

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT2589948

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>YI-CHENG HUANG</td> <td>10/03/2013</td> </tr> <tr> <td>SHANG-HSUAN LIU</td> <td>10/03/2013</td> </tr> <tr> <td>CHOU-YING YANG</td> <td>10/03/2013</td> </tr> <tr> <td>WEI KEI CHANG</td> <td>10/03/2013</td> </tr> <tr> <td>HSIN-CHANG PENG</td> <td>10/03/2013</td> </tr> </tbody> </table>		Name	Execution Date	YI-CHENG HUANG	10/03/2013	SHANG-HSUAN LIU	10/03/2013	CHOU-YING YANG	10/03/2013	WEI KEI CHANG	10/03/2013	HSIN-CHANG PENG	10/03/2013
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HSIN-CHANG PENG	10/03/2013												
RECEIVING PARTY DATA													
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.												
Street Address:	NO. 8, LI-HSIN RD. 6												
Internal Address:	SCIENCE-BASED INDUSTRIAL PARK												
City:	HSIN-CHU												
State/Country:	TAIWAN												
Postal Code:	300-77 R.O.C.												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>14061446</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	14061446								
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Application Number:	14061446												
CORRESPONDENCE DATA													
Fax Number:													
Phone:	972-732-1001												
Email:	docketing@slater-matsil.com												
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>													
Correspondent Name:	SLATER & MATSIL, L.L.P.												
Address Line 1:	17950 PRESTON RD.												
Address Line 2:	STE. 1000												
Address Line 4:	DALLAS, TEXAS 75252												
ATTORNEY DOCKET NUMBER:	TSM13-0225												

NAME OF SUBMITTER:	DONNA TURNER
Signature:	/Donna Turner/
Date:	10/24/2013
Total Attachments: 2 source=TSM13_0225_Assignment#page1.tif source=TSM13_0225_Assignment#page2.tif	

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made; and

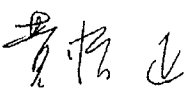
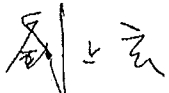

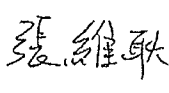
WHEREAS, Taiwan Semiconductor Manufacturing Company, Ltd. (TSMC), ("Assignee"), a corporation organized and existing under the laws of Taiwan, the Republic of China, with its principal office at No. 8, Li-Hsin Rd. 6, Science Based Industrial Park, Hsin-Chu, Taiwan 300-77, R.O.C., is desirous of acquiring my entire right, title and interest in and to said invention, and to said application and any Letters Patent that may issue thereon in the United States and all other countries throughout the world;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to said Assignee, its successors and assigns, my entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all future non-provisional applications including divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to said Assignee, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to Assignee, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

I hereby further agree that I will communicate to said Assignee, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention or the file history thereof, and at the expense of said Assignee, its legal representatives, successors, or assigns, will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said Assignee, its legal representatives, successors, and assigns, to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Electronic Device with PVT Delay Compensation and Related Method			
SIGNATURE OF INVENTOR AND NAME	 Yi-Cheng Huang	 Shang-Hsuan Liu	 Chou-Ying Yang	 Wei Kei Chang
DATE	10/3/2013	10/3/2013	10/3/2013	10/3/2013
RESIDENCE	Hsin-Chu, Taiwan	Zhudong Town, Taiwan	Hsin-Chu, Taiwan	Zhubei City, Taiwan

ATTORNEY DOCKET NO.
TSM13-0225

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made; and

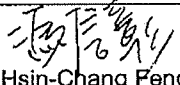
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NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to said Assignee, its successors and assigns, my entire right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all future non-provisional applications including divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner for Patents to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to said Assignee, as assignee of my entire right, title and interest. I declare that I have not executed and will not execute any agreement in conflict herewith.

I also hereby sell and assign to Assignee, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including, but not limited to, the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

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IN WITNESS WHEREOF, I hereunto set my hand and seal this day and year;

TITLE OF INVENTION	Electronic Device with PVT Delay Compensation and Related Method			
SIGNATURE OF INVENTOR AND NAME	 Hsin-Chang Feng			
DATE	10/3/2013			
RESIDENCE	Kaohsiung City, Taiwan			