505252471 12/26/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5299241

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WEI-CHENG WU	03/03/2011
HSIEN-PIN HU	03/07/2011
SHANG-YUN HOU	03/04/2011
SHIN-PUU JENG	03/07/2011
CHEN-HUA YU	03/09/2011
CHAO-HSIANG YANG	03/08/2011

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.
Street Address:	NO. 8, LI-HSIN RD. 6
Internal Address:	HSIN-CHU SCIENCE PARK
City:	HSIN-CHU
State/Country:	TAIWAN
Postal Code:	300-77

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16232373

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	TSMCP661USC
NAME OF SUBMITTER:	DAVID W. POTASHNIK
SIGNATURE:	/David W. Potashnik/
DATE SIGNED:	12/26/2018

505252471 PATENT REEL: 047852 FRAME: 0636

Total Attachments: 2 source=Assignment#page1.tif source=Assignment#page2.tif

PATENT REEL: 047852 FRAME: 0637 (b)

ASSIGNMENT

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned,

Wei-Cheng WU
 Hsien-Pin HU
 Chen-Hua YU
 Shang-Yun HOU
 Chao-Hsiang YANG

who has made a certain new and useful invention, hereby sells, assigns and transfers unto

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD. having a place of business at No. 8, Li-Hsin Rd. VI, Hsinchu Science Park, Hsinchu 300, Taiwan R.O.C.

its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled

TESTING OF SEMICONDUCTOR CHIPS WITH MICROBUMPS

for which an application for United States Letters Patent was executed on _____

agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE;

(a)	for which an application for United States Letters Patent was filed on $\frac{2-11-2011}{}$, States Patent Application No. $\frac{13/025}{,931}$; or	and	identified	bу	United

and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefore and any and all extensions, divisions, reissues, continuations, or continuations-in-part thereof, and the right to all benefits under the International Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned

AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred.

SIGNED on the date indicated aside my signature:

1) Lucker | Wu
Name: Wei-Cheng WU

2) | Sien-Pin Hu
Name: Hsien-Pin HU

Date:

3) Sharp My Hou
Name: Shang-Yyn HOU

Date:

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4)
Name: Shin-Puu JENG
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5) //
Name: Chen Hua YU
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6)
Name: Chao-Hsiang YANG

3	17/2017
Date:	3/9/11
Date:	
Date:	2/./
Date:	3/8/2011

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RECORDED: 12/26/2018

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