	A.W			
FORM PTO-1,595 1-31-92	05-20-2002	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office		
		Attorney Docket No. 10019410-1		
1. Name of conveying party	, _{(les):} 102095158	∠. ıvame and address of receiving party(ies):		
Alexander Govyadinov		HEWLETT-PACKARD COMPANY		
Michael J. Regan		Intellectual Property Administration P.O. Box 272400 Fort Collins, Colorado 80527-2400		
	5.13.02			
Additional name(s) of conveying p	arty(ies) attached Yes X No	Additional name(s) & address(es) attached?YesX No		
3. Nature of Conveyance:		Change of Narage		
X Assignment	Merger			
Security Agreer	ment Other	ALCE OF		
Execution Date(s): April 15	, 2002 and April 19, 2002, re	espectively		
4. Application number(s) or	patent number(s):	ication, execution date of the application is:		
If this document is being fi	led together with a new appli	ication, execution date of the application is: 7		
A. Patent Application No.(s	5)	B. Patent No.(s)		
Application No.: 10/066,15	8 Date Filed: Ja	n 31 2002		
Confirmation No.: 3575	Additional number	ers attached? NO		
5. Name and address of pa concerning document sh	rty to whom correspondence ould be mailed:	6. Total number of applications and patents involved:1		
Records Manager		7. Total Fee (37 CFR 3.41): \$40.00		
HEWLETT-PACKARI 1000 NE Circle Blvd		Enclosed		
Corvallis OR 97330		X Authorization to be charged to deposit account.		
	1	8. Deposit Account Number: _08-2025		
	DO NOT USE	E THIS SPACE		
9. Statement and signature).			
	dge and belief, the foregoing	information is true and correct and any attached copy is a		
Teresa K. Tuma		K. Juma May 03, 2002		
Name of Person Signing	Signature Total number of pages include	ding cover sheet, attachments, and document: 5		
OMB No. 0651-0011 (exp. 4				
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Mail document to be recor	ded with required cover sheet	t information to:		

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Box Assignment
Washington, D.C. 20231

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PATENT REEL: 012894 FRAME: 0210 HEWLETT-PACKARD COMPANY Intellectual Property Administration P. O. Box 272400 Fort Collins, Colorado 80527-2400

PATENT APPLICATION

ATTORNEY DOCKET NO. 10019410 -1

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:

Emitter And M	ethod Of Making			
Filing date:	Jan 31 2002	A	Application No.:	10/066158
continuations- Letters Patent	in-part (C-I-P's), divis r, and any and all Le granted thereon or tl	ionals, and renewa tters Patent of the	als of and substitu e United States a	d any and all continuations, utes for said application for said and of countries foreign thereto aminations, or extensions of said
to be held and of the term or	enjoyed by HP, its so terms for which said ntirely as the same w	uccessors, assigns d Letters Patent re	, nominees or lega spectively may be	or Letters Patent in any country al representatives, to the full end e granted, reissued or extended me/us had this assignment, and
and that I/we further covena execute and of invention(s) or nominees or lefacts respecting any legal continuations, generally to representative invention(s) or	have not executed ant and agree that I, deliver all such paper improvement(s), said agal representatives, and said invention(s) or proceedings, to sign C-I-P's, reissue and do everything possis to obtain and enformation of the contain and enformati	and will not executive will, each time in a polication and so and I/we agree to reimprovement(s), and lawful paper foreign applications ible to aid HP, and all countries and all countries.	ate any agreement a request is modessary or desirated aid Letters Patent communicate to be said application are so, to execute so, to make all right its successors, ir own benefit, per provided the expressive and results and successors, in own benefit, per provided the expressive and desired and successors, in own benefit, per provided the expressive and desired and desired and successors.	e entire interest herein assigned t in conflict herewith, and I/we hade, and without undue delay ble to perfect the title to said, to HP, its successors, assigns HP, or to its nominee, all knowing said Letters Patent, to testify all disclaimers and divisionals antiful oaths and declarations, and assigns, nominees and legal roper patent protection for said tenses which may be incurred by
States and an patents on ap any and all Letthe United St.	y official of any count plications as aforesai tters Patent for said it	try or countries for d, to issue to HP, nvention(s) or impr ssued and granted	eign to the United as assignee of the ovement(s), include	ts and Trademarks of the United States whose duty it is to issue the entire right, title and interest ding any and all Letters Patent of the application aforesaid, in
application no	her authorize and dir w identified by the at n made known to the	tornev docket num	nber and title set :	al number and filing date of said forth above as soon as the same Frademark Office.
IN WITNE	SS WHEREOF, I/we h	nereunto set my/ou	ir hand(s) and sea	l(s):
A Gov	'yadi w	Date As	signment Signed: $\underline{\mathscr{O}}$	9/15/02
Inventor's Signati	are (Sear)		Date Application	1 110 2 222
Inventor's Typed	Name: Alexander Govyadir	iov	Date Application	Signed: N/ (()
State of))ss.:		
County of	The second secon)		
is personally kno	s day of wn or proved to me on th ignment to be his/her free		appeared Alexand	der Govyadinov who person who acknowledged the foregoin
				Notary Public My commission expires:

When recorded please return to:

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

PATENT APPLICATION ATTORNEY DOCKET NO. 10019410 -1

ASSIGNMENT OF PATENT APPLICATION (cont.)

V (A . A . A . B . D . I Man		B . A	W/19/200
Inventor's Signature (Seal)		Date Assignment Signed:	7/17/2002
Inventor's Typed Name: Michael	J. Regan	Date Assignment Signed: Date Application Signe	ed: 4/19/2002
State of)		, ,,
County of) ss.:)		
Before me this day of its personally known or proved the instrument of assignment to be h	to me on the basis of sa	personally appeared Michael J. Re atisfactory evidence to be the person	gan who who acknowledged the foregoing
		Notes	y Public
			ommission expires:
		Date Assignment Signed:	
Inventor's Signature (Seal)			
nventor's Typed Name:		Date Application Signe	d:
State of)) ss.:		
County of)		
Before me this day of s personally known or proved t) o me on the basis of sa	personally appearedatisfactory evidence to be the person	who who acknowledged the foregoing
Before me this day of s personally known or proved t) o me on the basis of sa	atisfactory evidence to be the person	who acknowledged the foregoing y Public pmmission expires:
County of Before me this day of s personally known or proved t nstrument of assignment to be h) o me on the basis of sa	ntisfactory evidence to be the person Notar My co	who acknowledged the foregoing y Public ommission expires:
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Before me this day of s personally known or proved to instrument of assignment to be honored in the second proventor's Signature (Seal) inventor's Typed Name:) o me on the basis of sanis/her free act and deed.)) ss.:) o me on the basis of sa	Date Assignment Signed: Date Application Signed personally appeared atisfactory evidence to be the person	who acknowledged the foregoing y Public ommission expires: d:

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

Page 2 of 2

PATENT REEL: 012894 FRAME: 0212