PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3970512

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|---------------------|----------------|
| LEE WARREN ATKINSON | 02/16/2014 |

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: | 15111536 |

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: 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: | 84501409 |
|-------------------------|--|
| NAME OF SUBMITTER: | DEBBIE BORLAND |
| SIGNATURE: | /Debbie Borland/ |
| DATE SIGNED: | 07/20/2016 |
| | This document serves as an Oath/Declaration (37 CFR 1.63). |

Total Attachments: 1

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PATENT REEL: 039201 FRAME: 0068

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

RECORD ID: 83588

83588813 (84501409)

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 chilgations 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 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 entitled:

CABLE ERROR SIGNAL

| Filing Date: | July 14, 2016 | Application No.: | 15/111536 | |
|------------------|-----------------------------|---|-----------------|---------------------|
| divisionals, and | renewals of and substitutes | forth therein, and any and all contin for said application for said Patent, on or therefore; and any reissues, or | and any and all | other Patent of any |

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 live hereby covenant that live have full right to convey the entire interest herein assigned, and that live have not executed and will not execute any agreement in conflict herewith, and live further covenant and agree that live 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 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 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.

| WITNESS WHI | REOF, I/we hereunto set my/our hand(s) and s | eal(s): 2/16/14 |
|--|--|--------------------|
| Inventor's Signature | | Date ' |
| Lee Warren Atkinson Inventor's Typed Name | | |
| Inventor's Signature | | Oate |
| * | | |
| Inventor's Typed Name | | |
| Rev 1/2013 (Assignment) | Page 1 of 1 | |

PATENT REEL: 039201 FRAME: 0069

RECORDED: 07/20/2016