505162914 10/29/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5209681

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NING GE	01/30/2017
TYLER SIMS	01/30/2017
HELEN A. HOLDER	01/30/2017
ROBERT IONESCU	01/30/2017
RONGLIANG ZHOU	01/30/2017

RECEIVING PARTY DATA

Name:	Hewlett-Packard Development Company, L.P.	
Street Address:	11445 Compaq Center Drive West	
City:	Houston	
State/Country:	TEXAS	
Postal Code:	77070	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16075694

CORRESPONDENCE DATA

Fax Number: (970)778-4063

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: HP INC.

Address Line 1: 3390 E. HARMONY ROAD MS 35
Address Line 2: INTELLECTUAL PROPERTY

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	84994790
NAME OF SUBMITTER:	JOHN E. NEMAZI
SIGNATURE:	/John E. Nemazi/
DATE SIGNED:	10/29/2018

Total Attachments: 4

PATENT REEL: 047334 FRAME: 0445 source=16075694_84994790_Assignment#page1.tif source=16075694_84994790_Assignment#page2.tif source=16075694_84994790_Assignment#page3.tif source=16075694_84994790_Assignment#page4.tif

> PATENT REEL: 047334 FRAME: 0446

	PATENT APPLICATION
RECORD ID:	84573414
	RECORD ID:

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each), for good and valuable consideration, the receipt of which is hereby acknowledged, and in furtherance of my/our obligations to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas

subsidiaries and affiliates, agree	to assign and transfer and	hereby assign and tr	as, (hereinafter HPDC), and to its ansfer to HPDC, its successors and and under an application for Patent
MEMRISTOR CODE COMPAR	ATOR TO COMPARE WAR	E UP SIGNALS TO	REFERENCE SIGNALS
Filing Date: 06-AUG-201	18	Application No.:	16/075,694
divisionals, and renewals of and	substitutes for said applicat	ion for said Patent,	rations, continuations-in-part (C-I-P's), and any and all other Patent of any reexaminations, or extensions of said
by HPDC, its successors, assigns	s, nominees or legal represer ed, reissued or extended, as	ntatives, to the full er fully and entirely as	n any country, to be held and enjoyed at of the term or terms for which said the same would have been held and
executed and will not execute any time a request is made, and witho perfect the filte to said invention(s nominees or legal representatives said invention(s) or improvement(papers, to execute all disclaimer rightful oaths and declarations, and legal representatives to obtain an	r agreement in conflict herewing ut undue delay, execute and) or improvement(s), said apply and I/we agree to communities), said application and said is and divisionals, continuation and said generally to do everything pod enforce, for its or their owntries provided the expenses in	th, and I/we further codeliver all such paper deliver all such paper dication and said Paticate to HPDC, or to it Patent, to testify in au ons, C-I-P's, reissue ossible to aid HPDC, in benefit, proper pat	erein assigned, and that I/we have not ovenant and agree that I/we will, each is as may be necessary or desirable to ent, to HPDC, its successors, assigns, its nominee, all known facts respecting ny legal proceedings, to sign all lawful and foreign applications, to make all its successors, assigns, nominees and ent protection for said invention(s) or it by me/us in lending such cooperation
applications as aforesaid, to issue	e to HPDC, as assignee of the	e entire right, title ar	s whose duty it is to issue patents on id interest, any and all Patent for said esult of the application aforesaid, in
			date and application number of said on as the same shall have been made
IN WITNESS WHEREOF, I/W	re hereunto set my/our han	d(s) and seal(s):	
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Inventor's Signature		Date	
Ning	Ge		
First/Middle Name	Last Name		
Inventor's Signature		Date	
Tyler	Sims		•
First/Middle Name	Last Name		

Rev 8/2014 (Assignment)

PATENT REEL: 047334 FRAME: 0447

HP Inc. 3390 E. Harmony Road		PATENT APPLICATION
Mail Stop 35 Fort Collins, Colorado 80528		RECORD ID: 84573414
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11 101	ASSIGNMENT OF PATENT A	PLICATION (cont.)
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Inventor's Signature		Date
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Inventor's Signature		Date
Robert	lonescu	
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Inventor's Signature		Date O
Rongliang	Zhou	
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Inventor's Signature		Date
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Inventor's Signature		Date
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Inventor's Signature		Date
First/Middle Name	Last Name	
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Rev 8/2014 (Assignment)

HP inc. 3390 E. Harmony Road	PATENT APPLICATION
Mail Stop 35. Fort Collins, Coforado 80528	RECORD (D: 84573414
Assignme	ENT OF PATENT APPLICATION
and in furtherance of my/our obligations to Limited Partnership having its principal pla- subsidiaries and affiliates, agree to assign and	d valuable consideration, the receipt of which is hereby acknowledged, HEVVLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas of of business in Houston, Texas, (hereinafter HPDC), and to its d transfer and hereby assign and transfer to HPDC, its successors and cluding the right of priority, is, to and under an application for Patent
MEMRISTOR CODE COMPARATOR TO CO	DMPARE WAKE UP SIGNALS TO REFERENCE SIGNALS.
Filing Date: 06-AUG-2018	Application No.: 16/075,694
divisionals, and renewals of and substitutes to	orth therein, and any and all continuations, continuations-in-part (C-I-P's), it said application for said Patent, and any and all other Patent of any to therefore, and any reissues, or reexaminations, or extensions of said

Itive additionally authorize HPDC to file applications in my/our name for Patent in any country, to be held and enjoyed by HPDC, its successors, assigns, numiness or legal representatives, to the full and of the term or terms for which said Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by me/us had this assignment, and transfer not been made

AND two hereby covenant that I/we have full right to convey the antire interest herein assigned, and that I/we have not executed and will not execute any agreement in conflict herewith, and I/we further covenant and agree that I/we will, each time a request is made, and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said invention(s) or improvement(s), said application and said Patent, to HPDC, its euccessors, assigns, nominees, or legal representatives, and tiwe agree to communicate to HPDC, for to its hominee, all known facts respecting said invention(s) or improvement(s); said application and said Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisionals, continuations. C-IPs, relissue and foreign applications, to make all rightful paters and declarations, and generally to do everything possible to aid HPDC, its successors, assigns, nominees and legal representatives to obtain and enforce, for its or their own benefit, proper patent protection for said invention(s) or improvement(s) in any and all countries provided the expenses which may be incurred by malue in lending such cooperation and assistance are paid by HPDC.

AND I/we hereby authorize and request the official of any country or countries whose duty it is to issue patents on applications as aforesaid, to issue to HPDC, as assigned of the entire right, title and interest, any, and all Patent for and invention(s) or improvement(s) which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

If We further authorize and direct the attorneys of record to insert the filling date and application number of said application for Patent, now identified by the Record ID and title set forth above; as soon as the same shall have been made known to them.

IN WITNESS WHEREOF, IN	we hereunto set my/our hand(s) and	• •	
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Inventor's Signature.	en e	Date	
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Fursty Middle Avagra	Last Name		
le fr	andre. Andre	Jan 30, 2017	
Inventor's Signature	Californialadistas (file annih e libertinisti (ozalitekis) a. e. a. a. a. a. a. e.	Date	
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Tirst/Mirdole Name.	Last Name		

SAP-SC014 (SPREGRIDS) (1)

HP Inc, 3390 E, Harmony Road Mail Stop 35 Fort Collins, Colorado 80528		PATENT APPLICATION RECORD ID: 84573414
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Inventor's Signature		Daile 1 30 1 7
Helen A	Holder	
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Inventor's Signature		Date
Robert	lonescu	
First/Middle Name	Last Name	
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Inventor's Signature		Date /
Rongliang	Zhou	·
First/Middle Name	Last Name	
Inventor's Signature		Date
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Inventor's Signature		Date
First/Middle Name	Last Name	
Inventor's Signature		Date
First/Middle Name	Last Name	

PATENT REEL: 047334 FRAME: 0450

Rev 8/2014 (Assignment)