503970831 08/22/2016

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4017487

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BRADLEY D CHUNG	06/26/2014
GALEN P COOK	06/26/2014
MICHAEL H HAYES	06/26/2014
ADAM L GHOZEIL	06/27/2014
CHANTELLE ELIZABETH DOMINGUE	06/26/2014
VALERIE J MARTY	06/26/2014
ANTHONY M FULLER	06/26/2014
STERLING CHAFFINS	06/26/2014

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:	15120676

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.

Phone: (541)715-8443

Email: pto.assignments@hp.com

Correspondent Name: HEWLETT-PACKARD COMPANY **Address Line 1:** 3404 E. HARMONY ROAD MS 35

Address Line 2: INTELLECTUAL PROPERTY ADMINISTRATION

Address Line 4: FORT COLLINS, COLORADO 80528

ATTORNEY DOCKET NUMBER:	84503134
NAME OF SUBMITTER:	STEVEN L. NICHOLS
SIGNATURE:	/Steven L. Nichols/

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DATE SIGNED:	08/22/2016
Total Attachments: 8	
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PATENT REEL: 039499 FRAME: 0537 HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

	PATENT	APPE	CATIO	ĸ.
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RECORD ID:	83821321

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-PAC Limited Partnership having its principal place of business subsidiaries and affiliates, agree to assign and transfer and he assigns, the entire right, title and interest, including the right entitled:	in Houston, Texas, (hereinafter HPDC), and to its reby assign and transfer to HPDC, its successors and
Fluid ejection structure	
Filing Date: August 22, 2016	pplication No.:
and the invention(s) and improvement(s) set forth therein, and divisionals, and renewals of and substitutes for said application countries thereto which may be granted thereon or therefore; an Patent.	n for said Patent, and any and all other Patent of any
I/we additionally authorize HPDC to file applications in my/ou by HPDC, its successors, assigns, nominees or legal representa Patent respectively may be granted, reissued or extended, as full enjoyed by me/us had this assignment, and transfer not been made	atives, to the full end of the term or terms for which said ally and entirely as the same would have been held and
AND I/we hereby covenant that I/we have full right to convey executed and will not execute any agreement in conflict herewith time a request is made, and without undue delay, execute and deperfect the title to said invention(s) or improvement(s), said application nominees or legal representatives, and I/we agree to communical said invention(s) or improvement(s), said application and said Papapers, to execute all disclaimers and divisionals, continuations rightful oaths and declarations, and generally to do everything pland legal representatives to obtain and enforce, for its or their ow improvement(s) in any and all countries provided the expension cooperation and assistance are paid by HPDC;	, and I/we further coveriant and agree that I/we will, each diver all such papers as may be necessary or desirable to cation and said Patent, to HPDC, its successors, assigns, te to HPDC, or to its nominee, all known facts respecting itent, to testify in any legal proceedings, to sign all lawful s. C-I-P's, reissue and foreign applications, to make all cossible to aid HPDC, its successors, assigns, nominees on benefit, proper patent protection for said invention(s) or
AND I/we hereby authorize and request the official of any of applications as aforesaid, to issue to HPDC, as assignee of the invention(s) or improvement(s) which may be issued and gral accordance with the terms of this assignment.	entire right, title and interest, any and all Patent for said
I/we further authorize and direct the attorneys of record tapplication for Patent, now identified by the Record ID and title se known to them.	
IN WITNESS WHEREOF, I/we hereunto set my/our hand	(s) and seal(s):
BradlyDen	
lyventor's Signature	Date
Bradley D Chung	9
Inventor's Typed Name	6/26/14
Inventors Signature	Date /
Galen P Cook	
Inventor's Typed Name	
Rev 6/ 2014 (Assignment) Page 1 of	2

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Hermony Road Mail Stop 35

PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528	RECORD ID:	83821321
1	OF PATENT APPLICATION (co	nt.)
	G	/26/2014
Inventor's Signature	Date	<u> </u>
Michael H Hayes		
Inventor's Typed Name		
Inventor's Signature	Date	
Adam L Ghozeil		
inventor's Typed Name		
Inventor's Signature	Date	
Chantelle Elizabeth Domingue		
Inventor's Typed Name		
Inventor's Signature	Date	
Valerie J Marty		
Inventor's Typed Name		
Inventor's Signature	Date	
Anthony M Fuller Inventor's Typed Name	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
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Inventor's Signature	Date	
Sterling Chaffins		
Inventor's Typed Name		

HEVA ETT-PACKARO COMPANY Infellectual Property Administrator 3404 E. Harmony Road Mail Stop 36 Fort Collins, Colorado 80528

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RECORD ID:	83821321
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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 Partnership 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 Patent entired.

entitled	
Fluid ejection structure	
Filing Date: August 22, 2016	15/120,676 Application No.:
and the invention(s) and improvement(s) set forth there divisionals, and renewals of and substitutes for said at	in, and any and all continuations, continuations-in-part (C-I-P's), pplication for said Patent, and any and all other Patent of any price; and any reissues, or reexaminations, or extensions of said
by HPDC, its successors, assigns, nominees or legal re-	in my/our name for Patent in any country, to be held and enjoyed presentatives, to the full end of the term or terms for which said ed, as fully and entirely as the same would have been held and een made;
executed and will not execute any agreement in conflict to time a request is made, and without undue delay, execute	convey the entire interest herein assigned, and that I/we have not herewith, and I/we further covenant and agree that I/we will, each a and deliver all such papers as may be necessary or desirable to

executed and will not execute any agreement in conflict herewith, and tiwe further coverant and agree that tiwe 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 trie 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.

I/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 little set forth above, as soon as the same shall have been made known to them.

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

inventor's Signature	Chite
Bradley D Chung Inventor's Typed Name	
Inventor's Signature	Date
Galen P Cook Inventor's Typed Name	

HEWLETT-PACKARD COMPANY intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35

PATENT APPLICATION

Mail Stop 35	RECORD ID: 83821321
Fort Collins, Colorado 80528	A MARIE TO A COUNTRICO OF CAPACITY AS A COLOMBIA CALL LANG.
ASSIGNMENT	OF PATENT APPLICATION (cont.)
Inventor's Signature	Date
Michael H Hayes Inventor's Typed Name	
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Inventor's Signature	Date
Adam L Ghozeil	
Inventor's Typed Name	
Inventor's Signature	Date
Chantelle Elizabeth Domingue Inventor's Typed Name	
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Inventor's Signature	Date
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Valerie J Marty	
Inventor's Typed Name	
Inventor's Signature	Date
Anthony M Fuller Inventor's Typed Name	
macino a Obeca inchis	
Inventor's Signature	Date
Sterling Chaffins	
Inventor's Typed Name	

HEWLETT-PACKARD COMPANY intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

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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,

subsidiaries and affiliates, agree to assign and transfer an	ess in Houston, Texas, (hereinafter HPDC), and to its dhereby assign and transfer to HPDC, its successors and tight of priority, in, to and under an application for Patent
Fluid ejection structure	
Filing Date: August 22, 2016	Application No.: 15/120,676
divisionals, and renewals of and substitutes for said applic	and any and all continuations, continuations-in-part (C-I-P's), cation for said Patent, and any and all other Patent of any and any reissues, or reexaminations, or extensions of said
by HPDC, its successors, assigns, nominees or legal repre-	ny/our name for Patent in any country, to be held and enjoyed sentatives, to the full end of the term or terms for which said as fully and entirely as the same would have been held and made;
executed and will not execute any agreement in conflict here time a request is made, and without undue delay, execute ar perfect the title to said invention(s) or improvement(s), said a nominees or legal representatives, and I/we agree to commusaid invention(s) or improvement(s), said application and sa papers, to execute all disclaimers and divisionals, continuing rightful oaths and declarations, and generally to do everyth and legal representatives to obtain and enforce, for its or the	nvey the entire interest herein assigned, and that I/we have not swith, and I/we further covenant and agree that I/we will, each ad deliver all such papers as may be necessary or desirable to application and said Patent, to HPDC, its successors, assigns, unicate to HPDC, or to its nominee, all known facts respecting id Patent, to testify in any legal proceedings, to sign all lawful ations, C-I-P's, reissue and foreign applications, to make all ing possible to aid HPDC, its successors, assigns, nominees it own benefit, proper patent protection for said invention(s) or penses which may be incurred by me/us in lending such
applications as aforesaid, to issue to HPDC, as assignee of	any country or countries whose duty it is to issue patents on f the entire right, title and interest, any and all Patent for said granted on or as a result of the application aforesaid, in
I/we further authorize and direct the attorneys of recapplication for Patent, now identified by the Record ID and til known to them.	ord to insert the filing date and application number of said le set forth above, as soon as the same shall have been made
IN WITNESS WHEREOF, I/we hereunto set my/our h	nand(s) and seal(s):
Inventor's Signature	Date
Bradley D Chung	
Inventor's Typed Name	
Inventor's Signature	Date:
Galen P Cook	
Inventor's Typed Name	

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins. Colorado 80528

PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528	RECORD ID: 83821321
	OF PATENT APPLICATION (cont.)
Inventor's Signature	Date
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Michael H Hayes Inventor's Typed Name	
Inventor's Signature	Date
Adam L Ghozeil Inventor's Typed Name	
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Inventor's Signature	Date ()
Chantelle Elizabeth Domingue	
Inventor's Typed Name	
Inventor's Signature	Date
Valerie J Marty	
Inventor's Typed Name	
Inventor's Signature	Date
Anthony M Fuller	
Inventor's Typed Name	
inventor's Signature	Date
Sterling Chaffins	
Inventor's Typed Name	

HEVALETT-PACKARO COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80828

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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 HEV/LETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinalter 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 Patent

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entitled:	
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Filing Date: August 22, 2016	Application No.: 15/120,676
divisionals, and renewals of and substitutes for said a	nin, and any and all continuations, continuations-in-part (C-I-P's), pplication for said Patent, and any and all other Patent of any efore; and any reissues, or reexaminations, or extensions of said
by HPDC, its successors, assigns, nominees or legal re-	in my/our name for Patent in any country, to be held and enjoyed spresentatives, to the full end of the term or terms for which said led, as fully and entirely as the same would have been held and seen made;
	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 live agree to communicate to HPOC, 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 leaful papers, to execute all disclaimers and divisionals, continuations, C4-P's, reissue and foreign applications, to make all rightful caths and dectarations, 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 HPOC.

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inventor's Signature	Oate
Bradley D Chung Inventor's Typed Name	
Inventor's Signature	Date
Galen P Cook Inventor's Typed Name	

HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

PATENT APPLICATION

Mail Stop 35 Fort Collins, Colorado 80528	RECORD ID: 83821321	
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Inventor's Signature	Date	
Michael H Hayes		
Inventor's Typed Name		
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Adam L Ghozeil Inventor's Typed Name		
Inventor's Signature	Date	
Chantelle Elizabeth Domingue		
Inventor's Typed Name a	Date 6-26-14	- 10 '
Inventor's Typed Name	6-26-14 Date	
Anthony M Fuller Inventor's Typed Name		
SH OHL	6-26-14	
Inventor's Signature Sterling Chaffins	Date	
Inventor's Typed Name		

Rev S/ 2014 (Assignment)

RECORDED: 08/22/2016