FORM PTO-1595	11-01-2	2002	U.S. DEPARTMENT OF COMMERCE
1-31-92			Patent and Trademark Office
	102267	7995	Attorney Docket No. 10014330-1
Lung T. Tran	3 AM 11: 03 E SECTION)-28-02	HEWLETT-PA Intellectual P P.O. Box 272	dress of receiving party(ies): ACKARD COMPANY Troperty Administration 2400 Colorado 80527-2400
Additional name(s) of conveying party(ies) atta	ched Yes X No	Additional name(s) 8	& address(es) attached?YesX No
3. Nature of Conveyance:			
X Assignment	Merger		Change of Name
Security Agreement	Other		
Execution Date(s): August 26, 2002	August 22, 2002		
4. Application number(s) or patent nu	mber(s):		
If this document is being filed together	er with a new appli	ication, execution	date of the application is:
A. Patent Application No.(s)			B. Patent No.(s)
Application No.: 10/021,223	Date Filed: 10)-30-01	
Confirmation No.: 1130	Additional numb	ers attached? NO	
5. Name and address of party to whom corresponden		6. Total number of	of applications and patents involved:1
concerning document should be mailed: Records Manager Intellectual Property Administration		7. Total Fee (37 CFR 3.41): \$40.00	
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P.O. Box 272400		-	rization to be charged to deposit account.
Fort Collins, Colorado 80527-	2400		
			unt Number: <u>08-2025</u>
	DO NOT USE	E THIS SPACE	
9. Statement and signature. To the best of my knowledge and be true copy of the original document.	lief, the foregoing i	information is true	e and correct and any attached copy is a
Ramona J. Zaya	1/1/200	- ps/	Oct 18, 2002
Name of Person Signing Total nu	Signature umber of pages inclu	ding cover sheet, at	Date tachments, and document: 3
OMB No. 0651-0011 (exp. 4/94)			
Mail document to be recorded with re 0/31/2002 LMUEL/ER 00000266 082025 10021 1 FC:8021 40.00 CH	equired cover sheet 223 Commission Box A	t information to: oner for Patents Assignment on, D.C. 20231	
			PATENT

REEL: 013433 FRAME: 0459

PATENT APPLICATION

ATTORNEY DOCKET NO. 10014330-1

HEWLETT-PACKARD COMPANY Intellectual Property Administration P. O. Box 272400 Fort Collins, Colorado 80527-2400

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD COMPANY, a Delaware corporation having its principal place of business in Palo Alto, California, (hereinafter HP), in furtherance of my/our obligations to HP, and do hereby assign and transfer to HP, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Letters Patent of the United States entitled:

READ OPERATIONS ON MULTI-BIT MEMORY	CELLS IN RESISTIVE CROSS POINT ARRAYS
Filing date: October 30, 2001	Application No.: <u>10/021223</u>
Letters Patent, and any and all Letters Paten	set forth therein, and any and all continuations, renewals of and substitutes for said application for said to of the United States and of countries foreign thereto any reissues, or reexaminations, or extensions of said
of the term or terms for which said Letters Pa	ations in my/our name for Letters Patent in any country, assigns, nominees or legal representatives, to the full end tent respectively may be granted, reissued or extended, een held and enjoyed by me/us had this assignment, and
further covenant and agree that I/we will, ear execute and deliver all such papers as may invention(s) or improvement(s), said application nominees or legal representatives, and I/we agreets respecting said invention(s) or improvement any legal proceedings, to sign all lawfur continuations, C-I-P's, reissue and foreign applications, to do everything possible to aid epresentatives to obtain and enforce, for its	e full right to convey the entire interest herein assigned, execute any agreement in conflict herewith, and I/we set time a request is made, and without undue delay, be necessary or desirable to perfect the title to said and said Letters Patent, to HP, its successors, assigns, ree to communicate to HP, or to its nominee, all known ent(s), said application and said Letters Patent, to testify I papers, to execute all disclaimers and divisionals, cations, to make all rightful oaths and declarations, and HP, its successors, assigns, nominees and legal or their own benefit, proper patent protection for said untries provided the expenses which may be incurred by see are paid by HP;
States and any official of any country or countri patents on applications as aforesaid, to issue t any and all Letters Patent for said invention(s) o	Commissioner of Patents and Trademarks of the United ies foreign to the United States whose duty it is to issue o HP, as assignee of the entire right, title and interest, or improvement(s), including any and all Letters Patent of canted on or as a result of the application aforesaid, in
I/we further authorize and direct HP attor application now identified by the attorney docker shall have been made known to them by the Un	neys to insert the serial number and filing date of said et number and title set forth above as soon as the same ited States Patent and Trademark Office.
IN WITNESS WHEREOF, I/we hereunto set	my/our hand(s) and seal(s):
IN WITNESS WHEREOF, I/we hereunto set in the set of the	Date Assignment Signed: 26 August 2002
nventor's Signature (Seal)	
nventor's Typed Name: <u>Manish Sharma</u>	Date Application Signed: 26 August 2002
tate of) ss.:	
ounty of	
Before me thisday of, pe s personally known or proved to me on the basis of satis strument of assignment to be his/her free act and deed.	rsonally appeared <u>Manish Sharma</u> who sfactory evidence to be the person who acknowledged the foregoing
	Notary Public My commission expires:

PATENT APPLICATION ATTORNEY DOCKET NO. 10014330-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

IN WITNESS WHEREOF, I we hereunto set my/our hand(s) and seal(s): Date Assignment Signed: 08/22/02

Date Application Signed: 08/22/02 Inventor's Typed Name: Lung T. Tran State of) ss.: County of _, personally appeared ___Lung T. Tran Before me this ____ day of ____ is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed. Notary Public My commission expires: Date Assignment Signed: Inventor's Signature (Seal) Date Application Signed: Inventor's Typed Name: State of) ss.: County of _, personally appeared _ Before me this ____ day of __ is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed. Notary Public My commission expires: Date Assignment Signed:_____ Inventor's Signature (Seal) Date Application Signed:_____ inventor's Typed Name:________ State of) ss.: County of _, personally appeared __ is personally known or proved to me on the basis of satisfactory evidence to be the person who acknowledged the foregoing instrument of assignment to be his/her free act and deed. Notary Public My commission expires:

Page 2 of 2

(Use Page Three For Additional Inventor(s) Signature(s))

PATENT REEL: 013433 FRAME: 0461

DECODDED: 40/40/000/

Rev 10/01 (Assign)

RECORDED: 10/18/2002