Electronic Version v1.1

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SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PART	Y DATA	,			
		Name	Execution Date		
Brian S. Beaman			05/04/1993		
Keith E. Fogel			05/03/1993		
Paul A. Lauro			05/03/1993		
Maurice H. Norcott			05/03/1993		
Da-Yuan Shih			04/30/1993		
George F. Walker			04/30/1993		
RECEIVING PARTY	′ DATA				
Name:	International E	Susiness Machines Corporation			
Street Address:	New Orchard	Road			
City:	Armonk				
State/Country: NEW YORK					
Postal Code: 10504					
		Numbe]		
Property Type			<u>}</u>		
Application Numbe	r:	09382834			
CORRESPONDENC	E DATA				
Fax Number:(914)945-3281Correspondence will be set via US Mail when the fax attempt is unsuccessful.Phone:914-945-3243Email:angelmal@us.ibm.comCorrespondent Name:IBM CorporationAddress Line 1:P.O. Box 218Address Line 4:Yorktown Heights, NEW YORK 10598					
ATTORNEY DOCKE	T NUMBER:	YOR919930028US5			
NAME OF SUBMITT	ER:	Daniel P. Morris			
		IL	PATENT		

PATENT REEL: 021920 FRAME: 0486

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RECORDATION FORM COVER SHEET PATENTS ONLY			
To the Director of the U.S. Patent and Trademark Office: Please	se record the attached documents or the new address(es) below.		
 1. Name of conveying party(ies) Brian S. Beaman: May 4,1993; Keith E. Fogel: May 3, 1993; Paul A. Lauro: May 3, 1993; Maurice H. Norcott: May 3, 1993; Da-Yuan Shih: April 30, 1993 and George F. Walker: April 30, 1993 Additional name(s) of conveying party(ies) attached? Yes X No 3. Nature of conveyance/Execution Date(s): Execution Date(s) see above 	2. Name and address of receiving party(ies) Name: IBM Corporation Internal Address: Street Address: New Orchard Road		
 Assignment	City: <u>Armonk</u> State: <u>NY</u> Country: <u>U.S.A.</u> Zip: <u>10504</u> Additional name(s) & address(es) attached? Yes X No document is being filed together with a new application. B. Patent No.(s)		
09/382,834 Additional numbers at 5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents		
Name: IBM Corporation, IP Law Dept. Internal Address: Daniel P. Morris Street Address: P.O. Box 218	involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$40.00 X Authorized to be charged to deposit account Enclosed None required (government interest not affecting title)		
City: <u>Yorktown Heights</u> State: <u>NY</u> Zip: <u>10598</u> Phone Number: <u>914-945-3217</u> Fax Number: <u>914-945-3281</u> Email Address: <u>angelmal@us.ibm.com</u>	8. Payment Information Deposit Account Number		
9. Signature: /Daniel P Morris Signature Daniel P. Morris Name of Person Signing	12-03-2008 Date Total number of pages including cover sheet, attachments, and documents: 3 at) should be faxed to (571) 273-0140, or mailed to:		
· · ·	of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450 PATENT		

(JOINT FORM) (MORE THAN TWO)

with a

(IBM Docket Y0993-028)

Page 1 of 2

Assignment

· Inventor	Whereas, we		
and City	(1) Brian S. Beaman County of Dutchess	of Hyde Park and State of New York	
•	and (2) Keith E. Fogel County of Rockland	of Bardonia and State of New York	
•	and (3) Paul A. Lauro County of Rockland	of Nanuet and State of New York	
	and (4) Maurice H. Norcott County of Rockland	of Valley Cottage and State of New York	
	and (5) Da-Yuan Shih County of Dutchess	of Poughkeepsie and State of New York	
	and (6) George F. Walker County of New York	of New York and State of New York	
	have invented certain improvements in		

TITLE HIGH DENSITY INTEGRATED CIRCUIT APPARATUS, TEST PROBE AND METHODS OF USE THEREOF

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM) desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns, and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

CITY DATE	(1)	signed and sealed at foregeneers on Mary H		(Brian FIRST NAME	S. MIDDLE INITIAL	Beamari LAST NAME	SIGNATURE) INVENTOR
CITY DATE	and	signed and sealed (2) at Town of OAA on May 3,		(Keith FIRST NAME	E. MIDDLE INITIAL	Fogel LAST NAME	SIGNATURE) INVENTOR
CITY DATE	and	signed and sealed (3) at Trun of Opli ^{on} May 3,	niry 1993,	(Daul FIRST NAME	A. MIDDLE INITIAL	Lauro LAST NAME	SIGNATURE INVENTOR
				1			
CITY DATE	and	signed and sealed (4) at Torun of 04 on May 3		Maurice FIRST NAME	H. MIDDLE INITIAL	Norcott LAST NAME	SIGNATURE INVENTOR
		(4) at Town of 01	1993, ning			Norcott LAST NAME	

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#115 (...) (DOCKET NO. <u>Y0993-028</u> Rage 2 of 2

state of new york)ss.: county of Dutchess)

. . . .

INVENTOR (1)

On this 4 KL day of Wayn 1993, before me personally came Brian S. Beaman to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed. 4 Kh

Letty J- H Notary

BETTY J. GERSCH BETTY J. GERSCH Notary Public, State of New York No. 4997781 Qualified in Ulster County Commission Expires Gune (5) 1894

Parliace

to me personally known, and known to me to be the

a a series and a series of the series of

state of New York)55.: county of Westchester)

On this 3⁴d day of May 1993, before me personally came Keith E. Fogel to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.

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BARBARA PITELLO-RASA Notary Public, State of Naw York No 4973785 In Westchester & Dutchess Countless // Commission Expires October 29, 19...//

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FRAMEO 3

state of New York)ss.: County of Weilcherter) On this 3^{cd} day of Muy 1993, before me personally came Paul A. Lauro to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.

INVENTOR (3)

INVENTOR (2)

State OF New York)ss.: County of Westchedus)

INVENTOR $\langle 4 \rangle$

No 4973765 In Westchester & Duichess Counties// Commission Expires October 29, 19_7 Maurice H. Norcott to me personally known, and known to me to be the person described in and who executed the foregoing assignment, and he acknowledged to me that he executed the same as his free act and deed.

day of Apul

BARBARN PHRELLO-RASA

Notary Public, State of New York No. 4973765 In Westchester & Dutchess Countiesy/ Commission Expires October 29, 19.22 1993, before me personally came

BARBARA PITRELLO-RASA Notary Public, State of New York No. 4973785

state of New York)ss.: county of Westchister) 30 Hr

INVENTOR (5)

On this

Da-Yuan Shih

	Constant Maria
State of New York)ss.: County of Weilchuld.)	DANIEU P. MODRIS Notary
State of (UW) YDA	MODARY, RUBLIC, MARY NEW YORK
County of III ([1] []	No. 4888 3
	19 jainled in Wostchister County Commission Explos Murch 14, 1975
	Commission Explice Murch 14, 1975
On this 30 day of ADM	1993, before me personally came
	TOTOLE WE DELBOHALLY CAME
COLGO LI HATVET CO MG	personally known, and known to me to be the
person described in and who executed t	he foregoing assignment, and he acknowledges
to me that he executed the same as his	free act and deed.
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person described in and who executed the foregoing aselfinment, and he acknowledged to me that he executed the same as his free act and deed.

INVENTOR (6)

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PATENT ANS TRADEMARK OFFICE

K DANIEL P. Manage Notary PUBLIC, A Notary Jord No. 4888 Realflood in Weston star County Commission Expires March 16, 19

PATENT REEL: 021920 FRAME: 0489

RECORDED: 12/03/2008