

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Muralidhar KARTHIK	10/19/2011
George A. VLANTIS	10/20/2011
RECEIVING PARTY DATA	
Name:	STMicroelectronics, Inc.
Street Address:	Mail Station 2346, 750 Canyon Drive, Suite 300
City:	Coppell
State/Country:	TEXAS
Postal Code:	75019
Name:	STMicroelectronics Asia Pacific PTE, Ltd.
Street Address:	5A Serangoon North Avenue 5
City:	Singapore
State/Country:	SINGAPORE
Postal Code:	554574
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13284898
CORRESPONDENCE DATA	
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OP \$40.00 13284898

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PATENT
REEL: 027148 FRAME: 0832

ATTORNEY DOCKET NUMBER:	2633-003-12
NAME OF SUBMITTER:	Bryan A. Santarelli
Total Attachments: 5 source=2633-003-12_Assignment_as_filed_20111029#page1.tif source=2633-003-12_Assignment_as_filed_20111029#page2.tif source=2633-003-12_Assignment_as_filed_20111029#page3.tif source=2633-003-12_Assignment_as_filed_20111029#page4.tif source=2633-003-12_Assignment_as_filed_20111029#page5.tif	

ASSIGNMENT

WHEREAS we, Muralidhar KARTHIK ("ASSIGNOR 1") and George A. VLANTIS ("ASSIGNOR 2") (collectively hereinafter "ASSIGNORS"), having mailing addresses of 546 #05-218 Seerangoon North Avenue 3, Singapore, Singapore; and 1117 Kelsey Drive, Sunnyvale, California 94087, respectively, are the joint inventors of the invention(s) disclosed in an application for United States letters patent entitled, "PILOT PATTERN FOR MIMO-OFDM", filed _____, and allotted United States Patent Application No. _____ (an attorney for either of the assignees may enter this information after this Assignment is executed); and

WHEREAS, STMicroelectronics, Inc. ("ASSIGNEE 1") and STMicroelectronics Asia Pacific PTE, Ltd. ("ASSIGNEE 2") (collectively hereinafter "ASSIGNEES"), juristic entities of the State of Delaware and the Country of Singapore, respectively, having principle places of business at Mail Station 2346, 750 Canyon Drive, Suite 300, Coppell, Texas 75019; and 5A Serangoon North Avenue 5, Singapore, Singapore 554574, respectively, are desirous of acquiring the entire right, title, and interest in and to the invention(s), application(s), and/or any letters patent(s) that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR 1 hereby sells, assigns, and transfers unto said ASSIGNEE 1 the entire right, title, and interest in and to said invention(s), said application(s), including any and all nonprovisional application(s) for letters patent claiming priority thereto, and any and all letters patent(s) which may be granted therefor in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisional, reissue, continuation, continuation-in-part, and substitute application(s) thereof, including the right to file any foreign application(s) directly in the name of ASSIGNEE 1 and to claim priority rights deriving from said United States application(s) to which said foreign application(s) are entitled by virtue of international convention, treaty, or otherwise, said invention(s), application(s) and any and all letters patent(s) granted therefor to be held and enjoyed

by ASSIGNEE 1, its successors, and assigns as fully and entirely as same would have been held and enjoyed by ASSIGNOR 1 had this assignment, transfer, and sale not been made;

ASSIGNOR 1 hereby authorizes and request the Director of the United States Patent and Trademark Office to issue any and all letters patent(s) on said invention(s) to ASSIGNEE 1;

ASSIGNOR 1 hereby covenants that no assignment, sale, agreement, or encumbrance has been or will be made which would conflict with this assignment;

ASSIGNOR 1 further transfers and assigns to ASSIGNEE 1 all causes of action, rights, and remedies arising under any such application(s) for United States and/or foreign letters patent(s) on said invention(s) prior to or after the effective date of this Assignment; and

ASSIGNOR 1 agrees to execute all instruments and documents required for the making and prosecution of applications for any and all application(s) for United States and/or foreign letters patent(s) on said invention(s), for litigation regarding any and all application(s) and/or letters patent(s), and/or for the purpose of protecting title to said invention(s), application(s), and/or letters patent(s) therefor;

FURTHERMORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR 2 hereby sells, assigns, and transfers unto said ASSIGNEE 2 the entire right, title, and interest in and to said invention(s), said application(s), including any and all nonprovisional application(s) for letters patent claiming priority thereto, and any and all letters patent(s) which may be granted therefor in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisional, reissue, continuation, continuation-in-part, and substitute application(s) thereof, including the right to file any foreign application(s) directly in the name of ASSIGNEE 2 and to claim priority rights

deriving from said United States application(s) to which said foreign application(s) are entitled by virtue of international convention, treaty, or otherwise, said invention(s), application(s) and any and all letters patent(s) granted therefor to be held and enjoyed by ASSIGNEE 2, its successors, and assigns as fully and entirely as same would have been held and enjoyed by ASSIGNOR had this assignment, transfer, and sale not been made;

ASSIGNOR 2 hereby authorizes and request the Director of the United States Patent and Trademark Office to issue any and all letters patent(s) on said invention(s) to ASSIGNEE 2;

ASSIGNOR 2 hereby covenants that no assignment, sale, agreement, or encumbrance has been or will be made which would conflict with this assignment;

ASSIGNOR 2 further transfers and assigns to ASSIGNEE 2 all causes of action, rights, and remedies arising under any such application(s) for United States and/or foreign letters patent(s) on said invention(s) prior to or after the effective date of this Assignment; and

ASSIGNOR 2 agrees to execute all instruments and documents required for the making and prosecution of applications for any and all application(s) for United States and/or foreign letters patent(s) on said invention(s), for litigation regarding any and all application(s) and/or letters patent(s), and/or for the purpose of protecting title to said invention(s), application(s), and/or letters patent(s) therefor.



Muralidhar KARTHIK

19th Oct 2011

DATE

I hereby declare that I was personally present and did see ASSIGNOR, who is personally known to me to be the person named above, duly sign and execute this Assignment document on this _____ day of _____, 2011, of his/her own free will for the purpose expressed therein at the following location:

WITNESS

Name: Kaushubh Patwardhan

Signature: Kaushubh

George A. VLANTIS

DATE

I hereby declare that I was personally present and did see ASSIGNOR, who is personally known to me to be the person named above, duly sign and execute this Assignment document on this _____ day of _____, 2011, of his/her own free will for the purpose expressed therein at the following location:

WITNESS

Name: _____

Signature: _____

Muralidhar KARTHIK

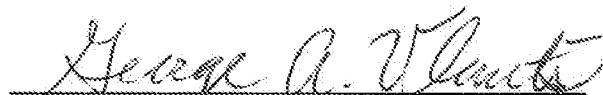
DATE

I hereby declare that I was personally present and did see ASSIGNOR, who is personally known to me to be the person named above, duly sign and execute this Assignment document on this _____ day of _____, 2011, of his/her own free will for the purpose expressed therein at the following location:

WITNESS

Name: _____

Signature: _____


George A. VLANTIS

10/20/2011
DATE

I hereby declare that I was personally present and did see ASSIGNOR, who is personally known to me to be the person named above, duly sign and execute this Assignment document on this 20 day of October, 2011, of his/her own free will for the purpose expressed therein at the following location:
2525 Augustine Drive, Santa Clara, CA.

WITNESS

Name: NICOLE ASSAPIAN

Signature: 