PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|----------------------|----------------|
| Jun Gao | 09/30/2009 |
| Omid Momtahan | 09/30/2009 |
| Michael John Brosnan | 09/30/2009 |

RECEIVING PARTY DATA

| Name: | Avago Technologies ECBU IP (Singapore) Pte. Ltd. | |
|-----------------|--|--|
| Street Address: | No. 1 Yishun Avenue 7 | |
| City: | Singapore | |
| State/Country: | SINGAPORE | |
| Postal Code: | 768923 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12570915 |

CORRESPONDENCE DATA

Fax Number: (970)288-0617

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

(970) 288-0731 Phone:

Email: kathy.manke@avagotech.com

Correspondent Name: Kathy Manke Address Line 1: 4380 Ziegler Road

MS 76 Address Line 2:

Address Line 4: Fort Collins, COLORADO 80525

| ATTORNEY DOCKET NUMBER: | 2009-044USORG |
|-------------------------|-----------------|
| NAME OF SUBMITTER: | Thomas F. Woods |

Total Attachments: 3

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500976960 REEL: 023308 FRAME: 0915 source=Assignment ECBU IP Avago Technologies 2009-044USORG P AVG 318 09 30 09#page2.tif source=Assignment ECBU IP Avago Technologies 2009-044USORG P AVG 318 09 30 09#page3.tif

PATENT REEL: 023308 FRAME: 0916

ATTORNEY DOCKET NO. 2009-044USORG

AVAGO TECHNOLOGIES, LTD. 4380 Ziegler Road Fort Collins, Colorado 80525 Attn: Kathy Manke, MS 76

Letters Patents.

Filing date: <u>Sept. 30, 2009</u>

ASSIGNMENT OF PATENT APPLICATION TO AVAGO TECHNOLOGIES ECBU IP (SINGAPORE) PTE. LTD.

I/We the undersigned (each) have agreed and hereby agree to assign to Avago Technologies ECBU IP (Singapore) Pte. Ltd. (Company Registration No. 200512325K), a company incorporated under the laws of Singapore whose registered office is at No. 1 Yishun Avenue 7, Singapore 768923 (hereinafter AVAGO), in furtherance of my/our obligations to AVAGO, and do hereby assign and transfer to AVAGO, 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:

Large Depth of Field Navigation Input Devices and Methods

and the invention(s) and improvement(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitutes for said application for Letters Patent, and any and all Letters Patent of the United States and of countries foreign thereto which may be granted thereon or therefor; and any reissues, or reexaminations, or extensions of said

Serial No.: 12/570,915

| enjoyed by AVAGO, its successors, assigns, nominees or legal | s in my/our name for Letters Patent in any country, to be held and i representatives, to the full end of the term or terms for which said ded, as fully and entirely as the same would have been held and made; |
|--|---|
| executed and will not execute any agreement in conflict herewing request is made, and without undue delay, execute and deliver a to said invention(s) or improvement(s), said application and sail legal representatives, and I/we agree to communicate to AVAG improvement(s), said application and said Letters Patents, to te all disclaimers and divisionals, continuations, C-I-P's, reissue a and generally to do everything possible to aid AVAGO, its successions. | convey the entire interest herein assigned, and that I/we have not ith, and I/we further covenant and agree that I/we will, each time a all such papers as may be necessary or desirable to perfect the title id Letters Patent, to AVAGO, its successors, assigns, nominees or O, or to its nominee, all known facts respecting said invention(s) or estify in any legal proceedings, to sign all lawful papers, to execute nd foreign applications, to make all rightful oaths and declarations, essors, assigns, nominees and legal representatives to obtain and aid invention(s) or improvement(s) in any and all countries provided cooperation and assistance are paid by AVAGO; |
| of any country or countries foreign to the United States whose AVAGO, as assignee of the entire right, title and interest, any and | oner of Patents and Trademarks of the United States and any official duty It is to issue patents on applications as aforesaid, to issue to dall Letters Patent for said invention(s) or improvement(s), including issued and granted on or as a result of the application aforesaid. |
| I/we further authorize and direct AVAGO attorneys to identified by the attorney docket number and title set forth above United States Patent and Trademark Office. | o insert the serial number and filing date of said application now e as soon as the same shall have been made known to them by the |
| IN WITNESS WHEREOF, I/we hereunte set my/our ha | and(a) and soul(a): |
| THE WATER COLOR THE TENED SEET THY OUT THE | |
| (XCO) | |
| Inventor's Signature (Seal) | |
| Inventor's Typed Name: Jun Gao | Date Assignment Signed: $09/30/2009$ Date Application Signed: $09/30/2009$ |
| State of) | |
|) SS.: | |
| County of) | |
| | pared who is personally on who acknowledged the foregoing instrument of assignment to be his/her free |
| act and deed. | |
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| | Notary Public My commission expires: |
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Page 1 of 2

ASSIGNMENT OF PATENT APPLICATION (cont.)

| IN WITN | IESS WHEREOF, I/W | e hereunto set my/our hand(s) and | d seal(s): |
|---------------------------------|--|---|---|
| Inventor's | Signature (Seal) | (horg) | Date Assignment Signed: 09/30/09 |
| Inventor's | Typed Name: Omid Mo | mtahan | Date Application Signed: 09/30/09 |
| State of County of | cA USA |)) ss.:) | |
| known or p free act an | Before me this day or proved to me on the basis of d deed. | of, personally appear of satisfactory evidence to be the person v | ed who is personally who acknowledged the foregoing instrument of assignment to be his/her |
| | | | Notary Public My commission expires: |
| Inventor's | Signature (Seal) | | Date Assignment Signed: |
| | | | Data Application Change |
| State of | Typed Name: Michael | John Brosnan | Date Application Signed: |
| County of | |) ss.:) | |
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| Inventor's S | Signature (Seal) | | Date Assignment Signed: |
| Inventor's 7 | Typed Name: | | Date Application Signed: |
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| County of | |) ss.:) | |
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Page 2 of 2

ASSIGNMENT OF PATENT APPLICATION (cont.)

| nventor's Signature (Seal) | | Date Assignment Signed: |
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| ventor's Typed Name: Omio | d Momtahan | Date Application Signed: |
| tate of |) | |
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| Before me this nown or proved to me on the bee act and deed. | day of easis of satisfactory evidenc | , personally appeared who is personall e to be the person who acknowledged the foregoing instrument of assignment to be his/he |
| | | Notary Public My commission expires: |
| ventor's Signature (Selph) | -3- | Date Assignment Signed: 30 Sept 2009 Date Application Signed: 30 Sept 2009 |
| ventor's Typed Name: Mich | ael John Brosnan | Date Application Signed: 30 Sept 200° |
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