclosed or described as set forth in section 102, 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 negated by the manner in which the invention was made.

Claims 2-4 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Imada (US.Pub.NO. 20050155078) et al in view of Yuasa et al, (US.Pub.NO. 20010019326) and Lee(US.Pub.No.20050221826) and Reichman(US.Pub.No.20070208789).

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Regarding claim 2, Imada et al disclose a contents reproducing system comprising: a main terminal(see fig.3, element 30, a digital broadcasting receiving unit, 0021);and

a plurality of subsidiary terminals(see fig.3, elements 70 and 40; the bidirectional remote controller 70 is constructed to be capable of receiving a content 13 exclusively used for remote controller transmitted from a remote-controller transceiver,0061; The television receiver 40 and the bidirectional remote controller 50 display the received contents on the respective displays 40A, 50A.,0031; see fig.3, element 40, a television receiver, 0021 );

a first display displaying the content(see fig.3, element 40, a television receiver, 0021); and

wherein the plurality of subsidiary terminals comprise: a second display displaying the content(see fig.3, element 50A; the bidirectional remote controller 50 includes a display 50A,0023).

But did not explicitly disclose wherein the main terminal comprises: a storage storing the content; a first controller controlling transmission/reception with the subsidiary terminals, the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted; and a second controller controlling transmission/reception with the

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main terminal, the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and wherein, the main equipment terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary terminal, then the subsidiary terminal reproduces the received content on the second display.

However, Yuasa et al disclose wherein the main terminal comprises: a storage storing the content; a first controller controlling transmission/reception with the subsidiary terminals (see fig.1 and fig.2 where there are a controller 104 for controlling the operation of the device 202 and a memory 105 for storing content or data; ; information controller 104 separates the data received by information receiver 103 into the first-information data and the second-information data and sorts the first- and second-information data out for the first- and second-information memories 105 and 107, respectively,0029; information receiver 103 receives the data set forth above, and information controller 104 sorts each information out and controls the first- and second-information memories 105 and 107 to store TV program data and advertisement data, respectively, and the first- and second-information display units 106 and 108 to display the TV program and the advertisement, respectively,0035;0043;0046-0048; for example, of the two display units the second-information display unit 108 having a reduced size

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for displaying information may be a display device enhanced in resolution, 0062-0063; 0052-0053).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Yuasa to modify Imada by storing content in the main receiver for the purpose of allowing users to access contents from local memory.

And Lee et al disclose a second controller controlling transmission/reception with the main terminal (see fig.1 with RF processor 14 and the controller 10 for receiving and outputting down-converted data; a controller 10 performs a general control operation for a mobile communication terminal and preferably includes a modem chip. A Radio Frequency (RF) processor 14 controlled by the controller 10 down-converts frequency bands of signals received from a network through radio channels of predetermined frequency bands by means of an antenna 12. Further, the RF processor 14 distinguishes the types of signals, and outputs the signals to the controller 10, 0026).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Lee to modify Imada and Yuasa by providing a RF-processor to the second content receiver for the purpose of improving capability of the system.

And Reichman et al disclose the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the

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content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted; the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and wherein, the main equipment terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary terminal, then the subsidiary equipment reproduces the received content on the second display (with Reichman, the system used smart card or SIM card for storing identifier of specific device and any device needs to be authenticated before accessing any content from the network; device identifier used to identify the communications device 214B may be a unique identifier (e.g., globally unique identifier (GUID), a MAC address, serial number, etc.) assigned to the set top box 216B during manufacture, 0044; 0040; 0045; authentication server 204 at step 250. At step 252, the user credentials and device identifier are authenticated. For example, the authentication server 204 determines if the user credentials stored in the network convergence service account (in storage device 210) are valid, 0046; 0062; the user credentials and device identifier are used to provide a single sign on for the user associated with the account. The network convergence application 208 utilizes the user credentials and device identifiers in the network convergence service account to route a sign on request from respective devices to authentication server 204, 0047, 0064; 0073 ).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Reichman to modify Imada and Yuasa and Lee by using device identifier and authentication technique for the purpose of providing contents to the users according to access levels.

Regarding claim 3, Imada and Yuasa and Reichman et al did not explicitly disclose wherein the main terminal includes a converter down-converting the content and transmits the down-converted content to the subsidiary terminal.

However, Lee et al disclose wherein the main terminal includes a converter down-converting the content and transmits the down-converted content to the subsidiary terminal(a controller 10 performs a general control operation for a mobile communication terminal and preferably includes a modem chip. A Radio Frequency (RF) processor 14 controlled by the controller 10 down-converts frequency bands of signals received from a network through radio channels of predetermined frequency bands by means of an antenna 12. Further, the RF processor 14 distinguishes the types of signals, and outputs the signals to the controller 10, 0026).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Lee to modify Imada and Yuasa and Reichman by providing a RF-processor to the second content receiver for the purpose of processing down-converted data accordingly.

Regarding claim 4, Imada et al disclose wherein the main terminal includes a network interface and acquires the content from an external server via the network interface(see fig3, element 10A; a CATV system transmission line 10A,0021;0029;0052).

### **Conclusions**

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN D SAINT CYR whose telephone number is (571)270-3224. The examiner can normally be reached on 9-5.

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>.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 5712727527. 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 <https://ppair-my.uspto.gov/pair/PrivatePair>. 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.

/JEAN D SAINT CYR/  
Examiner, Art Unit 2425

/Brian T Pendleton/  
Supervisory Patent Examiner, Art Unit 2425



|                                                                                                                 |                                              |                                                                   |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------|
| <b><i>Search Notes</i></b><br> | <b>Application/Control No.</b><br>16/855,012 | <b>Applicant(s)/Patent Under Reexamination</b><br>Kamimaki et al. |
|                                                                                                                 | <b>Examiner</b><br>JEAN D SAINT CYR          | <b>Art Unit</b><br>2425                                           |

| CPC - Searched*            |            |          |
|----------------------------|------------|----------|
| Symbol                     | Date       | Examiner |
| H04n21 and keywords search | 08/26/2020 | JDS      |
| Updated search             | 04/01/2021 | JDS      |

| CPC Combination Sets - Searched* |      |          |
|----------------------------------|------|----------|
| Symbol                           | Date | Examiner |
|                                  |      |          |

| US Classification - Searched* |          |      |          |
|-------------------------------|----------|------|----------|
| Class                         | Subclass | Date | Examiner |
|                               |          |      |          |

\* 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 |
| Keyword search        | 08/26/2020 | JDS      |
| Updated search        | 04/01/2021 | JDS      |
| Google scholar search | 04/01/2021 | JDS      |

| Interference Search |                       |      |          |
|---------------------|-----------------------|------|----------|
| US Class/CPC Symbol | US Subclass/CPC Group | Date | Examiner |
|                     |                       |      |          |

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| /JEAN D SAINT CYR/<br>Examiner, Art Unit 2425 |  |
|-----------------------------------------------|--|

## EAST Search History

### EAST Search History (Prior Art)

| Ref # | Hits   | Search Query                                                                                                                                                                                                                                                                                   | DBs                     | Default Operator | Plurals | Time Stamp       |
|-------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------------|---------|------------------|
| L1    | 62,045 | (H04N21/2543 or H04N21/43637 or H04N21/4122 or H04N21/478 or H04N21/488 or H04N7/163 or H04N21/4126 or H04N21/4341 or H04N21/4348 or H04N21/43615 or H04N21/440218 or H04N21/440263 or H04N21/4516 or H04N21/454 or H04N21/4884 or H04N21/8106 or H04N21/812 or H04N21/84 or H04N21/8586).cpc. | US-PGPU B; USPAT; USOCR | OR               | ON      | 2021/04/01 12:24 |
| L2    | 16,319 | L1 and ((user viewer subscriber) near4 (identifier ID identification))                                                                                                                                                                                                                         | US-PGPU B; USPAT; USOCR | OR               | ON      | 2021/04/01 12:24 |
| L3    | 18     | 2 and (master primary) near5 (transceiver set\$top\$box)                                                                                                                                                                                                                                       | US-PGPU B; USPAT; USOCR | OR               | ON      | 2021/04/01 12:28 |
| L4    | 13,173 | (home near5 network)same ((plurality various multiple) near5 (receiver terminal device unit))                                                                                                                                                                                                  | US-PGPU B; USPAT; USOCR | OR               | ON      | 2021/04/01 12:43 |
| L5    | 4,295  | ((display\$3 present\$3) near4 (video guide epq ipg adv commercial))near4 (remote near3 control\$4)                                                                                                                                                                                            | US-PGPU B; USPAT; USOCR | OR               | ON      | 2021/04/01 12:56 |
| L6    | 1,879  | 5 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                                | US-PGPU B; USPAT; USOCR | OR               | ON      | 2021/04/01 12:57 |

|    |        |                                                                       |                           |    |    |                  |
|----|--------|-----------------------------------------------------------------------|---------------------------|----|----|------------------|
| L7 | 488    | 6 and ((user viewer subscriber) near4 (identifier ID identification)) | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 12:57 |
| L8 | 67     | 7 and (home near3 network)                                            | US-PGPU B; USPA T; USOC R | OR | ON | 2021/04/01 12:58 |
| S1 | 48     | 725/11.ccls.                                                          | US-PGPU B; USPA T; USOC R | OR | ON | 2010/05/10 15:26 |
| S2 | 46     | S1 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))      | US-PGPU B; USPA T; USOC R | OR | ON | 2010/05/10 15:30 |
| S3 | 14     | S2 and (remote near6 display\$3)                                      | US-PGPU B; USPA T; USOC R | OR | ON | 2010/05/10 16:26 |
| S4 | 33,602 | (remote near4 control\$3) with (screen lcd display)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2010/05/10 16:39 |
| S5 | 18,780 | (remote near4 control\$3) near5 (screen lcd display)                  | US-PGPU B; USPA T; USOC R | OR | ON | 2010/05/10 16:39 |

|     |       |                                                                                                                                                                       |                                          |    |     |                         |
|-----|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----|-----|-------------------------|
| S6  | 2,303 | (remote near4 control\$3) near5 (identifier identification)                                                                                                           | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/10<br>16:40 |
| S7  | 1,554 | (remote near4 control\$3) with (user near5(identifier identification preference profile))                                                                             | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/10<br>16:41 |
| S8  | 124   | ((remote near4 control\$3)near6(lcd screen display))<br>with (user near5(identifier identification preference profile))                                               | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/10<br>16:43 |
| S9  | 92    | S8 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                   | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/10<br>16:43 |
| S10 | 11    | ("4392022"   "4508935"   "5138649"   "5671267"  <br>"5963624"   "6292172"   "6292210"   "6411891"  <br>"6516467"   "6567984"   "6570974").PN. OR<br>("7266834").URPN. | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2010/05<br>/10<br>17:17 |
| S11 | 1     | "4639779".pn.                                                                                                                                                         | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2010/05<br>/11<br>11:14 |
| S12 | 3,194 | fred.xa.                                                                                                                                                              | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/11<br>13:42 |

|     |       |                                                                                                                                                                       |                                          |    |     |                         |
|-----|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----|-----|-------------------------|
| S13 | 23    | "peng fred".xa.                                                                                                                                                       | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/11<br>13:44 |
| S14 | 2     | "20050155078"                                                                                                                                                         | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>11:59 |
| S18 | 1     | "7266834".pn.                                                                                                                                                         | USPA<br>T                                | OR | OFF | 2010/05<br>/17<br>13:05 |
| S19 | 11    | ("4392022"   "4508935"   "5138649"   "5671267"  <br>"5963624"   "6292172"   "6292210"   "6411891"  <br>"6516467"   "6567984"   "6570974").PN. OR<br>("7266834").URPN. | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2010/05<br>/17<br>13:07 |
| S20 | 1,490 | (remote near5 control\$4) with (lcd near4 (display<br>screen))                                                                                                        | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:30 |
| S21 | 17    | ((plurality multiple various)near3(remote near5<br>control\$4)) with (lcd near4 (display screen))                                                                     | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:31 |
| S22 | 480   | ((plurality multiple various)near3(remote near5<br>control\$4)) near6(display screen)                                                                                 | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:48 |
| S23 | 398   | S22 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                  | US-PGPU<br>B;<br>USPA<br>T;              | OR | ON  | 2010/05<br>/17<br>13:49 |

|     |     |                                                                                         |                                              |    |     |                         |
|-----|-----|-----------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|     |     |                                                                                         | USOC<br>R                                    |    |     |                         |
| S24 | 273 | S23 and (television tv)                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:49 |
| S25 | 51  | S24 and (user near4 (identifier identification))                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:52 |
| S26 | 48  | ("4546382"   "4930011"   "5155591"   "5497185"  <br>"5638113").PN. OR ("5721583").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2010/05<br>/17<br>14:40 |
| S27 | 2   | "20050155078"                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>16:37 |
| S28 | 1   | "5721583".pn.                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>16:49 |
| S29 | 1   | "7266834".pn.                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/18<br>11:09 |
| S30 | 2   | 10/861390                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON  | 2010/05<br>/18<br>12:36 |



|     |     |                                                                                                                                           |                                              |    |    |                         |
|-----|-----|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |     |                                                                                                                                           | USOC<br>R                                    |    |    |                         |
| S31 | 1   | 11/861390                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/05<br>/18<br>12:37 |
| S32 | 460 | ((plurality multiple various)near3(remote near5<br>control\$4)) near5 (display screen)                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:54 |
| S33 | 5   | S32 and ((primary master) near4(receiver terminal))                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:55 |
| S34 | 0   | S32 same((primary master) near4(receiver terminal))                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:57 |
| S35 | 0   | ((plurality multiple various)near3(remote near5<br>control\$4)) near5 (display screen))same((primary<br>master) near4(receiver terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:57 |
| S36 | 30  | ((plurality multiple various)near3(remote near5<br>control\$4)))same((primary master) near4(receiver<br>terminal))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:58 |
| S37 | 18  | S36 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2010/11<br>/06<br>13:59 |

|     |       |                                                                                                |                                              |    |    |                         |
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|     |       |                                                                                                | USOC<br>R                                    |    |    |                         |
| S38 | 5     | 725/105.ccls. and ((plurality various multiple) near5 (remote near4 controller))               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:05 |
| S39 | 12    | (home near5 network)same ((plurality various multiple) near5 (remote near4 controller))        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:08 |
| S40 | 25    | (home near5 network)same2 ((plurality various multiple) near5 (remote near4 controller))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:11 |
| S41 | 13    | S40 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:11 |
| S42 | 7,404 | (home near5 network)same2 ((plurality various multiple) near5 (receiver terminal device unit)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:17 |
| S43 | 3,245 | (home near5 network)same ((plurality various multiple) near5 (receiver terminal device unit))  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:18 |
| S44 | 2,655 | (home near5 network)same ((plurality various multiple) near3 (receiver terminal device unit))  | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2010/11<br>/06<br>14:18 |

|     |       |                                                                      |                                              |    |    |                         |
|-----|-------|----------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                      | USOC<br>R                                    |    |    |                         |
| S45 | 2,101 | S44 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927")) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:18 |
| S46 | 19    | S45 and (master primary) near5 (transceiver<br>set\$top\$box)        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:20 |
| S47 | 2     | "20050155078"                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:28 |
| S48 | 1     | "5721583".pn.                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:57 |
| S49 | 2     | "20050155078"                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/16<br>10:38 |
| S50 | 1     | "5721583".pn.                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/03<br>20:19 |
| S51 | 1     | "6567984".pn.                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/06<br>/04<br>11:34 |

|     |       |                                                                                    |                                              |    |    |                         |
|-----|-------|------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                    | USOC<br>R                                    |    |    |                         |
| S52 | 2     | "20050155078"                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>11:59 |
| S53 | 1     | "5721583".pn.                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>12:30 |
| S54 | 3,725 | "725"/\$.ccls. and ((primary first master) near5 (receiver stt stb set\$top\$box)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:00 |
| S55 | 405   | "725"/\$.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:01 |
| S56 | 322   | S55 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:02 |
| S57 | 14    | "725"/105.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:02 |
| S58 | 11    | "725"/78.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/06<br>/04<br>14:16 |

|     |         |                                                                                             |                           |    |    |                  |
|-----|---------|---------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
|     |         |                                                                                             | USOC<br>R                 |    |    |                  |
| S59 | 245,280 | ((remote near5 control\$4)or (input near3 device)) with (display screen)                    | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:44 |
| S60 | 164,921 | ((remote near5 control\$4)or (input near3 device)) near6 (display screen)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:45 |
| S61 | 163,487 | ((remote near3 control\$4)or (input near3 device)) near6 (display screen)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:45 |
| S62 | 6,240   | "725"/\$.ccls. and((remote near3 control\$4)or (input near3 device)) near6 (display screen) | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:46 |
| S63 | 5,030   | "725"/\$.ccls. and((remote near3 control\$4)or (input near3 device)) near4 (display screen) | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:46 |
| S64 | 3,525   | "725"/\$.ccls. and((remote near3 control\$4)) near4 (display screen)                        | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:47 |
| S65 | 141     | "725"/\$.ccls. and((remote near3 control\$4)) near4 ((led lcd)near4(display screen))        | US-PGPU B; USPA T;        | OR | ON | 2011/12/21 09:48 |

|     |       |                                                                                                        |                                              |    |    |                         |
|-----|-------|--------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                                        | USOC<br>R                                    |    |    |                         |
| S66 | 127   | S65 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>09:49 |
| S67 | 1,937 | ((display\$3 present\$3) near4 (video guide epg ipg adv<br>commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:11 |
| S68 | 1,670 | ((display\$3 present\$3) near3 (video guide epg ipg adv<br>commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:11 |
| S69 | 1,574 | ((display\$3 present\$3) near3 (video guide epg ipg adv<br>commercial))near4 (remote adj3 control\$4)  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:12 |
| S70 | 1,180 | S69 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:12 |
| S71 | 586   | S70 and ((primary first second) near4 (screen display))                                                | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:14 |
| S72 | 283   | S71 and ((primary first) near3 (broadcast stream<br>content video))                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/12<br>/21<br>10:16 |

|     |     |                                                                                                                                       |                                              |    |    |                         |
|-----|-----|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |     |                                                                                                                                       | USOC<br>R                                    |    |    |                         |
| S73 | 2   | "20050155078"                                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:48 |
| S74 | 1   | 11/861390                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>11:39 |
| S75 | 663 | ((plurality multiple various)near3(remote near5<br>control\$4)) near6(display screen)                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:56 |
| S76 | 463 | S75 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:58 |
| S77 | 326 | ((plurality multiple various)near3(remote near5<br>control\$4)) same ((display\$3 present\$3)near4 (video<br>commercial advertis\$5)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:59 |
| S78 | 252 | S77 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:00 |
| S79 | 76  | S78 and ((unique personal) near4 (identifier<br>identification))                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>14:06 |

|     |        |                                                                                                                                    |                                              |    |    |                         |
|-----|--------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |        |                                                                                                                                    | USOC<br>R                                    |    |    |                         |
| S80 | 4,536  | (remote near5 control\$4) with ((display\$3 present\$3)near4 (video commercial advertis\$5))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:18 |
| S81 | 17     | ((remote near5 control\$4) near3 (LCD LED))with ((display\$3 present\$3)near4 (video commercial advertis\$5))                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:19 |
| S82 | 47     | ((remote near5 control\$4) near3 (LCD LED))same ((display\$3 present\$3)near4 (video commercial advertis\$5))                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:22 |
| S83 | 43     | S82 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:23 |
| S84 | 12,953 | (remote near3 control\$4) same ((display\$3 present\$3)near4 (video commercial advertis\$5))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:28 |
| S85 | 11,441 | (remote near3 control\$4) same ((display\$3 present\$3)near3 (video commercial advertis\$5))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:29 |
| S86 | 2,283  | "725"/\$.ccls. and ((display\$3 present\$3)near3 (video commercial advertis\$5) near5 ((remote control)or (PDA cellphone laptop))) | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>14:32 |



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|-----|--------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |        |                                                                                                                                            | USOC<br>R                                    |    |    |                         |
| S87 | 1,729  | S86 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:32 |
| S88 | 328    | S86 and (unique near4 (identifier identification))                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:33 |
| S89 | 1,713  | "725"/\$.ccls. and ((display\$3 present\$3)near3 (video<br>commercial advertis\$5) near3 ((remote control)or (PDA<br>cell\$phone laptop))) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:36 |
| S90 | 182    | S86 and (unique adj (identifier identification))                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:36 |
| S91 | 114    | S90 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:37 |
| S92 | 2      | "20040117819"                                                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:55 |
| S93 | 12,780 | (remote near4 control\$4) with (talk\$3 speak\$3 sound)                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>15:10 |

|          |       |                                                          |                                              |    |    |                         |
|----------|-------|----------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |       |                                                          | USOC<br>R                                    |    |    |                         |
| S94      | 4,757 | (remote near4 control\$4) near3 (talk\$3 speak\$3 sound) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>15:10 |
| S95      | 1     | "20050166231"                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>15:31 |
| S96      | 1     | "20070152964"                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>15:37 |
| S97      | 2     | "20050155078"                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>17:01 |
| S98      | 1     | "7263712".pn.                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>17:54 |
| S99      | 2     | "20070124775"                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>17:55 |
| S10<br>0 | 1     | "6862741".pn.                                            | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>17:56 |

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|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | USOC<br>R                                    |    |     |                         |
| S10<br>1 | 70  | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:01 |
| S10<br>2 | 1   | "6567984".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:13 |
| S10<br>3 | 1   | "6064420".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:16 |
| S10<br>4 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/20<br>11:03 |
| S10<br>5 | 1   | "6862741".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/20<br>11:21 |
| S10<br>6 | 382 | 725/80.ccls. and ((second\$3 primary subsidiary)<br>near4(video content data stream))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA                    | OR | ON  | 2014/03<br>/30<br>13:22 |

|          |            |                                                                                                               |                                              |    |    |                         |
|----------|------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                               | T;<br>USOC<br>R                              |    |    |                         |
| S10<br>7 | 97         | 725/80.ccls. and ((second\$3 primary subsidiary) near4(video content data stream))and (stt stb set\$top\$box) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:23 |
| S10<br>8 | 65         | S107 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:24 |
| S10<br>9 | 17,47<br>7 | "725"/\$.ccls. and ((second\$3 subsidiary) near4(video content data stream))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:56 |
| S11<br>0 | 15,71<br>0 | "725"/\$.ccls. and ((second\$3 subsidiary) near3(video content data stream))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:56 |
| S11<br>1 | 3,555      | "725"/\$.ccls. and ((second\$3 subsidiary) near3(video content data stream))and (stt stb set\$top\$box)       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:57 |
| S11<br>2 | 1,738      | S111 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:57 |
| S11<br>3 | 1          | "8544049".pn.                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2014/04<br>/04<br>20:20 |

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|          |            |                                                                                                                                                                                                                                                                                                | USOC<br>R                                    |    |    |                         |
| S11<br>4 | 963        | "725"/\$.ccls. and (main near4 (receiver terminal stt stb set\$top\$box))                                                                                                                                                                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:21 |
| S11<br>5 | 456        | S114 and ((second\$3 subsidiary) near4 (content video vod commercial advertisement data))                                                                                                                                                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:22 |
| S11<br>6 | 90         | S114 and ((second\$3 subsidiary) near4 (content video vod commercial advertisement data))and ((user subscriber) near4 (identifier identification))                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:24 |
| S11<br>7 | 62         | S116 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:26 |
| S11<br>8 | 1          | "8544049".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:01 |
| S11<br>9 | 50,50<br>5 | (H04N21/2543 or H04N21/4126 or H04N21/488 or H04N21/478 or H04N21/4122 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/454 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/43637 or H04N21/4884).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:56 |
| S12<br>0 | 292        | ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)and S119                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>18:57 |

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|          |     |                                                                                            | USOC<br>R                                    |    |    |                         |
| S12<br>1 | 158 | S120 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:57 |
| S12<br>2 | 4   | S121 and ((primary master) near4(receiver terminal))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:59 |
| S12<br>3 | 48  | (home near5 network)same ((plurality various multiple)<br>near5 (remote near4 controller)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:00 |
| S12<br>4 | 5   | S123 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:04 |
| S12<br>6 | 2   | "20050155078"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:32 |
| S12<br>7 | 2   | "20070208789"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:59 |
| S12<br>8 | 1   | "20020194299"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>20:02 |

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|          |       |                                                                                                        | USOC<br>R                                    |    |    |                         |
| S12<br>9 | 2     | "20030007640"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:05 |
| S13<br>0 | 1     | "5721583".pn.                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:10 |
| S13<br>1 | 2     | "20050155078"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:12 |
| S13<br>2 | 1     | "20020137496"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:17 |
| S13<br>3 | 3,663 | ((display\$3 present\$3) near4 (video guide epg ipg adv<br>commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>4 | 63    | S133 and ((primary master) near4(receiver terminal))                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>5 | 41    | S134 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>20:20 |

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|          |            |                                                                                                                                                                                                                                                                                                | USOC<br>R                                    |    |    |                         |
| S13<br>6 | 2          | "20050155078"                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/28<br>13:58 |
| S13<br>7 | 1          | "6862741".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/28<br>14:48 |
| S13<br>8 | 53,02<br>4 | (H04N21/2543 or H04N21/43637 or H04N21/488 or H04N21/4122 or H04N21/478 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/4884 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/4126 or H04N21/454).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:02 |
| S13<br>9 | 9,553      | S138 and (user near4 (identifier identification))                                                                                                                                                                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:03 |
| S14<br>0 | 67         | S139 and ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:03 |
| S14<br>1 | 35         | S140 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:04 |
| S14<br>2 | 969        | ((pair\$3 synchroniz\$3)near3(tv television stt stb set\$top\$box))same(pda phone tablet mobile)                                                                                                                                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>14:58 |



|          |     |                                                                                                                                       |                                              |    |    |                         |
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|          |     |                                                                                                                                       | USOC<br>R                                    |    |    |                         |
| S14<br>3 | 63  | S142 and (down\$convert\$3)                                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>14:59 |
| S14<br>4 | 43  | S143 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:00 |
| S14<br>5 | 77  | S142 and ((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:11 |
| S14<br>6 | 7   | S145 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:11 |
| S14<br>7 | 32  | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))same ((convert\$3 modif\$4<br>chang\$3)near3(format bit\$rate)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:15 |
| S14<br>8 | 26  | S147 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:16 |
| S14<br>9 | 613 | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))same((mobile wireless)near3(device<br>receiver phone pda))      | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>15:36 |

|          |       |                                                                                                                                                                    |                                              |    |    |                         |
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|          |       |                                                                                                                                                                    | USOC<br>R                                    |    |    |                         |
| S15<br>0 | 19    | S149 and (down\$convert\$3)                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:37 |
| S15<br>1 | 9     | S150 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:37 |
| S15<br>2 | 9,622 | ((display\$3 present\$3 render\$3)near3(commercial<br>advertisement caption)same (wireless portable<br>mobile)near3(device receiver phone pda tablet<br>terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:52 |
| S15<br>3 | 75    | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))and S152                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:53 |
| S15<br>4 | 24    | S153 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:53 |
| S15<br>5 | 9,622 | ((display\$3 present\$3 render\$3)near3(commercial<br>advertisement caption)same (wireless portable<br>mobile)near3(device receiver phone pda tablet<br>terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>17:59 |
| S15<br>6 | 106   | S155 and (down\$convert\$3)                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>18:01 |

|          |             |                                                                                                                                        |                                              |    |    |                         |
|----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |             |                                                                                                                                        | USOC<br>R                                    |    |    |                         |
| S15<br>7 | 4           | S156 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:01 |
| S15<br>8 | 214,4<br>90 | S155 ((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:05 |
| S15<br>9 | 931         | S155 and((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>0 | 308         | S159 and (converter)                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>1 | 207         | S160 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>2 | 1           | S161 and ((embed\$4 insert\$3<br>mix\$3)near3(supplemental secondary<br>related)near3(video content data commercial<br>advertisement)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:10 |
| S16<br>3 | 7           | S161 and ((embed\$4 insert\$3<br>mix\$3)near3(supplemental secondary related))                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>18:11 |

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|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | USOC<br>R                                    |    |     |                         |
| S16<br>4 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/26<br>20:20 |
| S16<br>5 | 8   | ("2005/0155078").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | USPA<br>T                                    | OR | OFF | 2019/07<br>/26<br>20:22 |
| S16<br>6 | 7   | ("20020137496"   "20020150387"   "20050155078"  <br>"5721583"   "6862741"   "7266834").PN. OR<br>("8544049").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/26<br>20:34 |
| S16<br>7 | 123 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/26<br>21:22 |
| S16<br>8 | 2   | "20030208771"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:21 |
| S16<br>9 | 2   | "20040163106"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:25 |

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| S17<br>0 | 2 | "20050246746" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:26 |
| S17<br>1 | 2 | "20070124778" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:37 |
| S17<br>2 | 2 | "20060123126" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:40 |
| S17<br>3 | 1 | "7039116".pn. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:42 |
| S17<br>4 | 1 | "20040225894" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:43 |
| S17<br>5 | 2 | "20090204989" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:47 |
| S17<br>6 | 1 | "5666487".pn. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:53 |

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| S17<br>7 | 2   | "20060107302"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:57 |
| S17<br>8 | 1   | "8352986".pn.                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>22:11 |
| S17<br>9 | 1   | "20020137496"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>22:33 |
| S18<br>0 | 461 | ((pair\$3 synchroniz\$3) near3(tv television stt stb<br>set\$top\$box) near4(phone pda mobile tablet)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>10:58 |
| S18<br>1 | 54  | S180 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>10:59 |
| S18<br>2 | 970 | ((pair\$3 synchroniz\$3) near3(tv television stt stb<br>set\$top\$box))same(phone pda mobile tablet)   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>11:22 |
| S18<br>3 | 250 | S182 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>11:22 |

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| S184 | 161 | S183 and (commercial advertisement)                                                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>11:23 |
| S185 | 127 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))and ((display\$3 present\$3 render\$3)near3(commercial advertisement web)near3(phone pda mobile tablet)) | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>12:01 |
| S186 | 88  | S185 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>12:02 |
| S187 | 42  | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))same ((commercial advertisement web)near3(phone pda mobile tablet))                                      | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>12:53 |
| S188 | 15  | S187 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>12:53 |
| S189 | 527 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))and ((commercial advertisement web)near3(phone pda mobile tablet))                                       | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>12:55 |
| S190 | 245 | S189 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>12:55 |

|          |       |                                                                                                                                           |                                              |    |    |                         |
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| S19<br>1 | 741   | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same ((commercial advertisement web)near3(phone pda mobile tablet)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:51 |
| S19<br>2 | 22    | S191 and ((supplemental secondary)near3(content video data commercial avertisement))                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:53 |
| S19<br>3 | 3     | S192 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:53 |
| S19<br>4 | 227   | S191 and ((supplemental secondary))                                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:54 |
| S19<br>5 | 118   | S194 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:54 |
| S19<br>6 | 2,506 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))with((phone pda mobile tablet))                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:11 |
| S19<br>7 | 661   | S196 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:12 |



|          |     |                                                                                                                                                                                |                                              |    |    |                         |
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| S19<br>8 | 59  | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet))  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:15 |
| S19<br>9 | 12  | S198 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:16 |
| S20<br>0 | 930 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))and((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet))   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:19 |
| S20<br>1 | 294 | S200 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:20 |
| S20<br>2 | 417 | ((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet)) with(Tv television stt stb set\$top\$box)                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>16:39 |
| S20<br>3 | 147 | S202 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>16:39 |
| S20<br>4 | 6   | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same((chang\$3 modif\$4 convert\$3)near3(format compression encod\$3)near3(commercial ad advertisement)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>17:23 |

|      |     |                                                                                                                                                                                                                                                |                                          |    |     |                     |
|------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----|-----|---------------------|
| S205 | 3   | S204 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07/30<br>17:24 |
| S206 | 123 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))and((chang\$3 modif\$4 convert\$3)near3(format compression encod\$3)near3(commercial ad advertisement))                                                                  | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07/30<br>17:25 |
| S207 | 67  | S206 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07/30<br>17:26 |
| S208 | 1   | "6862741".pn.                                                                                                                                                                                                                                  | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07/30<br>19:39 |
| S209 | 1   | "20020137496"                                                                                                                                                                                                                                  | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07/30<br>20:00 |
| S210 | 2   | "20050155078"                                                                                                                                                                                                                                  | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07/30<br>20:02 |
| S211 | 8   | ("2005/0155078").URPN.                                                                                                                                                                                                                         | USPA<br>T                                | OR | OFF | 2019/07/30<br>20:07 |
| S212 | 123 | ("4115846"   "4697209"   "4706121"   "4751578"   "5151789"   "5353121"   "5410326"   "5500691"   "5532754"   "5550576"   "5559548"   "5614940"   "5625608"   "5629733"   "5635978"   "5657072"   "5686954"   "5689663"   "5699107"   "5706334" | US-PGPU<br>B;<br>USPA<br>T;              | OR | OFF | 2019/07/30<br>20:12 |

|          |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |    |     |                         |
|----------|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |    | "5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN.                                                                                                                                                                                                                                         | USOC<br>R                                    |    |     |                         |
| S21<br>3 | 64 | ("6862741").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | USPA<br>T                                    | OR | OFF | 2019/07<br>/30<br>20:19 |
| S21<br>4 | 59 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/30<br>20:21 |
| S21<br>5 | 1  | "20060268169"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>12:54 |
| S21<br>6 | 2  | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>13:28 |
| S21<br>7 | 2  | "20050221826"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>13:43 |

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|----------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
| S21<br>8 | 454   | (menu near3 (order hierachiz\$3))same ((user viewer view\$3)near3(preference history profile))                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:44 |
| S21<br>9 | 9,898 | ((provid\$3 present\$3 display\$3 render\$3) near3(commercial adv advertisement))same((viewer subscriber user)near3(preference profile favorite)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:48 |
| S22<br>0 | 14    | S218 and S219                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:48 |
| S22<br>1 | 1     | S220 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:49 |
| S22<br>2 | 4,813 | (menu near3 (order hierachiz\$3))and ((user viewer view\$3)near3(preference history profile))                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:49 |
| S22<br>3 | 211   | S219 and S222                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:50 |
| S22<br>4 | 139   | S223 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:50 |

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|----------|-------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
| S22<br>5 | 0     | (menu near3 hierachiz\$3)and ((user viewer view\$3)near3(preference history profile))                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>17:59 |
| S22<br>6 | 1,152 | (menu near3 (organiz\$3 placement hierachiz\$3))and ((user viewer view\$3)near3(preference history profile))              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:00 |
| S22<br>7 | 199   | S222 and S226                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:00 |
| S22<br>8 | 125   | S227 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:00 |
| S22<br>9 | 92    | S227 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and (pda tablet phone mobile)                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:07 |
| S23<br>0 | 381   | (menu near3 (organiz\$3 placement hierachiz\$3 hierarchical))same((user viewer view\$3)near3(preference history profile)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:19 |
| S23<br>1 | 53    | S230 and S219                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:20 |

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| S23<br>2 | 12         | S231 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and (pda tablet phone mobile)                                                                                                                                                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:20 |
| S23<br>3 | 3,929      | (menu near3 (organiz\$3 placement hierachiz\$3<br>hierarchical))and((user viewer view\$3)near3(preference<br>history profile))                                                                                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:23 |
| S23<br>4 | 129        | S219 and S233                                                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:23 |
| S23<br>5 | 0          | S234 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and ((multiple plurality)near3(pda tablet<br>phone mobile))                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:24 |
| S23<br>6 | 75         | S234 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and ((pda tablet wireless phone mobile))                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:25 |
| S23<br>7 | 60,06<br>7 | (H04N21/2543 or H04N21/43637 or H04N21/488 or<br>H04N21/4122 or H04N21/478 or H04N21/8586 or<br>H04N21/84 or H04N21/812 or H04N21/8106 or<br>H04N7/163 or H04N21/4884 or H04N21/4516 or<br>H04N21/440263 or H04N21/440218 or H04N21/43615<br>or H04N21/4348 or H04N21/4341 or H04N21/4126 or<br>H04N21/454).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:12 |
| S23<br>8 | 34,01<br>7 | S237 and ((primary master multiple plurality)<br>near4(receiver display device terminal))                                                                                                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:14 |

|      |        |                                                                                                 |                           |    |    |                  |
|------|--------|-------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S239 | 10,835 | S238 and ((device receiver terminal stt stb set\$top\$box) near4 (identifier identification))   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:16 |
| S240 | 2,580  | S239 and (converter down\$convert\$3)                                                           | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:18 |
| S241 | 1,706  | S240 and ((communication network)near3 interface)                                               | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:19 |
| S242 | 1,498  | S241 and (server)                                                                               | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:20 |
| S243 | 1,299  | S242 and (television tv)                                                                        | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:20 |
| S244 | 621    | S243 and ((user viewer) near4 (identifier identification))                                      | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:21 |
| S245 | 0      | S244 and (home near5 network)and ((plurality various multiple) near5 (remote near4 controller)) | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |

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|------|-----|---------------------------------------------------------------------------------------------------------------------------------|-------------------------|----|----|------------------|
| S246 | 248 | S244 and (home near5 network)                                                                                                   | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 15:22 |
| S247 | 83  | S246 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                              | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 15:22 |
| S248 | 717 | ((plurality multiple various)near3(remote near5 control\$4)) same ((display\$3 present\$3)near4 (video commercial advertis\$5)) | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 15:42 |
| S249 | 274 | S248 and (home near5 network)                                                                                                   | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 15:43 |
| S250 | 72  | S249 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                              | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 15:43 |
| S251 | 18  | S250 and (converter down\$convert\$3)                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 15:44 |
| S252 | 2   | "20010019326"                                                                                                                   | US-PGPU B; USPAT; USOCR | OR | ON | 2020/08/26 17:20 |



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|----------|---|---------------|----------------------------------------------|----|----|-------------------------|
| S25<br>3 | 1 | "20060268169" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:22 |
| S25<br>4 | 2 | "20010019326" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:24 |
| S25<br>5 | 2 | "20050155078" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:27 |
| S25<br>6 | 2 | "20050221826" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:31 |
| S25<br>7 | 1 | "20060268169" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:34 |
| S25<br>8 | 2 | "20070208789" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:35 |
| S25<br>9 | 2 | "20010019326" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:14 |

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| S26<br>0 | 2          | "20050221826"                                                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:34 |
| S26<br>1 | 2          | "20040261112"                                                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:38 |
| S26<br>2 | 62,04<br>5 | (H04N21/2543 or H04N21/43637 or H04N21/4122 or<br>H04N21/478 or H04N21/488 or H04N7/163 or<br>H04N21/4126 or H04N21/4341 or H04N21/4348 or<br>H04N21/43615 or H04N21/440218 or H04N21/440263<br>or H04N21/4516 or H04N21/454 or H04N21/4884 or<br>H04N21/8106 or H04N21/812 or H04N21/84 or<br>H04N21/8586).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2021/04<br>/01<br>10:28 |

4/1/2021 1:58:50 PM

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| <div>  </div>                                                                                                                      | <div> the first controller storing device specific ID information of the plurality of the subsidiary </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <div>  SIGN IN </div> |
| <div> Articles </div>                                                                                                                                                                                             | <div> About 3,770 results (0.25 sec) My profile My library </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                         |
| <div> Any time Since 2021 Since 2020 Since 2017 Custom range... Sort by relevance Sort by date <input type="checkbox"/> include patents <input checked="" type="checkbox"/> include citations Create alert </div> | <div> Recent patents on wireless capsule endoscopy A Moglia, <a href="#">A Mancias</a>, P Dario - Recent Patents on Biomedical ..., 2008 - ingentaconnect.com ... (3) for the screening of colorectal diseases and <b>initial</b> clinical tests ... The <b>first</b> competitor of Given Imaging was Olympus Corporation (Tokyo, Japan) which disclosed EndoCapsule at ... According to this invention, the capsule has an image capture <b>controller</b> with a "power <b>saving</b> ... Cited by 98 Related articles All 7 versions </div> <div> Programmable solid-state <b>storage</b> in future cloud datacenters J Do, <a href="#">S Sengupta</a>, <a href="#">S Swanson</a> - Communications of the ACM, 2019 - dl.acm.org ... For example: flash <b>controller</b> manufactured by Marvell, PMC (ac- quired by Microsemi), Sandforce (<b>acquired</b> ... Emerging SSDs include software-programmable <b>controllers</b> with multi-core proces- sors, built-in ... is given, compressed data required to answer the query is <b>first</b> loaded to ... Cited by 21 Related articles All 3 versions </div> | <div> [PDF] semanticscholar.org </div> <div> [PDF] acm.org Full Text @ USPTO-STIC </div>                |
|                                                                                                                                                                                                                   | <div> [HTML] Using <b>machine</b> vision to analyze and classify Caenorhabditis elegans behavioral phenotypes quantitatively JH Baek, <a href="#">P Qasman</a>, Z Feng, J Silver... - Journal of neuroscience ..., 2002 - Elsevier ... software computes the centroid of the worm and sends commands to the stage <b>controller</b> to re ... Shown are the feature measurement distributions for each of the six <b>initial</b> worm types analyzed in this ... In all cases, the box extends from the <b>first</b> quartile (25th percentiles) to the third ... Cited by 144 Related articles All 18 versions </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <div> [HTML] sciencedirect.com Full Text @ USPTO-STIC </div>                                            |
|                                                                                                                                                                                                                   | <div> [HTML] Internet of multimedia things: Vision and challenges SAAM, <a href="#">R Afzal</a>, <a href="#">GA Shah</a>, <a href="#">L Aizun</a>, <a href="#">W Mahmood</a> - Ad Hoc Networks, 2015 - Elsevier ... Additionally, the multimedia data requires high bandwidth and <b>storage</b> capacity, specifically the multimedia data ... Therein, <b>first</b> the detector value is sent to control center by the detector ... be utilized to facilitate multimedia acquisition and processing at the multimedia <b>device</b> in IoMT ... Cited by 182 Related articles All 7 versions </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <div> [HTML] sciencedirect.com Full Text @ USPTO-STIC </div>                                            |
|                                                                                                                                                                                                                   | <div> Autonomous energy-efficient wireless sensor network platform for home/office automation CS Abella, S Bonina, A Cucuccio... - IEEE Sensors ..., 2019 - ieeeexplore.ieee.org ... sensing and is also able to store, pre-process, transmit and receive data to a host <b>controller</b> ... 11b, starts approximately at 2 s. After <b>initial</b> sensor data acquisition, the supercapacitor is connected to the ... <b>First</b> of all, it is worth noting that the proposed sensor node is the only one ... Cited by 25 Related articles All 4 versions </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <div> [PDF] ieee.org Full Text @ USPTO-STIC </div>                                                      |
|                                                                                                                                                                                                                   | <div> Remote mobile health monitoring system based on smart phone and browser/server structure Y Zhang, H Liu, X Su, P Jiang, D Wei - Journal of healthcare ..., 2015 - hindawi.com ... Generally, it is a PDA or a micro-<b>controller</b> board that displays corresponding <b>information</b> or ... scenario, which allows wireless monitoring and tracking of patients and <b>first</b> responders ... These systems are unsuitable to continuously monitor and implement <b>initial</b> medical diagnosis ... Cited by 63 Related articles All 6 versions </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <div> [PDF] hindawi.com </div>                                                                          |
|                                                                                                                                                                                                                   | <div> Post-cloud computing paradigms: a survey and comparison Y Zhou, D Zhang, <a href="#">N Xiong</a> - Tsinghua Science and Technology, 2017 - ieeeexplore.ieee.org ... In IoT applications involving an actuator or <b>controller</b>, sensor data must be processed in real time for ... The definition we provide here is consistent with the <b>initial</b> presentation of fog computing ... The concept of MEC was <b>first</b> proposed by ETSI in September 2014[8]. Advocates of the ... Cited by 77 Related articles All 5 versions </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <div> [PDF] ieee.org </div>                                                                             |
|                                                                                                                                                                                                                   | <div> Future of IoT networks: A survey SK Lee, M Bae, <a href="#">H Kim</a> - Applied Sciences, 2017 - mdpi.com </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <div> [PDF] mdpi.com </div>                                                                             |

... Furthermore, the IoT environment is not specifically considered at the **device** level ... The result [28] for **first** two years is that the number and the quality of applications ... current WSN technology with the middleware to support heterogeneous **devices** and a centralized **storage** for the ...  
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[PDF] Artificial Metrics of Electric Devices and Their Applications

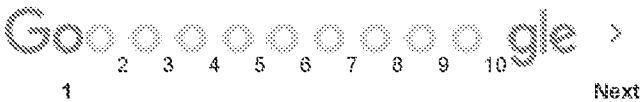
[PDF] core.ac.uk

情報研究, 関西大学総合情報学部紀要 - 2017 - core.ac.uk  
... Section 3 reports metrics on memory chips including **controllers** that are used for USB3.0 ... Section 5 describes encoding methods for **storing** metrics **information** in distributed **storage** systems ... **First**, a message is transformed into a pseudo- message by using an all-or-nothing ...  
Related articles   All 2 versions

[HTML] Privacy and the regulation of 2012

[HTML] sciencedirect.com

L Costa, Y Pouillet - Computer Law & Security Review, 2012 - Elsevier      Full Text @ USPTO-STIC  
... As regards the two **first** principles, the **first** one: 'Data protection by design' 8 is ... of notification, which was considered an administrative burden, its counterpart imposes on data **controllers** of a ... by a rule of territorial competence in the case of a data **controller** having **subsidiaries** in ...  
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the second controller storing device specific ID information for identifying the subsidiary

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Cages in tandem: Management control, social identity, and identification in a knowledge-intensive firm

[PDF] psu.edu

Full Text @ USPTO-STIC

D.Kärreman, M.Ahnesson - Organization, 2004 - journals.sagepub.com

... **Second**, work processes are standardized in work methodologies ... The premise is that experience can be codified and rationalized in a way that suits database **storage** and retrieval ... in the sense that this system exercises strong **control**, it may be perceived as a mental cage, made ...

Cited by 609 Related articles All 8 versions

[HTML] Biometric identification

[HTML] acm.org

Full View

A.Jain, L.Hong, S.Pankanti - Communications of the ACM, 2000 - dl.acm.org

... ATM application, for instance, it is desirable to accomplish the authentication within about one **second** ... The market of physical access **control** is currently dominated by token-based technology ... secu- rity, such as user authentication and access to data- bases via **remote** login is ...

Cited by 1242 Related articles All 14 versions

Person identification using multiple cues

[PDF] ieee.org

Full Text @ USPTO-STIC

R.Brunelli, D.Falavigna - ... on pattern analysis and machine ..., 1995 - ieexplore.ieee.org

... the detailed description, these constraints could be relaxed at the cost of **storing** a higher ... are considered, the centers of the pupils represent a natural set of **control** points that ... two acoustic and the three visual scores are combined simultaneously, while in the **second** the acoustic ...

Cited by 918 Related articles All 13 versions

[HTML] Information fusion in biometrics

[HTML] sciencedirect.com

Full Text @ USPTO-STIC

A.Ross, A.Jain - Pattern recognition letters, 2003 - Elsevier

... been plotted in a two-dimensional space representing the first and the **second** discriminant variables ... These weights can be learnt over time by examining the **stored** template of the user ... User **specific** weights also help address the problem of non-universality of biometric traits by ...

Cited by 2011 Related articles All 15 versions

From data acquisition to data fusion: a comprehensive review and a roadmap for the identification of activities of daily living using mobile devices

[PDF] mdpi.com

Full View

J.M.Pires, N.M.Garcia, N.Pombo, F.Florez-Revueña - Sensors, 2016 - mdpi.com

... EOG; EDA; Photoplethysmogram; Blood pressure and arterial tonometry; Respiration; Dosage **control**/detection; Stress ... selectivity values to modify the sequence in which the mobile **device** acquires data ... said that it is supported by some basic automated **storage** and retrieval ...

Cited by 122 Related articles All 16 versions

[PDF] PIOS: Detecting Privacy Leaks in iOS Applications.

[PDF] syssec-project.eu

M.Escala, C.Kruegel, E.Kirda, G.Vigna - NDSS, 2011 - syssec-project.eu

... Therefore, as a **second** source for type **information**, PIOS attempts to resolve the precise types of all ... the way in which iOS implements and han- dles user interactions implicitly disrupts **control** flow in ... iOS application has full read and write access to the address book **stored** on the ...

Cited by 667 Related articles All 19 versions

The'Dresden Image Database'for benchmarking digital image forensics

[PDF] acm.org

Full Text @ USPTO-STIC

T.Gloe, R.Röhme - Proceedings of the 2010 ACM Symposium on ..., 2010 - dl.acm.org

... Depending on the scope of the forensic method under study, sound research tries to **control** for as ... There are two main advantages of **storing** the calculated features ... **Second**, in **certain** cases the time-consuming re- implementation and feature extraction of alternative analy- sis ...

Cited by 539 Related articles All 6 versions

Community-acquired methicillin-resistant Staphylococcus

[HTML] jamanetwork.com

IPR2025-01308; Samsung

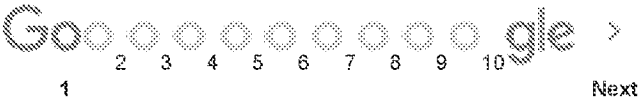
Ex. 1003 - Page 169

https://scholar.google.com/scholar?hl=en&as\_sdt=0,47&q=the+second+controller+storing+device+specific+ID+information+for+identifying+the+subsidiary&btnG=[4/1/2021 1:46:19 PM]

aureus in children with no **identified** predisposing risk Full View  
BC Herold, LC Immergluck, MC Maranan... - Jama, 1998 - jamanetwork.com  
... Infect **Control** Hosp Epidemiol.1994;15:646-651.Google Scholar. 29. Thompson RL, Cabezudo  
I, Wenzel RP ... Medical Coding; Medical **Devices** and **Equipment**; Medical Education; Medical  
Education and Training; Medical Journals and Publishing; Melanoma; ...  
Cited by 1746 Related articles All 13 versions

Mechanisms of **acquired** crizotinib resistance in ALK- [PDF] sciencemag.org  
rearranged lung cancers Full View  
R.Katayama, AT Shaw, TM Khan... - Science translational ..., 2012 -  
stm.sciencemag.org  
... Research ArticleCancer. Mechanisms of **Acquired** Crizotinib  
Resistance in ALK-Rearranged Lung Cancers ...  
Cited by 1158 Related articles All 16 versions

[HTML] A large focus of naturally **acquired** Plasmodium [HTML] sciencedirect.com  
knowlesi infections in human beings Full Text @ USPTO-STIC  
R.Singh, LK Sung, A Matusop, A Radhakrishnan... - The Lancet, 2004 - Elsevier  
... The region is hilly and largely covered by primary and **secondary** rainforest ... of PCR master mixes,  
DNA template preparation, addition of templates to first and **second** nests, and ... are zoonotic needs  
to be established so that proper malaria prevention and **control** measures can ...  
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## A discrete-time **terminal** sliding-mode control approach applied to a motion control problem

K. Abidi, J.K. Xu, J.H. Shu - IEEE Transactions on Industrial ..., 2008 -  
 ieeexplore.ieee.org

... The variation pattern of the second eigenvalue,  $\lambda_2$ , is opposite to the **first** eigenvalue as can be seen ... Now, since the eigenvalue also becomes smaller as the **controller** gain increases, the robustness and ... The tracking errors of both TSMC and PI **controllers** are shown in Fig.14 ...

Cited by 80 Related articles All 6 versions

[PDF] ieee.org

Full Text @ USPTO-STIC

## Requirement of salicylic acid for the induction of systemic **acquired** resistance

T. Gaffney, L. Friedrich, B. Vernooij, D. Negrotto... - ..., 1993 -  
 science.sciencemag.org

... The temperature **controller** used in the experiments is capable of millikelvin resolution and is ... To **determine** the effect of nahG gene expression on the accumulation of SA, we inoculated ... either oxidized to benzoic acid and then ortho-hydroxylated to SA or **first** hydroxylated and ...

Cited by 2047 Related articles All 18 versions

[PDF] sciencemag.org

Full Text @ USPTO-STIC

## [PDF] The organizational climate and employees' job satisfaction in the **Terminal** Operation Context of Kaohsiung Port

C. Tsai - The Asian Journal of Shipping and Logistics, 2014 - core.ac.uk

... keeper, yard or **terminal** machine drivers, tallies, custom broker, container yard **controller**, and document ... of the reliability is Cronbach's alpha value which was employed to **determine** whether the ... We **first** examined the effects of the control variables, type of company, education ...

Cited by 61 Related articles All 4 versions

[PDF] core.ac.uk

Full Text @ USPTO-STIC

## High-order sliding mode control design based on adaptive **terminal** sliding mode

WQ Tang, YL Cai - ... Journal of Robust and Nonlinear Control, 2013 - Wiley Online Library

... with the adaptive control method is proposed to design high-order sliding mode **controllers** for SISO ... Consider a Lyapunov function candidate as (22). The sliding variable 19 and its **first** time derivative ... 3.3 Adaptive **terminal** sliding mode **controller** design for integrator systems ...

Cited by 27 Related articles All 2 versions

## Designing inverters' current **controllers** with resonance frequencies cancellation

C. Cifro, P. Siano, C. Cecati - IEEE Transactions on Industrial ..., 2016 -  
 ieeexplore.ieee.org

... phase grid-connected converters, the implementation of PWM-based linear current **controllers** can be ... from the previous discussion, by reducing the LCL filter to a **first** order system ... horizontal discrete temporal axis, once **acquired** the sample  $u[h]$ , the **controller** individuates, in ...

Cited by 33 Related articles

[PDF] ieee.org

Full Text @ USPTO-STIC

## [HTML] Adaptive **terminal** sliding mode control for hypersonic flight vehicles with strictly lower convex function based nonlinear disturbance observer

Y. Wu, J. Zuo, L. Sun - ISA transactions, 2017 - Elsevier

... **First**, for the sake of enhancing the anti-interference capability, SDOB is presented to estimate ... for the air-breathing HFV in [12], in which parameters of the **controllers** are updated ... Similar to [12], another adaptive sliding mode **controller** based on **one** robust sliding manifold is put ...

Cited by 31 Related articles All 3 versions

[HTML] sciencedirect.com

Full Text @ USPTO-STIC

## Patterns of hypermetria and **terminal** cocontraction during point-to-point movements demonstrate independent action of trajectory and postural **controllers**

R.A. Schekel, C. Ghez, S. Asnani - Journal of neurophysiology, 2011 - journals.physiology.org

... 5. Journal home; Issues. Archive of all online **content**. December 2020. 1930s; 1940s; 1950s;

[HTML] physiology.org

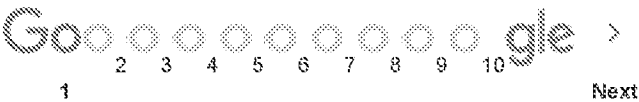
Full Text @ USPTO-STIC

1960s; 1970s; 1980s; 1990s; 2000s; 2010s; 2020s. 1938; ... August 2020. Pages 309-644. Volume 124, Issue 1 July 2020. Pages 1-307. Volume 123, Issue 6 June 2020. Pages 2099-2514 ...  
Cited by 21   Related articles   All 7 versions

[HTML] Corporate entrepreneurship in network organizations:: How **subsidiary** initiative drives internal market efficiency      [HTML] sciencedirect.com  
Full Text @ USPTO-STIC  
J.Burkinshaw - European Management Journal, 1998 - Elsevier  
... As Gordon Brown, the Greenock **controller** commented, "by extending the value chain and ... namely that reconfiguration initiatives rely exclusively on the **subsidiary** to **identify** the opportunity whereas bid ... They are suspicious in the **first** instance because it sounds like an oxymoron ...  
Cited by 149   Related articles   All 9 versions

Data-driven high-order **terminal** iterative learning control with a faster convergence speed      [PDF] researchgate.net  
R.Chi, B.Huang, Z.Hou, S.Jin - International Journal of Robust ..., 2016 - Wiley Online Library  
... for a high-order OTILC to outperform the low-order ones is **first** established by ... 7 by using additional **terminal** output errors in previous cycles; however, those **controllers** are designed ... neither unmodeled dynamics nor modeling error exists in the following learning **controller** design ...  
Cited by 25   Related articles   All 2 versions

[HTML] A fuzzy **controller** for maximum energy extraction from variable speed wind power generation systems      [HTML] sciencedirect.com  
Full Text @ USPTO-STIC  
V.Cakderazo, V.Galdi, A.Piccolo, P.Siano - Electric Power Systems ..., 2008 - Elsevier  
... voltages components  $V_{qr}$  and  $V_{dr}$ , obtained by two separate proportional integral (PI) **controllers** ...  $I_{qr\_ref}$  with a faster integration time, typically 10 times smaller than the **first** PI ... Specifically, the maximum power point tracking TSK fuzzy **controller** has two inputs and **one** output ...  
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**APPLICATION AS FILED - PART I**

| FOR                                                                        | (Column 1)<br>NUMBER FILED                                                                                                                                                                                                    | (Column 2)<br>NUMBER EXTRA | RATE (\$) | FEE (\$) |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|----------|
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))        | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m))       | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| TOTAL CLAIMS<br>(37 CFR 1.16(i))                                           | minus 20 = *                                                                                                                                                                                                                  |                            | x \$100 = |          |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))                                     | minus 3 = *                                                                                                                                                                                                                   |                            | x \$460 = |          |
| <input type="checkbox"/> 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). |                            |           |          |
| <input type="checkbox"/> 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     |          |

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|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------|-------|------------------------------------|---------------|------------------|---------------------|
| <b>AMENDMENT</b>                                                                                                                | 01/21/2021                                                                               | CLAIMS REMAINING AFTER AMENDMENT |       | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA |                  |                     |
|                                                                                                                                 | Total<br>(37 CFR 1.16(i))                                                                | * 3                              | Minus | ** 20                              | = 0           | x \$100 =        | 0                   |
|                                                                                                                                 | Independent<br>(37 CFR 1.16(h))                                                          | * 1                              | Minus | *** 3                              | = 0           | x \$480 =        | 0                   |
|                                                                                                                                 | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |                                  |       |                                    |               |                  |                     |
|                                                                                                                                 | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |                                  |       |                                    |               |                  |                     |
|                                                                                                                                 |                                                                                          |                                  |       |                                    |               | TOTAL ADD'L FEE  | 0                   |
| <b>AMENDMENT</b>                                                                                                                |                                                                                          | CLAIMS REMAINING AFTER AMENDMENT |       | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA |                  |                     |
|                                                                                                                                 | Total<br>(37 CFR 1.16(i))                                                                | *                                | Minus | **                                 | =             | x \$0 =          |                     |
|                                                                                                                                 | Independent<br>(37 CFR 1.16(h))                                                          | *                                | Minus | ***                                | =             | x \$0 =          |                     |
|                                                                                                                                 | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |                                  |       |                                    |               |                  |                     |
|                                                                                                                                 | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |                                  |       |                                    |               |                  |                     |
|                                                                                                                                 |                                                                                          |                                  |       |                                    |               | TOTAL ADD'L FEE  |                     |
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| Electronic Petition Request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>TERMINAL DISCLAIMER TO OBIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT</b> |                                                                         |
| Application Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 16855012                                                                                |                                                                         |
| Filing Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22-Apr-2020                                                                             |                                                                         |
| First Named Inventor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Hideki Kamimaki                                                                         |                                                                         |
| Attorney Docket Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SEI-12159-06                                                                            |                                                                         |
| Title of Invention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CONTENTS RECEIVING SYSTEM AND CLIENT                                                    |                                                                         |
| <input checked="" type="checkbox"/> Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action<br><br><input checked="" type="checkbox"/> This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                         |                                                                         |
| Owner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Percent Interest                                                                        |                                                                         |
| MAXELL, LTD.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 100%                                                                                    |                                                                         |
| <p>The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)</p> <p>8819747</p> <p>as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.</p> <p>In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:</p> <ul style="list-style-type: none"> <li>- expires for failure to pay a maintenance fee;</li> <li>- is held unenforceable;</li> <li>- is found invalid by a court of competent jurisdiction;</li> <li>- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;</li> <li>- has all claims canceled by a reexamination certificate;</li> <li>- is reissued; or</li> <li>- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.</li> </ul> <p><input checked="" type="radio"/> Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.</p> |                                                                                         |                                                                         |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <input type="radio"/> I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.                                                                                                                                                                                                                                                                                                                                                                                                                                              |                     |
| Applicant claims the following fee status:<br><br><input type="radio"/> Small Entity<br><br><input type="radio"/> Micro Entity<br><br><input checked="" type="radio"/> Regular Undiscounted                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |
| I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.                                                                                                                                                             |                     |
| THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES<br><br>I certify, in accordance with 37 CFR 1.4(d)(4) that I am:<br><br><input checked="" type="radio"/> An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application<br><br>Registration Number <u>30293</u><br><br><input type="radio"/> A sole inventor<br><br><input type="radio"/> A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application<br><br><input type="radio"/> A joint inventor; all of whom are signing this request |                     |
| Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | /John R. Mattingly/ |
| Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | John R. Mattingly   |

\*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).  
 Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

## Electronic Patent Application Fee Transmittal

|                                                    |                                        |                 |               |                             |
|----------------------------------------------------|----------------------------------------|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                         | 16855012                               |                 |               |                             |
| <b>Filing Date:</b>                                | 22-Apr-2020                            |                 |               |                             |
| <b>Title of Invention:</b>                         | CONTENTS RECEIVING SYSTEM AND CLIENT   |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>        | Hideki Kamimaki                        |                 |               |                             |
| <b>Filer:</b>                                      | John Roberts Mattingly/Krista Hargrove |                 |               |                             |
| <b>Attorney Docket Number:</b>                     | SEI-12159-06                           |                 |               |                             |
| Filed as Large Entity                              |                                        |                 |               |                             |
| <b>Filing Fees for Utility under 35 USC 111(a)</b> |                                        |                 |               |                             |
| <b>Description</b>                                 | <b>Fee Code</b>                        | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                               |                                        |                 |               |                             |
| STATUTORY OR TERMINAL DISCLAIMER                   | 1814                                   | 1               | 170           | 170                         |
| <b>Pages:</b>                                      |                                        |                 |               |                             |
| <b>Claims:</b>                                     |                                        |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                       |                                        |                 |               |                             |
| <b>Petition:</b>                                   |                                        |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>            |                                        |                 |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>           |                                        |                 |               |                             |

| Description        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|--------------------|----------|----------|--------|----------------------|
| Extension-of-Time: |          |          |        |                      |
| Miscellaneous:     |          |          |        |                      |
| Total in USD (\$)  |          |          |        | 170                  |

Doc Code: DISQ.E.FILE

Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 16855012

Filing Date: 22-Apr-2020

Applicant/Patent under Reexamination: Kamimaki

Electronic Terminal Disclaimer filed on January 21, 2021

☒ APPROVED

**This patent is subject to a terminal disclaimer**

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

## Electronic Acknowledgement Receipt

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| <b>EFS ID:</b>                              | 41701134                               |
| <b>Application Number:</b>                  | 16855012                               |
| <b>International Application Number:</b>    |                                        |
| <b>Confirmation Number:</b>                 | 6885                                   |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT   |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                        |
| <b>Customer Number:</b>                     | 24956                                  |
| <b>Filer:</b>                               | John Roberts Mattingly/Krista Hargrove |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                 |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                           |
| <b>Receipt Date:</b>                        | 21-JAN-2021                            |
| <b>Filing Date:</b>                         | 22-APR-2020                            |
| <b>Time Stamp:</b>                          | 11:57:46                               |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)            |

### Payment information:

|                                          |                  |
|------------------------------------------|------------------|
| Submitted with Payment                   | yes              |
| Payment Type                             | CARD             |
| Payment was successfully received in RAM | \$ 170           |
| RAM confirmation Number                  | E20211KB57413024 |
| Deposit Account                          | 501417           |
| Authorized User                          | Krista Hargrove  |

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37 CFR 1.21 (Miscellaneous fees and charges)

37 CFR 1.20 (Post Issuance fees)

IPR2025-01308; Samsung

37 CFR 1.19 (Document supply fees)  
 37 CFR 1.17 (Patent application and reexamination processing fees)  
 37 CFR 1.16 (National application filing, search, and examination fees)

## File Listing:

| Document Number | Document Description                   | File Name                | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
|-----------------|----------------------------------------|--------------------------|------------------------------------------|------------------|------------------|
| 1               | Terminal Disclaimer-Filed (Electronic) | eTerminal-Disclaimer.pdf | 33523                                    | no               | 2                |
|                 |                                        |                          | d60622682d6d0520ebec32b1103c1ae8443bd643 |                  |                  |

### Warnings:

### Information:

|   |                      |              |                                          |    |   |
|---|----------------------|--------------|------------------------------------------|----|---|
| 2 | Fee Worksheet (SB06) | fee-info.pdf | 30431                                    | no | 2 |
|   |                      |              | 37584b190dae881acaede6a05b437e3d8aff6cdb |    |   |

### Warnings:

### Information:

|                              |  |  |       |
|------------------------------|--|--|-------|
| Total Files Size (in bytes): |  |  | 63954 |
|------------------------------|--|--|-------|

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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.



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant : MAXELL, LTD.

Confirmation No.: 6885

Serial No. : 16/855,012

Filed : April 22, 2020

For : CONTENTS RECEIVING SYSTEM AND CLIENT

Group : 2425

Examiner : Jean D. Saint Cyr

Docket No. : SEI-12159-06

Customer No.: 24956

**AMENDMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

January 21, 2021

Sir:

In response to the Office Action mailed September 24, 2020, please amend the above-identified patent application as follows. A fee for a 1-month Extension of Time accompanies this response.

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

**Remarks / Arguments** are included following the amendments.

## Electronic Patent Application Fee Transmittal

|                                                       |                                        |                 |               |                             |
|-------------------------------------------------------|----------------------------------------|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                            | 16855012                               |                 |               |                             |
| <b>Filing Date:</b>                                   | 22-Apr-2020                            |                 |               |                             |
| <b>Title of Invention:</b>                            | CONTENTS RECEIVING SYSTEM AND CLIENT   |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>           | Hideki Kamimaki                        |                 |               |                             |
| <b>Filer:</b>                                         | John Roberts Mattingly/Krista Hargrove |                 |               |                             |
| <b>Attorney Docket Number:</b>                        | SEI-12159-06                           |                 |               |                             |
| Filed as Large Entity                                 |                                        |                 |               |                             |
| <b>Filing Fees for    Utility under 35 USC 111(a)</b> |                                        |                 |               |                             |
| <b>Description</b>                                    | <b>Fee Code</b>                        | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                                  |                                        |                 |               |                             |
| <b>Pages:</b>                                         |                                        |                 |               |                             |
| <b>Claims:</b>                                        |                                        |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                          |                                        |                 |               |                             |
| <b>Petition:</b>                                      |                                        |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>               |                                        |                 |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>              |                                        |                 |               |                             |
| <b>Extension-of-Time:</b>                             |                                        |                 |               |                             |

| Description                       | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|-----------------------------------|----------|----------|--------|----------------------|
| Extension - 1 month with \$0 paid | 1251     | 1        | 220    | 220                  |
| Miscellaneous:                    |          |          |        |                      |
| Total in USD (\$)                 |          |          |        | 220                  |

## Electronic Acknowledgement Receipt

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| <b>EFS ID:</b>                              | 41701115                               |
| <b>Application Number:</b>                  | 16855012                               |
| <b>International Application Number:</b>    |                                        |
| <b>Confirmation Number:</b>                 | 6885                                   |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT   |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                        |
| <b>Customer Number:</b>                     | 24956                                  |
| <b>Filer:</b>                               | John Roberts Mattingly/Krista Hargrove |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                 |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                           |
| <b>Receipt Date:</b>                        | 21-JAN-2021                            |
| <b>Filing Date:</b>                         | 22-APR-2020                            |
| <b>Time Stamp:</b>                          | 11:55:42                               |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)            |

### Payment information:

|                                          |                  |
|------------------------------------------|------------------|
| Submitted with Payment                   | yes              |
| Payment Type                             | CARD             |
| Payment was successfully received in RAM | \$ 220           |
| RAM confirmation Number                  | E20211KB56012989 |
| Deposit Account                          | 501417           |
| Authorized User                          | Krista Hargrove  |

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)

37 CFR 1.20 (Post Issuance fees)

IPR2025-01308; Samsung

Ex. 1003 - Page 184

37 CFR 1.19 (Document supply fees)  
37 CFR 1.17 (Patent application and reexamination processing fees)  
37 CFR 1.16 (National application filing, search, and examination fees)

# File Listing:

| Document Number              | Document Description                                  | File Name          | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
|------------------------------|-------------------------------------------------------|--------------------|------------------------------------------|------------------|------------------|
| 1                            |                                                       | 12159-06-AMD01.pdf | 78011                                    | yes              | 11               |
|                              |                                                       |                    | 5478f4a5d343e68c5cc3967c25291e310b77bcf2 |                  |                  |
|                              | Multipart Description/PDF files in .zip description   |                    |                                          |                  |                  |
|                              | Document Description                                  |                    | Start                                    | End              |                  |
|                              | Applicant Arguments/Remarks Made in an Amendment      |                    | 4                                        | 11               |                  |
|                              | Claims                                                |                    | 2                                        | 3                |                  |
|                              | Amendment/Req. Reconsideration-After Non-Final Reject |                    | 1                                        | 1                |                  |
| Warnings:                    |                                                       |                    |                                          |                  |                  |
| Information:                 |                                                       |                    |                                          |                  |                  |
| 2                            | Fee Worksheet (SB06)                                  | fee-info.pdf       | 30662                                    | no               | 2                |
|                              |                                                       |                    | 78578efd4192fd9649375cd80a966630271adfae |                  |                  |
| Warnings:                    |                                                       |                    |                                          |                  |                  |
| Information:                 |                                                       |                    |                                          |                  |                  |
| Total Files Size (in bytes): |                                                       |                    | 108673                                   |                  |                  |

**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.**

### **REMARKS**

Claims 2-4 are pending in this application. Claims 2-4 have been amended.  
No new matter has been added.

### **Claim for Priority**

Applicant appreciates the Examiner's acknowledgement of the claim for foreign priority and the safe receipt of the certified priority document.

### **Information Disclosure Statement**

Applicants appreciate the Examiner's consideration of the references submitted in the Information Disclosure Statement filed April 22, 2020.

### **Double Patenting Rejections**

Claim 2 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 8,819,747. A Terminal Disclaimer is being submitted with this Reply to overcome the rejection, without admitting to its propriety.

**Rejections Under 35 U.S.C. § 103**

Claims 2-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Imada et al. (U.S. Pub. No. 20050155078) in view of Yuasa et al. (U.S. Pub. No. 20010019326) and Lee (U.S. Pub. No. 20050221826) and Reichman (U.S. Pub. No. 20070208789).

Applicants request reconsideration of the rejections in view of the foregoing amendments and for the following reasons.

Amended claim 2 sets forth:

A contents reproducing system comprising:  
a main terminal; and  
a plurality of subsidiary terminals,  
wherein the main terminal comprises:  
a storage storing the content;  
a first display displaying the content; and  
a first controller controlling transmission/reception with the subsidiary terminals, the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted; and  
wherein the plurality of subsidiary terminals comprise:  
a second display displaying the content; and  
a second controller controlling transmission/reception with the main terminal, the second controller storing device specific ID information for identifying the subsidiary terminal and transmitting the device specific ID information to the main terminal when connecting to the main terminal, and  
wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary terminal, then the subsidiary terminal reproduces the received content on the second display.



The combination of Imada et al., Yuasa et al. Lee and Reichman do not render claim 2 obvious.

Imada et al. disclose a CATV system that includes a digital broadcasting transmitting unit 10, a digital broadcasting receiving unit (STB) 30 and a display 40 and a remote controller 70 connected to the STB 30. See Fig. 3. In rejecting claim 2, the Office Action compares the STB 30 with the main terminal of claim 2 and compares the display 40A and the remote controller 70 of Imada et al. with the plurality of subsidiary terminals of claim 2. The Office Action further compares the display 40A with the first display of claim 2.

However, the configuration in Imada et al. is different than the claimed configuration as set forth in claim 2. Imada et al. disclose a display 40A. However, the display 40A is not included in the STB 30. Accordingly, Imada et al. do not disclose “wherein the main terminal comprises: ... a first display displaying the content,” as claimed.

Further as acknowledged in the Office Action, Imada et al. do not disclose

wherein the main equipment includes: a storage storing the content; a first controller controlling transmission/reception with the subsidiary equipments, the first controller storing device specific ID information of the plurality of the subsidiary equipments, and storing a plurality of information for identifying the content to be transmitted to the subsidiary equipments in association with the device specific ID information;; and a second controller controlling transmission/reception with the main equipment, the second controller storing device specific ID information for identifying the subsidiary equipment and transmitting the device specific ID information to the main equipment when connecting to the main equipment, and wherein, the main equipment determines whether or not it is possible to connect to the subsidiary equipment storing the device specific ID information, and transmits the

content stored in the storage to the subsidiary equipment which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary equipment, then the subsidiary equipment reproduces the received content on the second display.

Office Action, I. 7. Rather, Yuasa et al. Reichman and Lee are relied upon for allegedly curing the deficiencies.

Yuasa et al. disclose that

information controller 104 separates the data received by information receiver 103 into the first-information data and the second-information data and sorts the first- and second-information data out for the first- and second-information memories 105 and 107, respectively.

Para. [0029]. In Yuasa et al.,

receiver 103 receives the data set forth above, and information controller 104 sorts each information out and controls the first- and second-information memories 105 and 107 to store TV program data and advertisement data, respectively, and the first- and second-information display units 106 and 108 to display the TV program and the advertisement, respectively.

Para. [0035]. Yuasa et al. further describe that

information controller 104 separates the data received by information receiver 103 into the first- and second-information data and sorts the first- and second-information data out for the first- and second-information memories 105 and 203, respectively.

[0047]

The first-information memory 105 stores the first-information data sorted by information controller 104 and the first-information display unit 106 displays the first-information data stored in the first-information memory 105.

[0048]

The second-information transmitter 203 transmits the second-information data sorted by information controller 104, to the second information display device 202 by wireless such as via an infrared ray.

Paras. [0046] – [0048].

However, Yuasa et al. do not disclose “a first controller controlling transmission/reception with the subsidiary terminals, the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted,” as claimed.

Reichman disclose that

[a]unique identifier provided in the SIM card 216C of the communications device 214C may be used as a device identifier by the network convergence application 208. In addition, the user may be asked to enter user credentials (e.g., user name and password associated with the account, or other account information) in order to authenticate the user with the host system 202. Likewise, at the time of provisioning, a user of communications device 214B may be prompted via set top box 216B and the display on communications device 214B to enter user credentials for authentication. The device identifier used to identify the communications device 214B may be a unique identifier (e.g., globally unique identifier (GUID), a MAC address, serial number, etc.) assigned to the set top box 216B during manufacture.

Para. [0045]. Reichman also disclose that an

[a]uthentication server 204 may be implemented using a high-speed processing device (e.g., a computer system) that is capable of handling high volume activities conducted via communications devices (e.g., communications devices 214A-214C), and other network entities (e.g., router 218A, server 218B, base station or cell tower 218C, etc.) via one or more networks (e.g., networks 206). Authentication server 204 receives requests from one or more communications devices 214A-214C either to establish a network convergence service account or to access network services (e.g., consolidated system services 106-118). Authentication server 204 may implement authentication software for restricting or controlling access to network services provided by the host system 202. Authentication server 204 may be in communication

with a customer identity system (CIS) database 212, which stores user credentials (e.g., user names and passwords) established via the network convergence application 208.

Para. [0040].

Accordingly, Reichman may describe a "device identifier" that is used for authentication process by "authentication server 204" together with "user credentials," as mentioned above. However, Reichman does not disclose "a first controller controlling transmission/reception with the subsidiary terminals, the first controller storing device specific ID information of the plurality of the subsidiary terminals, and storing a plurality of information for identifying the content associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted," as claimed. Reichman also fail to disclose "wherein, the main terminal determines whether it is possible to connect to the subsidiary terminal storing the device specific ID information, and transmits the content stored in the storage to the subsidiary terminal which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary terminal, then the subsidiary terminal reproduces the received content on the second display," as claimed.

For example, Reichman describes "EPG", which is one of the contents handled by the network system. See para. [0062] ("In this manner, the user may access customized content via his/her EPG at any device identified in the account.").

From this description, it is clear that the transmission of "EPG" content is not "device-specific" but "user-specific".

Further, Reichman also describes a "transmission address". See para. [0054] ("Further, the device identifier may then be used, along with the user's network address, or PPPoE address, provided in the account to designate a transmission address for distributing the customized content."). According to this description, the purpose of the network system to handle the "device identifier" is not to distinguish the content to be transmitted for each device but to specify the address to transmit the content. Therefore, although Reichman discloses the term "device identifier," it is not comparable to the device specific ID as set forth in claim 2 and the "device identifier" in Reichman is used differently than as set forth in claim 2.

Further, resort to Lee does not cure the deficiencies in Yuasa et al. and Reichman. For at least the reasons presented herein, the cited combination of documents does not teach or suggest all of the elements of claim 2. Accordingly, Applicant submits that the cited combination of documents does not render independent claim 2 unpatentable, and respectfully requests that the Office withdraw the § 103 rejection of claim 2.

The presently pending dependent claims are also allowable over the cited combination of documents at least due to the dependency of these claims from an allowable base claim, as well as for the additional features that each recites. In view of the foregoing, Applicant respectfully requests that the Office withdraw the §103 rejection of the presently pending dependent claims.

**Conclusion**

In view of the foregoing amendments and remarks, Applicants request reconsideration of the rejection and allowance of the claims.

The Commissioner is authorized to charge any shortage in the fees due, or credit any overpayment, to Deposit Account No. 50-1417 (referencing Attorney Docket No. SEI-12159-06).

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/  
John R. Mattingly  
Registration No. 30,293  
703-684-1120

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled).

2. (Currently amended) A contents reproducing system comprising:

a main ~~equipment~~ terminal; and

a plurality of subsidiary ~~equipments~~ terminals,

wherein the main ~~equipment~~ terminal ~~includes~~ comprises:

a storage storing the content;

a first display displaying the content; and

a first controller controlling transmission/reception with the subsidiary ~~equipments~~ terminals, the first controller storing device specific ID information of the plurality of the subsidiary ~~equipments~~ terminals, and storing a plurality of information for identifying the content ~~to be transmitted to the subsidiary equipments in association with the device specific ID information~~ associated with the device specific ID information of the subsidiary terminal, the plurality of information being used by the first controller to determine one of the subsidiary terminals to which the content is transmitted; and

wherein the plurality of subsidiary ~~equipments~~ terminals ~~include~~ comprise:

a second display displaying the content; and

a second controller controlling transmission/reception with the main ~~equipment terminal~~, the second controller storing device specific ID information for identifying the subsidiary ~~equipment terminal~~ and transmitting the device specific ID information to the main ~~equipment terminal~~ when connecting to the main-~~equipment terminal~~, and

wherein, the main ~~equipment terminal~~ determines whether ~~or not~~ it is possible to connect to the subsidiary ~~equipment terminal~~ storing the device specific ID information, and transmits the content stored in the storage to the subsidiary ~~equipment terminal~~ which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary ~~equipment terminal~~, then the subsidiary ~~equipment terminal~~ reproduces the received content on the second display.

3. (Currently amended) The contents reproducing system according to claim 2,

wherein the main ~~equipment terminal~~ includes a converter down-converting the content and transmits the down-converted content to the subsidiary-~~equipment terminal~~.

4. (Currently amended) The contents reproducing system according to claim 2,

wherein the main ~~equipment terminal~~ includes a network interface and acquires the content from an external server via the network interface.





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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 16/855,012      | 04/22/2020  | Hideki Kamimaki      | SEI-12159-06        | 6885             |

24956 7590 09/24/2020  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
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ALEXANDRIA, VA 22314

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| EXAMINER |
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SAINT CYR, JEAN D

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2425

|                   |               |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

09/24/2020

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):

ptomail@mmpiaw.com



### **DETAILED ACTION**

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

#### **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper time wise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claim 2 rejected on the ground of nonstatutory double patenting over claim 1 of US.

Patent No. 8819747.

The subject matter claimed in the instant application is fully disclosed in the referenced US. Patent and would be covered by any patent granted on that copending application since the referenced US. Patent and the instant application are claiming common subject matter, as follows:

| Current Application(16855012)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Patent Application(8819747)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. (New) A contents reproducing system comprising: a main equipment; and a plurality of subsidiary equipments, wherein the main equipment includes: a storage storing the content; a first display displaying the content; and a first controller controlling transmission/reception with the subsidiary equipments, the first controller storing device specific ID information of the plurality of the subsidiary equipments, and storing a plurality of information for identifying the content to be transmitted to the subsidiary equipments in association | 1. A contents receiving system comprising: a main receiving terminal including: a first receiving terminal configured to receive, from a broadcast wave or a network, a stream into which main content and subsidiary content are multiplexed; a separator configured to separate the received stream into the main content and the subsidiary content; a first output interface configured to output, as video and/or audio, the main content into which the separator has separated the received stream; and a transmission terminal configured to transmit, to the outside, the subsidiary |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>with the device specific ID information;<br/>and<br/>wherein the plurality of subsidiary equipments include: a second display displaying the content; and a second controller controlling transmission/reception with the main equipment, the second controller storing device specific ID information for identifying the subsidiary equipment and transmitting the device specific ID information to the main equipment when connecting to the main equipment, and<br/><br/>wherein, the main equipment determines whether or not it is possible to connect to the subsidiary equipment storing the device specific ID information, and transmits the content stored in the storage to the subsidiary equipment which can be connected, based on the information for identifying the content associated with the device specific ID</p> | <p>content into which the separator has separated the received stream, and a plurality of subsidiary receiving terminals, each of which has unique ID information, and each of which includes: a second receiving terminal configured to receive the subsidiary content transmitted from the transmission terminal of the main receiving terminal; and a second output interface configured to output the received subsidiary content as video and/or audio; wherein: the content receiving system is configured such that the transmission terminal of the main receiving terminal transmits the subsidiary content corresponding to ID information of each subsidiary receiving terminal to said each subsidiary receiving terminal; said each subsidiary receiving terminal is capable of being viewed the different kind of subsidiary content corresponding to said each subsidiary receiving terminal respectively, while the</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| information of the subsidiary equipment, then the subsidiary equipment reproduces the received content on the second display. | main receiving terminal is capable of being viewed the main content; each subsidiary receiving terminal receives a personalized subsidiary content, and outputs the video and/or audio of the personalized subsidiary content received from the main receiving terminal; and said each subsidiary receiving terminal acquires information from a website on a basis of URL information in association with the unique ID information and an identifier associated with a specific user. |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Claim 2 of the instant application is broader in every aspect than claim 1 of the US. Patent and is therefore an obvious variant thereof.

***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 through 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 negated by the manner in which the invention was made.

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Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Imada (US.Pub.NO. 20050155078) et al in view of Yuasa et al, (US.Pub.NO. 20010019326) and Lee(US.Pub.No.20050221826) and Reichman(US.Pub.No.20070208789).

Regarding claim 2, Imada et al disclose a contents reproducing system comprising: a main equipment(see fig.3, element 30, a digital broadcasting receiving unit, 0021); and

a plurality of subsidiary equipments(see fig.3, elements 70 and 40; the bidirectional remote controller 70 is constructed to be capable of receiving a content 13 exclusively used for remote controller transmitted from a remote-controller transceiver,0061; The television receiver 40 and the bidirectional remote controller 50 display the received contents on the respective displays 40A, 50A.,0031; see fig.3, element 40, a television receiver, 0021 );

a first display displaying the content(see fig.3, element 40, a television receiver, 0021);and

wherein the plurality of subsidiary equipments include: a second display displaying the content(see fig.3, element 50A; the bidirectional remote controller 50 includes a display 50A,0023).

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But did not explicitly disclose wherein the main equipment includes: a storage storing the content; a first controller controlling transmission/reception with the subsidiary equipments, the first controller storing device specific ID information of the plurality of the subsidiary equipments, and storing a plurality of information for identifying the content to be transmitted to the subsidiary equipments in association with the device specific ID information;; and a second controller controlling transmission/reception with the main equipment, the second controller storing device specific ID information for identifying the subsidiary equipment and transmitting the device specific ID information to the main equipment when connecting to the main equipment, and wherein, the main equipment determines whether or not it is possible to connect to the subsidiary equipment storing the device specific ID information, and transmits the content stored in the storage to the subsidiary equipment which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary equipment, then the subsidiary equipment reproduces the received content on the second display.

However, Yuasa et al disclose wherein the main equipment includes: a storage storing the content; a first controller controlling transmission/reception with the subsidiary equipments(see fig.1 and fig.2 where there are a controller 104 for controlling the operation of the device 202 and a memory 105 for storing content or data; ; Information controller 104 separates the data received by information receiver 103 into the first-information data and the second-information data and sorts the first- and second-information data out for the first- and second-information memories 105 and 107,



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respectively, 0029; Information receiver 103 receives the data set forth above, and information controller 104 sorts each information out and controls the first- and second-information memories 105 and 107 to store TV program data and advertisement data, respectively, and the first- and second-information display units 106 and 108 to display the TV program and the advertisement, respectively, 0035; 0043; 0046-0048; for example, of the two display units the second-information display unit 108 having a reduced size for displaying information may be a display device enhanced in resolution, 0062-0063; 0052-0053).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Yuasa to modify Imada by storing content in the main receiver for the purpose of improving viewing experience.

And Lee et al disclose a second controller controlling transmission/reception with the main equipment (see fig.1 with RF processor 14 and the controller 10 for receiving and outputting down-converted data; a controller 10 performs a general control operation for a mobile communication terminal and preferably includes a modem chip. A Radio Frequency (RF) processor 14 controlled by the controller 10 down-converts frequency bands of signals received from a network through radio channels of predetermined frequency bands by means of an antenna 12. Further, the RF processor 14 distinguishes the types of signals, and outputs the signals to the controller 10, 0026).

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It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Lee to modify Imada and Yuasa by providing a RF-processor to the second content receiver for the purpose of improving capability of the system.

And Reichman et al disclose the first controller storing device specific ID information of the plurality of the subsidiary equipments, and storing a plurality of information for identifying the content to be transmitted to the subsidiary equipments in association with the device specific ID information; the second controller storing device specific ID information for identifying the subsidiary equipment and transmitting the device specific ID information to the main equipment when connecting to the main equipment, and wherein, the main equipment determines whether or not it is possible to connect to the subsidiary equipment storing the device specific ID information, and transmits the content stored in the storage to the subsidiary equipment which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary equipment, then the subsidiary equipment reproduces the received content on the second display (with Reichman, the system used smart card or SIM card for storing identifier of specific device and any device needs to be authenticated before accessing any content from the network; device identifier used to identify the communications device 214B may be a unique identifier (e.g., globally unique identifier (GUID), a MAC address, serial number, etc.) assigned to the set top box 216B during manufacture, 0044; 0040; 0045; authentication server 204 at step 250. At step 252, the user credentials and device identifier are authenticated. For example,

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the authentication server 204 determines if the user credentials stored in the network convergence service account (in storage device 210) are valid, 0046; 0062).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Reichman to modify Imada and Yuasa and Lee by using device identifier and authentication technique for the purpose of making the system safer against unauthorized users.

Regarding claim 3, Imada and Yuasa and Reichman et al did not explicitly disclose wherein the main equipment includes a converter down-converting the content and transmits the down-converted content to the subsidiary equipment.

However, Lee et al disclose wherein the main equipment includes a converter down-converting the content and transmits the down-converted content to the subsidiary equipment(a controller 10 performs a general control operation for a mobile communication terminal and preferably includes a modem chip. A Radio Frequency (RF) processor 14 controlled by the controller 10 down-converts frequency bands of signals received from a network through radio channels of predetermined frequency bands by means of an antenna 12. Further, the RF processor 14 distinguishes the types of signals, and outputs the signals to the controller 10, 0026).

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It would have been obvious for any person of ordinary skill in the art at that time the invention was made to incorporate the teaching of Lee to modify Imada and Yuasa and Reichman by providing a RF-processor to the second content receiver for the purpose of processing down-converted data accordingly.

Regarding claim 4, Imada et al disclose wherein the main equipment includes a network interface and acquires the content from an external server via the network interface(see fig3, element 10A; a CATV system transmission line 10A,0021;0029).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application 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

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automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

/JEAN Duclos SAINT CYR/

Examiner, Art Unit 2425

/Brian T Pendleton/

Supervisory Patent Examiner, Art Unit 2425

|                                          |                                       |  |                                                               |             |
|------------------------------------------|---------------------------------------|--|---------------------------------------------------------------|-------------|
| <b><i>Notice of References Cited</i></b> | Application/Control No.<br>16/855,012 |  | Applicant(s)/Patent Under<br>Reexamination<br>Kamimaki et al. |             |
|                                          | Examiner<br>JEAN D SAINT CYR          |  | Art Unit<br>2425                                              | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name             | CPC Classification | US Classification |
|---|---|--------------------------------------------------|-----------------|------------------|--------------------|-------------------|
| * | A | US-20070208789-A1                                | 09-2007         | Reichman; Andrew | H04N21/25883       | 1/1               |
| * | B | US-20050221826-A1                                | 10-2005         | Lee, Hyun-Jeong  | H04L65/80          | 455/436           |
| * | C | US-20050155078-A1                                | 07-2005         | Imada, Hiroshi   | H04N21/4126        | 725/114           |
| * | D | US-20010019326-A1                                | 09-2001         | Yuasa, Natsuki   | H04H20/08          | 345/204           |
|   | E |                                                  |                 |                  |                    |                   |
|   | F |                                                  |                 |                  |                    |                   |
|   | G |                                                  |                 |                  |                    |                   |
|   | H |                                                  |                 |                  |                    |                   |
|   | I |                                                  |                 |                  |                    |                   |
|   | J |                                                  |                 |                  |                    |                   |
|   | K |                                                  |                 |                  |                    |                   |
|   | L |                                                  |                 |                  |                    |                   |
|   | M |                                                  |                 |                  |                    |                   |

**FOREIGN PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>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.



|                                                                                                                 |                                              |                                                                   |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------|
| <b><i>Search Notes</i></b><br> | <b>Application/Control No.</b><br>16/855,012 | <b>Applicant(s)/Patent Under Reexamination</b><br>Kamimaki et al. |
|                                                                                                                 | <b>Examiner</b><br>JEAN D SAINT CYR          | <b>Art Unit</b><br>2425                                           |

|                            |             |                 |
|----------------------------|-------------|-----------------|
| <b>CPC - Searched*</b>     |             |                 |
| <b>Symbol</b>              | <b>Date</b> | <b>Examiner</b> |
| H04n21 and keywords search | 08/26/2020  | JDS             |

|                                         |             |                 |
|-----------------------------------------|-------------|-----------------|
| <b>CPC Combination Sets - Searched*</b> |             |                 |
| <b>Symbol</b>                           | <b>Date</b> | <b>Examiner</b> |
|                                         |             |                 |

|                                      |                 |             |                 |
|--------------------------------------|-----------------|-------------|-----------------|
| <b>US Classification - Searched*</b> |                 |             |                 |
| <b>Class</b>                         | <b>Subclass</b> | <b>Date</b> | <b>Examiner</b> |
|                                      |                 |             |                 |

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

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|---------------------|-------------|-----------------|
| <b>Search Notes</b> |             |                 |
| <b>Search Notes</b> | <b>Date</b> | <b>Examiner</b> |
| Keyword search      | 08/26/2020  | JDS             |

|                            |                              |             |                 |
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| <b>Interference Search</b> |                              |             |                 |
| <b>US Class/CPC Symbol</b> | <b>US Subclass/CPC Group</b> | <b>Date</b> | <b>Examiner</b> |
|                            |                              |             |                 |

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|-----------------------------------------------|--|
| /JEAN D SAINT CYR/<br>Examiner, Art Unit 2425 |  |
|-----------------------------------------------|--|



## EAST Search History

### EAST Search History (Prior Art)

| Ref # | Hits   | Search Query                                                     | DBs                     | Default Operator | Plurals | Time Stamp       |
|-------|--------|------------------------------------------------------------------|-------------------------|------------------|---------|------------------|
| S1    | 48     | 725/11.ccls.                                                     | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 15:26 |
| S2    | 46     | S1 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927")) | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 15:30 |
| S3    | 14     | S2 and (remote near6 display\$3)                                 | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:26 |
| S4    | 33,602 | (remote near4 control\$3) with (screen lcd display)              | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:39 |
| S5    | 18,780 | (remote near4 control\$3) near5 (screen lcd display)             | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:39 |
| S6    | 2,303  | (remote near4 control\$3) near5 (identifier identification)      | US-PGPU B; USPAT; USOCR | OR               | ON      | 2010/05/10 16:40 |

|     |       |                                                                                                                                                              |                           |    |     |                  |
|-----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|-----|------------------|
| S7  | 1,554 | (remote near4 control\$3) with (user near5(identifier identification preference profile))                                                                    | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/10 16:41 |
| S8  | 124   | ((remote near4 control\$3)near6(lcd screen display)) with (user near5(identifier identification preference profile))                                         | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/10 16:43 |
| S9  | 92    | S8 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/10 16:43 |
| S10 | 11    | ("4392022"   "4508935"   "5138649"   "5671267"   "5963624"   "6292172"   "6292210"   "6411891"   "6516467"   "6567984"   "6570974").PN. OR ("7266834").URPN. | US-PGPU B; USPA T; USOC R | OR | OFF | 2010/05/10 17:17 |
| S11 | 1     | "4639779".pn.                                                                                                                                                | US-PGPU B; USPA T; USOC R | OR | OFF | 2010/05/11 11:14 |
| S12 | 3,194 | fred.xa.                                                                                                                                                     | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/11 13:42 |
| S13 | 23    | "peng fred".xa.                                                                                                                                              | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05/11 13:44 |

|     |       |                                                                                                                                                              |                           |    |     |                   |
|-----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|-----|-------------------|
| S14 | 2     | "20050155078"                                                                                                                                                | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 11:59 |
| S18 | 1     | "7266834".pn.                                                                                                                                                | USPA T                    | OR | OFF | 2010/05 /17 13:05 |
| S19 | 11    | ("4392022"   "4508935"   "5138649"   "5671267"   "5963624"   "6292172"   "6292210"   "6411891"   "6516467"   "6567984"   "6570974").PN. OR ("7266834").URPN. | US-PGPU B; USPA T; USOC R | OR | OFF | 2010/05 /17 13:07 |
| S20 | 1,490 | (remote near5 control\$4) with (lcd near4 (display screen))                                                                                                  | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:30 |
| S21 | 17    | ((plurality multiple various)near3(remote near5 control\$4)) with (lcd near4 (display screen))                                                               | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:31 |
| S22 | 480   | ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)                                                                           | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:48 |
| S23 | 398   | S22 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                            | US-PGPU B; USPA T; USOC R | OR | ON  | 2010/05 /17 13:49 |
| S24 | 273   | S23 and (television tv)                                                                                                                                      | US-PGPU B; USPA T;        | OR | ON  | 2010/05 /17 13:49 |

|     |    |                                                                                         |                                              |    |     |                         |
|-----|----|-----------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|     |    |                                                                                         | USOC<br>R                                    |    |     |                         |
| S25 | 51 | S24 and (user near4 (identifier identification))                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>13:52 |
| S26 | 48 | ("4546382"   "4930011"   "5155591"   "5497185"  <br>"5638113").PN. OR ("5721583").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2010/05<br>/17<br>14:40 |
| S27 | 2  | "20050155078"                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>16:37 |
| S28 | 1  | "5721583".pn.                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/17<br>16:49 |
| S29 | 1  | "7266834".pn.                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/18<br>11:09 |
| S30 | 2  | 10/861390                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2010/05<br>/18<br>12:36 |
| S31 | 1  | 11/861390                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON  | 2010/05<br>/18<br>12:37 |

|     |     |                                                                                                                                     |                                              |    |    |                         |
|-----|-----|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |     |                                                                                                                                     | USOC<br>R                                    |    |    |                         |
| S32 | 460 | ((plurality multiple various)near3(remote near5 control\$4)) near5 (display screen)                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:54 |
| S33 | 5   | S32 and ((primary master) near4(receiver terminal))                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:55 |
| S34 | 0   | S32 same((primary master) near4(receiver terminal))                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:57 |
| S35 | 0   | ((plurality multiple various)near3(remote near5 control\$4)) near5 (display screen))same((primary master) near4(receiver terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:57 |
| S36 | 30  | ((plurality multiple various)near3(remote near5 control\$4)))same((primary master) near4(receiver terminal))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:58 |
| S37 | 18  | S36 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>13:59 |
| S38 | 5   | 725/105.ccls. and ((plurality various multiple) near5 (remote near4 controller))                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2010/11<br>/06<br>14:05 |

|     |       |                                                                                                |                                              |    |    |                         |
|-----|-------|------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                                | USOC<br>R                                    |    |    |                         |
| S39 | 12    | (home near5 network)same ((plurality various multiple) near5 (remote near4 controller))        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:08 |
| S40 | 25    | (home near5 network)same2 ((plurality various multiple) near5 (remote near4 controller))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:11 |
| S41 | 13    | S40 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:11 |
| S42 | 7,404 | (home near5 network)same2 ((plurality various multiple) near5 (receiver terminal device unit)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:17 |
| S43 | 3,245 | (home near5 network)same ((plurality various multiple) near5 (receiver terminal device unit))  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:18 |
| S44 | 2,655 | (home near5 network)same ((plurality various multiple) near3 (receiver terminal device unit))  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:18 |
| S45 | 2,101 | S44 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2010/11<br>/06<br>14:18 |

|     |    |                                                               |                                              |    |    |                         |
|-----|----|---------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |    |                                                               | USOC<br>R                                    |    |    |                         |
| S46 | 19 | S45 and (master primary) near5 (transceiver<br>set\$top\$box) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:20 |
| S47 | 2  | "20050155078"                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:28 |
| S48 | 1  | "5721583".pn.                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/06<br>14:57 |
| S49 | 2  | "20050155078"                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2010/11<br>/16<br>10:38 |
| S50 | 1  | "5721583".pn.                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/03<br>20:19 |
| S51 | 1  | "6567984".pn.                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>11:34 |
| S52 | 2  | "20050155078"                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/06<br>/04<br>11:59 |

|     |         |                                                                                    |                                              |    |    |                         |
|-----|---------|------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |         |                                                                                    | USOC<br>R                                    |    |    |                         |
| S53 | 1       | "5721583".pn.                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>12:30 |
| S54 | 3,725   | "725"/\$.ccls. and ((primary first master) near5 (receiver stt stb set\$top\$box)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:00 |
| S55 | 405     | "725"/\$.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:01 |
| S56 | 322     | S55 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:02 |
| S57 | 14      | "725"/105.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:02 |
| S58 | 11      | "725"/78.ccls. and ((primary master) near3 (receiver stt stb set\$top\$box))       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/06<br>/04<br>14:16 |
| S59 | 245,280 | ((remote near5 control\$4)or (input near3 device)) with (display screen)           | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/12<br>/21<br>09:44 |



|     |         |                                                                                             |                           |    |    |                  |
|-----|---------|---------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
|     |         |                                                                                             | USOC<br>R                 |    |    |                  |
| S60 | 164,921 | ((remote near5 control\$4)or (input near3 device)) near6 (display screen)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:45 |
| S61 | 163,487 | ((remote near3 control\$4)or (input near3 device)) near6 (display screen)                   | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:45 |
| S62 | 6,240   | "725"/\$.ccls. and((remote near3 control\$4)or (input near3 device)) near6 (display screen) | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:46 |
| S63 | 5,030   | "725"/\$.ccls. and((remote near3 control\$4)or (input near3 device)) near4 (display screen) | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:46 |
| S64 | 3,525   | "725"/\$.ccls. and((remote near3 control\$4)) near4 (display screen)                        | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:47 |
| S65 | 141     | "725"/\$.ccls. and((remote near3 control\$4)) near4 ((led lcd)near4(display screen))        | US-PGPU B; USPA T; USOC R | OR | ON | 2011/12/21 09:48 |
| S66 | 127     | S65 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                           | US-PGPU B; USPA T;        | OR | ON | 2011/12/21 09:49 |

|     |       |                                                                                                     |                                              |    |    |                         |
|-----|-------|-----------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                                     | USOC<br>R                                    |    |    |                         |
| S67 | 1,937 | ((display\$3 present\$3) near4 (video guide epg ipg adv commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:11 |
| S68 | 1,670 | ((display\$3 present\$3) near3 (video guide epg ipg adv commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:11 |
| S69 | 1,574 | ((display\$3 present\$3) near3 (video guide epg ipg adv commercial))near4 (remote adj3 control\$4)  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:12 |
| S70 | 1,180 | S69 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:12 |
| S71 | 586   | S70 and ((primary first second) near4 (screen display))                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:14 |
| S72 | 283   | S71 and ((primary first) near3 (broadcast stream content video))                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>10:16 |
| S73 | 2     | "20050155078"                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2011/12<br>/21<br>10:48 |

|     |       |                                                                                                                                       |                                              |    |    |                         |
|-----|-------|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |       |                                                                                                                                       | USOC<br>R                                    |    |    |                         |
| S74 | 1     | 11/861390                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2011/12<br>/21<br>11:39 |
| S75 | 663   | ((plurality multiple various)near3(remote near5<br>control\$4)) near6(display screen)                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:56 |
| S76 | 463   | S75 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:58 |
| S77 | 326   | ((plurality multiple various)near3(remote near5<br>control\$4)) same ((display\$3 present\$3)near4 (video<br>commercial advertis\$5)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>13:59 |
| S78 | 252   | S77 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:00 |
| S79 | 76    | S78 and ((unique personal) near4 (identifier<br>identification))                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:06 |
| S80 | 4,536 | (remote near5 control\$4) with ((display\$3<br>present\$3)near4 (video commercial advertis\$5))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>14:18 |

|     |            |                                                                                                                                            |                                              |    |    |                         |
|-----|------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |            |                                                                                                                                            | USOC<br>R                                    |    |    |                         |
| S81 | 17         | ((remote near5 control\$4) near3 (LCD LED))with<br>((display\$3 present\$3)near4 (video commercial<br>advertis\$5))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:19 |
| S82 | 47         | ((remote near5 control\$4) near3 (LCD LED))same<br>((display\$3 present\$3)near4 (video commercial<br>advertis\$5))                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:22 |
| S83 | 43         | S82 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:23 |
| S84 | 12,95<br>3 | (remote near3 control\$4) same ((display\$3<br>present\$3)near4 (video commercial advertis\$5))                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:28 |
| S85 | 11,44<br>1 | (remote near3 control\$4) same ((display\$3<br>present\$3)near3 (video commercial advertis\$5))                                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:29 |
| S86 | 2,283      | "725"/\$.ccls. and ((display\$3 present\$3)near3 (video<br>commercial advertis\$5) near5 ((remote control)or (PDA<br>cell\$phone laptop))) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:32 |
| S87 | 1,729      | S86 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>14:32 |

|     |        |                                                                                                                                            |                                              |    |    |                         |
|-----|--------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|     |        |                                                                                                                                            | USOC<br>R                                    |    |    |                         |
| S88 | 328    | S86 and (unique near4 (identifier identification))                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:33 |
| S89 | 1,713  | "725"/\$.ccls. and ((display\$3 present\$3)near3 (video<br>commercial advertis\$5) near3 ((remote control)or (PDA<br>cell\$phone laptop))) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:36 |
| S90 | 182    | S86 and (unique adj (identifier identification))                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:36 |
| S91 | 114    | S90 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:37 |
| S92 | 2      | "20040117819"                                                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>14:55 |
| S93 | 12,780 | (remote near4 control\$4) with (talk\$3 speak\$3 sound)                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2012/04<br>/19<br>15:10 |
| S94 | 4,757  | (remote near4 control\$4) near3 (talk\$3 speak\$3 sound)                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2012/04<br>/19<br>15:10 |

|          |    |                                                                                                                                                                                                                                                                                                               |                                              |    |     |                         |
|----------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |    |                                                                                                                                                                                                                                                                                                               | USOC<br>R                                    |    |     |                         |
| S95      | 1  | "20050166231"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>15:31 |
| S96      | 1  | "20070152964"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>15:37 |
| S97      | 2  | "20050155078"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:01 |
| S98      | 1  | "7263712".pn.                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:54 |
| S99      | 2  | "20070124775"                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:55 |
| S10<br>0 | 1  | "6862741".pn.                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/19<br>17:56 |
| S10<br>1 | 70 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338" | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | OFF | 2012/04<br>/19<br>18:01 |

|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |    |     |                         |
|----------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |     | "5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN. | USOC<br>R                                    |    |     |                         |
| S10<br>2 | 1   | "6567984".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:13 |
| S10<br>3 | 1   | "6064420".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2012/04<br>/19<br>18:16 |
| S10<br>4 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/20<br>11:03 |
| S10<br>5 | 1   | "6862741".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2012/04<br>/20<br>11:21 |
| S10<br>6 | 382 | 725/80.ccls. and ((second\$3 primary subsidiary)<br>near4(video content data stream))                                                                                                                                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2014/03<br>/30<br>13:22 |
| S10<br>7 | 97  | 725/80.ccls. and ((second\$3 primary subsidiary)<br>near4(video content data stream))and (stt stb<br>set\$top\$box)                                                                                                                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON  | 2014/03<br>/30<br>13:23 |

|          |            |                                                                                                            |                                              |    |    |                         |
|----------|------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                            | USOC<br>R                                    |    |    |                         |
| S10<br>8 | 65         | S107 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:24 |
| S10<br>9 | 17,47<br>7 | "725"/\$.ccls. and ((second\$3 subsidiary) near4(video<br>content data stream))                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:56 |
| S11<br>0 | 15,71<br>0 | "725"/\$.ccls. and ((second\$3 subsidiary) near3(video<br>content data stream))                            | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:56 |
| S11<br>1 | 3,555      | "725"/\$.ccls. and ((second\$3 subsidiary) near3(video<br>content data stream))and (stt stb set\$top\$box) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:57 |
| S11<br>2 | 1,738      | S111 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/03<br>/30<br>13:57 |
| S11<br>3 | 1          | "8544049".pn.                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>20:20 |
| S11<br>4 | 963        | "725"/\$.ccls. and (main near4 (receiver terminal stt stb<br>set\$top\$box))                               | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2014/04<br>/04<br>21:21 |



|          |            |                                                                                                                                                                                                                                                                                                |                                              |    |    |                         |
|----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                                                                                                                                                                                                                | USOC<br>R                                    |    |    |                         |
| S11<br>5 | 456        | S114 and ((second\$3 subsidiary) near4 (content video vod commercial advertisement data))                                                                                                                                                                                                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:22 |
| S11<br>6 | 90         | S114 and ((second\$3 subsidiary) near4 (content video vod commercial advertisement data))and ((user subscriber) near4 (identifier identification))                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:24 |
| S11<br>7 | 62         | S116 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2014/04<br>/04<br>21:26 |
| S11<br>8 | 1          | "8544049".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:01 |
| S11<br>9 | 50,50<br>5 | (H04N21/2543 or H04N21/4126 or H04N21/488 or H04N21/478 or H04N21/4122 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/454 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/43637 or H04N21/4884).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:56 |
| S12<br>0 | 292        | ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)and S119                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:57 |
| S12<br>1 | 158        | S120 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>18:57 |

|          |    |                                                                                            |                                              |    |    |                         |
|----------|----|--------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |    |                                                                                            | USOC<br>R                                    |    |    |                         |
| S12<br>2 | 4  | S121 and ((primary master) near4(receiver terminal))                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>18:59 |
| S12<br>3 | 48 | (home near5 network)same ((plurality various multiple)<br>near5 (remote near4 controller)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:00 |
| S12<br>4 | 5  | S123 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:04 |
| S12<br>6 | 2  | "20050155078"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:32 |
| S12<br>7 | 2  | "20070208789"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>19:59 |
| S12<br>8 | 1  | "20020194299"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:02 |
| S12<br>9 | 2  | "20030007640"                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/27<br>20:05 |

|          |       |                                                                                                        |                                              |    |    |                         |
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|          |       |                                                                                                        | USOC<br>R                                    |    |    |                         |
| S13<br>0 | 1     | "5721583".pn.                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:10 |
| S13<br>1 | 2     | "20050155078"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:12 |
| S13<br>2 | 1     | "20020137496"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:17 |
| S13<br>3 | 3,663 | ((display\$3 present\$3) near4 (video guide epg ipg adv<br>commercial))near4 (remote near3 control\$4) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>4 | 63    | S133 and ((primary master) near4(receiver terminal))                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>5 | 41    | S134 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/27<br>20:20 |
| S13<br>6 | 2     | "20050155078"                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2018/03<br>/28<br>13:58 |

|          |            |                                                                                                                                                                                                                                                                                                |                                              |    |    |                         |
|----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |            |                                                                                                                                                                                                                                                                                                | USOC<br>R                                    |    |    |                         |
| S13<br>7 | 1          | "6862741".pn.                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/03<br>/28<br>14:48 |
| S13<br>8 | 53,02<br>4 | (H04N21/2543 or H04N21/43637 or H04N21/488 or H04N21/4122 or H04N21/478 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/4884 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/4126 or H04N21/454).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:02 |
| S13<br>9 | 9,553      | S138 and (user near4 (identifier identification))                                                                                                                                                                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:03 |
| S14<br>0 | 67         | S139 and ((plurality multiple various)near3(remote near5 control\$4)) near6(display screen)                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:03 |
| S14<br>1 | 35         | S140 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2018/10<br>/11<br>17:04 |
| S14<br>2 | 969        | ((pair\$3 synchroniz\$3)near3(tv television stt stb set\$top\$box))same(pda phone tablet mobile)                                                                                                                                                                                               | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>14:58 |
| S14<br>3 | 63         | S142 and (down\$convert\$3)                                                                                                                                                                                                                                                                    | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>14:59 |

|          |     |                                                                                                                                       |                                              |    |    |                         |
|----------|-----|---------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |     |                                                                                                                                       | USOC<br>R                                    |    |    |                         |
| S14<br>4 | 43  | S143 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:00 |
| S14<br>5 | 77  | S142 and ((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:11 |
| S14<br>6 | 7   | S145 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:11 |
| S14<br>7 | 32  | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))same ((convert\$3 modif\$4<br>chang\$3)near3(format bit\$rate)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:15 |
| S14<br>8 | 26  | S147 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:16 |
| S14<br>9 | 613 | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))same((mobile wireless)near3(device<br>receiver phone pda))      | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:36 |
| S15<br>0 | 19  | S149 and (down\$convert\$3)                                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>15:37 |

|          |       |                                                                                                                                                                    |                                              |    |    |                         |
|----------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |       |                                                                                                                                                                    | USOC<br>R                                    |    |    |                         |
| S15<br>1 | 9     | S150 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:37 |
| S15<br>2 | 9,622 | ((display\$3 present\$3 render\$3)near3(commercial<br>advertisement caption)same (wireless portable<br>mobile)near3(device receiver phone pda tablet<br>terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:52 |
| S15<br>3 | 75    | ((pair\$3 synchroniz\$3)near3(tv television stt stb<br>set\$top\$box))and S152                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:53 |
| S15<br>4 | 24    | S153 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>15:53 |
| S15<br>5 | 9,622 | ((display\$3 present\$3 render\$3)near3(commercial<br>advertisement caption)same (wireless portable<br>mobile)near3(device receiver phone pda tablet<br>terminal)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>17:59 |
| S15<br>6 | 106   | S155 and (down\$convert\$3)                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:01 |
| S15<br>7 | 4     | S156 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                              | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>18:01 |

|          |             |                                                                                                                                        |                                              |    |    |                         |
|----------|-------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
|          |             |                                                                                                                                        | USOC<br>R                                    |    |    |                         |
| S15<br>8 | 214,4<br>90 | S155 ((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:05 |
| S15<br>9 | 931         | S155 and((convert\$3 modif\$4 chang\$3)near3(format<br>bit\$rate))                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>0 | 308         | S159 and (converter)                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>1 | 207         | S160 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:06 |
| S16<br>2 | 1           | S161 and ((embed\$4 insert\$3<br>mix\$3)near3(supplemental secondary<br>related)near3(video content data commercial<br>advertisement)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:10 |
| S16<br>3 | 7           | S161 and ((embed\$4 insert\$3<br>mix\$3)near3(supplemental secondary related))                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/26<br>18:11 |
| S16<br>4 | 2           | "20050155078"                                                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;              | OR | ON | 2019/07<br>/26<br>20:20 |

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|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | USOC<br>R                                    |    |     |                         |
| S16<br>5 | 8   | ("2005/0155078").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | USPA<br>T                                    | OR | OFF | 2019/07<br>/26<br>20:22 |
| S16<br>6 | 7   | ("20020137496"   "20020150387"   "20050155078"  <br>"5721583"   "6862741"   "7266834").PN. OR<br>("8544049").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/26<br>20:34 |
| S16<br>7 | 123 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/26<br>21:22 |
| S16<br>8 | 2   | "20030208771"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:21 |
| S16<br>9 | 2   | "20040163106"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:25 |
| S17<br>0 | 2   | "20050246746"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/29<br>21:26 |



|          |   |               |                                              |    |    |                         |
|----------|---|---------------|----------------------------------------------|----|----|-------------------------|
| S17<br>1 | 2 | "20070124778" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:37 |
| S17<br>2 | 2 | "20060123126" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:40 |
| S17<br>3 | 1 | "7039116".pn. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:42 |
| S17<br>4 | 1 | "20040225894" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:43 |
| S17<br>5 | 2 | "20090204989" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:47 |
| S17<br>6 | 1 | "5666487".pn. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:53 |
| S17<br>7 | 2 | "20060107302" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/29<br>21:57 |

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| S178 | 1   | "8352986".pn.                                                                                       | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/29 22:11 |
| S179 | 1   | "20020137496"                                                                                       | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/29 22:33 |
| S180 | 461 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box) near4(phone pda mobile tablet)) | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 10:58 |
| S181 | 54  | S180 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 10:59 |
| S182 | 970 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))same(phone pda mobile tablet)   | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 11:22 |
| S183 | 250 | S182 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                  | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 11:22 |
| S184 | 161 | S183 and (commercial advertisement)                                                                 | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 11:23 |

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| S185 | 127 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))and ((display\$3 present\$3 render\$3)near3(commercial advertisement web)near3(phone pda mobile tablet)) | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:01 |
| S186 | 88  | S185 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:02 |
| S187 | 42  | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))same ((commercial advertisement web)near3(phone pda mobile tablet))                                      | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:53 |
| S188 | 15  | S187 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:53 |
| S189 | 527 | ((pair\$3 synchroniz\$3) near3(tv television stt stb set\$top\$box))and ((commercial advertisement web)near3(phone pda mobile tablet))                                       | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:55 |
| S190 | 245 | S189 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                           | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 12:55 |
| S191 | 741 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same ((commercial advertisement web)near3(phone pda mobile tablet))                                    | US-PGPU B; USPAT; USOCR | OR | ON | 2019/07/30 13:51 |

|          |       |                                                                                                                                                                               |                                              |    |    |                         |
|----------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
| S19<br>2 | 22    | S191 and ((supplemental secondary)near3(content video data commercial avertisement))                                                                                          | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:53 |
| S19<br>3 | 3     | S192 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:53 |
| S19<br>4 | 227   | S191 and ((supplemental secondary))                                                                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:54 |
| S19<br>5 | 118   | S194 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>13:54 |
| S19<br>6 | 2,506 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))with((phone pda mobile tablet))                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:11 |
| S19<br>7 | 661   | S196 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:12 |
| S19<br>8 | 59    | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet)) | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/30<br>14:15 |

|      |     |                                                                                                                                                                                |                                          |    |    |                     |
|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----|----|---------------------|
| S199 | 12  | S198 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>14:16 |
| S200 | 930 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))and((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet))   | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>14:19 |
| S201 | 294 | S200 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>14:20 |
| S202 | 417 | ((display\$3 render\$3 present\$3)near3(commercial ad advertisement)near3(phone pda mobile tablet)) with(Tv television stt stb set\$top\$box)                                  | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>16:39 |
| S203 | 147 | S202 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>16:39 |
| S204 | 6   | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))same((chang\$3 modif\$4 convert\$3)near3(format compression encod\$3)near3(commercial ad advertisement)) | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>17:23 |
| S205 | 3   | S204 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                          | US-PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07/30<br>17:24 |

|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |    |     |                         |
|----------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
| S20<br>6 | 123 | ((embed\$4 mix\$3 superimpos\$3)near3(video commercial advertisement))and((chang\$3 modif\$4 convert\$3)near3(format compression encod\$3)near3(commercial ad advertisement))                                                                                                                                                                                                                                                                                                                                                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/30<br>17:25 |
| S20<br>7 | 67  | S206 and<br>((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/30<br>17:26 |
| S20<br>8 | 1   | "6862741".pn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/30<br>19:39 |
| S20<br>9 | 1   | "20020137496"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/30<br>20:00 |
| S21<br>0 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/30<br>20:02 |
| S21<br>1 | 8   | ("2005/0155078").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | USPA<br>T                                    | OR | OFF | 2019/07<br>/30<br>20:07 |
| S21<br>2 | 123 | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/30<br>20:12 |

|          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |    |     |                         |
|----------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|-----|-------------------------|
|          |     | "6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. OR<br>("6862741").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |    |     |                         |
| S21<br>3 | 64  | ("6862741").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | USPA<br>T                                    | OR | OFF | 2019/07<br>/30<br>20:19 |
| S21<br>4 | 59  | ("4115846"   "4697209"   "4706121"   "4751578"  <br>"5151789"   "5353121"   "5410326"   "5500691"  <br>"5532754"   "5550576"   "5559548"   "5614940"  <br>"5625608"   "5629733"   "5635978"   "5657072"  <br>"5686954"   "5689663"   "5699107"   "5706334"  <br>"5708845"   "5710605"   "5721942"   "5732338"  <br>"5751282"   "5751372"   "5758257"   "5760821"  <br>"5781226"   "5793438"   "5794207"   "5801753"  <br>"5801787"   "5805204"   "5805235"   "5815194"  <br>"5831664"   "5857201"   "5864784"   "5877756"  <br>"5883677"   "5889950"   "5898398"   "5911582"  <br>"5929849"   "6002394"   "6002444"   "6002450"  <br>"6005533"   "6040829"   "6097441"   "6104334"  <br>"6130726"   "6239845"   "6263503"   "6278499"  <br>"6285357"   "6292283"   "6313887").PN. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | OFF | 2019/07<br>/30<br>20:21 |
| S21<br>5 | 1   | "20060268169"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>12:54 |
| S21<br>6 | 2   | "20050155078"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>13:28 |
| S21<br>7 | 2   | "20050221826"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>13:43 |
| S21<br>8 | 454 | (menu near3 (order hierachiz\$3))same ((user viewer<br>view\$3)near3(preference history profile))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON  | 2019/07<br>/31<br>17:44 |

|      |       |                                                                                                                                                   |                           |    |    |                  |
|------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S219 | 9,898 | ((provid\$3 present\$3 display\$3 render\$3) near3(commercial adv advertisement))same((viewer subscriber user)near3(preference profile favorite)) | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:48 |
| S220 | 14    | S218 and S219                                                                                                                                     | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:48 |
| S221 | 1     | S220 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:49 |
| S222 | 4,813 | (menu near3 (order hierachiz\$3))and ((user viewer view\$3)near3(preference history profile))                                                     | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:49 |
| S223 | 211   | S219 and S222                                                                                                                                     | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:50 |
| S224 | 139   | S223 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                                                | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:50 |
| S225 | 0     | (menu near3 hierachiz\$3)and ((user viewer view\$3)near3(preference history profile))                                                             | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 17:59 |



|      |       |                                                                                                                           |                           |    |    |                  |
|------|-------|---------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S226 | 1,152 | (menu near3 (organiz\$3 placement hierachiz\$3))and ((user viewer view\$3)near3(preference history profile))              | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:00 |
| S227 | 199   | S222 and S226                                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:00 |
| S228 | 125   | S227 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                        | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:00 |
| S229 | 92    | S227 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and (pda tablet phone mobile)                           | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:07 |
| S230 | 381   | (menu near3 (organiz\$3 placement hierachiz\$3 hierarchical))same((user viewer view\$3)near3(preference history profile)) | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:19 |
| S231 | 53    | S230 and S219                                                                                                             | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:20 |
| S232 | 12    | S231 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and (pda tablet phone mobile)                           | US-PGPU B; USPA T; USOC R | OR | ON | 2019/07/31 18:20 |

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|----------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----|----|-------------------------|
| S23<br>3 | 3,929      | (menu near3 (organiz\$3 placement hierachiz\$3 hierarchical))and((user viewer view\$3)near3(preference history profile))                                                                                                                                                                       | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:23 |
| S23<br>4 | 129        | S219 and S233                                                                                                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:23 |
| S23<br>5 | 0          | S234 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and ((multiple plurality)near3(pda tablet phone mobile))                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:24 |
| S23<br>6 | 75         | S234 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))and ((pda tablet wireless phone mobile))                                                                                                                                                                                     | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2019/07<br>/31<br>18:25 |
| S23<br>7 | 60,06<br>7 | (H04N21/2543 or H04N21/43637 or H04N21/488 or H04N21/4122 or H04N21/478 or H04N21/8586 or H04N21/84 or H04N21/812 or H04N21/8106 or H04N7/163 or H04N21/4884 or H04N21/4516 or H04N21/440263 or H04N21/440218 or H04N21/43615 or H04N21/4348 or H04N21/4341 or H04N21/4126 or H04N21/454).cpc. | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:12 |
| S23<br>8 | 34,01<br>7 | S237 and ((primary master multiple plurality) near4(receiver display device terminal))                                                                                                                                                                                                         | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:14 |
| S23<br>9 | 10,83<br>5 | S238 and ((device receiver terminal stt stb set\$top\$box) near4 (identifier identification))                                                                                                                                                                                                  | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>15:16 |

|      |       |                                                                                                 |                           |    |    |                  |
|------|-------|-------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S240 | 2,580 | S239 and (converter down\$convert\$3)                                                           | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:18 |
| S241 | 1,706 | S240 and ((communication network)near3 interface)                                               | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:19 |
| S242 | 1,498 | S241 and (server)                                                                               | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:20 |
| S243 | 1,299 | S242 and (television tv)                                                                        | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:20 |
| S244 | 621   | S243 and ((user viewer) near4 (identifier identification))                                      | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:21 |
| S245 | 0     | S244 and (home near5 network)and ((plurality various multiple) near5 (remote near4 controller)) | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |
| S246 | 248   | S244 and (home near5 network)                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |

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|------|-----|---------------------------------------------------------------------------------------------------------------------------------|---------------------------|----|----|------------------|
| S247 | 83  | S246 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                              | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:22 |
| S248 | 717 | ((plurality multiple various)near3(remote near5 control\$4)) same ((display\$3 present\$3)near4 (video commercial advertis\$5)) | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:42 |
| S249 | 274 | S248 and (home near5 network)                                                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:43 |
| S250 | 72  | S249 and ((@ad<="20060927")(@rlad<="20060927")(@prad<="20060927"))                                                              | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:43 |
| S251 | 18  | S250 and (converter down\$convert\$3)                                                                                           | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 15:44 |
| S252 | 2   | "20010019326"                                                                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 17:20 |
| S253 | 1   | "20060268169"                                                                                                                   | US-PGPU B; USPA T; USOC R | OR | ON | 2020/08/26 17:22 |

|          |   |               |                                              |    |    |                         |
|----------|---|---------------|----------------------------------------------|----|----|-------------------------|
| S25<br>4 | 2 | "20010019326" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:24 |
| S25<br>5 | 2 | "20050155078" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:27 |
| S25<br>6 | 2 | "20050221826" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:31 |
| S25<br>7 | 1 | "20060268169" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:34 |
| S25<br>8 | 2 | "20070208789" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>17:35 |
| S25<br>9 | 2 | "20010019326" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:14 |
| S26<br>0 | 2 | "20050221826" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:34 |

|          |   |               |                                              |    |    |                         |
|----------|---|---------------|----------------------------------------------|----|----|-------------------------|
| S26<br>1 | 2 | "20040261112" | US-<br>PGPU<br>B;<br>USPA<br>T;<br>USOC<br>R | OR | ON | 2020/08<br>/26<br>18:38 |
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8/26/2020 8:16:30 PM

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Doc code: IDS

PTO/SB/08a (01-10)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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

|                        |                 |
|------------------------|-----------------|
| Application Number     |                 |
| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

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|                   | 2       | 7266834       | B1                     | 2007-09-04 | Lund et al.                                     |                                                                        |
|                   | 3       | 6862741       | B1                     | 2005-03-01 | Grooters                                        |                                                                        |

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|                   | 1       | 20070208789        | A1                     | 2007-06-09       | Reichman et al.                                 |                                                                        |
|                   | 2       | 20020194299        | A1                     | 2002-12-19       | Yasaki et al.                                   |                                                                        |
|                   | 3       | 20030007640        | A1                     | 2003-01-09       | Harada et al.                                   |                                                                        |

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

|                        |                 |
|------------------------|-----------------|
| Application Number     |                 |
| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

|    |             |    |            |                  |
|----|-------------|----|------------|------------------|
| 4  | 20050155078 | A1 | 2005-07-14 | Imada et al.     |
| 5  | 20020137496 | A1 | 2002-09-26 | Nagaoka et al.   |
| 6  | 20020150387 | A1 | 2002-10-17 | Kunii et al.     |
| 7  | 20010019326 | A1 | 2001-09-06 | Yuasa, et al.    |
| 8  | 20060268169 | A1 | 2006-11-30 | Han, et al.      |
| 9  | 20050221826 | A1 | 2005-10-06 | Lee, et al.      |
| 10 | 20070202900 | A1 | 2007-08-30 | Inselberg et al. |

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| Examiner Initial* | Cite No | Foreign Document Number <sup>3</sup> | Country Code <sup>2</sup> | Kind Code <sup>4</sup> | Publication Date | Name of Patentee or Applicant of cited Document | Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear | T <sup>5</sup> |
|-------------------|---------|--------------------------------------|---------------------------|------------------------|------------------|-------------------------------------------------|--------------------------------------------------------------------------|----------------|
|                   | 1       | 2002-169747                          | JP                        | A                      | 2002-06-14       | BENO CORP KK                                    |                                                                          |                |
|                   | 2       | 2005-198061                          | JP                        | A                      | 2005-07-21       | MATSUSHITA ELECTRIC IND CO LTD                  |                                                                          |                |



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|------------------------|-----------------|------------|
| Application Number     |                 |            |
| Filing Date            |                 | 2020-04-22 |
| First Named Inventor   | Hideki Kamimaki |            |
| Art Unit               |                 |            |
| Examiner Name          |                 |            |
| Attorney Docket Number | SEI-12159-06    |            |

|   |             |    |    |            |                                     |  |  |
|---|-------------|----|----|------------|-------------------------------------|--|--|
| 3 | 11-196345   | JP | A  | 1999-07-21 | KUJIRADA MASANOBU                   |  |  |
| 4 | 2002-125167 | JP | A  | 2002-04-26 | FUNAI ELECTRIC CO                   |  |  |
| 5 | 2004-254122 | JP | A  | 2004-09-09 | TOPPAN PRINTING CO LTD              |  |  |
| 6 | 2005-184499 | JP | A  | 2005-07-07 | NEC CORP                            |  |  |
| 7 | 02/07334    | WO | A1 | 2002-01-24 | NTT DOCOMO INC                      |  |  |
| 8 | 2005-150956 | JP | A  | 2005-06-09 | NIPPON SHINPAN CO LTD; OPEN LOOP KK |  |  |
| 9 | 2005-259045 | JP | A  | 2005-09-22 | SONY CORP                           |  |  |

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|--------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                    | 1       | JP Notice of Rejections for Application No. 2012-126692, issued on May 21, 2013.                                                                                                                                                                                |                |
|                    | 2       | JP Office Action for Japanese Application No. 2013-145973, issued on April 8, 2014.                                                                                                                                                                             |                |

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| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

**EXAMINER SIGNATURE**

|                    |                    |                 |            |
|--------------------|--------------------|-----------------|------------|
| Examiner Signature | /JEAN D SAINT CYR/ | Date Considered | 08/26/2020 |
|--------------------|--------------------|-----------------|------------|

\*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.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> 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     |                 |
| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

**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  | /John R. Mattingly/ | Date (YYYY-MM-DD)   | 2020-04-22 |
| Name/Print | John R. Mattingly   | Registration Number | 30,293     |

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

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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.
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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.
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## BIB DATA SHEET

CONFIRMATION NO. 6885

| SERIAL NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | FILING or 371(c)<br>DATE                                                                                          | CLASS                                                           | GROUP ART UNIT                   | ATTORNEY DOCKET<br>NO.                                                                                                                                                                                                                                                    |                          |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------|
| 16/855,012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 04/22/2020                                                                                                        | 725                                                             | 2425                             | SEI-12159-06                                                                                                                                                                                                                                                              |                          |                                |
| <b>RULE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                   |                                                                 |                                  |                                                                                                                                                                                                                                                                           |                          |                                |
| <b>APPLICANTS</b><br>MAXELL, LTD., KYOTO, JAPAN;<br><b>INVENTORS</b><br>Hideki Kamimaki, Fujisawa, JAPAN;<br>Akira Date, Kunitachi, JAPAN;<br>Akira Tanaka, Kawasaki, JAPAN;<br><b>** CONTINUING DATA *****</b><br>This application is a CON of 16/387,841 04/18/2019 ABN<br>which is a CON of 15/602,417 05/23/2017 ABN<br>which is a CON of 14/467,076 08/25/2014 ABN<br>which is a CON of 13/972,624 08/21/2013 PAT 8819747<br>which is a CON of 11/861,390 09/26/2007 PAT 8544049<br><b>** FOREIGN APPLICATIONS *****</b><br>JAPAN 2006-261645 09/27/2006<br><b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b><br>04/28/2020 |                                                                                                                   |                                                                 |                                  |                                                                                                                                                                                                                                                                           |                          |                                |
| Foreign Priority claimed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>35 USC 119(a-d) conditions met <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Verified and Acknowledged <u>/JEAN D SAINT CYR/</u><br>Examiner's Signature                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                   | <input type="checkbox"/> Met after Allowance<br>JDS<br>Initials | <b>STATE OR COUNTRY</b><br>JAPAN | <b>SHEETS DRAWINGS</b><br>8                                                                                                                                                                                                                                               | <b>TOTAL CLAIMS</b><br>1 | <b>INDEPENDENT CLAIMS</b><br>1 |
| <b>ADDRESS</b><br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210<br>ALEXANDRIA, VA 22314<br>UNITED STATES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                   |                                                                 |                                  |                                                                                                                                                                                                                                                                           |                          |                                |
| <b>TITLE</b><br>CONTENTS RECEIVING SYSTEM AND CLIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   |                                                                 |                                  |                                                                                                                                                                                                                                                                           |                          |                                |
| <b>FILING FEE RECEIVED</b><br>1720                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FEES: Authority has been given in Paper<br>No. _____ to charge/credit DEPOSIT ACCOUNT<br>No. _____ for following: |                                                                 |                                  | <input type="checkbox"/> All Fees<br><input type="checkbox"/> 1.16 Fees (Filing)<br><input type="checkbox"/> 1.17 Fees (Processing Ext. of time)<br><input type="checkbox"/> 1.18 Fees (Issue)<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> Credit |                          |                                |



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| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 16/855,012         | 04/22/2020            | Hideki Kamimaki       | SEI-12159-06           |

**CONFIRMATION NO. 6885**

24956  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314

## PUBLICATION NOTICE



\*OC000000119017521\*

**Title:**CONTENTS RECEIVING SYSTEM AND CLIENT

**Publication No.**US-2020-0252669-A1

**Publication Date:**08/06/2020

## NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at [www.uspto.gov](http://www.uspto.gov). The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : MAXELL, LTD. Confirmation No.: 6885  
Serial No. : 16/855,012  
Filed : April 22, 2020  
For : CONTENTS RECEIVING SYSTEM AND CLIENT  
Group : 2425  
Examiner : n/a  
Docket No. : SEI-12159-06  
Customer No.: 24956

**SECOND PRELIMINARY AMENDMENT**

Mail Stop Amendments  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

July 20, 2020

Sir:

Prior to examination, please amend the above-identified application as follows.

**Amendments to the Claims** begin on page 2;

**Remarks** are included following the amendments.

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Canceled).
2. (New) A contents reproducing system comprising:
  - a main equipment; and
  - a plurality of subsidiary equipments,  
wherein the main equipment includes:
    - a storage storing the content;
    - a first display displaying the content; and
    - a first controller controlling transmission/reception with the subsidiary equipments, the first controller storing device specific ID information of the plurality of the subsidiary equipments, and storing a plurality of information for identifying the content to be transmitted to the subsidiary equipments in association with the device specific ID information; and
  - wherein the plurality of subsidiary equipments include:
    - a second display displaying the content; and
    - a second controller controlling transmission/reception with the main equipment, the second controller storing device specific ID information for identifying the subsidiary equipment and transmitting the device specific ID information to the main equipment when connecting to the main equipment, and



wherein, the main equipment determines whether or not it is possible to connect to the subsidiary equipment storing the device specific ID information, and transmits the content stored in the storage to the subsidiary equipment which can be connected, based on the information for identifying the content associated with the device specific ID information of the subsidiary equipment, then the subsidiary equipment reproduces the received content on the second display.

3. (New) The contents reproducing system according to claim 2,

wherein the main equipment includes a converter down-converting the content and transmits the down-converted content to the subsidiary equipment.

4. (New) The contents reproducing system according to claim 2,

wherein the main equipment includes a network interface and acquires the content from an external server via the network interface.

**REMARKS**

Entry of the above amendments prior to examination is respectfully requested.

No new matter is added by the amendments.

Please charge any shortage in fees due in connection with the filing of this paper, or credit any overpayment of fees, to the deposit account of MATTINGLY & MALUR, PC, Deposit Account No. 50-1417.

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/

John R. Mattingly, Reg. No. 30,293  
(703) 684-1120

## Electronic Acknowledgement Receipt

|                                             |                                        |
|---------------------------------------------|----------------------------------------|
| <b>EFS ID:</b>                              | 40042449                               |
| <b>Application Number:</b>                  | 16855012                               |
| <b>International Application Number:</b>    |                                        |
| <b>Confirmation Number:</b>                 | 6885                                   |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT   |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                        |
| <b>Customer Number:</b>                     | 24956                                  |
| <b>Filer:</b>                               | John Roberts Mattingly/Krista Hargrove |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                 |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                           |
| <b>Receipt Date:</b>                        | 20-JUL-2020                            |
| <b>Filing Date:</b>                         | 22-APR-2020                            |
| <b>Time Stamp:</b>                          | 12:18:30                               |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)            |

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| 1               |                      | 12159-06-SECPREAMD.pdf | 21057                                    | yes              | 4                |
|                 |                      |                        | aa8cfa69e95fe32a44afd17d0e6caa064bd5a0a9 |                  |                  |

| Multipart Description/PDF files in .zip description |       |     |  |
|-----------------------------------------------------|-------|-----|--|
| Document Description                                | Start | End |  |
| Preliminary Amendment                               | 1     | 1   |  |
| Claims                                              | 2     | 3   |  |
| Applicant Arguments/Remarks Made in an Amendment    | 4     | 4   |  |

**Warnings:**

**Information:**

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| <b>Total Files Size (in bytes):</b> | 21057 |
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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**  
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|                                                                                   |                                            |                           |                                       |
|-----------------------------------------------------------------------------------|--------------------------------------------|---------------------------|---------------------------------------|
| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875 | Application or Docket Number<br>16/855,012 | Filing Date<br>04/22/2020 | <input type="checkbox"/> To be Mailed |
|-----------------------------------------------------------------------------------|--------------------------------------------|---------------------------|---------------------------------------|

**ENTITY:** ☒ LARGE ☐ SMALL ☐ MICRO

**APPLICATION AS FILED - PART I**

| FOR                                                                        | (Column 1)<br>NUMBER FILED                                                                                                                                                                                                    | (Column 2)<br>NUMBER EXTRA | RATE (\$) | FEE (\$) |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|----------|
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))        | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m))       | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| TOTAL CLAIMS<br>(37 CFR 1.16(i))                                           | minus 20 = *                                                                                                                                                                                                                  |                            | x \$100 = |          |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))                                     | minus 3 = *                                                                                                                                                                                                                   |                            | x \$460 = |          |
| <input type="checkbox"/> 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). |                            |           |          |
| <input type="checkbox"/> 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**

|                                                                                                                                 | (Column 1)                                                                               |     | (Column 2)                       | (Column 3)                         | RATE (\$)     | ADDITIONAL FEE (\$) |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----|----------------------------------|------------------------------------|---------------|---------------------|
| <b>AMENDMENT</b>                                                                                                                | 07/20/2020                                                                               |     | CLAIMS REMAINING AFTER AMENDMENT | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA |                     |
|                                                                                                                                 | Total<br>(37 CFR 1.16(i))                                                                | * 3 | Minus                            | ** 20                              | = 0           | x \$100 = 0         |
|                                                                                                                                 | Independent<br>(37 CFR 1.16(h))                                                          | * 1 | Minus                            | *** 3                              | = 0           | x \$460 = 0         |
|                                                                                                                                 | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |     |                                  |                                    |               |                     |
|                                                                                                                                 | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |     |                                  |                                    |               |                     |
| TOTAL ADD'L FEE                                                                                                                 |                                                                                          |     |                                  |                                    |               | 0                   |
| <b>AMENDMENT</b>                                                                                                                |                                                                                          |     | CLAIMS REMAINING AFTER AMENDMENT | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA |                     |
|                                                                                                                                 | Total<br>(37 CFR 1.16(i))                                                                | *   | Minus                            | **                                 | =             | x \$0 =             |
|                                                                                                                                 | Independent<br>(37 CFR 1.16(h))                                                          | *   | Minus                            | ***                                | =             | x \$0 =             |
|                                                                                                                                 | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |     |                                  |                                    |               |                     |
|                                                                                                                                 | <input type="checkbox"/> 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.                                           |                                                                                          |     |                                  |                                    |               | LIE                 |
| ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".                                       |                                                                                          |     |                                  |                                    |               | /MYRTLE B LEIGH/    |
| *** 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. |                                                                                          |     |                                  |                                    |               |                     |

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.*

| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |                                  |          |                                    |               | Application or Docket Number<br>16/855,012 |                    |                               |                    |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------|------------------------------------|---------------|--------------------------------------------|--------------------|-------------------------------|--------------------|--------------------|
| <b>APPLICATION AS FILED - PART I</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                               |                                  |          |                                    |               |                                            |                    |                               |                    |                    |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                       |          | SMALL ENTITY                       |               | OR<br>OTHER THAN SMALL ENTITY              |                    |                               |                    |                    |
| FOR                                                                                                                                                                                                                                                                                                                                                                                                        | NUMBER FILED                                                                                                                                                                                                                  | NUMBER EXTRA                     | RATE(\$) | FEE(\$)                            |               | RATE(\$)                                   | FEE(\$)            |                               |                    |                    |
| BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                           | N/A                              | N/A      |                                    |               | N/A                                        | 300                |                               |                    |                    |
| SEARCH FEE<br>(37 CFR 1.16(k), (l), or (m))                                                                                                                                                                                                                                                                                                                                                                | N/A                                                                                                                                                                                                                           | N/A                              | N/A      |                                    |               | N/A                                        | 660                |                               |                    |                    |
| EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))                                                                                                                                                                                                                                                                                                                                                           | N/A                                                                                                                                                                                                                           | N/A                              | N/A      |                                    |               | N/A                                        | 760                |                               |                    |                    |
| TOTAL CLAIMS<br>(37 CFR 1.16(j))                                                                                                                                                                                                                                                                                                                                                                           | 1                                                                                                                                                                                                                             | minus 20 = *                     |          |                                    | OR            | x 100 =                                    | 0.00               |                               |                    |                    |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))                                                                                                                                                                                                                                                                                                                                                                     | 1                                                                                                                                                                                                                             | minus 3 = *                      |          |                                    |               | x 460 =                                    | 0.00               |                               |                    |                    |
| APPLICATION SIZE FEE<br>(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). |                                  |          |                                    |               |                                            | 0.00               |                               |                    |                    |
| MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |                                  |          |                                    |               |                                            | 0.00               |                               |                    |                    |
| * If the difference in column 1 is less than zero, enter "0" in column 2.                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                               |                                  | TOTAL    |                                    |               | TOTAL                                      | 1720               |                               |                    |                    |
| <b>APPLICATION AS AMENDED - PART II</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                               |                                  |          |                                    |               |                                            |                    |                               |                    |                    |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                       |          | (Column 3)                         |               | SMALL ENTITY                               |                    | OR<br>OTHER THAN SMALL ENTITY |                    |                    |
| AMENDMENT A                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                               | CLAIMS REMAINING AFTER AMENDMENT |          | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE(\$)                                   | ADDITIONAL FEE(\$) |                               | RATE(\$)           | ADDITIONAL FEE(\$) |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Total<br>(37 CFR 1.16(i))                                                                                                                                                                                                     | *                                | Minus    | **                                 | =             | x                                          | =                  | OR                            | x                  | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Independent<br>(37 CFR 1.16(h))                                                                                                                                                                                               | *                                | Minus    | ***                                | =             | x                                          | =                  | OR                            | x                  | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Application Size Fee (37 CFR 1.16(s))                                                                                                                                                                                         |                                  |          |                                    |               |                                            |                    | OR                            |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))                                                                                                                                                               |                                  |          |                                    |               |                                            |                    | OR                            |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                  |          |                                    |               | TOTAL<br>ADD'L FEE                         |                    | OR                            | TOTAL<br>ADD'L FEE |                    |
| AMENDMENT B                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                               | CLAIMS REMAINING AFTER AMENDMENT |          | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE(\$)                                   | ADDITIONAL FEE(\$) |                               | RATE(\$)           | ADDITIONAL FEE(\$) |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Total<br>(37 CFR 1.16(i))                                                                                                                                                                                                     | *                                | Minus    | **                                 | =             | x                                          | =                  | OR                            | x                  | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Independent<br>(37 CFR 1.16(h))                                                                                                                                                                                               | *                                | Minus    | ***                                | =             | x                                          | =                  | OR                            | x                  | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Application Size Fee (37 CFR 1.16(s))                                                                                                                                                                                         |                                  |          |                                    |               |                                            |                    | OR                            |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))                                                                                                                                                               |                                  |          |                                    |               |                                            |                    | OR                            |                    |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                  |          |                                    |               | TOTAL<br>ADD'L FEE                         |                    | OR                            | TOTAL<br>ADD'L FEE |                    |
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3.<br>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".<br>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".<br>The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1. |                                                                                                                                                                                                                               |                                  |          |                                    |               |                                            |                    |                               |                    |                    |



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| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY. DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|-----------------|------------|------------|
| 16/855,012            | 04/22/2020               |                 | 1720          | SEI-12159-06    | 1          | 1          |

**CONFIRMATION NO. 6885**

24956  
MATTINGLY & MALUR, PC  
1800 DIAGONAL ROAD  
SUITE 210  
ALEXANDRIA, VA 22314  
UNITED STATES OF AMERICA

## FILING RECEIPT



0000000116384061

Date Mailed: 04/29/2020

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

**Please verify the accuracy of the data presented on this receipt.** If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

### Inventor(s)

Hideki Kamimaki, Fujisawa, JAPAN;  
Akira Date, Kunitachi, JAPAN;  
Akira Tanaka, Kawasaki, JAPAN;

### Applicant(s)

MAXELL, LTD., KYOTO, JAPAN;

**Power of Attorney:** The patent practitioners associated with Customer Number 24956

### Domestic Priority data as claimed by applicant

This application is a CON of 16/387,841 04/18/2019  
which is a CON of 15/602,417 05/23/2017 ABN  
which is a CON of 14/467,076 08/25/2014 ABN  
which is a CON of 13/972,624 08/21/2013 PAT 8819747  
which is a CON of 11/861,390 09/26/2007 PAT 8544049

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)  
JAPAN 2006-261645 09/27/2006 No Access Code Provided

**Permission to Access Application via Priority Document Exchange:** Yes

**Permission to Access Search Results:** Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

**If Required, Foreign Filing License Granted:** 04/28/2020

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/855,012**

**Projected Publication Date:** 08/06/2020

**Non-Publication Request:** No

**Early Publication Request:** No

**Title**

CONTENTS RECEIVING SYSTEM AND CLIENT

**Preliminary Class**

**Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications:** No

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).



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**Title 35, United States Code, Section 184**  
**Title 37, Code of Federal Regulations, 5.11 & 5.15**

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|                                                                                   |                                            |                           |                                       |
|-----------------------------------------------------------------------------------|--------------------------------------------|---------------------------|---------------------------------------|
| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875 | Application or Docket Number<br>16/855,012 | Filing Date<br>04/22/2020 | <input type="checkbox"/> To be Mailed |
|-----------------------------------------------------------------------------------|--------------------------------------------|---------------------------|---------------------------------------|

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

**APPLICATION AS FILED - PART I**

| FOR                                                                        | (Column 1)<br>NUMBER FILED                                                                                                                                                                                                    | (Column 2)<br>NUMBER EXTRA | RATE (\$) | FEE (\$) |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------|----------|
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))        | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (l), or (m))       | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  | N/A                                                                                                                                                                                                                           | N/A                        | N/A       |          |
| TOTAL CLAIMS<br>(37 CFR 1.16(i))                                           | minus 20 = *                                                                                                                                                                                                                  |                            | x \$100 = |          |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))                                     | minus 3 = *                                                                                                                                                                                                                   |                            | x \$460 = |          |
| <input type="checkbox"/> 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). |                            |           |          |
| <input type="checkbox"/> 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**

|                                                                                                                                 | (Column 1)                                                                               |     | (Column 2)                       | (Column 3)                         | RATE (\$)     | ADDITIONAL FEE (\$) |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----|----------------------------------|------------------------------------|---------------|---------------------|
| <b>AMENDMENT</b>                                                                                                                | 04/22/2020                                                                               |     | CLAIMS REMAINING AFTER AMENDMENT | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA |                     |
|                                                                                                                                 | Total<br>(37 CFR 1.16(i))                                                                | * 1 | Minus                            | ** 20                              | = 0           | x \$100 = 0         |
|                                                                                                                                 | Independent<br>(37 CFR 1.16(h))                                                          | * 1 | Minus                            | *** 3                              | = 0           | x \$460 = 0         |
|                                                                                                                                 | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |     |                                  |                                    |               |                     |
|                                                                                                                                 | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |     |                                  |                                    |               |                     |
| TOTAL ADD'L FEE                                                                                                                 |                                                                                          |     |                                  |                                    |               | 0                   |
| <b>AMENDMENT</b>                                                                                                                |                                                                                          |     | CLAIMS REMAINING AFTER AMENDMENT | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA |                     |
|                                                                                                                                 | Total<br>(37 CFR 1.16(i))                                                                | *   | Minus                            | **                                 | =             | x \$0 =             |
|                                                                                                                                 | Independent<br>(37 CFR 1.16(h))                                                          | *   | Minus                            | ***                                | =             | x \$0 =             |
|                                                                                                                                 | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |     |                                  |                                    |               |                     |
|                                                                                                                                 | <input type="checkbox"/> 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.                                           |                                                                                          |     |                                  |                                    |               | LIE                 |
| ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".                                       |                                                                                          |     |                                  |                                    |               | /MYRTLE B LEIGH/    |
| *** 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. |                                                                                          |     |                                  |                                    |               |                     |

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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## TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

|                        |                                     |
|------------------------|-------------------------------------|
| Application Number     |                                     |
| Filing Date            | April 22, 2020                      |
| First Named Inventor   | H. KAMIMAKI                         |
| Title                  | CONTENTS RECEIVED SYSTEM AND CLIENT |
| Art Unit               |                                     |
| Examiner Name          |                                     |
| Attorney Docket Number | SEI-12159-06                        |

### SIGNATURE of Applicant or Patent Practitioner

|                                                    |                     |                     |                |
|----------------------------------------------------|---------------------|---------------------|----------------|
| Signature                                          | /John R. Mattingly/ | Date (Optional)     | April 22, 2020 |
| Name                                               | John R. Mattingly   | Registration Number | 30293          |
| Title (if Applicant is a juristic entity)          | Attorney            |                     |                |
| Applicant Name (if Applicant is a juristic entity) |                     |                     |                |

**NOTE:** This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.



\*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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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私はここに、添付の伝送書もしくは下記枠内で特定された出願に対して、現時点より前に与えられたすべての委任状を破棄します。  
I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

|                            |                    |
|----------------------------|--------------------|
| 出願番号<br>Application Number | 出願日<br>Filing Date |
|                            |                    |

(注記: PTO/AIA/82Aに同じ情報が明記されている場合、上の枠内は空欄でも可)  
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私は、下記顧客番号に関連する特許弁護士を、当方の弁護士あるいは代理人に指名し、添付の伝送書 (PTO/AIA/82A) 内もしくは上記に記載の特許出願に関連した米国特許商標庁との業務の全てを同弁護士あるいは代理人に委任します。

I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above:

24956

又は  
OR



私は、添付のリスト (PTO/AIA/82C) に記載の特許弁護士を、当方の弁護士あるいは代理人に指名し、添付の伝送書 (PTO/AIA/82A) 内もしくは上記に記載の特許出願に関連した米国特許商標庁との業務の全てを同弁護士あるいは代理人に委任します。(注記: PTO/AIA/82C を記入すること。)

I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

添付の伝送書又は上記枠内にて特定された出願に対する郵便物送付先を下記のいずれかに登録または変更してください。

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:



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| 事務所または個人名<br>Firm or Individual Name |                  |             |  |  |
| 住所<br>Address                        |                  |             |  |  |
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| 国<br>Country                         |                  |             |  |  |
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This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 3 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.

**出願人による委任状**  
**POWER OF ATTORNEY BY APPLICANT**

私は出願人であり（出願人が法人の場合、出願人名を下記枠内に記入）：

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Maxell, Ltd.

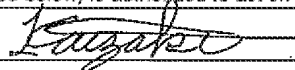
- ☐ 発明者もしくは共同発明者である（下記役職の明記は不要）  
 Inventor or Joint Inventor (title not required below)
- ☐ 死亡したもしくは成年被後見人である発明者の法定代理人である（下記役職の明記は不要）  
 Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ 被譲渡人もしくは発明者が譲渡する義務を負う人物である  
 Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ 上記以外で、十分な独占的所有権を示す人物である（例：37 CFR 1.46(b)(2)に基づく申請が本出願において認められた、又は本書類と共にその申請がなされている場合）（出願人が法人の場合、署名者の役職を明記すること）  
 Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

**特許出願人の署名**

**SIGNATURE of Applicant for Patent**

下記署名者（役職は下記に記載）は出願人の代理人と認められている（出願人が法人の場合等）

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

|                 |                                                                                   |                            |               |
|-----------------|-----------------------------------------------------------------------------------|----------------------------|---------------|
| 署名<br>Signature |  | 署名日（任意）<br>Date (Optional) | Oct. 17, 2017 |
| 氏名<br>Name      | Kazuhiro Kaizaki                                                                  |                            |               |
| 役職<br>Title     | Vice President                                                                    |                            |               |

**注記：**署名 - 本書類は37 CFR 1.33に基づき署名されなければならない。署名の要件および証明に関しては37 CFR 1.4を参照。出願人が複数いる場合は、複数の書類を使うこと。

**NOTE:** Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ 提出書類 計 \_\_\_\_\_ 枚。  
 Total of \_\_\_\_\_ forms are submitted.

## Privacy Act Statement

1974年プライバシー保護法(P.L. 93-579)により、特許出願あるいは特許に関する添付書類の提出に関連し、特定情報を提供することが求められています。同法の規定要件に基づき、下記の事項に注意してください。(1) 本情報の収集は35 U.S.C 2(b)(2)により認められています。(2) 求められた情報の提供は任意です。(3) 米国特許商標庁による本情報の主な使用目的は、特許出願あるいは特許に関する提出書類の処理や審査であり、求められた情報を提出しない場合、米国特許商標庁による提出書類の処理や審査に支障をきたす場合があります。その場合、特許出願の手続中止や放棄、または特許失効につながる場合があります。

本用紙に記載された情報は以下の通常使用目的に使われます。

1. 本用紙に記載の情報は、情報公開法(5 U.S.C. 552)およびプライバシー法(5 U.S.C 552a)が許容する範囲において機密情報扱いとなります。本記録システムの記録は、同記録の開示が情報公開法で要求されるものに該当するか否かを判断する目的で、司法省に開示される場合があります。
2. 本記録システムの記録は、通常使用として、法廷、予審判事、行政裁判所に証拠として開示される場合があります。これには示談交渉における反対側弁護士への情報開示も含まれます。
3. 本記録システムの記録は、同記録に関連する個人から、同記録についての支援を依頼され、当該個人に関連した要求を行う米国会議員に対し、通常使用の範囲として開示される場合があります。
4. 本記録システムの記録は、契約を履行するために同記録を必要とする本庁の契約業者に対し、通常使用の範囲として開示される場合があります。情報を受け取る側は、5. U.S.C. 552a(m)に基づき、1974年プライバシー法修正法の規定要件を遵守しなければなりません。
5. 本記録システム内の、特許協力条約に基づき出願された国際出願に関する記録は、通常使用の範囲として、特許協力条約に従い世界知的所有権機関に開示される場合があります。
6. 本記録システムの記録は、通常使用の範囲として、国家安全保障(35 U.S.C. 181)および原子力法(42 U.S.C. 218(c))に拠る検討目的で、他の連邦政府機関に開示される場合があります。
7. 本記録システムの記録は、通常使用の範囲として、44 U.S.C 2904および2906に基づき、記録管理方法およびプログラムに対する改善を提案するという米一般調達局長官(GSA)の職務の一部として実施される記録監査において、GSAまたはその委任による代理人に対し開示される場合があります。この開示は、上記目的による記録監査を規定するGSA法規およびその他関連する(GSAまたは商務省)指令に従って行われます。この開示は、個人を特定する目的に使用されてはなりません。
8. 本記録システムの記録は、通常使用の範囲として、特許出願公開後(35. U.S.C 112(b))、または特許発行後(35 U.S.C. 151)に一般に開示される場合があります。さらに、同記録が、放棄されたもしくは処理が集結している特許出願に記載されており、かつ公開後の出願、一般審査に公開された出願、または発行済み特許の中で参照されている場合には、37. CFR 1.14の制限に従い、通常使用の範囲として、一般に開示される場合があります。
9. 本記録システムの記録は、法律に違反している、もしくは違反する可能性があるとして米国特許商標庁により判断された場合、通常使用の範囲として、連邦、州、または地方自治体の警察等に関与される場合があります。

|                                                                                                     |                        |                 |            |
|-----------------------------------------------------------------------------------------------------|------------------------|-----------------|------------|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |                 |            |
|                                                                                                     | Filing Date            |                 | 2020-04-22 |
|                                                                                                     | First Named Inventor   | Hideki Kamimaki |            |
|                                                                                                     | Art Unit               |                 |            |
|                                                                                                     | Examiner Name          |                 |            |
|                                                                                                     | Attorney Docket Number | SEI-12159-06    |            |

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|                   | 1       | 5721583       | A                      | 1998-02-24 | Harada et al.                                   |                                                                        |
|                   | 2       | 7266834       | B1                     | 2007-09-04 | Lund et al.                                     |                                                                        |
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|                                     | 3       | 20030007640        | A1                     | 2003-01-09       | Harada et al.                                   |                                                                        |

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|                        |                 |
|------------------------|-----------------|
| Application Number     |                 |
| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

|    |             |    |            |                  |
|----|-------------|----|------------|------------------|
| 4  | 20050155078 | A1 | 2005-07-14 | Imada et al.     |
| 5  | 20020137496 | A1 | 2002-09-26 | Nagaoka et al.   |
| 6  | 20020150387 | A1 | 2002-10-17 | Kunii et al.     |
| 7  | 20010019326 | A1 | 2001-09-06 | Yuasa, et al.    |
| 8  | 20060268169 | A1 | 2006-11-30 | Han, et al.      |
| 9  | 20050221826 | A1 | 2005-10-06 | Lee, et al.      |
| 10 | 20070202900 | A1 | 2007-08-30 | Inselberg et al. |

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|-------------------|---------|--------------------------------------|-----------------------------|------------------------|------------------|-------------------------------------------------|--------------------------------------------------------------------------|----------------|
|                   | 1       | 2002-169747                          | JP                          | A                      | 2002-06-14       | BENO CORP KK                                    |                                                                          |                |
|                   | 2       | 2005-198061                          | JP                          | A                      | 2005-07-21       | MATSUSHITA ELECTRIC IND CO LTD                  |                                                                          |                |



**INFORMATION DISCLOSURE  
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( Not for submission under 37 CFR 1.99)

|                        |                 |            |
|------------------------|-----------------|------------|
| Application Number     |                 |            |
| Filing Date            |                 | 2020-04-22 |
| First Named Inventor   | Hideki Kamimaki |            |
| Art Unit               |                 |            |
| Examiner Name          |                 |            |
| Attorney Docket Number | SEI-12159-06    |            |

|   |             |    |    |            |                                     |  |  |
|---|-------------|----|----|------------|-------------------------------------|--|--|
| 3 | 11-196345   | JP | A  | 1999-07-21 | KUJIRADA MASANOBU                   |  |  |
| 4 | 2002-125167 | JP | A  | 2002-04-26 | FUNAI ELECTRIC CO                   |  |  |
| 5 | 2004-254122 | JP | A  | 2004-09-09 | TOPPAN PRINTING CO LTD              |  |  |
| 6 | 2005-184499 | JP | A  | 2005-07-07 | NEC CORP                            |  |  |
| 7 | 02/07334    | WO | A1 | 2002-01-24 | NTT DOCOMO INC                      |  |  |
| 8 | 2005-150956 | JP | A  | 2005-06-09 | NIPPON SHINPAN CO LTD; OPEN LOOP KK |  |  |
| 9 | 2005-259045 | JP | A  | 2005-09-22 | SONY CORP                           |  |  |

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|--------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                    | 1       | JP Notice of Rejections for Application No. 2012-126692, issued on May 21, 2013.                                                                                                                                                                                |                |
|                    | 2       | JP Office Action for Japanese Application No. 2013-145973, issued on April 8, 2014.                                                                                                                                                                             |                |

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| Application Number     |                 |
| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

**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.

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

**INFORMATION DISCLOSURE  
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( Not for submission under 37 CFR 1.99)

|                        |                 |
|------------------------|-----------------|
| Application Number     |                 |
| Filing Date            | 2020-04-22      |
| First Named Inventor   | Hideki Kamimaki |
| Art Unit               |                 |
| Examiner Name          |                 |
| Attorney Docket Number | SEI-12159-06    |

**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  | /John R. Mattingly/ | Date (YYYY-MM-DD)   | 2020-04-22 |
| Name/Print | John R. Mattingly   | Registration Number | 30,293     |

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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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 records.
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.
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.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s) : Hideki Kamimaki et al. Examiner : Not Yet Assigned  
Serial No. : Not Yet Assigned Confirmation No. : Not Yet Assigned  
Filed : April 22, 2020 Group Art Unit : Not Yet Assigned  
For : CONTENTS RECEIVING SYSTEM AND CLIENT

**PRELIMINARY AMENDMENT**

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

April 22, 2020

Sir:

Prior to the examination of the present application, please enter the following amendments.

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Abstract** begin on page 3 of this paper.

**Remarks** begin on page 4 of this paper.

**AMENDMENTS TO THE SPECIFICATION**

On page 1 of the specification, after the title of the invention, please amend the paragraph as follows:

CROSS-REFERENCE TO RELATED APPLICATION

This is a continuation of U.S. application Serial No. 16/387,841, filed April 18, 2019, which is a continuation of U.S. application Serial No. 15/602,417, filed May 23, 2017, now abandoned, which is a continuation of U.S. application Serial No. 14/467,076, filed August 25, 2014, now abandoned, which is a continuation of U.S. application Serial No. 13/972,624, filed August 21, 2013 (now U.S. Patent No. 8,819,747), which is a continuation of U.S. application Serial No. 11/861,390, filed September 26, 2007 (now U.S. Patent No. 8,544,049). This application relates to and claims priority from Japanese Patent Application No. 2006-261645, filed on September 27, 2006. The entirety of the contents and subject matter of all of the above is incorporated herein by reference.

**AMENDMENTS TO THE ABSTRACT**

Please substitute the following paragraph(s) for the abstract now appearing in the currently filed specification:

-- A contents receiving system can include a content receiver and a portable terminal storing ID information. The content receiver can further include: a receiving unit capable of receiving content and subsidiary content from at least one of a broadcast wave and a network; an output unit capable of outputting, as audio video content, a video and/or audio of the content received by the receiving unit; a transmission unit capable of transmitting the subsidiary content to the portable terminal, the transmission unit enabling information on a payment transaction corresponding to an ID information of the portable terminal to be transmitted to the portable terminal individually, the portable terminal including: a second transmission unit capable of receiving the subsidiary content and the information on the payment transaction transmitted from the transmission unit of the content receiver; and a processing unit for performing a processing regarding the payment transaction. --

**REMARKS**

Entry of the foregoing amendment and remarks into the above-identified application is respectfully requested. The paragraph of "CROSS-REFERENCE TO RELATED APPLICATION" in the specification has been amended to update the priority information. The abstract has been amended to conform to the U.S. practice. Applicant respectfully submits that no new matter has been added by these amendments.

**Conclusion**

In view of the foregoing amendments and remarks, Applicants request reconsideration of the rejection and allowance of the claims.

The Commissioner is authorized to charge any shortage in the fees due, or credit any overpayment, to Deposit Account No. 50-1417 (referencing Attorney Docket No. SEI-12159-06).

Respectfully submitted,

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## TITLE OF THE INVENTION

Contents Receiving System and Client

## CROSS REFERENCE TO RELATED APPLICATION

5           This is a continuation of U.S. application Serial No. 13/972,624, filed August 21, 2013, which is a continuation of U.S. application Serial No. 11/861,390, filed September 26, 2007 (now U.S. Patent No. 8,544,049). This application relates to and claims priority from Japanese Patent Application No. 2006-261645, filed on September 27, 2006. The entirety of the contents and  
10   subject matter of all of the above is incorporated herein by reference.

## BACKGROUND OF THE INVENTION

          Part of the present invention relates to technologies for receiving video content through two-way broadcasting, for example, through a digital broadcast  
15   wave and/or a network.

          A stream including digitized video content is broadcasted and delivered to a receiving terminal unit located in each home through digital broadcasting or a broadband network (for example, FTTH: Fiber to the Home). This stream can include not only main video content such as a television program, but also  
20   various kinds of subsidiary contents including a data broadcast, advertising information (commercial information) of a commodity, information relating to broadcast programs, subtitle data, and an electronic program guide (EPG).

          At this time, if the main content and the subsidiary content are simultaneously displayed on a television receiver that is a typical receiving  
25   terminal unit, each display area used to display each content becomes narrower,

and accordingly it becomes relatively difficult for a user to view each content.

For the purpose of solving such a problem, for example,  
JP-A-2002-169747 and JP-A-2005-198061 described below disclose that main  
content is displayed on a main receiving terminal unit, whereas subsidiary  
5 content is displayed on, for example, a subsidiary receiving terminal unit such as  
portable communications equipment and a remote control unit.

## SUMMARY OF THE INVENTION

As described above, it is possible to provide a user with various kinds of  
10 information as subsidiary content. Here, even if each individual belongs to the  
same family, subsidiary content desired by one family member may differ from  
that desired by another family member. For example, if commercial information  
and a data broadcast are provided as subsidiary contents, there is a case where  
one family member wants to acquire the commercial information, whereas  
15 another family member wants to acquire news of the data broadcast.

Therefore, it is desirable that an information receiving terminal unit used  
at home, such as a television receiver, be capable of providing main content to  
be shared among the family members, and also be capable of providing  
subsidiary content in response to each family member's taste to allow viewing of  
20 the subsidiary content on an individual basis. However, in the above-described  
JP-A-2002-169747 and JP-A-2005-198061, such personalization of subsidiary  
content is not taken into consideration.

For this reason, the present invention provides a technology that is  
suitable for personalizing subsidiary content, which is transmitted together with  
25 main content, in response to user's taste in, for example, a system for receiving

content through a digital broadcast wave and/or a network.

As a specific example, there are provided a main receiving terminal unit, and a plurality of subsidiary receiving terminal units, each of which is capable of transmitting/receiving data. Each of the subsidiary receiving terminal units is  
5 provided with specific ID (identification) information. Subsidiary content corresponding to ID information is transmitted from the main receiving terminal unit to a subsidiary receiving terminal unit having the ID information.

According to the above-described configuration, for example, while family members view the main content such as a television program by use of a  
10 large-screen main receiving terminal unit (for example, a television receiver), information and data which each family member wants to know can be acquired by use of a subsidiary receiving terminal unit held by the each family member.

According to embodiments of the present invention, for example, it becomes possible to personalize subsidiary content in response to user's taste,  
15 and to provide each user with the subsidiary content.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a diagram illustrating an example of a contents receiving system;

Fig. 2 is a diagram illustrating a specific example of a contents receiving  
20 system;

Fig. 3 is a diagram illustrating an example of a menu screen used to select subsidiary content, the menu screen being displayed on a subsidiary content control receiver;

Fig. 4 is a diagram illustrating as an example the flow of how to acquire  
25 subsidiary content;

Fig. 5 is a diagram illustrating one specific example of the acquisition of subsidiary content;

Fig. 6 is a diagram illustrating another specific example of the acquisition of subsidiary content;

5 Fig. 7 is a diagram illustrating another specific example of a system; and

Fig. 8 is a diagram illustrating an example of table information stored in a main content receiving display unit.

## DESCRIPTION OF THE EMBODIMENTS

10 Embodiments of the present invention will be described with reference to drawings as below.

### First Embodiment

First of all, an example of a content receiving terminal system will be described with reference to Fig. 1.

15 In Fig. 1, through broadband Internet 104, a main content receiving display unit 100, which is a main receiving terminal unit, receives a stream delivered from a content delivery unit 103, and then displays main content. Here, it is assumed that the main content is multiplexed with subsidiary content to form a stream. In addition, the main content receiving display unit 100  
20 includes a broadcast receiver 201. Accordingly, the main content receiving display unit 100 also receives television broadcast signals of broadcasting services such as digital terrestrial broadcasting, digital BS/CS broadcasting services, and analog broadcasting. If a television broadcast signal to be received is a digital broadcast signal, as is the case with the above, a stream  
25 into which the main content and the subsidiary content are multiplexed is

received. Then, the main content is displayed on the display unit. Here, the main content receiving display unit 100 is a television receiver. Moreover, according to this embodiment, it is possible to receive both a stream coming from the broadband Internet 104 and a stream coming from television  
5 broadcasting. However, it may also be so configured that either of them can be received.

Incidentally, in this embodiment, the main content is, for example, moving picture content such as a television program. More specifically, the main content in this embodiment is video content that is displayed on the main  
10 content receiving display unit 100, and that can be viewed in common by family members.

On the other hand, each of subsidiary content control receivers A 101, B 102, which are subsidiary receiving terminal units, is devised to receive desired subsidiary content from the main content receiving display unit 100, and then to  
15 display the subsidiary content on the display unit, the desired subsidiary content being selected from among streams received by the main content receiving display unit 100.

Here, the subsidiary content includes, for example, multilanguage audio data (including Japanese audio data and English audio data), an electronic  
20 program guide used to program recording of a broadcast program (hereinafter referred to as "EPG"), an electronic content table that is delivered from the content delivery unit 103 (hereinafter referred to as "ECG" (Electric Contents Guide)), and additional information (including subtitle data and commercial information). In addition, the subsidiary content may also be content  
25 information obtained by down-converting the main content (for example, by

converting from the HD (High Definition) resolution into the SD (Standard Definition) resolution), and/or content information obtained by transforming an encoding method of the main content (for example, by transforming from the MPEG-2 (Motion Picture Expert Group) to the MPEG-4). In this case, the  
5 content information is subjected to copyright protection in response to characteristics of the content information. Moreover, if each of the subsidiary content control receivers A 101, B 102 has a browser function of browsing Internet sites, the subsidiary content information may also be home page data (address information, and URL (Uniform Resource Locator)) on Internet and  
10 metadata.

In addition, according to this embodiment, each of the subsidiary content control receivers A 101, B 102 transmits/receives information and data to/from the main content receiving display unit 100 through a wireless network (for example, a wireless LAN). As a matter of course, instead of using the wireless  
15 network, a wired network may also be used. Moreover, it is desirable to design the subsidiary content control receiver to be portable (transportable) so that the subsidiary content control receiver can be placed near at hand of a user. Accordingly, the size of a display unit of the subsidiary content control receiver is made smaller than the display size of the main content receiving display unit  
20 100.

In this embodiment, as described below, ID information which is specific identification information is given to, or stored in, each of the plurality of subsidiary content control receivers A 101, B 102. If the subsidiary content control receiver A 101 or B 102 issues an acquisition request to acquire desired  
25 subsidiary content, not only the acquisition request but also ID information of the

subsidiary content control receiver in question are transmitted to the main content receiving display unit 100. On the receipt of the acquisition request and the ID information, the main content receiving display unit 100 transmits the requested desired subsidiary content to the outside together with the received ID  
5 information. To be more specific, the main content receiving display unit 100 adds the ID information to the requested subsidiary content before transmitting the requested subsidiary content. Then, the subsidiary content control receiver receives, from the main content receiving display unit 100, the subsidiary content to which the ID information has been added. Only when ID information  
10 stored in the subsidiary content control receiver in question agrees with the ID information that has been received together with the subsidiary content, the subsidiary content control receiver in question acquires the subsidiary content. As a result, each of the plurality of subsidiary content control receivers A 101, B 102 can display the subsidiary content corresponding to each ID information,  
15 and/or output audio data of the subsidiary content corresponding to each of ID information.

For example, when the main content receiving display unit 100 receives a stream that is formed by multiplexing movie image data, which is provided as main content, with EPG data and supplementary audio data that are provided as  
20 subsidiary content, the subsidiary content control receiver A 101 can receive the EPG data from the main content receiving display unit 100 to display the EPG data, whereas the subsidiary content control receiver B 102 can receive the supplementary audio data to output the supplementary audio data. At this time, the main content receiving display unit 100 displays the movie that is the main  
25 content.

Further, each of the subsidiary content control receivers A 101, B 102 has a web site browsing request function. Accordingly, the subsidiary content control receivers A 101, B 102 are also configured to be capable of acquiring information from a web site on the basis of information including a URL that is  
5 linked to the main content.

Thus, according to this embodiment, the whole family members can enjoy video by use of the main content receiving display unit 100 that is formed of, for example, a large screen television receiver to be located in a living room as family use. In addition to it, it is possible to individually enjoy the subsidiary  
10 content by use of the subsidiary content control receiver that can be possessed by each family member. Therefore, according to this embodiment, the usability of the content receiving terminal unit is improved, and it becomes possible to provide video delivery services that suit the taste of each individual.

Moreover, according to the configuration described in this embodiment, a  
15 recording operation screen can also be displayed in the subsidiary content control receiver. Accordingly, recording operation can be carried out without displaying the recording operation screen on a screen of the main content receiving display unit 100, to which the family members are paying attention. Therefore, without hindering the family members from viewing the video content  
20 displayed on the main content receiving display unit 100, it is possible to carry out operation including downloading of a broadcast program on an individual basis concurrently with the viewing of the video content. Further, the main content receiving display unit 100 acquires information about functions of the subsidiary content control receivers 101 A, 101 B. For example, the main  
25 content receiving display unit 100 acquires the display resolution, information



about content-image format processing functions such as H.264 and MPEG-4, and information about audio processing functions such as AAC or MP3. Then, the main content receiving display unit 100 converts a format of the main content into that of the subsidiary content corresponding to terminal information of a target that is either the subsidiary content control receiver 101 A or 101 B. Accordingly, it becomes possible not only to provide desired content information, but also to provide content corresponding to each of the subsidiary content control receivers 101 A, 101 B. Moreover, an individual who uses each of the subsidiary content control receivers 101 A, 101 B can also be identified by use of specific ID information of each of the subsidiary content control receivers 101 A, 101 B. Furthermore, it is also possible to give the authority to set the parental control, and to give the authority to allow the purchase of content. Accordingly, users can view content without anxiety.

Next, one specific example of a contents receiving system according to this embodiment will be described with reference to Fig. 2. In this example, a case where a television receiver is used as the main content receiving display unit 100 will be described.

First of all, a specific example of the main content receiving display unit 100 will be described. A broadcast receiving control unit 309 includes, for example, a tuner for selecting a channel of television broadcasting. The broadcast receiving control unit 309 performs channel selecting operation on the basis of a switching signal generated by operation of a remote control unit. As a result, a stream of a television broadcast signal (terrestrial analog/digital broadcast signals, BS/CS analog/digital broadcast signals) of a desired channel is received. In addition, each of the subsidiary content control receivers A 101,

B 102 and the remote control unit may also be used in combination. In this case, a request information input/transmission control unit 313 acquires channel information based on an instruction by a user, the channel information having been transmitted from each of the subsidiary content control receivers A 101, B 102. The channel information is then analyzed by a content separation control unit 310. After that, the content separation control unit 310 uses the channel information to control channel selection of a tuner included in the broadcast receiving control unit 309. This also enables the subsidiary content control receiver A 101 or B 102 to select a channel of a broadcast program received through a broadcast wave I/F 308.

Moreover, through, for example, a network I/F 311 formed of broadband Internet, an IP (Internet Protocol) broadcast receiving/communication control unit 312 receives, for example, a stream that is encoded by MPEG-2, or the like. This network I/F 311 may also be connected to a home network used to communicate with an electrical apparatus used at home and/or each of the subsidiary content control receivers A 101, B 102 so that a stream is received through both the home network and the network I/F 311.

As described above, a stream which is received by the broadcast receiving control unit 309 and the IP broadcast receiving/communication control unit 312 includes: main content including moving picture content; and subsidiary content including subtitle data, EPG data, supplementary audio data, and other broadcast program related information.

The content separation control unit 310 separates the stream into main content and subsidiary content, the stream being received by the broadcast receiving control unit 309 and the IP broadcast receiving/communication control

unit 312. The content separation control unit 310 separates the stream into the subsidiary content in response to an acquisition request that has been received from each of the subsidiary content control receivers A 101, B 102 by the request information input/transmission control unit 313. For example, when the subsidiary content control receiver A 101 transmits an acquisition request to acquire supplementary audio data (for example, English audio), the request information input/transmission control unit 313 receives the acquisition request, and changes a format to a desired content data format on the basis of ID information, and then transmits the format to a CPU 301 through a request information control I/F 316 and a control I/F 303.

According to a program stored in a main memory 302, the CPU 301 analyzes the acquisition request, and then generates control information corresponding to the acquisition request. In this example, because the acquisition request is a request to acquire supplementary audio, the CPU 301 generates control information that is used to separate the received stream into supplementary audio data so as to extract the supplementary audio data as subsidiary content. The CPU 301 then gives the control information to the content separation control unit 310 through the control I/F 303. In response to the control information, the content separation control unit 310 uses a medium processing/display control unit 304 to extract the supplementary audio data, and then supplies the supplementary audio data to the request information input/transmission control unit 313 through a content data I/F 314. After that, the supplementary audio data in question is supplied from the request information input/transmission control unit 313 to, for example, a radio interface unit (main) 320 for performing data communications with infrared rays by means

of light modulation. The radio interface unit (main) 320 transmits the supplied supplementary audio data to the subsidiary content control receiver A 101 by means of radio transmission.

Here, the request information input/transmission control unit 313  
5 performs encoding control so that the subsidiary content is compressed and encoded by the medium processing/display control unit 304. Then, the content information obtained by compressing and encoding the subsidiary content is packeted into communication packets, the subsidiary content having been  
10 extracted as a result of the separation of the received stream by the medium processing/display control unit 304 in response to the request information. The radio interface unit (main) 320 transmits, by radio, this encoded and packeted subsidiary content to the subsidiary content control receiver. An encoding unit of the medium processing/display control unit 304 compresses and encodes not only audio data but also image data.

15 In addition, the subsidiary content control receiver A 101 or B 102 transmits ID information specific to the subsidiary content control receiver in question together with the acquisition request to acquire the subsidiary content. This ID information is temporarily stored in the request information input/transmission control unit 313. After that, the request information  
20 input/transmission control unit 313 adds the temporarily stored ID information to EPG data that has been extracted as a result of the separation of the received stream by the content separation control unit 310. The request information input/transmission control unit 313 then transmits the EPG data from the radio interface unit (main) 320 to the subsidiary content control receiver side. Details  
25 thereof will be described later.

On the other hand, main content data, into which the content separation control unit 310 has separated the received stream, is supplied to the medium processing/display control unit 304 through the content data I/F 314. The medium processing/display control unit 304 executes specified image and audio processing by use of a working memory 307. In this case, the medium processing/display control unit 304 supplies video data of the main content to a display unit 305, and supplies audio data of the main content to a speaker 306. As a result, the video and audio outputs of the main content are performed. Incidentally, the display unit 305 may also be, for example, a plasma display panel or a liquid crystal panel.

In addition, the medium processing/display control unit 304 has a function of processing subsidiary content data that has been extracted as a result of the separation of the received stream by the content separation control unit 310. Here, it may also be so devised that this subsidiary content is subjected to desired image processing before the subsidiary content is supplied to the request information input/transmission control unit 313 and the radio interface unit (main) 320. The image processing for the subsidiary content is executed in response to a request from the subsidiary content control receiver A 101 or B 102. For example, when a request to convert a video format is issued from the subsidiary content control receiver A 101 or B 102, the medium processing/display control unit 304 converts a video format of the subsidiary content. For example, if an encoding method for encoding the subsidiary content is MPEG-2, the video format of the subsidiary content is converted into, for example, a video format corresponding to the capability of the subsidiary content control receiver in question (for example, MPEG-4 or H.264).

A HDD 315 is connected to the content separation control unit 310 through the content data I/F 314. The HDD 315 mainly records the main content obtained as a result of the separation by the content separation control unit 310. As a matter of course, the subsidiary content may also be recorded to the HDD 315. The HDD 315 may also be used as a substitute for the working memory 307 used to convert the video format as described above. Recording operation in the HDD 315 is executed in response to a recording request from the remote control unit or from the subsidiary content control receiver A 101 or B 102 that is used together with the remote control unit. In addition, it may also be so devised that the subsidiary content, which has been recorded to the HDD, is transmitted to the subsidiary content control receiver in question through the request information input/transmission control unit 313 and the radio interface unit (main) 320. Moreover, the main content recorded to the HDD 315 may also be transmitted to the subsidiary content control receiver in question in like manner. In this case, the medium processing/display control unit 304 may convert a format of the main content into a format that conforms to a display format of the subsidiary content control receiver in question, before the main content is transmitted. For example, if video data of the main content has a resolution of 1980 x 1080, whereas a display unit 411 of the subsidiary content control receiver in question has a resolution of 320 x 240, the definition of the main content may also be changed by the medium processing/display control unit 304 to suit the resolution of the display unit 411. To be more specific, the main content may also be converted into signals whose number of pixels is 320 x 240.

In addition, the content separation control unit 310 also has a function of

managing information including: information about contract channels as fee-based services, and billing thereof; information used for the copyright protection; and information about the copyright of video content. Then, for example, user contractual coverage of a digital broadcast of a desired channel is  
5 checked by use of the above-described management information. If necessary, authentication processing and decryption processing are performed. This makes it possible to prevent content from being illegally copied, the authority to view the content having been given to a specific user. As a result, a content holder can provide the content without anxiety. Moreover, the content  
10 separation control unit 310 may also be configured to manage the copyright of the subsidiary content. This also makes it possible to prevent the subsidiary content from being illegally copied.

Next, a specific example of the subsidiary content control receivers A 101, B 102 will be described. As shown in Fig. 2, the two subsidiary content control  
15 receivers A 101, B 102 are used in this embodiment. Here, it is assumed that both of them have the same function and configuration (except that ID information differs from each other). Therefore, in the description below, only the subsidiary content control receiver A 101 will be described. In addition, according to this embodiment, the number of subsidiary content control  
20 receivers is two. However, as a matter of course, the number of subsidiary content control receivers may also be three, four, or more. Moreover, this example will be described with a portable telephone being taken as an example of the subsidiary content control receiver. Portable equipment such as a portable video game machine may also be used as the subsidiary content  
25 control receiver so long as the portable equipment has a network function, and

also has a function of transmitting/receiving control information and content information to/from the main content receiving display unit 100.

The subsidiary content control receiver A 101 includes a radio interface unit (sub) 420. The subsidiary content control receiver A 101 uses the radio  
5 interface unit (sub) 420 to perform two-way communications with the main content receiving display unit 100. First of all, transmission of data and information from the subsidiary content control receiver A 101 to the main content receiving display unit 100 will be described.

An operation unit 413 has a keyboard including a cursor key, numeric  
10 keys, and decision key. A user can select desired subsidiary content through the operation of these keys. To be more specific, subsidiary content is selected using a selection menu displayed on the display unit 411 and the keyboard.

When the user inputs an instruction to acquire the subsidiary content into the subsidiary content control receiver A 101, a CPU 401 displays, for example,  
15 a menu screen used to select subsidiary content as shown in Fig. 3 on the display unit 411 according to a program stored in a main memory 402. As seen in Fig. 3, this menu screen includes icons 450, each of which is used to select a kind of the subsidiary content. In this example, five icons 450 are displayed. The five icons 450 correspond to "Program guide", "Supplementary audio",  
20 "Subtitles", "Data broadcast", and "Related information" respectively.

The "Program guide" is the above-described electronic program guide (EPG). For example, a program guide whose format is similar to that of television program listings appearing in newspaper pages is displayed. The  
"Supplementary audio" is, for example, audio in other languages, such as  
25 second audio. For example, if Japanese is used as main audio, audio in



English or Chinese is used as the supplementary audio. The "Subtitles" is subtitle data that is provided in synchronization with audio of the main content. The "Data broadcast" is, for example, data described in BML (Broadcast Markup Language). The "Data broadcast" is used to provide, for example, news, market information such as stock prices, weather forecast, and advertisement information such as commodities. In addition, the "Related information" is, for example, information relating to main content. For example, if the main content is a drama, the "Related information" includes the director and cast of the drama, and web page information (URL) of the drama. Further, if the main content is a commercial, the "Related information" includes information relating to a commodity introduced in the commercial. More specifically, the "Related information" includes, for example, a price of the commodity, the scheduled sale day, a manufacturer of the commodity, and web page information (URL) of the manufacturer. In the case of broadband content, a broadband communication path is utilized. Accordingly, in addition to the delivery of the same content information, it is also possible to deliver commercial information that suits user's age group, and user's taste. Thus, besides main commercials provided by main sponsors, it is also possible to provide each of the subsidiary content control receivers A 101, B 102 with commercial information corresponding to a user who possesses a terminal unit.

A user refers to a selection menu screen, which is displayed on the display unit 411 of the subsidiary content control receiver A 101, and then selects a desired kind of subsidiary content from among the five icons 450. This selection is made by moving a cursor 460 to the desired icon 450 by use of an unillustrated cursor key of the keyboard, and then by pressing an

unillustrated decision key. In the example shown in Fig. 3, the cursor is positioned over the icon 450 corresponding to the "Program guide". This means that the "Program guide" is selected. Incidentally, in this example, the icon 450 is selected by use of the cursor key and the decision key. However, a display surface of the display unit 411 may also be provided with a touch panel so that each of the icons 450 can be selected by directly touching the display surface in question. This selection menu is hierarchized. It is possible to customize the selection menu on the basis of an operation history of the user. The selection menu is selectable by key operation.

10           When desired subsidiary content is selected, the CPU 401 generates an acquisition request to acquire the subsidiary content. Because the "Program guide" is selected in this example, the CPU 401 generates an acquisition request to acquire the "Program guide". Next, the CPU 411 reads out ID information specific to the subsidiary content control receiver A 101, the ID information being stored in the main memory. Then, the CPU 411 outputs the ID information and the generated acquisition request to a communication control unit 405 through a control I/F 404. As a matter of course, the subsidiary content control receiver B 102 stores ID information that differs from that of the subsidiary content control receiver A 101. After that, the communication control unit 405 associates the acquisition request with the ID information, and then transmits them from the radio interface unit (sub) 420 to the main content receiving display unit 100 side. Incidentally, although the ID information is stored in the main memory 402 in this example, the ID information may also be stored in, for example, a RAM in the CPU 401. In addition, the ID information includes: a kind of decryption method of each of the subsidiary content control

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receivers A 101, B 102; equipment information such as the resolution of the display unit 411; and user information used to identify an individual.

Subsequently, transmission of data and information from the main content receiving display unit 100 to the subsidiary content control receiver A 101 will be described. As described above, packet data of subsidiary content corresponding to the acquisition request is transmitted from the main content receiving display unit 100 together with the ID information transmitted from the subsidiary content control receiver A 101. The radio interface unit (sub) 420 receives the packet data to which the ID information is added. The packet data is then supplied to the communication control unit 405. Here, the communication control unit 405 includes a comparison unit and a decryption unit. The comparison unit compares the ID information, which is added to the received packet data, with ID information that is stored in the subsidiary content control receiver A 101 (more specifically, ID information stored in the main memory 402). As a result of the comparison, if both of them do not agree with each other, the received packet is discarded. If both of them agree with each other, the decoding unit decodes the received packet, and thereby data of the subsidiary content is reproduced. In addition to the ID information specific to the subsidiary content control receiver in question, the ID information may also include: a kind of a decoding function of the subsidiary content control receiver in question; the resolution of the display unit thereof; the performance of the CPU; a telephone number by which a user who possesses the subsidiary content control receiver in question can be identified; and settlement information.

The packet data of the subsidiary content coming from the main content

receiving display unit 100 can also be received by the subsidiary content control receiver B 101. However, because the ID information which is added to the packet data in question (that is to say, the ID information specified to the subsidiary content control receiver A 101) differs from the ID information that is  
5 stored in the subsidiary content control receiver B 102, the packet data in question is discarded in the subsidiary content control receiver B 102. As a result, it is possible to acquire subsidiary content on a subsidiary content control receiver basis.

The subsidiary content data, which has been decoded and reproduced  
10 by the communication control unit 405, is supplied to a stream control unit 408 and a medium processing/display control unit 409 through a content data I/F 407. The medium processing/display control unit 409 uses a working memory 410 to perform specified image processing of image data of the subsidiary content, and to perform specified audio processing of audio data of the subsidiary content.  
15 The image data of the subsidiary content, which has been subjected to the image processing by the medium processing/display control unit 409, is supplied to the display unit 411 so that the image data is displayed. On the other hand, the audio data of the subsidiary content, which has been subjected to the audio processing, is supplied to a speaker 306 so that the audio data is output. As a  
20 result, it is possible to view the subsidiary content by use of, for example, the subsidiary content control receiver A 101 that is formed of a portable telephone, or the like.

In addition, a security control unit 403 also has a function of managing information including: information about contract channels as fee-based services,  
25 and billing thereof; information used for the copyright protection; and information

about the copyright of video content. Then, for example, user contractual coverage of a digital broadcast of a desired channel is checked by use of the above-described management information. If necessary, authentication processing and decryption processing are performed. This makes it possible to prevent content from being illegally copied, the authority to view the content having been given to a specific user. As a result, a content holder can provide the content without anxiety. If the subsidiary content control receiver in question is a portable telephone, the security control unit 403 may also perform the charging and settlement processing relating to viewed content by utilizing functions of the portable telephone. If each of the subsidiary content control receivers A 101, B 102 includes a storage medium (a SD card, a small-size HDD, or the like), it is also possible to download content to the storage medium by including the authorization to view the content in the above-described ID information. Accordingly, it also becomes possible to carry information of the main content.

The process flow of how to acquire subsidiary content of the above-described contents receiving system according to this embodiment will be schematically described with reference to Fig. 4. In Fig. 4, steps S10 through S13 and S16 through S19 are processing on the subsidiary content control receiver side, whereas steps S14 through S15 are processing on the main content receiving display unit 100 side.

First of all, in the step S10, the menu screen used to select subsidiary content, which is shown in Fig. 3, is displayed. In the step S11, a user selects the icon 450 corresponding to a kind of desired subsidiary content while viewing the menu screen. Next, in the step S12, the CPU 401 generates an acquisition

request to acquire the subsidiary content corresponding to the selected icon 450, and then reads out ID information from the main memory 402. Subsequently, in the step S13, a communication control unit 405 adds the ID information to the acquisition request, and then transmits the acquisition request to the main content receiving display unit 100 through the radio interface unit (sub) 420.

In the step S14, the content separation control unit 310 of the main content receiving display unit 100 acquires a kind of the subsidiary content indicated by the acquisition request, a kind of encoding that is to be subjected to decoding so as to generate reproducible subsidiary content, and resolution information of the display unit 411. The content separation control unit 310 then authenticates the connection to the subsidiary content control receiver A 101 or B 102 to which the user is allowed to connect so that corresponding subsidiary content is extracted from the received stream as a result of the separation of a received stream. Incidentally, as described above, the ID information which has been added to the acquisition request is temporarily stored in the request information input/transmission control unit 313. After that, the request information input/transmission control unit 313 compresses and encodes the stored ID information and the extracted subsidiary content, and further converts them into packets. The packets are then transmitted to the subsidiary content control receiver side through the radio interface unit (main) 320.

Subsequently, in the step S16, the communication control unit 405 of the subsidiary content control receiver in question compares ID information included in the packet data transmitted from the main content receiving display unit 100 with ID information of the subsidiary content control receiver in question. Here, if both of them do not agree with each other, the process proceeds to the step

S17 where the received packet data is discarded. If they agree with each other, the process proceeds to the step S18 where the communication control unit 405 decodes the subsidiary content. Lastly, in the step S19, video data of the decoded subsidiary content is output by the display unit 411, and/or audio data  
5 of the decoded subsidiary content is output by the speaker 412.

Thus, according to this embodiment, because it becomes possible to request, acquire, and view the subsidiary content on a subsidiary content control receiver basis, it is possible to achieve the personalization of the subsidiary content. Moreover, on the basis of the personalized subsidiary content and the  
10 main content, it is possible to acquire favorite information with the family members or on an individual basis. Therefore, it is possible to achieve a new viewing style.

Incidentally, as shown in Fig. 3, one menu screen is used to select the subsidiary content in this embodiment. However, it may also be so configured  
15 that a plurality of menu screens are hierarchically provided to allow a user to select subsidiary content by use of the plurality of menu screens. For example, when an icon corresponding to the "Data broadcast" is selected in the menu screen, another menu screen, which is constituted of icons each corresponding to a kind of "Data broadcast" (for example, "News", "Market information", and  
20 "Weather forecast"), is displayed so that the menu screen is used to select subsidiary content.

In addition, the radio interface unit may also use, for example, a wireless network such as a wireless LAN.

Next, one specific example of the acquisition of subsidiary content  
25 according to this embodiment will be described with reference to Fig. 5.

Because specific processing of each subsidiary content control receiver which uses ID information is the same as that described above, description thereof will be omitted here. Fig. 5 is a diagram illustrating as an example the flow of content acquisition that uses broadband Internet. A stream which includes

5 movie content corresponding to multi-languages is delivered from a content delivery unit. This stream 500 includes: video content 501 that is handled as main content; and Japanese audio data 502 and English audio data 503, both of which are handled as subsidiary content.

The subsidiary content control receiver A 101 transmits an acquisition

10 request 505 to acquire English audio data, and ID information, to the main content receiving display unit 100. Here, the English audio data is second audio data accompanying the movie content. The main content receiving display unit 100 analyzes the received data, and then judges that the received data includes the acquisition request to acquire the English audio data. Accordingly, the main

15 content receiving display unit 100 extracts the English audio data 505, which is the second audio data, from the video content 504 received from the broadband Internet. Then, the main content receiving display unit 100 transmits the extracted English audio data 505 to the subsidiary content control receiver A 101 together with ID information of the subsidiary content control receiver A 101.

20 On the other hand, the subsidiary content control receiver B 102 transmits an acquisition request 506 to acquire subtitle data accompanying the movie content, and ID information, to the main content receiving display unit 100. The main content receiving display unit 100 analyzes the received data, and then judges that the received data includes the acquisition request to acquire the

25 subtitle data. Accordingly, the main content receiving display unit 100 extracts



the subtitle data 508 from the video content 504 received from the broadband Internet, and then transmits the extracted subtitle data 508 to the subsidiary content control receiver B 101 together with ID information of the subsidiary content control receiver B 102.

5           The main content receiving display unit 100 supplies the video content that is the main content, and also provides a viewing environment based on Japanese audio. In addition to them, the main content receiving display unit 100 supplies the subsidiary content to each of the subsidiary content control receivers A 101, B 102 in response to a request from one or more users to  
10   acquire desired subsidiary content.

As a result, even if the family members are viewing the same movie title, it is possible to provide a different viewing environment (for example, viewing with English audio data, and viewing with Japanese audio data) on an individual basis.

15           Next, another specific example of the acquisition of subsidiary content according to this embodiment will be described with reference to Fig. 6. Because specific processing of each subsidiary content control receiver which uses ID information is the same as that described above, description thereof will be omitted here. Fig. 6 is a diagram illustrating as an example the flow of the  
20   content acquisition that uses a broadcast wave and broadband. This example is a case where automobile commercial content is viewed from the broadcast wave. A stream 600 coming from the broadcast wave includes: the automobile commercial content 601 that is the main content; automobile information 602 including a URL of a home page of an automobile manufacturer, and prices are  
25   grades; and commercial song information 603. The automobile information 602

and the commercial song information 603 are the subsidiary content, and accompany the automobile commercial content 601.

The subsidiary content control receiver A 102 transmits an acquisition request 605 to acquire the automobile information 602, which accompanies  
5 broadcast wave video content information 600, to the main content receiving display unit 100 together with ID information. The main content receiving display unit 100 analyzes the received data, and then judges that the received data includes the acquisition request to acquire the automobile information. Then, the main content receiving display unit 100 analyzes metadata information  
10 including URLs of Web sites from the video content 604 received through the broadband Internet so as to extract the automobile information. The automobile information is transmitted to the subsidiary content control receiver A 101 together with the ID information of the subsidiary content control receiver A 101. The subsidiary content control receiver A 101 accesses an information providing  
15 server 610 on the basis of the URL information included in the automobile information to acquire the automobile information including desired prices and grades from the information providing server 610 so that the automobile information is displayed. If the subsidiary content control receiver A 101 is a portable telephone, it is also possible to acquire information by accessing the  
20 information providing server 610 through a portable telephone network.

On the other hand, the subsidiary content control receiver B 102 transmits an acquisition request 606 to acquire information relating to BGM (Back Ground Music) of an automobile commercial to the main content receiving display unit 100 together with ID information. The main content receiving  
25 display unit 100 analyzes the received data, and thereby judges that the

received data includes a request to acquire commercial song information accompanying the automobile commercial content 601. After that, the main content receiving display unit 100 extracts the commercial song information 603 from the video content information 600 received from the broadcast wave, and  
5 then transmits the commercial song information 603 to the subsidiary content control receiver B 102 together with the ID information of the subsidiary content control receiver B 102. The subsidiary content control receiver B 102 accesses the information providing server 610 on the basis of the URL information to acquire, from the information providing server 610, information including a title of  
10 a desired commercial song (BGM), an artist name, and an album name so that the acquired information is displayed. If the subsidiary content control receiver B 102 is a portable telephone, it is also possible to acquire the information by accessing the information providing server 610 through the portable telephone network.

15 As a result, even if the family members are viewing automobile commercial content information, it is possible to acquire the automobile information and the commercial song information on an individual basis. Therefore, it becomes possible to provide a new CM viewing environment that could not be achieved by the conventional technologies. Moreover, by sharing  
20 a television set located in a living room among the family members, and by possessing each subsidiary content control receiver by each family member, it becomes possible to enjoy a digital life style that differs from the conventional ones, the digital life style in question being based on not only the main content information but also the subsidiary content information corresponding to user's  
25 taste.

Still another specific example of this embodiment will be described with reference to Fig. 7. Heretofore, while a broadcast program from a broadcast wave and a broadband is viewed, it is possible to make programmed recording by use of EPG data 702. In this case, because a screen of a television receiver  
 5 is also used as a user operation screen, both movie content 701 and EPG content 702 are displayed on one screen during the programmed recording operation. In contrast to this, in this example, if a user wants to continuously view the movie content 701, it is possible to display the EPG data, which is the subsidiary content, by use of each of the subsidiary content control receivers A  
 10 101, B 102 at hand. This enables the main content receiving display unit 100 to continuously display only the video content with high image quality on a large screen.

When the movie content 701 is being viewed, a user who possesses the subsidiary content control receiver A 101 can display the EPG screen 702  
 15 thereon to make a programmed recording of a desired broadcast program at hand. In addition, another user can use the subsidiary content control receiver B 102 to listen to second audio information of the movie content 701 through a headphone 703. As a result, while the main content is displayed by the main content receiving display unit 100, it is possible for a user to check EPG, ECG, or  
 20 the like, or to make a programmed recording with reference to the EPG, ECG, or the like, by use of a subsidiary content control receiver held by the user.

## Second Embodiment

In the above-described embodiment, the ID information is determined on  
 25 a subsidiary content control receiver basis. Any ID information may also be

used so long as each subsidiary content control receiver can be identified. For example, if subsidiary content control receivers can communicate through a network, an IP address, which is assigned to each subsidiary content control receiver, can also be used as the ID information. This IP address may be a  
 5 local address, or may also be a global address that can be used in the Internet.

An embodiment in which ID information is used as an IP address will be described with reference to Fig. 8. Fig. 8 is a table illustrating table information stored in the main content receiving display unit 100. In the table, each of the subsidiary content control receivers A 101, B 102 is associated with request  
 10 information, and an IP address of the each subsidiary content control receiver. The request information indicates a kind of subsidiary content including EPG data, English audio data, subtitle data, ECG data, and URL information of a Web site. Any kind of subsidiary content may also be used so long as it accompanies main content such as video content. Here, by associating the  
 15 request information with an IP address of a corresponding subsidiary content control receiver beforehand, the main content receiving display unit 100 can provide desired content information on the basis of this table. The table shown in Fig. 8 is merely an example. Therefore, the IP address may also be an ID specific to each apparatus used for communications, such as a global address  
 20 of IPv6 (Internet Protocol version 6), and a telephone number of a portable telephone.

This embodiment can be applied to a system that is capable of receiving a stream including main content and subsidiary content, and that is capable of separating the stream into the main content and the subsidiary content to supply  
 25 a main display unit and a sub display unit with the main content and the

subsidiary content.

What is claimed is:

1. A contents receiving system comprising:
  - a content receiver; and
  - 5 a portable terminal storing ID information with which its user can be distinguished from other users of other portable terminals, the content receiver including:
    - a receiving unit capable of receiving content and subsidiary content from at least one of a broadcast wave and a network;
    - 10 an output unit capable of outputting, as audio video content, a video and/or audio of the content received by the receiving unit;
    - a transmission unit capable of transmitting the subsidiary content to the portable terminal, the transmission unit enabling information on a payment transaction corresponding to an ID information of the portable terminal to be
    - 15 transmitted to the portable terminal individually, the portable terminal including:
      - a second transmission unit capable of receiving the subsidiary content and the information on the payment transaction transmitted from the transmission unit of the content receiver; and
      - 20 a processing unit for performing a processing regarding the payment transaction of the content by use of the information on the payment transaction received at the second transmission unit.

## ABSTRACT OF THE DISCLOSURE

A contents receiving system including: a content receiver; and a portable terminal storing ID information with which its user can be distinguished from other users of other portable terminals, the content receiver including: a

5 receiving unit capable of receiving content and subsidiary content from at least one of a broadcast wave and a network; an output unit capable of outputting, as audio video content, a video and/or audio of the content received by the receiving unit; a transmission unit capable of transmitting the subsidiary content to the portable terminal, the transmission unit enabling information on a payment

10 transaction corresponding to an ID information of the portable terminal to be transmitted to the portable terminal individually, the portable terminal including: a second transmission unit capable of receiving the subsidiary content and the information on the payment transaction transmitted from the transmission unit of the content receiver; and a processing unit for performing a processing

15 regarding the payment transaction of the content by use of the information on the payment transaction received at the second transmission unit.



## Electronic Patent Application Fee Transmittal

|                                                      |                                        |                 |               |                             |
|------------------------------------------------------|----------------------------------------|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                           |                                        |                 |               |                             |
| <b>Filing Date:</b>                                  |                                        |                 |               |                             |
| <b>Title of Invention:</b>                           | CONTENTS RECEIVING SYSTEM AND CLIENT   |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>          | Hideki Kamimaki                        |                 |               |                             |
| <b>Filer:</b>                                        | John Roberts Mattingly/Krista Hargrove |                 |               |                             |
| <b>Attorney Docket Number:</b>                       | SEI-12159-06                           |                 |               |                             |
| Filed as Large Entity                                |                                        |                 |               |                             |
| <b>Filing Fees for   Utility under 35 USC 111(a)</b> |                                        |                 |               |                             |
| <b>Description</b>                                   | <b>Fee Code</b>                        | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                                 |                                        |                 |               |                             |
| UTILITY APPLICATION FILING                           | 1011                                   | 1               | 300           | 300                         |
| UTILITY SEARCH FEE                                   | 1111                                   | 1               | 660           | 660                         |
| UTILITY EXAMINATION FEE                              | 1311                                   | 1               | 760           | 760                         |
| <b>Pages:</b>                                        |                                        |                 |               |                             |
| <b>Claims:</b>                                       |                                        |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                         |                                        |                 |               |                             |
| <b>Petition:</b>                                     |                                        |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>              |                                        |                 |               |                             |

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| <b>EFS ID:</b>                              | 39226838                               |
| <b>Application Number:</b>                  | 16855012                               |
| <b>International Application Number:</b>    |                                        |
| <b>Confirmation Number:</b>                 | 6885                                   |
| <b>Title of Invention:</b>                  | CONTENTS RECEIVING SYSTEM AND CLIENT   |
| <b>First Named Inventor/Applicant Name:</b> | Hideki Kamimaki                        |
| <b>Customer Number:</b>                     | 24956                                  |
| <b>Filer:</b>                               | John Roberts Mattingly/Krista Hargrove |
| <b>Filer Authorized By:</b>                 | John Roberts Mattingly                 |
| <b>Attorney Docket Number:</b>              | SEI-12159-06                           |
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| <b>Time Stamp:</b>                          | 10:39:56                               |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)            |

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| Document Number | Document Description                                | File Name                    | File Size(Bytes)/<br>Message Digest      | Multi Part /.zip | Pages (if appl.) |
|-----------------|-----------------------------------------------------|------------------------------|------------------------------------------|------------------|------------------|
| 1               | Application Data Sheet                              | 12159-06-ADS.pdf             | 1828864                                  | no               | 9                |
|                 |                                                     |                              | 2cbf8a005a5c5cdd218b7117d49b6c3cc4f6385e |                  |                  |
| Warnings:       |                                                     |                              |                                          |                  |                  |
| Information:    |                                                     |                              |                                          |                  |                  |
| 2               | Drawings-only black and white line drawings         | 12159-06-DWG.pdf             | 197333                                   | no               | 8                |
|                 |                                                     |                              | a2edf082d51328f14a1d112d5c718953737d82bd |                  |                  |
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| Information:    |                                                     |                              |                                          |                  |                  |
| 3               | Transmittal Letter                                  | 12159-06-IDS.pdf             | 16103                                    | no               | 2                |
|                 |                                                     |                              | 044efd2aa5896dc6ad7ac1022c58f474aeeb7086 |                  |                  |
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| 4               | Information Disclosure Statement (IDS) Form (SB08)  | 12159-06-SB08.pdf            | 613033                                   | no               | 6                |
|                 |                                                     |                              | 8165bf5aafaac1b4e65a742bc181baf59129c5c2 |                  |                  |
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| 5               | Power of Attorney                                   | 12159-06-POA.pdf             | 460462                                   | no               | 4                |
|                 |                                                     |                              | 745d16c863b7987da9710dd3afbbe008bf0c9a86 |                  |                  |
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| 6               |                                                     | 12159-06-PrelAmd.pdf         | 27289                                    | yes              | 4                |
|                 |                                                     |                              | fa9421cc20ae5d5b5f4a6d063edb431d0de78b32 |                  |                  |
|                 | Multipart Description/PDF files in .zip description |                              |                                          |                  |                  |
|                 | Document Description                                | Start IPR2025-01308: Samsung | End                                      |                  |                  |

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|------------------------------|-----------------------------------------------------|------------------------|------------------------------------------|-----|----|
|                              | Preliminary Amendment                               |                        | 1                                        | 1   |    |
|                              | Specification                                       |                        | 2                                        | 2   |    |
|                              | Abstract                                            |                        | 3                                        | 3   |    |
|                              | Applicant Arguments/Remarks Made in an Amendment    |                        | 4                                        | 4   |    |
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| 7                            | Oath or Declaration filed                           | 15159-06-decwtrans.pdf | 195733                                   | no  | 4  |
|                              |                                                     |                        | 43daba4a44ad14f60a8aac31c9217aa9cd35e3ca |     |    |
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| 8                            |                                                     | 15159-06-spec.pdf      | 2885962                                  | yes | 32 |
|                              |                                                     |                        | 9ef2abb8ce5bec922dd1150d953e5ca5dc0dca6a |     |    |
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|                              | Specification                                       |                        | 1                                        | 30  |    |
|                              | Claims                                              |                        | 31                                       | 31  |    |
|                              | Abstract                                            |                        | 32                                       | 32  |    |
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| 9                            | Fee Worksheet (SB06)                                | fee-info.pdf           | 35006                                    | no  | 2  |
|                              |                                                     |                        | a84ad635434061ee28f1e57c952ff4a3b120e311 |     |    |
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| <b>Application Data Sheet 37 CFR 1.76</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                      | Attorney Docket Number | SEI-12159-06 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      | Application Number     |              |
| Title of Invention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |
| <p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.</p> <p>This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p> |                                      |                        |              |

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**Inventor Information:**

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| Inventor   | 3 |  |  |  | Remove |
| Legal Name |   |  |  |  |        |

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| <b>Application Data Sheet 37 CFR 1.76</b> |                                      | Attorney Docket Number | SEI-12159-06 |
|                                           |                                      | Application Number     |              |
| Title of Invention                        | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |

|                                                                                                                                    |            |                                   |             |        |
|------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------|-------------|--------|
| Prefix                                                                                                                             | Given Name | Middle Name                       | Family Name | Suffix |
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| Residence Information (Select One)    US Residency <input checked="" type="radio"/> Non US Residency    Active US Military Service |            |                                   |             |        |
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| <b>Mailing Address of Inventor:</b>                                                                                                                                                |                                                |                      |    |  |
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| Address 2                                                                                                                                                                          | 6-1, Marunouchi 1-chome, Chiyoda-ku            |                      |    |  |
| City                                                                                                                                                                               | Tokyo                                          | State/Province       |    |  |
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|---------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------|--------------|
| Enter either Customer Number or complete the Correspondence Information section below.<br>For further information see 37 CFR 1.33(a). |                     |           |              |
| <input type="checkbox"/> An Address is being provided for the correspondence information of this application.                         |                     |           |              |
| Customer Number                                                                                                                       | 24956               |           |              |
| Email Address                                                                                                                         | ptomail@mmiplaw.com | Add Email | Remove Email |

## Application Information:

|                                         |                                      |                                           |                          |
|-----------------------------------------|--------------------------------------|-------------------------------------------|--------------------------|
| Title of the Invention                  | CONTENTS RECEIVING SYSTEM AND CLIENT |                                           |                          |
| Attorney Docket Number                  | SEI-12159-06                         | Small Entity Status Claimed               | <input type="checkbox"/> |
| Application Type                        | Nonprovisional                       |                                           |                          |
| Subject Matter                          | Utility                              |                                           |                          |
| Total Number of Drawing Sheets (if any) | 8                                    | Suggested Figure for Publication (if any) |                          |

## Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

|                                                        |                          |                                                         |
|--------------------------------------------------------|--------------------------|---------------------------------------------------------|
| Application number of the previously filed application | Filing date (YYYY-MM-DD) | Intellectual Property Authority or Country <sup>i</sup> |
|                                                        |                          |                                                         |



|                                           |                                      |                        |              |
|-------------------------------------------|--------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                      | Attorney Docket Number | SEI-12159-06 |
|                                           |                                      | Application Number     |              |
| Title of Invention                        | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |

**Publication Information:**
☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

**Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

**Representative Information:**

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

|                    |                                                  |                                              |                                                         |
|--------------------|--------------------------------------------------|----------------------------------------------|---------------------------------------------------------|
| Please Select One: | <input checked="" type="radio"/> Customer Number | <input type="radio"/> US Patent Practitioner | <input type="radio"/> Limited Recognition (37 CFR 11.9) |
| Customer Number    | 24956                                            |                                              |                                                         |

**Domestic Benefit/National Stage Information:**

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

|                          |                 |                          |                                    |                                |                         |
|--------------------------|-----------------|--------------------------|------------------------------------|--------------------------------|-------------------------|
| Prior Application Status | Pending         | Remove                   |                                    |                                |                         |
| Application Number       | Continuity Type | Prior Application Number | Filing or 371(c) Date (YYYY-MM-DD) |                                |                         |
|                          | Continuation of | 16387841                 | 2019-04-18                         |                                |                         |
| Prior Application Status | Abandoned       | Remove                   |                                    |                                |                         |
| Application Number       | Continuity Type | Prior Application Number | Filing or 371(c) Date (YYYY-MM-DD) |                                |                         |
| 16387841                 | Continuation of | 15/602417                | 2017-05-23                         |                                |                         |
| Prior Application Status | Abandoned       | Remove                   |                                    |                                |                         |
| Application Number       | Continuity Type | Prior Application Number | Filing or 371(c) Date (YYYY-MM-DD) |                                |                         |
| 15/602417                | Continuation of | 14/467076                | 2014-08-25                         |                                |                         |
| Prior Application Status | Patented        | Remove                   |                                    |                                |                         |
| Application Number       | Continuity Type | Prior Application Number | Filing Date (YYYY-MM-DD)           | Patent Number                  | Issue Date (YYYY-MM-DD) |
| 14/467076                | Continuation of | 13/972624                | 2013-08-21                         | 8819742 2025-01308; 2014-08-26 | 2014-08-26              |

|                                                                                                                       |                 |                                      |                          |               |                         |
|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------|--------------------------|---------------|-------------------------|
| <b>Application Data Sheet 37 CFR 1.76</b>                                                                             |                 | Attorney Docket Number               |                          | SEI-12159-06  |                         |
|                                                                                                                       |                 | Application Number                   |                          |               |                         |
| Title of Invention                                                                                                    |                 | CONTENTS RECEIVING SYSTEM AND CLIENT |                          |               |                         |
| Prior Application Status                                                                                              |                 | Patented                             |                          | Remove        |                         |
| Application Number                                                                                                    | Continuity Type | Prior Application Number             | Filing Date (YYYY-MM-DD) | Patent Number | Issue Date (YYYY-MM-DD) |
| 13/972624                                                                                                             | Continuation of | 11/861390                            | 2007-09-26               | 8544049       | 2013-09-24              |
| Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the <b>Add</b> button. |                 |                                      |                          |               | Add                     |

## Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)<sup>i</sup> the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

|                                                                                                        |                      |                          |                                          |
|--------------------------------------------------------------------------------------------------------|----------------------|--------------------------|------------------------------------------|
|                                                                                                        |                      |                          | Remove                                   |
| Application Number                                                                                     | Country <sup>i</sup> | Filing Date (YYYY-MM-DD) | Access Code <sup>i</sup> (if applicable) |
| 2006-261645                                                                                            | JP                   | 2006-09-27               |                                          |
| Additional Foreign Priority Data may be generated within this form by selecting the <b>Add</b> button. |                      |                          | Add                                      |

## Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

- ☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
- NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

|                                           |                                      |                        |              |
|-------------------------------------------|--------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                      | Attorney Docket Number | SEI-12159-06 |
|                                           |                                      | Application Number     |              |
| Title of Invention                        | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |

## Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

**NOTE:** This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

### 1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

**A. Priority Document Exchange (PDX)** - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

**B. Search Results from U.S. Application to EPO** - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

### 2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

**NOTE:** Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

|                                           |                                      |                        |              |
|-------------------------------------------|--------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                      | Attorney Docket Number | SEI-12159-06 |
|                                           |                                      | Application Number     |              |
| Title of Invention                        | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |

## Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                  |                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| <b>Applicant</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                                                | <a href="#">Remove</a>                           |
| <p>If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.</p> <p style="text-align: right;"><a href="#">Clear</a></p> |                                                  |                                                  |
| <input checked="" type="radio"/> Assignee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Legal Representative under 35 U.S.C. 117         | Joint Inventor                                   |
| Person to whom the inventor is obligated to assign.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  | Person who shows sufficient proprietary interest |
| If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                  |                                                  |
| <div style="border: 1px solid black; height: 20px; width: 100%;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                  |                                                  |
| Name of the Deceased or Legally Incapacitated Inventor: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                  |                                                  |
| If the Applicant is an Organization check here. <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  |                                                  |
| Organization Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MAXELL, LTD.                                     |                                                  |
| <b>Mailing Address Information For Applicant:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                  |                                                  |
| Address 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1 KOIZUMI, OYAMAZAKI, OYAMAZAKI-CHO, OTOKUNI-GUN |                                                  |
| Address 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                  |                                                  |
| City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | KYOTO                                            | State/Province                                   |
| Country                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | JP                                               | Postal Code                                      |
| Phone Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                  | Fax Number                                       |
| Email Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                  |                                                  |
| Additional Applicant Data may be generated within this form by selecting the Add button. <a href="#">Add</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                  |                                                  |

## Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

|                                           |                                      |                        |              |
|-------------------------------------------|--------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                      | Attorney Docket Number | SEI-12159-06 |
|                                           |                                      | Application Number     |              |
| Title of Invention                        | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                      |                      |                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|---------------------------------------|
| <b>Assignee</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1                    |                      |                      |                                       |
| Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication. |                      |                      |                      |                                       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                      |                      | <input type="button" value="Remove"/> |
| If the Assignee or Non-Applicant Assignee is an Organization check here.                                                                                                                                                                                                                                                                                                                                                                               |                      |                      |                      | <input type="checkbox"/>              |
| Prefix                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Given Name           | Middle Name          | Family Name          | Suffix                                |
| <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/>                  |
| <b>Mailing Address Information For Assignee including Non-Applicant Assignee:</b>                                                                                                                                                                                                                                                                                                                                                                      |                      |                      |                      |                                       |
| Address 1                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="text"/> |                      |                      |                                       |
| Address 2                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="text"/> |                      |                      |                                       |
| City                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="text"/> | State/Province       | <input type="text"/> |                                       |
| Country <sup>i</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="text"/> | Postal Code          | <input type="text"/> |                                       |
| Phone Number                                                                                                                                                                                                                                                                                                                                                                                                                                           | <input type="text"/> | Fax Number           | <input type="text"/> |                                       |
| Email Address                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input type="text"/> |                      |                      |                                       |
| Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.                                                                                                                                                                                                                                                                                                                                      |                      |                      |                      | <input type="button" value="Add"/>    |

**Signature:**

**NOTE:** This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the **INITIAL** filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

|                                                                                     |                     |           |                   |                                    |
|-------------------------------------------------------------------------------------|---------------------|-----------|-------------------|------------------------------------|
| <b>Signature</b>                                                                    | /John R. Mattingly/ |           | Date (YYYY-MM-DD) | 2020-04-22                         |
| First Name                                                                          | John                | Last Name | Mattingly         | Registration Number                |
|                                                                                     |                     |           |                   | 30293                              |
| Additional Signature may be generated within this form by selecting the Add button. |                     |           |                   | <input type="button" value="Add"/> |

|                                           |                                      |                        |              |
|-------------------------------------------|--------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                      | Attorney Docket Number | SEI-12159-06 |
|                                           |                                      | Application Number     |              |
| Title of Invention                        | CONTENTS RECEIVING SYSTEM AND CLIENT |                        |              |

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

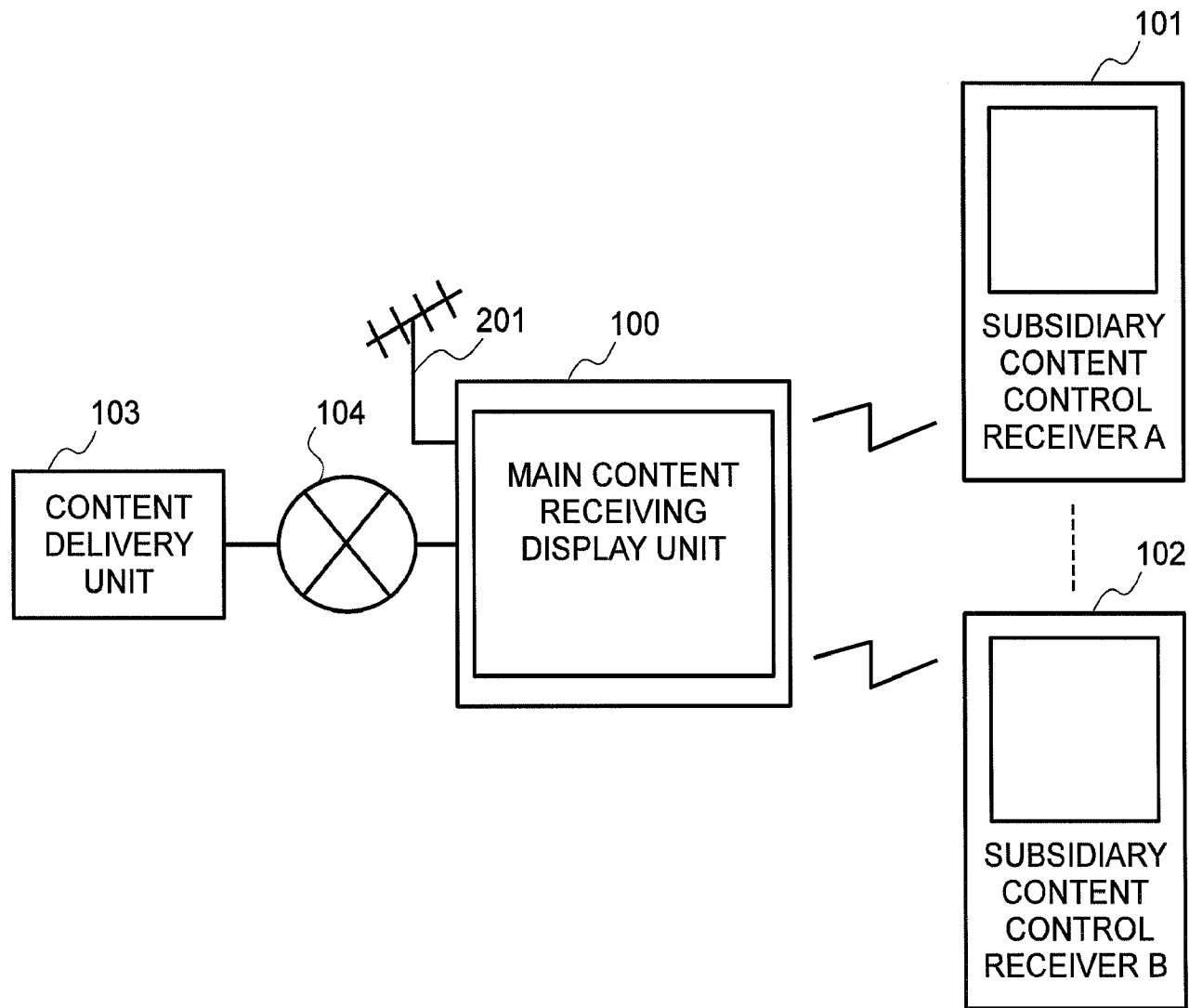
## Privacy Act Statement

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 records.
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.
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.

**FIG.1**





# FIG.2

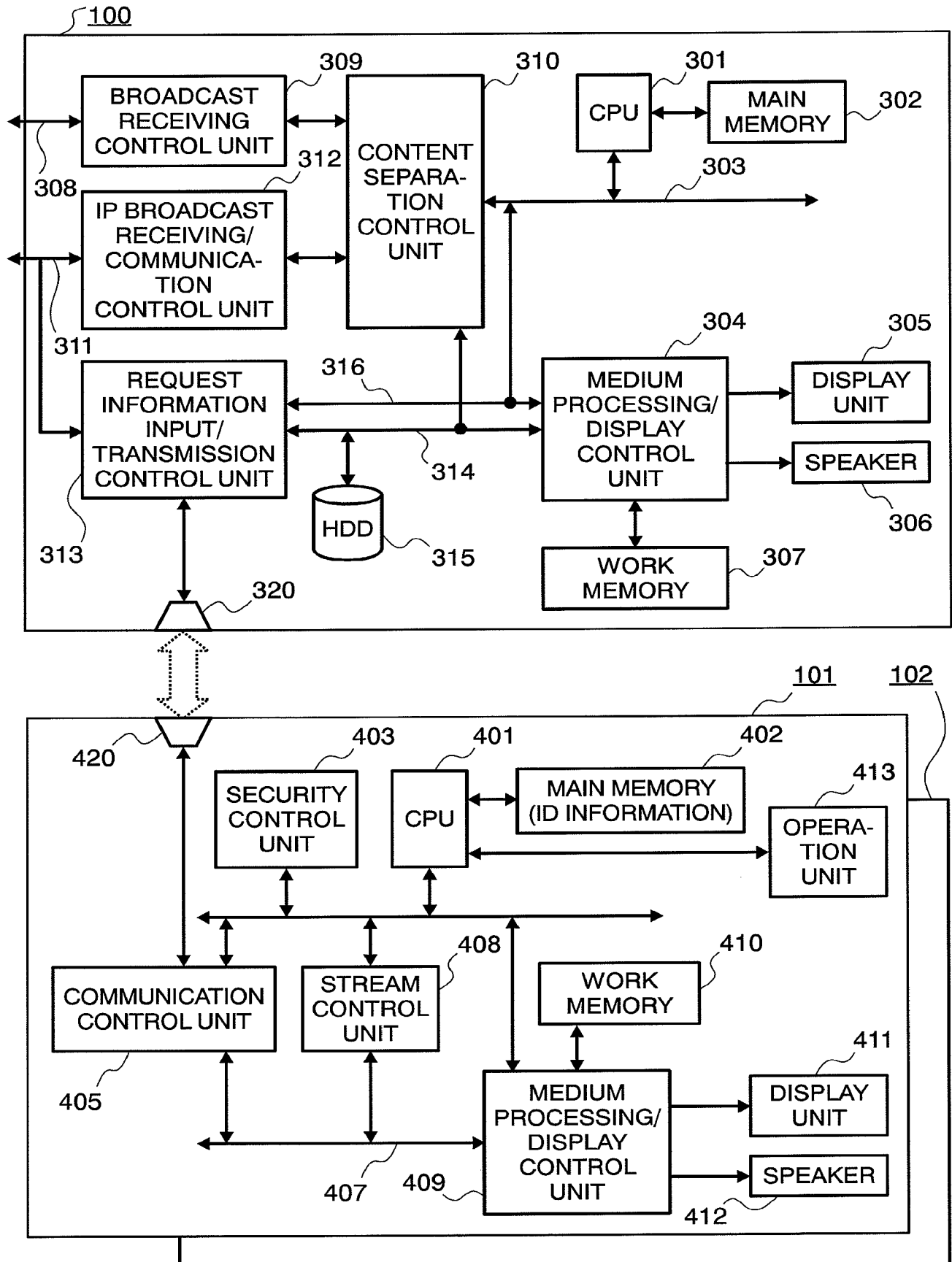


**FIG.3**

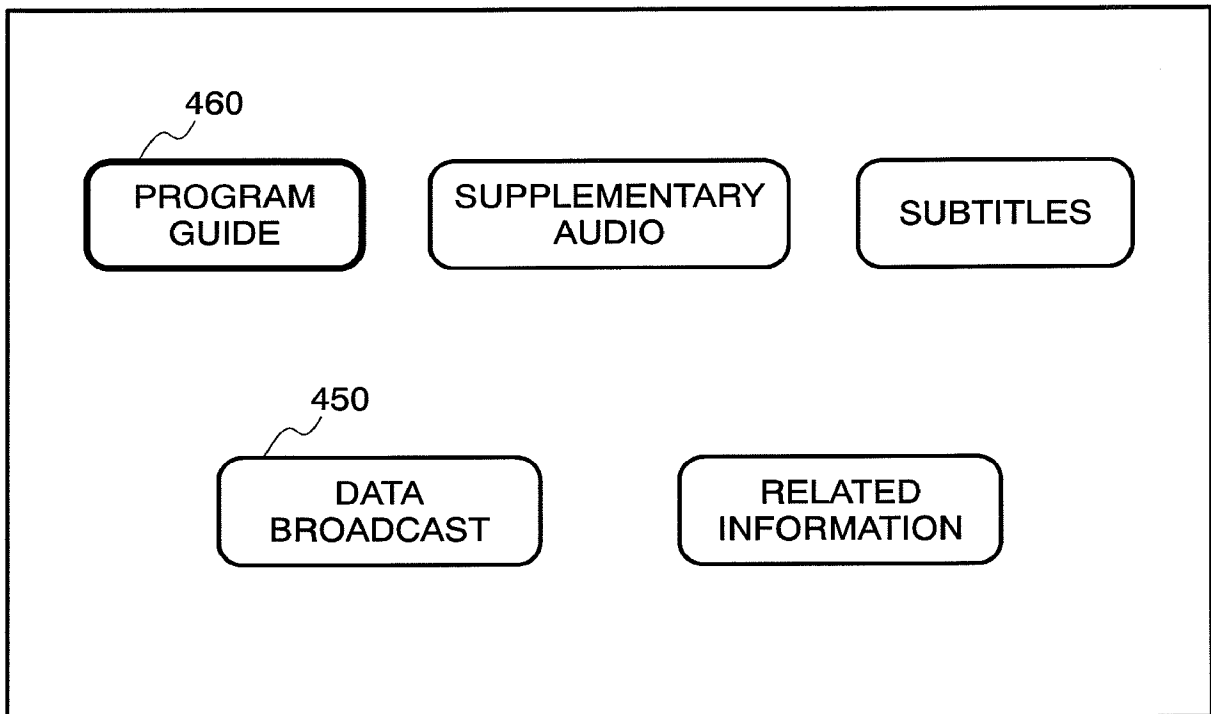


**FIG.4**

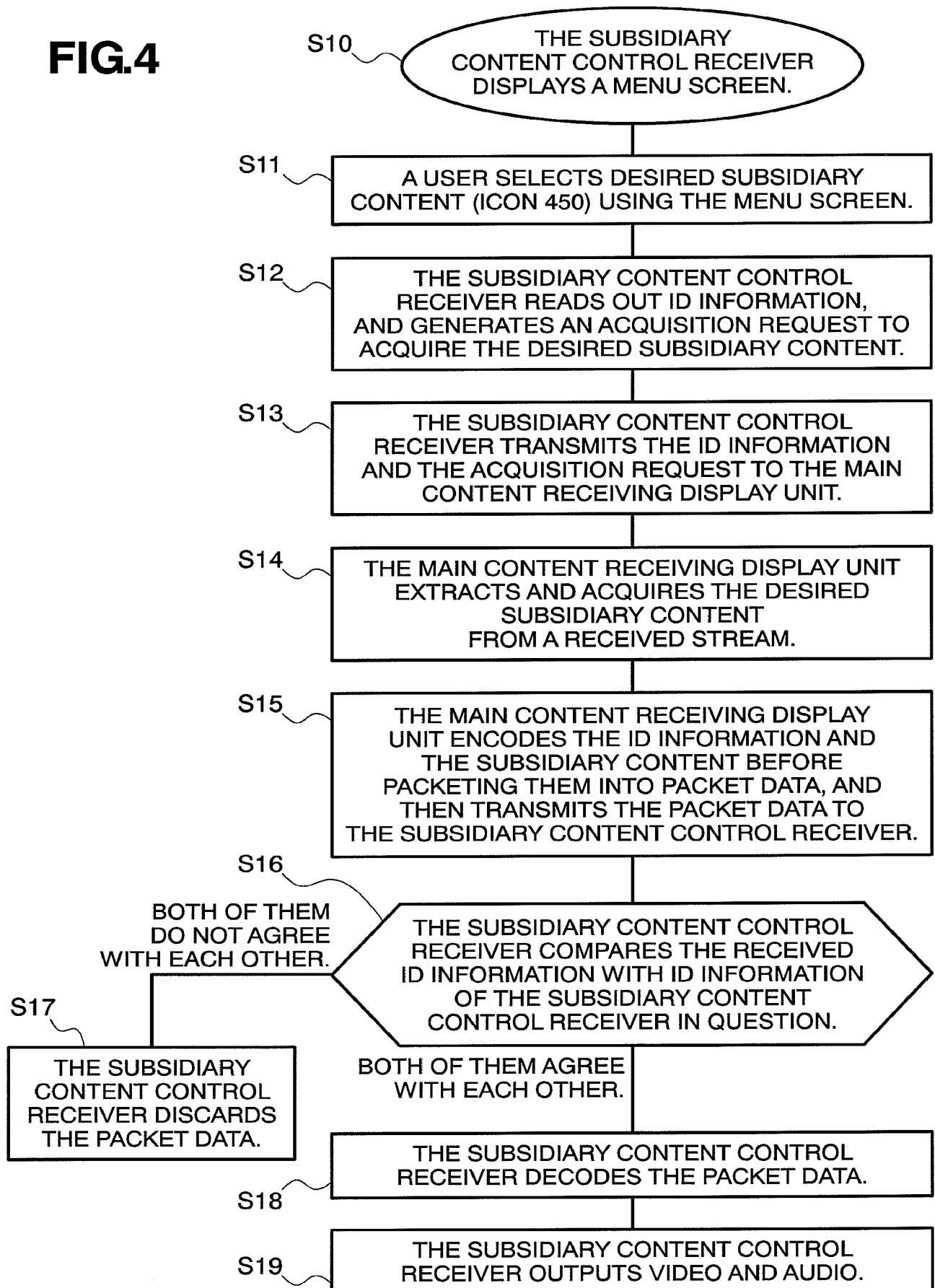


**FIG.5**

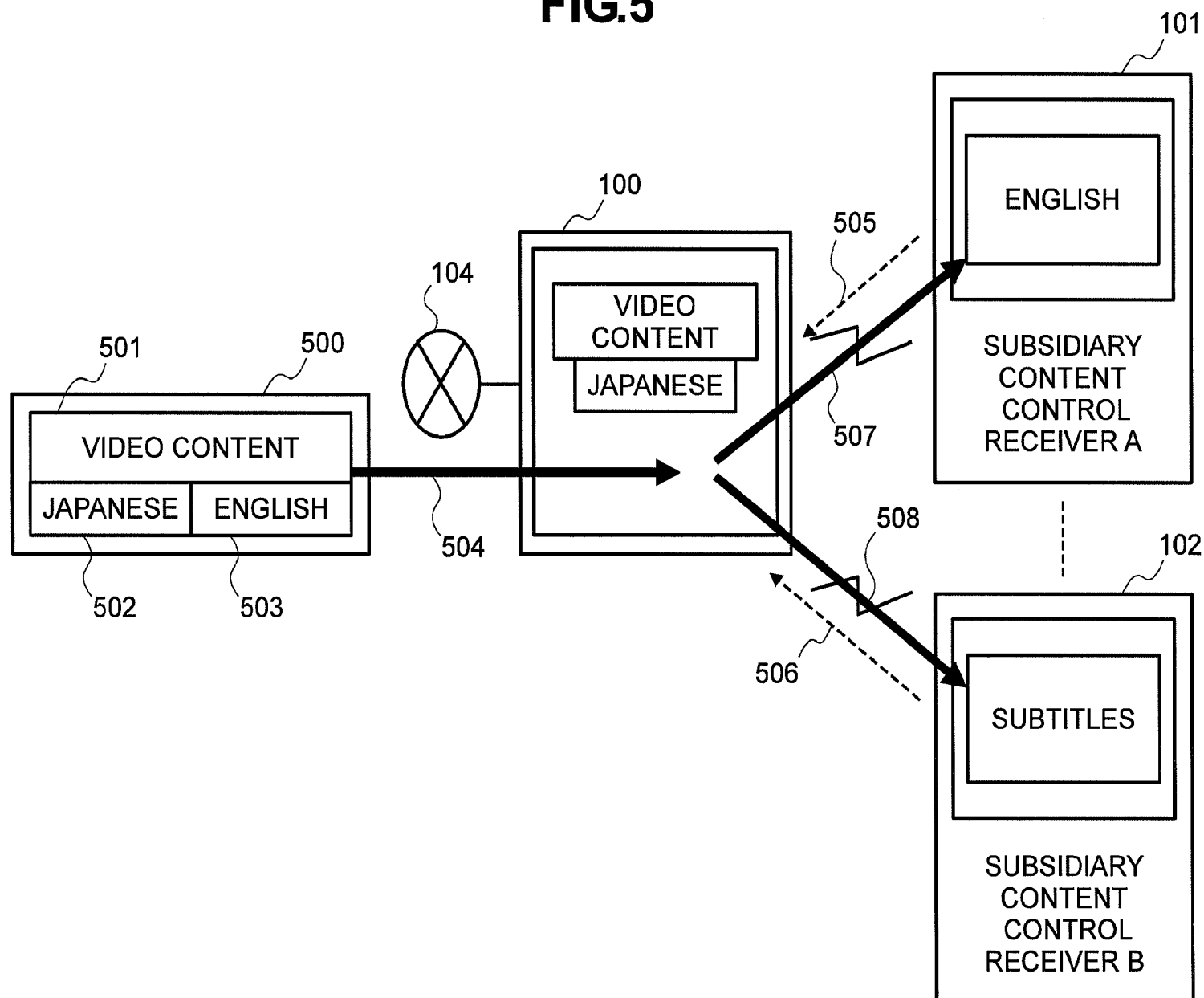


**FIG.6**

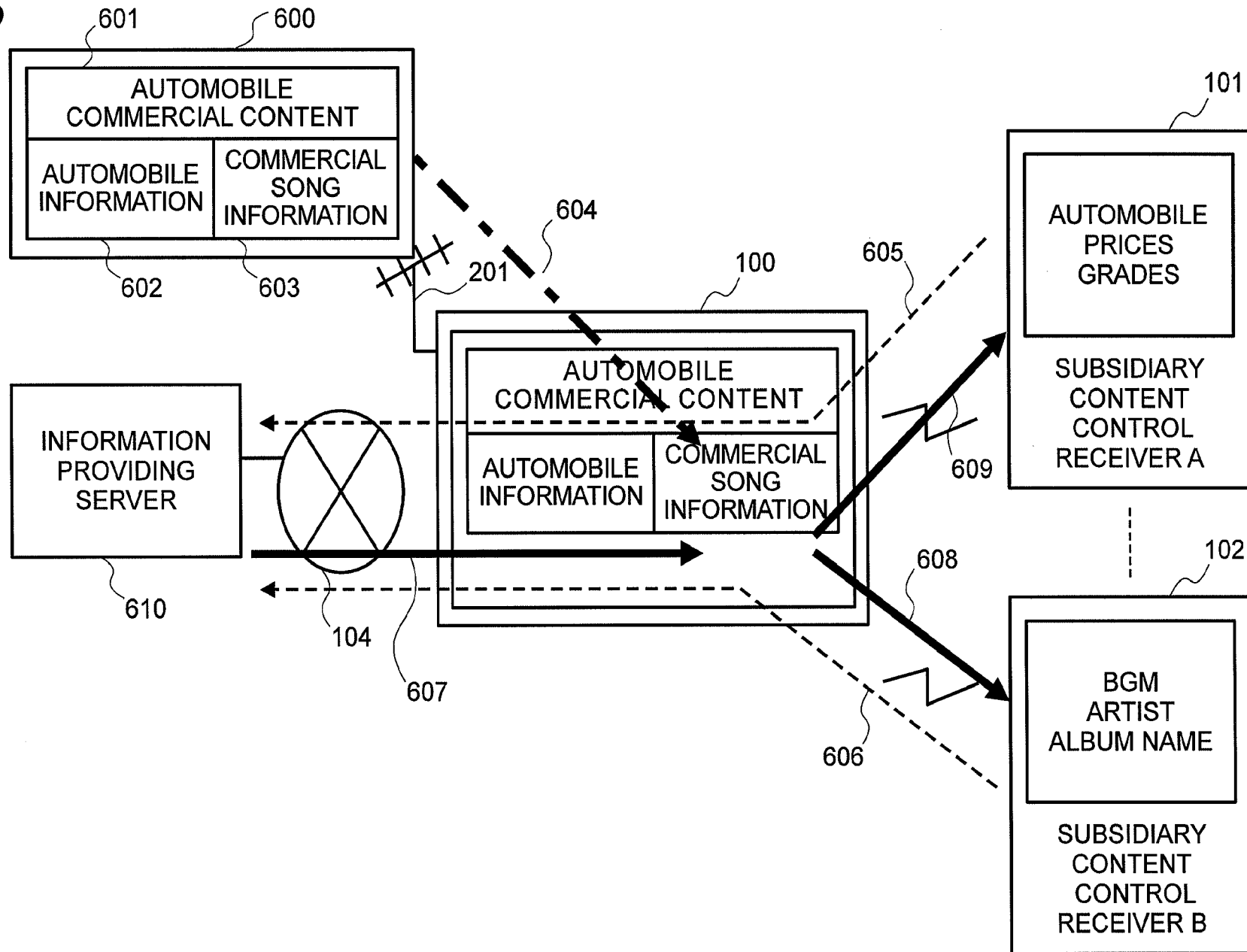


**FIG.7**

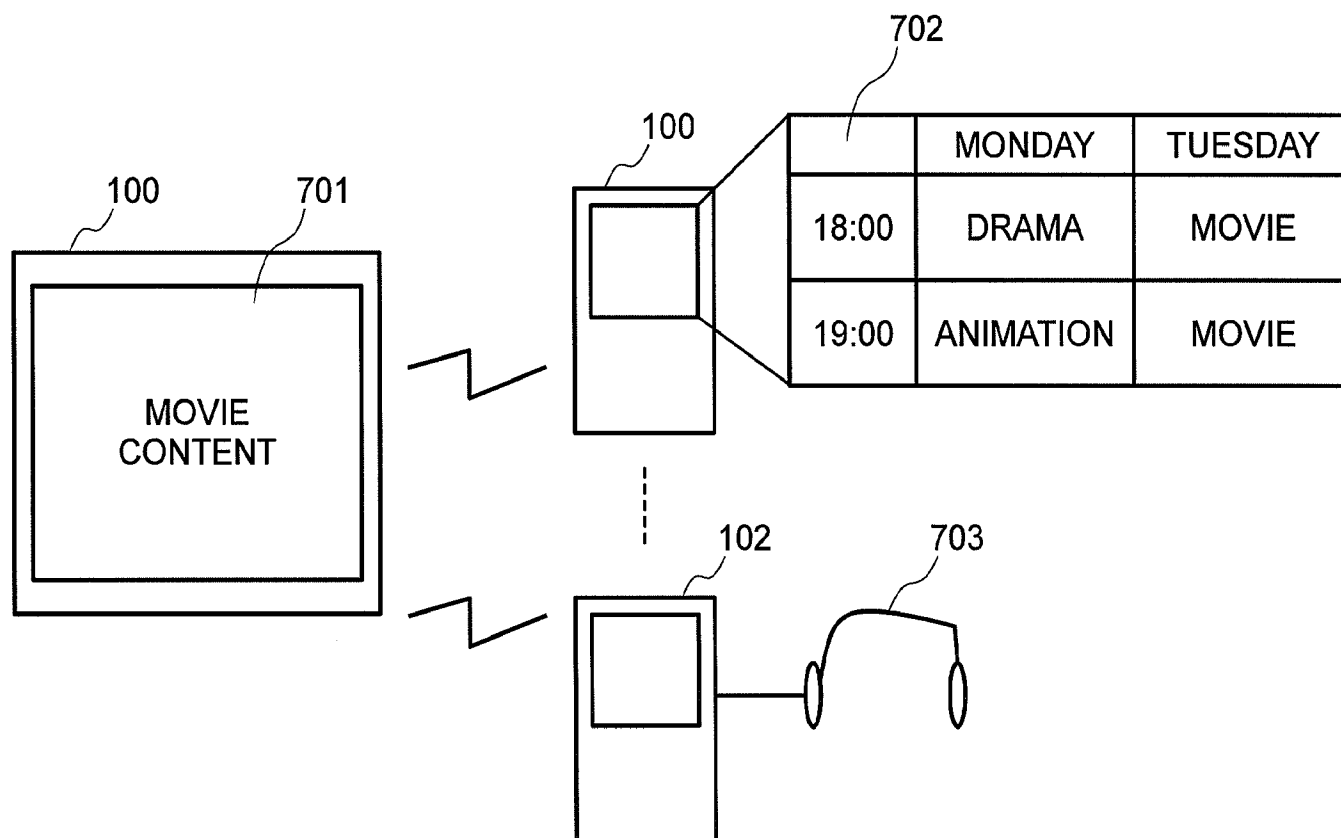


**FIG.8**

| SUBSIDIARY CONTENT<br>CONTROL RECEIVER | REQUESTED<br>INFORMATION             | IP ADDRESS ASSIGNED<br>TO EACH SUBSIDIARY<br>CONTENT CONTROL RECEIVER |
|----------------------------------------|--------------------------------------|-----------------------------------------------------------------------|
| A                                      | EPG DATA                             | 201.202.203.204                                                       |
| B                                      | ENGLISH AUDIO DATA                   | 201.202.203.205                                                       |
| C                                      | ENGLISH AUDIO DATA/<br>SUBTITLE DATA | 201.202.203.205                                                       |
| ...                                    | ...                                  | ...                                                                   |
| Z                                      | ECG DATA                             | 202.203.204.2xx                                                       |

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor(s) : H. KAMIMAKI, et al. Confirmation No.: TBD  
Serial No. : To be assigned  
Filed : April 22, 2020  
For : CONTENTS RECEIVING SYSTEM AND CLIENT  
Group : To be assigned  
Examiner : To be assigned  
Docket No. : SEI-12159-06  
Customer No.: 24956

**INFORMATION DISCLOSURE STATEMENT (IDS)**  
**UNDER § 1.97 AND § 1.98**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

April 22, 2020

Sir:

In the matter of the above-identified application, Applicants are submitting herewith a copy, where required, of the documents listed in the attached form PTO/SB/08a. It is requested that the information be considered by the Examiner during prosecution of the application, and that the references be made of record therein.

Applicants note that:

One or more references cited on the attached PTO/SB/08a was cited by or submitted to the U.S. Patent and Trademark Office in parent application No. 16/387,841, filed April 18, 2019, which is relied upon for an earlier filing date under 35 U.S.C. §120. No copies of the references are attached pursuant to 37 CFR §1.98(d).

The Commissioner is authorized to charge any shortage in the fees due, or credit any overpayment, to Deposit Account No. 50-1417.



If the PTO determines that part(s) of the required content is inadvertently omitted, then it is requested that the Applicant(s) be given additional time and specific identification of such omission(s) to enable full compliance.

Respectfully submitted,

MATTINGLY & MALUR, PC

/John R. Mattingly/  
John R. Mattingly  
Registration No. 30,293  
703-684-1120

申請データシート(37 CFR 1.76)を使った実用及び意匠登録出願宣言書(37 CFR 1.63)

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION  
USING AN APPLICATION DATA SHEET (37 CFR 1.76)

発明の名称

Title of Invention

Contents Receiving System and Client

下記発明者である私は、つぎのことがらを宣言します。

As the below named inventor, I hereby declare that:

本宣言は

This declaration is directed to:



添付されている、あるいは

The attached application, or

\_\_\_\_\_に、米国出願あるいは PCT 国際出願番号 \_\_\_\_\_として出願されているものに  
宛てられています。



United States application or PCT international application

number 13/972624 filed on August 21, 2013

上記の出願は私自身、あるいは私が権限を譲与したものによって行われたものです。

The above-identified application was made or authorized to be made by me.

私は本出願書中にあらわれるもともとの発明者、あるいはもともとの共同発明者です。

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

私は本宣言書において故意に虚偽の申し立てを行った場合は 18 U.S.C. 1001 により、罰金あるいは最高五(5)年の禁固刑、あるいはその両方による罰則の対象となることを認めます。

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

私は、特許請求の範囲を含む上記の明細書を確認し内容を理解しています。

I have reviewed and understand the contents of the above-identified application, including the claims.

私は、連邦規則法典第 37 編規則 1.56 に定義されている、特許性について重要な情報を開示する義務があることを認めます。

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

発明者の正式氏名:

LEGAL NAME OF INVENTOR:

Hideki Kamimaki

署名:

Signature:

Hideki Kamimaki

日付(任意):

Date (Optional):

Oct. 11, 2013

備考: 出願データシート(PTO/AIA/14 あるいはその同等用紙)は、発明の自主独立体全体の命名を含め、本用紙に添付すること。なお残余の発明者ごとにこの用紙の写しを使用する。

Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional copy of the present form for each additional inventor.

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発明者の正式氏名:

LEGAL NAME OF INVENTOR:

Akira Date

署名:

Signature:

*Akira Date*

日付(任意):

Date (Optional):

10/18/13

備考: 出願データシート(PTO/AIA/14 あるいはその同等用紙)は、発明の自主独立体全体の命名を含め、本用紙に添付すること。なお残余の発明者ごとにこの用紙の写しを使用する。

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発明者の正式氏名:

LEGAL NAME OF INVENTOR: Akira Tanaka

署名:

Signature:

Akira Tanaka

日付(任意):

Date (Optional):

October 11, 2013

備考: 出願データシート(PTO/AIA/14 あるいはその同等用紙)は、発明の自主独立体全体の命名を含め、本用紙に添付すること。  
なお残余の発明者ごとにこの用紙の写しを使用する。

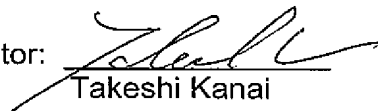
Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional copy of the present form for each additional inventor.

## CERTIFICATE OF TRANSLATION

I, the below-named translator, of 6-6, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan hereby declare that I am conversant with the Japanese and English languages and that to the best of my knowledge and belief the attached Declaration includes a true and accurate translation into English of the Japanese text contained in the Declaration.

Dated July 17, 2014

Signature of Translator:

  
Takeshi Kanai