502954266 08/28/2014

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3000864

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RICHARD C. RUBY	08/27/2014
STEVE MARTIN	08/27/2014
BRICE IVIRA	08/27/2014
SURESH SRIDARAN	08/27/2014

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:	14471210	

CORRESPONDENCE DATA

Fax Number: (571)283-0740

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 5712830729

Email: jbooth@volentine.com

Correspondent Name: AVAGO TECHNOLOGIES, LTD.

Address Line 1: 4380 ZIEGLER ROAD

Address Line 4: FORT COLLINS, COLORADO 80525

ATTORNEY DOCKET NUMBER:	2014-033USORG
NAME OF SUBMITTER:	JANE BOOTH
SIGNATURE:	/jane booth/
DATE SIGNED:	08/28/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 3

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502954266 REEL: 033628 FRAME: 0763

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PATENT REEL: 033628 FRAME: 0764

COMBINED	DECLARATION AND				
ASSIGNME!	NT FOR PATENT	T APPLICATION			

ATTORNEY DOCKET NO.

2014-033USORG

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:

FILM BULK ACOUSTIC RESONATORS COMPRISING BACKSIDE VIAS the specification of which is attached hereto unless the following box is checked:

was filed o	m as US Application Serial No. or PCT Int	ternational 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:		Direct Tel	ephone Calls	i to:	
	AVAGO TECHNOLOGIES, LTD. 4380 Ziegler Road Fort Collins, CO 80525	William S. Francos (571) 283-0728	OR	Floyd E. Anderson (970) 288-0760	

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. 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 covenan; 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, nominces 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;

Combined Declaration/Assignment-Oct

Page 1 of 2

PATENT REEL: 033628 FRAME: 0765 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):

	Given Name	Middle Name	Family Name			
Full Name of Sole or First Inventor	: Richard	c.	Ruby			
Residence: Menlo Pa	rk CA	2				
Correspondence: 567 9th Ave., Menlo Park, CA 94025						
D67 900 A	ive., Menio Park, CA 94025					
11.11.1.1.1.	7	100 R7	2017			
Inventor's Signature		Date				
		· ·				
	Given Name	Middle Name	Family Name			
Full Name of # 2 Joint Inventor:	Steve		Martin			
Residence: Fort Collins, (CO					
Correspondence:	ury Drive, Fort Collins, CO 80525	· · · · · · · · · · · · · · · · · · ·				
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$\rightarrow 1$		8/27/14	The state of the s			
Inventor's Signature		Date				
	Given Name	Middle Name	Family Name			
Full Name of # 3 Joint Inventor:	Brice		lvira			
Residence: San Jose, CA						
Correspondence: 1735 Birch La	ake Court, San Jose, CA 95131					
	W					
Inventor's Signature		Date				
	Given Name	Middle Name	Family Name			
Full Name of # 4 Joint Inventor:	Suresh		Sridaran			
Residence: Fort Collins,		The state of the s				
Campanandanaa						
5225 White	Willow Dr. Apt. O230, Fort Collins, CO	80528				
1. 1		8/27/14				
Inventor's Signature		Date	The state of the s			
-						
	Given Name	Middle Name	Family_Name			
Full Name of # 5 Joint Inventor:						
Residence:						
Correspondence:						
Inventor's Signature	***************************************	Date				

Combined Declaration/Assignment-Oct 2012

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 I	First Inventor:	Richard	C.		Ruby	
Residence: Menlo Park, CA						
Correspondence: 567 9th Ave., Menlo Park, CA 94025						
	307 9th Ave	er, Menio Park, CA 94023	*********			
***************************************					*	
Inventor's Signature				Date		
		Given Name	******	Middle Name	Family Name	
Full Name of # 2 Join	t inventor:	Steve			Martin	
Residence: Fo	rt Collins, CC)				
Correspondence: 43	43 Kinasbur	y Drive, Fort Collins, CO 80525				
Inventor's Signature			•	Date	 	
vo.no/ o o.g.no.c/						
	***	Given Name	7 F	Middle Name	Family Name	
Full Name of # 3 Join	t Inventor:	Price Price			lvira	
	n Jose, CA					
Correspondence: 17:	35 Birch Lak	e Court, San Jose, CA 95131				
J149				08/27/2	014	
Inventor's Signature						
C. II blanca - 18 46 4 1550		Given Name uresh	Г	Middle Name	Family Name Sridaran	
Full Name of # 4 Join Residence:	ort Collins, Co				Sixuali	
C						
5.	225 White W	illow Dr. Apt. 0230, Fort Collins, Co) 805	28		
Inventor's Signature				Date		
- 4 - 4 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	r	Given Name	Г	Middle Name	Family Name	
Full Name of # 5 Join	t inventor:					
Correspondence:	Residence:					
Correspondence.						
Inventor's Signature				Date		

Combined Declaration/Assignment-Oct 2012

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