

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SHRIKANT RANADE	02/26/2018
LEI MING	03/13/2018
JIONG HUANG	02/26/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	LATTICE SEMICONDUCTOR CORPORATION
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<b>State/Country:</b>	OREGON
<b>Postal Code:</b>	97204
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15829670
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	30850-37936/US
<b>NAME OF SUBMITTER:</b>	ERIC Y. ZHOU
<b>SIGNATURE:</b>	/Eric Zhou/
<b>DATE SIGNED:</b>	03/20/2018
<b>Total Attachments: 4</b>	
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## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to **Lattice Semiconductor Corporation**, a Delaware corporation, having a place of business at **111 SW 5th Avenue, Suite 700, Portland, Oregon 97204** ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional or non-provisional application filed under 35 U.S.C. § 111, design application filed under 35 U.S.C. § 171, international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):

- Application No. 15/829,670, entitled "**Transmitting Common Mode Control Data Over Audio Return Channel**," filed on **December 1, 2017**, which claims the benefit of U.S. Provisional Application No. 62/481,429 filed on April 4, 2017.

2. The entire worldwide right, title, and interest in and to:  
(a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto that have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) that may be granted on the applications set forth in (a), (b), and (c) above; and (e) all right of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

INVENTOR represents that INVENTOR has the rights, titles, and interests to convey as set forth herein, and covenants with ASSIGNEE that the INVENTOR has not made and will not hereafter make any assignment, grant, mortgage, license, or other agreement affecting the rights, titles, and interests herein conveyed.

Title:	Transmitting Common Mode Control Data Over Audio Return Channel		
Filed:	December 1, 2017	Attorney Docket #:	30850-37936/US
Application #:	15/829,670	Client Ref #:	LS16-036US

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other authority for recordation of this document.

This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

Name and Signature

*S. R. Ranade*

Shrikant Ranade

Date of Signature

2/26/2018

Name and Signature

Lei Ming

Date of Signature

Name and Signature

Jiong Huang

Date of Signature

Title:	Transmitting Common Mode Control Data Over Audio Return Channel		
Filed:	December 1, 2017	Attorney Docket #:	30850-37936/US
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Name and Signature

Date of Signature

Shrikant Ranade

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Lei Ming

03/13/2018

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Jiong Huang

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Name and Signature

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Date of Signature

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Shrikant Ranade

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Name and Signature

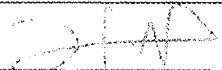
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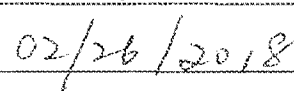
\_\_\_\_\_  
Lei Ming

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Name and Signature

\_\_\_\_\_  
Date of Signature

  
\_\_\_\_\_  
Jiong Huang

  
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02/26/2018