

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4563033

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SHARP KABUSHIKI KAISHA	07/01/2015
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	DOLBY INTERNATIONAL AB
<b>Street Address:</b>	APOLLO BUILDING
<b>Internal Address:</b>	3E, HERIKERBERGWEG 1-35
<b>City:</b>	AMSTERDAM ZUIDOOST
<b>State/Country:</b>	NETHERLANDS
<b>Postal Code:</b>	1101 CN
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	14833715
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(877)769-7945
<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>	
<b>Phone:</b>	(650) 839-5070
<b>Email:</b>	apsi@fr.com
<b>Correspondent Name:</b>	MICHAEL PORTNOV
<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>	40305-0014002
<b>NAME OF SUBMITTER:</b>	KRISTINE M. MCGUIRK
<b>SIGNATURE:</b>	/Kristine M. McGuirk/
<b>DATE SIGNED:</b>	08/23/2017
<b>Total Attachments: 3</b>	
source=Assign_SharpKK_to_DIAB#page1.tif	
source=Assign_SharpKK_to_DIAB#page2.tif	
source=Assign_SharpKK_to_DIAB#page3.tif	

## PATENT ASSIGNMENT

Whereas, Sharp Kabushiki Kaisha, a corporation, existing and organized under the laws of Japan, having its headquarter at 22-22 Nagaike-Cho, Abeno-ku, Osaka Japan, 545-8522 (hereinafter "Seller") is the sole and exclusive owner of the following patents and patent applications (hereinafter "Assigned Patents");

METHODS AND SYSTEMS FOR PARALLEL VIDEO ENCODING AND DECODING					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
US	12/058301	2008/3/28	2009-0245349	2013/9/24	8542748
US	12/934938	2009/3/25	2011-0026604	2014/9/2	8824541
US	14/269755	2014/5/5	2014-0241438		
RU	2010142914	2009/3/25	2010142914	2014/2/25	2514091
RU	2014105187	2014/2/12			
JP	2010-537070	2009/3/25	2011-515880	2012/8/31	5075988
JP	2012-187048	2012/8/27	2012-257316	2014/4/25	5529937
JP	2014-085842	2014/4/17	2014-150576		
IN	6312/CHENP/2010	2009/3/25	6312/CHENP/2010		
HK	11102375	2011/3/9	1148406		
EP	9725979	2009/3/25	2266319		
CN	200980110928.2	2009/3/25	101981934	2014/11/5	200980110928.2
CN	201410508455.4	2014/9/28	104270645		
BR	PI0911141-7	2009/3/25	2009-0245349	2013/9/24	8542748

NESTED ENTROPY ENCODING					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
US	12/896795	2010/10/1	2012-0082228		
JP	2013-514448	2011/9/30	2013-543285		
MY	PI2013000942	2011/9/30			
JP	2015-125233	2015/6/23			

SYSTEM FOR NESTED ENTROPY ENCODING					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
US	12/896800	2010/10/1	2012-0082229		
JP	2013-514449	2011/9/30	2013-543286		

VIDEO DECODER WITH REDUCED DYNAMIC RANGE TRANSFORM WITH INVERSE TRANSFORM SHIFTING MEMORY					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
US	13/008658	2011/1/18	2012-0183046		
US	13/008676	2011/1/18	2012-0183047		
AU	2012207827	2012/1/18			
CA	2824461	2012/1/18			
JP	2013-528459	2012/1/18	2014-504046		

TRACKING A REFERENCE PICTURE ON AN ELECTRONIC DEVICE					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
US	13/273191	2011/10/13	2013-0094585	2014/7/1	8768079
US	13/287015	2011/11/1	2013-0094772	2014/10/7	8855433
US	13/291961	2011/11/8	2013-0094773	2014/7/22	8787688
CN	201280050538.2	2012/10/12	103918266		
EP	12839718.9	2012/10/12	2767090		
JP	2014-516128	2012/10/12	2014-529204		

METHOD FOR SIGNALING A STEP-WISE TEMPORAL SUB-LAYER ACCESS SAMPLE					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
US	13/633784	2012/10/2	2014-0092953		
WO	PCT/JP2013/005888	2013/10/2	WO2014/054285		

GOLOMB-RICE/EG CODING TECHNIQUE FOR CABAC IN HEVC					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
CN	201380019086.6	2013/4/11	104205831		
US	14/391422	2013/4/11	2015-0110198		

IMAGE DECODING DEVICE AND IMAGE CODING DEVICE					
Country	Application No.	Filing Date	Publication No.	Grant Date	Patent No.
CN	201380045488.3	2013/9/26	104604233		
JP	2014-538597	2013/9/26			
US	14/430249	2013/9/26			

; and

Whereas Dolby International AB, a Swedish corporation resident in the Netherlands, having its headquarter at Apollo Building, 3E, Herikerbergweg 1-35, 1101 CN Amsterdam Zuidoost, The Netherlands (hereinafter "Buyer") is desirous of acquiring the entire right, title and interest in, to and under the Assigned Patents.

Now, therefore, for good and valuable consideration, the receipt of which is hereby acknowledged, as of June 30, 2015, Seller hereby irrevocably sells, conveys, transfers, assigns and delivers to Buyer, and Buyer acquires from Seller, all right, title and interest in and to (i) all Assigned Patents, (ii) all claims, causes of action and enforcement rights of any kind, and all rights to sue for past, present or future infringement of any of the Assigned Patents and to collect and retain any and all damages, costs, profits, injunctive relief and other remedies for or relating to any such past, present or future infringement of the Assigned Patents or any and all claims relating thereto, (iii) all rights to collect royalties, license fees or other amounts with respect to the Assigned Patents, and (iv) all rights (but no obligation) to apply for, file, register, maintain, prosecute, extend, renew, enforce, license and otherwise exploit in any or all countries of the world patents, patent applications, certificates of invention, utility models, industrial

design protection, design patent protection and other governmental grants or issuances of any kind related to any and all of the Assigned Patents (including, without limitation, all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, substitutions, requests for continuing examinations, divisions, divisionals, counterparts and other applications, worldwide, based in whole or in part thereon) and any and all of the inventions, invention disclosures, designs and discoveries described or disclosed therein, in each case, without any requirement for Buyer to seek or obtain any consent or other approval from or otherwise inform Seller.

Seller does hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America or equivalent authority elsewhere in the world to issue Letters Patent, as shall be granted based upon the Assigned Patents (including, without limitation, any divisional, continuing, reissue or other application based in whole or in part thereon), to the Buyer, its successors and assigns.

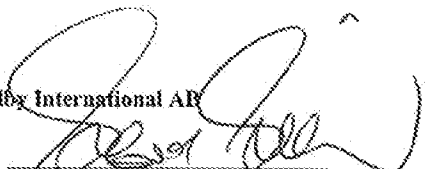
This assignment may be executed in one or more counterparts, each of which shall be deemed an original, and all of which shall constitute one and the same agreement. Copies of executed counterparts transmitted by facsimile, email or other electronic transmission shall be considered original executed counterparts, provided that receipt of copies of such counterparts is confirmed.

IN WITNESS WHEREOF, THE PARTIES, BY THEIR DULY AUTHORIZED REPRESENTATIVES, HAVE EXECUTED THIS ASSIGNMENT.

Sharp Kabushiki Kaisha

By Kiyoshi Yonetsu  
Name Kiyoshi Yonetsu  
Title Division Deputy General Manager, R&D Division  
Date July 1, 2015

Dolby International AB

By   
Name SIEGFRIED SPELLER  
Title DIRECTOR  
Date 3 July 2015