DCT 1 5 2004 TRADEN 10-20-2	Atty. Docket No.: 1215-0504P(000545-078) Page 1 of 1
(TRADEN 10-20-2	2004
To the Honorable Commissic	d original documents or copy thereof.
1. Name of conveying party(ies): 102862	95_1 Jress of receiving party(ies)
[FAMILY NAME (ALL CAPS), Given Name]	Name: NORTHROP GRUMMAN
JACOBSON, Rena Y. GUPTA, Tapan K.	CORPORATION
CHEUNG, Peter	Internal Address:
VASILOW, Theodore R.	Street Address: 1840 Century Park East
SMYTHE, Wayne A. WILKIE, James L.	City: Los Angeles State: CA ZIP: 90067
Additional name(s) of conveying party(ies) attached?	Country: USA Postal Code:
	Additional name(s) & address(es) attached? 🗍 YES 🖾 NO
3. Nature of conveyance:	
Assignment I Merger	$\gamma_0 \wedge \gamma_1$
Security Agreement Change of Name	
Other:	
Execution Date: August 19, 2004, August 12, 2004, August 9, 2004, August 9, 2004, August 9, 2004, and	
August 6, 2004, respectively	
4. Application number(s) or patent number(s): 10/896,	
If this document is being filed together with a new applic August 12, 2004, August 9, 2004, August 9, 2004, August 9	ation, the execution date of the application is: August 19, 2004, , 2004, and August 6, 2004, respectively
A. Patent Application No(s).	B. Patent No.(s).
10/896,174	
Additional numbers atta	ched? 🗌 YES 🖾 NO
5. Name and address of party to whom correspondence	6. Total No. of applications/patents involved:
concerning document should be mailed: Name: BIRCH, STEWART, KOLASCH & BIRCH, LLF	7. one (1)
Street Address: P.O. BOX 747	7. Total fee (37 C.F.R. § 3.41): \$40.00
City: FALLS CHURCH State: VA ZIP: 22040-0747 Country: USA	🖂 Enclosed
Attention: William L. Gates, Esq.	Authorized to be charged to deposit account, if no fee attached.
	8. Deposit account number: 02-2448
	(Attach duplicate copy of this page if paying by deposit account)
	E THIS SPACE
9. Statement and signature.	formation is true and correct and any attached copy is a
true copy of the original document.	
	William & Gates October 15, 2004
William L. Gates, #20,848	IVilliam & DateOctober 15, 2004SignatureDate
	heet, attachments, and document: three (3)
OPER 00000175 10896174	

PATENT REEL: 015889 FRAME: 0275

ASSIGNMENT JOINT

~(D)|PY

In accordance with existing Employee Intellectual Property Agreement(s) and/or other undertaking(s) entered into for good and valuable consideration, receipt of which is hereby acknowledged, we, Rena Y. JACOBSON of Ellicott City, MD 21043, Tapan K. GUPTA of Ellicott City, MD 21043, Peter Cheung of Elkridge, MD 21075, Theodore R. VASILOW of New Freedom, PA 17349, Wayne A. SMYTHE of Pasadena, MD 21122, and James L. WILKIE of Baltimore, MD 21229, hereby sell and assign to **NORTHROP GRUMMAN CORPORATION**, a Corporation organized and existing under the laws of Delaware, U.S.A., having its principal place of business at 1840 Century Park East, Los Angeles, California 90067-2199, U.S.A., its successors, assigns, nominees, or other legal representatives the 2199, U.S.A., its successors, assigns, nominees, or other legal representatives, the entire right, title and interest in and to the invention in **APPARATUS AND METHOD FOR SIDE PRINTING ON LOW TEMPERATURE CO-FIRED CERAMIC (LTCC) SUBSTRATES**, invented by us and the application for United States patent therefor, executed on the same day as the assignment is executed and all original and reissued patents granted therefor, and all divisions and continuations thereof, including the subjects-matter of any and all claims which may be obtained in every such patent, and the right to apply for and obtain patents and Utility Model Registrations in countries foreign to the United States, and in and to any Letters Patent or Utility Model Registration which may be granted thereon in such foreign countries, and 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 the said Letters Patent or Utility Model Registration to the said NORTHROP GRUMMAN **CORPORATION** its successors, assigns, nominees or other legal representatives, as assignee of the entire interest, and covenant that we have full right to convey the entire interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith, and agree that we will communicate to said Corporation, its successors, assigns, nominees or other legal representatives, all facts known to us respecting said invention, whenever requested, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and do all lawful acts requisite for the application for such divisional, continuing or reissue applications, or the procuring thereof, and that if and when said Continuing or reissue applications, or the procuring thereof, and that if and when said NORTHROP GRUMMAN CORPORATION its successors, assigns, nominees or other legal representatives desire to file a disclaimer relating thereto, we will, upon request, sign all lawful papers requisite for the filing of such disclaimer, and we further covenant and agree that we will, at any time upon request, do everything legally possible to aid said Corporation, its successors, assigns, nominees or other legal representatives, either in its or their own name, to apply for, obtain and enforce proper patent and/or Utility Model protection for said invention in all countries, all without further consideration but at the expense of said NORTHROP GRUMMAN CORPORATION its successors, assigns, nominees or other legal representatives.

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this $\frac{19}{19}$ day of August, 2004.

King 4. Jacobson

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 12 # day of August, 2004.

Tapan K. Jupla

Page 2 of 2 1215-0504P (000545 - 078)

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 2 day of August, 2004. Peter CHEUNG

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this $\underline{-9}$ day

Theodor R. Vasilon

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this $\underline{9}$ day

of AUS____, 2004.

of <u>August</u>, 2004.

Wayn a Spot

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this 6 day

of August, 2004.

James L. WILKIE

RECORDED: 10/15/2004