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PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | | | NEW ASSIGNMENT | | |
|--|---|---|---|----------------|--|
| NATURE OF CONVEYANCE: | | | ASSIGNMENT | | |
| CONVEYING PARTY | DATA | | | | |
| | | | Name | Execution Date | |
| SHARP KABUSHIKI K | AISHA | | | 07/01/2015 | |
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| RECEIVING PARTY D | | | | | |
| Name: | | | | | |
| Street Address: | | | IILDING, 3E | | |
| Internal Address: | | | ERGWEG 1-35 | | |
| City: | | | MZUIDOST | | |
| State/Country: | NETHE | RLAN | NDS | | |
| Postal Code: | 1101 | | | | |
| Application Number: 1652 | | | 2232 | | |
| Property Type | ; | 1652 | Number | | |
| Application Number. | | 10024 | | | |
| Application Number. | | 10527 | | | |
| | DATA | 10022 | | | |
| CORRESPONDENCE | | (877) | 769-7945 | | |
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| CORRESPONDENCE Fax Number: Correspondence will using a fax number, in Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER BIGNATURE: DATE SIGNED: Total Attachments: 3 | be sent to f provided : : UMBER: : AB#page2 AB#page2 | (877) 5 the o 5 the o 5 the o 7 | 769-7945 e-mail address first; if that is unsuc hat is unsuccessful, it will be sent vi 02) 626-6428 ©fr.com N ROY-CHOWDHURY & RICHARDSON P.C. 30X 1022 NEAPOLIS, MINNESOTA 55440-1022 40305-0010009 KRISTINE M. MCGUIRK /Kristine M. McGuirk/ | ia US Mail. | |

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 | | | | |
| ЛЪ | 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 | | | |
| ĨN | 6312/CHENP/2010 | 2009/3/25 | 6312/CHENP/2010 | | | |
| HK | 11102375 | 2011/3/9 | 1148406 | | | |
| EP | 9725979 | 2009/3/25 | 2266319 | and the second distance of the second s | | |
| 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 | Antibilities and a second s | | | |
| Л | 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 | | ************************************** | |

| 0 | A 12 11 NT | DUU DU | 75 1 11 11 XX | | |
|---------|-----------------|-------------|-----------------|------------|------------|
| 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 Pat | | | | | 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 | | | | | | |
| CN | 201380019086.6 | 2013/4/11 | 104205831 | | ulanitari | |
| 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 | 1997 1990 200 Million Consult Landa, Color L | | |
| JP | 2014-538597 | 2013/9/26 | 1999 (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1999) (1 | | | |
| 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.

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

Sharp Kabushiki Kaisha By Kiyoshi Yonutan Name Kiyoshi Yonetsu Title Division Deputy General Manyer, RKD Division Date July 1, 2015

Dolby International AB By Name SIEGFRIED SOELLER Title Date 3 July 2015

RECORDED: 09/24/2028