504543954 09/12/2017

EPAS ID: PAT4590661

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

 SUBMISSION TYPE:
 NEW ASSIGNMENT

 NATURE OF CONVEYANCE:
 ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
LEI PAN	08/21/2017

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO.8, LI-HSIN RD.6
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK
City:	HSINCHU
State/Country:	TAIWAN
Postal Code:	300

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15700033

CORRESPONDENCE DATA

Fax Number: (435)252-1360

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.

Phone: 4352521360

Email: cfrena@mabr.com

Correspondent Name: R. BURNS ISRAELSEN

Address Line 1: MASCHOFF BRENNAN

Address Line 2: 1389 CENTER DR. SUITE 300
Address Line 4: PARK CITY, UTAH 84098

ATTORNEY DOCKET NUMBER:	T1516.10370US01
NAME OF SUBMITTER:	R. BURNS ISRAELSEN
SIGNATURE:	/R. Burns Israelsen, Reg. No. 42685/
DATE SIGNED:	09/12/2017

Total Attachments: 2

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PATENT 504543954 REEL: 043564 FRAME: 0928

ASSIGNMENT

This assignmen	t agreement is a	pplicable to an inventi	on entitled (Invention Title)
LEVEL SHIFT	ER AND LEVE	L SHIFTING METHO	DD
The PATENT R	UGHTS referred	to in this agreement:	are:
(check one) ⊠i	a patent applicat	ion for this invention,	executed by the ASSIGNOR(S)
C	oncurrently wit	h this assignment.	
	J.S. patent appli	cation Serial No	,filed
Па	U.S. patent app	olication based on PCT	International Application
N	o	filed on (date)	(U.S. patent application
		, if known).	
		, issued	
The PATENT R	UGHTS also inc	clude all divisions, reis	sues, continuations and extensions of
the patents and	patent application	ons identified above.	
The PATENT R	HGHTS assigne	d under this agreemen	t are:
(check one) 🔯	U.S. patent right	ts only.	
	Worldwide pater	nt rights. In this case, t	he assignee shall have the right to
c	laim the benefit	of the filing date of a	ny U.S. or foreign patent application
f	or this invention	i,	
The ASSIGNOI	R(S) referred to	in this agreement is (c	r are) the inventor(s) whose signatures
appear on page	2 of this Assign	ment and any Supplen	nental Sheet(s).
The ASSIGNER	E referred to in t	his agreement is:	
(Name of Assign	iee) <u>TAIWAN S</u>	SEMICONDUCTOR 1	MANUFACTURING CO., LTD.
(Address) NO.8	, LI-HSIN RD.	, SCIENCE-BASED	INDUSTRIAL PARK, HSINCHU.
TAIWAN 300,	<u>R.O.C.</u>		
The ASSIGNEI	Bis:		
(check one)[]A	n individual.		
ΠA	Partnership.		
⊠A	Corporation of	TAIWAN, R.O.C	(specify state or country)
□(o	ther)		
The ASSIGNOI	R(S), in conside	ration of \$10.00 paid l	by the ASSIGNEE, and other good and
valuable consid	eration, receipt	of which is acknowled	ged, hereby assign(s) the following
rights to the AS	SIGNEE, its su	ccessors and assigns:	

the right to claim priority under 35 USC 119, 35 USC 120, or any other applicable provisions, based on any earlier patent applications for this invention.

the entire right, title and interest in and to the PATENT RIGHTS;

the right to sue and recover for any past infringement; and

the full and exclusive right to the invention;

PATENT REEL: 043564 FRAME: 0929 LONG BERTHARDS TO SERVED AND A

THIS IS PAGE 2 OF AN ASSIGNMENT FROM THE INVENTOR(S) TO ASSIGNEE: TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD. INVENTION TITLE: LEVEL SHIFTER AND LEVEL SHIFTING METHOD

As to all U.S. patent applications assigned under this agreement, the ASSIGNOR(S) hereby authorize(s) and request(s) the Commissioner of Patents and Trademark to issue all Letters Patent to the ASSIGNEE as the assignee of the entire right, title and interest, for the sole use and enjoyment of said ASSIGNEE, its successors and assigns.

Further, the ASSIGNOR(S) agree(s) to communicate to said ASSIGNEE, or its representatives, any fact known to the ASSIGNOR(S) with respect to said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal, reexamination and reissue applications, execute all necessary assignment papers to cause and all Letter Patent to be issued to said ASSIGNEE, make all rightful oaths and generally do everything necessary or desirable to aid said ASSIGNEE, its successors and assigns, to obtain and enforce proper protection for said invention.

The ASSIGNOR(S) authorize(s) the attorneys and agents who have the power of attorney in this application to check any appropriate boxes and to insert the Serial Number and filing date in this document after it has been executed.

Lei PAN	<u> </u>	247/dl	1/2/
Name of sole or first inventor	Signature	Date	

PATENT REEL: 043564 FRAME: 0930

RECORDED: 09/12/2017