## 502634505 01/14/2014

## PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY DATA				
N			Name	Execution Date
DSP SOFTWARE ENGINEERING, INC.				03/15/2005
RECEIVING PARTY DATA				
Name:	TELLABS OPERATIONS, INC.			
Street Address:	1415 WEST DIEHL ROAD, MS 16			
City:	NAPERVILLE			
State/Country:	ILLINOIS			
Postal Code:	60532			
PROPERTY NUMBERS Total: 1  Property Type  Number				
Patent Number: 73598		73598	55	
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ATTORNEY DOCKET NUMBER:		2376.1002-004		
NAME OF SUBMITTER:		MEREDITH ESCHAUZIER		
Signature:		/Meredith Eschauzier/		
Date:		01/14/2014		
Total Attachments: 2				

PATENT REEL: 031964 FRAME: 0165

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Comment [COMMENT1];

## **ASSIGNMENT**

WHEREAS, we, DSP Software Engineering, Inc., a Massachusetts corporation (hereinafter "DSPSE") own the following patent applications

- 1) Application No. 60/050,111 filed on 6/13/1997 entitled "Method and Apparatus for Accurately Modeling Digital Signal Processors",
- 2) Application No. 09/096,774 filed on 6/12/1998 entitled "Method and Apparatus for Accurately Modeling Digital Signal Processors",
- 3) Application No. 09/130,688 filed on 8/6/1998 entitled "LPAS Speech Coder Using Vector Quantized, Multi-Codebook, Multi-Tap Pitch Predictor and Optimized Ternary Source Excitation Codebook",
- 4) Application No. 09/224,619 filed on 3/29/1999 entitled "Computer Method and Apparatus for Modern Point Slicing", and
- 5) Application No. 09/350,497 filed on 7/9/1999 entitled "Method and Apparatus for Fast Network Bulk Delay and Span Estimation for Line Echo Cancellation".

WHEREAS. Tellabs Operations, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the State of Delaware and having a usual place of business at 1415 West Dichl Road, Naperville, IL 60532 desires to acquire an interest therein in accordance with agreements duly entered into with DSPSE;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, DSPSE has sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, my entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with my entire right, title and interest in and to said application and such Letters Patent as may issue on said invention; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by me had this assignment and sale not been made; DSPSE hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. DSPSE hereby acknowledges that this assignment, being of DSPSE's entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Lettors Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein; DSPSE hereby expressly authorize the filing of an International Patent

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Application under the Patent Cooperation Treaty which corresponds to and claims the priority of the above-identified application;

AND, DSPSE hereby further agrees for itself and its executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and charges, including the execution of applications for patents in foreign countries, and the execution of any further applications including substitution, reissue, divisional or continuation applications, and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, DSPSE hereby authorizes and request each Patent Office and the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said invention to said ASSIGNEE, its successors, assigns, and legal representatives.

IN WITNESS WHEREOF, the DSPSE has caused this Assignment to be duly executed and delivered as of the date first set forth above.

DSP SOFTWARE ENGINEERING, INC.

PATENT

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