

**PATENT ASSIGNMENT**

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Liwen Chu	06/03/2010
George A. Vlantis	06/03/2010
Vincenzo Scarpa	05/25/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	STMicroelectronics, Inc.
<b>Street Address:</b>	1310 Electronics Drive
<b>City:</b>	Carrollton
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	75006-5039
<b>Name:</b>	STMicroelectronics Srl
<b>Street Address:</b>	Via C. Olivetti, 2
<b>City:</b>	Agrate Brianza (MI)
<b>State/Country:</b>	ITALY
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	12830544
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(719)448-5922
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
<b>Email:</b>	Patent.Colorado@hoganlovells.com
<b>Correspondent Name:</b>	William J. Kubida
<b>Address Line 1:</b>	Hogan Lovells US LLP, One Tabor Center
<b>Address Line 2:</b>	1200 17th Street, Suite 1500
<b>Address Line 4:</b>	Denver, COLORADO 80202
<b>ATTORNEY DOCKET NUMBER:</b>	09-S-193

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**PATENT**  
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NAME OF SUBMITTER:

Michael C. Martensen

Total Attachments: 3

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**ASSIGNMENT**

WHEREAS, we, Liwen Chu, having a residence address of 5639 Lysander Way, San Ramon, CA 94582, George A. Vlantis, having a residence address of 1117 Kelsey Drive, Sunnyvale, CA 94087, and Vincenzo Scarpa, having a residence address of via san Cesario 42C, 73100 Lecce, Italy have made a certain new and useful invention relating to a Contention based Period BeamForming, for which we are making or we have made application for Letters Patent of the United States, said application being identified by Docket No. 09-S-193 and Client/Matter No. 80408.0240, in the law firm of HOGAN LOVELLS US LLP, One Tabor Center, 1200 17th Street, Suite 1500, Denver, Colorado 80202, and which was executed on June 3, 2010 and assigned serial no. 12/830,544;

WHEREAS, we now own the entire right, title and interest therein; and  
WHEREAS, STMicroelectronics, Inc., a Delaware corporation, whose post office address is 1310 Electronics Drive, Carrollton, TX 75006 and STMicroelectronics Srl, Via C. Olivetti, 2, Agrate Brianza (MI) ITALY, (collectively herein "ASSIGNEES") are desirous of acquiring the entire interest in and to said invention, said application, and the Letters Patent to be obtained therefor.

NOW THEREFORE, upon consideration of our employment and other good and valuable consideration, the adequacy of which is hereby acknowledged, we do hereby sell and assign unto ASSIGNEE, and ASSIGNEE's legal representatives, successors, and assigns, the entire right, title, and interest in and to said invention, said application, and the Letters Patent, both of the United States and of other countries, that may or shall issue thereon; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent to ASSIGNEE, consistent with the terms of this Assignment.

UPON SAID CONSIDERATION, we do hereby covenant and agree with ASSIGNEE that we will not execute any writing or do any act whatsoever conflicting with this assignment, and that we

will, at any time upon request, without further or additional consideration, but at the expense of ASSIGNEE, execute such additional assignments and other writings and do such additional acts as ASSIGNEE may deem necessary or desirable to perfect the ASSIGNEE's enjoyment of this grant, and render all necessary assistance in applying for and obtaining original, continuation, continuation-in-part, divisional, reexamined, renewal, reissued or extended Letters Patent of the United States, or of other countries, or inventor's certificates, on said invention, and in enforcing any rights or causes in action accruing as a result of such applications, certificates, or patents, by giving testimony in any proceedings or transactions involving such applications, certificates, or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties.

The undersigned inventors hereby grant the patent practitioners associated with Customer No. 30429 the power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, we have hereunto set our hands and affixed our seals on the date hereinafter set forth.

Date: 06/03/2010

Liwen Chu  
Liwen Chu

Date: 06/03/2010

George A. Vlastis  
George A. Vlastis

Date: 05/25/2010

Vincenzo Scarpa  
Vincenzo Scarpa