

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr><td>Fang-Shi Jordan LAI</td><td>09/16/2010</td></tr> <tr><td>Hsu-Feng HSUEH</td><td>09/16/2010</td></tr> <tr><td>Cheng Yen WENG</td><td>09/16/2010</td></tr> <tr><td>Yung-Fu LIN</td><td>09/16/2010</td></tr> <tr><td>Manoj M. MHALA</td><td>09/27/2010</td></tr> <tr><td>Tao Wen CHUNG</td><td>09/16/2010</td></tr> <tr><td>Chin-Hao CHANG</td><td>09/16/2010</td></tr> </tbody> </table>		Name	Execution Date	Fang-Shi Jordan LAI	09/16/2010	Hsu-Feng HSUEH	09/16/2010	Cheng Yen WENG	09/16/2010	Yung-Fu LIN	09/16/2010	Manoj M. MHALA	09/27/2010	Tao Wen CHUNG	09/16/2010	Chin-Hao CHANG	09/16/2010
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CORRESPONDENCE DATA																	
Fax Number: (215)689-4905 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i> Phone: 215-979-1000 Email: jsjulianti@duanemorris.com Correspondent Name: Duane Morris LLP Address Line 1: 30 South 17th Street Address Line 4: Philadelphia, PENNSYLVANIA 19103-4196																	
ATTORNEY DOCKET NUMBER:	N1085-00698																

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PATENT
REEL: 025450 FRAME: 0021

NAME OF SUBMITTER:

Arvind Jairam

Total Attachments: 3

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ASSIGNMENT AND AGREEMENT

For value received, we, **Fang-Shi Jordan Lai, Hsu-Feng Hsueh, Cheng Yen Weng, Yung-Fu Lin, Manoj M. Mhala, Tao Wen Chung and Chin-Hao Chang**, hereby transfer to **Taiwan Semiconductor Manufacturing Co., Ltd.**, with its principal place of business located at No. 8, Li-Hsin Road 6, Science-Based Industrial Park, Hsin-Chu, Taiwan 300-77, Republic of China, and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to **METHOD AND APPARATUS FOR CALIBRATING SIGNMA-DELTA MODULATOR** described in a non-provisional application and under any and all Letters Patent and any divisions, continuations, continuations-in-part, reexamination certificates, reissues, and extensions thereof, or claiming priority therefrom that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Taiwan Semiconductor Manufacturing Co., Ltd. the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Taiwan Semiconductor Manufacturing Co., Ltd. to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Taiwan Semiconductor Manufacturing Co., Ltd. to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

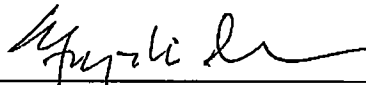
We request that any and all patents for said inventions be issued to Taiwan Semiconductor Manufacturing Co., Ltd. in the United States and in all countries foreign to the United States, or to such nominees as Taiwan Semiconductor Manufacturing Co., Ltd. may designate.

ATTORNEY DOCKET NO.: 2010.0353/1085.698

We agree that, when requested, we shall, without charge to Taiwan Semiconductor Manufacturing Co., Ltd. but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Inventor No. 1

Dated: 9/16/10


Fang-Shi Jordan LAI

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Inventor No. 2

Dated: 09/16/2010

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Hsu-Feng HSUEH

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Dated: 9/16/2010

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ATTORNEY DOCKET NO.: 2010.0353/1085.698

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Dated: 9/16/2010

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Inventor No. 5

Dated: 09/27/2010

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Manoj M. Mhala

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Dated: 9/16/2010

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Tao Wen CHUNG

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Dated: 9/16/2010

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