Substitute Form PTO-1595 Attorney Docket No.: 12732-101001 Client's Ref. No.: US5712

HEET

Commissioner for Patents: Please record the attached original docur	ment(s) or copy(ies)	
	Name and address of receiving party(ies):	
(1) Munehiro Azami; (2) Shou Nagao; and (3) Yoshifumi Tanada	Semiconductor Energy Laboratory Co., Ltd. 398 Hase Atsugi-shi Kanagawa-ken 243-0036 JAPAN	
Additional name(s) attached? ☐ Yes ☒ No		
3. Nature of conveyance: ☐ Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name ☐ Other:		
Execution Dates: (1) April 5, 2002; (2) April 15, 2002; and (3) April 15, 2002	Additional names/addresses attached? ☐ Yes 図 No	
4. Application number(s) or patent number(s):		
If this document is being filed with a new application, the execution dates of the application are: (1) April 5, 2002; (2) April 15, 2002; and (3) April 15, 2002		
A. Patent Application No(s).:	B: Patent No(s).:	
Additional numbers	attached? ☐ Yes ☒ No	
Name/address of party to whom correspondence concerning document should be mailed:	6. Total number of applications/patents involved: 1	
JOHN F. HAYDEN	7. Total fee (37 CFR §3.41): \$40	
Fish & Richardson P.C. 601 Thirteenth Street, NW Washington, DC 20005	☑ Enclosed ☐ Authorized to charge Deposit Account.	
	8. Deposit Account No.: 06-1050	
	Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.	
DO NOT US	SE THIS SPACE	
9. Statement and Signature: To the best of my knowledge ar any attached copy is a true copy of the original docume	nd belief, the foregoing information is true and correct and ent.	
John F. Hayden Reg. No. 37,640 Name of Person Signing Signature	April 23, 2002 Date	
To	otal number of pages including coversheet, attachments and document:	

40079522.doc 04/39/2002 TDIAZ1 00000109 10127600 40.00 DP 01 FC:581

ASSIGNMENT

For valuable consideration, We, Munchiro AZAMI of Atsugi, Kanagawa, Japan, Shou NAGAO of Atsugi, Kanagawa, Japan and Yoshifumi TANADA of Atsugi, Kanagawa, 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

PULSE OUTPUT CIRCUIT, SHIFT REGISTER AND DISPLAY DEVICE				
filed on, and assigned U.S. Serial Number, 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:	Munchino	Azam!
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Name:

Munehiro AZAMI

Date:

04/05/2002

Signature: Show hagav

Name:

Shou NAGAO

Date:

04 /15 / 2002

Signature: Yashifimi Tanada.

Name:

Yoshifumi TANADA

Date:

04/15/2002

RECORDED: 04/23/2002

PATENT REEL: 012836 FRAME: 0151