

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT								
NATURE OF CONVEYANCE:	ASSIGNMENT								
CONVEYING PARTY DATA									
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Marcin Kamil Augustyniak</td> <td>01/07/2013</td> </tr> <tr> <td>Aun Choon Chong</td> <td>12/27/2012</td> </tr> <tr> <td>Kek Leong Yap</td> <td>12/27/2012</td> </tr> </tbody> </table>		Name	Execution Date	Marcin Kamil Augustyniak	01/07/2013	Aun Choon Chong	12/27/2012	Kek Leong Yap	12/27/2012
Name	Execution Date								
Marcin Kamil Augustyniak	01/07/2013								
Aun Choon Chong	12/27/2012								
Kek Leong Yap	12/27/2012								
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									
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13737756</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13737756				
Property Type	Number								
Application Number:	13737756								
CORRESPONDENCE DATA									
Fax Number:	9702880617								
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>									
Phone:	970-288-0731								
Email:	avagoip@system.foundationip.com								
Correspondent Name:	Avago Technologies Limited								
Address Line 1:	4380 Ziegler Road								
Address Line 4:	Fort Collins, COLORADO 80525								
ATTORNEY DOCKET NUMBER:	2012-073USORG								
NAME OF SUBMITTER:	Matthew R. Ellsworth								
	This document serves as an Oath/Declaration (37 CFR 1.63).								
<p>Total Attachments: 3</p> <p>source=DEC_ASSIGNMENT_2012-073#page1.tif</p> <p>source=DEC_ASSIGNMENT_2012-073#page2.tif</p> <p>source=DEC_ASSIGNMENT_2012-073#page3.tif</p>									

CH \$40.00 13737756

DECLARATION

As a below named inventor, I hereby declare that:

The application identified below was made or authorized to be made by me.

I believe that I am the original inventor or original joint inventor of a claimed invention in the application for which a patent is sought on the invention entitled:

SINGLE TRACK THREE-CHANNEL ENCODER WITH DIFFERENTIAL INDEX

the specification of which is attached hereto unless the following box is checked:

was filed on _____ as US Application Serfal No. or PCT International Application
Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 .U.S.C 1001 by fine or imprisonment of not more than five (5) years, or both.

Send Correspondence to:

Customer Number

AVAGO TECHNOLOGIES, LTD.
4380 Ziegler Road
Fort Collins, CO 80525

Direct Telephone Calls to:

OR Scott Weitzel
(970) 288-0747

ASSIGNMENT OF PATENT APPLICATION

I/We the undersigned (each) have agreed and hereby agree to assign to **Avago Technologies General IP (Singapore) Pte. Ltd.** (Company Registration No. 200512430D), 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 Patent of the United States 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 Patent, and any and all 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 Patents.

I/We additionally authorize AVAGO to file applications in my/our name for 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 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 covenant 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 covenant and agree that I/we 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 AVAGO, its successors, assigns, nominees or legal representatives, and I/we agree to communicate to AVAGO, or to its nominee, all known facts respecting said invention(s) or improvement(s), said application and said Patents, 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, inventor's certificates, utility certificates, utility models, or certificates of addition on applications as aforesaid, to issue to AVAGO, as assignee of the entire right, title and interest, any and all Patents for said invention(s) or improvement(s), including any and all 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 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 Trademark Office.

IN WITNESS WHEREOF, I/we hereunto set my/our hand(s):

Full Name of Sole or First Inventor:	Given Name Marcin	Middle Name Kamil	Family Name Augustyniak
Residence:	Dr Heim Str. 18, Regensburg 93049, Germany		
Correspondence:	Same as above		

Marcin Augustyniak _____ 07.01.2013 _____
Inventor's Signature Date

Full Name of # 2 Joint Inventor:	Given Name Aun	Middle Name Choon	Family Name Chong
Residence:	50B-15-05, U Garden, PSR Minden 1, Gelugor, Penang 11700, MY		
Correspondence:	Same as above		

Inventor's Signature Date

Full Name of # 3 Joint Inventor:	Given Name Kek	Middle Name Leong	Family Name Yap
Residence:	AB-2-1 Springfield Condo, Lorong Kenari, Sungai Ara, Bayan Lepas, Penang 11900, MY		
Correspondence:	Same as above		

Inventor's Signature Date

Full Name of # 4 Joint Inventor:	Given Name	Middle Name	Family Name
Residence:			
Correspondence:			

Inventor's Signature Date

Full Name of # 5 Joint Inventor:	Given Name	Middle Name	Family Name
Residence:			
Correspondence:			

Inventor's Signature Date

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, inventor's certificates, utility certificates, utility models, or certificates of addition on applications as aforesaid, to issue to AVAGO, as assignee of the entire right, title and interest, any and all Patents for said invention(s) or improvement(s), including any and all 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.

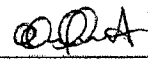
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IN WITNESS WHEREOF, I/we hereunto set my/our hand(s):

	Given Name	Middle Name	Family Name
Full Name of Sole or First Inventor:	Marcin	Kamil	Augustyniak
Residence:	Dr Heim Str. 18, Regensburg 93049, Germany		
Correspondence:	Same as above		

Inventor's Signature Date

	Given Name	Middle Name	Family Name
Full Name of # 2 Joint Inventor:	Aun	Choon	Chong
Residence:	50B-15-05, U Garden, PSR Minden 1, Gelugor, Penang 11700, MY		
Correspondence:	Same as above		

 _____
Inventor's Signature Date 27.12.2012

	Given Name	Middle Name	Family Name
Full Name of # 3 Joint Inventor:	Kek	Leong	Yap
Residence:	AB-2-1 Springfield Condo, Lorong Kenari, Sungai Ara, Bayan Lepas, Penang 11900, MY		
Correspondence:	Same as above		

 _____
Inventor's Signature Date 27/12/2012

	Given Name	Middle Name	Family Name
Full Name of # 4 Joint Inventor:			
Residence:			
Correspondence:			

Inventor's Signature Date

	Given Name	Middle Name	Family Name
Full Name of # 5 Joint Inventor:			
Residence:			
Correspondence:			

Inventor's Signature Date