502806345 05/13/2014

### PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
JOSEPHUS VAN ENGELEN	05/07/2014
HAIRONG YU	05/07/2014
HOWARD BAUMER	05/09/2014

#### **RECEIVING PARTY DATA**

Name:	ENTROPIC COMMUNICATIONS, INC.
Street Address:	6290 SEQUENCE DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14028449

#### CORRESPONDENCE DATA

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

US Mail.

**Phone:** 8587683859

**Email:** judythe.roberts@entropic.com

Correspondent Name: JUDYTHE ROBERTS
Address Line 1: 6290 SEQUENCE DRIVE

Address Line 4: SAN DIEGO, CALIFORNIA 92121

ATTORNEY DOCKET NUMBER:	M120009USC1
NAME OF SUBMITTER:	JUDYTHE ROBERTS
SIGNATURE:	/Judythe Roberts/
DATE SIGNED:	05/13/2014
	This document serves as an Oath/Declaration (37 CFR 1.63).

#### **Total Attachments: 4**

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PATENT REEL: 032877 FRAME: 0995

## DECLARATION AND ASSIGNMENT FOR PATENT AND DESIGN APPLICATIONS

# Title: DIGITALLY CONTROLLED OSCILLATOR WITH THERMOMETER SIGMA DELTA ENCODED PREQUENCY CONTROL WORD

As a below named inventor/Assignor (hereinafter designated as the undersigned), I hereby declare that:

This declaration is directed to the application attached hereto for which a Patent Application was filed under United States Application Number 14/028,449 on September 16, 2013.

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

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56.

WHEREAS, I invented certain new and useful improvements disclosed in the application identified (hereafter collectively referred to as the Invention).

WHEREAS, Entropic Communications Inc., of 6290 Sequence Drive, San Diego, CA 92121, its heirs, successors, legal representatives and assigns (hereinafter collectively designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to the Invention and in and to any Letters Patent (s) that may be granted for the Invention in the United States of America and in any foreign countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I do sell, assign and transfer to Assignee the full and exclusive worldwide right to the Invention and the entire worldwide right, title and interest in and to any all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries; and to any and all divisions, reissues, continuations, continuations-in-part, conversions and extensions thereof for the full term or terms for which such Letters Patent(s) may be granted.

I agree to execute all papers necessary in connection with the above identified application and any continuation, continuation-in-part, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

Lagree to execute all papers necessary in connection with any interference or derivation preceding which may be declared concerning this application or continuation, continuation-in-part, division, conversion or every way possible in obtaining and producing evidence and proceeding with such derivation or interference preceding.

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I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant to the Assignee and to vest in Assignee all rights for (a) valid patent(s) in the United States of America and any foreign country(s) as fully and entirely as those rights would have been held by me were this Assignment and sale not made.

I hereby authorize and request the United States Patent and Trademark Office Officials and patent officials of any foreign countries to issue any and all Letters Patent(s) resulting from the above identified application or any continuation, continuation-in-part, divisional, conversion or reissue applications thereof to the Assignee, as Assignee of the entire interest, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and I will not execute, and agreement in conflict herewith.

I hereby grant to Entropic Communications Inc., the power to insert any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office.

I hereby covenant that no assignment, sale agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

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.

in witness whereof, executed by me on the date opposite my name.

LEGAL N	AME OF INVENTOR/ASSIGNOR		1	e . ee y y
Inventor:	Josephus van Engelen	Date:	5/1/2	
Signature:	J. J. Janes	CHARLES WALL IN CAN.		
-				

Additional inventors are being named on the <u>l</u> supplemental sheet(s) attached hereto.

SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT	ADDITIONAL INVENTOR(S) Supplemental Sheet Page 3 of 3
LEGAL NAME OF JOINT INVENTOR, IF ANY	Date: 05/07/2014
Inventor: Hairong Yu	Date: 05/07/2014
Signature:	
LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor: Howard Baumer	Date:
Signature:	

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SUPPLEMENTAL SHEET FOR DECLARATION AND ASSIGNMENT	ADDITIONAL INVENTOR(S) Supplemental Sheet Page 3 of 3
LEGAL NAME OF JOINT INVENTOR, IF ANY	
Inventor: Hairong Yu	Date:
Signature:	
E (NA) A N N N A A 200 A 200 YANG MAN YANG MINING M	
LEGAL NAME OF JOINT INVENTOR, IF ANY	. 1 2
Inventor: Howard Baumer	Date: 5/9/2015
/ <u>_</u>	• /

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