502242052 02/25/2013

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jiann Lih WU	11/29/2012
Jeng-Jyi HWANG	11/29/2012
Soon-Kang HUANG	11/29/2012
Chi-Ming YANG	11/29/2012

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.	
Street Address:	No. 8, Li-Hsin Rd. VI	
Internal Address:	Hsinchu Science Park	
City:	Hsinchu	
State/Country:	TAIWAN	
Postal Code:	300	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13687492

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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Correspondent Name: Lowe Hauptman Ham & Berner, LLP (TSMC)

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ATTORNEY DOCKET NUMBER: T5057-826

NAME OF SUBMITTER: Randy A. Noranbrock

Total Attachments: 1

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PATENT REEL: 029868 FRAME: 0413 \$40,00 13687492

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,		•		•

Jiann Lih WU 1)

- 4) Chi-Ming YANG
- Jeng-Jyi HWANG 2)
- Soon-Kang HUANG 3)

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

SYSTEM

MIUL.	H-POINT CHEMICAL MECHANICAL POLISH	ING END POINT DETECTION SYSTEM
AND I	METHOD OF USING	
(a)	for which an application for United States Letters Patent was file United States Patent Application No.	d on, and identified by
(b)	for which an application for United States Letters Patent was exe	cuted on,
all Unite continua Property agrees the applicat ASSIGN applicat ASSIGN	undersigned hereby authorizes and requests the United States Co ed States Letters Patent which may be granted therefore and any ations-in-part thereof, and the right to all benefits under the In to the said ASSIGNEE, for its interest as ASSIGNEE, its succes nat the attorneys of record in said application shall hereafter act on AND the undersigned hereby agrees to transfer a like interestion for and obtaining original, divisional, reissued or extended Let NEE, its successors, assigns and legal representatives, and without ions for patent based thereon, growing out of or related to the NEE, its successors, assigns and legal representatives, deemed essention hereby transferred.	and all extensions, divisions, reissues, continuations, or ternational Convention for the Protection of Industrial ssors, assigns and legal representatives; the undersigned behalf of said ASSIGNEE; est, and to render all necessary assistance in making ters Patent of the United States, upon request of the said tourther remuneration, in and to any improvements, and said invention; and to execute any papers by the said
1) Nante:	Jeng Jy Hwang Jeng-Jy Hwang	Date: 20/2. //, 29 Date:
Name:	Soon-Kang HUANG Chi-Ming Yang Chi-Ming YANG	Date:

PATENT REEL: 029868 FRAME: 0414

RECORDED: 02/25/2013