LH \$40.00

PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| Omri SHACHAM | 01/16/2011 |
| Carl STAELIN | 01/16/2011 |
| Mani FISCHER | 01/16/2011 |

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: | 13006234 |

CORRESPONDENCE DATA

Fax Number: (970)778-4063

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 970-898-4728

Email: JERRY.SHORMA@HP.COM

Correspondent Name: HEWLETT-PACKARD COMPANY Intellectual Pro

Address Line 1: 3404 E. Harmony Road

Address Line 2: Mail Stop 35

Address Line 4: FORT COLLINS, COLORADO 80528

NAME OF SUBMITTER: Mark S. Cohen

Total Attachments: 5

source=201005135-1-U-RASS-HP-19JAN11#page1.tif source=201005135-1-U-RASS-HP-19JAN11#page2.tif source=201005135-1-U-RASS-HP-19JAN11#page3.tif

source=201005135-1-U-RASS-HP-19JAN11#page4.tif source=201005135-1-U-RASS-HP-19JAN11#page5.tif

| RECORDATION FORM COVER SHEET | | | | |
|---|--|--|--|--|
| PATENTS ONLY | | | | |
| Name of conveying party(ies): | 2. Name and address of receiving party(ies): | | | |
| Omri SHACHAM | HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P. | | | |
| Carl STAELIN | 11445 Compaq Center Drive West | | | |
| Mani FISCHER | Houston, TX 77070 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Additional name(s) of conveying party(ies) attached? ☐Yes ☒No | Additional name(s) and address(es) attached? | | | |
| 3. Nature of Conveyance: | (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | |
| ■ Assignment | f Name Security Agreement Joint | | | |
| Other | | | | |
| | | | | |
| Execution Date(s):January 16, 2011; January 16, 2011; Janu | uary 16, 2011; | | | |
| 4. Application number(s) or patent number(s): | | | | |
| If this document is being filed together with a new application | on, execution date of the application is: | | | |
| A. Patent Application No.(s) | | | | |
| | January 13, 2011 | | | |
| Confirmation No.: 4100 B. Patent No.(s): | | | | |
| | | | | |
| Additional numbers attached? NO | | | | |
| Name and address of party to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved:1 | | | |
| | 7. Total Fee (37 CFR 3.41): \$40.00 | | | |
| Records Manager Intellectual Property Administration | Enclosed | | | |
| HEWLETT-PACKARD COMPANY | X_Authorization to be charged to deposit account. | | | |
| 3404 E. Harmony Road Mail Stop 35 | 8. Deposit Account Number: 08-2025 | | | |
| Fort Collins, Colorado 80528 | | | | |
| 9. Statement and signature. | | | | |
| To the best of my knowledge and belief, the foregoing infon | mation is true and correct and any attached conv is a true | | | |
| copy of the original document. | nation to that and contest and any attached copy to a trac | | | |
| /Mar | k Cohen/ | | | |
| Mark S. Cohen /Mar Name of Person Signing Signa | bandary 20, 2011 | | | |
| Total number of pages including coversheet, attachments, and documents: 5 | | | | |
| | | | | |
| Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O. Box 1450, Alexandria, V.A. 22313-1450 | | | | |
| | 1 of 5 | | | |
| I ago | | | | |

Rev 05/09 (RecdAsgn)

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

PATENT APPLICATION

201005135-1 ATTORNEY DOCKET NO. _

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do hereby assign and transfer to HPDC, its successors and assigns, the entire right,

| entitled: | HALFTONE GENERATION | ay, ar, ao anu under an apt | arcanon, ior | Lesters Fatern | of the Office States |
|--|--|--|--|--|---|
| <u> </u> | | | | | |
| P's), divisiona Patent of the reissues, or re l/we held and enjoy terms for whice same would h AND we have not e that l/we will, i necessary or Patent, to HP HPDC, or to i Letters Patent continuations, do everything enforce, for its countries price paid by HPDC and any offic applications a Patent for said be issued and l/we application no | January 13, 2011 tion(s) and improvement(s) so als, and renewals of and subst United States and of countrie examinations, or extensions of additionally authorize HPDC to yed by HPDC, its successors, on said Letters Patent respect to ave been held and enjoyed by I/we hereby covenant that I/we executed and will not execute each time a request is made, desirable to perfect the title to PDC, its successors, assigns, its nominee, all known facts returned to the title of the proper in the pro | itutes for said application to a foreign thereto which not said Letters Patent. The applications in my/our assigns, nominees or legatively may be granted, reise me/us had this assignment we have full right to convey any agreement in conflict and without undue delay, to said invention(s) or improminees or legal repressions, to sign all lawful parapplications, to make all right uccessors, assigns, nomine patent protection for said by be incurred by me/us in quest the Commissioner or less foreign to the United C, as assignee of the entates, including any and all the application aforesaid, in the attorneys of record to it tocket number and title second sessions. | nd all continuous raid Let may be graus raid Let may be graus raid trans the entire herewith, a execute an rovement(s sentatives,) or improvers, to exegniful oaths in ending sufful caths a States whire right, tit Letters Pat accordance insert the set forth abordance insert insert insert in the set forth abordance insert the set forth abordance insert | ters Patent, and there on the terms Patent tatives, to the fore tended, as full interest herein and I/we further dideliver all sure and I/we agreement(s), said application and description of the tended in the tended interest of the Unit with the terms and the terms of the terms of the Unit with the terms and the terms of the Unit with the terms and the terms of the terms of the Unit the terms of the terms | nuations-in-part (C-I- d any and all Letters or therefore; and any in any country, to be ull end of the term or y and entirely as the nade; assigned, and that if covenant and agree ch papers as may be tion and said Letters e to communicate to application and said mers and divisionals ons, and generally to atives to obtain and ent(s) in any and all n and assistance are to f the United States to issue patents or , any and all Letters ad States which may s of this assignment, and filing date of said |
| 22A Û | N 11 | | 16 | T&N. | 20// |
| Inventor's Signa | ature | | Date Assig | ınment Signed | |
| Omri SHACHAI | VI | | 1 | Jan - | 2011 |
| Inventor's Type | *************************************** | · · · · · · · · · · · · · · · · · · · | Date Appli | cation Signed | en e |
| Inventor's Signs | ature | | Date Assig | inment Signed | |
| Carl STAELIN | 3 XI | | Date 4 | antina Oireard | *************************************** |
| Inventor's Type | о маше | | Date Appil | cation Signed | |
| Rev 10/09 (Assignm | ent) | Page 1 of 2 | | | |

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

PATENT APPLICATION

ATTORNEY DOCKET NO. _____201005135-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

| nventor's Signature | Date Assignment Signed |
|-----------------------|--------------------------|
| Mani FISCHER | |
| inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| | |
| inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| inventor's Signature | Date Assignitians Signed |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| | |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| naetimi e difinarate | |
| Inventor's Typed Name | Date Application Signed |

Rev 10/09 (Assignment)

Page 2 of 2

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

PATENT APPLICATION

ATTORNEY DOCKET NO. 201005135-1

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P., a Texas Limited Partnership having its principal place of business in Houston, Texas, (hereinafter HPDC), in furtherance of my/our obligations to the Hewlett-Packard Company and its subsidiaries and affiliates, and do 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 Letters Patent of the United States

| entitled: CLUSTERED HALFTONE GENERATION | |
|---|--|
| Filing Date: January 13, 2011 Appl | Scation No.: 13/006,234 |
| and the invention(s) and improvement(s) set forth therein, and a P's), divisionals, and renewals of and substitutes for said applica Patent of the United States and of countries foreign thereto wh reissues, or reexaminations, or extensions of said Letters Patent. I/we additionally authorize HPDC to file applications in meld and enjoyed by HPDC, its successors, assigns, nominees or terms for which said Letters Patent respectively may be granted same would have been held and enjoyed by me/us had this assig AND I/we hereby covenant that I/we have full right to come have not executed and will not execute any agreement in contact I/we will, each time a request is made, and without undue definecessary or desirable to perfect the title to said invention(s) or Patent, to HPDC, its successors, assigns, nominees or legal reflects and the HPDC, or to its nominee, all known facts respecting said invention Letters Patent, to testify in any legal proceedings, to sign all lawfucontinuations, C-I-P's, reissue and foreign applications, to make do everything possible to aid HPDC, its successors, assigns, reflorce, for its or their own benefit, proper patent protection for countries provided the expenses which may be incurred by me/opaid by HPDC; AND I/we hereby authorize and request the Commission and any official of any country or countries foreign to the Unapplications as aforesaid, to issue to HPDC, as assignee of the Patent for said invention(s) or improvement(s), including any and be issued and granted on or as a result of the application aforesaid. I/we further authorize and direct the attorneys of record application now identified by the attorney docket number and title been made known to them by the United States Patent and Trade | tion for said Letters Patent, and any and all Letters ich may be granted thereon or therefore; and any my/our name for Letters Patent in any country, to be regal representatives, to the full end of the term or reissued or extended, as fully and entirely as the nment, and transfer not been made; invey the entire interest herein assigned, and that I afflict herewith, and I/we further covenant and agree lay, execute and deliver all such papers as may be improvement(s), said application and said Letters expresentatives, and I/we agree to communicate to on(s) or improvement(s), said application and said all papers, to execute all disclaimers and divisionals all rightful oaths and declarations, and generally to nominees and legal representatives to obtain and said invention(s) or improvement(s) in any and all us in lending such cooperation and assistance are ref Patents and Trademarks of the United States ited States whose duty it is to issue patents or a entire right, title and interest, any and all Letters at all Letters Patent of the United States which may it is to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and filing date of said to insert the serial number and f |
| Inventor's Signature | Date Assignment Signed |
| Omri SHACHAM Inventor's Typed Name | Date Application Signed |
| Inventor's Signature Carl STAELIN Inventor's Typed Name | Date Application Oigned Date Assignment Signed Date Application Signed |

Rev 10/09 (Assignment)

Page 1 of 2

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

PATENT APPLICATION

ATTORNEY DOCKET NO. 201005135-1

ASSIGNMENT OF PATENT APPLICATION (cont.)

| Inventor's Signature Mani FISCHER Inventor's Typed Name | Date Assignment Signed AS JAN 20// Date Application Signed |
|--|---|
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |
| Inventor's Signature | Date Assignment Signed |
| Inventor's Typed Name | Date Application Signed |

Rev 10/09 (Assignment)

RECORDED: 01/21/2011

Page 2 of 2