

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 10,244,284 B2
APPLICATION NO. : 15/891085
DATED : March 26, 2019
INVENTOR(S) : T. Kurita et al.

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Claim 1, Column 20, Line 60, after "is" insert --prioritized--.

Claim 7, Column 21, Line 43, after "is" insert --prioritized--.

Claim 13, Column 22, Line 30, after "is" insert --prioritized--.

Claim 18, Column 22, Line 67, after "network;" insert --and--.

Claim 18, Column 23, Line 3, after "is" insert --prioritized--.

Signed and Sealed this
Seventh Day of December, 2021



Drew Hirshfeld
*Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office*



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

Patent No.: 10244284
Issue Date: 03/26/2019
Appl. No.: 15/891,085
Filed: 02/07/2018

PART (A) RESPONSE FOR CERTIFICATES OF CORRECTION

This is a decision on the Certificate of Correction request filed 02 November 2021.

The request for issuance of Certificate of Correction for the above-identified correction(s) under the provisions of 37 CFR 1.322 and/or 1.323 is hereby:

(Check one)

☒ Approved ☐ Approved in Part ☐ Denied

Comments: _____

PART (B) PETITION UNDER 37 CFR 1.324 OR 37 CFR 1.48

☐ This is a decision on the petition filed _____ to correct inventorship under 37 CFR 1.324.

☐ This is a decision on the request under 37 CFR 1.48, petition filed _____. In view of the fact that the patent has already issued, the request under 37 CFR 1.48 has been treated as a petition to correct inventorship under 37 CFR 1.324.

The petition is hereby: ☐ Granted ☐ Dismissed

Comment: _____

The patented filed is being forwarded to Certificate of Corrections Branch for issuance of a certificate naming only the actual inventor or inventors.

/LIN YE/
Supervisory Patent Examiner, Art Unit 2697
Technology Center 2600
Phone: (571)272-7372

Certificates of Correction Branch email: CustomerServiceCoC@uspto.gov CoC Central Phone Number: (703) 756-1814

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 10,244,284 Confirmation No. 3408
Issue Date : March 26, 2019
Applicant : MAXELL, LTD.
Appl. No. : 15/891,085
Filed : February 7, 2018
Title : Display Apparatus and Video Processing Apparatus
Docket No. : ASA-12157-03
Customer No.: 24956

REQUEST FOR CERTIFICATE OF CORRECTION
APPLICANTS' MISTAKE (37 CFR §1.323)

Director of the U.S. Patent Office
Office of Patent Publications
ATTN: Certificate of Correction Branch
P.O. Box 1450
Alexandria, VA 22313-1450

November 2, 2021

Sir:

Please issue a Certificate of Correction for the above-identified patent to correct the errors listed on the accompanying Form PTO/SB/44.

Pursuant to MPEP §1481, it is submitted that the mistake is either:

- (1) of a clerical nature,
- (2) of a typographical nature, or
- (3) a mistake of minor character.

Furthermore, it is submitted that the correction does not involve changes which would:

Patent No. 10,244,284
Certificate of Correction dated November 2, 2021

- (1) constitute new matter, or
- (2) require reexamination.

Since the Certificate of Correction is necessitated by a mistake on the part of the Applicants, in accordance with 37 CFR §1.20(a) our Credit Card Payment Form in the amount of \$160.00 is attached in payment of the appropriate fee.

The Commissioner is hereby authorized to charge additional payment due or to credit any overpayment, to Deposit Account No. 50-1417.

Respectfully submitted,

MATTINGLY & MALUR, P.C.

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

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 10,244,284
APPLICATION NO.: 15/891,085
ISSUE DATE : March 26, 2019
INVENTOR(S) : T. KURITA, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

- Claim 1, Column 20, line 60 after "is" insert --prioritized--.
- Claim 7, Column 21, line 43, after "is" insert --prioritized--.
- Claim 13, Column 22, line 30, after "is" insert --prioritized--.
- Claim 18, Column 22, line 67, after "network;" insert --and--.
- Claim 18, Column 23, line 3, after "is" insert --prioritized--.

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):

John R. Mattingly
MATTINGLY & MALUR, PC
1800 Diagonal Road – Suite 210

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. 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 1.0 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: Attention Certificate of Corrections Branch, 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.

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.

Electronic Patent Application Fee Transmittal				
Application Number:		15891085		
Filing Date:		07-Feb-2018		
Title of Invention:		DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
First Named Inventor/Applicant Name:		Toshiyuki Kurita		
Filer:		John Roberts Mattingly/Krista Hargrove		
Attorney Docket Number:		ASA-12157-03		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
CERTIFICATE OF CORRECTION	1811	1	160	160

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				160

Electronic Acknowledgement Receipt	
EFS ID:	44184146
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	24956
Filer:	John Roberts Mattingly/Krista Hargrove
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	ASA-12157-03
Receipt Date:	02-NOV-2021
Filing Date:	07-FEB-2018
Time Stamp:	15:10:22
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$160
RAM confirmation Number	E2021A2F10484582
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)	

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)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	12157-03-COC-Applicantsmistake.pdf	15573	no	2
			6add766b03b2cb2d8930c906b92d21df265cf9c7		

Warnings:

Information:

2	Request for Certificate of Correction	12157-03-CertificateofCorrectionform1050.pdf	153542	no	2
			834688d642497e4fb8add300eb1f875ca2a9f444		

Warnings:

Information:

3	Fee Worksheet (SB06)	fee-info.pdf	38013	no	2
			dc981378857b785b7628e6c91924c33a25cd16288		

Warnings:

Information:

Total Files Size (in bytes): 207128

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

New Applications Under 35 U.S.C. 111

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317

CONFIRMATION NO. 3408

POWER OF ATTORNEY NOTICE

21003
BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
44TH FLOOR
NEW YORK, NY 10112-4498



Date Mailed: 09/04/2019

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 08/27/2019.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(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.

/mbeyene/



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317

CONFIRMATION NO. 3408

POA ACCEPTANCE LETTER

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



Date Mailed: 09/04/2019

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 08/27/2019.

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.

/mbeyene/

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.

**CHANGE OF
CORRESPONDENCE ADDRESS
Patent**Address to:
Mail Stop Post Issue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Patent Number	10,244,284
Issue Date	2019-03-26
Application Number	15/891,085
Filing Date	2018-02-07
First Named Inventor	KURITA, Toshiyuki
Attorney Docket Number	ASA-12157-03

Please change the Correspondence Address for the above-identified patent to:



The address associated with Customer Number:

24956

OR**Firm or
Individual Name****Address****City****State****ZIP****Country****Telephone****Email**

This form cannot be used to change the data associated with a Customer Number. To change the data associated with an existing Customer Number use "Request for Customer Number Data Change" (PTO/SB/124).

This form will not affect any "fee address" provided for the above-identified patent. To change a "fee address" use the "Fee Address Indication Form" (PTO/SB/47).

I am the:



Patentee.



If the Patentee was not the applicant for patent (37 CFR 1.42), then a Statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is enclosed or was filed on _____. See 37 CFR 3.71.

Attorney or agent of record. Registration Number 30,293.Patent practitioner acting in a representative capacity whose correspondence address is the correspondence address of record. Notice has been given to the patentee or owner. Registration Number 30,293.

Signature /John R. Mattingly/

Typed or
Printed Name John R. Mattingly

Date August 27, 2019

Telephone

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

*Total of 1 forms are submitted.This collection of information is required by 37 CFR 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: Mail Stop Post Issue, 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:

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.

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

出願人による委任状
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 Application Number	出願日 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:

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:



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

事務所または個人名 Firm or Individual Name				
住所 Address				
市 City	州 State	郵便番号 Zip		
国 Country				
電話番号 Telephone	メールアドレス 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.

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.

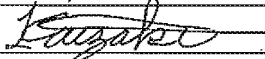
- ☐ 発明者もしくは共同発明者である（下記役職の明記は不要）
Inventor or Joint Inventor (title not required below)
- ☐ 死亡したもしくは成年被後見人である発明者の法定代理人である（下記役職の明記は不要）
Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ 被譲渡人もしくは発明者が譲渡する義務を負う人物である
Assignee or Person to Whom the Inventor is 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 Signature		署名日（任意） Date (Optional)	Oct. 17, 2017
氏名 Name	Kazuhiro Kaizaki		
役職 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.

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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。
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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。
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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開示される場合があります。

Electronic Acknowledgement Receipt	
EFS ID:	36986787
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	21003
Filer:	John Roberts Mattingly/Emily Scotti
Filer Authorized By:	John Roberts Mattingly
Attorney Docket Number:	072388.1317
Receipt Date:	27-AUG-2019
Filing Date:	07-FEB-2018
Time Stamp:	11:12:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Change of Address	12157-03-ChgCrrAddress.pdf	251331	no	2
			1fdb0c19f464c11ba0fa0fd93aba38240032270b7		

Warnings:

Information:					
2	Power of Attorney	12157-03-POA-Maxell-82.pdf	272960	no	3
			3e5139e4e81ab320422566edaa6302208d2a7f03		
Warnings:					
Information:					
Total Files Size (in bytes):			524291		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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 NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/891,085	03/26/2019	10244284	072388.1317	3408

21003 7590 03/06/2019
BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
44TH FLOOR
NEW YORK, NY 10112-4498

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

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

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

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

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

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

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

MAXELL, LTD., KYOTO, JAPAN;
Toshiyuki Kurita, Yokohama, JAPAN;
Hitoaki Owashi, Yokohama, JAPAN;

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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

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

21003 7590 11/09/2018
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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being 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.
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317	3408

TITLE OF INVENTION: DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	02/11/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
DAGNEW, MEKONNEN D	2664	348-207100

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 Baker Botts L.L.P.

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

MAXELL, LTD.

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

KYOTO, JAPAN

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government4a. 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. 02-4377**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 /Jonathan D. Cocks/ Date February 8, 2019
Typed or printed name Jonathan D. Cocks Registration No. 75,646

Electronic Patent Application Fee Transmittal				
Application Number:		15891085		
Filing Date:		07-Feb-2018		
Title of Invention:		DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
First Named Inventor/Applicant Name:		Toshiyuki Kurita		
Filer:		Jonathan Drew Cocks/Hiroko Lavietes		
Attorney Docket Number:		072388.1317		
Filed as Large Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	1000	1000

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1000

Electronic Acknowledgement Receipt	
EFS ID:	35096340
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	21003
Filer:	Jonathan Drew Cocks/Hiroko Laviates
Filer Authorized By:	Jonathan Drew Cocks
Attorney Docket Number:	072388.1317
Receipt Date:	08-FEB-2019
Filing Date:	07-FEB-2018
Time Stamp:	11:27:15
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$1000
RAM confirmation Number	020819INTEFSW00008220024377
Deposit Account	024377
Authorized User	Hiroko Laviates
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.20 (Post Issuance fees) 37 CFR 1.21 (Miscellaneous fees and charges)	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	Issue_Fee_Transmittal.pdf	151657	no	1
			d451835a87b6141bc67201152bd1b8506d97de2f		
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30355	no	2
			9b93bc6c4144f847b481e13c33588d024a103735		
Warnings:					
Information:					
Total Files Size (in bytes):			182012		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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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NOTICE OF ALLOWANCE AND FEE(S) DUE

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44TH FLOOR
NEW YORK, NY 10112-4498

EXAMINER

DAGNEW, MEKONNEN D

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 11/09/2018

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317	3408

TITLE OF INVENTION: DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	02/11/2019

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.

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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.

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P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317	3408

TITLE OF INVENTION: DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$1000	\$0.00	\$0.00	\$1000	02/11/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
DAGNEW, MEKONNEN D	2664	348-207100

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 _____
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

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☐ 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. _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317	3408
21003 7590 11/09/2018 BAKER BOTTS L.L.P. 30 ROCKEFELLER PLAZA 44TH FLOOR NEW YORK, NY 10112-4498			EXAMINER DAGNEW, MEKONNEN D	
			ART UNIT 2664	PAPER NUMBER
DATE MAILED: 11/09/2018				

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.

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

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

Notice of Allowability	Application No. 15/891,085	Applicant(s) Kurita et al.	
	Examiner MEKONNEN D DAGNEW	Art Unit 2664	AIA Status No

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

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

1. ☒ This communication is responsive to 07/10/2018.
☐ 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 1-20 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
Certified copies:
a) ☒ All b) ☐ Some *c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

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

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

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

/MEKONNEN D DAGNEW/ Primary Examiner, Art Unit 2664	
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DETAILED ACTION

Notice of Pre-AIA or AIA Status

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

Allowable Subject Matter

2. Claims 1-20 are allowed.

The following is an examiner's statement of reasons for allowance: See Applicant's remark filed on 07/10/2018, Page 4, and paragraph III.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEKONNEN D DAGNEW whose telephone number is (571)270-5092. The examiner can normally be reached on 8:00AM-5:00PM M-Th.

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, Lin Ye can be reached on 5712727372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MEKONNEN D DAGNEW/
Primary Examiner, Art Unit 2664

Issue Classification 	Application/Control No. 15/891,085	Applicant(s)/Patent Under Reexamination Kurita et al.
	Examiner MEKONNEN D DAGNEW	Art Unit 2664

CPC						
Symbol					Type	Version
H04N		21		43637	F	2013-01-01
H04N		5		44	I	2013-01-01
H04L		69		14	I	2013-01-01
H04N		21		4122	I	2013-01-01
H04N		21		41407	I	2013-01-01
H04N		21		4367	A	2013-01-01

CPC Combination Sets						
Symbol			Type	Set	Ranking	Version

NONE (Assistant Examiner)		Total Claims Allowed: 20	
/MEKONNEN D DAGNEW/ Primary Examiner, Art Unit 2664 (Primary Examiner)		06 November 2018 (Date)	O.G. Print Claim(s) 1
			O.G. Print Figure 1

Issue Classification 	Application/Control No. 15/891,085	Applicant(s)/Patent Under Reexamination Kurita et al.
	Examiner MEKONNEN D DAGNEW	Art Unit 2664

INTERNATIONAL CLASSIFICATION			
CLAIMED			
H04N		21	4363
H04N		21	414
NON-CLAIMED			

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 20	
/MEKONNEN D DAGNEW/ Primary Examiner, Art Unit 2664 (Primary Examiner) _____ (Date) _____		06 November 2018 O.G. Print Claim(s) 1	O.G. Print Figure 1

Issue Classification 	Application/Control No. 15/891,085	Applicant(s)/Patent Under Reexamination Kurita et al.
	Examiner MEKONNEN D DAGNEW	Art Unit 2664

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

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 20	
/MEKONNEN D DAGNEW/ Primary Examiner, Art Unit 2664 (Primary Examiner) _____ (Date) 06 November 2018		O.G. Print Claim(s) 1	O.G. Print Figure 1

<i>Search Notes</i> 	Application/Control No. 15/891,085	Applicant(s)/Patent Under Reexamination Kurita et al.
	Examiner MEKONNEN D DAGNEW	Art Unit 2664

CPC - Searched*		
Symbol	Date	Examiner
(H04N21/43637 or H04L69/14 or H04N21/4122 or H04N5/44 or H04N21/41407 or H04N21/4367).cpc.	4/9/2018	MD

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
Inventors' name searched and checked for DP issues.	4/9/2018	MD
Text searched in the areas cited above.	4/9/2018	MD
Updated search in the areas cited above.	11/05/2018	MD

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	INTERFERENCE Searched in EAST.	11/05/2018	MD

/MEKONNEN D DAGNEW/ Primary Examiner, Art Unit 2664	
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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	15/891,085
	Filing Date	02-07-2018
	Inventor(s)	Toshiyuki Kurita et al.
	Art Unit	2664
	Examiner Name	Mekonnen D. Dagnew
	Attorney Docket Number	072388.1317

U.S. PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	1.	2006/0133418 A1	06-22-2006	Anand

FOREIGN PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	2.	CN 1428031 A	07-02-2003	Soma Networks, Inc. (Corresponds to WO 01/93505 A2)
	3.	CN 1585403 A	02-23-2005	Univ. Shanghai Communication
	4.	CN 1791092 A	06-21-2006	IBM (Corresponds to US 2006/0133418 A1)
	5.	CN 1984481 A	06-20-2007	Huawei Technologies Co., Ltd. (Corresponds to EP 2 019 560 A1)
	6.	EP 2 019 560 A1	01-28-2009	Huawei Technologies Co., Ltd.
	7.	WO 01/93505 A2	12-06-2001	Soma Networks, Inc.

OTHER DOCUMENTS (Non-patent literature)

Exam. Initial.	No.	Include name of Author, Title, Date, Pertinent Pages, Etc.
	8.	Office Action, dated June 7, 2018, which issued during the prosecution of Chinese Patent Application No. 201510969210.6, which corresponds to the present application.

Examiner Signature	/MEKONNEN D DAGNEW/	Date Considered	11/01/2018
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NY02:765864.1

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

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

Bibliographic Data

Application No: 15/891,085

Foreign Priority claimed: ☒ Yes ☐ No

35 USC 119 (a-d) conditions met: ☒ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /MEKONNEN D DAGNEW/

Examiner's Signature

Initials

Title: DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
02/07/2018	348	2664	072388.1317
RULE			

APPLICANTS

MAXELL, LTD., KYOTO, JAPAN /M.D.D/ (11/06/2018)

INVENTORS

Toshiyuki Kurita Yokohama, JAPAN

Hitoaki Owashi Yokohama, JAPAN /M.D.D/ (11/06/2018)

CONTINUING DATA

This application is a CON of 15208886 07/13/2016 PAT 10129590

15208886 is a CON of 12260410 10/29/2008 PAT 9420212

/M.D.D/ (11/06/2018)

FOREIGN APPLICATIONS

JAPAN 2007-306750 11/28/2007

IF REQUIRED, FOREIGN LICENSE GRANTED**

03/07/2018

STATE OR COUNTRY

JAPAN

ADDRESS

BAKER BOTTS L.L.P.

30 ROCKEFELLER PLAZA

44TH FLOOR

/M.D.D/ (11/06/2018)

NEW YORK, NY 10112-4498

UNITED STATES

FILING FEE RECEIVED

\$6,320

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	18890	(send\$3 transmit\$3) same (video image) same priority\$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/11/06 10:46
S1	0	15/891085	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:07
S2	3	12/260410	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:08
S3	1	15/208886	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:08
S4	66450	(H04N21/43637 or H04L69/14 or H04N21/4122 or H04N5/44 or H04N21/41407 or H04N21/4367).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:48
S5	44	"2007009185"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 11:27
S6	6	"20070091835"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 11:27
S7	29	((("KURI"TA") near3 ("Toshiyuki")).INV.	US-PGPUB;	OR	ON	2018/04/09

			USPAT; USOCR			13:54
S8	139	((("OWASHI") near3 ("Hitoaki")).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2018/04/09 13:54
S9	4	S8 and (radio near3 communication)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 14:00
S10	3	S7 and (radio near3 communication)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 14:00
S11	63	("6037991" "20080139118" "20070085933" "20070091835" "20090091663" "5724355" "5678173" "20070123163" "6763226" "20070086724" "20070223505" "20080109307" "20080139118" "5678173" "8572257" "20070091835" "20080025273" "6037991" "20070223505" "20070242313" "20080201751" "20080025273" "5724355" "20070223505" "5758262" "20070086724" "20070123163" "8325237" "4561100" "20090091663" "8325237" "20040107208" "4561100" "5758262" "6763226" "20070085933" "20080025273").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/16 10:59
S12	2	("20070166027" "20120077433").PN.	US-PGPUB; USPAT	OR	ON	2018/04/16 12:53
S13	7525	(imager imaging camera) and (control\$4 near4 (assign\$4 priorit\$3 assignment\$3)) same (communication)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/11/05 16:43
S14	70600	(H04N21/43637 or H04L69/14 or H04N21/4122 or H04N5/44 or H04N21/41407 or H04N21/4367).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/11/05 16:44
S15	290	S14 and S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/11/05 16:44

EAST Search History (Interference)

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S16	1	(display\$3 and (first near3 radio) and (second near3 radio) and (internet and (communication near3 circuit)) and (simultaneously concurrent\$3) and (digital near4 video) and (external)).clm.	US-PGPUB; USPAT	OR	ON	2018/11/05 16:39

11/ 6/ 2018 10:51:38 AM

C:\ Users\ mdagnew\ Documents\ EAST\ Workspaces\ 15891085.wsp

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	15/891,085
	Filing Date	02-07-2018
	Inventor(s)	Toshiyuki Kurita et al.
	Art Unit	2664
	Examiner Name	Mekonnen D. Dagnew
	Attorney Docket Number	072388.1317

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Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	1.	2006/0133418 A1	06-22-2006	Anand

FOREIGN PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	2.	CN 1428031 A	07-02-2003	Soma Networks, Inc. (Corresponds to WO 01/93505 A2)
	3.	CN 1585403 A	02-23-2005	Univ. Shanghai Communication
	4.	CN 1791092 A	06-21-2006	IBM (Corresponds to US 2006/0133418 A1)
	5.	CN 1984481 A	06-20-2007	Huawei Technologies Co., Ltd. (Corresponds to EP 2 019 560 A1)
	6.	EP 2 019 560 A1	01-28-2009	Huawei Technologies Co., Ltd.
	7.	WO 01/93505 A2	12-06-2001	Soma Networks, Inc.

OTHER DOCUMENTS (Non-patent literature)

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	8.	Office Action, dated June 7, 2018, which issued during the prosecution of Chinese Patent Application No. 201510969210.6, which corresponds to the present application.

Examiner Signature		Date Considered	
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NY02:765864.1

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

Electronic Acknowledgement Receipt	
EFS ID:	33431864
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	21003
Filer:	Jonathan Drew Cocks/Hiroko Lavietes
Filer Authorized By:	Jonathan Drew Cocks
Attorney Docket Number:	072388.1317
Receipt Date:	10-AUG-2018
Filing Date:	07-FEB-2018
Time Stamp:	11:06:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no				
File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	IDS.pdf	119500	no	4
			b1713e6e1f1bd8af14924ec75717bdd7b551df40		
Warnings:					

Information:					
2	Information Disclosure Statement (IDS) Form (SB08)	Form_1449.pdf	117574	no	1
			f868f46d27d0adcd8087c6b1ba86a6d6f0c939f2		
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
Total Files Size (in bytes):			237074		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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(s) : Maxell, Ltd. Examiner : Mekonnen D. Dagnew
Serial No. : 15/891,085 Confirmation No. : 3408
Filed : 02-07-2018 Group Art Unit : 2664
For : DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

INFORMATION DISCLOSURE STATEMENT

FILED BY EFS

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

Sir:

Enclosed herewith are patents and/or publications for consideration by the Patent and Trademark Office in regard to the invention claimed in the above-identified application. In compliance with 37 C.F.R. §1.56, such documents are listed on the enclosed Form PTO-1449.

This Information Disclosure Statement is submitted according to the following selected paragraph(s):

- ☐ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(b) (1) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d); (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.
- ☐ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(c) prior to either a final action or a notice of allowance. Payment for the fee required by 37 C.F.R. §1.17(p) is hereby authorized to be charged to Deposit Account No. 02-4377.

- ☒ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(c), with a statement under, 37 C.F.R. §1.97(e) prior to either a final action or a notice of allowance.

The undersigned hereby states that (check one):

- ☒ 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.
- ☐ 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 C.F.R. § 1.56(c) more than three months prior to the filing of the information disclosure statement.

- ☐ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(d), with a statement under 37 C.F.R. §1.97(e), after a final action or a notice of allowance but prior to payment of the issue fee. Payment for the fee required by 37 C.F.R. §1.17(p) is hereby authorized to be charged to Deposit Account No. 02-4377. The undersigned hereby petitions that this Information Disclosure Statement be considered prior to issuance of the patent. The undersigned hereby states that (check one):

- ☐ 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.
- ☐ 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 C.F.R. § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Submissions Within 30 days of Receipt

- ☐ Pursuant to 37 C.F.R. 1.704(d), Applicant states that each item of information contained in this information disclosure statement:
- ☐ was first cited in any communication from a patent office in a counterpart foreign or international application or from the U.S. Patent and Trademark Office, and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of the information disclosure statement.
- ☐ is a communication that was issued by a patent office in a counterpart foreign or international application or by the U.S. Patent and Trademark Office, and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of the information disclosure statement.

Previously Cited by Examiner or Prior Submissions by Applicant

- ☒ The references listed on the accompanying PTO-1449 were either cited by the Examiner or previously submitted in parent application U.S. Serial No. **15/208,886**, filed **July 13, 2016**. Pursuant to 37 C.F.R. § 1.98(d), the references are not required if the earlier application is identified and relied upon for an effective filing date under 35 U.S.C. § 120 and therefore are not enclosed herewith.

Co-Pending Application Disclosure

- ☐ Applicants would like to bring to the attention of the Examiner the following co-pending patent applications, which are also listed on the accompanying PTO-1449:

Serial No.	Filing Date

Disclosure of Office Actions and Responses in Co-Pending Applications

- ☐ Applicants would like to bring to the attention of the Examiner the following Office Actions issued in co-pending patent applications and Responses to Office Actions filed in such applications, which are also listed on the accompanying PTO-1449:

Serial No.	Date of Office Action or Response

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed documents are material or constitute “prior art.” If the Examiner applies the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute “prior art” under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should the documents be applied against the claims of the present application.

Applicants believe no additional fee is due in connection with this submission. However, if any additional fee is due, or if any overpayment has been made, the Commissioner is authorized to charge any such fee or credit any overpayment to our Deposit Account No. 02-4377.

Respectfully submitted,

BAKER BOTTS L.L.P.

August 10, 2018

Date

/Jonathan D. Cocks/

Jonathan D. Cocks
Patent Office Reg. No. 75,646

30 Rockefeller Plaza
New York, NY 10112-4498
Attorney for Applicant(s)
212-408-2500



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/891,085	02/07/2018	2664	2180	072388.1317	20	4

CONFIRMATION NO. 3408

CORRECTED FILING RECEIPT



0000000101270657

21003
BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
44TH FLOOR
NEW YORK, NY 10112-4498

Date Mailed: 07/27/2018

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Inventor(s)

Toshiyuki Kurita, Yokohama, JAPAN;
Hitoaki Owashi, Yokohama, JAPAN;

Applicant(s)

MAXELL, LTD., KYOTO, JAPAN;

Assignment For Published Patent Application

MAXELL, LTD., KYOTO, JAPAN

Power of Attorney: The patent practitioners associated with Customer Number 21003

Domestic Priority data as claimed by applicant

This application is a CON of 15/208,886 07/13/2016
which is a CON of 12/260,410 10/29/2008 PAT 9420212

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 2007-306750 11/28/2007 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: 03/07/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/891,085**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No
Title

DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

Preliminary Class

348

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).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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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 U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317

CONFIRMATION NO. 3408

POA ACCEPTANCE LETTER

21003
BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
44TH FLOOR
NEW YORK, NY 10112-4498



Date Mailed: 07/27/2018

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/24/2018.

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.

/sstephanos/

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:



Practitioners associated with Customer Number:

21003

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number

Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:



The address associated with Customer Number:

21003

OR

☐	Firm or Individual Name			
	Address			
	City	State	Zip	
	Country			
	Telephone			
		Email		

Assignee Name and Address:

Maxell, Ltd.
1, Koizumi, Oyamazaki, Oyamazaki-cho Otokuni-gun, Kyoto 618-8525, Japan

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	Oct. 17, 2017
Name	Kazuhiro Kaizaki	Telephone	
Title	Vice President		

This collection of information is required by 37 CFR 1.31, 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.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: MAXELL, LTD.

Application No./Patent No.: 15/891,085 Filed/Issue Date: 02-07-2018

Titled: DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

MAXELL, 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: Toshiyuki Kurita et al. To: HITACHI, LTD.

The document was recorded in the United States Patent and Trademark Office at
Reel 021756, Frame 0400, 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.

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 033685, Frame 0883, 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: _____ To: _____

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

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, 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.

/Robert L. Maier/

July 24, 2018

Signature _____

Date _____

Robert L. Maier

54,291

Printed or Typed Name _____

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.

Electronic Acknowledgement Receipt	
EFS ID:	33265633
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	21003
Filer:	Robert Lawrence Maier/Hiroko Lavietes
Filer Authorized By:	Robert Lawrence Maier
Attorney Docket Number:	072388.1317
Receipt Date:	24-JUL-2018
Filing Date:	07-FEB-2018
Time Stamp:	13:39:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	Corrected_ADS.pdf	143543	no	8
			b734428da8b22118b5d0ccd47a650e372277b.pdf		

Warnings:

Information:					
This is not an USPTO supplied ADS fillable form					
2	Power of Attorney	POA.pdf	38011	no	1
			e3702af671433d926f743be37af71bd933b01de4		
Warnings:					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73	Statement.pdf	272532	no	3
			5fb16c4ba6e194774dfd434fee054f2ae9ba31b1		
Warnings:					
Information:					
Total Files Size (in bytes):			454086		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					

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

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	<u>15/891,085</u>
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
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. 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.			

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Toshiyuki		Kurita		
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service					
City	Yokohama	Country of Residence ⁱ	JP		
Mailing Address of Inventor:					
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City	Tokyo	State/Province			
Postal Code	100-8220	Country ⁱ	JP		
Inventor 2					Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Hitoaki		Owashi		
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service					
City	Yokohama	Country of Residence ⁱ	JP		
Mailing Address of Inventor:					
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Address 2		6-1, Marunouchi 1-chome, Chiyoda-ku			
City	Tokyo	State/Province			
Postal Code	100-8220	Country ⁱ	JP		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button. Add					

Correspondence Information:

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	15/891,085
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence information of this application.**

Customer Number	21003		
Email Address	DLNYDOCKET@BAKERBOTTSCOM	Add Email	Remove Email

Application Information:

Title of the Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
Attorney Docket Number	072388.1317	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	9	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

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:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	21003		

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	<u>15/891,085</u>
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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	15/208886	2016-07-13		
Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/208886	Continuation of	12/260410	2008-10-29	9420212	2016-08-16
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					

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)ⁱ 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).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Remove
2007-306750	JP	2007-11-28	Access Code ^j (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	<u>15/891,085</u>
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	<u>15/891,085</u>
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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.			
Applicant 1			
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.			
Clear			
☒ Assignee		☐ Legal Representative under 35 U.S.C. 117	
☐ 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:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Applicant is an Organization check here. ☒			
Organization Name	HITACHI MAXELL, LTD.		
Mailing Address Information For Applicant:			
Address 1	4-88, USHITORA 1-CHOME, IBARAKI-SHI 1 KOIZUMI, OYAMAZAKI, OYAMAZAKI-CHO, OTOKUNI-GUN		
Address 2			
City	OSAKA KYOTO	State/Province	
Country	JP	Postal Code	567-8567
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button.			

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	<u>15/891,085</u>
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

Assignee 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.			
If the Assignee or Non-Applicant Assignee is an Organization check here. ☒			
Organization Name	HITACHI MAXELL, LTD.		
Mailing Address Information For Assignee including Non-Applicant Assignee:			
Address 1	1-88, USHITORA 1-CHOME, IBARAKI-SHI 1 KOIZUMI, OYAMAZAKI, OYAMAZAKI-CHO, OTOKUNI-GUN		
Address 2			
City	OSAKA KYOTO	State/Province	
Country i	JP	Postal Code	567-8567
Phone Number		Fax Number	
Email Address			
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.			

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.

Signature	/Robert L. Maier/		Date (YYYY-MM-DD)	2018-07-24	
First Name	Robert L.	Last Name	Maier	Registration Number	54,291
Additional Signature may be generated within this form by selecting the Add button.					

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	<u>15/891,085</u>
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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.**

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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) : Toshiyuki KURITA et al. Examiner : DAGNEW,
MEKONNEN D
Serial No. : 15/891,085 Confirmation No. : 3408
Filed : 02-07-2018 Group Art Unit : 2664
For : DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

AMENDMENT

FILED ELECTRONICALLY

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

Sir:

In response to the Non-Final Office Action dated April 19, 2018, for which a shortened statutory period of three months, ending July 19, 2018, was set in which to respond, the following amendments and remarks are submitted, and reconsideration of the claim rejections is respectfully requested.

AMENDMENTS TO THE SPECIFICATION begin on page 2 of this document.

AMENDMENTS TO THE CLAIMS begin on page 3 of this document.

REMARKS begin on page 10 of this document.

AMENDMENTS TO THE SPECIFICATION

Please replace page 16 of the application as filed with the following revised page 16:

rate assignment control circuit 1001 on the basis of time control information of the video signal to variably control the transmission rate of the radio modem circuit 1002. At the same time, the controller 132 variably controls the transmission rate of the radio modem circuit 1003 for radio communication with a network such as the Internet. According to the embodiment, in the assignment of the transmission rate to the demodulation circuits ~~1001~~ 1002 and ~~1002~~ 1003, the controller 132 gives preference to the demodulation circuit ~~1001~~ 1002. In other words, the transmission rate of the demodulation circuit ~~1001~~ 1002 is more than that of the modem circuit ~~1002~~ 1003. Hence, within the limited range of bands for the radio transmission, the modem 1002 can transmit video information without deteriorating the video quality of the video information having high picture quality. The band of radio signals from the terminal 101 and that of radio signals from the terminal 134 are fixed. Therefore, if the band of signals from the terminal 101 is expanded, that of signals from the terminal 134 narrows to slightly lower the communication speed of the network. However, this rarely influences the system operation since information regarding the network is less frequently exchanged as compared with video information sent from the video processing apparatus 100.

When the signal from the terminal 101 is to be stored in the destination thereof, the compressed

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A display apparatus, comprising:
 - a first radio communication circuit configured to receive digital video information by a radio from an external video processing apparatus;
 - a second radio communication circuit configured to connect to an internet or a home network by radio, and receive digital information; and
 - a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit receives digital video information from the external video processing apparatus and the second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured to control assignment between the first radio communication circuit and the external video processing apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.

2. (Previously Presented) The display apparatus of claim 1, wherein the controller is further configured to control the assignment upon an indication to receive video information by using the first radio communication circuit from the video processing apparatus while acquiring information from the Internet by use of the second radio communication circuit.
3. (Previously Presented) The display apparatus of claim 1, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.
4. (Previously Presented) The display apparatus of claim 1, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.
5. (Previously Presented) The display apparatus of claim 1, wherein the controller is further configured to assign connection of the first radio communication circuit with higher priority.
6. (Previously Presented) The display apparatus of claim 1, further comprising a detection circuit configured to detect a state of a transmission path, wherein a demodulation method in the first or second radio communication circuit is controlled according to a result of detection conducted by the detection circuit.
7. (Currently Amended) A video processing apparatus, comprising:
a first radio communication circuit configured to transmit digital video information by

radio to an external apparatus;

a second radio communication circuit configured to connect to an internet or a home network, and receive digital information; and

a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit transmits digital video information to the external apparatus and the second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured to control assignment between the first radio communication circuit and the external apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to transmit digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.

8. (Previously Presented) The video processing apparatus of claim 7, wherein the controller is configured to control the assignment when a user issues an indication to transmit video information by using the first radio communication circuit to the external apparatus while acquiring information from the Internet by use of the second radio communication circuit.

9. (Previously Presented) The video processing apparatus of claim 7, wherein the first radio communication circuit and the second radio communication circuit are different from each other

in frequency bandwidth.

10. (Previously Presented) The video processing apparatus of claim 7, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

11. (Previously Presented) The video processing apparatus of claim 7, wherein the controller is configured to assign connection of the first radio communication circuit with higher priority.

12. (Previously Presented) The video processing apparatus of claim 7, further comprising a detection circuit configured to detect a state of a transmission path, wherein a demodulation method in the first or second radio communication circuit is controlled according to a result of detection conducted by the detection circuit.

13. (Currently Amended) A method for displaying via a display apparatus, the method comprising:

receiving, via a first radio communication circuit, digital video information by radio from an external video processing apparatus;

connecting, via a second radio communication circuit, to an internet or a home network through the external video processing apparatus by radio;

receiving digital information;

controlling each of the first and second radio communication circuits;

receiving, via the first radio communication circuit, digital video information from the

external video processing apparatus and connecting to the internet or the home network simultaneously;

controlling assignment between the first radio communication circuit and the external video processing apparatus;

controlling assignment between the second radio communication circuit and the internet or the home network; and

controlling the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.

14. (Previously Presented) The method of claim 13, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.

15. (Previously Presented) The method of claim 13, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

16. (Previously Presented) The method of claim 13, further comprising assigning connection of the first radio communication circuit with a higher priority.

17. (Previously Presented) The method of claim 13, further comprising detecting a state of a transmission path; and

controlling according to a result of detection conducted by the detection circuit.

18. (Currently Amended) A method for video processing, the method comprising:

transmitting, via a first radio communication circuit, digital video information by radio to an external apparatus;

connecting, via a second radio communication circuit, to an internet or a home network;

receiving digital information;

controlling each of the first and second radio communication circuits such that the first radio communication circuit transmits digital video information to the external apparatus and the second radio communication circuit connects to the internet or the home network simultaneously;

controlling assignment between the first radio communication circuit and the external apparatus, and assignment between the second radio communication circuit and the internet or the home network;

controlling the assignment such that the assignment between the first radio communication circuit and the external apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to transmit digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.

19. (Previously Presented) The method of claim 18, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.

20. (Previously Presented) The method of claim 18, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

REMARKS

Upon entry of this Amendment, claims 1-20 are pending in this application; claims 1, 7, 13, and 18 are amended. Support for the amendments may be found throughout the specification, for example on page 20 at lines 15-25 and page 34 at lines 14-23 of the application as filed, the corresponding figures, and the originally-filed claims. Thus, Applicant respectfully submits that no new matter is being added by the Amendments to the Claims.

Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1, 2, 5, 7, 11, 13, 16 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo et al. (US 2007/0091835; hereinafter Jo) in view of Bruno (US 5,724,355; hereinafter Bruno) and further in view of Thro et al. (US 6,037,991).

Claims 3, 9, 14, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo in view of Bruno and further in view of Thro and further in view of Sanguinetti (US 2008/0139118; hereinafter Sanguinetti).

Claims 4, 6, 10, 12, 15, 17 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo in view of Bruno and further in view of Thro and further in view of Asao (US 4,561,100; hereinafter Asao).

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo in view of Bruno and further in view of Thro and further in view of Seet et al. (US 2004/0107208; hereinafter Seet).

Claims 1-2, 6-7, 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Grady et al. (US 2007/0086724; hereinafter Grady) in view of Sanguinetti and Seet.

Claims 3 and 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over

Grady in view of Sanguinetti and Thro.

Claims 5 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Grady in view of Sanguinetti and Asao

Claims 15-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Grady in view of Sanguinetti and Grysiwicz et al. (US 5,758,262; hereinafter Grysiwicz)

Claims 1, 2, 6, 7, 11-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo in view of Bruno.

Claims 3-4 and 8-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo in view of Bruno and further in view of Thro.

Claims 5 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jo in view of Bruno and Asao.

Applicant respectfully traverses the rejection(s).

Amended independent claim 1 recites, “a display apparatus, comprising: a first radio communication circuit configured to receive digital video information by a radio from an external video processing apparatus; a second radio communication circuit configured to connect to an internet or a home network by radio, and receive digital information; and a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit receives digital video information from the external video processing apparatus and the second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured to control assignment between the first radio communication circuit and the external video processing apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the

assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.” Amended independent claims 7, 13, and 18 contain similar amendments and recite similar features.

No such configuration is taught or suggested by Jo, Bruno, Thro, or any of the other cited references, alone or in any combination.

Jo discloses a portable terminal connectable to a mobile network, AirTV, digital multimedia broadcasting, wireless LAN and wireless broadband. Jo further discloses a device and method to play back contents according to a reception sensitivity, more specifically, a device and method to select a wireless communication system according to the reception sensitivity of wireless signals such as AirTV signals, digital multimedia broadcasting signals and wireless LAN signals, and playing back received multimedia content. The device includes a communication unit receiving multimedia content through a wireless communication device corresponding to a selection instruction message input by a user among one or more wireless communication devices; a reception sensitivity check unit checking the reception sensitivity of the received multimedia content; and an interface unit outputting the received multimedia content according to the reception sensitivity. *See Jo, Abstract.*

Jo does not teach or suggest a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit receives digital video information from the external video processing apparatus and the

second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured to control assignment between the first radio communication circuit and the external video processing apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit, as required by claim 1.

Bruno fails to cure the deficiencies of Jo. Bruno discloses a method of providing internet access to a multimedia terminal supporting the H.320 protocol through a gateway server that is connected to the Internet. *See* Bruno, Abstract.

Specifically, Bruno fails to teach or suggest, “wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.”

Thro fails to cure the deficiencies of Jo and Bruno. Thro discloses, a communication system (100) employs a method and apparatus for communicating video information therein. A first communication device (e.g., 101) preferably includes a video compressor (203), a memory

device (205) containing a computer program, and a modem (207). The first device receives video information from a video device (116) via the video compressor and executes the computer program to determine a priority between transmission frame rate and resolution per frame. When transmission frame rate is of higher priority, the first device transmits the video information at a first transmission frame rate via the modem to a second communication device (e.g., 102). When resolution per frame is of higher priority, the first device transmits the video information at a second transmission frame rate that is less than the first rate. The second device, upon receiving the video information, may display (113) the information or process the information for retransmission (e.g., when the second device is a video control server (104)). *See Thro*, Abstract.

Thro further discloses a method and apparatus for communicating video information in a communication system with a first communication device including a video compressor, a memory device having a computer program stored therein, and a modem and a second communication device that either displays the video information or processes the received video from the first communication device for retransmission. *See Thro* [0021]. Thro also discloses transmitting videos from plural cameras at the same time and reducing the frame rate when transmitting video that has high video resolution per frame. Thro is also silent about controlling connection assignment for the first and second radio communication units to allow receiving video information from the external video processing apparatus by radio and connecting to the network by radio simultaneously. Further, Thro is silent about the technical idea and concept of viewing content transmitted from the external video processing apparatus by radio and, in parallel, connecting to a network by radio to acquire information from the network.

Thro specifically fails to teach or suggest, “wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit

and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.”

Applicant’s present disclosure features a first radio communication unit which transmits/receives video signal directly by radio from/to the external apparatus, and a second radio communication unit which directly connects to the network, wherein the first radio communication unit are different from each other in terms of frequency bandwidth and modulation/demodulation method, respectively. Nothing in Jo or Bruno is disclosed about these communications united having mutually different frequency bandwidths and modulation/demodulation methods.

Therefore, Applicant respectfully submits that Jo, Bruno, and Thro, considered alone or in combination, do not disclose each and every limitation of claims 1, 7, 13, or 18.

As such, Applicant submits claims 1, 7, 13, 18, and the claims dependent thereon are allowable over Jo, Bruno, and Thro for at least these reasons.

The deficiencies of Jo have been discussed above. Bruno and Thro each fail to remedy the deficiencies of Jo. Asao discloses detecting an error in data transmission signal to compensate for waveform distortion in the data signal and framing code signal. Asao is also silent about controlling connection assignment for the first and second radio communication units to allow receiving video information from the external video processing apparatus by radio and connecting to the network by radio simultaneously. Further, Asao is silent about the technical idea and concept of viewing a content transmitted from the external video processing

apparatus by radio, and in parallel, connecting to a network radio to acquire information from the network, which is made possible by the inventive connection assignment control arrangement of Applicant's present invention. *See Asao, Abstract*

In Grady, an apparatus includes a wireless network transceiver for communicating with the wireless network, and a wireless telephone transceiver for communicating with the wireless remote controller. The wireless network transceiver and the wireless telephone transceiver respectively connect to different objects. In contrast, in Applicant's disclosure, two radio communication units connect to the same apparatus. Further, Grady does not show accessing the wireless network via any device. *See Grady, Abstract.*

More particularly, Grady is silent regarding, ““wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit,” as required by independent claim 1, 7, 13, 18, and the claims dependent thereon.

Sanguinetti, shows a portable electronic device having a wireless communication circuitry including a WLAN circuit and a Bluetooth circuit. The WLAN circuit and Bluetooth circuit do not connect to the same external video processing apparatus, and do not communicate with the same apparatus. Sanguinetti does not disclose that WLAN circuit accesses the network via the external device which is radio-connected with the Bluetooth circuit either. Further, Sanguinetti does not disclose controlling those circuit in the way of Applicant's invention. *See*

Sanguinetti, Abstract.

Independent claims 1 recites, “wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network when a user issues an indication to receive digital video information by the first radio communication circuit while acquiring information from the internet or the home network by the second radio communication circuit.” Independent claims 7, 13 and 18 recite similar features.

None of Asao, Grady, or Sanguinetti, taken individually or in combination, discloses or suggests this feature, and as such, claims 1, 7, 13, 18, and the claims dependent thereon are allowable for this reason.

No other previously-applied and/or known reference cures the major deficiencies mentioned above with respect to the above-discussed reference(s).

Accordingly, Applicant submits that this rejection of claims 1, 7, 13, 18, and the claims dependent thereon under 35 U.S.C. § 103(a) should be withdrawn.

CONCLUSION

On the basis of the foregoing remarks, Applicant respectfully submits that the pending claims of the present application are allowable over the prior art of record. Applicant thus respectfully requests the previous rejections be withdrawn, and that the pending claims be allowed by the Examiner. Favorable consideration and timely allowance of this application are respectfully requested.

This Amendment is being made solely to expedite prosecution of the present application and does not constitute an acquiescence to any prior art, objections, or rejections identified by the Examiner. Applicant's silence with regard to the Examiner's rejections of the dependent claims constitutes a recognition by Applicant that the rejections are moot based on Applicant's Amendment and/or Remarks regarding the independent claim from which the dependent claims depend.

Applicant authorizes the Commissioner to charge any additional fees and/or credit any overpayments associated with this paper to Baker Botts L.L.P. Deposit Account No. 02-4377, Ref. No. 072388.1317. Further, if a fee is required for an extension of time under 37 C.F.R. § 1.136 not provided for above, Applicant requests such extension and authorizes the charging of the extension fee to Baker Botts L.L.P. Deposit Account No. 02-4377, Ref. No. 072388.1317.

Respectfully submitted,

BAKER BOTTS L.L.P.

Dated: July 10, 2018

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Electronic Acknowledgement Receipt	
EFS ID:	33133295
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	21003
Filer:	Jonathan Drew Cocks/Danielle Rey
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		NFOA_Response_asfiled.pdf	80101	yes	18
			fa8b559ca63870f93bf3ce8a8a63894ee73b3243		

Multipart Description/PDF files in .zip description			
	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Specification	2	2
	Claims	3	9
	Applicant Arguments/Remarks Made in an Amendment	10	18
Warnings:			
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Total Files Size (in bytes):		80101	
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875				Application or Docket Number 15/891,085		Filing Date 02/07/2018		☐ To be Mailed	
ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO									
APPLICATION AS FILED – PART I									
		(Column 1)		(Column 2)					
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)	
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A		N/A		N/A			
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A		N/A		N/A			
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A		N/A		N/A			
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =		*		X \$ =			
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =		*		X \$ =			
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))		If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).							
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))									
* If the difference in column 1 is less than zero, enter "0" in column 2.						TOTAL			
APPLICATION AS AMENDED – PART II									
		(Column 1)		(Column 2)		(Column 3)			
AMENDMENT	07/10/2018		CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))		* 20		Minus	** 20	= 0		
	Independent (37 CFR 1.16(h))		* 4		Minus	*** 4	= 0		
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
						RATE (\$)		ADDITIONAL FEE (\$)	
						X \$100 =		0	
						X \$460 =		0	
						TOTAL ADD'L FEE		0	
		(Column 1)		(Column 2)		(Column 3)			
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT			HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))		*		Minus	**	=		
	Independent (37 CFR 1.16(h))		*		Minus	***	=		
	☐ Application Size Fee (37 CFR 1.16(s))								
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))								
						RATE (\$)		ADDITIONAL FEE (\$)	
						X \$ =			
						X \$ =			
						TOTAL ADD'L FEE			
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.									

SLIE
ADRIENE SELLMAN

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317

CONFIRMATION NO. 3408

21003
BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
44TH FLOOR
NEW YORK, NY 10112-4498

PUBLICATION NOTICE



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Title:DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

Publication No.US-2018-0167671-A1

Publication Date:06/14/2018

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.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317	3408
21003 7590 04/19/2018 BAKER BOTTS L.L.P. 30 ROCKEFELLER PLAZA 44TH FLOOR NEW YORK, NY 10112-4498			EXAMINER DAGNEW, MEKONNEN D	
			ART UNIT 2664	PAPER NUMBER
			NOTIFICATION DATE 04/19/2018	DELIVERY MODE 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):

DLNYDOCKET@BAKERBOTTSCOM

Office Action Summary	Application No. 15/891,085	Applicant(s) KURITA ET AL.	
	Examiner MEKONNEN DAGNEW	Art Unit 2664	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/07/2018.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-20 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 02/07/2018 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

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

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date ____. | 4) ☐ Other: ____. |

DETAILED ACTION

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

Claim Rejections - 35 USC § 103

2. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

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 though 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.
3. Claims 1,2,5,7,11,13,16,18 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835; hereinafter Jo) in view of Bruno (US 5,724,355), and further in view of Thro et al. (US 6,037,991).

As of Claim 1: Jo teaches a display apparatus (FIG. 5 element 5150 and ¶0033,0058,0064), comprising: a first radio communication circuit configured to receive digital video information (¶0033) by a radio from an external video processing apparatus (¶0033,0058,0064); a second radio communication circuit configured to connect to an internet or a home network by radio, and receive digital information (¶0033,0058,0064); and

a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit receives digital video information from the external video processing apparatus and the second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured (¶0033,0058,0064) .

Although one of ordinary skill in the art would recognize that in modern digital devices, multiple communication units operate simultaneously, Jo does not specifically disclose this limitation. Bruno teaches the well known concept of a device to maintain the capability of receiving video signals and connection to the internet simultaneously (*Col 8 Lines 22-30*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Jo with that of Bruno to realize the use of the first and second communication units working simultaneously, and each with the capability of receiving video and connecting to the internet. It would be obvious to use the two units at the same time in order to allow the user to receive video which may require a waiting time and also browse the internet while waiting.

Jo in view of Bruno teach a display apparatus according to claim 1, but does not teach control assignment between the first radio communication circuit and the external video processing apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio

communication circuit and the internet or the home network. One of ordinary skill in the art recognizes that it's well known for a device to control transmission rate. Thro teaches from Col 9 Line 15 that a user of a receiving communication device may control the transmission frame rate for communicating with an external communication device so that the user may receive desired visual information based on user's preference. Given this teaching it would be obvious to control the transmission rate of receiving units to receive faster that which is more priority to the user, and slower transmission rate for data that is not of high priority. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Jo in view of Bruno with that of Thro to realize that to accommodate a user's preference of what he receives with a communication device, it would be obvious to allow the user to control the transmission rate and make one communication unit transmit faster than another based on what the user finds more important.

As of Claim 2: Jo in view of Bruno in view of Thro further teaches the controller is further configured to control the assignment upon an indication to receive video information by using the first radio communication circuit from the video processing apparatus while acquiring information from the Internet by use of the second radio communication circuit.

As of Claim 5: Jo in view of Bruno in view of Thro further teaches the controller is further configured to assign connection of the first radio communication circuit with higher priority (JO paragraph 56 teaches that the first radio communication unit has priority over the WLAN unit).

As of Claim 7: Jo teaches a video processing apparatus, comprising: a first radio communication circuit configured to transmit digital video information by radio to an external apparatus (¶0033,0058,0064); a second radio communication circuit configured to connect to an internet or a home network, and receive digital information; and a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit transmits digital video information to the external apparatus (¶0033,0058,0064). Although one of ordinary skill in the art would recognize that in modern digital devices, multiple communication units operate simultaneously, Jo does not specifically disclose this limitation. Bruno teaches the well known concept of a device to maintain the capability of receiving video signals and connection to the internet simultaneously (Col 8 Lines 22-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Jo with that of Bruno to realize the use of the first and second communication units working simultaneously, and each with the capability of receiving video and connecting to the internet. It would be obvious to use the two units at the same time in order to allow the user to receive video which may require a waiting time and also browse the internet while waiting.

Jo in view of Bruno teach does not teach the controller is further configured to control assignment between the first radio communication circuit and the external apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that

the assignment between the first radio communication circuit and the external apparatus is more than the assignment between the second radio communication circuit and the internet or the home network. One of ordinary skill in the art recognizes that it's well known for a device to control transmission rate. **Thro** teaches from Col 9 Line 15 that a user of a receiving communication device may control the transmission frame rate for communicating with an external communication device so that the user may receive desired visual information based on user's preference. Given this teaching it would be obvious to control the transmission rate of receiving units to receive faster that which is more priority to the user, and slower transmission rate for data that is not of high priority. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Jo in view of Bruno with that of Thro to realize that to accommodate a user's preference of what he receives with a communication device, it would be obvious to allow the user to control the transmission rate and make one communication unit transmit faster than another based on what the user finds more important.

As of Claim 11: *:Jo in view of Bruno in view of Thro further teaches the controller is configured to assign connection of the first radio communication circuit with higher priority (JO paragraph 56 teaches that the first radio communication unit has priority over the WLAN unit).*

As of Claim 13: A method claim for claim 1 and is addressed in claim 1.

As of Claim 16: Jo in view of Bruno in view of Thro assigning connection of the first radio communication circuit with a higher priority (*JO paragraph 56 teaches that the first radio communication unit has priority over the WLAN unit*).

As of Claim 18: A method claim for claim 7 and is addressed in claim 7.

4. Claims 3,9,14,19 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835; hereinafter Jo) in view of Bruno (US 5,724,355), and in view of Thro et al. (US 6,037,991), further in view of Sanguinetti (US 2008/0139118).

As of Claim 3: Jo in view of Bruno in view of Thro does not specifically teach the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth, although this is also well known in the art, for example that Wi-Fi enabled device and a cell phone connecting to the cell phone network differ in frequency and modulation method. Sanguinetti teaches the aforementioned well known features. Sanguinetti also teaches a device capable of wireless communication via two communication units and paragraph 70 teaches that the two communication units may connect to their respective external device or networks and receive data simultaneously. Further, Sanguinetti teaches typical frequency ranges for cellular telephones and Wi-Fi enabled devices. One of ordinary skill in the art realizes different modulation methods associated with each, for example QPSK for Wi-Fi or GMSK for cell phones. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Grady with that of Sanguinetti to realize that both communication units may connect to different types of networks—cell phone

and internet—simultaneously so that a user may have access to a wider range of data on a handheld device.

As of Claim 9,14,19: See analysis of Claim 3.

5. Claims 4,6,10,12,15,17 and 20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835; hereinafter Jo) in view of Bruno (US 5,724,355), and in view of Thro et al. (US 6,037,991), further in view of Asao (US 4561100)

As of Claim 6: Jo in view of Bruno in view of Thro does not specifically teach a detection circuit configured to detect a state of a transmission path, wherein a demodulation method in the first or second radio communication circuit is controlled according to a result of detection conducted by the detection circuit. Asao teaches in the abstract section that a communication device detects a characteristic of transmission path and demodulation method is controlled according to the detection in this case for the purpose of detecting an error so that a signal with error is prevented from being demodulated. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Grady in view of Sanguinetti with that of Asao to realize detecting a state of the transmission path and subsequently affecting the demodulation method. This would be obvious at least for such reason as taught by Asao to avoid demodulation of data signals with error.

As of Claim 10: Jo in view of Bruno in view of Thro in view of Asao further teaches the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method (see Asao abstract).

As of Claim 15: Jo in view of Bruno in view of Thro in view of Asao further teaches the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method (see Asao abstract).

As of Claim 17: Jo in view of Bruno in view of Thro in view of Asao detecting a state of a transmission path; and controlling according to a result of detection conducted by the detection circuit (see Asao abstract).

As of Claim 20: Jo in view of Bruno in view of Thro in view of Asao further teaches the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method (see Asao abstract).

6. Claim 8 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835; hereinafter Jo) in view of Bruno (US 5,724,355), and in view of Thro et al. (US 6,037,991), further in view of U.S. Pub. No. 2004/0107208 to Seet et al. ("Seet").

As of Claim 8: Jo in view of Bruno in view of Thro does not teach the controller is configured to control the assignment when a user issues an indication to transmit video

information by using the first radio communication circuit to the external apparatus while acquiring information from the Internet by use of the second radio communication circuit.

Seet teaches a display device 11 with a first radio communication unit 15 connected to an external video processing apparatus 31, and a second radio communication unit 16, where the second radio communication unit is connected by radio to the same external apparatus 31, and 16 accesses an internet network 40 through the external apparatus 31 by radio (*see paragraph 21*), and the second radio communication unit 16 receives digital information from the external apparatus 31.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of **Jo in view of Bruno in view of Thro** with that of Seet to extend access to internet networks to simple devices that are not themselves capable of accessing the internet without intermediate connection with an external device that has network access.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEKONNEN DAGNEW whose telephone number is (571)270-5092. The examiner can normally be reached on Monday-Thursday, 8AM-5PM EST.

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, Lin Ye can be reached on (571)272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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

/MEKONNEN DAGNEW/
Primary Examiner, Art Unit 2664

Claims 1-2, 6-7, 13-14 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Grady et al. (US 2007/0086724) in view of Sanguinetti (US 2008/0139118), further in view of U.S. Pub. No. 2004/0107208 to Seet et al. ("Seet").

Regarding claim 1, Grady teaches a display apparatus (*reference number 99*), comprising: a first radio communication unit capable of receiving digital video information by radio from an

external video processing apparatus (*reference number 18 wireless telephone transceiver, paragraph 48 teaches receiving digital files*); a second radio communication unit capable of connecting by radio to an internet or a home network and receiving digital information (*reference number 19 wireless network transceiver*); and a control unit for controlling assignment of connection by radio transmission for each of the first and second radio communication units (*reference number 45 microprocessor*). Grady teaches in paragraph 70 that the devices receives data via the wireless network transceiver 19 and the device also communicates with the telephonic device 80 or 180, and while Grady does not specifically teach that it is done simultaneously, this capability is well known in the art. Additionally, Grady teaches that one communication device connects to the internet and the other communication device connects to the telephone network, but does not specifically teach they are different in frequency bandwidth and modulation/demodulation method, although this is also well known in the art, for example that Wi-Fi enabled device and a cell phone connecting to the cell phone network differ in frequency and modulation method. Sanguinetti teaches the aforementioned well known features. Sanguinetti also teaches a device capable of wireless communication via two communication units and paragraph 70 teaches that the two communication units may connect to their respective external device or networks and receive data simultaneously. Further, Sanguinetti teaches typical frequency ranges for cellular telephones and Wi-Fi enabled devices. One of ordinary skill in the art realizes different modulation methods associated with each, for example QPSK for Wi-Fi or GMSK for cell phones. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Grady with that of Sanguinetti to realize that both

communication units may connect to different types of networks—cell phone and internet—simultaneously so that a user may have access to a wider range of data on a handheld device.

Grady teaches that the second communication unit is capable of connecting by radio to an internet network, but does not teach said connecting by radio to an internet network is through the external video processing apparatus by radio. Seet teaches a display device 11 with a first radio communication unit 15 connected to an external video processing apparatus 31, and a second radio communication unit 16, where the second radio communication unit is connected by radio to the same external apparatus 31, and 16 accesses an internet network 40 through the external apparatus 31 by radio (*see paragraph 21*), and the second radio communication unit 16 receives digital information from the external apparatus 31.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Grady and Sanguinetti with that of Seet to extend access to internet networks to simple devices that are not themselves capable of accessing the internet without intermediate connection with an external device that has network access.

Regarding claim 2, Grady in view of Sanguinetti teach a display apparatus according to claim 1, and Sanguinetti teaches wherein the control unit assigns connection of the first radio communication unit with higher priority (*paragraph 56 teaches that the first radio communication unit has priority over the WLAN unit*).

Claims 6, 13-14 are rejected similarly to claim 1. Claim 7 is rejected similarly to claim 2.

6. Claims 3, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grady et al. (US 2007/0086724) in view of Sanguinetti (US 2008/0139118) further in view of Thro et al. (US 6037991).

Regarding Claim 3, Grady in view of Sanguinetti teach a display apparatus according to claim 1, but do not teach controlling assignment of a transmission rate between the first radio communication unit and the external video processing apparatus and assignment of a transmission rate between the second radio communication unit and the network, where the first is more than the second. One of ordinary skill in the art recognizes that it's well known for a device to control transmission rate. Thro teaches from Col 9 Line 15 that a user of a receiving communication device may control the transmission frame rate for communicating with an external communication device so that the user may receive desired visual information based on user's preference. Given this teaching it would be obvious to control the transmission rate of receiving units to receive faster that which is more priority to the user, and slower transmission rate for data that is not of high priority. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the above teaching with that of Thro to realize that to accommodate a user's preference of what he receives with a communication device, it would be obvious to allow the user to control the transmission rate and make one communication unit transmit faster than another based on what the user finds more important.

Claim 8 is rejected similarly to claim 3.

7. Claims 5, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grady et al. (US 2007/0086724) in view of Sanguinetti (US 2008/0139118) further in view of Asao (US 4561100).

Regarding Claim 5, Grady in view of Sanguinetti teach a display apparatus according to claim 1, but do not teach detecting a state of a transmission path, wherein a demodulation method in the first or second radio communication unit is controlled according to a result of detection conducted by the detection unit. Asao teaches in the abstract section that a communication device detects a characteristic of transmission path and demodulation method is controlled according to the detection in this case for the purpose of detecting an error so that a signal with error is prevented from being demodulated. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Grady in view of Sanguinetti with that of Asao to realize detecting a state of the transmission path and subsequently affecting the demodulation method. This would be obvious at least for such reason as taught by Asao to avoid demodulation of data signals with error.

Claim 10 is rejected similarly to claims 5.

8. Claims 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grady et al. (US 2007/0086724) in view of Sanguinetti (US 2008/0139118) further in view of Grysiwicz et al. (US 5758262).

Regarding Claims 15-16, Grady in view of Sanguinetti teach the display apparatus as claimed in claim 1, but is silent on the control unit controlling the frequency bandwidth and the modulation/demodulation method of said first and second radio communication unit, in accordance with user's instruction. One of ordinary skill in the art recognizes that a user will have a need to control the content and type of content received by a personal device. Grysiwicz

teaches user operable controls, reference number 52-53 in Fig. 1, to permit a user to control the frequency bandwidth and the modulation type. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Grady in view of Sanguinetti with that of Grysiwicz to realize allowing a user to control the frequency and modulation type in order to receive the content the user wants from both communication units.

Claims 17-18, 19-20, and 21-22 are rejected similarly to claims 15-16.

Allowable Subject Matter

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection. Since prior art reference, Jo et al. (US 2007/0091835), is still relied on, Examiner will address Applicant's arguments dated 8/1/2011 ("Remarks") regarding the Jo reference. Page 8 of Remarks references Fig. 1 of Jo and states that Jo does not disclose a display apparatus that is radio-connectable to external video processing apparatus. However, Fig. 1 of Jo is directed towards well known conventional system and is not purported to teach the limitations of claim 1. Fig. 2 of Jo was relied on because it shows a display apparatus (*reference number 280 is a display as stated in paragraph 45*) and the units of reference number 210 connect to external apparatus to receive video as stated in paragraph 31. Upon a second review,

Examiner does not discern any reason the cited teaching Jo does not teach the limitations of claim 1. Applicant's argument on page 8 states that the device shown in Fig. 2 of Jo is different from the claimed limitation, but does not state why or how. Based on the simple and broad language of claim 1 (10/29/2008 claims), Fig. 2 of Jo teaches every limitation as detailed in the Non-Final Rejection as well as above.

2. Applicant now amends to add a feature, "so that the first radio communication unit receives video information from the external video processing apparatus and the second radio communication unit connects to the network simultaneously." Jo teaches first and second radio communication units, each with the capability of receiving video from an external video processing apparatus and also the capability of connected by radio to a network, as stated in paragraph 31 of Jo. Although one of ordinary skill in the art would recognize that in modern digital devices, multiple communication units operate simultaneously, Jo does not specifically disclose this limitation. However, the addition of the well-known feature regarding the capability of a device to receive video data and connect to a network simultaneously does not place the instant claims in condition for allowance. Thus the following new grounds of rejection follow.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 6-7, 11-12 rejected under 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835) in view of Bruno et al. (US 5724355).

Regarding Claim 1, Jo teaches a display apparatus, comprising: a first radio communication unit capable of receiving video information by radio from an external video processing apparatus (*reference number 211*); a second radio communication unit capable of connecting by radio to a network (*reference number 212*); and a control unit for controlling assignment of connection by radio transmission for each of the first and second radio communication units (*paragraph 40 teaches controlling priority of the communication units*). Although one of ordinary skill in the art would recognize that in modern digital devices, multiple communication units operate simultaneously, Jo does not specifically disclose this limitation. Bruno teaches the well known concept of a device to maintain the capability of receiving video signals and connection to the internet simultaneously (*Col 8 Lines 22-30*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Jo with that of Bruno to realize the use of the first and second communication units working simultaneously, and each with the capability of receiving video and connecting to the internet. It would be obvious to use the two units at the same time in order to allow the user to receive video which may require a waiting time and also browse the internet while waiting.

Regarding Claim 2, Jo teaches a display apparatus according to claim 1, wherein the control unit assigns connection of the first radio communication unit with higher priority

(paragraph 50 teaches the priority may be pre-selected, thus assigning first communication unit with higher priority than second communication unit is an example of pre-selecting priority of the communicating units).

Claims 6-7 are rejected similarly to claims 1-2, because the display apparatus of Jo et al. Fig. 4 is also a video processing apparatus.

Regarding claims 11-12, Jo teaches the network is an internet network. Paragraph 31 teaches the network is a broadband wireless network and paragraph 7 teaches this is an internet network.

5. Claims 3-4, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835) in view of Bruno et al. (US 5724355), further in view of Thro et al. (US 6037991).

Regarding Claims 3-4, Jo in view of Bruno teach a display apparatus according to claim 1, but does not teach controlling assignment of a transmission rate between the first radio communication unit and the external video processing apparatus and assignment of a transmission rate between the second radio communication unit and the network, where the first is more than the second. One of ordinary skill in the art recognizes that it's well known for a device to control transmission rate. Thro teaches from Col 9 Line 15 that a user of a receiving communication device may control the transmission frame rate for communicating with an external communication device so that the user may receive desired visual information based on user's preference. Given this teaching it would be obvious to control the transmission rate of receiving units to receive faster that which is more priority to the user, and slower transmission rate for data that is not of high priority. It would have been obvious to one of ordinary skill in

the art at the time of the invention to modify the teaching of Jo in view of Bruno with that of Thro to realize that to accommodate a user's preference of what he receives with a communication device, it would be obvious to allow the user to control the transmission rate and make one communication unit transmit faster than another based on what the user finds more important.

Claims 8-9 are rejected similarly to claims 3-4, because the display apparatus of Jo et al. Fig. 4 is also a video processing apparatus.

6. Claims 5, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jo et al. (US 2007/0091835) in view of Bruno et al. (US 5724355) further in view of Asao (US 4561100).

Regarding Claim 5, Jo in view of Bruno teach a display apparatus according to claim 1, but does not teach detecting a state of a transmission path, wherein a demodulation method in the first or second radio communication unit is controlled according to a result of detection conducted by the detection unit. Jo teaches demodulation unit but does not teach further details, thus one of ordinary skill in the art would look to other prior art for further details of the demodulation hardware or method of use. Asao teaches in the abstract section that a communication device detects a characteristic of transmission path and demodulation method is controlled according to the detection in this case for the purpose of detecting an error so that a signal with error is prevented from being demodulated. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Jo in view of Bruno with that of Asao to realize detecting a state of the transmission path and subsequently affecting

the demodulation method. This would be obvious at least for such reason as taught by Asao to avoid demodulation of data signals with error.

Claim 10 is rejected similarly to claims 5, because the display apparatus of Jo et al. Fig. 4 is also a video processing apparatus.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). 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 date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMY HSU whose telephone number is (571)270-3012. The examiner can normally be reached on M-F 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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

Amy Hsu
Examiner
Art Unit 2622

/LIN YE/
Supervisory Patent Examiner, Art Unit 2622

Notice of References Cited	Application/Control No. 15/891,085	Applicant(s)/Patent Under Reexamination KURITA ET AL.	
	Examiner MEKONNEN DAGNEW	Art Unit 2664	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6,037,991 A	03-2000	Thro; Stuart W.	H04N7/147	348/443
*	B	US-2007/0091835 A1	04-2007	Jo; Hwan-ju	H04H60/11	370/315
*	C	US-5,724,355 A	03-1998	Bruno; Richard Frank	H04L12/6418	370/401
*	D	US-2004/0107208 A1	06-2004	Seet, Siew Shon	H04L29/06	1/1
	E	US-				
	F	US-				
	G	US-				
	H	US-				
	I	US-				
	J	US-				
	K	US-				
	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Bibliographic Data

Application No: 15891085

Foreign Priority claimed:

☒ Yes ☐ No

35 USC 119 (a-d) conditions met:

☒ Yes ☐ No

☐ Met After Allowance

Verified and Acknowledged:

/MEKONNEN D DAGNEW/

Examiner's Signature

Initials

Title:

DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
02/07/2018	348	2664	072388.1317
RULE			

APPLICANTS

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YES MD

Hitoaki Owashi, Yokohama, JAPAN

CONTINUING DATA

This application is a CON of 15208886 07/13/2016 YES MD

15208886 is a CON of 12260410 10/29/2008 PAT 9420212 YES MD

FOREIGN APPLICATIONS

JAPAN 2007-306750 11/28/2007 YES MD

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03/07/2018

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FILING FEE RECEIVED

\$6,320

Search Notes 	Application/Control No. 15891085	Applicant(s)/Patent Under Reexamination KURITA ET AL.
	Examiner MEKONNEN DAGNEW	Art Unit 2664

CPC- SEARCHED		
Symbol	Date	Examiner
(H04N21/43637 or H04L69/14 or H04N21/4122 or H04N5/44 or H04N21/41407 or H04N21/4367).cpc.	4/9/2018	MD

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
Inventors' name searched and checked for DP issues.	4/9/2018	MD
Text searched in the areas cited above.	4/9/2018	MD

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

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<i>Index of Claims</i> 	Application/Control No. 15891085	Applicant(s)/Patent Under Reexamination KURITA ET AL.
	Examiner MEKONNEN DAGNEW	Art Unit 2664

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

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

CLAIM		DATE									
Final	Original	04/09/2018									
	1	✓									
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	20	✓									

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	63	("6037991" "20080139118" "20070085933" "20070091835" "20090091663" "5724355" "5678173" "20070123163" "6763226" "20070086724" "20070223505" "20080109307" "20080139118" "5678173" "8572257" "20070091835" "20080025273" "6037991" "20070223505" "20070242313" "20080201751" "20080025273" "5724355" "20070223505" "5758262" "20070086724" "20070123163" "8325237" "4561100" "20090091663" "8325237" "20040107208" "4561100" "5758262" "6763226" "20070085933" "20080025273").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/16 10:59
S1	0	15/891085	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:07
S2	3	12/260410	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:08
S3	1	15/208886	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:08
S4	66450	(H04N21/43637 or H04L69/14 or H04N21/4122 or H04N5/44 or H04N21/41407 or H04N21/4367).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 10:48
S5	44	"2007009185"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 11:27

EAST Search History

S6	6	"20070091835"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 11:27
S7	29	((("KURI TA") near3 ("Toshiyuki"))).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2018/04/09 13:54
S8	139	((("OWASHI") near3 ("Hitoaki"))).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2018/04/09 13:54
S9	4	S8 and (radio near3 communication)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 14:00
S10	3	S7 and (radio near3 communication)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/04/09 14:00

EAST Search History (Interference)

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4/ 16/ 2018 12:00:52 PM**C:\ Users\ mdagnew\ Documents\ EAST\ Workspaces\ 15891085.w sp**

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	Not Yet Assigned
	Filing Date	Concurrently Herewith
	Inventor(s)	Toshiyuki Kurita et al.
	Art Unit	Not Yet Assigned
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	072388.1317

U.S. PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	1.	4,561,100 A	12-24-1985	Asao et al.
	2.	5,678,173 A	10-14-1997	Mihara
	3.	5,724,355 A	03-03-1998	Bruno et al.
	4.	5,758,262 A	05-26-1998	Grysiewicz et al.
	5.	6,037,991 A	03-14-2000	Thro et al.
	6.	2004/0107208 A1	06-03-2004	Sect et al.
	7.	6,763,226 B1	07-13-2004	McZeal, Jr.
	8.	2007/0086724 A1	04-19-2007	Grady et al.
	9.	2007/0091835 A1	04-26-2007	Jo et al.
	10.	2007/0085933 A1	04-19-2007	Takagi et al.
	11.	2007/0123163 A1	05-31-2007	Matsubara
	12.	2007/0223505 A1	09-27-2007	Itai et al.
	13.	2008/0025273 A1	01-31-2008	Sano
	14.	2008/0109307 A1	05-08-2008	Ullah
	15.	2008/0139118 A1	06-12-2008	Sanguinetti
	16.	2008/0201751 A1	08-21-2008	Ahmed et al.

Examiner Signature	/MEKONNEN D DAGNEW/	Date Considered	04/16/2018
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* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	Not Yet Assigned
	Filing Date	Concurrently Herewith
	Inventor(s)	Toshiyuki Kurita et al.
	Art Unit	Not Yet Assigned
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	072388.1317

U.S. PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	17.	2009/0091663 A1	04-09-2009	Toh et al.
	18.	8,325,237 B2	12-04-2012	Bessone et al.
	19.	8,572,257 B2	10-29-2013	Dua
	20.	2007/0242313 A1	10-18-2007	Shiomi

FOREIGN PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	21.	JP 2007-258865	10-04-2007	Hitachi Int Electric Inc
	22.	JP 2007-282097	10-25-2007	Canon Kabushiki Kaisha (Corresponds to US 2007/0242313 A1)
	23.	JP 2002-135304	05-10-2002	Sharp Corp
	24.	CN 1588997	03-02-2005	Datang Microelectronics Technology Co., Ltd.
	25.	JP 2007-202115	08-09-2007	Matsushita Electric Ind Co Ltd
	26.	JP 2008-035420	02-14-2008	Fujitsu Ltd

Examiner Signature	/MEKONNEN D DAGNEW/	Date Considered	04/09/2018
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* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/891,085	02/07/2018	Toshiyuki Kurita	072388.1317	3408
21003 7590 03/19/2018 BAKER BOTTS L.L.P. 30 ROCKEFELLER PLAZA 44TH FLOOR NEW YORK, NY 10112-4498			EXAMINER	
			ART UNIT	PAPER NUMBER
			2664	
			NOTIFICATION DATE	DELIVERY MODE
			03/19/2018	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):

DLNYDOCKET@BAKERBOTTSCOM



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Commissioner for Patents
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P.O. Box 1450
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Doc Code:
TRACK1.GRANT

Decision Granting Request for Prioritized Examination (Track I or After RCE)	Application No.: 15/891,085
1. THE REQUEST FILED <u>February 7, 2018</u> IS GRANTED. The above-identified application has met the requirements for prioritized examination A. ☒ for an original nonprovisional application (Track I). B. ☐ for an application undergoing continued examination (RCE). 2. The above-identified application will undergo prioritized examination. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs: A. filing a <u>petition for extension of time</u> to extend the time period for filing a reply; B. filing an <u>amendment to amend the application to contain more than four independent claims, more than thirty total claims,</u> or a multiple dependent claim; C. filing a <u>request for continued examination</u>; D. filing a notice of appeal; E. filing a request for suspension of action; F. mailing of a notice of allowance; G. mailing of a final Office action; H. completion of examination as defined in 37 CFR 41.102; or I. abandonment of the application. Telephone inquiries with regard to this decision should be directed to Cheryl Gibson-Baylor at (571)272-3213, Office of Petitions. In his/her absence, calls may be directed to Brian W. Brown, (571)272-5338. Cheryl Gibson-Baylor <u>/Cheryl Gibson-Baylor/</u> [Signature] <u>Petitions Paralegal Specialist</u> (Title)	

Office of Petitions: Decision Count Sheet

Mailing Month

3

Application No.

15891085



For US serial numbers: enter number only, no slashes or commas. Ex: 10123456

For PCT: enter "51+single digit of year of filing+last 5 numbers", Ex. for PCT/US05/12345, enter 51512345

Deciding Official:

GIBSON-BAYLOR, CHERYL

Count (1) - Palm Credit

15891085

Decision: GRANT

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: 643 - Track One request



Notes:

Count (2)

Decision: n/a

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: NONE

Notes:

Count (3)

Decision: n/a

FINANCE WORK NEEDED

☐ Select Check Box for YES

Decision Type: NONE

Notes:

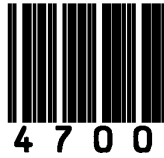
Initials of Approving Official (if required)

If more than 3 decisions, attach
2nd count sheet & mark this box

Printed on: 3/14/2018

Office of Petitions Internal Document - Ver. 5.0

Office of Petitions: Routing Sheet



Application No. 15891085

This application is being forwarded to your office for further processing. A decision has been rendered on a petition filed in this application, as indicated below. For details of this decision, please see the document PET.OP.DEC filed on the same date as this document.

☒ **GRANTED**

☐ **DISMISSED**

☐ **DENIED**

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 15/891,085				
APPLICATION AS FILED - PART I										
(Column 1)		(Column 2)		SMALL ENTITY		OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)			
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	300			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	660			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	760			
TOTAL CLAIMS (37 CFR 1.16(i))	20	minus 20 = *			OR	x 100 =	0.00			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4	minus 3 = * 1			OR	x 460 =	460			
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).						0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00			
			TOTAL			TOTAL	2180			
* If the difference in column 1 is less than zero, enter "0" in column 2.										
APPLICATION AS AMENDED - PART II										
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OTHER THAN SMALL ENTITY		
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x	=
	Independent (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 ADD'L FEE		OR	TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x	=
	Independent (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 ADD'L FEE		OR	TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.										



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
15/891,085	02/07/2018	2414	2180	072388.1317	20	4

CONFIRMATION NO. 3408

FILING RECEIPT



000000097877343

21003
BAKER BOTTS L.L.P.
30 ROCKEFELLER PLAZA
44TH FLOOR
NEW YORK, NY 10112-4498

Date Mailed: 03/09/2018

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Inventor(s)

Toshiyuki Kurita, Yokohama, JAPAN;
Hitoaki Owashi, Yokohama, JAPAN;

Applicant(s)

HITACHI MAXELL, LTD., OSAKA, JAPAN;

Assignment For Published Patent Application

HITACHI MAXELL, LTD., OSAKA, JAPAN

Power of Attorney: The patent practitioners associated with Customer Number 21003

Domestic Priority data as claimed by applicant

This application is a CON of 15/208,886 07/13/2016
which is a CON of 12/260,410 10/29/2008 PAT 9420212

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 2007-306750 11/28/2007 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: 03/07/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/891,085**

Projected Publication Date: 06/14/2018

Non-Publication Request: No

Early Publication Request: No
Title

DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

Preliminary Class

370

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

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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.

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UTILITY PATENT APPLICATION TRANSMITTAL (Only for new nonprovisional applications under 37 CFR 1.53(b))	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><i>Attorney Docket No.</i></td> <td style="width: 50%;">072388.1317</td> </tr> <tr> <td><i>First Named Inventor</i></td> <td>Toshiyuki Kurita</td> </tr> <tr> <td><i>Title</i></td> <td>DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS</td> </tr> <tr> <td><i>Express Mail Label No.</i></td> <td></td> </tr> </table>	<i>Attorney Docket No.</i>	072388.1317	<i>First Named Inventor</i>	Toshiyuki Kurita	<i>Title</i>	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS	<i>Express Mail Label No.</i>	
<i>Attorney Docket No.</i>	072388.1317								
<i>First Named Inventor</i>	Toshiyuki Kurita								
<i>Title</i>	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS								
<i>Express Mail Label No.</i>									

APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application contents.	Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450
1. ☒ Fee Transmittal Form (PTO/SB/17 or equivalent) 2. ☐ Applicant asserts small entity status. See 37 CFR 1.27 3. ☐ Applicant certifies micro entity status. See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent. 4. ☒ Specification [Total Pages <u>60</u>] Both the claims and abstract must start on a new page. (See MPEP § 608.01(a) for information on the preferred arrangement) 5. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets <u>9</u>] 6. ☐ Inventor's Oath or Declaration [Total Pages <u>2</u>] (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e)) a. ☐ Newly executed (original or copy) b. ☒ A copy from a prior application (37 CFR 1.63(d)) 7. ☒ Application Data Sheet * See note below. See 37 CFR 1.76 (PTO/AIA/14 or equivalent) 8. ☐ CD-ROM or CD-R in duplicate, large table, or Computer Program (Appendix) ☐ Landscape Table on CD 9. Nucleotide and/or Amino Acid Sequence Submission (if applicable, items a. – c. are required) a. ☐ Computer Readable Form (CRF) b. ☐ Specification Sequence Listing on: i. ☐ CD-ROM or CD-R (2 copies); or ii. ☐ Paper c. ☐ Statements verifying identity of above copies	ACCOMPANYING APPLICATION PAPERS 10. ☐ Assignment Papers (cover sheet & document(s)) Name of Assignee _____ 11. ☒ 37 CFR 3.73(c) Statement ☒ Power of Attorney (when there is an assignee) 12. ☐ English Translation Document (if applicable) 13. ☒ Information Disclosure Statement (PTO/SB/08 or PTO-1449) ☐ Copies of citations attached 14. ☐ Preliminary Amendment 15. ☐ Return Receipt Postcard (MPEP § 503) (Should be specifically itemized) 16. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed) 17. ☐ Nonpublication Request Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent. 18. ☒ Other: CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION _____ _____ _____ _____

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS					
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City	State	Zip Code			
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Signature	/Jonathan D. Cocks/		Date	February 7, 2018	
Name (Print/Type)	Jonathan D. Cocks		Registration No. (Attorney/Agent)	75,646	

This collection of information is required by 37 CFR 1.53(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.

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.

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

FEE TRANSMITTAL		Complete if known	
		Application Number	Not Yet Assigned
		Filing Date	Concurrently Herewith
☐ Applicant asserts small entity status. See 37 CFR 1.27.		First Named Inventor	Toshiyuki Kurita
☐ Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.		Examiner Name	Not Yet Assigned
		Art Unit	Not Yet Assigned
TOTAL AMOUNT OF PAYMENT	(\$ 6,320.00	Practitioner Docket No.	072388.1317

METHOD OF PAYMENT (check all that apply)
☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 02-4377 Deposit Account Name: Baker Botts L.L.P.

For the above-identified deposit account, the Director is hereby authorized to (check all that apply):

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**
☒ Charge any additional fee(s) or underpayment of fee(s) ☒ Credit any overpayment of fee(s) under 37 CFR 1.16 and 1.17
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES** (U = undiscounted fee; S = small entity fee; M = micro entity fee)

Application Type	FILING FEES			SEARCH FEES			EXAMINATION FEES			Fees Paid (\$)
	U (\$)	S (\$)	M (\$)	U (\$)	S (\$)	M (\$)	U (\$)	S (\$)	M (\$)	
Utility	300	150*	75	660	330	165	760	380	190	1,720
Design	200	100	50	160	80	40	600	300	150	
Plant	200	100	50	420	210	105	620	310	155	
Reissue	300	150	75	660	330	165	2,200	1,100	550	
Provisional	280	140	70	0	0	0	0	0	0	

* The \$150 small entity status filing fee for a utility application is further reduced to \$75 for a small entity status applicant who files the application via EFS-Web.

2. EXCESS CLAIM FEES

Fee Description	Undiscounted Fee (\$)	Small Entity Fee (\$)	Micro Entity Fee (\$)
Each claim over 20 (including Reissues)	100	50	25
Each independent claim over 3 (including Reissues)	460	230	115
Multiple dependent claims	820	410	205

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
20	-20 or HP = _____ x	_____ =	_____
HP = highest number of total claims paid for, if greater than 20.			
Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
4	-3 or HP = _____ x	460 =	460
HP = highest number of independent claims paid for, if greater than 3.			

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$400 (\$200 for small entity) (\$100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
69	- 100 = _____ / 50 = _____ (round up to a whole number)	x	_____ =	_____

4. OTHER FEE(S)

Non-English specification, \$130 fee (no small or micro entity discount)

Non-electronic filing fee under 37 CFR 1.16(t) for a utility application, \$400 fee (\$200 small or micro entity)

Other (e.g., late filing surcharge): 1817 - Request for Prioritized Examination; and 1830 - Processing Fee 4,140

SUBMITTED BY

Signature	/Jonathan D. Cocks/	Registration No. (Attorney/Agent) 75,646	Telephone 212-408-2500
Name (Print/Type)	Jonathan D. Cocks	Date February 7, 2018	

This collection of information is required by 37 CFR 1.136. 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, 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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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
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. 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.			

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor	1				Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	Toshiyuki		Kurita			
Residence Information (Select One) US Residency • Non US Residency Active US Military Service						
City	Yokohama		Country of Residence ⁱ	JP		
Mailing Address of Inventor:						
Address 1	c/o Hitachi, Ltd., Intellectual Property Group					
Address 2	6-1, Marunouchi 1-chome, Chiyoda-ku					
City	Tokyo		State/Province			
Postal Code	100-8220		Country ⁱ	JP		
Inventor	2				Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	Hitoaki		Owashi			
Residence Information (Select One) US Residency • Non US Residency Active US Military Service						
City	Yokohama		Country of Residence ⁱ	JP		
Mailing Address of Inventor:						
Address 1	c/o Hitachi, Ltd., Intellectual Property Group					
Address 2	6-1, Marunouchi 1-chome, Chiyoda-ku					
City	Tokyo		State/Province			
Postal Code	100-8220		Country ⁱ	JP		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.						
Add						

Correspondence Information:

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ An Address is being provided for the correspondence information of this application.

Customer Number	21003		
Email Address	DLNYDOCKET@BAKERBOTTIS.COM	Add Email	Remove Email

Application Information:

Title of the Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
Attorney Docket Number	072388.1317	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	9	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

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:	☒ Customer Number	US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	21003		

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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	15/208886	2016-07-13		
Prior Application Status	Patented	Remove			
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/208886	Continuation of	12/260410	2008-10-29	9420212	2016-08-16
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add 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)ⁱ 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).

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Remove
2007-306750	JP	2007-11-28	Access Code ^j (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add 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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

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.			
Applicant	1	Remove	
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.			
		Clear	
☐ 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:			
Name of the Deceased or Legally Incapacitated Inventor:			
If the Applicant is an Organization check here. ☒			
Organization Name	HITACHI MAXELL, LTD.		
Mailing Address Information For Applicant:			
Address 1	1-88, USHITORA 1-CHOME, IBARAKI-SHI		
Address 2			
City	OSAKA	State/Province	
Country	JP	Postal Code	567-8567
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button. Add			

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	072388.1317
		Application Number	
Title of Invention	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

Assignee 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.			
Remove			
If the Assignee or Non-Applicant Assignee is an Organization check here. ☒			
Organization Name	HITACHI MAXELL, LTD.		
Mailing Address Information For Assignee including Non-Applicant Assignee:			
Address 1	1-88, USHITORA 1-CHOME, IBARAKI-SHI		
Address 2			
City	OSAKA	State/Province	
Country i	JP	Postal Code	567-8567
Phone Number		Fax Number	
Email Address			
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add			

Signature: [Remove](#)

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.

Signature	Jonathan D. Cocks/		Date (YYYY-MM-DD)	2018-02-07
First Name	Jonathan D.	Last Name	Cocks	Registration Number
				75,646
Additional Signature may be generated within this form by selecting the Add button. Add				

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

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誓書(37 CFR 1.83)
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
DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

下記発明者である私は、つぎのことがらを宣誓します。
As the below named inventor, I hereby declare that:

本宣誓は
This declaration
is directed to: ☐ 添付されている、あるいは
The attached application, or
☒ 年 月 日に出席された米国出願番号またはPCT国際出願番号 に宛てられています。
United States application or PCT international application number 15/208,888 filed on July 13, 2016

上記の出願は私自身、あるいは私が権限を授与したものであること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の発明者、あるいは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.

本宣誓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.

警告:
WARNING:

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発明者の正式氏名
LEGAL NAME OF INVENTOR

発明者: Toshiyuki KURITA

Inventor:

日付(任意): Aug 25, 2016
Date (Optional):

署名:

Signature:

備考: 出願データシート(PTO/SB/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 PTO/SB/AIA01 用紙を使用する。

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/SB/AIA01 form for each additional inventor.

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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	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
下記発明者である私は、つぎのことがらを宣誓します。 As the below named inventor, I hereby declare that: 本宣誓は This declaration is directed to: ☐ 添付されている、あるいは The attached application, or ☒ 年 月 日に提出された米国出願番号またはPCT国際出願番号 United States application or PCT international application number 15/208,886 filed on July 13, 2016 上記の出願は私自身、あるいは私が権限を授与したの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. 本宣誓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. 警告: WARNING: 請願者/出願者は ID 盗難を助けるような個人情報を、特許出願書類中に含まないよう、注意が必要です。社会保障番号、銀行口座番号、あるいはクレジットカード番号のような個人情報の提出は(支払いを目的とした、小切手あるいはクレジットカード使用認証書類である PTO-2038 への記入を例外として)USPTO(米国特許商標庁)は、請願あるいは出願申請のうえでいっさい要求していません。このような個人情報が USPTO に提出する書類に含まれることがないよう、請願者/出願者は、USPTO に書類を提出する前によく注意し、もしあった場合は訂正し、抹消せねばなりません。請願者/出願者は、特許出願の記録内容は、出願の公開、あるいは特許交付後は、(37 CFR 1.213(a) の規制に合致した非公開申請が申請書のなかでなされている場合を除き)、一般人が入手可能なものとなることを知っておく必要があります。さらに、出願が放棄された記録であっても、その出願が公開された、あるいは特許が交付された出願書中に参考として言及されている場合は、一般人の入手が可能となる場合があります。小切手およびクレジットカード承認用紙であり、支払い目的のために提出された PTO-2038 様式は出願ファイルには保持されず、したがって一般人が入手することはできません。 Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. 発明者の正式氏名 LEGAL NAME OF INVENTOR 発明者: Hitoaki OWASHI Inventor: 署名: <i>Hitoaki Owashi</i> Signature: 日付(任意): Aug. 25, 2016 Date (Optional): 備考: 出願データシート(PTO/SB/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 PTO/SB/AIA01 用紙を使用する。 Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional PTO/SB/AIA01 form for each additional inventor.	

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

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:



Practitioners associated with Customer Number:

21003

OR



Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number

Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:



The address associated with Customer Number:

21003

OR

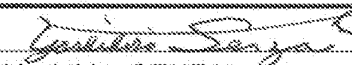
☐	Firm or Individual Name
	Address
	City
	State
	Zip
	Country
	Telephone
	Email

Assignee Name and Address: HITACHI MAXELL, LTD.
1-88, USHITORA 1-CHOME, IBARAKI-SHI,
OSAKA, JAPAN

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	01/14/2015
Name	Yoshihiro SENZAI	Telephone	
Title	President & Chief Executive Officer		

This collection of information is required by 37 CFR 1.31, 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.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: HITACHI MAXELL, LTD.

Application No./Patent No.: Not Yet Assigned Filed/Issue Date: Concurrently Herewith

Titled: DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
HITACHI MAXELL, 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: Toshiyuki Kurita et al. To: HITACHI, LTD.

The document was recorded in the United States Patent and Trademark Office at
Reel 021756, Frame 0400, 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]

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

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 033685, Frame 0883, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
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5. From: _____ To: _____

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

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
 Reel _____, Frame _____, 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.

/Jonathan D. Cocks/

February 7, 2018

Signature

Date

Jonathan D. Cocks

75,646

Printed or Typed Name

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.

- 1 -

DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

INCORPORATION BY REFERENCE

The present application is a continuation of U.S. Patent Application No. 15/208,886, filed on July 13, 2016, which is a continuation of U.S. Patent Application No. 12/260,410, filed on October 29, 2008 (now, U.S. Patent No. 9,420,212), which claims priority to Japanese Patent Application No. 2007-306750, filed on November 28, 2007, the contents of all of which are hereby incorporated by reference into this application.

10 BACKGROUND OF THE INVENTION

The present invention relates to a technique to establish connections between a plurality of apparatuses and networks by radio.

To connect a video processing apparatus to a video display apparatus as another video processing apparatus to view videos, there has been employed a method to establish analog connections therebetween to transmit video and audio signals. However, as digital apparatuses have been widely spread, there is employed, to prevent picture quality deterioration and to protect copyright of contents to be viewed, a method in which digital connections are established between the apparatuses and video and audio signals are encrypted to be transmitted therebetween.

High Definition Digital Multimedia Interface (HDMI) is known as an example of an interface for digital transmission. According to the HDMI, the base band signal and the audio signal of high definition are
5 time-division multiplexed and the resultant signal is encrypted through HDCP for transmission thereof.

A conventional technique in which digitized video and audio signals are multiplexed for transmission as above is described in, for example, JP-
10 A-2007-202115.

SUMMARY OF THE INVENTION

According to the HDMI, which is developed on assumption of uses for connections between apparatuses installed in a house of a family, consideration has not
15 been given to connections with the internet and a network in the family or a home network while viewing high-quality videos. It is therefore an object of the present invention, devised to overcome the difficulty, to provide a technique wherein while presenting on a
20 display apparatus videos of high picture quality obtained from portable video processing apparatuses such as a camera and a cellular phone, it is possible to communicate with the internet and/or a home network.

According to one aspect of the present
25 invention, there is provided a display apparatus including a first radio communication unit capable of receiving video information by radio from an external

video processing apparatus, a second radio
communication unit capable of connecting by radio to a
network, and a connection assignment control unit for
controlling assignment of connection by radio
5 transmission for each of the first and second radio
communication units. The control unit assigns
connection of the first radio communication unit with
higher priority and controls the assignment of the
transmission rate, for example, such that the
10 transmission rate between the first radio communication
unit and the external video processing apparatus is
more than the transmission rate between the second
radio communication unit and the network.

According to another aspect of the present
15 invention, there is provided a video processing
apparatus including a first radio communication unit
capable of transmitting video information by radio to
an external display apparatus, a second radio
communication unit capable of connecting by radio to a
20 network, and a connection assignment control unit for
controlling assignment of connection by radio
transmission for each of the first and second radio
communication units. The control unit assigns
connection of the first radio communication unit with
25 higher priority and controls the assignment of the
transmission rate, for example, such that the
transmission rate between the first radio communication
unit and the external video display apparatus is more

than the transmission rate between the second radio communication unit and the network.

In the display apparatus constructed as above, the first radio communication unit can
5 communicate video information of high picture quality with an external video processing apparatus. The second radio communication unit can connect by radio to the internet and a home network. The controller controls the transmission rate of the radio transmitter
10 module to be assigned to the first radio communication unit and can change the transmission rate of the radio transmitter module to be assigned to the second radio communication unit. It is possible for the controller to determine and to control the radio transmission
15 rates to be assigned to the first and second radio communication units. The controller controls the operation such that the assignment to the first radio communication module to conduct transmission to receive video information from an external video processing
20 apparatus is carried out with higher priority. Therefore, it is possible that video information of high picture quality is continuously fed from the video processing apparatus to the video information apparatus as well as information is transmitted from the internet
25 and a home network. There can be hence provided a video display apparatus having high serviceability.

According to the present invention, it is possible to communicate with a network while displaying

videos of high picture quality obtained by a video processing apparatus.

Other objects, features and advantages of the invention will become apparent from the following
5 description of the embodiments of the invention taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram showing an example of an embodiment of a video processing apparatus 100
10 according to the present invention;

FIG. 2 is a block diagram showing an example of an embodiment of a video display apparatus 200 according to the present invention;

FIG. 3 is a block diagram showing another
15 example of an embodiment of a video display apparatus 200 according to the present invention;

FIG. 4 is a diagram showing an example of a radio modulator and demodulator or modem of the video processing apparatus 100;

20 FIG. 5 is a block diagram showing an example of a system in which two video processing apparatuses are wirelessly connected to each other;

FIG. 6 is a block diagram showing another example of a system in which two video processing
25 apparatuses are wirelessly connected to each other;

FIG. 7 is a diagram showing an example of structure of the HDMI;

FIG. 8 is a diagram showing an example of a radio modem of the video display apparatus;

FIG. 9 shows a diagram showing an example of transmission parameters of a radio modem in the
5 embodiment;

FIG. 10 is a diagram showing connections between the video processing apparatus 100 and the video display apparatus 200 in the embodiment of the present invention; and

10 FIG. 11 is a diagram showing an example of assignment of bands in another example of a radio modem shown in FIGS. 4 and 8.

DETAILED DESCRIPTION OF THE EMBODIMENTS

Referring now to the drawings, description
15 will be given of an embodiment according to the present invention.

First embodiment

FIG. 10 shows an embodiment of the present invention. In this example, the system includes two
20 video processing apparatuses, i.e., a video processing apparatus 100 which is, for example, a portable video processing apparatus capable of receiving a digital broadcast signal via a base station antenna for cellular phones or a broadcast transmission tower and a
25 video display apparatus 200 such as a tuner capable of receiving a digital broadcast signal from a broadcast

transmission tower. These apparatuses are connected, for example, via a bidirectional interface 10 to each other. Resultantly, a video signal of high picture quality and other information items and signals can be
5 bidirectionally communicated therebetween. On the other hand, between a terminal 134 of the video processing apparatus 100 and a terminal 202 of the video display apparatus 200, signals from the internet and a home network are communicated by radio. The
10 frequency bands used for the transmission between the terminals 134 and 202 are limited to predetermined frequency bands. This increases the radio wave resource efficiency and prevents the problem of interference with other apparatuses.

15 In the embodiment, the portable video processing apparatus 100 is specifically, for example, a digital camera, a video camera, a cellular phone, a game machine, or a personal media player.

FIG. 1 shows a concrete example of the video
20 processing apparatus 100 employed in the first embodiment of the present invention. This is a specific configuration of the apparatus 100 shown in FIG. 10. In FIG. 1, an imaging device 110 receives a moving or still picture supplied via an optical system
25 to convert the picture into an electric signal. To transmit a moving picture, a compression circuit 111 employs a compression method, e.g., Moving Picture Experts Group 2 (MPEG2), MPEG4, or AVC/H.264. To

transmit a still picture, the compression circuit 111 employs a compression method, e.g., Joint Photographic Experts Group (JPEG). The compression circuit 111 efficiently bit-compresses the received image.

5 A microphone 112 converts sound into an electric signal. A compression circuit 113 uses a compression method such as an MPEG audio to efficiently bit-compress the received audio signal.

 A multiplexer circuit 116 receives the bit-
10 compressed video and audio signals from the compression circuits 111 and 113 and various information items from a microprocessor 115. By use of the information items, the multiplexer 116 multiplexes the signals according to a predetermined format. When a still picture is
15 shot, the audio signal is not obtained in an ordinary case. However, it is also possible to multiplex an audio signal in synchronism with the still picture shooting operation.

 The information items from the microprocessor
20 115 include, for example, positional information (horizontal positions, vertical positions on the right, and vertical positions on the left), date, and exposure information at shooting.

 In FIG. 1, the multiplexed signal from the
25 multiplexer 116 is fed via an encryption/decryption circuit 140 to be stored in a storage 130. The storage 130 may be, for example, a hard disk device, an optical disk device, or a semiconductor memory device. The

type of the storage 130 may be determined according to,
for example, a storage capacity, a size of the storage
130, easiness of removing a storage medium, and/or a
price of the storage 130 according to necessity. It is
5 also possible to store the multiplexed signal via a
signal processing circuit 124 and a memory interface
120 in a memory 121.

When information is shot by a particular
person, copyright of the information belongs to the
10 person. Hence, ordinarily, such information is not
required to be encrypted for the storage thereof.
However, the storage medium having stored information
by the storage 130 may be lost. It will be more safe
if the multiplexed signal from the multiplexer 116 is
15 once encrypted by the encryption/decryption circuit 140
to be stored in the storage 130 or the memory 121.

The video processing apparatus 100 may also
support the use of a removable memory or include a
cellular phone function or a radio Local Area Network
20 (LAN) function. The memory interface 120 is an
interface for a removable memory 121. When video and
audio contents of still and moving pictures are
recorded by another apparatus in the memory 121 and the
memory 121 is connected to the interface 120, the
25 contents can be recorded via the signal processing
circuit 124 and the encryption/decryption circuit 140
into the storage 130.

In this situation, the signal processing

circuit 124 checks to determine whether or not the
copyright of the contents recorded in the memory 121 is
protected and whether or not the duplication thereof is
prohibited. According to the detected condition, the
5 encryption/decryption circuit 140 encrypts the contents
and moves the encrypted contents in the storage 130.

Similarly, audio and video contents of still
and moving pictures are received as inputs by a radio
interface 122. The contents are stored via the signal
10 processing circuit 124 and the encryption/decryption
circuit 140 in the storage 130. Also, according to
conditions of the copyright protection and the
replication restriction, the contents are encrypted by
the encryption/decryption circuit 140, as required.

15 When it is desired to reproduce a content
stored in the storage 130 to view the reproduced
content, the user selects the content by an input key
or a remote control, not shown. The selected content
is read from the storage 130 to be decoded by the
20 encryption/decryption circuit 140 and is then separated
by a demultiplexer circuit 141 into an audio signal and
a video signal.

When a broadcast program is received by a
broadcast receiver 180, the encrypted signal encrypted
25 for the broadcast is decrypted by the
encryption/decryption circuit 140. If encryption is
required to store the signal, the signal is accordingly
encrypted by the circuit 140 to be stored in the

storage 130 and the memory 121. To immediately view the received broadcast program in real time, the signal is separated by the demultiplexer 141 into a video signal and an audio signal.

5 The separated and compressed video signal is decompressed by a decompression circuit 142 to be fed to a signal processing circuit 150. The circuit 150 conducts a scanning-line conversion for the video signal on the basis of the number of scanning lines of
10 a display 160 to output the resultant video signal to the display 160. The separated and compressed audio signal is decompressed by a decompression circuit 143 to be delivered to an audio output device 161. Since the video processing apparatus 100 includes the display
15 160 and the audio output device 161, it is possible to immediately view the broadcast program without externally connecting any video display apparatus. In a situation wherein the period of time required for the decompression varies between the video and audio
20 signals and/or a time difference exists between the video display and the audio output due to presence or absence of the scanning-line conversion, if the audio signal is advanced in time relative to the video signal, the user particularly perceives an
25 uncomfortable feeling. To overcome the difficulty, the audio signal is delayed, for example, in the decompression processing, namely, a lip-sync operation is carried out. This removes the uncomfortable feeling

due to the difference in time between the video and audio signals.

Description will now be given of a situation wherein the video processing apparatus 100 is employed
5 as a cellular phone. For example, a voice of a conversation is inputted to the audio input/output section 126 to produce an electric signal. For the signal, a telephone signal processing circuit 125 executes predetermined signal processing and modulation
10 processing. The resultant signal is transmitted via an antenna, not shown, to a base station of the cellular phone. An audio signal sent from the base station is received by an antenna, not shown, to be fed to the telephone signal processing circuit 125. For the
15 signal, the circuit 125 executes predetermined signal processing and demodulation processing. The resultant signal is fed to the audio I/O section 126 to be reproduced as a voice. The video processing apparatus 100 can also receive a content of a moving picture
20 transmitted from the base station of the cellular phone. The content is received by an antenna, not shown, to be delivered via the telephone signal processing circuit 125 to the signal processing circuit 124. The content is similarly processed as above by
25 the encryption/decryption circuit 140. The resultant signal of the content is fed to a display and an audio output unit incorporated in the video processing apparatus 100 to be viewed/listened by the user. The

content thus processed may also be fed via a terminal 101, a connection cable 10, and a terminal 201 to an external video display apparatus 200 to be displayed on a large-sized screen. While viewing the content, it is possible to record the content in a recording medium incorporated in the video processing apparatus 100 or a recording medium, e.g., a memory 121 connected thereto, for example, to view the content later. The memory 121 may also be used as a recording medium to record a movie and the like.

Similarly, a program broadcast from a broadcast transmission tower is received by a broadcast receiver 180 of the video processing apparatus 100 to be viewed by the apparatus 100 or to be stored in a recording medium, not shown, incorporated in the apparatus 100 or a recording medium, e.g., the memory 121 connected thereto. Also, the content may be fed via the terminal 101, the cable 10, and the terminal 201 to the video display apparatus 200 to be viewed by the user.

In addition, by installing an imaging device 110 and a microphone 112 in the video processing apparatus 100, still and moving pictures can be shot together with audios and can be stored in an incorporated recording medium, not shown, and/or the memory 121. The videos and audios stored in the recording medium and/or the memory 121 may be fed via the terminal 101 to the video display apparatus 200 to

be enjoyed by the user.

When the user views video and audio signals by use of the external video display apparatus 200, the apparatus 200 confirms scanning lines which the

5 apparatus 200 can support. If the scanning lines match those of the video signals to be displayed, the signals are immediately outputted in real time. Otherwise, the scanning lines of the video signals are converted by a signal processing circuit 150 into the required

10 scanning lines to be fed to a multiplexer circuit 170. In the circuit 170, the video signals are multiplexed on the time axis, with the audio signals processed by a signal processing circuit 151. The circuit 151 compresses the audio signals on the time axis during a

15 period corresponding to the blanking period of the video signals and conducts a time adjusting operation to carry out the lip-sync operation according to the necessity. The video and audio signals multiplexed by the multiplexer circuit 170 are delivered to an

20 encryption circuit 171. For the signals, the circuit 171 carries out encryption for the transmission of the signals between the video processing apparatus 100 and the video display apparatus 200 and outputs the resultant signals via a video interface circuit 131, a

25 transmission rate assignment controller 1001, and the terminal 101 to the video display apparatus 200. On the other hand, the terminal 134 is connected to a network such as the internet as described above and is

used to wirelessly communicate videos and other information items obtained from the network by use of a radio modem circuit 1003. The information from the network is demodulated by the circuit 1003 to be fed
5 via the transmission rate assignment controller 1001 to an interface circuit 133 and is delivered therefrom to a microprocessor 115. The microprocessor 115 determines the type of the information from the network . If the information is, for example, a video
10 stream compressed in a predetermined format, the microprocessor 115 feeds the video stream to the demultiplexer circuit 141 and the decompression circuit 143. For the video stream, the circuits 141 and 143 conduct processing as described above. The resultant
15 signals are presented on the display 160. According to necessity, the audio information obtained from the network is reproduced by the audio output device 161. If the information from the network is an update program of an application program or an Operating
20 System (OS), the microprocessor 115 executes addition and storage processing for new software or executes update processing for the associated program. Although the processing of the network information is executed by the microprocessor 115 to process video information
25 in the embodiment, it is also possible to arrange a microprocessor to dedicatedly process the network information.

The controller 132 controls the transmission

rate assignment control circuit 1001 on the basis of
time control information of the video signal to
variably control the transmission rate of the radio
modem circuit 1002. At the same time, the controller
5 132 variably controls the transmission rate of the
radio modem circuit 1003 for radio communication with a
network such as the Internet. According to the
embodiment, in the assignment of the transmission rate
to the demodulation circuits 1001 and 1002, the
10 controller 132 gives preference to the demodulation
circuit 1001. In other words, the transmission rate of
the demodulation circuit 1001 is more than that of the
modem circuit 1002. Hence, within the limited range of
bands for the radio transmission, the modem 1002 can
15 transmit video information without deteriorating the
video quality of the video information having high
picture quality. The band of radio signals from the
terminal 101 and that of radio signals from the
terminal 134 are fixed. Therefore, if the band of
20 signals from the terminal 101 is expanded, that of
signals from the terminal 134 narrows to slightly lower
the communication speed of the network. However, this
rarely influences the system operation since
information regarding the network is less frequently
25 exchanged as compared with video information sent from
the video processing apparatus 100.

When the signal from the terminal 101 is to
be stored in the destination thereof, the compressed

signal is transmitted without decompressing the signal.
In the operation, the encryption/decryption circuit 140
delivers the compressed signal to the encryption
circuit 171. The circuit 171 conducts predetermined
5 encryption for the signal and then outputs the
resultant signal via the video interface circuit 131,
the transmission rate assignment controller 1001, and
the terminal 101. Also in this situation, the control
circuit 132 variably controls the transmission rate of
10 the radio modem 1002 in association with the time
control information of the video signal. As a result,
the radio modem 1002 can send the video information
without deteriorating the video quality of the video
information having high picture quality.

15 In the description above, the video and audio
signals obtained from the imaging device 110 and the
microphone 112 and the contents inputted from the
memory 121 and the radio interface 122 are once stored
in the storage 130 to be thereafter reproduced.
20 However, if the storing of the signals and the contents
are not required or are immediately viewed, the signals
and the contents are demultiplexed by the demultiplexer
141 without conducting the encryption and decryption
for the storage by the encryption/decryption circuit
25 140. Resultantly, the videos and audios can be enjoyed
by use of the display 160 and the audio output device
161 of the video processing apparatus 100. Also, it is
possible to enjoy the videos and audios by a receiver

externally connected via the wired interface circuit 131 to the apparatus 100.

Description will now be specifically given of one technical aspect of the embodiment, namely, the
5 transmission rate assignment control circuit 1001 and the radio demodulation circuits 1002 and 1003. The modem circuits 1002 and 1003 conduct demodulation through Orthogonal Frequency Division Multiplexing (OFDM). In the example, the modem 1002 is a first
10 radio communication unit which wirelessly sends video information and audio information to the external video display apparatus 200 and which receives data and information by radio therefrom. The modem 1002 is connected via the transmission rate assignment
15 controller 1001 to the interface circuit 131 which communicates with the video display apparatus 200. On the other hand, the modem 1003 is a second radio communication unit which connects to (accesses) a network, e.g., the Internet or a home network to
20 wirelessly communicate various information including video signals, audio signals, and data therewith. The modem 1003 is connected via the transmission rate assignment controller 1001 to the interface circuit 133 for networks. The controller 1001 variably controls,
25 according to a control signal from the controller 132, the transmission rates respectively of the modems 1002 and 1003 by variably setting the modulation/demodulation methods, the frequency bands,

and the number of carriers respectively for the modems 1002 and 1003. In short, the controller 132 controls distribution of the radio transmission rate of each modem by controlling the transmission rate assignment controller 1001. As a specific example of operation in which the transmission rate is controlled by changing parameters including the demodulation method and the frequency band, FIG. 9 shows the difference in the transmission rate between two schemes.

10 According to the embodiment, the controller 132 and the transmission rate assignment controller 1001 control the radio transmission assignment such that the radio transmission rate of the modem 1002 to send the video information of high picture quality by
15 radio to the video display apparatus 200 takes precedence over the radio transmission rate of the modem 1003 to connect to a network for communication. That is, the radio transmission rate of the modem 1002 is more than that of the modem 1003. For example, in a
20 situation wherein the modem 1002 transmits video information to the display apparatus 200 and the modem 1003 simultaneously connects to the Internet to receive Internet information, the controller 132 controls the operation to continuously supply videos with high
25 picture quality to the user, specifically, to set the transmission scheme of the modem 1002 to, for example, "scheme 1" shown in FIG. 9. For the radio modem 1003, the controller 132 sets the transmission scheme thereof

to "scheme 2" of FIG. 9. As can be seen from FIG. 9, the transmission capacity of scheme 1 is 17 Megabits per second (Mbps) which is more than three times that of scheme 2 (5 Mbps). As above, in the limited
5 transmission capacity for radio transmission, a higher transmission rate is assigned to the communication with the display apparatus 200 in the embodiment. It is hence possible that the user continuously views videos with high picture quality on the display apparatus 100.
10 Naturally, the variable control of the transmission rate is not limited to the example shown in FIG. 9.

The controller 132 and the transmission rate assignment controller 1001 may variably control the radio transmission assignment to the modems 1002 and
15 1003 in response to an indication from the user. For example, in a situation wherein the user issues an indication to transmit video information by radio via the modem 1002 to the display apparatus 200 while acquiring information from the Internet according to
20 scheme 1 of FIG. 9 by use of the modem 1003, the controller 132 outputs a control signal to the assignment controller 1001 such that the transmission scheme of the modem 1003 is changed from scheme 1 to scheme 2 of FIG. 9 and that of the modem 1002 is set to
25 scheme 1 of FIG. 9 conduct communications. The transmission rate of the modem 1002 may be variably changed according to fineness or precision of the video information sent from the modem 1002 to the display

apparatus 200. For example, if the fineness of the video information is altered from SD (640×480) to HD (1980×1080), the controller 132 instructs the assignment controller 1001 to heighten the transmission rate of the modem circuit 1002. It is preferable in the operation that the transmission rate of the modem 1003 is lowered in association with the variable control of the transmission rate of the modem 1002.

The transmission rates of the radio modems 1002 and 1003 may also be variably controlled by a communication technique using a plurality of antennas such as a Multi-Input Multi-Output (MIMO) scheme.

Referring next to FIG. 4, description will be given of other examples of the transmission rate assignment controller and the radio modem. FIG. 4 shows only part of the system associated with the transmission rate assignment control. In FIG. 4, the same functional constituent components as those of FIG. 1 are assigned with the same reference numerals.

In FIG. 4, radio modem circuits 5001 to 5004 are modems having respective fixed transmission capacity values and differ from each other only in the frequency band for transmission. The modems 5001 to 5004 respectively have bands A to D as shown in FIG. 11. Terminals 101 and 5005 to 5007 are input terminals to receive signals and are arranged respectively for radio modems 5001 to 5004. In operation, the modems 5001 to 5004 may be appropriately combined with each

other. For example, according to necessity, the modems 5001 and 5002 are employed to transmit video information and the modems 5003 and 5004 are utilized to communicate with the network such as the Internet.

5 That is, while the interface circuit 131 wirelessly transmits video information and audio information via the modems 5001 and 5002 to the video display apparatus 200, the interface circuit 133 conducts communication via the modems 5003 and 5004 with the network. In a

10 situation wherein a wide band is required to transmit video information of high picture quality (e.g., video information of HD resolution), the modems 5001 to 5003 are assigned to send video information and only the modem 5004 is assigned to communicate with the network

15 such as the Internet. Specifically, the interface circuit 131 transmits video and audio information by radio via the modems 5001 to 5003 to the display apparatus 200, and the interface circuit 133 communicates with the network via the modem 5004. As a

20 result, video information of high picture quality can be continuously transmitted and it is also possible to communicate with the Internet. Particularly, the broadcast signal is required to be presented by synchronizing the time information sent from the

25 broadcasting station with that on the receiver side. According to the present invention, the time information can be appropriately controlled without deteriorating the quality of the video information.

FIG. 2 shows a specific configuration of the video display apparatus 200 of FIG. 10. In FIGS. 2 and 10, the same constituent components are assigned with the same reference numerals and detailed description thereof will be avoided. Description will be given of a situation wherein an uncompressed baseband signal of a moving picture is inputted via the terminal 201. The signal from the external video processing apparatus 100 thus received via the terminal 201 is demodulated by a radio modem circuit 2015 to be supplied via a transmission rate assignment controller 2017 and an input/output interface circuit 2011 to a decryption circuit 211. In operation, a controller 2013 drives the assignment controller 2017 to vary the transmission rate of the modem 2015 according to that of the video information delivered from the video processing apparatus 100. Resultantly, an input/output interface circuit 2011 can receive the video information of high picture quality at preset timing.

The decryption circuit 211 is associated with encryption by the encryption circuit 171 shown in FIG. 1 and decrypts a signal encrypted by the circuit 171. The decrypted signal is fed to a demultiplexer circuit 250, and then video and audio signals obtained from the demultiplexer 250 are inputted to signal processing circuits 251 and 252, respectively. For the received video signal, the circuit 251 conducts a scanning-line conversion and a resolution conversion according to the

number of pixels displayable by a display 260. The circuit 252 decompresses on the time axis the audio signal which is compressed and multiplexed on the time axis by use of the blanking of the video signal.

5 According to necessity, the circuit 252 carries out the lip-sync operation and the sound quality adjustment. Signals outputted respectively from the circuits 251 and 252 are inputted respectively to a display 260 and an audio input/output unit 270 to be viewed by the
10 user.

Description will now be given of operation when a compressed moving-picture signal is received via the terminal 201. This operation aims at storing the moving-picture signal in a storage 230 incorporated in
15 the apparatus 200.

The signal received from the terminal 201 is delivered via the wired input/output interface circuit 2011 to the decryption circuit 211. The circuit 211 corresponds to the encryption circuit 171 shown in FIG.
20 2 and decrypts a signal encrypted by the circuit 171. The decrypted signal is inputted to an encryption/decryption circuit 240. The circuit 240 reads copy control information of the content to be stored and encrypts the content for the storage thereof
25 according to the information. The encrypted signal is stored in the storage 230 in the compressed state.

In a situation wherein the user views the compressed signal received via the terminal 201 while

storing the signal in the storage, a signal
corresponding to a compressed signal decrypted by the
encryption/decryption circuit 211 is fed from the
encryption/decryption circuit 240 to a demultiplexer
5 circuit 241. In the circuit 241, the signal is
separated into a compressed video signal and a
compressed audio signal. The separated video and audio
signals are decompressed respectively by decompression
circuits 242 and 243 to baseband signals to be
10 respectively supplied to the signal processing circuits
251 and 252. Signals outputted respectively therefrom
are delivered respectively to the display and the audio
output unit 270 to be viewed by the user.

When a content stored in the storage 230 is
15 reproduced to be viewed by the user, information items
such as titles of the contents stored in the storage
230 are presented on the display 260. When the user
selects one of the contents, a signal of the selected
content is fed from the storage 230 to the
20 encryption/decryption circuit 240. The circuit 240
decrypts the encrypted signal of the content to input
the resultant signal to the demultiplexer 241. The
signal of the content is thereafter similarly processed
as described above to be viewed by the user.

25 It is possible to similarly reproduce
contents stored in a memory 221. As in the
reproduction of contents stored in the storage 230, the
user selects one of the contents stored in a memory 221

to view the content. The selected content is transferred via a memory interface 220 and a signal processing circuit 224 to the encryption/decryption circuit 240. Specifically, the circuit 224 executes
5 processing necessary to read the content from the memory 221 to input compressed and multiplexed video and audio signals of the content to the circuit 240. Subsequent signal processing is similar to the processing executed after the content is read from the
10 storage 230.

As in the operation to store a content in the storage 230, it is possible to store the content in the memory 221. Although detailed description of the associated processing will be avoided, the content
15 encrypted by the encryption/decryption circuit 240 is stored via the signal processing circuit 224 and the memory interface 220 into the memory 221.

To view or to store a content transmitted by radio, the system executes processing in a similar way.
20 A compressed content received by radio is fed via a radio interface 222 and the signal processing circuit 224 to the encryption/decryption circuit 240. The circuit 240 decrypts the signal encrypted for the radio transmission. Subsequent processing is similar to the
25 processing executed at reproduction of the signal from the storage 230.

When an uncompressed baseband signal is received from the terminal 201 or 202, the content can

be efficiently stored in the storage 230 and the memory 221. Description will be given of operation in this situation.

The content inputted from the terminal 201 is transferred via the input/output interface 2011, the decryption circuit 211 and the demultiplexer circuit 250 to be separated into a video signal and an audio signal. The video and audio signals thus separated are fed via a replication control circuit 280 to compression circuits 281 and 282. The circuit 280 reads, from the content, multiplexed replication control information to determine whether or not replication of the content is allowed. As the control information, a bit may be assigned to a designated field. Or, by using electronic watermark, the information may be superimposed onto video or audio information. Information inputted from the network to the terminal 202 is also processed in a similar fashion as above.

The compression circuit 281 compresses the video signal by use of a compression scheme, e.g., MPEG2, MPEG4, or AVC/H.264. The compression circuit 282 compresses the audio signal according to a compression scheme, e.g., MPEG Audio. The compressed video and audio signals are inputted to a multiplexer circuit 283 to be multiplexed. The multiplexed signal is fed to the encryption/decryption circuit 240 to be thereafter similarly stored in the storage 230 and/or

the memory 221. As a result, the content can be efficiently recorded therein for a long period of time according to copyright information.

On the other hand, the signal from a network
5 such as the Internet received via the terminal 202 is demodulated by a radio modem circuit 2016 to be supplied via a transmission rate assignment controller circuit 2017 and an input/output interface circuit 2012 to a microprocessor 279. The type of information of
10 the video information from the network is determined. If the information is, for example, a video stream compressed in a predetermined format, the system transfers the information to demultiplexer circuit 241 and the decompression circuits 242 and 243. After the
15 information is processed by these circuits in a similar way as described above, an image of the information is presented on the display 260. According to necessity, audio information obtained from the network is reproduced by the audio output unit 261. If the
20 information from the network is an update program for an application program, an operating system OS, or the like, the microprocessor 279 adds and stores new software and/or updates an associated program. It is also possible that the function of the microprocessor
25 279 is installed in the controller 2013 to configure one unified module including the microprocessor 279 and the controller 2013.

In the operation, the controller 2013

controls the transmission rate assignment controller
2017 to vary the transmission rate of the radio modem
2015 in association with the transmission rate of the
video information received from the video processing
5 apparatus 100. Since the transmission rate of the
radio modem 2015 to receive the video information from
the apparatus 100 takes precedence over that of the
modem 2016 in the transmission rate assignment, the
transmission rate of the modem 2016 is lower than that
10 of the modem 2015. In the embodiment as described
above, the transmission rate of the modem 2015 to
receive the video information from the apparatus 100 is
higher than that of the modem 2016 to communicate with
the network. Therefore, within the limited range of
15 bands for the radio transmission, it is possible to
obtain the high-quality video information from the
external video processing apparatus 100 without
deteriorating the video quality. The band of radio
signals received by the terminal 201 and that of radio
20 signals inputted to the terminal 202 are fixed. Hence,
if the band of signals from the terminal 201 is
expanded, that of signals from the terminal 202
narrows. This slightly lowers the communication speed
of the network. However, this rarely influences the
25 system operation since information regarding the
network is less frequently exchanged as compared with
video information sent from the video processing
apparatus 100.

Next, description will be specifically given of one technical aspect of the embodiment, namely, the transmission rate assignment controller 2017 and the radio modems 2015 and 2016. The modems 2015 and 2016
5 carry out OFDM modulation/demodulation. In the example, the modem 2015 is a first radio communication unit which wirelessly receives video information and audio information from the external video processing apparatus 100 and which sends data and information by
10 radio to the apparatus 100. The modem 2015 is connected via the transmission rate assignment controller 2017 to the interface circuit 2011 which communicates with the video display apparatus 200. On the other hand, the modem 2016 is a second radio
15 communication unit which connects to (accesses) a network, e.g., the Internet or a home network to wirelessly communicate various information including video signals, audio signals, and data with the network. The modem 2016 is connected via the
20 transmission rate assignment controller 2017 to the interface circuit 2012 for networks. The controller 2017 variably controls, according to a control signal from the controller 2013, the transmission rates respectively of the modems 2015 and 2016 by variably
25 designating the modulation/demodulation methods, the frequency bands, and the number of carriers respectively for the modems 2015 and 2016. In other words, the controller 2013 controls distribution of the

radio transmission rate of each modem by controlling
the transmission rate assignment controller 2017. As a
specific example of operation in which the transmission
rate is controlled by changing parameters including the
5 demodulation method and the frequency band, FIG. 9
shows the difference in the transmission rate between
two schemes.

In the embodiment, the controller 2013 and
the transmission rate assignment controller 2017
10 control the radio transmission rate assignment so that
the radio transmission rate of the modem 2015 to
receive the video information of high picture quality
by radio from the external video processing apparatus
100 takes precedence over the radio transmission rate
15 of the modem 2016 to connect to a network for
communication. In short, the radio transmission rate
of the modem 2015 is more than that of the modem 2016.
For example, in a situation wherein the modem 2015
receives video information from the video processing
20 apparatus 100 and the modem 2016 simultaneously
connects to the Internet to receive Internet
information, the controller 2013 controls the operation
to continuously provide videos with high picture
quality to the user, specifically, to set the
25 transmission scheme of the modem 2015 to, for example,
"scheme 1" shown in FIG. 9. For the radio modem 2016,
the controller 2013 sets the transmission scheme
thereof to "scheme 2" shown in FIG. 9. As can be seen

from FIG. 9, the transmission capacity of scheme 1 is 17 Mbps which is more than three times that of scheme 2 (5 Mbps). Hence, in the limited transmission capacity for radio transmission, a higher transmission rate is assigned to the communication with the video processing apparatus 100 in the embodiment. It is therefore possible that the user continuously watches videos with high picture quality on the display apparatus 100. Naturally, the variable control of the transmission rate is not limited to the example shown in FIG. 9.

The controller 2013 and the transmission rate assignment controller 2017 may control the radio transmission assignment to the modems 2015 and 2016 in response to an indication from the user. For example, in a situation wherein the user issues an indication to receive video information by radio via the modem 2015 from the video processing apparatus 100 while acquiring information from the Internet according to scheme 1 of FIG. 9 by use of the modem 2016, the controller 2013 outputs a control signal to the assignment controller 2017 such that the transmission scheme of the modem 2016 is changed from scheme 1 to scheme 2 of FIG. 9 and that of the modem 2015 is set to scheme 1 of FIG. 9. The transmission rate of the modem 2015 may be changed according to precision of the video information which is sent from the video processing apparatus 100 to be received by the modem 2015. For example, the precision of the video information above is changed from SD

(640×480) to HD (1980×1080), the controller 2013 instructs the assignment controller 2017 to heighten the transmission rate of the modem circuit 2015. It is preferable in the operation that the transmission rate
5 of the modem 2016 is lowered in association with the variable control of the transmission rate of the modem 2015.

The transmission rates of the radio modems 2015 and 2016 may also be variably controlled by a
10 communication technique using a plurality of antennas such as the MIMO scheme.

Referring next to FIG. 8, description will be given of other examples of the transmission rate assignment controller and the radio modem. FIG. 8
15 shows only part of the system associated with the transmission rate assignment control. In FIG. 8, the same functional constituent components as those of FIG. 1 are assigned with the same reference numerals.

In FIG. 8, a transmission rate assignment
20 controller 9005 operates in a similar way as the transmission rate assignment controller 1001 described above and assigns transmission rates respectively to radio modems 9010 to 9013 according to an instruction from the controller 2013. The modem circuits 9010 to
25 9013 are modems having respective fixed transmission capacity values and differ from each other only in the frequency band for transmission. The modems 9010 to 9013 respectively have bands A to D as shown in FIG.

11. Terminals 9006 and 9007 are input terminals to receive signals and are arranged respectively for radio modems 9010 to 9013. In operation, the modems 9010 to 9013 may be appropriately combined with each other.

5 For example, under supervision of the assignment controller 9005, the modems 9010 and 9011 are employed to transmit video information and the modems 9012 and 9013 are utilized for communication with the network such as the Internet depending on cases. That is,

10 while the interface circuit 2011 transmits by radio video information and audio information via the modems 9010 and 9011 to the video display apparatus 200, the interface circuit 2012 communicates via the modems 9012 and 9013 with the network. In a situation wherein a

15 wide band is required to receive video information of high picture quality (e.g., video information of HD resolution) from the video processing apparatus 100, the modems 9010 to 9012 are allocated to transmit video information and only the modem 9013 is allocated to

20 communicate with the network such as the Internet. That is, the interface circuit 2011 transmits video and audio information by radio via the modems 9010 to 9012 to the video display apparatus 200, and the interface circuit 2012 communicates with the network via the

25 modem 9013. Resultantly, video information of high picture quality can be continuously transmitted and it is also possible to communicate with the Internet. In particular, the broadcast signal is required to be

presented by synchronizing the time information sent from the broadcasting station with that on the receiver side. According to the embodiment, the time information can be appropriately controlled without
5 deteriorating the quality of the video information.

Description will now be given supplementally of the High Definition Digital Multimedia Interface (HDMI). FIG. 7 shows an example the HDMI configuration mainly including a transmission side and a reception
10 side. The transmission side includes a transmitter section 1601 and a transmission controller section 1603 to control the transmitter section 1601. The transmitter section 1601 encodes a video signal (Y, Pb, Pr) and an audio signal to output resultant signals to
15 a receiver section 1604. Also, the transmitter section 1601 includes a TMDS encoder circuit 1602 which converts the video signal (Y, Pb, Pr) and the audio signal respectively into serial video data and serial audio data. On the other hand, the reception side
20 includes a receiver section 1604 and a reception controller section 1606 to control the receiver section 1604. The receiver section 1604 receives the video data and the audio data from the transmitter section 1601 and conducts a TMDS decoding operation for the
25 data by a TMDS decoder circuit 1605 to thereby reproduce baseband video data and baseband audio data. A CEC line 1607 is an apparatus control line to transmit a control signal for apparatuses. Display

specification information known as "DDC" is transmitted via a DDC line 1608. The reception side transmits to the transmission side a Hot Plug Detect (HPD) signal 1609 indicating that a connection is established
5 between apparatuses of the transmission and reception sides.

To conduct transmission according to the HDMI standard, apparatuses mutually recognize in a procedure as follows. A physical address is obtained via the DDC
10 line. The physical address is an identification number to discriminate an associated apparatus. By use of a CEC bus for bidirectional connection, a logical address is obtained for bidirectional communication of each apparatus. The logical address is identification
15 information defining a category of each apparatus, e.g., a display or a recording apparatus.

FIG. 5 is a diagram to supplementally explain a radio interface 11 between the video processing apparatus 100 and the video display apparatus 200. In
20 FIG. 5, the apparatuses 100 and 200 are almost the same as those described in conjunction with, for example, FIG. 1. To simplify explanation, for the constituent components of the apparatus 100, only the radio interface circuit 133 is shown in FIG. 8 and the other
25 constituent components are not shown. For the constituent components of the display apparatus 200, only the radio input/output interface circuit 2012 is shown and the other constituent components are not

shown. The interface circuits 133 and 2012 are bidirectional interfaces.

In FIG. 5, a channel between antennas 81 and 84 and a channel between antennas 82 and 85 are channels to bidirectionally transmit a video signal, an audio signal, and control signals indicating copyright protection and a replication restriction condition of contents. On the other hand, a channel between antennas 83 and 86 is disposed to transmit an inter-apparatus control signal. Bit selection circuits 811 and 812 receive the video signal, the audio signal, the control signals indicating copyright protection and a replication restriction condition of contents, and the inter-apparatus control signal. In the demodulation, the QPSK demodulation scheme is more resistive against transmission errors as compared with the 64QAM demodulation scheme. For the transmission efficiency, the 64QAM demodulation scheme is superior to the QPSK demodulation scheme. Description will now be given of a situation wherein a video signal, an audio signal, and control signals indicating copyright protection and a replication restriction condition of contents are fed from the video processing apparatus 100 to the video display apparatus 200. Assume in the operation that the transmission direction from the apparatus 100 to the apparatus 200 is an uplink direction and the transmission direction from the apparatus 200 to the apparatus 100 is a downlink direction.

To transmit information, the video processing apparatus 100 determines, by a carrier detector circuit, not shown, a state of an associated transmission path, i.e., whether or not the channel is reserved for another apparatus. In the carrier detection, a check is made to determine whether or not a carrier is detected in a predetermined frequency band for a predetermined period of time. If it is detected by the detector that the channel is occupied by another apparatus, the check is again carried out after a lapse of a predetermined period of time to determine whether or not an available channel is present. If such available channel is present, the condition is notified to the microprocessor 115 of the video processing apparatus 100. The microprocessor 115 outputs from a QPSK modem circuit 803 a channel use request signal as an inter-apparatus control signal to secure the channel use right. Thereafter, the microprocessor 115 sends a transmission request signal to a bit selection circuit 811. An error control circuit 843 adds an error control bit for error detection and correction to the transmission request signal and then transfers the signal to the QPSK modem 803. The modem 803 conducts a QPSK modulation for the signal to resultantly transmit a radio signal via the antenna 83 to the display apparatus 200. The apparatus 200 then receives the radio signal by the antenna 86, carries out a QPSK demodulation for the signal by a QPSK modem 806,

conducts error detection and correction control for the demodulated signal by an error control circuit 847 to produce an inter-apparatus control signal, and delivers the signal to the bit selection circuit 812.

5 The microprocessor in the video display apparatus 200 decodes the inter-apparatus control signal and receives the transmission request signal from the video processing apparatus 100 together with apparatus category information regarding the apparatus
10 100 (information to identify a category indicating whether the associated apparatus is a display apparatus or a recording apparatus) and an apparatus identification number of the apparatus 100. An image to urge the user to determine whether or not a
15 connection is established to the video processing apparatus 100 is presented on a display screen of the display apparatus 200. In response thereto, the user indicates allowance for the connection by using an input device such as a remote controller of the display
20 apparatus 200. Thereafter, between the apparatuses 100 and 200, the apparatus category information and the identification number to identify each of the apparatuses are communicated to exchange information to observe the copyright protection and the replication
25 restriction condition of the content. If there does not exist any problem, it is allowed that the apparatuses 100 and 200 are connected to each other. In a situation wherein the connection is meaningless,

for example, each of the apparatuses 100 and 200 is an input or output dedicated unit or the copyright protection or the replication restriction condition of the content is not observed, the connecting operation is interrupted and an indication of the condition is displayed on the apparatuses 100 and 200. Description will now be given of a situation wherein the copyright protection and the replication restriction condition of the content are observed.

10 By using the video signal, the audio signal, and the control signal indicating the copyright protection and the replication restriction condition of the contents associated with the video and audio signals which are inputted to an interface circuit 172, 15 two bits are selected from the Most-Significant Byte (MSB) of the video signal so that error detection and correction control bits are added thereto by an error control circuit 841 and the resultant signal is fed to a QPSK modem circuit 801. The modem circuit 801 20 conducts a QPSK modulation for the signal and then transmits an associated radio signal from the antenna 81. To the remaining third to eighth bits, an error control circuit 842 adds error detection and correction control bits to send the resultant signal to a 64QAM 25 modem circuit 802. The modem 802 carries out a 64QAM modulation for the signal and resultantly transmits a radio signal from the antenna 82.

In the video display apparatus 200, a QPSK

modem circuit 804 conducts a QPSK demodulation for the signal received via the antenna 84 and an error control circuit 845 carries out error control for the resultant signal to output two high-order bits of the video
5 signal to the bit control circuit 812. For the remaining signals received via the antenna 85, a 64QAM modem circuit 805 conducts a 64QAM demodulation. For the resultant signal, an error control circuit 846 carries out error control to output the obtained signal
10 to the bit control circuit 812.

Description will now be given of the inter-apparatus control signal. When an inter-apparatus control signal is sent in a downlink direction, i.e., from the video display apparatus 200 to the video
15 processing apparatus 100, the signal is fed from the bit selection circuit 812 via the error control circuit 847 to the QPSK modem circuit 806 to be demodulated. The demodulated signal is delivered from the antenna 86. The video processing apparatus 100 receives the
20 signal by the antenna 83 to send the signal to the QPSK modem circuit 803. For the signal, the circuit 803 conducts a QPSK demodulation. For the demodulated signal, an error detection and correction is carried out by the error control circuit 843 to feed the
25 resultant signal to the bit selection circuit 811. Conversely, when an inter-apparatus control signal is transmitted in an uplink direction, i.e., from the video processing apparatus 100 to the video display

apparatus 200, the signal is fed from the bit selection circuit 811 via the error control circuit 843 to the QPSK modem circuit 803 to be modulated. The modulated signal is outputted from the antenna 83. The display
5 apparatus 200 receives the signal by the antenna 86. For the signal, the modem 806 conducts a QPSK demodulation. For the demodulated signal, the error control circuit 847 conducts an error detection and correction to send the resultant signal to the bit
10 selection circuit 812. By virtue of the operation, there is obtained an advantage that for the inter-apparatus control signal which is important to construct the system, an erroneous operation is less frequently occurs even in a noisy environment.

15 In the configuration of the embodiment, for two high-order bits of the digital signal, there can be conducted the transmission highly resistive against noise with a relatively low transmission rate. That is, by using the fact that higher order bits of a video
20 signal more strongly affect the picture quality, two bits are taken out from the video signal in order of MSB and a transmission path using the QPSK modulation is allocated to the information of these two bits, to thereby preventing deterioration of the picture
25 quality. In a system in which the audio information is more important than the video information, the transmission path using the QPSK modulation may be allocated to important bits, e.g., two high-order bits

of the audio signal.

When a human perceives an image on a screen,
a higher-frequency is less influential as compared with
a lower-frequency component for the frequency component
5 in the horizontal direction of the screen and that in
the vertical direction thereof. For a moving object on
the screen, it is likely that the human eyes cannot
appropriately follow a high-speed movement of the
object. By using these tendencies, it is also possible
10 that in the horizontal direction of the screen, the
signal is subdivided into a lower-frequency component
and a higher-frequency component so that the QPSK
modulation is used for the lower-frequency component
and the 64QAM modulation is employed for the higher-
15 frequency component. As a result, within the limited
transmission bands, the noise resistivity can be
increased for important information and the overall
transmission capacity is secured. Similarly, it is
possible that in the vertical direction of the screen,
20 the signal is subdivided into a lower-frequency
component and a higher-frequency component so that the
QPSK modulation is used for the lower-frequency
component and the 64QAM modulation is employed for the
higher-frequency component. Resultantly, within the
25 limited transmission bands, it is possible to heighten
the noise resistivity for important information and the
overall transmission capacity is secured.
Additionally, by combining the operation for the

frequency component in the horizontal direction of the screen with that for the frequency component in the vertical direction of the screen, the noise resistivity can be strengthened for desired important information.

5 In the description above, the error control circuits 841 to 843 add the error control information items to the bits inputted respectively thereto. However, it is also possible that the bits inputted to the circuits 841 to 843 are collectively treated as one
10 word to add error control information to the word. This advantageously leads to a simplified configuration of the error control circuits.

 Although detailed description has not been given of the encryption in the embodiment shown in FIG.
15 5, it is possible to execute the processing as shown in FIG. 6 by combining the encryption circuit 171 with the interface circuit 172. FIG. 6 shows an example of the configuration to carry out the encryption in the system of FIG. 5. The system shown in FIG. 6 includes
20 encryption/decryption circuits 821 to 826, interface circuits 830 and 831 including encryption, and error control circuits 841 to 847.

 In the example of FIG. 6, the bit selection circuit 811 selects predetermined bits as in the
25 example shown in FIG. 5. For the respective bits, the error control circuits 841 and 842 conduct error control. For the resultant signals, the encryption/decryption circuits 821 and 822 respectively

carry out encryption. The obtained signals are inputted respectively to the QPSK modem circuit 801 and the 64QAM modem circuit 802 to be demodulated. The signals demodulated respectively by the circuits 801 and 802 are delivered to the encryption/decryption circuits 824 and 825 to be decrypted. The decrypted signals are fed to the bit selection circuit 812 and are therein bit-combined with each other. As a result, the signal processing can be executed according to importance of signals to possibly suppress errors in the processing of more important information. Hence, the signals of information can be efficiently transmitted without deteriorating the picture quality.

It is also possible to further increase transmission efficiency by combining lossless coding with the encryption/decryption circuits 821 to 826. For example, in the example of FIG. 6, before executing the encryption processing in the encryption/decryption circuits 821 to 823, the number of bits to be transmitted is reduced, for example, by use of reversible arithmetic codes based on a statistic property. In the video display apparatus 200, the received signals are decrypted by the encryption/decryption circuits 824 to 826. Thereafter, the reversible codes corresponding to the circuits 821 to 823 are decoded to be fed to the error control circuits 845 to 846 for the error detection and correction thereof. The obtained signals are fed to

the bit selection circuit 812 to be bit-combined with each other. Since the transmission rate of the information to be transmitted can be lowered by combining the reversible codes as above, the signal can
5 be more efficiently transmitted.

Description will be supplementally given of the encryption. By using AES128 bit encryption in all encryption circuits for the encryption, it is possible to conduct the encryption with high safety for the
10 protection of contents. Moreover, if the AES128 bit encryption is employed for the content encryption circuit 821 and the Data Encryption Standard (DES) encryption is used for the other encryption circuits, there can be easily constructed a system in which the
15 protection of important contents and the processing efficiency are appropriately achieved.

It is also possible to construct a system in which a changeover operation is conducted between the baseband signal transmission and the compressed signal
20 transmission in response to an inter-apparatus control signal. With the configuration, to transmit a compressed signal according to, for example, a content protection request, the error resistivity is enhanced on the transmission path by transmitting the signal
25 using the QPSK modulation. To transmit the baseband signal, the transmission efficiency is increased by using the 64QAM modulation.

The operations of the video processing

apparatus 100 and the video display apparatus 200 in
FIG. 6 are basically similar to those of the
apparatuses 100 and 200 shown in FIG. 5. To transmit a
signal, the video processing apparatus 100 determines
5 the state of an associated transmission path,
specifically, detects by a carrier detection circuit,
not shown, whether or not the channel to be used is
occupied by another apparatus. In the carrier
detection, a check is made to determine whether or not
10 a carrier is detected in a predetermined frequency band
for a predetermined period of time. If it is detected
by the detector that the channel is occupied by another
apparatus, the check is again carried out after a lapse
of a predetermined period of time to determine whether
15 or not an available channel is present. If such
available channel is present, the condition is notified
to the microprocessor 115 of the video processing
apparatus 100. The microprocessor 115 outputs from the
QPSK modem circuit 803 a channel use request signal as
20 an inter-apparatus control signal to secure the channel
use right. Thereafter, the microprocessor 115 sends a
transmission request signal to a bit selection circuit
811.

The error control circuit 843 adds error
25 control bits for error detection and correction to the
transmission request signal which is in turn encrypted
by an encryption /decryption circuit 823 and then
transferred to the QPSK modem 803. The modem 803

conducts a QPSK modulation for the signal to
resultantly transmit a radio signal via the antenna 83
to the display apparatus 200. The apparatus 200 then
receives the radio signal by the antenna 86, carries
5 out a QPSK demodulation for the signal by the modem
806, and decrypts the signal by the
encryption/decryption circuit 826. For the demodulated
signal, the error control circuit 847 conducts error
detection and correction control to produce an inter-
10 apparatus control signal and delivers the signal to the
bit selection circuit 812. The microprocessor in the
video display apparatus 200 decodes the inter-apparatus
control signal and receives the transmission request
signal from the video processing apparatus 100 together
15 with apparatus category information regarding the
apparatus 100 (information to identify a category
indicating whether the associated apparatus is a
display apparatus or a recording apparatus) and an
apparatus identification number of the apparatus 100.
20 An image to urge the user to determine whether or not a
connection is established to the video processing
apparatus 100 is presented on a display screen of the
display apparatus 200. In response thereto, the user
indicates allowance for the connection by use of an
25 input device such as a remote control of the display
apparatus 200. Thereafter, between the apparatuses 100
and 200, the apparatus category information and the
identification number to identify each of the

apparatuses are communicated to exchange information to observe the copyright protection and the replication restriction condition of the content. If there does not exist any problem, it is allowed that the

5 apparatuses 100 and 200 are connected to each other. In a situation wherein the connection is meaningless, for example, each of the apparatuses 100 and 200 is an input or output dedicated unit or the copyright protection or the replication restriction condition of

10 the content is not observed, the connecting operation is interrupted and the status is displayed on the apparatuses 100 and 200. As above, in a situation wherein the copyright protection and the replication restriction condition of the content are observed, the

15 connection is established to transmit video and audio signals from the video processing apparatus 100 to the video display apparatus 200.

[Second embodiment]

FIG. 3 shows a second embodiment of the

20 present invention and is another configuration of the video display apparatus 200 shown in FIG. 1. The configuration of FIG. 3 is partially equal to that of FIG. 2. The same constituent components are assigned with the same reference numerals, and detailed

25 description thereof will be avoided. The apparatus 200 of FIG. 3 includes a decryption circuit 212, encryption/decryption circuits 245 and 290,

compression/transcoding circuits 291 and 292, and copy control circuit 293 which is a multiplexing circuit.

In the embodiment of FIG. 3, when a baseband signal is inputted via the terminal 201 or 202, the system operates in almost the same way as for the embodiment shown in FIG. 2. Each of the compression/transcoding circuits 291 and 292 operates as a compression circuit for the baseband signal. When a compressed signal is inputted from the terminal 201 or 202, the signal is fed via the input/output interface 210 to the encryption/decryption circuit 212 to be decrypted. The signal is then delivered to the demultiplexer circuit 250 to be separated into a compressed video signal and a compressed audio signal. These signals are inputted to the replication control circuit 290, which determines allowance or rejection of replication of the signals based on information indicating a replication restriction condition. If the replication is allowed, the bit rates of the compressed video and audio signals are lowered by the compression/transcoding circuits 291 and 292 by using, for example, a compression method having high compression efficiency according to necessity. Output signals from the circuits 291 and 292 are multiplexed by the multiplexer circuit 293 to be inputted to the encryption/decryption circuit 245. In this situation, if the replication is allowed by the replication control circuit 290, the circuit 245 encrypts the input

signal for the storage thereof to store the encrypted signals in the storage 230 and/or the memory 221. To reproduce the stored signal, the circuit 245 decrypts the signal read from the storage 230 or the memory 221,
5 and the decrypted signal is separated by the demultiplexer circuit 241 into a video signal and an audio signal. Thereafter, these signals are processed in almost the same way as described above and the user resultantly enjoys the image and the sound. In a
10 situation wherein the user enjoys the image and the sound while storing the signal in the storage 230 or the memory 221, the signal from the multiplexer 293 is delivered via the encryption/decryption circuit 245 to the demultiplexer 241 to be processed almost in the
15 same way as above. In this case, it is possible to confirm the picture quality of the transcoded signal. To enjoy the image and the sound without storing the signal, the signal is fed from the decryption circuit 212 via the circuit 245 to the demultiplexer 241 to be
20 separated into a video signal and an audio signal. Thereafter, the signals are processed in substantially the same way as described above.

According to the embodiment of FIG. 3, also in a situation wherein a compressed signal is inputted
25 thereto, by conducting the transcoding for the signal, the signal can be efficiently stored with a high compression ratio. Although the signal processing is carried out by use of circuits such as the compression

circuits 111 and 113 in the embodiment, the circuits
may be implemented by software means. In this
situation, there can also be obtained similar
advantages. According to the present invention, the
5 signal processing may be accomplished in any
appropriate fashion, that is, the present invention
does not particularly limit how to implement the signal
processing.

It should be further understood by those
10 skilled in the art that although the foregoing
description has been made on embodiments of the
invention, the invention is not limited thereto and
various changes and modifications may be made without
departing from the spirit of the invention and the
15 scope of the appended claims.

CLAIMS:

1. A display apparatus, comprising:

a first radio communication circuit configured to receive digital video information by a radio from an external video processing apparatus;

a second radio communication circuit configured to connect to an internet or a home network by radio, and receive digital information; and

a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit receives digital video information from the external video processing apparatus and the second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured to control assignment between the first radio communication circuit and the external video processing apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network.

2. The display apparatus of claim 1, wherein the controller is further configured to control the assignment upon an indication to receive video information by using the first radio communication circuit from the video processing apparatus while acquiring information from the Internet by use of the second radio communication circuit.

3. The display apparatus of claim 1, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.

4. The display apparatus of claim 1, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

5. The display apparatus of claim 1, wherein the controller is further configured to assign connection of the first radio communication circuit with higher priority.

6. The display apparatus of claim 1, further comprising a detection circuit configured to detect a state of a transmission path, wherein a demodulation method in the first or second radio communication

circuit is controlled according to a result of detection conducted by the detection circuit.

7. A video processing apparatus, comprising:

a first radio communication circuit configured to transmit digital video information by radio to an external apparatus;

a second radio communication circuit configured to connect to an internet or a home network, and receive digital information; and

a controller, wherein the controller is configured to control each of the first and second radio communication circuits such that the first radio communication circuit transmits digital video information to the external apparatus and the second radio communication circuit connects to the internet or the home network simultaneously, wherein the controller is further configured to control assignment between the first radio communication circuit and the external apparatus, and assignment between the second radio communication circuit and the internet or the home network, and wherein the controller is further configured to control the assignment such that the assignment between the first radio communication circuit and the external apparatus is more than the assignment between the second radio communication circuit and the internet or the home network.

8. The video processing apparatus of claim 7, wherein the controller is configured to control the assignment when a user issues an indication to transmit video information by using the first radio communication circuit to the external apparatus while acquiring information from the Internet by use of the second radio communication circuit.

9. The video processing apparatus of claim 7, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.

10. The video processing apparatus of claim 7, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

11. The video processing apparatus of claim 7, wherein the controller is configured to assign connection of the first radio communication circuit with higher priority.

12. The video processing apparatus of claim 7, further comprising a detection circuit configured to detect a state of a transmission path, wherein a demodulation method in the first or second radio communication circuit is controlled according to a

result of detection conducted by the detection circuit.

13. A method for displaying via a display apparatus, the method comprising:

- receiving, via a first radio communication circuit, digital video information by radio from an external video processing apparatus;

- connecting, via a second radio communication circuit, to an internet or a home network through the external video processing apparatus by radio;

- receiving digital information;

- controlling each of the first and second radio communication circuits;

- receiving, via the first radio communication circuit, digital video information from the external video processing apparatus and connecting to the internet or the home network simultaneously;

- controlling assignment between the first radio communication circuit and the external video processing apparatus;

- controlling assignment between the second radio communication circuit and the internet or the home network; and

- controlling the assignment such that the assignment between the first radio communication circuit and the external video processing apparatus is more than the assignment between the second radio communication circuit and the internet or the home network.

14. The method of claim 13, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.

15. The method of claim 13, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

16. The method of claim 13, further comprising assigning connection of the first radio communication circuit with a higher priority.

17. The method of claim 13, further comprising detecting a state of a transmission path; and
controlling according to a result of detection conducted by the detection circuit.

18. A method for video processing, the method comprising:

transmitting, via a first radio communication circuit, digital video information by radio to an external apparatus;

connecting, via a second radio communication circuit, to an internet or a home network;

receiving digital information;

controlling each of the first and second radio communication circuits such that the first radio communication circuit transmits digital video information to the external apparatus and the second radio communication circuit connects to the internet or the home network simultaneously;

controlling assignment between the first radio communication circuit and the external apparatus, and assignment between the second radio communication circuit and the internet or the home network;

controlling the assignment such that the assignment between the first radio communication circuit and the external apparatus is more than the assignment between the second radio communication circuit and the internet or the home network.

19. The method of claim 18, wherein the first radio communication circuit and the second radio communication circuit are different from each other in frequency bandwidth.

20. The method of claim 18, wherein the first radio communication circuit and the second radio communication circuit are different from each other in modulation/demodulation method.

ABSTRACT OF THE DISCLOSURE

While presenting on a display apparatus videos of high picture quality obtained from portable video processing apparatuses such as a camera and a cellular, it is possible to communicate with the Internet and/or a home network. A display apparatus includes a first radio communication unit capable of receiving video information by radio from an external video processing apparatus, a second radio communication unit capable of connecting by radio to a network, and a control unit for controlling assignment of connection by radio transmission for each of the first and second radio communication units. The control unit assigns connection of the first radio communication unit with higher priority and controls the assignment of the transmission rate such that the transmission rate between the first radio communication unit and the external video processing apparatus is more than that between the second radio communication unit and the network.

FIG. 1

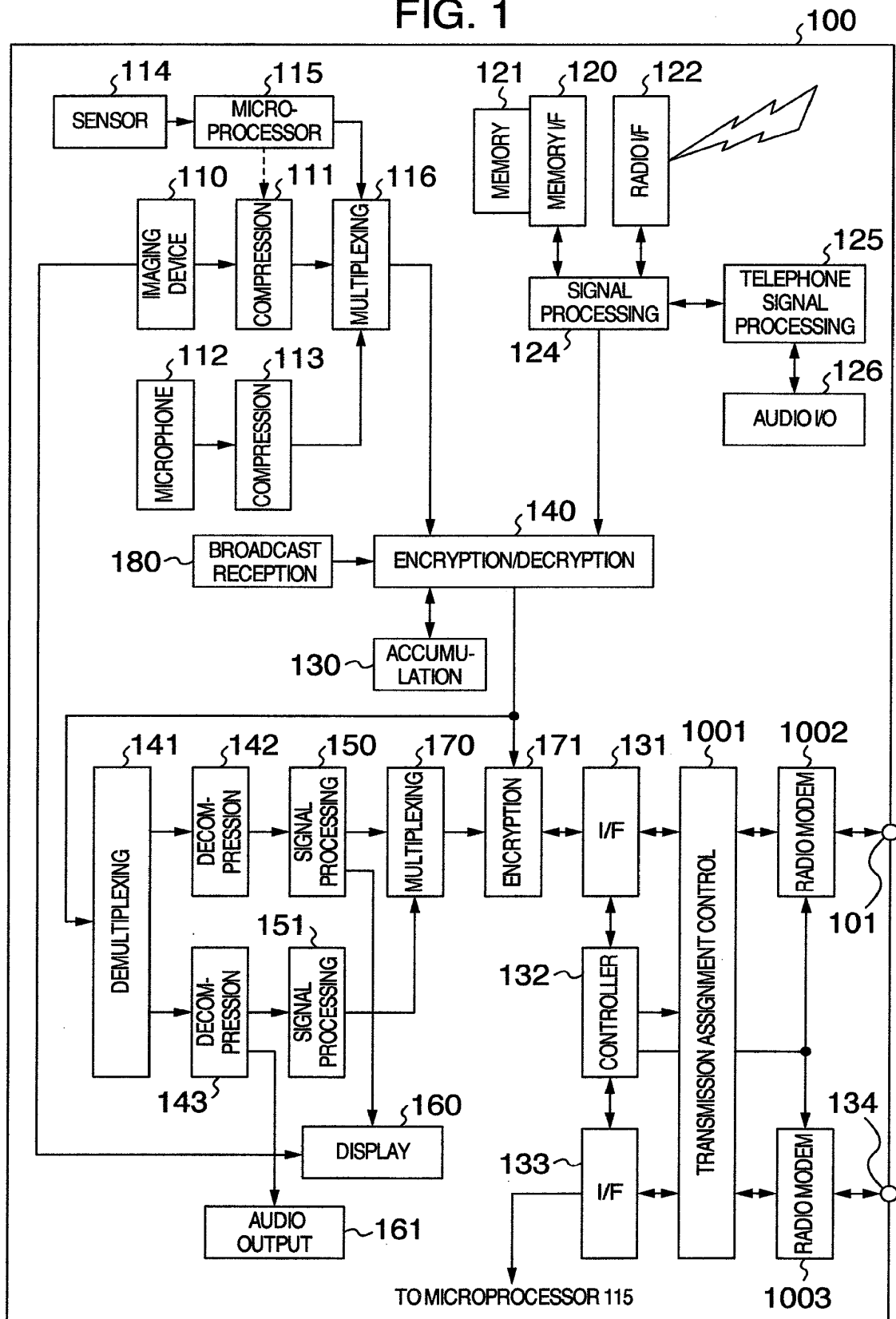


FIG. 2

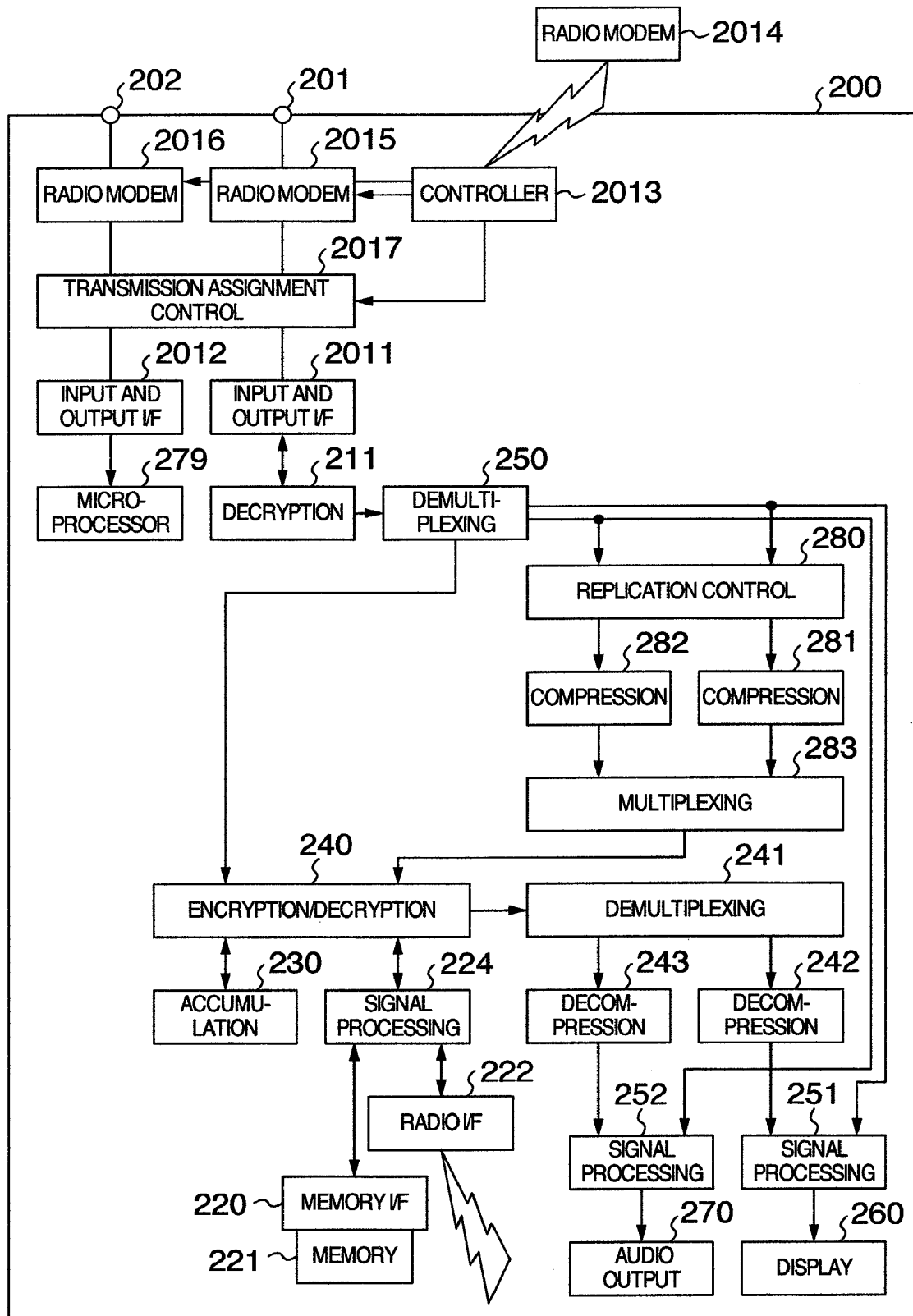


FIG. 3

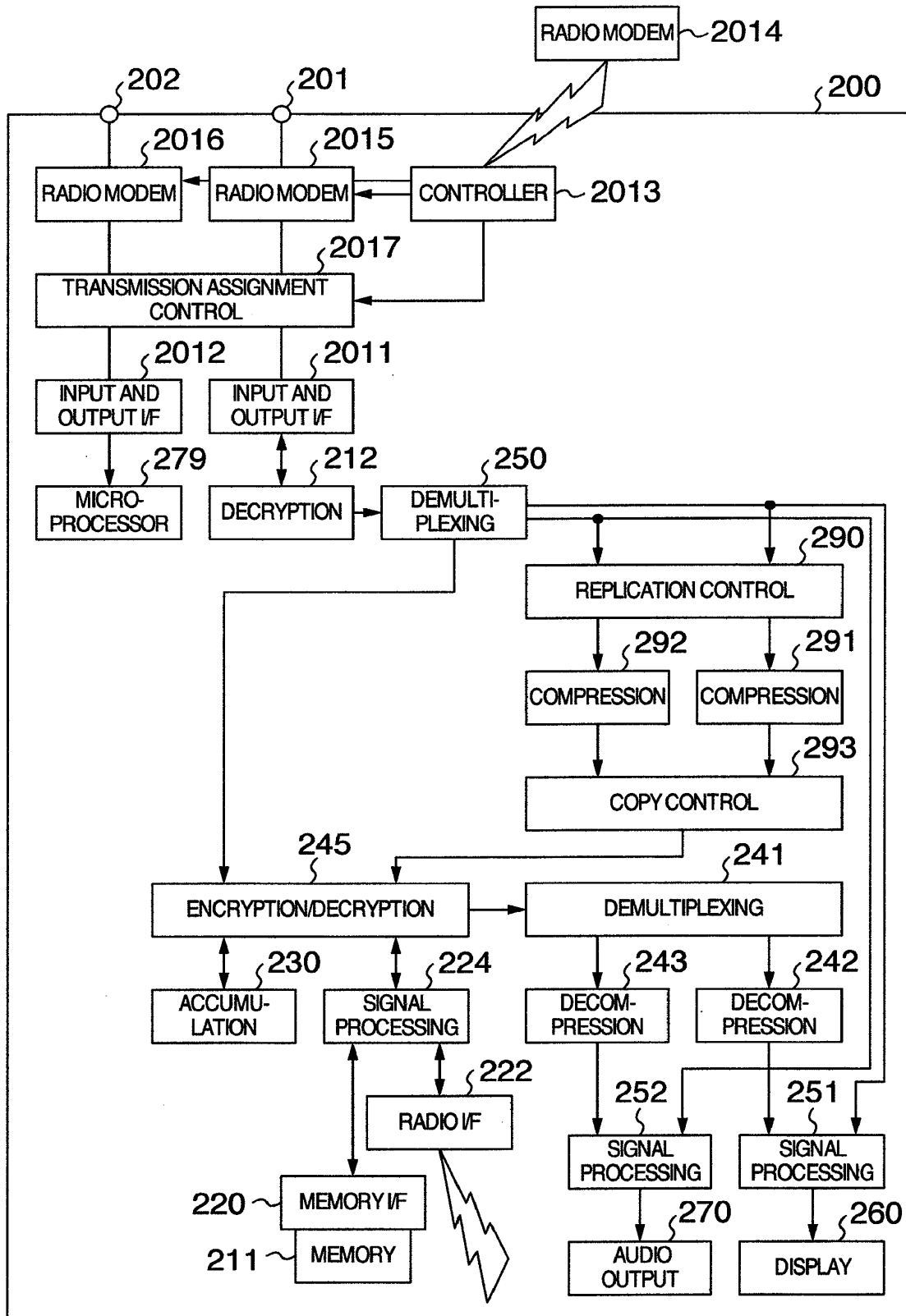


FIG. 4

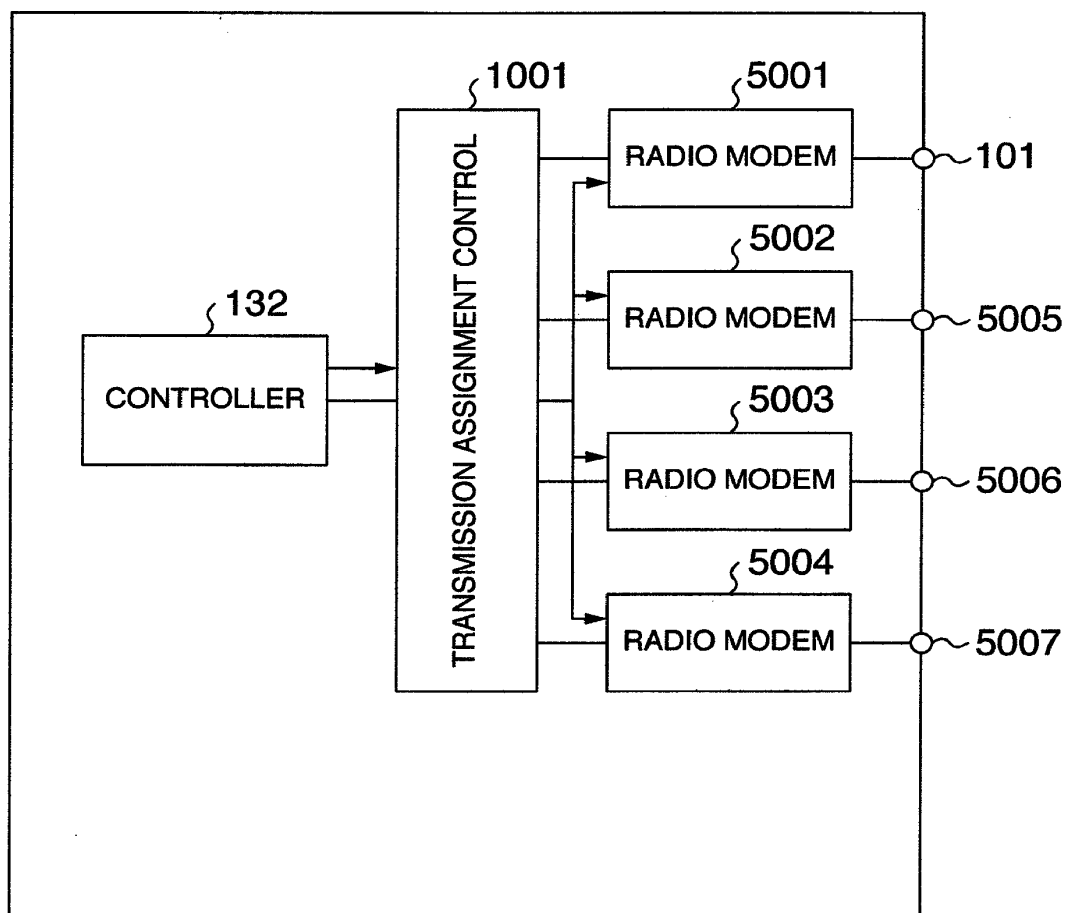


FIG. 5

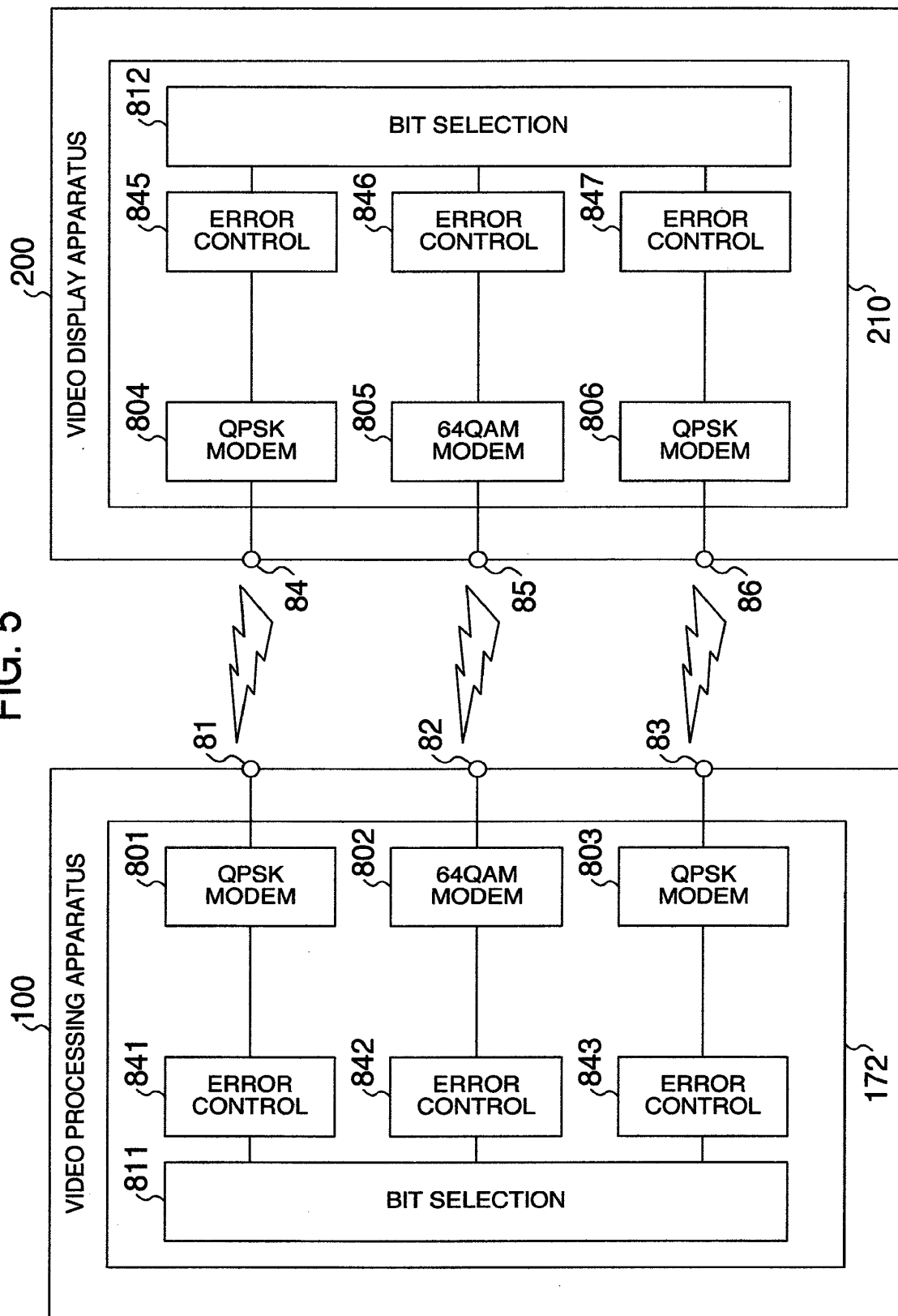


FIG. 6

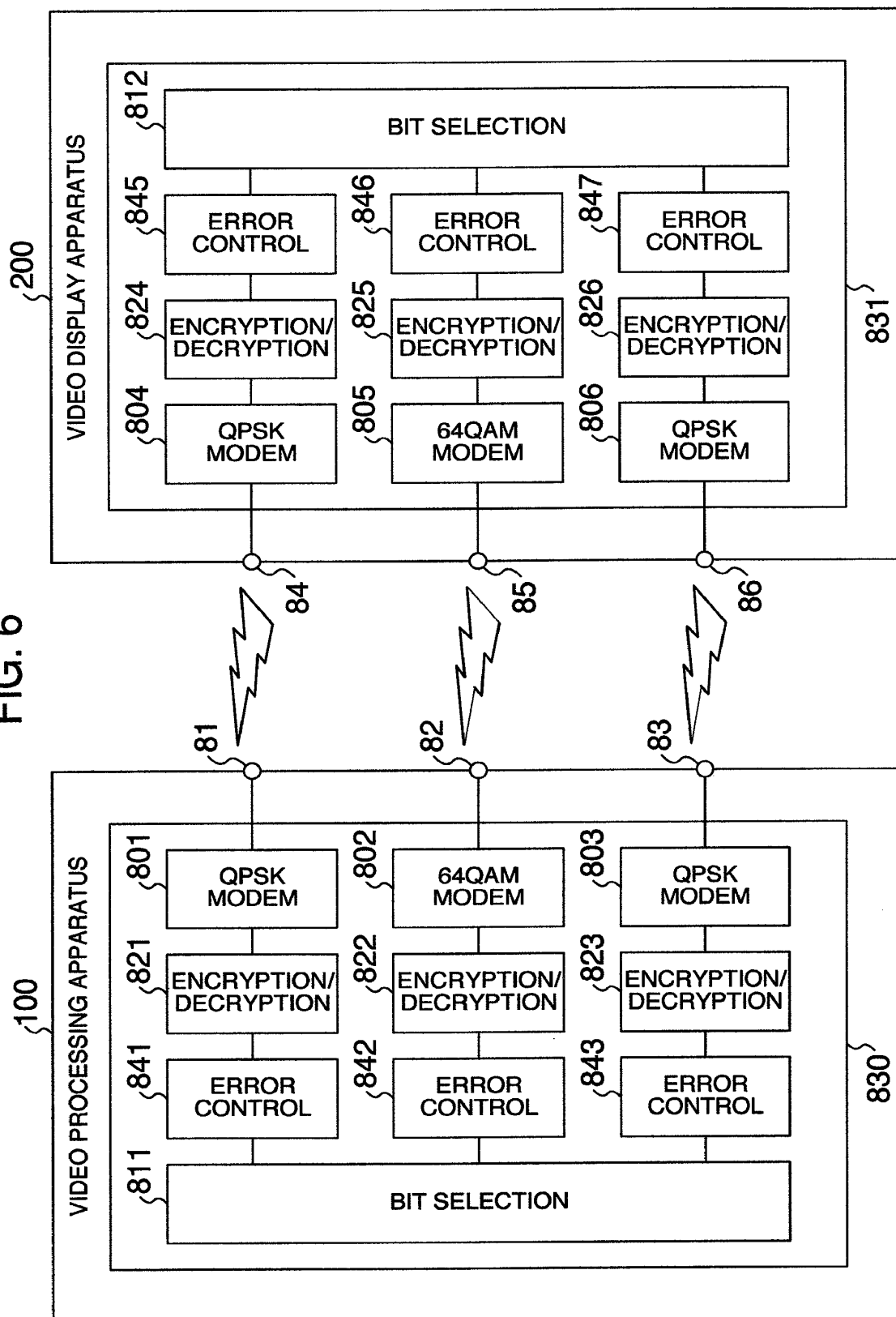


FIG. 7

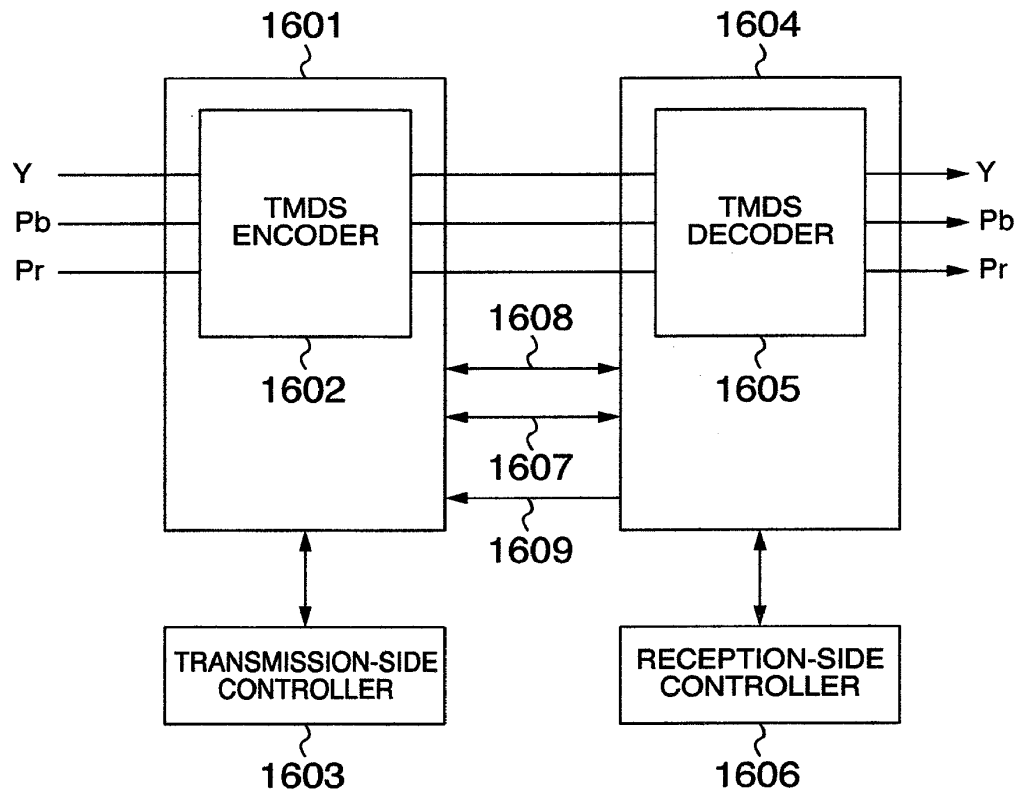


FIG. 8

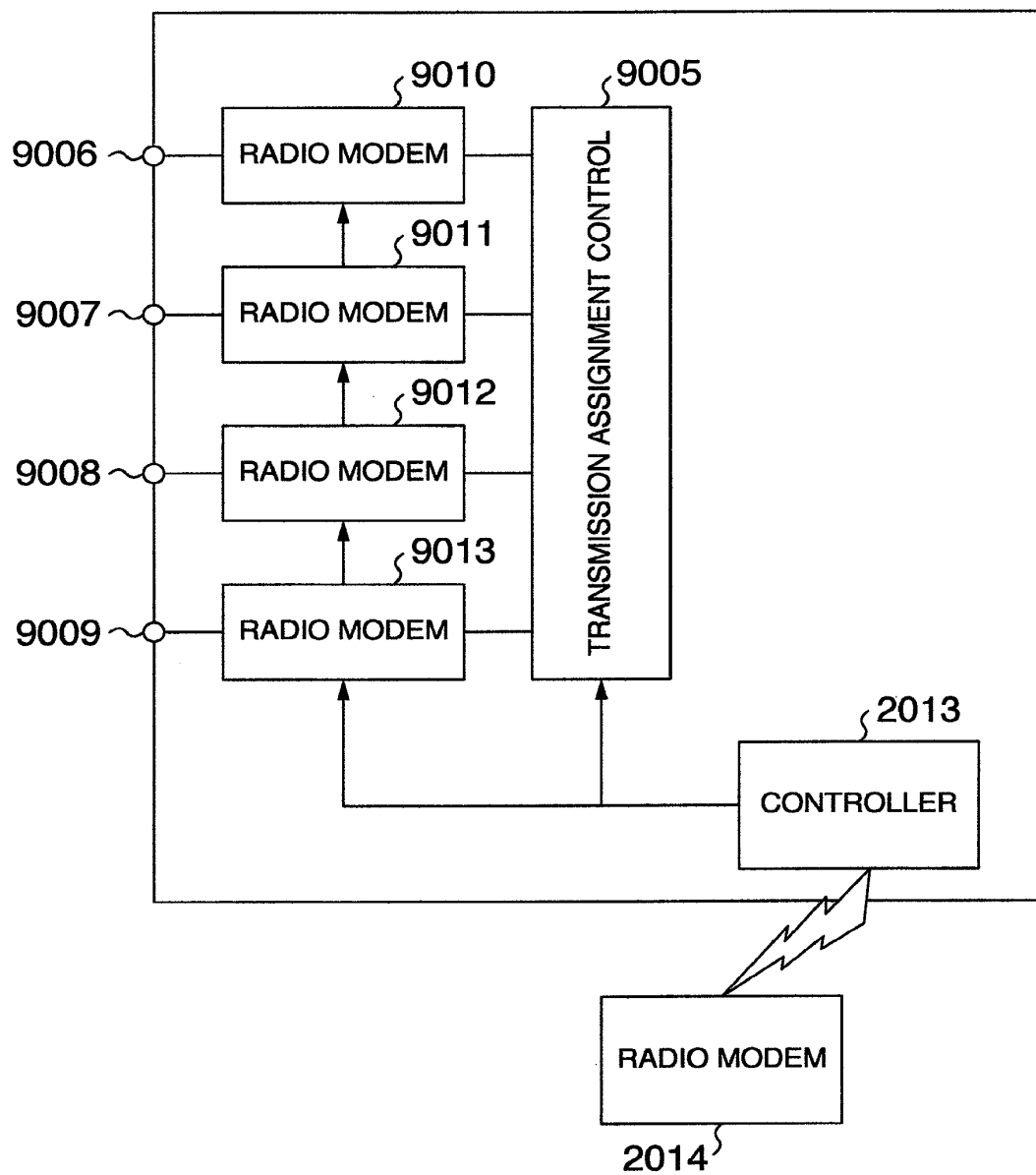


FIG. 9

SCHEME	SCHEME 1	SCHEME 2
BANDWIDTH	6MHz	6MHz
CARRIER MODULATION SCHEME	64QAM	QPSK
CONVOLUTION CODE	3/4	2/3
GUARD INTERVAL	1/8	1/8
TRANSMISSION CAPACITY	17Mbps	5Mbps

FIG. 10

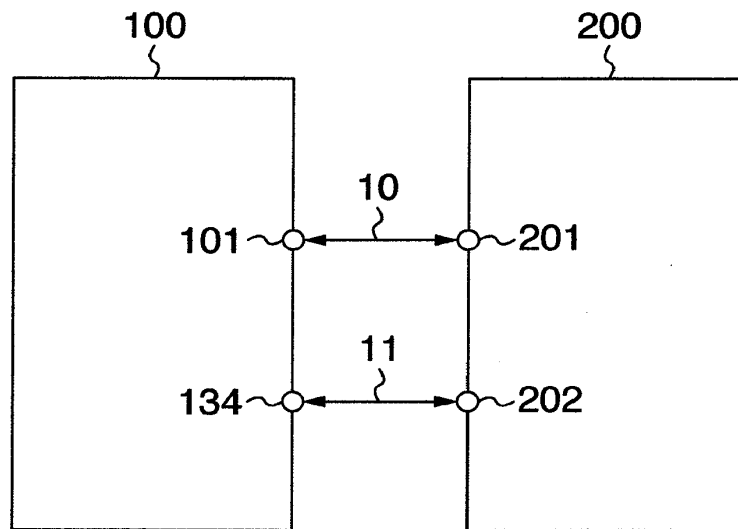
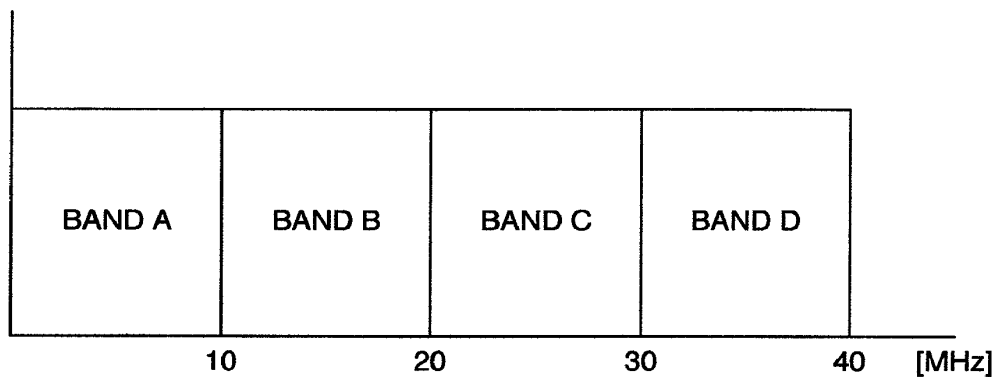


FIG. 11



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Toshiyuki Kurita et al. Examiner : Not Yet Assigned
Serial No. : Not Yet Assigned Confirmation No. : Not Yet Assigned
Filed : Concurrently Herewith Group Art Unit : Not Yet Assigned
For : DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS

INFORMATION DISCLOSURE STATEMENT

FILED BY EFS

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

Sir:

Enclosed herewith are patents and/or publications for consideration by the Patent and Trademark Office in regard to the invention claimed in the above-identified application. In compliance with 37 C.F.R. §1.56, such documents are listed on the enclosed Form PTO-1449.

This Information Disclosure Statement is submitted according to the following selected paragraph(s):

- ☒ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(b) (1) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. § 1.53(d); (2) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application; (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. § 1.114.
- ☐ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(c) prior to either a final action or a notice of allowance. Payment for the fee required by 37 C.F.R. §1.17(p) is hereby authorized to be charged to Deposit Account No. 02-4377.

- ☐ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(c), with a statement under, 37 C.F.R. §1.97(e) prior to either a final action or a notice of allowance.

The undersigned hereby states that (check one):

- ☐ 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.

- ☐ 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 C.F.R. § 1.56(c) more than three months prior to the filing of the information disclosure statement.

- ☐ This Information Disclosure Statement is being filed under 37 C.F.R. §1.97(d), with a statement under 37 C.F.R. §1.97(e), after a final action or a notice of allowance but prior to payment of the issue fee. Payment for the fee required by 37 C.F.R. §1.17(p) is hereby authorized to be charged to Deposit Account No. 02-4377. The undersigned hereby petitions that this Information Disclosure Statement be considered prior to issuance of the patent. The undersigned hereby states that (check one):

- ☐ 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.

- ☐ 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 C.F.R. § 1.56(c) more than three months prior to the filing of the information disclosure statement.

Submissions Within 30 days of Receipt

- ☐ Pursuant to 37 C.F.R. 1.704(d), Applicant states that each item of information contained in this information disclosure statement:
- ☐ was first cited in any communication from a patent office in a counterpart foreign or international application or from the U.S. Patent and Trademark Office, and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of the information disclosure statement.
- ☐ is a communication that was issued by a patent office in a counterpart foreign or international application or by the U.S. Patent and Trademark Office, and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of the information disclosure statement.

Previously Cited by Examiner or Prior Submissions by Applicant

- ☒ The references listed on the accompanying PTO-1449 were either cited by the Examiner or previously submitted in parent application U.S. Serial No. 15/208,886, filed July 13, 2016. Pursuant to 37 C.F.R. § 1.98(d), the references are not required if the earlier application is identified and relied upon for an effective filing date under 35 U.S.C. § 120 and therefore are not enclosed herewith.

Co-Pending Application Disclosure

- ☐ Applicants would like to bring to the attention of the Examiner the following co-pending patent applications, which are also listed on the accompanying PTO-1449:

Serial No.	Filing Date

Disclosure of Office Actions and Responses in Co-Pending Applications

- ☐ Applicants would like to bring to the attention of the Examiner the following Office Actions issued in co-pending patent applications and Responses to Office Actions filed in such applications, which are also listed on the accompanying PTO-1449:

Serial No.	Date of Office Action or Response

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed documents are material or constitute “prior art.” If the Examiner applies the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute “prior art” under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the documents.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should the documents be applied against the claims of the present application.

Applicants believe no additional fee is due in connection with this submission. However, if any additional fee is due, or if any overpayment has been made, the Commissioner is authorized to charge any such fee or credit any overpayment to our Deposit Account No. 02-4377.

Respectfully submitted,

BAKER BOTTS L.L.P.

February 7, 2018
Date

/Jonathan D. Cocks/
Jonathan D. Cocks
Patent Office Reg. No. 75,646

30 Rockefeller Plaza
New York, NY 10112-4498
Attorney for Applicant(s)
212-408-2500

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	Not Yet Assigned
	Filing Date	Concurrently Herewith
	Inventor(s)	Toshiyuki Kurita et al.
	Art Unit	Not Yet Assigned
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	072388.1317

U.S. PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	1.	4,561,100 A	12-24-1985	Asao et al.
	2.	5,678,173 A	10-14-1997	Mihara
	3.	5,724,355 A	03-03-1998	Bruno et al.
	4.	5,758,262 A	05-26-1998	Grysiewicz et al.
	5.	6,037,991 A	03-14-2000	Thro et al.
	6.	2004/0107208 A1	06-03-2004	Seet et al.
	7.	6,763,226 B1	07-13-2004	McZeal, Jr.
	8.	2007/0086724 A1	04-19-2007	Grady et al.
	9.	2007/0091835 A1	04-26-2007	Jo et al.
	10.	2007/0085933 A1	04-19-2007	Takagi et al.
	11.	2007/0123163 A1	05-31-2007	Matsubara
	12.	2007/0223505 A1	09-27-2007	Itai et al.
	13.	2008/0025273 A1	01-31-2008	Sano
	14.	2008/0109307 A1	05-08-2008	Ullah
	15.	2008/0139118 A1	06-12-2008	Sanguinetti
	16.	2008/0201751 A1	08-21-2008	Ahmed et al.

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

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

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Application Number	Not Yet Assigned
	Filing Date	Concurrently Herewith
	Inventor(s)	Toshiyuki Kurita et al.
	Art Unit	Not Yet Assigned
	Examiner Name	Not Yet Assigned
	Attorney Docket Number	072388.1317

U.S. PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	17.	2009/0091663 A1	04-09-2009	Toh et al.
	18.	8,325,237 B2	12-04-2012	Bessone et al.
	19.	8,572,257 B2	10-29-2013	Dua
	20.	2007/0242313 A1	10-18-2007	Shiomi

FOREIGN PATENT DOCUMENTS				
Exam. Initial.	No.	Document No.	Issue/Publication Date	Applicant(s)
	21.	JP 2007-258865	10-04-2007	Hitachi Int Electric Inc
	22.	JP 2007-282097	10-25-2007	Canon Kabushiki Kaisha (Corresponds to US 2007/0242313 A1)
	23.	JP 2002-135304	05-10-2002	Sharp Corp
	24.	CN 1588997	03-02-2005	Datang Microelectronics Technology Co., Ltd.
	25.	JP 2007-202115	08-09-2007	Matsushita Electric Ind Co Ltd
	26.	JP 2008-035420	02-14-2008	Fujitsu Ltd

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

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

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		
First Named Inventor/Applicant Name:		Toshiyuki Kurita		
Filer:		Jonathan Drew Cocks/Hiroko Lavietes		
Attorney Docket Number:		072388.1317		
Filed as Large Entity				
Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	300	300
UTILITY SEARCH FEE	1111	1	660	660
UTILITY EXAMINATION FEE	1311	1	760	760
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4000	4000
Pages:				
Claims:				
INDEPENDENT CLAIMS IN EXCESS OF 3	1201	1	460	460
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				6320

Electronic Acknowledgement Receipt	
EFS ID:	31730925
Application Number:	15891085
International Application Number:	
Confirmation Number:	3408
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS
First Named Inventor/Applicant Name:	Toshiyuki Kurita
Customer Number:	21003
Filer:	Jonathan Drew Cocks/Hiroko Lavietes
Filer Authorized By:	Jonathan Drew Cocks
Attorney Docket Number:	072388.1317
Receipt Date:	07-FEB-2018
Filing Date:	
Time Stamp:	17:28:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	\$6320
RAM confirmation Number	020818INTEFSW00003958024377
Deposit Account	024377
Authorized User	Hiroko Lavietes
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)	

37 CFR 1.19 (Document supply fees)
37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	TrackOne Request	TrackOne_Request.pdf	111269	no	2
			739928046080eff22a387287757792a27deb5254		
Warnings:					
Information:					
2	Transmittal of New Application	Utility_Transmittal.pdf	284856	no	2
			ff61b1d886cd5b94187bec78762ba7c963a04d17		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	Fee_Transmittal.pdf	214538	no	2
			02d1e38dbf964afbf618b9f4b36a391d7571491		
Warnings:					
Information:					
4	Application Data Sheet	ADS.pdf	1858035	no	8
			cc608ffa9ef16b1198fafd636f4c286d11384e7c		
Warnings:					
Information:					
5	Oath or Declaration filed	Declarations.pdf	237115	no	2
			13f2cc087df01c48aed71eac39f5c45b7f8f0b9f		
Warnings:					
Information:					
6	Power of Attorney	POA.pdf	416112	no	1
			0f40e24e8a19251d5a051223c214e6dff6bb0557		
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					

Information:					
7	Power of Attorney	Statement.pdf	132048	no	3
			99afc7782a312ef1ead55198312832f67f0303c		
Warnings:					
Information:					
8		Specification.pdf	169460	yes	60
			c034cee95bd228298a53eae99f7b793bd147427		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	52	
	Claims		53	59	
	Abstract		60	60	
Warnings:					
Information:					
9	Drawings-only black and white line drawings	Drawings.pdf	492755	no	9
			c978f0c697f83eb9871d888d7a835f696bed4f12		
Warnings:					
Information:					
10	Transmittal Letter	IDS.pdf	36044	no	4
			bee53e5e1d037f64d92cdf70e0c4e86df4470898		
Warnings:					
Information:					
11	Information Disclosure Statement (IDS) Form (SB08)	PTO1449.pdf	28555	no	2
			c65b0c48bbb4d1bf7b6fa160cb6810bb9f108426		
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					

12	Fee Worksheet (SB06)	fee-info.pdf	40159	no	2				
			23d4f29b80cd3f84796ad3fccad652103bd497d2						
Warnings:									
Information:									
Total Files Size (in bytes):			4020946						
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.									

**CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION
UNDER 37 CFR 1.102(e)** (Page 1 of 1)

First Named Inventor:	Toshiyuki Kurita	Nonprovisional Application Number (if known):	
Title of Invention:	DISPLAY APPARATUS AND VIDEO PROCESSING APPARATUS		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently \$0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.
2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.
3. The applicable box is checked below:
 - I. ☒ **Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)**
 - i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.
---OR---
 - (b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.
 - ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, or the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.
 - II. ☐ **Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)**
 - i. A request for continued examination has been filed with, or prior to, this form.
 - ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
 - iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
 - iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
 - v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature <u>/Jonathan D. Cocks/</u>	Date <u>February 7, 2018</u>
Name (Print/Typed) <u>Jonathan D. Cocks</u>	Practitioner Registration Number <u>75,646</u>
Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.*	
☐ *Total of _____ forms are submitted.	

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.