PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5011997

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NING GE	11/10/2015
STEVEN BARCELO	11/10/2015
CHARLES M. SANTORI	11/12/2015
HELEN A. HOLDER	11/11/2015

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:	15764324	

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.

(541)715-8443 Phone: Email: ipa.mail@hp.com

Correspondent Name: HP INC.

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

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER: 84945175	
NAME OF SUBMITTER:	HEATHER MULKEY
SIGNATURE:	/Heather Mulkey/
DATE SIGNED:	06/18/2018

Total Attachments: 4

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> PATENT REEL: 046122 FRAME: 0574

HP Inc.
3390 E. Harmony Road
Mail Stop 35
Fort Collins, Colorado 80528

PATENT	ADD:	80° 8 TY	178

RECORD ID:	84346346
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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 Limited Pertnership having its principal place of business in Houston, Texas, (hereinafter HPDC), and to its subsidiaries and affiliates, agree to assign and transfer and hereby assign and transfer to HPDC, its successors and assigns, the entire right, title and interest, including the right of priority, in, to and under an application for Palent entitled:

SUBSTANCE DETECTION DEVICE

Filing Date: November 13, 2015	Application No.:	PCT/US2015/060686	
and the invention(s) and improvement(s) set forth therein, as	nd any and all contin	wations, continuations-in-part (C-I-	pis)
divisionals, and renewals of and substitutes for said applics	ation for said Patent,	, and any and all other Patent of	any
countries thereto which may be granted thereon or therefore;	and any reissues, o	r reexaminations, or extensions of	said
Patent	· •	·	

I/we 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, nominees or legal representatives, to the full end 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 I/we hereby covenant that I/we have full right to convey the entire 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 successors, assigns, nominees or legal representatives, and I/we agree to communicate to HPDC, or to its nominee, 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-I-P's, reissue and foreign applications, to make all rightful oaths 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 me/us 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 assignee of the entire right, title and interest, any and all Patent for said 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.

We further authorize and direct the attorneys of record to insert the filing 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.

HP Inc. 3390 E. Harmony Road		PATENT APPLICATION
Mail Stop 35 Fort Collins, Colorado 80528	RECORD ID:	84346346
ASSIGNMENT OF F	PATENT APPLICATION	
I/We, the undersigned (each), for good and valuable and in furtherance of my/our obligations to HEWLET Limited Partnership having its principal place of bus subsidiaries and affiliates, agree to assign and transfer assigns, the entire right, title and interest, including the entitled:	T-PACKARD DEVELOPM siness in Houston, Texas, and hereby assign and tran	IENT COMPANY, L.P., a Texas, (hereinafter HPDC), and to its after to HPDC, its successors and
SUBSTANCE DETECTION DEVICE		
Filing Date: November 13, 2015	Application No.: P	CT/US2015/060686
and the invention(s) and improvement(s) set forth therein divisionals, and renewals of and substitutes for said app countries thereto which may be granted thereon or therefor Patent.	olication for said Patent, an	d any and all other Patent of any
I/we additionally authorize HPDC to file applications in by HPDC, its successors, assigns, nominees or legal repr Patent respectively may be granted, reissued or extended enjoyed by me/us had this assignment, and transfer not be	resentatives, to the full end d, as fully and entirely as th	of the term or terms for which said
AND I/we hereby covenant that I/we have full right to dexecuted and will not execute any agreement in conflict he time a request is made, and without undue delay, execute perfect the title to said invention(s) or improvement(s), said nominees or legal representatives, and I/we agree to come said invention(s) or improvement(s), said application and spapers, to execute all disclaimers and divisionals, conting rightful oaths and declarations, and generally to do everythiclegal representatives to obtain and enforce, for its or the improvement(s) in any and all countries provided the expensand assistance are paid by HPDC;	erewith, and I/we further cov- and deliver all such papers a d application and said Paten municate to HPDC, or to its said Patent, to testify in any muations, C-I-P's, reissue and ing possible to aid HPDC, its ir own benefit, proper pater	enant and agree that I/we will, each as may be necessary or desirable to t, to HPDC, its successors, assigns, nominee, all known facts respecting legal proceedings, to sign all lawful of foreign applications, to make all successors, assigns, nominees and t protection for said invention(s) or
AND I/we hereby authorize and request the official of applications as aforesaid, to issue to HPDC, as assignee invention(s) or improvement(s) which may be issued an accordance with the terms of this assignment.	of the entire right, title and	interest, any and all Patent for said
I/we further authorize and direct the attorneys of reapplication for Patent, now identified by the Record ID and known to them.	ecord to insert the filing da title set forth above, as soon	ate and application number of said as the same shall have been made
AND INSTRUCCE AND IEDEOE These because and new force	hand(s) and coal(s):	

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and seal(s):

Inventor's Signature			Date
Ning	Ge		
First/Middle Name	Last Name		_
Inventor's Signature	<u> </u>		((/(<i>O</i> // <i>S</i>
inventor a dignatore			566
Steven	Barcelo		
First/Middle Name	Last Name		
Rev 8/2014 (Assignment)		Page 1 of	

HP Inc. 3390 E, Harmony Road Mail Stop 35

PATENT APPLICATION

Fort Collins, Colorado 80528		RECORD ID: 84346346
	ASSIGNMENT OF PA	TENT APPLICATION (cont.)
Christa M.	Anti	
nventor's Signature		Date
Charles M.	Santori	
First/Middle Name	Last Name	
nventor's Signature		Date
Helen A	Holder	
First/Middle Name	Last Name	
Inventor's Signature		Date
First/Middle Name	Last Name	
Inventor's Signature		Date
First/Middle Name	Last Name	
Inventor's Signature		Date
First/Middle Name	Last Name	
Inventor's Signature		Date
First/Middle Name	Last Name	

Page 2 of

HP Inc.	****
3390 E. Harmony Road	
Mail Stop 35	
Fort Collins, Colorado 805	28

PATENT APPLICATION

Fort Collins, Colorado 8052		Ri	EÇORD ID:	84346346	
	ASSIGNMENT OF P	ATENT APPI	JCATION (cont.)		
Inventor's Signature			Date		
Charles M.	Santori				
First/Middle Name	Last Name				
Fel H	LA			45	
Inve/itor's Signature	•		Date / /	,	
Helen A	Holder		**		
First/Middle Name	Last Name				
inventor's Signature			Date		
First/Middle Name	Last Name				
Inventor's Signature			Date		
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inventor's Signature			Date		**********
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PATENT REEL: 046122 FRAME: 0578

RECORDED: 06/18/2018