PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Russell W. Gruhlke	03/13/2006
Rene P. Helbing	03/06/2006

RECEIVING PARTY DATA

Name:	Avago Technologies General 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:	11374052

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 10051068-1

NAME OF SUBMITTER: kalyn black

Total Attachments: 2

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> PATENT REEL: 018021 FRAME: 0167

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P.O. Box 1920 Denver, Colorado 80201-1920

ASSIGNMENT OF PATENT APPLICATION

I/We, the undersigned (each) have agreed and hereby agree to assign to Avago Technologies General IP (Singapore) Ptc. Ltd. (Company Registration No. 2005 12430D), a company incorporated under the laws of Singapore whose registered office is at 8 Cross Street, #11-00 PWC Building, Singapore 048424 (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:

ELECTRONIC DEVICE WITH INTEGRATED OPTICAL NAVIGATION MODULE AND MICROLENS ARRAY THEREFORE

Filing date: March 14, 2006 Serial No. 11/374, 052

and the invention(s) and improvements(s) set forth therein, and any and all continuations, continuations-in-part (C-I-P's), divisionals, and renewals of and substitues for said application for said 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 Letters Patent.

I/we additionally authorize AVAGO to file applications in my/our name for Letters Patent in any country, to be held and enjoyed by AVAGO, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters 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 I'we hereby conventant that I'we have full right to 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 convenant and agree that I'we will, each time a request is made, and without undue delay, execute and deliver all such papers as my be necessary or desirable to perfect the title to said invention(s) or iroprovement(s), said application and said Letters Patent, to AVAGO, its successors, assigns, nominees or legal representatives, and I'we agree to communicate to AVAGO, or to its numinee, all known facts respecting sald invention(s) or improvement(s), said application and said Letters 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 AVAGO, 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 AVAGO:

AND I/we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to AVAGO, as assignee of the entire right, title and interest, any and all Letters Patent for said invention(s) or improvements(s), including any and all Letters Patent of the United States 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 AVAGO's attorneys to insert the serial number and filing date of said application now identified by the attorney docket number and title set forth above as soon as the same shall have been made known to them by the United States Patent and Tradmark Office.

Inventor's Signature

Inventor's Typed Name: Russell W. Gruhlke

u Gruhlke

Date Assignment Signed: march 13 2006

Date Application Signed: | march 13 2006

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ATTORNEY DOCKET NO. 10051068

AVAGO TECHNOLOGIES; LTD. P.O. Box 1920 Denver, Colorado 50201-1920

ASSIGNMENT OF PATENT APPLICATION (cont.)	
Inventor's Signature Inventor's Typed Name: Rene P. Helbing	Date Assignment Signed: 3/6/06 Date Application Signed: 3/6/06
Inventor's Signature Inventor's Typed Name:	Date Assignment Signed: Date Application Signed:
Inventor's Signature Inventor's Typed Name:	Date Assignment Signed: Date Application Signed:
Inventor's Signature Inventor's Typed Name:	Date Assignment Signed: Date Application Signed:
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Rov 10/04 (Assign)

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