503762446 03/31/2016

EPAS ID: PAT3809093

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

SUBMISSION TYPE: NEW ASSIGNMENT NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KEVIN J. GRANNEN	03/31/2016
CHRIS FENG	03/31/2016
JOHN CHOY	03/31/2016

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:	15086397

CORRESPONDENCE DATA

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Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

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Correspondent Name: AVAGO TECHNOLOGIES, LTD.

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150217US01 ATTORNEY DOCKET NUMBER: NAME OF SUBMITTER: CRIS E. JOHNSON **SIGNATURE:** /Cris E. Johnson/ **DATE SIGNED:** 03/31/2016

Total Attachments: 2

source=Executed Assignment#page1.tif source=Executed_Assignment#page2.tif

> **PATENT** REEL: 038154 FRAME: 0097 503762446

Avago File No.: 150217US01

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, I am an inventor or joint inventor of an Invention entitled:
ACOUSTIC RESONATOR INCLUDING MONOLITHIC PIEZOELECTRIC LAYER HAVING OPPOSITE POLARITIES
which Invention is described and claimed in a United States patent application filed as US application serial number (the
Application); and
WHEREAS, 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), desires to acquire the Invention and the Application, and any patent that may be granted therefor in the United States and in any foreign countries.
NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I hereby sell, assign, convey and transfer to AVAGO, its successors and assigns, the entire right, title and interest, in and to the Invention and the Application and all other applications for patent which have been or shall be filed in the United States and all foreign countries for the Invention, and all continuations, continuations-in-part, divisionals, renewals and substitutes therefore, and all the rights and privileges under any and all patents that may be granted therefore including any reissues, reexaminations and extensions thereof.
I authorize AVAGO to make applications for patent or other form of protection for the Invention in AVAGO's own name in any and all countries, and to invoke and claim the benefit of all rights of priority provided by any and all treaties, conventions or agreements without further written or oral authorization.
I agree to communicate to AVAGO or to its nominee all known facts respecting the Invention, to testify in any legal proceedings, to execute all oaths, declarations, assignments, powers of attorney and other papers, and generally to do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other forms of protection for the Invention in any and all countries and for vesting title thereto in AVAGO, its successors and assigns, in any and all countries provided the expenses which may be incurred by me in lending such cooperation and assistance are paid by AVAGO;
I hereby authorize and request the Patent and Trademark Office officials in the United States and in any foreign countries to issue any and all patents, inventor's certificates, utility certificates, utility models, or certificates of addition for the Invention to AVAGO as assignee of the entire interest.
I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith.
I hereby grant AVAGO attorneys the power to insert on this document any further information necessary or desirable to comply with the rules of the United States Patent and Trademark Office.
IN WITNESS WHEREOF, executed by me on the date below.
INVENTOR
Name: Kevin J. Grannen Date: 3 / March 2016
Signature: Keny hauren
Additional inventors listed on supplemental page.

Assignment of Patent Application- US

20150706

Supplemental Page to Assignment of Patent Application Additional Inventors

INVENTOR			
Name:	Chris Feng	Date:	3/31/2016
Signature:	Chref		
INVENTOR			
Name:	John Choy	Date:	3/31/2016
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INVENTOR	V		
Name:		Date:	
Signature:	**************************************		
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Signature:			
INVENTOR			
Name:		Date:	
Signature:			

Assignment of Patent Application- US

20150706

PATENT REEL: 038154 FRAME: 0099