

1) Family number: 54127034 (US2013155330 AA)

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Title: COLOR GRADING APPARATUS AND METHODS

Abstract: A method for color grading input video data for display on a target display comprises obtaining target display metadata indicative of a capability of the target display, obtaining input video data metadata indicative of image characteristics of the input video data, automatically determining initial values for parameters of a parameterized sigmoidal transfer function, at least one of the initial values based at least in part on at least one of the target display metadata and the input video data metadata and mapping the input video data to color-graded video data according to the parameterized transfer function specified using the initial values

Classifications:

International (IPC 8-9): G03F3/08 G06K9/00 G06K9/40 G06T3/40

G06T5/00 G06T5/40 G09G3/04 G09G5/00 G09G5/02 G09G5/06

G09G5/36 H04N1/46 H04N1/60 H04N5/00 H04N5/202 H04N5/21

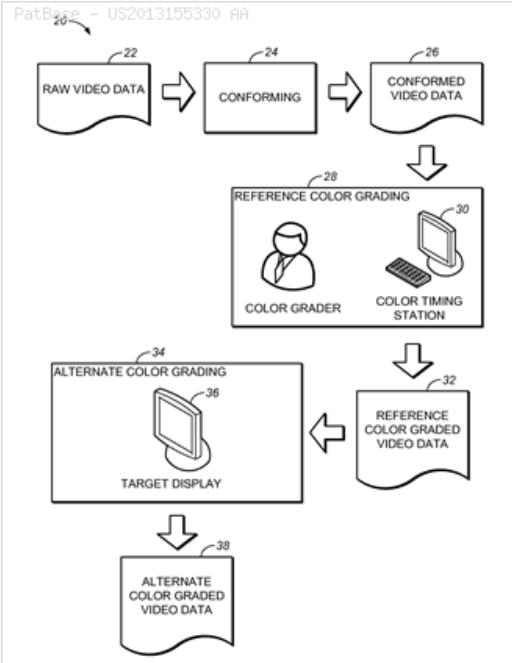
H04N5/52 H04N9/64 H04N9/68 H04N9/73

CPC: H04N9/64 H04N9/68 H04N9/73

US: 345/43 345/547 345/589 345/606 345/609 345/690 348/254 348/607

348/627 348/651 348/655 348/683 348/708 358/463 358/518 358/520

358/525 358/533 382/167 382/274 382/276 1/1



Family:

Publication number	Publication date	Application number	Application date
US2013155330 AA	20130620	US20120718896	20121218
US9024961 BB	20150505	US20120718896	20121218
US2015195499 AA	20150709	US20150663281	20150319
US9532022 BB	20161227	US20150663281	20150319

Priority:

US20110577647P 20111219 US20120718896 20121218 US20150663281 20150319

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): CORP DOLBY LAB LICENSING ; DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES LICENSING CORP

Inventor(s): (std): ATKINS ROBIN ; LONGHURST PETER W ; MARGERM STEVE ; MESSMER NEIL W

2) Family number: 28680466 (US2003122845 AA)

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Title: APPARATUS AND METHOD OF CONTROLLING BRIGHTNESS OF IMAGE

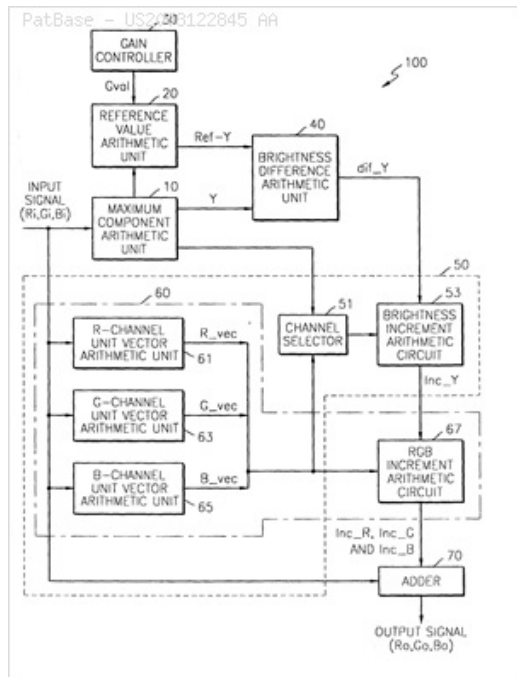
Abstract: Provided are an image brightness controlling apparatus and method, and an adaptive brightness controlling apparatus and method based on the brightness degree and/or brightness range of an image. The image brightness controlling apparatus includes a brightness increment arithmetic unit for outputting a brightness increment for a pixel, and an individual component brightness increment arithmetic unit for outputting the brightness increments of individual components constituting the pixel in response to the brightness increment for a pixel. The individual component brightness increment arithmetic unit multiplies the brightness increment of the pixel by each of the unit vectors of the components constituting the pixel to obtain the brightness increments of the individual components. The image brightness controlling apparatus further includes an adder for adding the components constituting the pixel to the brightness increments of the components. The image brightness controlling apparatus and the adaptive image brightness controlling apparatus can maintain the sense of color of an image (e.g., the hue or chroma of an image) while increasing the brightness degree and brightness range of an image.

Classifications:

International (IPC 8-9): G06T5/00 G09G3/20 G09G3/22 G09G3/30

H04N5/20 H04N5/57 H04N9/64 H04N9/68 H04N9/77

International (IPC 1-7): G09G3/20 G09G5/02 H04N5/20 H04N5/235 H04N5/57 H04N9/64 H04N9/77
CPC: H04N9/68 H04N9/77 G09G2320/0626 G09G5/10 H04N5/57 H04N9/64
US: 1/1 345/12 345/426 345/589 345/617 345/619 345/63 345/690 345/77 345/77P 348/687 348/E09.035 348/E9.035 348/E90.35S 382/168 382/274
JP F-Term: 5C026 5B057 5C021 5C026/CA01 5B057/CA01 5B057/CA08 5B057/CA12 5B057/CA16 5B057/CB01 5B057/CB08 5B057/CB12 5B057/CB16 5B057/CE11 5B057/CE16 5C021/PA02 5C021/PA58 5C021/PA67 5C021/RB03 5C021/RB09 5C021/XA14 5C021/XA35
JP F-Index: H04N5/57 G06T5/00,100 G06T5/00,740 H04N5/20



Family:

Publication number	Publication date	Application number	Application date
CN100484252 C	20090429	CN20021050377	20021108
CN1430420 A	20030716	CN20021050377	20021108
DE60242606 D1	20120606	DE20026042606	20021108
EP1326433 A2	20030709	EP20020257773	20021108
EP1326433 A3	20041208	EP20020257773	20021108
EP1326433 B1	20120411	EP20020257773	20021108
JP2003209763 A2	20030725	JP20020377597	20021226
JP4313032 B2	20090812	JP20020377597	20021226
JP2006197630 A2	20060727	JP20060041537	20060217
JP4524259 B2	20100811	JP20060041537	20060217
KR100455292 B1	20041106	KR20020023726	20020430
KR20030058909 A	20030707	KR20020023726	20020430
US2003122845 AA	20030703	US20020291652	20021112
US7268753 BB	20070911	US20020291652	20021112
US2007268222 AA	20071122	US20070835907	20070808
US9350965 BB	20160524	US20070835907	20070808

Priority:

KR20010088233 20011229 KR20020023726 20020430 EP20020257773 20021108
US20020291652 20021112 JP20020377597 20021226 US20070835907 20070808

Probable Assignee: SAMSUNG ELECTRONICS CO LTD

Assignee(s): (std): HAN YONG IN ; KIM CHANG YEONG ; LEE SEONG DEOK ; SAMSUNG ELECTRONICS CO LTD ; SEO YANG SEOCK

Assignee(s): SAMSUNG ELECTRONICS CO ; SAMSUNG ELECTRONICS CO LTD SUWON CITY KYUNGKI DO

Inventor(s): (std): CHANG BANG KIM ; HAN YONG IN ; KIM CHANG YEONG ; KIM CHANG YONG ; KIN SHOYO ; LEE SEONG DEOK ; RANG SOK SEO ; SEO YANG SEOCK ; SEO YANG SEOK ; SEUNG DOK LEE

Inventor(s): CHANG YEONG KIM ; HAN YONG IN 111 803 HYOJACHON HYUNDAI APT ; KIM CHANG BANG ; KIM CHANG YEONG 501 1305 JINSAN MAEUL ; LEE SEONG DEOK YONGIN CITY ; LEE SEUNG DOK ; SEO RANG SOK ; SEO YANG SEOCK GANGBUK GU ; SEONG DEOK LEE ; YANG SEOCK SEO ; YONG IN HAN

Agent(s): BUCHANAN INGERSOLL AND ROONEY PC; EXELL JONATHAN MARK; NSIP LAW; PATENTANWALTE RUFF WILHELM BEIER DAUSTER AND PARTNER MBB

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

3) Family number: 30919743 (US2004113875 AA)

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Title: COLOR OLED DISPLAY WITH IMPROVED POWER EFFICIENCY

Abstract: An OLED display device includes an array of light emitting pixels, each pixel having three or more OLEDs for emitting different colors of light specifying a gamut and at least one additional OLED for emitting a color of light within the gamut, wherein the power efficiency of the additional OLED is higher than the luminance efficiency of at least one of the three or more OLEDs; and means for driving the OLEDs in the pixels to produce a given color and luminance at a reduced power usage.

Classifications:

International (IPC 8-9): G09F9/00 G09F9/30 G09G3/10 G09G3/20 G09G3/30 G09G3/32 G09G3/3208 G09G5/02 G09G5/10 H01L27/00 H01L27/28 H01L27/32 H01L51/50 H05B33/00 H05B33/12

International (IPC 1-7): G09F9/00 G09F9/30 G09G3/20 G09G3/30

G09G3/32 G09G5/00 G09G5/10 H01J63/04 H01L27/00 H05B33/00
H05B33/12 H05B33/14

CPC: G09G2300/0452 G09G2330/021 G09G3/3216 G09G3/3225
G09G5/02 H01L27/3213 H01L27/3216 H01L27/3218 H01L27/322
G09G2320/0233 G09G2320/029 G09G2320/041 G09G2320/043
G09G2320/0626 G09G2320/0666 G09G2360/144 G09G3/2011
G09G3/3208 G09G2320/0606 G09G2320/066

US: 315/169.1 315/169.3 315/169.300P 315/292 315/297 345/204
345/547 345/547S 345/690 345/694 345/696 345/76 345/77 345/82
345/82P 345/83 345/84

JP F-Term: 3K007 3K107 5C080 5C094 5C380 3K007/AB02 3K007/AB03
3K007/AB04 3K007/AB11 3K007/BA06 3K007/BB06 3K007/DB03
3K007/GA04 3K107/AA01 3K107/BB01 3K107/CC02 3K107/CC04
3K107/CC07 3K107/CC21 3K107/EE07 3K107/FF12 3K107/HH00
3K107/HH04 5C080/AA06 5C080/BB05 5C080/CC03 5C080/DD26
5C080/DD29 5C080/EE28 5C080/EE30 5C080/FF07 5C080/GG09
5C080/HH09 5C080/JJ02 5C080/JJ05 5C080/JJ07 5C094/AA07
5C094/AA08 5C094/AA22 5C094/AA31 5C094/AA60 5C094/BA27
5C094/CA19 5C094/CA20 5C094/CA24 5C094/GA10 5C380/AA01
5C380/AB04 5C380/AB36 5C380/AB37 5C380/BA01 5C380/BA42
5C380/BA43 5C380/BA48 5C380/BB22 5C380/BB23 5C380/BD16
5C380/CE02 5C380/CF01 5C380/CF13 5C380/CF66 5C380/CF67
5C380/CF68 5C380/DA58 5C380/EA02 5C380/EA12 5C380/FA03
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3K107/DD02 3K107/DD03 3K107/EE02 3K107/EE03 3K107/EE06 5C080/DD03 5C080/FF11 5C080/FF12 5C080/GG12 5C080/JJ06
5C094/BA12 5C380/AB05 5C380/AB06 5C380/AB11 5C380/AB12 5C380/AB41 5C380/AB42 5C380/BA45 5C380/BD02
5C380/EA05

JP F-Index: G09F9/30,365 G09F9/30,365@Z G09G3/20,611@A G09G3/20,623@Q G09G3/20,631@V G09G3/20,642@F
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H05B33/12@E H05B33/14@A G09F9/30,390@C G09F9/302@C G09G3/20,642@D G09G3/20,642@L G09G3/3216 G09G3/3225
H05B33/12@B



Family:

Publication number	Publication date	Application number	Application date
CN100388487 C	20080514	CN200380105907	20031202
CN1726593 A	20060125	CN200380105907	20031202
CN1538377 A	20041020	CN200410030461	20040315
CN1538377 B	20131211	CN200410030461	20040315
EP1573817 A1	20050914	EP20030799865	20031202
EP1573817 B1	20160720	EP20030799865	20031202
EP1457962 A2	20040915	EP20040075670	20040302
EP1457962 A3	20080618	EP20040075670	20040302
EP1457962 B1	20170208	EP20040075670	20040302
EP3101647 A1	20161207	EP20160180165	20031202
EP3101691 A1	20161207	EP20160180172	20031202
JP2004280108 A2	20041007	JP20040071127	20040312
JP5367935 B2	20131211	JP20040071127	20040312
JP2006512732 T2	20060413	JP20040565177T	20031202
JP4870358 B2	20120208	JP20040565177T	20031202
KR101145183 B1	20120514	KR20040017182	20040313
KR20040081394 A	20040921	KR20040017182	20040313
KR101045259 B1	20110629	KR20057010989	20031202
KR20050093778 A	20050923	KR20057010989	20031202
TW200418334 A	20040916	TW20030131069	20031106
TWI333799 B	20101121	TW20030131069	20031106
TW200501795 A	20050101	TW20040101761	20040127
TWI347143 B	20110811	TW20040101761	20040127
US2004113875 AA	20040617	US20020320195	20021216
US7230594 BB	20070612	US20020320195	20021216
US2004178973 AA	20040916	US20030387953	20030313
US7184067 BB	20070227	US20030387953	20030313
US2004178974 AA	20040916	US20040812629	20040329
US7397485 BB	20080708	US20040812629	20040329
US2004178743 AA	20040916	US20040812786	20040329
US7075242 BB	20060711	US20040812786	20040329
WO04061963 A1	20040722	WO2003US38377	20031202

Priority:

US20020320195 20021216 US20030387953 20030313 WO2003US38377 20031202
EP20030799865 20031202 US20040812786 20040329 US20040812629 20040329

Probable Assignee: GLOBAL OLED TECHNOLOGY LLC

Assignee(s): (std): EASTMAN KODAK CO ; GLOBAL OLED TECH LLC ; GLOBAL OLED TECHNOLOGY LLC

Assignee(s): EASTMAN KODAK COMPANY ; GLOBAL OLED TECHNOLOGY LLCUS

Inventor(s): (std): A D ARNOLD ; ANDREW D ARNOLD ; ARNOLD A D ; ARNOLD ANDREW D ; ARNOLD ANDREW DANIEL ;
COCK R S ; COK RONALD S ; COK RONALD STEVEN ; M E MILLER ; MICHAEL E MILLER ; MICHAEL EUGENE
MILLER ; MICHAEL J MURDOCH ; MILLER M E ; MILLER MICHAEL E ; MILLER MICHAEL E COK RONALD S ;
MILLER MICHAEL EUGENE ; MURDOCH MICHAEL J ; R S COCK ; RONALD STEVEN COK

Inventor(s): ARNOLD ANDREW D C O EASTMAN KODAK CO ; COK RONALD S C O EASTMAN KODAK CO ; MILLER
MICHAEL E C O EASTMAN KODAK CO ; MURDOCH MICHAEL J C O EASTMAN KODAK CO ; RONALD S COK

Agent(s): ANDERSON ANDREW J ; ANDREW J ; GUNZELMANN RAINER ; HAILE HELEN CYNTHIA ET AL ; THOMAS H ;
WIBBELMANN JOBST

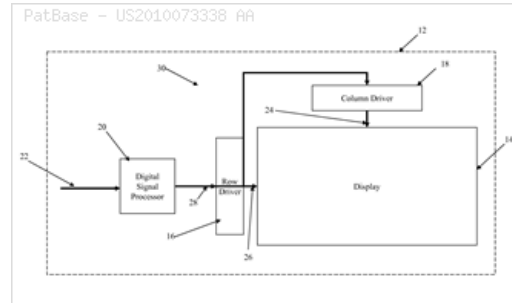
Designated states: AL AT BE BG CH CN CY CZ DE DK EE ES FI FR GB GR HU IE IT JP KR LI LT LU LV MC MK NL PL PT RO SE SI

4) Family number: 44663606 (US2010073338 AA)

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Title: INCREASING DYNAMIC RANGE OF DISPLAY OUTPUT

Abstract: A method of controlling an RGBW electroluminescent display system that receives a three-component input image signal having triplets of intensity values in an image range and a highlight range includes transforming at least one of the triplets having an intensity value within the image range to a four-or-more-component drive signal to produce a luminance less than the sum of the corresponding luminance values of the red, green and blue light-emitting elements and transforming at least one of the intensity values within a triplet having an intensity value within the highlight range to a four-or-more-component drive signal to produce a luminance greater than the sum of the corresponding luminance values of the red, green, and blue light-emitting elements.

Classifications:**International (IPC 8-9):** G09G3/30 G09G5/00**CPC:** G09G2300/0452 G09G2340/06 G09G2360/16 G09G3/3216 G09G3/3233 G09G3/3611**US:** 345/205 345/205P 345/76 345/76S**Family:**

Publication number	Publication date	Application number	Application date
US2010073338 AA	20100325	US20080236807	20080924
US8184112 BB	20120522	US20080236807	20080924

Priority:

US20080236807 20080924

Probable Assignee: GLOBAL OLED TECHNOLOGY LLC**Assignee(s):** (std): ALESSI PAULA J ; COK RONALD S ; GLOBAL OLED TECHNOLOGY LLC ; HAMER JOHN W ; MILLER MICHAEL E**Assignee(s):** EASTMAN KODAK CO**Inventor(s):** (std): ALESSI PAULA J ; COK RONALD S ; HAMER JOHN W ; MILLER MICHAEL E**Agent(s):** J LANNY TUCKER PATENT LEGAL STAFF; MCKENNA LONG AND ALDRIDGE LLP**5) Family number: 63200720** (US2017374313 AA)

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Title: METHOD AND DEVICE FOR TRANSMITTING AND RECEIVING BROADCAST SIGNAL

Abstract: The present invention relates to a device and a method for transmitting and receiving a signal of a broadcast including a subtitle service. One embodiment of the present invention provides a broadcast signal transmitting method comprising the steps of generating a broadcast signal, which includes video data and subtitle data, and transmitting the generated broadcast signal. According to one embodiment of the present invention, a transmission stream for providing a digital broadcasting subtitle service using XML subtitles can be transmitted.

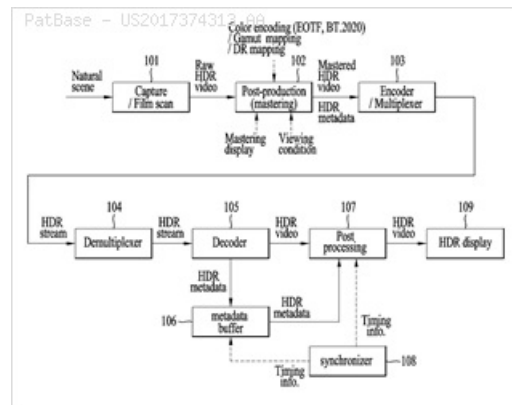
Classifications:**International (IPC 8-9):** H04N19/00 H04N19/46 H04N19/70 H04N21/235 H04N21/236 H04N21/43 H04N21/434 H04N21/435 H04N21/84

H04N21/8543 H04N5/445 H04N7/015 H04N7/08 H04N9/82 H04N9/825

CPC: H04N19/00 H04N19/46 H04N19/70 H04N21/2353 H04N21/23614

H04N21/4302 H04N21/4348 H04N21/435 H04N21/84 H04N21/8543

H04N7/015 H04N9/8205

US: 1/1 348/467**Family:**

Publication number	Publication date	Application number	Application date
US10594978 BB	20200317	US20160538120	20160205
US2017374313 AA	20171228	US20160538120	20160205
WO16129891 A1	20160818	WO2016KR01302	20160205

Priority:

US20150114597P 20150211

WO2016KR01302 20160205

US20160538120 20160205

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): OH HYUNMOOK ; SUH JONGYEUL

Agent(s): DENTONS US LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

6) Family number: 63934048 (US2018176609 AA)

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Title: BROADCAST SIGNAL TRANSMISSION DEVICE, BROADCAST SIGNAL RECEPTION DEVICE, BROADCAST SIGNAL TRANSMISSION METHOD, AND BROADCAST SIGNAL RECEPTION METHOD

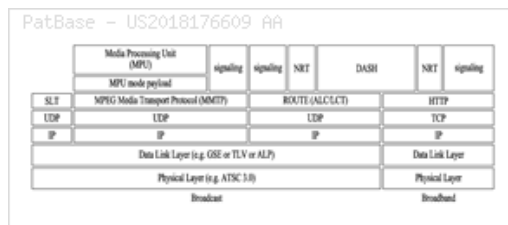
Abstract: A method for transmitting a broadcast signal is presented. In the method for transmitting a broadcast signal, according to the present invention, presented is a system, which can support a next-generation broadcast service in an environment supporting a next-generation hybrid broadcast using a terrestrial broadcast network and an Internet network. In addition, presented is an effective signaling method for covering both a terrestrial broadcast network and an Internet network in an environment supporting a next-generation hybrid broadcast.

Classifications:

International (ipc 8-9): H04N21/234 H04N21/2343 H04N21/236 H04N21/2362 H04N21/238 H04N21/2665 H04N21/61 H04N21/845 H04N7/01 H04N7/015 H04N7/173

CPC: H04N21/2343 H04N21/236 H04N21/2362 H04N21/238 H04N21/2665 H04N21/6112 H04N21/6125 H04N21/8456 H04N7/01 H04N7/015

US: 1/1 725/116



Family:

Publication number	Publication date	Application number	Application date
US10349095 BB	20190709	US20160568638	20160509
US2018176609 AA	20180621	US20160568638	20160509
WO16178549 A1	20161110	WO2016KR04820	20160509

Priority:

US20150158494P 20150507 US20150159911P 20150511 WO2016KR04820 20160509
US20160568638 20160509

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): HWANG SOOJIN ; OH SEJIN ; SUH JONGYEUL

Agent(s): BIRCH STEWART KOLASCH AND BIRCH LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

7) Family number: 64988042 (US2019007709 AA)

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Title: BROADCAST SIGNAL TRANSMISSION APPARATUS, BROADCAST SIGNAL RECEPTION APPARATUS, BROADCAST SIGNAL TRANSMISSION METHOD AND BROADCAST SIGNAL RECEPTION METHOD

Abstract: The present invention provides a method for transmitting a broadcast signal. The method for transmitting a broadcast signal according to the present invention provides a system that can support a next-generation broadcasting service in an environment supporting next-generation hybrid broadcasting using a terrestrial broadcasting network and an Internet network. In addition, the present invention provides an efficient signalling method that can accommodate both a terrestrial broadcasting network and an Internet network in an environment supporting next-generation hybrid broadcasting.

Classifications:

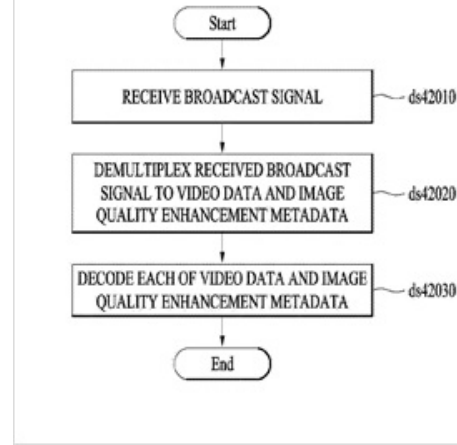
International (ipc 8-9): H04H20/28 H04H60/73 H04L29/06 H04N21/2343 H04N21/235 H04N21/2362 H04N21/434 H04N21/81 H04N21/84 H04N21/845

CPC: H04L65/4084 H04L65/80 H04N21/2343 H04N21/2353 H04N21/2362 H04N21/81 H04N21/8456

US: 1/1 709/231

JP F-Term: 5C164 5K017 5C164/FA11 5C164/MB13 5C164/SB15 5C164/UB11 5C164/UB21

JP F-Index: H04H20/28 H04H60/73 H04N21/2362 H04N21/434 H04N21/84

**Family:**

Publication number	Publication date	Application number	Application date
CN107925780 A	20180417	CN201680048259	20160822
EP3340636 A1	20180627	EP20160837367	20160822
EP3340636 A4	20190109	EP20160837367	20160822
JP2018532294 T2	20181101	JP20180509764T	20160822
JP6633739 B2	20200122	JP20180509764T	20160822
US2019007709 AA	20190103	US20160746702	20160822
WO17030425 A1	20170223	WO2016KR09230	20160822

Priority:

US20150207896P 20150820 US20150210438P 20150826 WO2016KR09230 20160822
 US20160746702 20160822

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): OH HYUNMOOK ; SUH JONGYEUL

Agent(s): AOKI ATSUSHI; CABINET PLASSERAUD; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

8) Family number: 63865815 (US2018077453 AA)

© PatBase

Title: BROADCAST SIGNAL TRANSMITTING/RECEIVING METHOD AND DEVICE

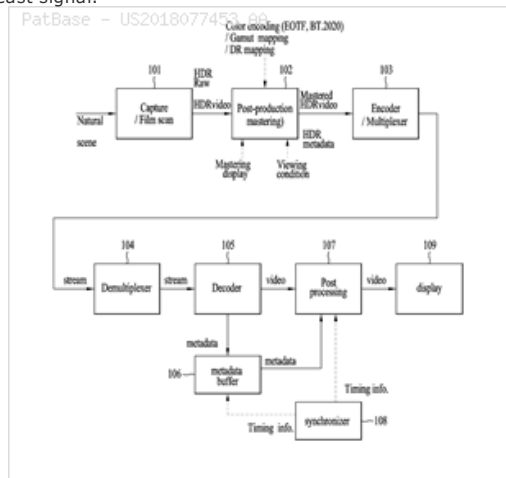
Abstract: The present invention relates to a device and a method for transmitting/receiving a broadcast signal including video data and high dynamic range information. A broadcast signal transmitting method according to an embodiment of the present invention may include the steps of: generating video data; generating a broadcast signal including the generated video data and image quality improving metadata; and transmitting the generated broadcast signal.

Classifications:

International (IPC 8-9): H04H20/30 H04H60/73 H04N19/30 H04N19/70 H04N21/235 H04N21/236 H04N21/2362 H04N21/434 H04N21/44 H04N21/4402 H04N21/81 H04N7/173 H04N9/69

CPC: H04H20/30 H04H60/73 H04N19/30 H04N19/70 H04N21/2353 H04N21/23614 H04N21/2362 H04N21/4345 H04N21/4348 H04N21/44029 H04N21/816 H04N9/69

US: 1/1 725/116

**Family:**

Publication number	Publication date	Application number	Application date
US10516915 BB	20191224	US20160554145	20160422

US2018077453 AA	20180315	US20160554145	20160422
WO16171510 A1	20161027	WO2016KR04225	20160422

Priority:

US20150152045P 20150424 US20150160611P 20150513 US20160554145 20160422
WO2016KR04225 20160422

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): OH HYUNMOOK ; SUH JONGYEUL

Agent(s): BIRCH STEWART KOLASCH AND BIRCH LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

9) Family number: 55627498 (US2015201222 AA)

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Title: HDR IMAGE ENCODING AND DECODING METHODS AND DEVICES

Abstract: To have a very efficient and in some embodiments also backwards compatible with legacy LDR display systems, apparatuses and methods relating to decoding an image encoding (LDR_CONT) corresponding to a first luminance dynamic range (R_oLDR) into a second luminance dynamic range (R_oHDR) output image (HDR_FIN), in which image encoding (LDR_CONT) are encoded pixels of an original image (HDR_ORIG) of a high dynamic range scene, the method comprising: tone mapping with a predetermined tone mapping strategy (FL2H) at least the lummas of pixels in the image encoding (LDR_CONT) onto lummas of pixels in an intermediate image (HDR_PRED) corresponding to the second luminance dynamic range (R_oHDR); and modifying the lummas of at least some of the pixels of the intermediate image (HDR_PRED) by multiplying them with predetermined multiplication factors, resulting in the output image (HDR_FIN) are taught.

Classifications:

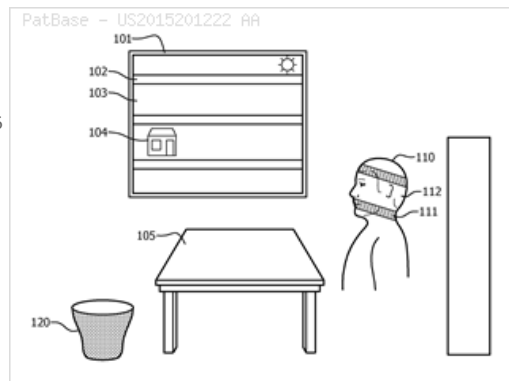
International (IPC 8-9): G06K9/36 G06T5/00 H04N H04N1/407
H04N19/00 H04N19/167 H04N19/17 H04N19/182 H04N19/186
H04N19/196 H04N19/30 H04N19/46 H04N19/85 H04N19/98 H04N7/00
H04N7/26

CPC: G06T1/00 G06T5/00 G06T9/00 H04N19/17 H04N19/182 H04N19/186
H04N19/196 H04N19/30 H04N19/46 H04N19/98

US: 1/1 375/240.25 382/233

JP F-Term: 5B057 5C077 5C159 5B057/CA01 5B057/CA08 5B057/CA12
5B057/CA16 5B057/CB01 5B057/CB08 5B057/CB12 5B057/CB16
5B057/CE08 5B057/CE11 5B057/CH18 5C077/MP01 5C077/MP08
5C077/PP15 5C077/PP23 5C077/PP32 5C159/LA00 5C159/MA00
5C159/MA34 5C159/PP04 5C159/PP16 5C159/RC14 5C159/TA39
5C159/TC34 5C159/TD11 5C159/TD15 5C159/TD16

JP F-Index: G06T5/00,730 H04N1/40,101@E H04N1/407 H04N19/102
H04N19/167 H04N19/189 H04N19/196 H04N19/36 H04N19/46 H04N19/70
H04N19/85



Family:

Publication number	Publication date	Application number	Application date
CN104471939 A	20150325	CN201380037397	20130701
CN104471939 B	20180424	CN201380037397	20130701
EP2873237 A1	20150520	EP20130747522	20130701
ID201603617 A	20160527	ID2015P0000139	20130701
IN00671CN2015 A	20160701	IN2015CN00671	20150203
JP2015531183 T2	20151029	JP20150521101T	20130701
JP6382805 B2	20180829	JP20150521101T	20130701
RU2015104783 A	20160827	RU20150104783	20130701
RU2652465 C2	20180426	RU20150104783	20130701
US2015201222 AA	20150716	US20130414153	20130701
US9516351 BB	20161206	US20130414153	20130701
US10027965 BB	20180717	US20160336002	20161027
US2017127069 AA	20170504	US20160336002	20161027
WO14009844 A1	20140116	WO2013IB55384	20130701
ZA201501010 A	20170830	ZA20150001010	20150212

Priority:

US20120671183P 20120713 WO2013IB55384 20130701 US20130414153 20130701
US20150414153 20150112 US20160336002 20161027

Probable Assignee: PHILIPS KONINKLL NV

Assignee(s): (std): KONINKL PHILIPS ELECTRONICS NV ; KONINKL PHILIPS NV ; KONINKLEJKE FILIPS NV ; PHILIPS KONINKLL NV ; PHILIPS N V KONINKLL ; PHILLIPS N V KONINKLL

Assignee(s): PHILIPS ELECTRONICS KONINKLL NV ; PHILLIPS KONINKLL NV

Inventor(s): (std): MERTENS MARK JOZEF VILLEM ; MERTENS MARK JOZEF WILLEM

Inventor(s): MARK JOZEF WILLEM MERTENS

Agent(s): IR YT WIDJOJO; KROEZE JOHANNES ANTONIUS; KROEZE JOHANNES ANTONIUS ET AL; OOO YURIDICHESKAYA GORODISSKIJ I PARTNER Y FA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX

US10356451 BB	20190716	US20160741952	20160701
US2018205975 AA	20180719	US20160741952	20160701
US10638172 BB	20200428	US20190426817	20190530
US2019281330 AA	20190912	US20190426817	20190530
US2020213639 AA	20200702	US20200816485	20200312
WO17007192 A1	20170112	WO2016KR07133	20160701

Priority:

US20150189164P 20150706 US20150190750P 20150710 US20150190747P 20150710
US20150221102P 20150921 WO2016KR07133 20160701 CN201680039890 20160701
US20160741952 20160701 US20180741952 20180104 US20190426817 20190530
US20200816485 20200312

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): HWANG SOOJIN ; OH SEJIN ; SUH JONGYEUL

Agent(s): BIRCH STEWART KOLASCH AND BIRCH LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

12) Family number: 62128003 (US2017302946 AA)

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Title: METHOD FOR COLOR MAPPING A VIDEO SIGNAL BASED ON COLOR MAPPING DATA AND METHOD OF ENCODING A VIDEO SIGNAL AND COLOR MAPPING DATA AND CORRESPONDING DEVICES

Abstract: A method of color mapping a video signal represented in a first color volume from color mapping data to be applied on a video signal represented in a second color volume is disclosed. The method comprises:-color mapping (14) said video signal represented in a first color volume from said first color volume into said second color volume in the case where said first and second color volumes are different; and-color mapping (16) said color mapped video signal based on said color mapping data.

Classifications:

International (ipc 8-9): G06K9/00 G09G5/02 H04N1/60 H04N19/00 H04N19/117 H04N19/136 H04N19/186 H04N19/44 H04N19/46 H04N19/70 H04N19/85 H04N9/67

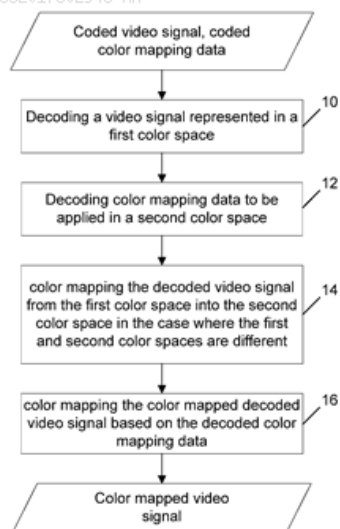
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US: 1/1 382/162

JP F-Term: 5C066 5C159 5C066/AA02 5C066/CA27 5C066/GA01 5C159/MA04 5C159/MA05 5C159/MA21 5C159/MC11 5C159/ME01 5C159/PP04 5C159/PP15 5C159/PP16 5C159/RB09 5C159/RC11 5C159/UA02 5C159/UA05

JP F-Index: H04N19/70 H04N19/85 H04N9/67@Z

PatBase - US2017302946 AA



Family:

Publication number	Publication date	Application number	Application date
CN107077827 A	20170818	CN201580056459	20151001
CN107077827 B	20191119	CN201580056459	20151001
EP3010231 A1	20160420	EP20140306650	20141017
EP3207705 A1	20170823	EP20150771621	20151001
JP2017539111 T2	20171228	JP20170518293T	20151001
JP6693949 B2	20200513	JP20170518293T	20151001
KR20170070057 A	20170621	KR20177010288	20151001
TW201631570 A	20160901	TW20150133121	20151008
TWI705430 B	20200921	TW20150133121	20151008
US10375410 BB	20190806	US20150518233	20151001
US2017302946 AA	20171019	US20150518233	20151001
US10771802 BB	20200908	US20190446930	20190620
US2019306523 AA	20191003	US20190446930	20190620
WO16058835 A1	20160421	WO2015EP72725	20151001

Priority:

EP20140306650 20141017 WO2015EP72725 20151001 US20170518233 20170410
US20190446930 20190620

Probable Assignee: INTERDIGITAL VC HOLDINGS INC

Assignee(s): (std): INTERDIGITAL VC HOLDINGS INC ; THOMSON LICENSING

Inventor(s): (std): ANDRIVON PIERRE ; BORDES PHILIPPE ; BORDES PHILLIPPE ; LASSERRE SEBASTIEN

Agent(s): DORINI BRIAN J; HUCHET ANNE; INABA YOSHIYUKI; ITOH TADAHICO; ITOH TADASHIGE; LORETTE ANNE; LORETTE ANNE ET AL; LU XIAOAN; OHNUKI SHINSUKE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

13) Family number: 63677185 (US2018020224 AA)

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Title: SIGNAL RESHAPING APPROXIMATION

Abstract: Statistical values are computed based on received source images. An adaptive reshaping function is selected for one or more source images based on the one or more statistical values. A portion of source video content is adaptively reshaped, based on the selected adaptive reshaping function to generate a portion of reshaped video content. The portion of source video content is represented by the one or more source images. An approximation of an inverse of the selected adaptive reshaping function is generated. The reshaped video content and a set of adaptive reshaping parameters defining the approximation of the inverse of the selected adaptive reshaping function are encoded into a reshaped video signal. The reshaped video signal may be processed by a downstream recipient device to generate a version of reconstructed source images, for example, for rendering with a display device.

Classifications:

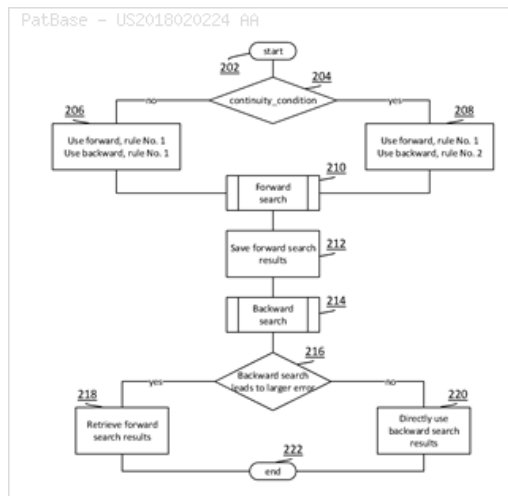
International (IPC 8-9): H04N H04N19/126 H04N19/136 H04N19/169 H04N19/17 H04N19/179 H04N19/192 H04N19/30 H04N19/46 H04N19/70 H04N19/85 H04N21/2343 H04N7/12

CPC: H04N19/179 H04N19/1887 H04N19/192 H04N19/30 H04N19/70 H04N21/47205 H04N21/478 H04N21/23439

US: 1/1 375/240.02

JP F-Term: 5C159 5C159/LB05 5C159/PP14 5C159/PP15 5C159/PP16 5C159/RC12 5C159/TA52 5C159/TB01 5C159/TB10 5C159/TC02 5C159/TD02 5C159/TD03 5C159/TD04 5C159/TD11 5C159/TD15 5C159/TD16 5C159/TD17 5C159/UA02 5C159/UA05

JP F-Index: H04N19/126 H04N19/136 H04N19/17 H04N19/192 H04N19/196,300 H04N19/46 H04N19/85



Family:

Publication number	Publication date	Application number	Application date
BR112017018552 A2	20180424	BR20171118552	20160317
BR112017018552 B1	20191022	BR20171118552	20160317
CN107409221 A	20171128	CN201680015911	20160317
CN107409221 B	20190614	CN201680015911	20160317
DE602016015534 D1	20190711	DE201660015534T	20160317
EP3272123 A1	20180124	EP20160712649	20160317
EP3272123 B1	20190619	EP20160712649	20160317
HK1242873 A1	20180629	HK20180101889	20180207
HK1242873 B	20200807	HK20180101889	20180207
IN201747027207 A	20170804	IN201747027207	20170731
JP2018511223 T2	20180419	JP20170545909T	20160317
JP6374614 B2	20180815	JP20170545909T	20160317
KR101844732 B1	20180402	KR20177026400	20160317
KR20170118207 A	20171024	KR20177026400	20160317
RU2666234 C1	20180906	RU20170132685	20160317
US10080026 BB	20180918	US20160546792	20160317
US2018020224 AA	20180118	US20160546792	20160317
WO16153896 A1	20160929	WO2016US22772	20160317

Priority:

US20150136402P 20150320 US20150199391P 20150731 WO2016US22772 20160317
EP20160712649 20160317 US20160546792 20160317

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): DOLBY LABORATORIES INC ; DOLBY LABORATORIES LICENSING CORP

Assignee(s): DOLBY LABORATORIES LICENSING SAN FRANCISCO CORP

Inventor(s): (std): CHOU HSUAN TING ; GUAN MING SU ; HSUAN TING CHOU ; KAMBALLUR KOTTAYIL NAVANEETH ; NAVANEETH KAMBALLUR KOTTAYIL ; QIUWEI WANG ; SU GUAN MING ; WANG QIUWEI

Inventor(s): KAMBALLUR KOTTAYIL NAVANEETH EDMONTON ; SU GUAN MING SAN FRANCISCO ; WANG QIUWEI RALEIGH

Agent(s): CLT PATENT AND TRADEMARK HK LTD; DOLBY INT AB PATENT GROUP EUROPE; ITOH TADAHICO; ITOH

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

14) Family number: 57492681 (US2016014420 AA)

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Title: ENCODING PERCEPTUALLY-QUANTIZED VIDEO CONTENT IN MULTI-LAYER VDR CODING

Abstract: Input VDR images are received. A candidate set of function parameter values for a mapping function is selected from multiple candidate sets. A set of image blocks of non-zero standard deviations in VDR code words in at least one input VDR image is constructed. Mapped code values are generated by applying the mapping function with the candidate set of function parameter values to VDR code words in the set of image blocks in the at least one input VDR image. Based on the mapped code values, a subset of image blocks of standard deviations below a threshold value in mapped code words is determined as a subset of the set of image blocks. Based at least in part on the subset of image blocks, it is determined whether the candidate set of function parameter values is optimal for the mapping function to map the at least one input VDR image.

Classifications:

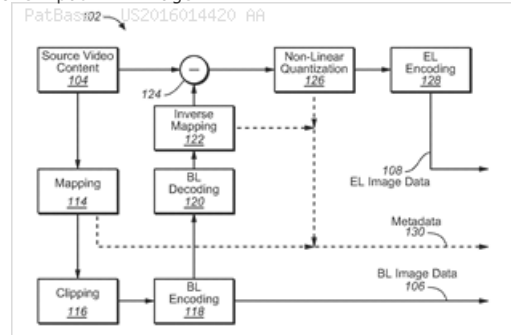
International (IPC 8-9): H04N19/102 H04N19/124 H04N19/136 H04N19/14 H04N19/176 H04N19/30 H04N19/36 H04N19/44 H04N19/46 H04N19/50 H04N19/70 H04N19/85

CPC: H04N19/136 H04N19/176 H04N19/30 H04N19/44 H04N19/50 H04N19/70 H04N19/124

US: 375/240.08 1/1

JP F-Term: 5C159 5C159/LA02 5C159/MA17 5C159/MA34 5C159/MC12 5C159/PP15 5C159/PP16 5C159/RC11 5C159/TA39 5C159/TB10 5C159/TD02 5C159/TD15 5C159/TD16 5C159/UA02 5C159/UA05 5C159/UA21 5C159/MC11 5C159/ME01 5C159/RC12

JP F-Index: H04N19/102 H04N19/14 H04N19/176 H04N19/196,300 H04N19/36 H04N19/46 H04N19/85



Family:

Publication number	Publication date	Application number	Application date
BR112015024172 A2	20170718	BR20151124172	20140325
CN105052143 A	20151111	CN201480018105	20140325
CN105052143 B	20180420	CN201480018105	20140325
DE602014022312 D1	20180412	DE201460022312T	20140325
EP2936814 A1	20151028	EP20140722483	20140325
EP2936814 B1	20180314	EP20140722483	20140325
ES2666899 T3	20180508	ES20140722483T	20140325
IN02816MN2015 A	20160205	IN2015MN02816	20150929
JP2016208541 A2	20161208	JP20160157087	20160810
JP6310017 B2	20180411	JP20160157087	20160810
JP2016519494 T2	20160630	JP20160505536T	20140325
JP5989934 B2	20160907	JP20160505536T	20140325
KR101641523 B1	20160721	KR20157026684	20140325
KR20150119463 A	20151023	KR20157026684	20140325
PL2936814 T3	20180731	PL20140722483T	20140325
RU2015140601 A	20170329	RU20150140601	20140325
RU2619886 C2	20170519	RU20150140601	20140325
US2016014420 AA	20160114	US20140771101	20140325
US9628808 BB	20170418	US20140771101	20140325
WO14160705 A1	20141002	WO2014US31716	20140325

Priority:

US20130805388P 20130326 US20130861555P 20130802 WO2014US31716 20140325
EP20140722483 20140325 JP20160505536T 20140325 US20140771101 20140325
JP20160157087 20160810

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): DOLBY LABORATORIS LAJSENZIN KORPOREJSHN ; DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES INC ; DOLBY LABORATORIES LICENSING CORP

Assignee(s): DOLBY LABORATORIES LICENSING SAN FRANCISCO CORP

Inventor(s): (std): CHEN QIAN ; CHEN TSYAN ; GUAN MING SU ; HUBERT KOEPFER ; KEPFER KHYUBERT ; KOEPFER HUBERT ; QIAN CHEN ; QU SHENG ; SHENG QU ; SU GAN MIN ; SU GUAN MING ; TSYUJ SHEN

Inventor(s): CHEN QIAN SAN FRANCISCO ; KOEPFER HUBERT SAN FRANCISCO ; QU SHENG SAN FRANCISCO ; SU GUAN MING SAN FRANCISCO

Agent(s): DOLBY INT AB PATENT GROUP EUROPE; DOLBY LABORATORIES INC ET AL; ITOH TADAHIKO; ITOH TADASHIGE; LEHMANN MARIA ISABEL; OHNUKI SHINSUKE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: APPARATUS FOR TRANSMITTING BROADCAST SIGNAL, APPARATUS FOR RECEIVING BROADCAST SIGNAL, METHOD FOR TRANSMITTING BROADCAST SIGNAL AND METHOD FOR RECEIVING BROADCAST SIGNAL

Abstract: The present invention provides a method for transmitting a broadcast signal, and a system capable of supporting future broadcast services in an environment supporting future hybrid broadcast using terrestrial broadcast networks and the Internet. In addition, the present invention provides efficient signaling methods using both terrestrial broadcast networks and the Internet in an environment supporting future hybrid broadcast.

Classifications:

International (IPC 8-9): H04L12/18 H04L12/725 H04L29/06 H04L29/08

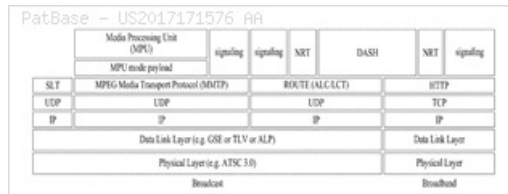
H04N21/235 H04N21/236 H04N21/43 H04N21/435 H04N21/61 H04N21/81

CPC: H04L12/1863 H04L12/1886 H04L45/304 H04L45/3065 H04L65/4076

H04L65/4084 H04L67/02 H04N21/235 H04N21/236 H04N21/43

H04N21/435 H04N21/6112 H04N21/6125 H04N21/8146

US: 1/1 725/116



Family:

Publication number	Publication date	Application number	Application date
US10848795 BB	20201124	US20160118759	20160512
US2017171576 AA	20170615	US20160118759	20160512
US2020413108 AA	20201231	US20200922842	20200707
WO16182371 A1	20161117	WO2016KR05021	20160512

Priority:

US20150160574P	20150512	US20150171206P	20150604	US20150171208P	20150604
US20150171210P	20150604	US20150181175P	20150617	WO2016KR05021	20160512
US20160118759	20160512	US20160118759	20160812	US20200922842	20200707

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): HWANG SOOJIN ; OH SEJIN ; SUH JONGYEUL

Agent(s): BIRCH STEWART KOLASCH AND BIRCH LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: BROADCAST RECEIVING APPARATUS

Abstract: A digital broadcast receiving apparatus capable of executing a function with a higher added value is provided. A broadcast receiving apparatus configured to receive contents includes: a receiving unit configured to receive the contents; an interface via which the contents received by the receiving unit is outputted; a control unit configured to control an output state of the contents from the interface. In this case, the control unit is configured to determine the output state of the contents from the interface in accordance with a combination of control information indicating a copy control state of the contents, control information for specifying necessity or not of protection when to output the contents, information indicating resolution of video of the contents, and information indicating transmission characteristics of video of the contents, which are received by the receiving unit together with the contents.

Classifications:

International (IPC 8-9): G09G5/00 H04H20/28 H04H20/30 H04H20/95

H04H40/00 H04H40/18 H04H60/13 H04H60/18 H04H60/72 H04N11/06

H04N21/2362 H04N21/431 H04N21/433 H04N21/434 H04N21/435

H04N21/436 H04N21/438 H04N21/4402 H04N21/442 H04N21/4627

H04N21/482 H04N21/488 H04N21/81 H04N21/8355 H04N21/84 H04N5/66

H04N7/08 H04N9/64

CPC: H04N21/4312 H04N21/4345 H04N21/4402 H04N21/4821

H04N21/814 H04N21/84 G09G5/00 H04N11/06 H04N21/431

US: 1/1 725/40

JP F-Term: 5C066 5C164 5K017 5C058 5C063 5C066/AA03

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5C066/KE07 5C164/PA34 5C164/UB02 5C164/UB10 5C164/UB41

5C164/UB82 5C164/YA19 5C164/FA04 5C164/TA06 5C164/TA08

5C164/UA04 5C164/UB11 5C164/YA21 5C164/FA11 5C164/GA05

5C164/MA06 5C164/UB88 5C164/UD11 5C164/UD52 5C164/GA02

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5C164/UB21 5C164/PA31 5C164/TA04 5C058/AA06 5C058/BA05

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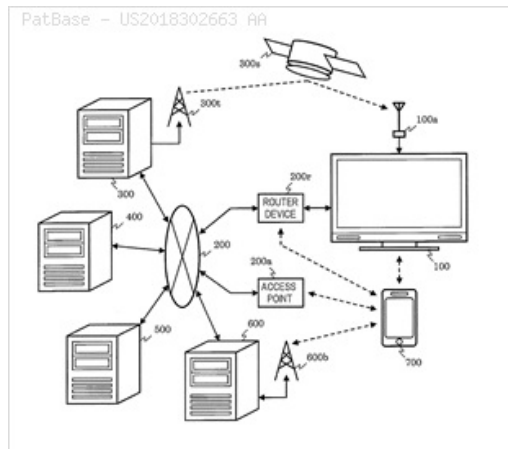
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H04N21/438 H04H20/95 H04N7/08 H04H60/18 H04N21/433



Family:

Publication number	Publication date	Application number	Application date
CN108028958 A	20180511	CN201680055583	20160920

JP2017063398 A2	20170330	JP20160037677	20160229
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JP6671530 B2	20200325	JP20190135428	20190723
JP2020036342 A2	20200305	JP20190194003	20191025
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JP6668550 B2	20200318	JP20190194003	20191025
JP2020025333 A2	20200213	JP20190202018	20160229
JP2020061779 A2	20200416	JP20200001800	20160302
JP6710346 B2	20200617	JP20200001800	20160302
JP2020061780 A2	20200416	JP20200001801	20160302
JP6711961 B2	20200617	JP20200001801	20160302
JP2020061781 A2	20200416	JP20200001802	20160303
JP6710347 B2	20200617	JP20200001802	20200109
JP2020061782 A2	20200416	JP20200001804	20160303
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JP2020145744 A2	20200910	JP20200092802	20160303
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JP2020171034 A2	20201015	JP20200110072	20160304
JP2020184796 A2	20201112	JP20200124202	20160909
US10708647 BB	20200707	US20160762495	20160920
US2018302663 AA	20181018	US20160762495	20160920
US2020288193 AA	20200910	US20200884560	20200527
WO17051808 A1	20170330	WO2016JP77739	20160920

Priority:

JP20150188314	20150925	JP20150189084	20150928	JP20150191342	20150929
JP20150192381	20150930	JP20150195543	20151001	JP20160037677	20160229
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JP20200110072	20200626	JP20200124202	20200721		

Probable Assignee: MAXELL LTD

Assignee(s): (std): HITACHI MAXELL ; MAXELL HOLDINGS LTD ; MAXELL LTD

Assignee(s): HITACHI MAXELL KK ; HITACHI MAXELL LTD

Inventor(s): (std): HASHIMOTO YASUNOBU ; KABUTO NOBUAKI ; MASUOKA NOBUO ; SHIMIZU TAKUYA ; YOSHIZAWA KAZUHIKO

Agent(s): MCDERMOTT WILL AND EMERY LLP; TSUTSUI AND ASSOCIATES

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT KE KG KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: COLOR SIGNAL CONVERSION METHOD AND APPARATUS, AND METHOD AND APPARATUS FOR GENERATING MAPPING PARAMETERS

Abstract: A color signal conversion apparatus for converting a color signal of an input gamut to a color signal of an output gamut is provided. First, a target gamut for gamut mapping carried out on the input gamut is set, after which an evaluation function is determined for evaluating the difference between the target gamut and the results of gamut mapping performed on the input gamut using initialized mapping parameters. Then, the mapping parameters are determined based on the evaluation function so that the difference is minimum. The color signal of the input gamut is then mapped to the output gamut based on the determined mapping parameters and constraining conditions. This makes it possible to achieve favorable gamut mapping based on optimal mapping parameters that have been determined automatically.

Classifications:

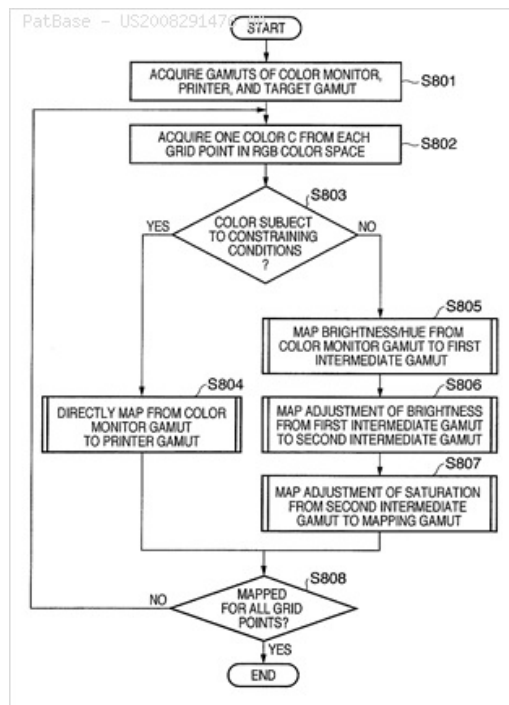
International (IPC 8-9): G06F15/00 G06T1/00 H04N1/46 H04N1/60

CPC: H04N1/6058

US: 345/604 358/1.9 358/1.900P 358/518 358/520

JP F-Term: 5B057 5C077 5C079 5B057/CA01 5B057/CB01 5B057/CD05 5B057/CE17 5B057/CH07 5C077/PP32 5C077/PP33 5C077/PP36 5C077/PP37 5C077/PQ23 5C079/HB01 5C079/HB02 5C079/HB08 5C079/LA28 5C079/LA37 5C079/LB02 5C079/MA04

JP F-Index: G06T1/00,510 H04N1/40@D H04N1/46@Z H04N1/56 H04N1/60 H04N1/60,020 H04N1/60,580



Family:

Publication number	Publication date	Application number	Application date
CN101312487 A	20081126	CN200810099712	20080521
CN101312487 B	20110323	CN200810099712	20080521
EP1995947 A2	20081126	EP20080008305	20080430
EP1995947 A3	20110914	EP20080008305	20080430
JP2008289092 A2	20081127	JP20070134581	20070521
JP4996338 B2	20120808	JP20070134581	20070521
US2008291476 AA	20081127	US20080114495	20080502
US7982912 BB	20110719	US20080114495	20080502

Priority:

JP20070134581 20070521

Probable Assignee: CANON INC

Assignee(s): (std): CANON KK

Assignee(s): CANON INC ; CANON KABUSHIKI KAISHA

Inventor(s): (std): HIGUCHI SHIYUUGO ; HIGUCHI SHUGO ; SHUGO HIGUCHI

Agent(s): COWAN LIEBOWITZ AND LATMAN PC; COWAN LIEBOWITZ AND LATMAN PC JOHN J TORRENTE; WESER THILO

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK TR

18) Family number: 68886765 (US2019215566 AA)

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Title: BROADCAST RECEIVING APPARATUS

Abstract: A digital broadcast receiving apparatus capable of executing a function with a higher added value is provided. A broadcast receiving apparatus configured to receive contents includes: a receiving unit configured to receive the contents; an interface through which the contents received by the receiving unit are outputted; and a control unit configured to control an output state of the contents from the interface. The control unit is configured to determine an output state of the contents from the interface in accordance with a combination of control information indicating a copy control state of the contents, control information for specifying whether protection is required or not when the contents are to be outputted, information indicating resolution of video of the contents, and information indicating transmission characteristics of the video of the contents, which are received by the receiving unit together with the contents.

Classifications:

International (IPC 8-9): G06F21/10 G11B20/10 H04H20/28 H04H40/00 H04H40/18 H04H60/18 H04H60/23 H04H60/82 H04N21/238 H04N21/434 H04N21/436 H04N21/4363 H04N21/4367 H04N21/438 H04N21/4402

CPC: H04H60/18 H04N2005/91328 H04N21/43635 H04N21/440263
H04N21/4405 H04N21/4627 H04N5/775 H04N5/913

JP F-Term: 5C164 5K017 5C052 5C053 5D044 5B017 5C164/FA11

5C164/MB33 5C164/SB15 5C164/UA03 5C164/UB11 5C164/UB21
5C164/UB41 5C164/YA21 5C164/PA33 5C164/UA21 5C164/UB02
5C053/FA13 5C053/FA20 5C053/GB06 5C053/LA06 5D044/AB05
5D044/AB07 5D044/BC01 5D044/CC05 5D044/DE04 5D044/DE49
5D044/DE50 5D044/HL11 5C053/FA23 5D044/GK11 5C164/MB31
5C164/UB10 5C164/UC26 5C053/FA15 5C053/GA11 5C053/GB11
5C053/GB29 5C053/GB38 5C053/JA22 5C053/LA07 5C053/LA14
5C164/FA04 5C164/MB13 5C164/TA05 5C164/TA06 5C164/TA07
5C164/UA04 5C164/UB71 5D044/DE44 5D044/HL08 5C053/FA17 5C
5C164/PA34 5C053/FA27 5C053/LA11 5C164/TA04 5C164/TA08 5C
5C053/LA01 5C164/SB11

JP F-Index: H04H40/00 H04N21/4627 H04N21/434 H04N21/8355 G11B20/10@D G11B20/10@H H04N5/91@L H04N5/91@P H04N5/765 H04N5/91 G11B20/10,301@Z H04N5/93@Z H04H20/28 H04H60/18 H04N21/4367 G11B20/10,301 G06F21/10 H04N21/4402 H04N21/462 H04N21/436 H04N21/835 H04H40/18 H04N5/913 H04N21/238 H04N21/438 H04H60/23 H04H60/82

CAMPUS	CAMPUS TYPE	CAMPUS NAME	CAMPUS ADDRESS	CAMPUS CITY	CAMPUS STATE	CAMPUS ZIP	CAMPUS PHONE	CAMPUS FAX	CAMPUS EMAIL	CAMPUS WEBSITE	FACILITY STATUS			
											TYPE OF FACILITY	STATUS	DATE OF LAST INSPECTION	DATE OF NEXT INSPECTION
1	CONVENT	CONVENT OF THE SACRAMENTS	1000 N. 10TH ST.	CHICAGO	IL	60610	312.462.1234	312.462.1235	convent@csd.org	www.convent.org	CONVENT	OPEN	12/15/10	12/15/11
2	CONVENT	CONVENT OF THE SACRAMENTS	1000 N. 10TH ST.	CHICAGO	IL	60610	312.462.1234	312.462.1235	convent@csd.org	www.convent.org	CONVENT	OPEN	12/15/10	12/15/11
3	CONVENT	CONVENT OF THE SACRAMENTS	1000 N. 10TH ST.	CHICAGO	IL	60610	312.462.1234	312.462.1235	convent@csd.org	www.convent.org	CONVENT	OPEN	12/15/10	12/15/11
4	CONVENT	CONVENT OF THE SACRAMENTS	1000 N. 10TH ST.	CHICAGO	IL	60610	312.462.1234	312.462.1235	convent@csd.org	www.convent.org	CONVENT	OPEN	12/15/10	12/15/11
5	CONVENT	CONVENT OF THE SACRAMENTS	1000 N. 10TH ST.	CHICAGO	IL	60610	312.462.1234	312.462.1235	convent@csd.org	www.convent.org	CONVENT	OPEN	12/15/10	12/15/11
6	CONVENT	CONVENT OF THE SACRAMENTS	1000 N. 10TH ST.	CHICAGO	IL	60610	312.462.1234	312.462.1235	convent@csd.org	www.convent.org	CONVENT	OPEN	12/15/10	12/15/11

Family:

Publication number	Publication date	Application number	Application date
CN109691122 A	20190426	CN201780055929	20170823
JP2018046319 A2	20180322	JP20160177312	20160912
JP6734743 B2	20200805	JP20160177312	20160912
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JP6807193 B2	20210106	JP20160177430	20160912
JP2018046345 A2	20180322	JP20160178172	20160913
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JP2018046350 A2	20180322	JP20160178241	20160913
JP2018067857 A2	20180426	JP20160206543	20161021
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JP2018074181 A2	20180510	JP20160207443	20161024
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JP2018074270 A2	20180510	JP20160209319	20161026
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JP6739315 B2	20200812	JP20160210678	20161027
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JP2018074454 A2	20180510	JP20160214010	20161101
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JP2021002881 A2	20210107	JP20200170281	20161101
US2019215566 AA	20190711	US20170331996	20170823
WO18047623 A1	20180315	WO2017JP30114	20170823

Priority:

JP20160177312	20160912	JP20160177430	20160912	JP20200073330	20160912
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Probable Assignee: MAXELL HOLDINGS LTD

Assignee(s): (std): MAXELL HOLDINGS LTD ; MAXELL LTD

Inventor(s): (std): HASHIMOTO YASUNOBU ; KABUTO NOBUAKI ; MASUOKA NOBUO ; SHIMIZU TAKUYA ; YOSHIZAWA KAZUHIKO

Agent(s): TSUTSUI AND ASSOCIATES

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

19) Family number: 62570389 (US2018007363 AA)

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Title: BROADCASTING SIGNAL TRANSMISSION AND RECEPTION METHOD AND DEVICE

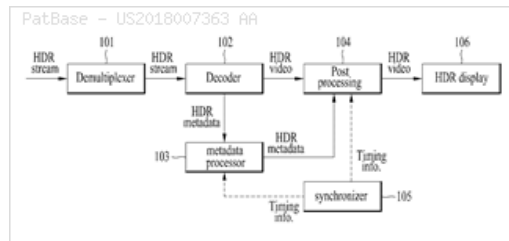
Abstract: The present invention relates to a device and method for transmitting and receiving a broadcasting signal including a subtitle service. An embodiment of the present invention provides a broadcasting signal transmission method comprising the steps of: generating a broadcasting signal including video data and subtitle data; and transmitting the generated broadcasting signal. According to an embodiment of the present invention, a transmission stream providing a digital broadcasting subtitle service using XML subtitles can be transmitted.

Classifications:

International (IPC 8-9): H04N19/00 H04N19/10 H04N19/136 H04N21/235 H04N5/232 H04N5/235 H04N7/24

CPC: H04N19/10 H04N19/136 H04N19/46 H04N19/70 H04N19/85 H04N19/87 H04N21/235 H04N21/816

US: 1/1 375/240.02



Family:

Publication number	Publication date	Application number	Application date
US10547844 BB	20200128	US20150532592	20151202
US2018007363 AA	20180104	US20150532592	20151202
WO16089093 A1	20160609	WO2015KR13016	20151202

Priority:

US20140087787P 20141204 WO2015KR13016 20151202 US20150532592 20151202

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): OH HYUNMOOK ; SUH JONGYEUL

Agent(s): BIRCH STEWART KOLASCH AND BIRCH LLP; KIM YONG IN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

20) Family number: 41885596 (US2010020242 AA)

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Title: DEVICE AND METHOD FOR PROCESSING COLOR IMAGE DATA

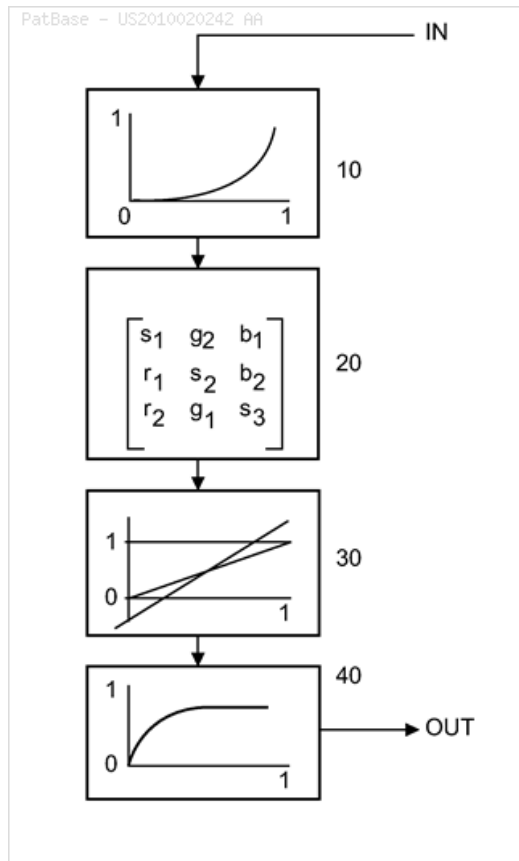
Abstract: The present invention relates to a video processing device comprising a luminance and saturation detector (LSHD) for detecting the luminance values (lum) and the saturation values (sat) of pixels of an input video signal (IN); and a white-point, saturation and hue modulator (WSH) for transforming luminance and saturation properties (lum, sat) of the pixels of the input video signal (IN) into white-point, saturation and hue correction factors (W, Wc; S, Sc; H, Hc). The video device also comprises a color gamut matrix generating unit (CGMG) for generating a color gamut matrix in the perception domain based on the white-point, saturation and hue correction factors (Wc, Sc, Hc) of the white-point, saturation and hue modulator (WSH); a color gamut mapping unit (20) for multiplying the pixels of the input video signal (IN) with a color gamut matrix generated by the color gamut matrix generating unit (CGMG); and a clipping unit (31) for clipping the results of the color gamut mapping unit (20) which are out of a predefined range.

Classifications:

International (IPC 8-9): G09G5/02 H04N1/60 H04N9/65 H04N9/67

CPC: G09G2320/0606 G09G2360/16 G09G5/02 H04N9/67

US: 345/589 348/642 348/642P



Family:

Publication number	Publication date	Application number	Application date
CN101543084 A	20090923	CN200780044143	20071120
EP2123056 A1	20091125	EP20070849188	20071120
US2010020242 AA	20100128	US20070516785	20071120
US8441498 BB	20130514	US20070516785	20071120
WO08065575 A1	20080605	WO2007IB54707	20071120

Priority:

EP20060125110 20061130 WO2007IB54707 20071120 EP20070849188 20071120

Probable Assignee: NXP SEMICONDUCTORS NV

Assignee(s): (std): DE GREEF PETRUS M ; ENTROPIC COMMUNICATIONS INC ; LAMMERS MATHEUS J G ; NXP BV ; NXP CORP BV ; NXP SEMICONDUCTORS NV

Assignee(s): DYNAMIC DATA TECHNOLOGIES LLC ; ENTROPIC COMMUNICATIONS LLC ; JPMORGAN CHASE BANK NA COLLATERAL AGENT AS ; LAMMERS MATHEUS J ; MORGAN STANLEY SENIOR FUNDING INC ; MUFG UNION BANK NA ; NXP HOLDING 1 BV ; TRIDENT MICROSYSTEMS (FAR EAST) LTD ; TRIDENT MICROSYSTEMS FAR EAST LTD

Inventor(s): (std): DE GREEF PETRUS M ; LAMMERS MATHEUS J G

Inventor(s): LAMMERS MATHEUS J

Agent(s): BRUCE; DUANE MORRIS LLP; NXP NXP INTELLECTUAL PROPERTY AND LICENSING BV; PENNINGES JOHANNES F M; RICHARD; SCHOUTEN MARCUS MARIA

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

21) Family number: 67558067 (US2017339418 AA)

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Title: METHODS AND SYSTEMS FOR GENERATING AND PROCESSING CONTENT COLOR VOLUME MESSAGES FOR VIDEO

Abstract: Systems, methods, and computer readable media are described for processing content color volume messages. In some examples, video data is obtained. The video data can include video data obtained from a camera, encoded video data, or decoded video data. Content color volume information associated with the video data is processed. The content color volume information is indicative of the content color volume of one or more pictures of the video data. For example, the content color volume information includes a first luminance value associated with a minimum luminance of the one or more pictures, a second luminance value associated with a maximum luminance of the one or more pictures, and one or more chromaticity coordinates of one or more color primaries describing a color gamut of the one or more pictures.

Classifications:

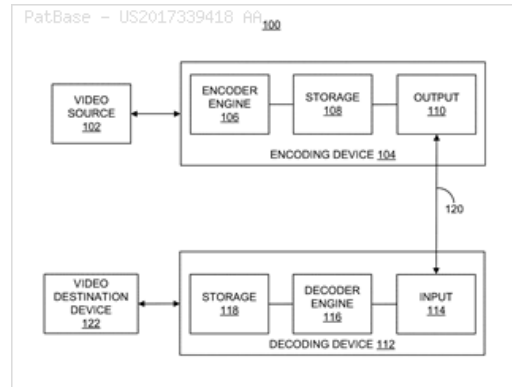
International (IPC 8-9): H04N19/136 H04N19/176 H04N19/186 H04N19/70 H04N19/85

CPC: H04N19/136 H04N19/176 H04N19/186 H04N19/70

US: 1/1 375/240.26

JP F-Term: 5C159 5C159/LA00 5C159/MA00 5C159/PP15 5C159/PP16 5C159/RC00 5C159/SS14 5C159/UA02 5C159/UA05

JP F-Index: H04N19/186 H04N19/70 H04N19/85



Family:

Publication number	Publication date	Application number	Application date
AU2017267544 AA	20181025	AU20170267544	20170515
BR112018073439 A2	20190326	BR20181173439	20170515
CN109076244 A	20181221	CN201780028212	20170515
EP3459255 A1	20190327	EP20170727770	20170515
ID201900541 A	20190125	ID2018P0008797	20170515
IN201827037666 A	20201002	IN201827037666	20181005
JP2019517205 T2	20190620	JP20180559922T	20170515
KR20190008222 A	20190123	KR20187032797	20170515
TW201806388 A	20180216	TW20170116193	20170516
US2017339418 AA	20171123	US20170594207	20170512
WO17200925 A1	20171123	WO2017US32674	20170515

Priority:

US20160337844P 20160517 US20160339665P 20160520 US20160399304P 20160923
US20170594207 20170512 WO2017US32674 20170515

Probable Assignee: QUALCOMM INC

Assignee(s): (std): QUALCOMM INC

Inventor(s): (std): ADARSH KRISHNAN RAMASUBRAMONIAN ; BUGDAYCI SANSLI DONE ; DMYTRO RUSANOVSKYY ; DONE BUGDAYCI SANSLI ; JOEL SOLE ROJALS ; KARCZEWICZ MARTA ; MARTA KARCZEWICZ ; RAMASUBRAMONIAN ADARSH KRISHNAN ; RUSANOVSKYY DMYTRO ; SOLE ROJALS JOEL

Agent(s): AUSTIN SHELTON W ET AL; HOWE STEVEN; LUDIYANTO SH MH MM; MADDERN'S PATENT AND TRADE MARK ATTORNEYS; MADDERN'S PTY LTD

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

22) Family number: 65424675 (US2018262731 AA)

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Title: BROADCAST SIGNAL TRANSMISSION DEVICE, BROADCAST SIGNAL RECEPTION DEVICE, BROADCAST SIGNAL TRANSMISSION METHOD, AND BROADCAST SIGNAL RECEPTION METHOD

Abstract: The present invention proposes a method for transmitting a broadcast signal. The method for transmitting the broadcast signal according to the present invention proposes a system capable of supporting a next-generation broadcast service in the environment for supporting a next-generation hybrid broadcast using a terrestrial broadcast network and an internet network. In addition, proposed is an efficient signaling method capable of covering both the terrestrial broadcast network and the internet network in the environment for supporting the next-generation hybrid broadcast.

Classifications:

International (IPC 8-9): G06F13/14 H04N21/434 H04N21/436 H04N21/4363 H04N21/4402 H04N21/45 H04N9/64

CPC: G06T2207/10016 G06T2207/10024 H04N21/4345 H04N21/436 H04N21/43635 H04N21/4402 H04N21/440218 H04N21/4516 H04N9/64 H04N9/641 H04N9/646

US: 1/1 348/222.1



Family:

Publication number	Publication date	Application number	Application date
US10587852 BB	20200310	US20160759798	20161006
US2018262731 AA	20180913	US20160759798	20161006
WO17061796 A1	20170413	WO2016KR11202	20161006

Priority:

US20150238097P 20151006 US20150238721P 20151008 WO2016KR11202 20161006
US20160759798 20161006

Probable Assignee: LG ELECTRONICS

Assignee(s): (std): LG ELECTRONICS ; LG ELECTRONICS INC

Inventor(s): (std): OH HYUNMOOK ; SUH JONGYEUL

Agent(s): DENTONS US LLP; KIM YONG IN ET AL
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

23) Family number: 65263490 (US2017085887 AA)

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Title: METHOD, APPARATUS AND SYSTEM FOR DISPLAYING VIDEO DATA

Abstract: A plurality of display device profiles is decoded from a bitstream containing video data. A display device profile is selected by comparing at least a portion of the device information of the display device profiles with corresponding device information of the first display device. An image modification parameter set is selected from a plurality of image modification parameter sets according to the selected display device profile, the plurality of image modification parameter sets being decoded from the bitstream and each of the plurality of image modification parameter sets providing information regarding luminance mapping to be applied to one or more portions of the video data. At least a portion of the video data is displayed on the first display device from the bitstream of video data by applying the selected image modification parameter set to the portion of video data from the bitstream of video data.

Classifications:

International (IPC 8-9): H04N19/103 H04N19/16 H04N19/184

H04N19/186 H04N19/189

CPC: H04N1/603 H04N19/103 H04N19/16 H04N19/184 H04N19/186

H04N19/98 H04N9/67

US: 1/1 375/240.02

PatBase - US2017085887 AA 400

<u>401</u>	colour_remap_id
<u>402</u>	Minimum Luminance
<u>403</u>	Maximum Luminance
<u>404</u>	Colour Primaries
<u>405</u>	White Point
<u>406</u>	Preferred MaxCLL
<u>407</u>	Preferred MinCLL
<u>408</u>	Preferred MaxFALL

Family:

Publication number	Publication date	Application number	Application date
AU2015227469 AA	20170406	AU20150227469	20150917
US2017085887 AA	20170323	US20160265629	20160914

Priority:

AU20150227469 20150917

Probable Assignee: CANON INC

Assignee(s): (std): CANON INC ; CANON KK

Inventor(s): (std): GAN JONATHAN ; KOLESNIKOV VOLODYMYR ; ROSEWARNE CHRISTOPHER JAMES

Agent(s): SPRUSON AND FERGUSON

24) Family number: 64277631 (US2016358346 AA)

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Title: RENDERING AND DISPLAYING HIGH DYNAMIC RANGE CONTENT

Abstract: Methods and apparatus for rendering and displaying high dynamic range (HDR) digital image content. An HDR rendering and display system may support the rendering and display of standard dynamic range (SDR) and HDR content to both HDR-enabled and standard displays. The HDR rendering and display system renders digital image content into the HDR space and maps the rendered HDR content into the display space of HDR or standard displays using display processing techniques that may preserve at least some of the HDR content even for standard displays. The HDR rendering and display system may take into account various information including but not limited to display characteristics such as size, control inputs, current image characteristics such as image brightness, and environmental information such as viewer position and ambient lighting levels to dynamically adapt the rendering and display of the digital image content according to ambient viewing conditions at the target display.

Classifications:

International (IPC 8-9): G06F3/0484 G06T1/20 G06T11/00 G06T5/00

G09G3/20 G09G3/34 G09G3/36 G09G5/00 G09G5/02 G09G5/10

G09G5/391 H04N1/407 H04N1/60 H04N19/46 H04N19/98 H04N5/20

H04N5/202 H04N5/57 H04N5/58 H04N5/66

CPC: G06F3/04847 G06T1/20 G06T11/001 G06T2200/24 G06T5/007

G09G2320/0626 G09G2320/066 G09G2340/06 G09G2354/00

G09G2360/144 G09G5/02 G09G5/10 H04N1/6061 H04N1/6088

H04N19/46 H04N19/98 H04N5/202 H04N5/58

US: 1/1 345/589 345/617

JP F-Term: 5B057 5C006 5C021 5C058 5C077 5C080 5C182 5C380

5B057/CA01 5B057/CA08 5B057/CA12 5B057/CA16 5B057/CB01

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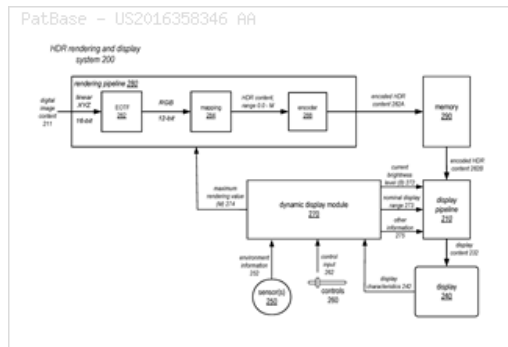
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5B057/DB09 5B057/DC22 5C006/AA02 5C006/AF46 5C006/AF53

5C006/AF69 5C006/BB29 5C006/BF39 5C006/EA01 5C006/EC02

5C006/EC05 5C006/EC11 5C006/FA22 5C021/PA17 5C021/PA53 5C021/PA58 5C021/RB01 5C021/RB03 5C021/XA34 5C058/AA06 5C058/AA13 5C058/BA07 5C058/BA08 5C058/BA29 5C077/LL19 5C077/MP01 5C077/MP08 5C077/PP15 5C077/PP32 5C077/PP34 5C077/PQ13 5C077/SS06 5C080/AA06 5C080/AA07 5C080/AA10 5C080/DD05 5C080/DD25 5C080/DD26 5C080/EE19 5C080/GG07 5C080/JJ02 5C080/JJ05 5C080/JJ06 5C080/JJ07 5C080/KK02 5C080/KK07 5C080/KK47 5C080/KK50 5C182/AA02 5C182/AA03 5C182/AA04 5C182/AB02 5C182/AB03 5C182/AB04 5C182/AB08 5C182/AB14 5C182/AB21 5C182/AC02 5C182/AC03 5C182/AC13 5C182/AC43 5C182/BA01 5C182/BA03 5C182/BA04 5C182/BA06 5C182/BA14 5C182/BA45 5C182/BA46 5C182/BA47 5C182/BA65 5C182/BA66 5C182/BA76 5C182/BC03 5C182/BC22 5C182/BC25 5C182/BC26 5C182/BC29 5C182/BC33 5C182/BC43 5C182/CA01 5C182/CA02 5C182/CA11 5C182/CA12 5C182/CA13 5C182/CA14 5C182/CA22 5C182/CA32 5C182/CA37 5C182/CB12 5C182/CB54 5C182/CC21 5C182/CC24 5C182/DA14 5C182/DA18 5C182/DA25 5C182/DA35 5C182/DA44 5C182/DA52 5C182/DA53 5C182/DA66 5C380/AA01 5C380/AA03 5C380/AB28 5C380/AB29 5C380/AC08 5C380/AC11 5C380/AC12 5C380/BA21 5C380/BA43 5C380/BB01 5C380/BB11 5C380/BB12 5C380/CF68 5C380/DA41 5C380/DA42 5C380/FA16

JP F-Index: G06T1/20@C G06T5/00,740 G09G3/20,641@P G09G3/20,642@C G09G3/20,642@E G09G3/20,642@F G09G3/3233 G09G3/34@J G09G3/36 G09G5/00,520@V G09G5/00,530@A G09G5/00,550@C G09G5/10@Z H04N1/407 H04N5/20 H04N5/66@A



Family:

Publication number	Publication date	Application number	Application date
AU2016270443 AA	20171130	AU20160270443	20160603
AU2016270443 BB	20190103	AU20160270443	20160603
CN107690811 A	20180213	CN201680031634	20160603
CN107690811 B	20200804	CN201680031634	20160603
EP3304881 A1	20180411	EP20160730623	20160603
JP2018524863 T2	20180830	JP20170562306T	20160603
JP6574270 B2	20190911	JP20170562306T	20160603
KR102059256 B1	20191224	KR20177034499	20160603
KR20170141236 A	20171222	KR20177034499	20160603
US10249263 BB	20190402	US20160173425	20160603
US2016358346 AA	20161208	US20160173425	20160603
US10089960 BB	20181002	US20160173428	20160603
US2016358584 AA	20161208	US20160173428	20160603
WO16197033 A1	20161208	WO2016US35875	20160603

Priority:

US20150171924P 20150605 WO2016US35875 20160603 US20160173428 20160603
US20160173425 20160603

Probable Assignee: APPLE INC

Assignee(s): (std): APPLE INC

Inventor(s): (std): DACQUAY ERIC L ; GREENEBAUM KENNETH I ; HENDRY IAN C

Agent(s): DESHIMARU TAKESHI; FPA PATENT ATTORNEYS PTY LTD; KOSHISHIBA ERI; KOWERT ROBERT C; MEYERTONS HOOD KIVLIN KOWERT AND GOETZEL PC; NISHIJIMA TAKAKI; OHTSUKA FUMIAKI; ROBERT C KOWERT; WARDLE CALLUM TARN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

25) Family number: 67493177 (US2017332085 AA)

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Title: METHODS AND SYSTEMS FOR GENERATING REGIONAL NESTING MESSAGES FOR VIDEO PICTURES

Abstract: Systems, methods, and computer readable media are described for generating a regional nesting message. In some examples, a video bitstream is obtained and an encoded video bitstream is generated using the video data. The encoded video bitstream includes a regional nesting message that contains a plurality of nested messages and region data defining at least a first region of a picture of the encoded video bitstream. For example, a first nested message of the regional nesting message includes a first set of data and a first region identifier indicating the first region of the picture is associated with the first set of data.

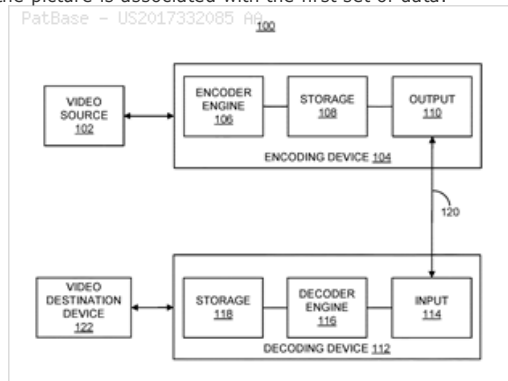
Classifications:

International (IPC 8-9): H04N11/02 H04N11/04 H04N19/167 H04N19/172 H04N19/46 H04N19/467 H04N19/70 H04N19/80 H04N19/85 H04N7/12

CPC: H04N19/167 H04N19/172 H04N19/70 H04N19/80 H04N19/85

US: 1/1 375/240.02

JP F-Term: 5C159 5C159/MA04 5C159/MA05 5C159/MA21 5C159/MC21 5C159/ME01 5C159/NN01 5C159/RB09 5C159/UA02 5C159/UA05 5C159/UA16 5C159/UA33



Family:

Publication number	Publication date	Application number	Application date
AU2017263318 AA	20181018	AU20170263318	20170508
BR112018073052 A2	20190226	BR20181173052	20170508
CA3019859 AA	20181002	CA20173019859	20170508
CN109196868 A	20190111	CN201780027773	20170508
EP3456054 A1	20190320	EP20170723625	20170508
IN201847036066 A	20181109	IN201847036066	20180925
JP2019515572 T2	20190606	JP20180558174T	20170508
JP6816166 B2	20210120	JP20180558174T	20170508
KR102156993 B1	20200916	KR20187032104	20170508
KR20190004709 A	20190114	KR20187032104	20170508
TW201742464 A	20171201	TW20170115367	20170509
US10554981 BB	20200204	US20170588516	20170505
US2017332085 AA	20171116	US20170588516	20170505
US2020204809 AA	20200625	US20190723825	20191220
WO17196727 A1	20171116	WO2017US31558	20170508

Priority:

US20160334354P 20160510 US20160336435P 20160513 US20160405161P 20161006
US20170588516 20170505 WO2017US31558 20170508 US20190723825 20191220

Probable Assignee: QUALCOMM INC**Assignee(s):** (std): QUALCOMM INC**Assignee(s):** BUGDAYCI SANSLI DONE ; KARCZEWICZ MARTA ; RAMASUBRAMONIAN ADARSH KRISHNAN ; RUSANOVSKYY DMYTRO ; SOLE ROJALS JOEL ; WANG YEKUI**Inventor(s):** (std): ADARSH KRISHNAN RAMASUBRAMONIAN ; BUGDAYCI SANSLI DONE ; DMYTRO RUSANOVSKYY ; DONE BUGDAYCI SANSLI ; JOEL SOLE ROJALS ; KARCZEWICZ MARTA ; MARTA KARCZEWICZ ; RAMASUBRAMONIAN ADARSH KRISHNAN ; RUSANOVSKYY DMYTRO ; SOLE ROJALS JOEL ; WANG YE KUI ; YEKUI WANG**Agent(s):** AUSTIN SHELTON W ET AL; HOWE STEVEN; MADDERNS PATENT AND TRADE MARK ATTORNEYS; MADDERNS PTY LTD; POLSINELLI LLP; SMART AND BIGGAR**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**26) Family number: 42909660 (US2010128055 AA)**

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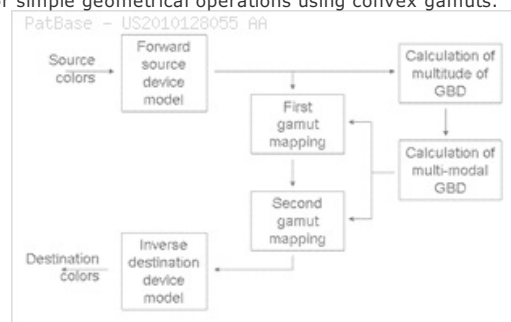
Title: METHOD OF COLOR MAPPING FROM NON-CONVEX SOURCE GAMUT INTO NON-CONVEX TARGET GAMUT

Abstract: Method of mapping source colors from a source color device having an actual source gamut that is represented by a source convex (gamut boundary descriptor) and a source non-convex into target colors for a target color device having an actual target gamut that is represented by a target convex and a target non-convex, comprising, 1-if the source color to map is located outside the source non-convex, a pre-mapping step that maps the source color into the source non-convex, 2-if the mapped target color is located outside the target non-convex, a post-mapping step that maps the target color into the target non-convex. This method allows precise gamut mapping while allowing also for simple geometrical operations using convex gamuts.

Classifications:**International (IPC 8-9):** G06T1/00 G09G5/02 H04N1/46 H04N1/60 H04N9/64**CPC:** H04N1/6058**US:** 345/589 345/590 345/590P 345/591 358/1.9 382/167

JP F-Term: 5B057 5C077 5C079 5B057/CA01 5B057/CA08 5B057/CB01 5B057/CB08 5B057/CC02 5B057/CE17 5B057/CH08 5B057/CH18 5C077/LL17 5C077/MP08 5C077/NN02 5C077/PP34 5C077/PP36 5C077/PP37 5C077/PQ08 5C077/PQ23 5C077/TT02 5C079/HB05 5C079/HB11 5C079/LA02 5C079/LB02 5C079/MA01 5C079/MA11 5C079/NA03

JP F-Index: G06T1/00,510 H04N1/40@D H04N1/405 H04N1/405,510@A H04N1/46@Z H04N1/56 H04N1/60 H04N1/60,020 H04N1/60,160 H04N1/60,580

**Family:**

Publication number	Publication date	Application number	Application date
CN101766019 A	20100630	CN200880100745	20080725
CN101766019 B	20121031	CN200880100745	20080725
EP2023600 A1	20090211	EP20070301277	20070727
EP2198601 A1	20100623	EP20080786484	20080725
EP2198601 B1	20180516	EP20080786484	20080725
JP2010534963 T2	20101111	JP20100517419T	20080725
JP5309137 B2	20131009	JP20100517419T	20080725
KR101431653 B1	20140820	KR20107001452	20080725
KR20100043191 A	20100428	KR20107001452	20080725
US2010128055 AA	20100527	US20080452741	20080725
US8629881 BB	20140114	US20080452741	20080725
WO09016136 A1	20090205	WO2008EP59837	20080725

Priority:

EP20070301277 20070727 WO2008EP59837 20080725 EP20080786484 20080725

Probable Assignee: INTERDIGITAL CE PATENT HOLDINGS**Assignee(s):** (std): BLONDE LAURENT ; ENDRESS WOLFGANG ; STAUDER JUERGEN ; STRAUDER JUERGEN ; THOMSON LICENSING ; THOMSON LICENSING INC ; THOMSON LICENSING SA**Assignee(s):** INTERDIGITAL CE PATENT HOLDINGS**Inventor(s):** (std): BLONDE LAURENT ; ENDRESS WOLFGANG ; JUERGEN STAUDER ; LAURENT BLONDE ; STAUDER JUERGEN ; STAUDER JURGEN ; STRAUDER JUERGEN ; WOLFGANG ENDRESS**Agent(s):** ABE KAZUO; BROWAEYS JEAN PHILIPPE; ROBERT D SHEDD PATENT OPERATIONS THOMSON LICENSING LLC; RUELLAN LEMONNIER BRIGITTE; TANI YOSHIKAZU; TUTUNJIAN AND BITETTO PC**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**27) Family number: 63272874** (US2018035015 AA)

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Title: METHOD AND APPARATUS FOR ENCODING COLOR MAPPING INFORMATION AND PROCESSING PICTURES BASED ON COLOR MAPPING INFORMATION

Abstract: Color mapping information can be used to transform one color to another color. The present embodiments provide a solution for representing the color mapping information using a successive application of multiple color mapping functions. Parameters for the multiple color mapping functions can be encoded into a bitstream. In one embodiment, color mapping functions are consecutively applied on their own domains of definition only. In another embodiment, the first color mapping (CRI1) is applied on its domain of definition only, but the second color mapping is applied only on samples that have been previously color mapped by CRI1 and which are also inside the domain of definition of the second color mapping function. At the decode side, the multiple color mapping functions can be reconstructed and successively applied to a decoded picture to generate another picture.

Classifications:**International (IPC 8-9):** G06T1/00 H04N1/46 H04N1/60 H04N1/62

H04N19/136 H04N19/169 H04N19/184 H04N19/186 H04N19/30

H04N19/46 H04N19/70 H04N19/85

CPC: H04N1/6025 H04N1/6063 H04N19/184 H04N19/186 H04N19/30

H04N19/46 H04N19/70

US: 1/1 382/166**JP F-Term:** 5B057 5C079 5C159 5B057/BA25 5B057/CA01 5B057/CA08

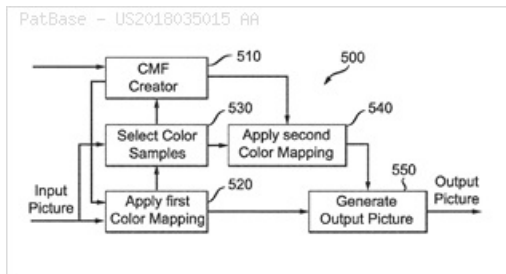
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5C079/LB11 5C079/MA19 5C079/NA15 5C159/PP16 5C159/RC12

JP F-Index: G06T1/00,510 H04N1/46@Z H04N1/60 H04N1/60,110

H04N1/60,580 H04N1/62 H04N19/30 H04N19/70 H04N19/85

**Family:**

Publication number	Publication date	Application number	Application date
CN107258082 A	20171017	CN201680011026	20160219
CN107258082 B	20200929	CN201680011026	20160219
EP3059937 A1	20160824	EP20150305266	20150220
EP3259902 A1	20171227	EP20160705530	20160219
JP2018512749 T2	20180517	JP20170539391T	20160219
JP6694439 B2	20200513	JP20170539391T	20160219
KR20170120108 A	20171030	KR20177022815	20160219
TW201631970 A	20160901	TW20160104806	20160218
TWI692971 B	20200501	TW20160104806	20160218
US10805506 BB	20201013	US20160549187	20160219
US2018035015 AA	20180201	US20160549187	20160219
WO16131970 A1	20160825	WO2016EP53585	20160219

Priority:

EP20150305266 20150220 WO2016EP53585 20160219

Probable Assignee: INTERDIGITAL VC HOLDINGS INC**Assignee(s):** (std): INTERDIGITAL VC HOLDINGS INC ; THOMSON LICENSING**Inventor(s):** (std): ANDRIVON PIERRE ; BORDES PHILIPPE ; LASSERRE SEBASTIEN ; OLIVIER YANNICK**Agent(s):** HUCHET ANNE; HUCHET ANNE ET AL; INABA YOSHIYUKI; ITOH TADAHIKO; ITOH TADASHIGE; LU XIAOAN; OHNUKI SHINSUKE**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**28) Family number: 50526900** (US2013120656 AA)

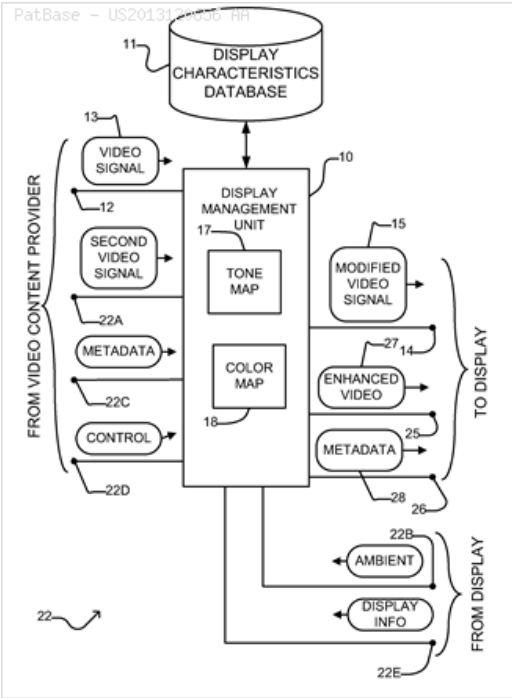
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Title: DISPLAY MANAGEMENT SERVER

Abstract: A display management unit configured to provide a modified video signal for display on a target display over an electronic distribution network. The unit may access information regarding the target display and at least one input. The unit comprises a database interface configured to retrieve display characteristics corresponding to the information regarding the target display from a characteristics database, and a mapping unit configured to map at least one of tone and color values from the at least one input to corresponding mapped values based at least in part on the retrieved display characteristics to produce the modified video signal.

Classifications:

International (IPC 8-9): G06F3/14 G09G5/00 G09G5/02 G09G5/04 G09G5/06 H04N21/2343 H04N21/235 H04N21/236 H04N21/258 H04N21/422 H04N21/431 H04N21/434 H04N21/4402 H04N21/61 H04N21/6336 H04N21/6379 H04N21/84 H04N5/445
CPC: G06F3/1423 G06F3/1462 G09G2320/0242 G09G2320/0276 G09G2320/0626 G09G2320/066 G09G2320/0666 G09G2320/08 G09G2360/02 G09G2360/04 G09G2360/144 G09G2370/022 G09G2370/04 G09G5/005 G09G5/04 G09G5/06 H04N21/234336 H04N21/23439 H04N21/2353 H04N21/23614 H04N21/25825 H04N21/42202 H04N21/4318 H04N21/4348 H04N21/6125 H04N21/6336 H04N21/6379 H04N21/84 H04N5/445
US: 1/1 348/563 725/116



Family:

Publication number	Publication date	Application number	Application date
CN103180891 A	20130626	CN201180035765	20110720
CN103180891 B	20150902	CN201180035765	20110720
EP2596490 A2	20130529	EP20110810319	20110720
EP2596490 A4	20140101	EP20110810319	20110720
KR101537510 B1	20150717	KR20137001464	20110720
KR20130020724 A	20130227	KR20137001464	20110720
US2013120656 AA	20130516	US20110810734	20110720
US9509935 BB	20161129	US20110810734	20110720
US10327021 BB	20190618	US20160358450	20161122
US2017078724 AA	20170316	US20160358450	20161122
WO12012489 A2	20120126	WO2011US44616	20110720
WO12012489 A3	20120315	WO2011US44616	20110720

Priority:

US20100366899P 20100722 WO2011US44616 20110720 US20110810734 20110720
US20130810734 20130117 US20160358450 20161122

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): ATKINS ROBIN ; DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES INC ; DOLBY LABORATORIES LICENSING CORP ; WILSON BRENT

Assignee(s): DOLBY LABORATORIES LICENSING CORPORATION

Inventor(s): (std): ATKINS ROBIN ; WILSON BRENT ; WILSON WILLIAM B ; WILSON WILLIAM BRENT

Agent(s): DOLBY INT AB PATENT GROUP EUROPE; DOLBY LABORATORIES INC ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

29) Family number: 57268184 (US2016005349 AA)

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Title: DISPLAY MANAGEMENT FOR HIGH DYNAMIC RANGE VIDEO

Abstract: A display management processor receives an input image with enhanced dynamic range to be displayed on a target display which has a different dynamic range than a reference display. The input image is first transformed into a perceptually-corrected IPT color space. A non-linear mapping function generates a first tone-mapped signal by mapping the intensity of the input signal from the reference dynamic range into the target dynamic range. The intensity (I) component of the first tone-mapped signal is sharpened to preserve details, and the saturation of the color (P and T) components is adjusted to generate a second tone-mapped output image. A color gamut mapping function is applied to the second tone-mapped output image to generate an image suitable for display onto the target display. The display management pipeline may also be adapted to adjust the intensity and color components of the displayed image according to specially defined display modes.

Classifications:

International (IPC 8-9): G06T G06T1/00 G06T5/00 G06T5/20 G06T7/00
G09G3/20 G09G5/02 G09G5/36 H04N H04N1/46 H04N19/46 H04N5/20
H04N9/64 H04N9/67 H04N9/68

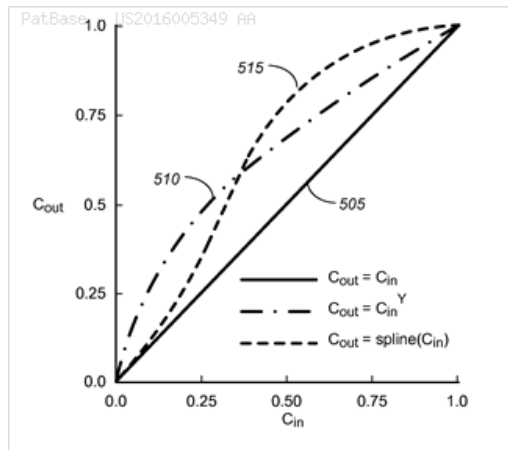
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H04N9/68

US: 345/591

JP F-Term: 5B057 5C066 5C079 5C082 5C182 5B057/CA01
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5B057/CE06 5B057/CE11 5B057/CE17 5B057/CE18 5B057/CH05
5B057/CH07 5B057/CH09 5B057/CH18 5C066/AA03 5C066/CA07
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5C182/AB01 5C182/AB02 5C182/BA01 5C182/BC11 5C182/BC14
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JP F-Index: G06T1/00,510 G06T5/00,730 G09G5/02@B

G09G5/36,520@A G09G5/36,520@C H04N1/46 H04N1/46@Z H04N1/56 H04N1/58 H04N1/60 H04N1/60,020 H04N1/60,110
H04N1/60,160 H04N1/60,580 H04N9/64@Z

**Family:**

Publication number	Publication date	Application number	Application date
BR112015020009 A2	20170718	BR20151120009	20140213
CN105009580 A	20151028	CN201480009785	20140213
CN105009580 B	20170929	CN201480009785	20140213
DE602014037361 D1	20181220	DE201460037361T	20140213
EP2959682 A2	20151230	EP20140707571	20140213
EP2959682 B1	20181205	EP20140707571	20140213
ES2708954 T3	20190412	ES20140707571T	20140213
HK1211156 A1	20160513	HK20150111798	20151201
HK1211156 B	20180817	HK20150111798	20151201
ID201700218 A	20170120	ID2015P0005098	20140213
IN02510KN2015 A	20150911	IN2015KN02510	20150731
IN340080 B	20200703	IN2015KN02510	20150731
JP2016514395 T2	20160519	JP20150558882T	20140213
JP6367839 B2	20180801	JP20150558882T	20140213
KR102157032 B1	20200918	KR20157022561	20140213
KR20150120993 A	20151028	KR20157022561	20140213
MX2015010845 A1	20151201	MX20150010845	20140213
MX346011 B	20170228	MX20150010845	20140213
RU2015134416 A	20170222	RU20150134416	20140213
RU2647636 C2	20180316	RU20150134416	20140213
TR201901007 T4	20190221	TR20190001007T	20140213
US10540920 BB	20200121	US20140767249	20140213
US2016005349 AA	20160107	US20140767249	20140213
WO14130343 A2	20140828	WO2014US16304	20140213
WO14130343 A3	20141016	WO2014US16304	20140213
ZA201505647 A	20161221	ZA20150005647	20140213

Priority:

US20130767380P 20130221 US20130810104P 20130409 WO2014US16304 20140213
EP20140707571 20140213 US20140767249 20140213

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): DOLBI LABORATORIS LAJSENZIN KORPOREJSHN ; DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES
INC ; DOLBY LABORATORIES LICENSING CORP ; DOLBY LABORATORIES LICENSING CORP A CORP
ORGANISED AND EXISTING UNDER LAWS OF STATE OF NEW Y

Assignee(s): DOLBY LABORATORIES LICENSING A ORGANISED AND EXISTING UNDER LAWS OF STATE OF NEW YORK
CORP ; DOLBY LABORATORIES LICENSING CORP SAN FRANCISCO

Inventor(s): (std): ATKINS ROBIN ; ATKINS ROBIN R ; BAJER TADDEUS ; BEIER THADDEUS ; BEIER THADDEUS T ; CHEN TAO
; KUNKEL TIMO ; KUNKEL TIMO T ; ROBIN ATKINS ; TAO CHEN ; THADDEUS BEIER ; TIMO KUNKEL

Inventor(s): ATKINS ROBIN SAN FRANCISCO ; BEIER THADDEUS SAN FRANCISCO ; CHEN TAO SAN FRANCISCO ;
KUNKEL TIMO SAN FRANCISCO

Agent(s): CLT PATENT AND TRADEMARK HK LTD; DOLBY INT AB PATENT GROUP EUROPE; DOLBY LABORATORIES INC
ET AL; ELZABURU SLP ELZABURU SLP; FAHMI ASSEGAF SH MH; ITOH TADAHIKO; ITOH TADASHIGE;
OHNUKI SHINSUKE; SOROKOLAT I PARTNER PATENTNYE POVERENNYE; UGUR GUERSAD YALCINER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN
IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW
MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM
SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Abstract: Image data is transformed for display on a target display. A sigmoidal transfer function provides a free parameter controlling min-tone contrast. The transfer function may be dynamically adjusted to accommodate changing ambient lighting conditions. The transformation may be selected so as to automatically adapt image data for display on a target display in a way that substantially preserves creative intent embodied in the image data. The image data may be video data.

Classifications:

International (IPC 8-9): G06T1/00 G06T11/00 G09G5/00 G09G5/02 G09G5/10 G09G5/30 G09G5/391 H04N H04N1/46 H04N1/60 H04N1/62 H04N19/85 H04N5/00 H04N5/20 H04N5/202 H04N5/57 H04N9/64 H04N9/67 H04N9/68 H04N9/69 H04N9/73

International (IPC 1-7): H04N1/62 H04N9/73

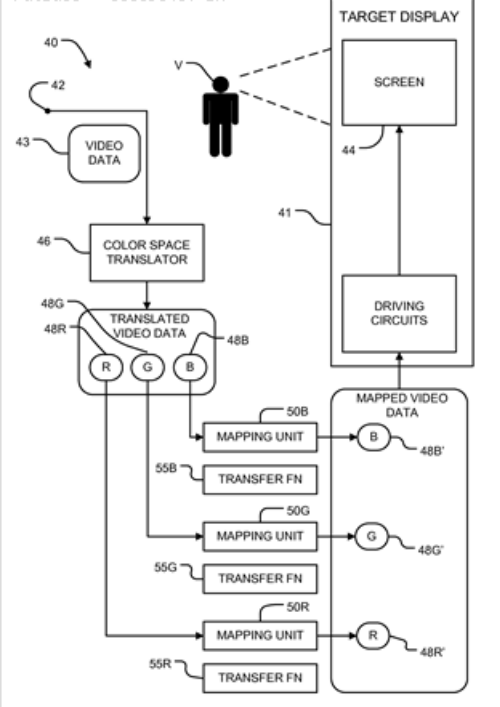
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US: 1/1 345/581 345/586 345/589 345/590 345/606 345/690 345/77 348/251 348/615 348/655 348/687 358/520

JP F-Term: 5B057 5C066 5C077 5C079 5C082 5C182 5C021 5C159 5B057/CA01 5B057/CA08 5B057/CA12 5B057/CA16 5B057/CB01 5B057/CB08 5B057/CB12 5B057/CB16 5B057/CE11 5B057/CE17 5B057/DC25 5C066/AA03 5C066/AA11 5C066/CA17 5C066/EA14 5C066/EA16 5C066/EE02 5C066/GA01 5C066/HA03 5C066/HA04 5C066/KE02 5C066/KE03 5C066/KE04 5C077/LL19 5C077/MP08 5C077/NP01 5C077/PP09 5C077/PP28 5C077/PP32 5C077/PP37 5C077/SS06 5C079/HB01 5C079/HB05 5C079/LA02 5C079/LB02 5C079/MA17 5C079/NA01 5C066/CA05 5C066/EA07 5C066/EA08 5C082/AA21 5C082/AA34 5C082/BA34 5C082/BA35 5C082/BD01 5C082/BD02 5C082/CA11 5C082/CA12 5C082/CA84 5C082/CB03 5C182/AA02 5C182/AA03 5C182/AB01 5C182/AB02 5C182/AB08 5C182/AB11 5C182/BA45 5C182/BC02 5C182/BC14 5C182/CA02 5C182/CA12 5C182/CA21 5C182/CA33 5C182/CA36 5C182/CA43 5C182/CA51 5C182/DA18 5C021/PA17 5C021/PA56 5C021/PA72 5C021/XA31 5C066/KD07 5C182/BA25 5C182/CA01 5C182/CA11 5C182/CA13 5C182/CA37 5C182/CA42 5C182/DA53 5C182/DA70 5C021/RB03 5C021/XA14 5C021/XA34 5C159/PP01 5C159/PP04 5C159/RB09 5C159/RB14 5C159/RB15 5C159/RC01 5C159/UA02 5C159/UA05

JP F-Index: G06T1/00,510 H04N1/40@D H04N1/46@Z H04N1/56 H04N1/60 H04N1/60,020 H04N1/60,110 H04N1/60,580 H04N9/64@Z H04N9/73@Z G09G5/00,520@A G09G5/00,520@V G09G5/02@B G09G5/00@X G09G5/10@Z H04N5/20 H04N9/69 H04N19/70 H04N19/85 H04N5/202

PatBase - US8593480 B4



Family:

Publication number	Publication date	Application number	Application date
BR112013023527 A2	20161206	BR20131123527	20120315
BR122015005675 A2	20190820	BR20151205675	20120315
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Priority:

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US20180902846	20180222				

Probable Assignee: DOLBY LABORATORIES LICENSING CORP

Assignee(s): (std): BALLESTAD ANDERS ; DOLBY LAB LICENSING CORP ; DOLBY LABORATORIES INC ; DOLBY LABORATORIES LICENSING CORP ; KOSTIN ANDREY ; WARD GREGORY JOHN

Assignee(s): DOLBY LABORATORIES LICENSING CORPORATION ; DOLBY LABORATORIES LICENSING SAN FRANCISCO CORP

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW