PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3495258

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CHIEN-HUA CHEN	03/25/2013
MICHAEL W. CUMBE	03/25/2013

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:	14769903

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: ipa.mail@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:	84349604
NAME OF SUBMITTER:	STEVEN L. NICHOLS
SIGNATURE:	/Steven L. Nichols/
DATE SIGNED:	08/24/2015

Total Attachments: 1

503448633

source=Assignment#page1.tif

PATENT REEL: 036401 FRAME: 0388 HEWLETT-PACKARD COMPANY Intellectual Property Administrator 3404 E. Harmony Road Mail Stop 35 Fort Collins, Colorado 80528

PATENT APPLICATION

RECORD ID:	83139698	

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree, that 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, to a assigns, the entire right, title and interest, including the right of pricentitled: PRINTED CIRCUIT BOARD FLUID FLOW STRUCTURE AND METHOD FOR MAKIN	ority, in, to and under an application for Patent
Filing Date: August 24, 2015 Applicat	tion No.: 14/769,903
and the invention(s) and improvement(s) set forth therein, and any and divisionals, and renewals of and substitutes for said application for scountries thereto which may be granted thereon or therefore; and any Patent.	aid Patent, and any and all other Patent of any
I/we additionally authorize HPDC to file applications in my/our name by HPDC, its successors, assigns, nominees or legal representatives, t Patent respectively may be granted, reissued or extended, as fully and enjoyed by me/us had this assignment, and transfer not been made;	to the full end of the term or terms for which said
AND I/we hereby covenant that I/we have full right to convey the ent executed and will not execute any agreement in conflict herewith, and I/time a request is made, and without undue delay, execute and deliver all perfect the title to said invention(s) or improvement(s), said application a nominees or legal representatives, and I/we agree to communicate to H said invention(s) or improvement(s), said application and said Patent, to papers, to execute all disclaimers and divisionals, continuations, C-I-rightful oaths and declarations, and generally to do everything possible and legal representatives to obtain and enforce, for its or their own bene improvement(s) in any and all countries provided the expenses whiceoperation and assistance are paid by HPDC;	we further covenant and agree that I/we will, each is such papers as may be necessary or desirable to and said Patent, to HPDC, its successors, assigns, PDC, or to its nominee, all known facts respecting a testify in any legal proceedings, to sign all lawful P's, reissue and foreign applications, to make all to aid HPDC, its successors, assigns, nominees fit, proper patent protection for said invention(s) or
AND I/we hereby authorize and request the official of any country applications as aforesaid, to issue to HPDC, as assignee of the entire invention(s) or improvement(s) which may be issued and granted or accordance with the terms of this assignment.	right, title and interest, any and all Patent for said
I/we further authorize and direct the attorneys of record to inser application for Patent, now identified by the Record ID and title set forth a known to them.	t the filling date and application number of said above, as soon as the same shall have been made
IN WITNESS WHEREOF, I/we hereunto set my/our hand(s) and	seal(s):
09-3-3-5	8/25/2013
Inventor's Signature	Date
Chien-Hua Chen Inventor's Typed Name Inventor's Signature	3/25/2013 Date
Michael W Cumbie	_
Inventor's Typed Name	

Page 1 of 1

Rev 3/ 2013 (Assignment)