504014010 09/20/2016

EPAS ID: PAT4060667

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
ROGER VAN BRUNT	09/16/2016
STEFAN JONES	09/16/2016

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	15270751
Application Number:	62222868

CORRESPONDENCE DATA

Fax Number: (949)760-9502

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: 9497600404

Email: efiling@knobbe.com

KNOBBE MARTENS OLSON & BEAR LLP **Correspondent Name:**

Address Line 1: 2040 MAIN STREET

Address Line 2: 14TH FLOOR

Address Line 4: **IRVINE, CALIFORNIA 92614**

ATTORNEY DOCKET NUMBER:	ADINC.288PR / 288A
NAME OF SUBMITTER:	DAVID TROSSEN
SIGNATURE:	/David Trossen/
DATE SIGNED:	09/20/2016

Total Attachments: 6

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> **PATENT** REEL: 039804 FRAME: 0907 504014010

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> PATENT REEL: 039804 FRAME: 0908

ASSIGNMENT

WHEREAS, I am a named inventor, Roger Van Brunt and Stefan Jones, of residence listed below, having invented certain new and useful improvements as described in an application for United States Letters Patent entitled "APPARATUS AND METHODS FOR FRACTIONAL-N PHASE-LOCKED LOOPS WITH MULTI-PHASE OSCILLATORS," (hereinafter referred to as "Application") and having internal reference number of APD5342-2-US;

WHEREAS, I hereby authorize and request the attorneys or agents associated with United States Patent and Trademark Office Customer No. 110833 to insert here in parentheses (Ser. No. 15/270,751; Filing Date: September 20, 2016) 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 [including but not limited to U.S. Provisional Application No. **62/222,868**, filed September 24, 2015], 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.

ATTORNEY DOCKET NO. ADINC.288A (APD5342-2-US)

ASSIGNMENT

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: APPARATUS AND METHODS FOR.
FRACTIONAL-N PHASE-LOCKED LOOPS
WITH MULTI-PHASE OSCILLATORS

Full name of inventor:

Inventor's signature:

Date:

Inventor Home Address:

Witness's Print Name:

Witness's signature.

Witness Home Address:

Roger Van Brund

EnglanBant

1/88944/4 Ct 0 3 C-- - A

Title of Invention:	APPARATUS AND METHODS FOR FRACTIONAL-N PHASE-LOCKED LOOPS WITH MULTI-PHASE OSCILLATORS
Full name of inventor:	Stefan Jones
Inventor's signature:	
Date:	
Inventor Home Address:	
Witness's Print Name:	
Witness's signature:	
Witness Home Address:	

ASSESSMENT

WHEREAS, I am a named inventor, Roger Van Brunt and Stefan Jones, of residence listed below, having invented certain new and useful improvements as described in an application for United States Letters Patent entitled "APPARATUS AND METHODS FOR FRACTIONAL-N PHASE-LOCKED LOOPS WITH MULTI-PHASE OSCILLATORS," (hereinafter referred to as "Application") and having internal reference number of APD5342-2-105.

WHEREAS, Analog Devices, Inc. (bereinafter 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 fide and interest in and to the Invention and in and to the Application and all potents which may be granted therefrom, and all related applications (e.g., provisional applications (including but not limited to U.S. Provisional Applications No. 62/222868, filed September 24, 2015), divisional applications, reissues resuminations, continuation applications, continuation-in-part applications, extensions thereof, design applications, applications in foreign countries, international applications national place applications, and the like). I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents, for the Invention, or parents resulting therefrom, insofar as my interest is concerned, to Assignee.

I also hereby assign and transfer, and hereby agree to assign and transfer to Assigned, 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 Assigned'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 register the Invention in appropriate registres. I further agree to execute any 8th all private of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right. Life and interest in and to Assignee.

A TTORNEY DARKET NO ADINC 288A (APD 542-245)

I will communicate to Assignee any facts known to the 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 chain and enforce proper protection for the Invention in all countries and jurisdictions throughout the world. I irrevocably appoint Analog Devices, fact to execute on my behelf any documents deemed occasion 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).

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

Fife of Invention:	APPARATUS AND METHODS FOR FRACTIONAL-N PHASE-LOCKED LOOPS WITH MULTI-PHASE OSCILLATORS
full name of inventor	Roger Van Bront
Inventor's signature;	
Date	
Inventor Home Address:	
Witness's Print Name:	
Witness's signature	
Witness Home Address:	

New 2

ATTORNEY DOCKET NO ADINC 2884 (APD 5342-245)

ASSIGNMENT

Title of Invention	APPARATUS AND METHODS FOR FRACTIONAL NIPHASE LOCKED LOOPS WITH MULTI-PHASE OSCILLATORS
Full name of inventor:	Stefan Jones
Inventor's aignature:	
Date	9/16/2016
Inventor Home Address:	505 Grow Ave
Witness's Print Name:	
Witness's signature	
Wifness Horne Address:	