

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT5495213

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
Shiufun Cheung	01/24/2018
Zukui Song	02/02/2018
David J. Warkentin	01/10/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Bose Corporation
<b>Street Address:</b>	The Mountain
<b>City:</b>	Framingham
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01701-9168
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16171951
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
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<b>Phone:</b>	+1 (617) 542-5070
<b>Email:</b>	apsi@fr.com
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<b>Address Line 1:</b>	FISH & RICHARDSON P.C.
<b>Address Line 2:</b>	P.O.BOX 1022
<b>Address Line 4:</b>	MINNEAPOLIS, MINNESOTA 55440-1022
<b>ATTORNEY DOCKET NUMBER:</b>	02103-1076001
<b>NAME OF SUBMITTER:</b>	RITA M. LISTON
<b>SIGNATURE:</b>	/Rita M. Liston/
<b>DATE SIGNED:</b>	04/26/2019
<b>Total Attachments: 5</b>	
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## ASSIGNMENT

For valuable consideration, the receipt and sufficiency of which is acknowledged, we, the below named inventors, (hereinafter referred to as Assignors), hereby assign to Bose Corporation, a corporation of Delaware, having a place of business at The Mountain, Framingham, MA 01701-9168, United States of America, and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements which are described in or the subject of an application for United States Patent signed by Assignors entitled:

### **Noise estimation using multiple coherence**

which is identified by Bose Corporation Docket No. **AS-17-149-US** for which Assignors filed an application of United States Letters Patent on **October 26, 2017** assigned Application Serial No. **62577506** (hereinafter the "Application").

This assignment includes: (i) the Application; (ii) continuation, divisional and other United States applications which claim priority to the Application; (iii) all foreign and international applications which claim priority to the Application; (iv) any and all United States and foreign patents, utility models, inventors' certificates, and design registrations granted for any of the inventions or improvements disclosed in or the subject of the Application, and (v) the right to claim priority based on the filing date of the Application under the United States Code, the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other statutes or treaties of like purposes.

Assignors authorize the Assignee to apply in all countries in our names or in its own name for patents, utility models, design registrations, inventors' certificates and like rights of exclusion for any inventions or improvements which are disclosed in or the subject of the Application. Assignors agree for themselves and their respective heirs, legal representatives and assigns, without further compensation, to perform such lawful acts and to sign such further applications, assignments, preliminary statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

Assignors covenant that they have the full right to convey the interests assigned by this

Assignment, and that they have not executed and will not execute any agreement in conflict with this Assignment. Assignors further agree that they will, without further consideration: (i) promptly disclose to Assignee's patent attorney any prior art known to Assignors during the pendency of the Application or other US or foreign related applications; (ii) testify in any legal or administrative proceeding and participate in any examiner interview relating to the inventions or improvements described in or subject of the Application; and (iii) provide reasonable assistance to the Assignee to obtain and enforce proper patent protection for the inventions and improvements described in or subject of the Application.

This assignment and all disputes under this assignment shall be governed by the laws of the Commonwealth of Massachusetts. Any and all claims, lawsuits, or disputes of any kind between Assignors and Assignee shall be resolved in federal or state courts in the Commonwealth of Massachusetts.

In testimony whereof, we have hereunto set our hands.

In witness whereof, I hereto set my hand and seal

  
Shiufun Cheung

01/24/2018  
(date)

Certificate of Notarization:

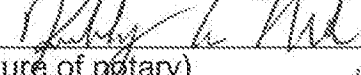
Commonwealth of Massachusetts,

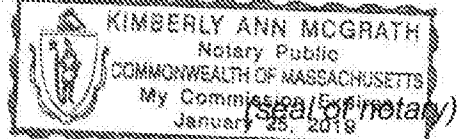
County: Middlesex

Date: January 24, 2018

On this date, before me, the undersigned notary public, personally appeared **Shiufun Cheung**, proved to me through satisfactory evidence of identity, which was/were

known to me, to be the person whose name was signed above, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief, and that he/she signed it voluntarily for its stated purpose.

  
(signature of notary)  
My commission expires 1/25/19



In witness whereof, I hereto set my hand and seal

  
Zukui Song

2/2/2018  
(date)

Certificate of Notarization:


Commonwealth of Massachusetts,

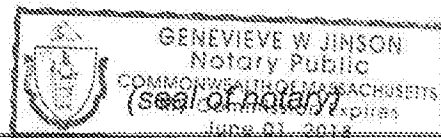
County: Middlesex

Date: 2 February / 2018

On this date, before me, the undersigned notary public, personally appeared **Zukui Song**, proved to me through satisfactory evidence of identity, which was/were

personally known to me, to be the person whose name was signed above, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief, and that he/she signed it voluntarily for its stated purpose.

  
(signature of notary)  
My commission expires 6/1/2018



In witness whereof, I hereto set my hand and seal

David J. Warkentin  
David J. Warkentin

1/10/18  
(date)

Certificate of Notarization:

Commonwealth of Massachusetts,

County: Middlesex

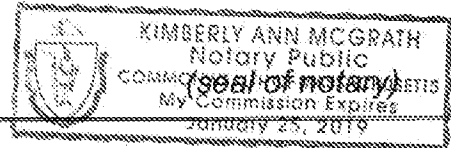
Date: January 10, 2018

On this date, before me, the undersigned notary public, personally appeared **David J. Warkentin**, proved to me through satisfactory evidence of identity, which was/were

known to me, to be the person whose name was signed above, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief, and that he/she signed it voluntarily for its stated purpose.

[Signature]  
(signature of notary)

My commission expires 1/25/19



**Assignee Acceptance**

Bose Corporation, the Assignee, hereby acknowledges and accepts the foregoing assignment.

Signature:   
Name: Stephen L. Romine  
Title: Chief Intellectual Property Counsel

Date: 2/6/2018