

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT

## CONVEYING PARTY DATA

Name	Execution Date
AT&T INTELLECTUAL PROPERTY II, L.P.	12/12/2016

## RECEIVING PARTY DATA

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## PROPERTY NUMBERS Total: 12

Property Type	Number
Patent Number:	6208276
Patent Number:	6384759
Application Number:	60114719
Patent Number:	7548790
Patent Number:	7664559
Patent Number:	8452431
Patent Number:	9305561
Application Number:	15063871
Patent Number:	7499851
Patent Number:	7970604
Patent Number:	7657426
Patent Number:	6735561

## CORRESPONDENCE DATA

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PATENT

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<b>ATTORNEY DOCKET NUMBER:</b>	110971-8000
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<b>NAME OF SUBMITTER:</b>	EMI RHODES
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<b>SIGNATURE:</b>	/Emi Rhodes/
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<b>DATE SIGNED:</b>	02/01/2017
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**Total Attachments: 3**

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EXHIBIT B1

## ASSIGNMENT OF PATENT RIGHTS

This Assignment of Patent Rights ("**Assignment**") is made and entered into on this 12<sup>th</sup> day of December 2016, by and between:

AT&T Intellectual Property II, L.P., a partnership organized and existing under the laws of the State of Nevada, with a place of business at 645 E. Plumb Lane, Reno, Nevada 89502 ("**Assignor**"); and Fraunhofer-Gesellschaft zur Foerderung der angewandten Forschung e.V., a non-profit organization duly organized under the laws of the Federal Republic of Germany and having its principal office at Hansastr. 27c, 80686 Munich, Germany, acting on behalf of its Fraunhofer Institut fuer Integrierte Schaltungen IIS having its principal office at Am Wolfsmantel 33, 91058 Erlangen, Germany ("**Assignee**").

**WHEREAS**, Assignor is the owner of all right, title and interest in and to the has agreed to assign and transfer to Assignee all right, title and interest in and to the patents and patent applications set forth on Attachment A attached hereto ("**Assigned Patents**");

**WHEREAS**, Assignee is desirous of acquiring all right, title, and interest in and to the Patents.

**NOW, THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby assigns to Assignee, or its designees, all right, title and interest that exist today and may exist in the future in and to all of the following (collectively, the "**Patent Rights**"): (a) the Assigned Patents, including: all rights pursuant to 35 U.S.C. § 154; (b) all patents or patent applications (i) to which any of the foregoing claim priority and/or (ii) for which any of the foregoing forms a basis for priority; (c) any and all continuing, divisional and continuation-in-part applications of any of the foregoing; (d) all requests for continuing examination, substitutions, reissues, extensions, renewals and reexaminations of any of the foregoing; (e) all foreign patents, patent applications and counterparts to any of the foregoing, including certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances; and (f) all rights to apply in any country for patents, certification of invention, utility models, industrial design protections, design patent protection or other governmental grants or issuances corresponding to any of the foregoing throughout the world, including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement or understanding; (g) all inventions set forth in any of the Assigned Patents; (h) all past, present and future causes of action (whether currently pending, filed, or otherwise) and other enforcement actions (including, without limitation, all rights to damages, injunctive remedies and relief, and other remedies of any kind for past, current and future infringement) and all rights to collect royalties (other than royalties or other payments due under agreements entered into by Assignor and third parties prior to the date of this Assignment), damages and profits, due or accrued, relating to any of the foregoing, including the right to sue and recover for, and the right to profits and damages, due or accrued, arising out of or in connection with, any and all past, present or future infringements or dilutions. The assignment of the Assigned Patents includes all documents related to the conception, diligence and reduction to practice of the inventions disclosed in the Assigned Patents and all domestic and international patent filing documents.

Assignor hereby authorizes and requests the Director of the U.S. Patent and Trademark Office and any official of any other country whose duty it is to issue patents on the applications included in the Patent Rights, to issue all Letters Patent, patents, certificates of invention, utility models or other governmental grants or issuances for the inventions disclosed therein to Assignee, its successors and assigns, as the assignee to the entire interest therein.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF, Assignor has caused this Assignment of Patent Rights to be executed by its duly authorized representative on the date set forth below.

**ASSIGNOR:**

AT&T Intellectual Property II, L.P.

By: Jeanette Napp  
Jeanette Napp, Assistant Secretary  
AT&T Intellectual Property LLC  
As General Partner for AT&T Intellectual Property II, L.P.

On this 12<sup>th</sup> day of Dec, 2016, before me, a Notary Public, appeared Jeanette Napp, who is personally known to me or proved to me on the basis of satisfactory evidence to be the same person whose name is subscribed to this Assignment document.

Witness my hand and official seal:

Marsha Bailey  
Notary Public



## ATTACHMENT A

## LIST OF PATENTS AND APPLICATIONS

Patent Number	Country	Application Type	Patent Number	Application Number	Application Date	Patent Date	Status	Description
113131	USA	Original Filing	6208276	09/265880	3/11/1999	3/27/2001	Patented	Method And Apparatus For Sample Rate Pre- And Post-Processing To Achieve Maximal Coding Gain For Transform-Based Audio Encoding And Decoding
113131	USA	Continuation	6384755	09/773492	2/2/2001	5/7/2002	Patented	Method And Apparatus For Sample Rate Pre- And Post-Processing To Achieve Maximal Coding Gain For Transform-Based Audio Encoding And Decoding
113131	USA	Original Filing		60/114719	12/30/1998		Converted	Method And Apparatus For Sample Rate Pre- And Post-Processing To Achieve Maximal Coding Gain For Transform-Based Audio Encoding And Decoding
1999-0104	USA	Continuation	7548790	11/216812	8/31/2005	6/16/2009	Patented	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104	USA	Continuation	7664559	11/457230	7/13/2006	2/16/2010	Patented	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104	USA	Continuation	8432431	12/644302	12/22/2009	5/28/2013	Patented	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104	USA	Original Filing	7099330	09/537948	3/29/2000	8/29/2006	Lapsed	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104	USA	Continuation	9305561	13/901891	5/24/2013	4/5/2016	Patented	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104	USA	Continuation		15/063871	3/8/2016		Filed	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104A	USA	Continuation	7499851	11/548833	10/12/2006	3/3/2009	Patented	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104A	USA	Continuation	7970604	12/396732	3/3/2009	6/28/2011	Patented	System And Method For Switching Between A First Filter And A Second Filter For A Received Audio Signal
1999-0104A	USA	Continuation	7292973	10/811662	3/29/2004	11/6/2007	Lapsed	Effective Deployment Of Temporal Noise Shaping (TNS) Filters
1999-0104A	USA	Division	7657426	11/863837	9/28/2007	2/2/2010	Patented	System And Method For Deploying Filters For Processing Signals
1999-0104A	USA	Original Filing	6735561	09/537947	3/29/2000	5/11/2004	Patented	Effective Deployment Of Temporal Noise Shaping (TNS) Filters