PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4795918

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SCOTT ROBERT DAVIS	01/17/2018
SHRENIK DELIWALA	01/23/2018
MICHAEL ZIEMKIEWICZ	09/05/2017
DEREK GANN	08/29/2017
ANDREW WILLIAM SPARKS	08/29/2017
MICHAEL HOWARD ANDERSON	01/17/2018

RECEIVING PARTY DATA

Name:	ANALOG DEVICES, INC.
Street Address:	ONE TECHNOLOGY WAY
City:	NORWOOD
State/Country:	MASSACHUSETTS
Postal Code:	02062

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15685605

CORRESPONDENCE DATA

Fax Number:

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.

Email: request@slwip.com

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER, P.A.

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	3867.443US1
NAME OF SUBMITTER:	DIANA JOHNSON
SIGNATURE:	/Diana Johnson/
DATE SIGNED:	01/26/2018

Total Attachments: 8

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PATENT REEL: 044741 FRAME: 0043

RECORDATION FORM COVER SHEET ${\bf PATENTS~ONLY}$

Atty Ref/Docket No.: 3867.443US1

Patent and Trademark Office

To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

Name and address of receiving party(ies):

1. Name of conveying party(ies): Scott Robert Davis, Shrenik Deliwala, Michael Ziemikiewicz, Derok Gann, Adriew William Sparks, Michael Howard Anderson Additional name(s) of conveying party(ies) attached? [JYes [X]No Additional name(s) of conveying party(ies) attached? [JYes [X]No Additional name(s) & address(es) attached? [JYes [] 3. Nature of conveyance: [X] Assignment	To the Director of the U.S. Patent and Trademark Office:	Please record the attached original documents or copy thereof.
Scott Robert Davis, Shrenik Deliwala, Michael Zienkiewicz, Derok Gann, Andrew William Sparks, Michael Howard Anderson Additional name(s) of conveying party(ies) attached? [] Yes [X]No 3. Nature of conveyance: [X] Assignment	1. Name of conveying party(ies):	2. Name and address of receiving party(ies):
Ziemkiewicz, Derek Gann, Andrew William Sparks, Michael Howard Anderson	• • • • • • • • • • • • • • • • • • • •	Name: Analog Devices, Inc.
Additional name(s) of conveying party(ies) attached? [Yes X No Additional name(s) & address(es) attached? [Yes Xestimate	Ziemkiewicz, Derek Gann, Andrew William Sparks,	
3. Nature of conveyance: X Assignment Merger Security Agreement Change of Name Other	Additional name(s) of conveying party(ies) attached?	City: Norwood State: MA Zip: 02062 Country: United States of America
[X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: January 17, 2018, January 23, 2018, September 5, 2017, August 29, 2017, August 29, 2017, January 17, 2018 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) Serial No. 15/685,605 Additional numbers attached? []Yes [X]No 5. Name and address of party to whom correspondence concerning document should be mailed: 7. Total fee (37 CFR 3.41):\$ 0.00 []Enclosed []Authorized to be charged to deposit accour 0743 Address: Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Minnesola 554020938 8. Please charge any additional fees or credit any or payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true of the original document. 25JAN2018 Jonathon I. Gillen/Reg. No. 67,626 Name of Person Signing Signature Date	[]Yes [X]No	Additional name(s) & address(es) attached? []Yes [X]No
[] Security Agreement [] Change of Name [] Other Execution Date: January 17, 2018, January 23, 2018, September 5, 2017, August 29, 2017, August 29, 2017, August 29, 2017, January 17, 2018 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) Serial No. 15/685,605 Additional numbers attached? []Yes [X]No 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Jonathon I. Gillen Address: Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Minneapolis, Minnesota 554020938 B. Patent No.(s) 6. Total number of applications and patents involved to the charged to deposit account 1/2 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	3. Nature of conveyance:	
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		Signature Date
1 otal number of pages including cover sheet: 8		Total number of pages including cover sheet: <u>8</u>

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450 Alexandria, VA 22313-1450

ASSIGNMENT

WHEREAS, I am a named inventor, Scott Robert Davis, Shrenik Deliwala, Michael Ziemkiewicz, Derek Gann, Andrew William Sparks, Michael Howard Anderson, of residence listed below, having invented certain new and useful improvements as described in an application for United States Letters Patent entitled "Step Couplers for Planar Waveguides," (hereinafter referred to as "Application") and having internal reference number of APD620401US.

WHEREAS, I hereby authorize and request the attorneys or agents associated with United States Patent and Trademark Office Customer No. **21186** to insert here in parentheses (Ser. No. 15/685,605; Filing Date: August 24, 2017) the filing date and serial number of the Application when known;

WHEREAS, Analog Devices, Inc., (hereinafter referred to as "Assignee"), a Massachusetts Corporation, with an address of One Technology Way, Norwood, MA 02062, desires to acquire my entire right, title and interest in and to any and all inventions and improvements that are disclosed in the Application (hereinafter referred to as "Invention"), including any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I hereby assign and transfer, and hereby agree to assign and transfer, to Assignee, all right, title and interest in and to the Invention and in and to the Application and all patents which may be granted therefrom, and all related applications (e.g., provisional applications, divisional applications, reissues, reexaminations, continuation applications, continuation-in-part applications, extensions thereof, design applications, applications in foreign countries, international applications, national phase applications, and the like). I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents, for the Invention, or patents resulting therefrom, insofar as my interest is concerned, to Assignee.

I also hereby assign and transfer, and hereby agree to assign and transfer to Assignee, all right, title and interest to the Invention, the Application or any related application throughout the world, including all rights of priority resulting from the filing of the Application or any related application, including but not limited to: the right to file applications and obtain patents, utility models, industrial models and designs for the Invention in Assignee's own name throughout the world, the right to claim priority from the Application or any related application when filing applications and obtaining patents, utility models, industrial models and designs for the Invention throughout the world, and all rights to publish cautionary notices reserving ownership of the Invention and all rights to register the Invention in appropriate registries. I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in and to Assignee.

Page 1

ATTORNEY DOCKET NO. 3867,443US1(APD620401US)

I will communicate to Assignee any facts known to me respecting any improvements to the Invention; and I will sign all lawful papers, execute all rightful assignments, execute all provisional, divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in and to Assignee and to aid Assignee to obtain and enforce proper protection for the Invention in all countries and jurisdictions throughout the world. I irrevocably appoint Analog Devices, Inc. as my attorney-in-fact to execute on my behalf any documents deemed necessary by Analog Devices, Inc. to obtain and enforce proper protection for the Invention in all countries and jurisdictions throughout the world. I agree to testify and cooperate with Assignee in any judicial proceeding, administrative proceeding, post-grant proceeding, or other proceeding concerning the Invention (including litigation with a third party over any patent issued on the Invention), and Assignee agrees to cover my reasonable costs and expenses (if any).

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

Title of Invention:	Step Couplers for Planar Waveguides
Full name of inventor:	Scott Robert Davis
Inventor's signature:	1/17/15-
Date:	<u> </u>
Inventor Home Address:	2929 Welton Street Denver, CO 80205
Witness's Print Name:	Bennell Salorgren
Witness's signature:	<u> </u>
Witness Home Address:	3249 5 Estes St Lolared 10 50227

Title of Invention:	Step Couplers for Planar Waveguides
Full name of inventor:	Shrenik Deliwala
Inventor's signature:	Judely)
Date:	January 23, 2018
Inventor Home Address:	16 Kathleen Drive Andover, Massachusetts 01810
Witness's Print Name:	
Witness's signature:	
Witness Home Address:	

ATTORNEY DOCKET NO. 3867.443US (APD62040/US)

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Full name of inventor

Investor's secondare

Date:

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ASSIGNMENT

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Full name of inventor:

Inventor's signature:

Date:

Inventor Home Address:

Witness's Print Name:

Witness's signature:

Witness Home Address:

Step Couplers for Planar Waveguides

Derek Gann.

2505 E 29th Ave Denver, CO 80205

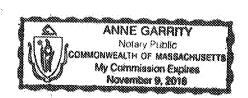
Bennett Sodergren

3249 S Estes St

ATTORNEY DOCKET NO. 3867.443USI(APD620401US)

ASSIGNMENT

Title of Invention:	Step Couplers for Planar Waveguides
Full name of inventor:	Andrew William Sparks
Inventor's signature:	-ANSIL
Date:	8/29/2017
Inventor Home Address:	70 Robbins Road Arlington, MA 02476
Witness's Print Name:	Anno Garrite
Witness's signature:	Anno Garrity anne Garry
Witness Home Address:	11 Muse are Nulley, Ma. 03/14



ATTORNEY DOCKET NO. 3867.443US1(APD620401US)

ASSIGNMENT

Title of Invention:	Step Couplers for Planar Waveguides
Full name of inventor:	Michael Howard Anderson
Inventor's signature:	- Calledan
Date:	4/17/2015
Inventor Home Address:	PO Box 315 737 4th Ave. Lyons, CO 80540
Witness's Print Name: Witness's signature:	David Fish
Witness Home Address:	10966 W. Polk Dr.
	<u> LitHeton, CO BOIZ7</u>