PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Stephen J. Sarkozy	06/30/2011
Xiaobing Mei	06/30/2011
William R. Deal	06/30/2011

RECEIVING PARTY DATA

Name:	Northrop Grumman Systems Corporation
Street Address:	1840 Century Park East
City:	Los Angeles
State/Country:	CALIFORNIA
Postal Code:	90067

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13177348

CORRESPONDENCE DATA

Fax Number: (248)858-4201

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

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ATTORNEY DOCKET NUMBER: NGC-00133 (004677-804)

NAME OF SUBMITTER: John A. Miller

Total Attachments: 3

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PATENT REEL: 026690 FRAME: 0065

ASSIGNMENT

WHEREAS, We, Stephen J. Sarkozy, Xiaobing Mei and William R. Deal, hereinafter referred to as Assignors, have invented certain new and useful improvements in HALF-THROUGH VIAS FOR SUPRRESSION OF SUBSTRATE MODES, described in an application for United States Letters Patent, executed by me on the date as stated below;

WHEREAS, Northrop Grumman Systems Corporation, a Delaware corporation, having its principal place of business at

1840 Century Park East Los Angeles, CA 90067 United States of America,

hereinafter referred to as Assignee, is desirous of acquiring the entire right, title and interest in, to and under said improvements and said application:

NOW, THEREFORE, in consideration of Assignors' obligations to Northrop Grumman Systems Corporation, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignors have sold, assigned transferred and set over, and by these presents does hereby sell, assign, transfer and set over, unto Assignee, its successors, legal representatives and assigns. Assignors' entire right, title and interest in, to and under said improvements, and said application and all divisions, renewals, continuations, and continuations-in-part thereof, and all United States Letters patent that may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent that may hereafter be filed for said improvements in any country or countries foreign to the United States, including the full right to claim for any such application the priority benefits of the International Convention for the Protection of Industrial Property and other priority-conferring treaties, and all Letters Patent that may be granted for said improvements in any country or countries foreign to the United States and all extensions, divisions, continuations, continuations-in-part, renewals and reissues thereof; and Assignors hereby authorize and request the Commissioner of Patents and Trademarks of the United States, and any official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said Assignee, its successors, legal representatives and assigns, in accordance with the terms of this instrument:

Assignors hereby acknowledge that at the time of making the improvements herein identified, Assignor was under an obligation to assign to Assignee, Assignor's entire right, title and interest in, to and under said improvements;

Assignors hereby covenant that Assignor has full right to convey the interest herein assigned, and that Assignors have not executed, and will not execute, any agreement in conflict herewith and that Assignee, Northrop Grumman Systems Corporation, its successors, assigns and other legal representatives shall have the right to hold and enjoy for its and their own use and benefit, to the end of the term or terms for which such Letters Patent shall or may be granted, reissued or extended as fully and completely as the same right could have been held and enjoyed by Assignors had this Assignment not been made.

Assignors hereby further covenant and agree to communicate to Assignee, its successors, legal representatives and assigns, any and all facts known to Assignor respecting said improvements; to promptly provide Assignee with all documents relating to said improvements, said invention, and said Letters Patent as may be known or accessible to Assignors; to testify as to the same in any interference or litigation or other legal proceedings related thereto; to sign all lawful papers, execute all extensions, continuations, continuations-in-part, divisional and reissue applications; and to make all rightful oaths or declarations and generally do everything possible to aid Assignee, its successors, legal representatives and assigns in obtaining and enforcing all the rights herein conveyed for said improvements in all countries without further compensation, but at the expense of Assignee, its successors, legal representatives and assigns.

30th day of June 2011, and has	has executed and delivered this instrument this executed the referenced patent application on the
30+4 day of June , 20 11.	has executed and delivered this instrument this executed the referenced patent application on the
	Stephen J. Sarkozy, Assignor
	Stephen J. Sarkozy, Assignor
STATE OF CALIFORNIA)	
COUNTY OF LOS Angeles) ss	~
On June 30, 2011 perore, me, Lorral personally appeared Stephen 5. Sar	Schott, Notory Public,
personally appeared to me on the basis of satisfactory evidence to be the	porcenter whose name(ex) is/are subscribed to this
instrument and acknowledged to me that he/she/the	ey executed the same in his/h er/th eir authorized
capacity(ies), and that by his/her/their signature(s) on upon behalf of which the person(s) acted, executed the	in the instrument to be the person(s), or the entity instrument.
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I certify under PENALTY OF PERJURY under the I paragraph is true and correct.	aws of the State of Camornia that the loregoing
WITNESS my hand and official seal.	LORNA L. SCHOTT
	Notary Public - California
Violina of Jerror	Los Angeles County NA-Corren Benes Nov 3 2011
Notary's Signature	(SEAL)
IN WITNESS WHEREOF, the undersigned has execu	uted and delivered this instrument this 30th
day of <u>June</u> , 20 11, and has executed day of <u>June</u> , 20 11.	the referenced patent application on the 30th
the witness whereof, the undersigned has executed day of <u>June</u> , 20 11, and has executed day of <u>June</u> , 20 11.	the referenced patent application on the 30th
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IN WITNESS WHEREOF, the undersigned has executed and delivered this instrument this 30 fM day of 50 mm, 20 11, and has executed the referenced patent application on the 30 fM day of 50 mm, 20 11. William R. Deal, Assignor
STATE OF CALIFORNIA)
On June 30,2011 before me, Lorra L. Schott, Netary Public personally appeared William R. Deal proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to this instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument to be the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal. Los Angeles County Mr Comm. Butter Nov 2, 2011
Notary's Signature