

## 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>
KAVITHA VENKATESAN	11/11/2015
ARUN KUMAR PORURI	11/12/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	HARMONIC, INC.
<b>Street Address:</b>	4300 NORTH FIRST STREET
<b>City:</b>	SAN JOSE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	95134
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14940405
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>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.</i>	
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<b>Email:</b>	chris@brokawpatentlaw.com, amaloney@brokawpatentlaw.com
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<b>ATTORNEY DOCKET NUMBER:</b>	HRMC.P178
<b>NAME OF SUBMITTER:</b>	CHRISTOPHER J. BROKAW
<b>SIGNATURE:</b>	/ChristopherJBrokaw#45620/
<b>DATE SIGNED:</b>	11/14/2015
<b>Total Attachments: 4</b>	
source=HRMC.P178 Signed Assignment for Kavitha Venkatesan#page1.tif	
source=HRMC.P178 Signed Assignment for Kavitha Venkatesan#page2.tif	
source=HRMC.P178 Signed Assignment for Arun K Poruri#page1.tif	
source=HRMC.P178 Signed Assignment for Arun K Poruri#page2.tif	

ASSIGNMENT

WHEREAS WE, **KAVITHA VENKATESAN** and **ARUN PORURI**, have made a certain new and useful invention as set forth in a patent application for United States Letters Patent, entitled **FAILURE RECOVERY FOR REAL-TIME AUDIO AND VIDEO ENCODING, DECODING, AND TRANSCODING**, executed by us on the date of execution of this document, as shown below;

AND WHEREAS, **Harmonic, Inc.**, a Delaware corporation having an address of 4300 North First Street, San Jose, California 95134, is desirous of acquiring the entire right, title and interest in and to said invention and in and to any and all Letters Patent of the United States and foreign countries which may be obtained therefrom;

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, we do hereby sell, assign, transfer and set over unto **Harmonic, Inc.**, its legal representatives, successors, and assigns ("Assignee"), the entire right, title and interest in and to said invention as set forth in the above-mentioned application, including any provisionals, non-provisionals, continuations, continuations-in-part, divisions, reissues, re-examinations or extensions thereof, and in and to any and all patents of the United States and foreign countries which may be issued for said invention;

UPON SAID CONSIDERATIONS, we hereby agree with the said Assignee that we will not execute any writing or do any act whatsoever conflicting with these presents, and that we will, at any time upon request, without further or additional consideration but at the expense of said Assignee, execute such additional assignments and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining any provisional, non-provisional, original, divisional, continuations, continuations-in-part, reexamined, reissued, or extended Letters Patent of the United States or of any and all foreign countries on said invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, by giving

testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of assignor and Assignee;

AND WE REQUEST the Commissioner of Patents and Trademarks to issue any Letters Patent of the United States which may be issued for said invention to said Assignee, its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the invention covered thereby.

11-11-15  
Date

V. Venkatesan  
KAVITHA VENKATESAN

                      
Date

                      
ARUN PORURI

ASSIGNMENT

WHEREAS WE, **KAVITHA VENKATESAN** and **ARUN KUMAR PORURI**, have made a certain new and useful invention as set forth in a patent application for United States Letters Patent, entitled **FAILURE RECOVERY FOR REAL-TIME AUDIO AND VIDEO ENCODING, DECODING, AND TRANSCODING**, executed by us on the date of execution of this document, as shown below;

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testimony in any proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of the assigns and legal representatives of assignor and Assignee;

AND WE REQUEST the Commissioner of Patents and Trademarks to issue any Letters Patent of the United States which may be issued for said invention to said Assignee, its legal representatives, successors or assigns, as the sole owner of the entire right, title and interest in and to said patent and the invention covered thereby.

Date

KAVITHA VENKATESAN

Date

11/12/15

ARUN KUMAR PORURI