505352106 02/28/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5398891

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
QING SONG	04/03/2017
HARSHAD KADU	04/04/2017
QIAN CHEN	04/03/2017
GUAN-MING SU	04/05/2017

RECEIVING PARTY DATA

Name:	DOLBY LABORATORIES LICENSING CORPORATION
Street Address:	1275 MARKET STREET
City:	SAN FRANCISCO
State/Country:	CALIFORNIA
Postal Code:	94103-1410

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16329392

CORRESPONDENCE DATA

Fax Number: (415)645-4000

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (415)645-5773

Email: patents@dolby.com

Correspondent Name: DOLBY LABORATORIES, INC.

Address Line 1: 1275 MARKET STREET

Address Line 4: SAN FRANCISCO, CALIFORNIA 94103-1410

ATTORNEY DOCKET NUMBER:	D16077US01
NAME OF SUBMITTER:	BIANCA MIYAKAWA
SIGNATURE:	/Bianca Miyakawa/
DATE SIGNED:	02/28/2019

Total Attachments: 8

source=D16077USP1-20170405-Asgmt Signed_inventors#page1.tif source=D16077USP1-20170405-Asgmt Signed_inventors#page2.tif source=D16077USP1-20170405-Asgmt Signed_inventors#page3.tif

PATENT 505352106 REEL: 048470 FRAME: 0219

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PATENT REEL: 048470 FRAME: 0220

WHEREAS, Qing Song, a resident of Sunnyvale, CA, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/381,233, filed August 30, 2016, entitled "Real-Time Reshaping of Single-Layer Backwards-Compatible Codec".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuation of, continuationin-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition

Docket: D16077USP1#

PATENT REEL: 048470 FRAME: 0221 proceedings involving said invention, applications and patents, for refiling said applications, for filing of divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto.

ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

4/3/·2017 Date	Qing Song Qing Song
In the presence of:	In the presence of: Lanta Un - (2) Signature of Witness
CONGIAO TAMG Print Witness's Name	KANKE WU Print Witness's Name
8665 VIA MALLORCA, 4A JOLLA, CA. Print Witness's Address 92037	705 Charmant Drive. Unit 2328 Print Witness's Address San Diego, CA, 92122

WHEREAS, Harshad Kadu, a resident of Santa Clara, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/381,233, filed August 30, 2016, entitled "Real-Time Reshaping of Single-Layer Backwards-Compatible Codec".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuation-in-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition

proceedings involving said invention, applications and patents, for refiling said applications, for filing of divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto.

ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

04/04/2017	State.
Date	Harshad Kadu
In the presence of: (1) Signature of Witness	In the presence of: Annual P Signature of Witness (2)
Mas Bolomal M	ANUSTUP K CHOUDHURY
Print Witness's Name	Print Witness's Name
200 Gualogo Avr. #Astol Sulsee Print Witness's Address CA \$1951.29	124 GRAHAM DR, CAMPBELL, Print Witness's Address CA 95008

WHEREAS, Qian Chen, a resident of San Jose, California, China (People's Republic), herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/381,233, filed August 30, 2016, entitled "Real-Time Reshaping of Single-Layer Backwards-Compatible Codec".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuation-in-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for use in opposition

proceedings involving said invention, applications and patents, for refiling said applications, for filing of divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto. ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention. applications and patents.

The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

4/3/2017 Date In the presence of: SUBHAYAN MUKHERJEE HARSHAD Print Witness's Name Print Witness's Name 658 NORTH FAIR OAKS AVENUE, SUNNYVALE, rint Witness's Address

CA 99085, USA

Print Witness's Address

WHEREAS, Guan-Ming Su, a resident of Fremont, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of US Patent Application No. 62/381,233, filed August 30, 2016, entitled "Real-Time Reshaping of Single-Layer Backwards-Compatible Codec".

WHEREAS, DOLBY LABORATORIES LICENSING CORPORATION, a New York corporation, having a place of business at 1275 Market Street, San Francisco, California 94103, hereinafter referred to as ASSIGNEE(S), is desirous of acquiring the entire right, title and interest in and to said application and the invention to which said application is directed, in and to any and all improvements relating to said invention, and in and to all patents thereon, when granted in the United States and all foreign countries;

NOW, THEREFORE, in consideration of good and valuable consideration received by ASSIGNOR from ASSIGNEE(S), the receipt and sufficiency of which is hereby acknowledged by ASSIGNOR:

- 1. ASSIGNOR hereby grants, sells, assigns, transfers and conveys unto ASSIGNEE(S), or to the extent ASSIGNOR has already done so, ASSIGNOR hereby confirms the grant, sale, assignment, transfer and conveyance unto ASSIGNEE(S) of the entire right, title and interest:
- (a) in and to said application, invention, and improvements thereto, and each and every additional application filed anywhere in the world, whether or not the country, jurisdiction, or authority of filing is a member of the International Union for the Protection of Industrial Property (The Paris Convention), which additional application is a division of, substitution of, continuation of, continuation-in-part of, or is a counterpart of, or is in any way based on, claims priority from, or relates to, said application, invention or improvements thereto;
- (b) all priority rights associated with the filing of each and every such application, for each country of The Paris Convention, for the Patent Cooperation Treaty, for the European Patent Convention, for all other treaties of like purposes, and for Taiwan; and
- (c) in and to each and every patent on said invention or improvements thereto that may be granted by any country, jurisdiction or authority, including each and every patent that may be granted on any of the applications referred to in sub-section (a), and in and to each and every reissue, reexamination certificate, or extension of each and every such patent.
- 2. ASSIGNOR hereby warrants, covenants and represents that he/she has not heretofore granted to anyone other than ASSIGNEE(S) any license, right or privilege in respect to the said applications, patents, or said invention, nor in any other way encumbered the same, and that he/she has, or in the case of a previous assignment to ASSIGNEE(S), ASSIGNOR had the full right to convey, free of all licenses and encumbrances, the entire right, title and interest hereby assigned.
- 3. ASSIGNOR covenants and agrees that at the request and expense of ASSIGNEE(S) he/she will promptly execute all papers deemed necessary or desirable by ASSIGNEE(S) to perfect ownership of said invention, applications, and patents to ASSIGNEE(S), and execute all oaths, declarations and other papers deemed necessary or desirable by ASSIGNEE(S) for prosecuting said applications and patents, for use in interference proceedings involving said invention, applications and patents, for refiling said applications, for filing of

divisional, substitution, continuation or continuation-in-part applications deemed necessary or desirable by ASSIGNEE(S), for reissuance or reexamination of said patents, or for the filing in foreign countries of applications for patents counterpart to or in any way based on or relates to said application or to an application which is a division of, substitution of, continuation of, continuation-in-part of, said application or which application claims priority from or relates to said invention or improvements thereto.

ASSIGNOR further covenants and agrees that at the expense and request of ASSIGNEE(S), he/she will promptly assist ASSIGNEE(S) in interference, opposition and reexamination proceedings involving said invention, applications and patents, and in litigation involving said invention, applications and patents, and will assist in the ascertainment of facts and the production of evidence relating to said invention, applications and patents.

4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

4/5/7017 Date	Guith-Ming Su
In the presence of: Classical (1) Signature of Witness	In the presence of: Androyen Muchafee (2) Signature of Witness SUBHAYAN MUCHERIEE
Print Witness's Name	Print Witness's Name
432 Lake of Drive, Sunnyval Print Witness's Address CA	Frint Witness's Address CA 94085