

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT8223261

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
MANABU IWAKAWA	10/02/2023
TAKANORI OKUMURA	10/02/2023
HIROSHI UMEDA	10/02/2023
ERI KURIHARA	10/02/2023
YUKI SOMA	10/02/2023
RECEIVING PARTY DATA	
Name:	MITSUBISHI ELECTRIC CORPORATION
Street Address:	7-3, MARUNOUCHI 2-CHOME, CHIYODA-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	100-8310
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17597296
CORRESPONDENCE DATA	
Fax Number:	(703)390-1277
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	(703)390-9051
Email:	info@sbpatentlaw.com
Correspondent Name:	STUDEBAKER & BRACKETT PC
Address Line 1:	8255 GREENSBORO DRIVE
Address Line 2:	SUITE 300
Address Line 4:	TYSONS, VIRGINIA 22102
ATTORNEY DOCKET NUMBER:	005750-000054
NAME OF SUBMITTER:	DONALD R. STUDEBAKER
SIGNATURE:	/Donald R. Studebaker/
DATE SIGNED:	10/16/2023
Total Attachments: 7	

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**ASSIGNMENT OF APPLICATION
FOR UNITED STATES PATENT**

Title of Invention	LIQUID CRYSTAL DISPLAY DEVICE AND PRODUCTION METHOD FOR LIQUID CRYSTAL DISPLAY DEVICE
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As the below named inventor, I hereby declare that this assignment is effective as of July 4, 2019:

This assignment is directed to: The attached application, or
 PCT international application number PCT/JP2019/026588 filed on July 4, 2019, and
 U.S. patent application number 17/597,296 filed on December 30, 2021.

WHEREAS the undersigned, also referred to hereinafter as the assignor, has invented a certain improvement relating to the above identified application.

WHEREAS Mitsubishi Electric Corporation of 7-3, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-8310 JAPAN, hereinafter referred to as the assignee, is desirous of acquiring the entire right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof;

NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to me, the receipt of which is hereby acknowledged, I hereby assign, sell and transfer to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention for the United States of America and its territories and for all foreign countries, and any and all patents which may be granted therefor, in the United States of America and its territories and in all foreign countries, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as I might or could have held and enjoyed the same, if this assignment had not been made.

AND I hereby agree to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND I authorize and request the Commissioner of Patents and Trademarks in the United States and Patent Office officials of any and all foreign countries, to issue any and all Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

LEGAL NAME OF INVENTOR

Inventor: Manabu IWAKAWA Date: October 2, 2023

Signature: Manabu IWAKAWA



LEGAL NAME OF INVENTOR

Inventor: Takanori OKUMURA Date: October 2, 2023

Signature: Takanori OKUMURA

LEGAL NAME OF INVENTOR

Inventor: Hiroshi UMEDA Date: _____

Signature: _____

LEGAL NAME OF INVENTOR

Inventor: Eri KURIHARA Date: _____

Signature: _____

LEGAL NAME OF INVENTOR

Inventor: Yuki SOMA Date: _____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/O1 form for each additional inventor.

ASSIGNMENT OF APPLICATION FOR UNITED STATES PATENT

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NOW, that for and in consideration of One Dollar (\$1.00), and other good and valuable consideration paid by said assignee to me, the receipt of which is hereby acknowledged, I hereby assign, sell and transfer to said assignee, and said assignee's successors and assigns, the full and exclusive right, title and interest in and to said application, including any and all divisions and continuations thereof, and in and to said invention for the United States of America and its territories and for all foreign countries, and any and all patents which may be granted therefor, in the United States of America and its territories and in all foreign countries, including any and all renewals, reissues and prolongations thereof; said assignee, and said assignee's successors and assigns, to have, hold, exercise and enjoy the said application, including any and all divisions and continuations thereof, and the said invention and any and all patents which may be granted therefor, including any and all renewals, reissues and prolongations thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such patents when granted, including any and all renewals, reissues and prolongations thereof, for the use and benefit of said assignee, and said assignee's successors and assigns, in as ample and beneficial a manner as I might or could have held and enjoyed the same, if this assignment had not been made.

AND I hereby agree to perform, upon the request of said assignee, or said assignee's successors or assigns, any and all acts relating to the obtaining or to the asserting of said patents, including any and all renewals, reissues and prolongations thereof.

AND I authorize and request the Commissioner of Patents and Trademarks in the United States and Patent Office officials of any and all foreign countries, to issue any and all Letters Patent on said application, and on any and all divisions and continuations thereof, to said assignee, and said assignee's successors and assigns, in accordance herewith.

The undersigned hereby grants the law firm of STUDEBAKER & BRACKETT PC the power to insert on the Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

LEGAL NAME OF INVENTOR

Inventor: Manabu IWAKAWA Date: October 2, 2023

Signature: Manabu IWAKAWA

LEGAL NAME OF INVENTOR

Inventor: Takanori OKUMURA Date: _____

Signature: _____

LEGAL NAME OF INVENTOR

Inventor: Hiroshi UMEDA Date: October 2, 2023

Signature: Hiroshi UMEDA

LEGAL NAME OF INVENTOR

Inventor: Eri KURIHARA Date: October 2, 2023

Signature: Eri KURIHARA

LEGAL NAME OF INVENTOR

Inventor: Yuki SOMA Date: _____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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.

**SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY
OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)**

Title of Invention	LIQUID CRYSTAL DISPLAY DEVICE AND PRODUCTION METHOD FOR LIQUID CRYSTAL DISPLAY DEVICE		
This statement is directed to:			
<input type="checkbox"/> The attached application,			
OR			
<input checked="" type="checkbox"/> United States application or PCT international application number <u>PCT/JP2019/026588</u> filed on <u>2019-07-04</u>			
LEGAL NAME of inventor to whom this substitute statement applies:			
(E.g., Given Name (first and middle (if any)) and Family Name or Surname)			
Yuki SOMA			
Residence (except for a deceased or legally incapacitated inventor):			
City	Kumamoto	State	Country JP
Mailing Address (except for a deceased or legally incapacitated inventor):			
c/o Melco Display Technology Incorporated 1576-1, Sumiyoshi, Shisui-machi, Kikuchi-shi			
City	Kumamoto	State	Zip 861-1203 Country JP
I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.			
The above-identified application was made or authorized to be made by me.			
I hereby acknowledge that any wilful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.			
Relationship to the inventor to whom this substitute statement applies:			
<input type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),			
<input checked="" type="checkbox"/> Assignee,			
<input type="checkbox"/> Person to whom the inventor is under an obligation to assign,			
<input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or			
<input type="checkbox"/> Joint Inventor.			

[Page 1 of 2]

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995, unless the information collection has a currently valid OMB Control Number. The OMB Control Number for this information collection is 0651-0032. Public burden for this form is estimated to average 21 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Chief Administrative Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 or email InformationCollection@uspto.gov. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. If filing this completed form by mail, 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.

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.

SUBSTITUTE STATEMENT

Circumstances permitting execution of this substitute statement:

- Inventor is deceased,
 Inventor is under legal incapacity,
 Inventor cannot be found or reached after diligent effort, or
 Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.
OR
 An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

WARNING:

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.

PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: **Shigeo Kishimoto** Date (Optional): 10/2/2023

Signature:

**APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

If the applicant is a juristic entity, list the applicant name and the title of the signer:

Mitsubishi Electric Corporation

Applicant Name:

Title of Person Executing This Substitute Statement: **General Manager, Patent Administration Department**

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City **Tokyo** State Country **JP**

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

7-3, Marunouchi 2-chome, Chiyoda-ku

City **Tokyo** State Zip **100-8310** Country **JP**

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.

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. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013). <https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf>

Routine uses of the information in this record may include disclosure to: 1) law enforcement, in the event that the system of records indicates a violation or potential violation of law; 2) a Federal, state, local, or international agency, in response to its request; 3) a contractor of the USPTO having need for the information in order to perform a contract; 4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record; 5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record; 6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations; 7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals; 8) 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)); 9) the Office of Personnel Management (OPM) for personnel research purposes; and 9) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

Additional Uses

Additional USPTO uses of the information in this record may include disclosure to: 1) the International Bureau of the World Intellectual Property Organization, if the record is related to an international application filed under the Patent Cooperation Treaty; 2) the public i) after publication of the application pursuant to 35 U.S.C. 122(b), ii) after issuance of a patent pursuant to 35 U.S.C. 151, iii) 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, or iv) without publication of the application or patent under the specific circumstances provided for by 37 CFR 1.14(a)(1)(v)-(vii); and/or 3) the National Archives and Records Administration, for inspection of records.

PATENT

RECORDED: 10/16/2023

REEL: 065241 FRAME: 0279