

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Masataka Nakada	10/20/2016
Masahiro Katayama	10/20/2016
Seiji Yasumoto	10/20/2016
Hiroki Adachi	10/20/2016
Masataka SATO	10/24/2016
Koji Kusunoki	10/18/2016
Yoshiharu Hirakata	10/26/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	SEMICONDUCTOR ENERGY LABORATORY CO., LTD.
<b>Street Address:</b>	398, HASE
<b>City:</b>	ATSUGI-SHI, KANAGAWA-KEN
<b>State/Country:</b>	JAPAN
<b>Postal Code:</b>	243-0036
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15987952
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<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>	
<b>Phone:</b>	(202) 783-5070
<b>Email:</b>	apsi@fr.com
<b>Correspondent Name:</b>	JOHN F. HAYDEN
<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
<b>Address Line 2:</b>	P.O.BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	12732-1753002
<b>NAME OF SUBMITTER:</b>	SHARON M. ALLEN
<b>SIGNATURE:</b>	/Sharon M. Allen/
<b>DATE SIGNED:</b>	05/24/2018

PATENT

**Total Attachments: 4**

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## ASSIGNMENT

For valuable consideration, We, Masataka NAKADA of Tochigi, Tochigi, Japan, Masahiro KATAYAMA of Tochigi, Tochigi, Japan, Seiji YASUMOTO of Tochigi, Tochigi, Japan, Hiroki ADACHI of Tochigi, Tochigi, Japan, Masataka SATO of Tochigi, Tochigi, Japan, Koji KUSUNOKI of Kawasaki, Kanagawa, Japan and Yoshiharu HIRAKATA of Tochigi, Tochigi, Japan hereby assign to Semiconductor Energy Laboratory Co., Ltd., a Japanese corporation having a place of business at:

398, Hase, Atsugi-shi, Kanagawa-ken, 243-0036 Japan

and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us this day, entitled DISPLAY PANEL, INPUT/OUTPUT DEVICE, DATA PROCESSOR, AND METHOD FOR MANUFACTURING DISPLAY PANEL, filed October 4, 2016, and assigned U.S. Serial Number 15/285,096, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Signature Masataka NAKADA  
Name: Masataka NAKADA  
Date: 10/20/2016

Signature Masahiro KATAYAMA  
Name: Masahiro KATAYAMA  
Date: 10/20/2016

Signatur Seiji YASUMOTO  
Name: Seiji YASUMOTO  
Date: 10 / 20 / 2016

Signatur Hiroki ADACHI  
Name: Hiroki ADACHI  
Date: 10/20 / 2016

Signatur Masataka SATO  
Name: Masataka SATO  
Date: 10/24 / 2016

Signature \_\_\_\_\_  
Name: Koji KUSUNOKI  
Date: \_\_\_\_\_

Signature Yoshiharu Hirakata  
Name: Yoshiharu HIRAKATA  
Date: 10 / 26 / 2016

**ASSIGNMENT**

For valuable consideration, We, Masataka NAKADA of Tochigi, Tochigi, Japan, Masahiro KATAYAMA of Tochigi, Tochigi, Japan, Seiji YASUMOTO of Tochigi, Tochigi, Japan, Hiroki ADACHI of Tochigi, Tochigi, Japan, Masataka SATO of Tochigi, Tochigi, Japan, Koji KUSUNOKI of Kawasaki, Kanagawa, Japan and Yoshiharu HIRAKATA of Tochigi, Tochigi, Japan hereby assign to Semiconductor Energy Laboratory Co., Ltd., a Japanese corporation having a place of business at:

398, Hase, Atsugi-shi, Kanagawa-ken, 243-0036 Japan

and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent signed by us this day, entitled DISPLAY PANEL, INPUT/OUTPUT DEVICE, DATA PROCESSOR, AND METHOD FOR MANUFACTURING DISPLAY PANEL, filed October 4, 2016, and assigned U.S. Serial Number 15/285,096, and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Signature \_\_\_\_\_  
Name: Masataka NAKADA  
Date: \_\_\_\_\_

Signature \_\_\_\_\_  
Name: Masahiro KATAYAMA  
Date: \_\_\_\_\_

Signatur \_\_\_\_\_  
Name: Seiji YASUMOTO  
Date: \_\_\_\_\_

Signatur \_\_\_\_\_  
Name: Hiroki ADACHI  
Date: \_\_\_\_\_

Signatur \_\_\_\_\_  
Name: Masataka SATO  
Date: \_\_\_\_\_

Signature Koji Kusunoki  
Name: Koji KUSUNOKI  
Date: 05 / 18 / 2016

Signature \_\_\_\_\_  
Name: Yoshiharu HIRAKATA  
Date: \_\_\_\_\_