

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5461724

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
XIN LIU	05/25/2016
LIE LU	06/03/2016
ALAN J. SEEFELDT	09/22/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	DOLBY LABORATORIES LICENSING CORPORATION
<b>Street Address:</b>	1275 MARKET STREET
<b>City:</b>	SAN FRANCISCO
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	94103
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15772383
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(415)645-4000
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	4155580200
<b>Email:</b>	patents@dolby.com
<b>Correspondent Name:</b>	DOLBY LABORATORIES, INC.
<b>Address Line 1:</b>	1275 MARKET STREET
<b>Address Line 4:</b>	SAN FRANCISCO, CALIFORNIA 94103
<b>ATTORNEY DOCKET NUMBER:</b>	D15112US01
<b>NAME OF SUBMITTER:</b>	DANA CHAN
<b>SIGNATURE:</b>	/Dana Chan/
<b>DATE SIGNED:</b>	04/07/2019
<b>Total Attachments: 18</b>	
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## ASSIGNMENT

WHEREAS, Liu, Xin, a resident of Beijing, China (People's Republic), herein referred to as ASSIGNOR, is an inventor and owner of United States Patent Application No. 62/253,761, filed November 11, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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 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.

2016 5 25  
Date

Liu Xin  
Liu, Xin

In the presence of:

Lianwu Chen (1)  
Signature of Witness

Lianwu Chen  
Print Witness's Name

WFC, Beijing, China  
Print Witness's Address

In the presence of:

Feng Peng (2)  
Signature of Witness

Feng Peng  
Print Witness's Name

WFC, Beijing, China  
Print Witness's Address

Docket: D15112USP1#

## ASSIGNMENT

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(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.

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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.

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IN TESTIMONY WHEREOF, I have executed this instrument.

June 3, 2016

Date

Lu, Lie

Lu, Lie

In the presence of:

Jim Wang

(1)

Signature of Witness

Jim Wang

Print Witness's Name

WFC, Beijing

Print Witness's Address

In the presence of:

Peter Wang

(2)

Signature of Witness

Peter Wang

Print Witness's Name

WFC, Beijing

Print Witness's Address

Docket: D15112USP1#

## ASSIGNMENT

WHEREAS, Seefeldt, Alan J., a resident of San Francisco, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of United States Patent Application No. 62/253,761, filed November 11, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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;

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(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.

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IN TESTIMONY WHEREOF, I have executed this instrument.

Sept. 22 2016  
Date

[Signature]  
Secford, Alan J.

In the presence of:

[Signature] (1)  
Signature of Witness

Marshall Fellers  
Print Witness's Name

1830 C18th St  
San Francisco CA 94109  
Print Witness's Address

In the presence of:

[Signature] (2)  
Signature of Witness

Grant Davidson  
Print Witness's Name

3048 Rivera Drive  
Burlingame, CA 94010  
Print Witness's Address

Docket: D15112USP1#



## ASSIGNMENT

WHEREAS, Liu, Xin, a resident of Beijing, China (People's Republic), herein referred to as ASSIGNOR, is an inventor and owner of Chinese Patent Application No. 201510738160.0, filed November 3, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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;

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2016 5 25  
Date

Liu Xin  
Liu, Xin

In the presence of:  
Lianwu Chen (1)

Signature of Witness

Lianwu Chen  
Print Witness's Name

WFC, Beijing, China  
Print Witness's Address

In the presence of:  
Feng Dong (2)

Signature of Witness

Feng Dong  
Print Witness's Name

WFC, Beijing, China  
Print Witness's Address

Docket: D15112CN01

## ASSIGNMENT

WHEREAS, Lu, Lie, a resident of Beijing, China (People's Republic), herein referred to as ASSIGNOR, is an inventor and owner of Chinese Patent Application No. 201510738160.0, filed November 3, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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IN TESTIMONY WHEREOF, I have executed this instrument.

June 3, 2016

Date

Lu, Lie

Lu, Lie

In the presence of:

Jim Wang

(1)

Signature of Witness

Jim Wang

Print Witness's Name

WFC, Beijing

Print Witness's Address

In the presence of:

Peter Wang

(2)

Signature of Witness

Peter Wang

Print Witness's Name

WFC, Beijing

Print Witness's Address

Docket: D15112CN01

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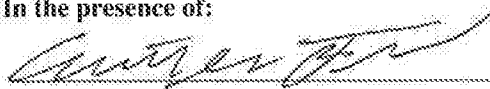
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IN TESTIMONY WHEREOF, I have executed this instrument.

Sept. 22 2016  
Date

  
Seefeldt, Alan J.

In the presence of:

 (1)  
Signature of Witness

Matthew Folger  
Print Witness's Name

1870 Clay St #102  
San Francisco CA 94109  
Print Witness's Address

In the presence of:

 (2)  
Signature of Witness

Grant Davidson  
Print Witness's Name

3048 Rivera Drive  
Burlingame, CA 94010  
Print Witness's Address

Docket: D15112CN01

## ASSIGNMENT

WHEREAS, Liu, Xin, a resident of Beijing, China (People's Republic), herein referred to as ASSIGNOR, is an inventor and owner of European Patent Application No. 15198483.8, filed December 8, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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 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.

2016 5 25  
Date

Liu Xin  
Liu, Xin

In the presence of:  
Lianwu Chen (1)  
Signature of Witness

Lianwu Chen  
Print Witness's Name

WFC, Beijing China  
Print Witness's Address

In the presence of:  
Feng Dang (2)  
Signature of Witness

Feng Dang  
Print Witness's Name

WFC, Beijing China  
Print Witness's Address

Docket: D15112EP



## ASSIGNMENT

WHEREAS, Lu, Lie, a resident of Beijing, China (People's Republic), herein referred to as ASSIGNOR, is an inventor and owner of European Patent Application No. 15198483.8, filed December 8, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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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.

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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.

June 3, 2016

Date

Lu, Lie

Lu, Lie

In the presence of:

Jim Wang

(1)

Signature of Witness

Jim Wang

Print Witness's Name

WFC, Beijing

Print Witness's Address

In the presence of:

Peter Wang

(2)

Signature of Witness

Peter Wang

Print Witness's Name

WFC, Beijing

Print Witness's Address

Docket: D15112EP

## ASSIGNMENT

WHEREAS, Seefeldt, Alan J., a resident of San Francisco, California, United States of America, herein referred to as ASSIGNOR, is an inventor and owner of European Patent Application No. 15198483.8, filed December 8, 2015, entitled "Content-Adaptive Surround Sound Virtualization".

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;

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(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 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.

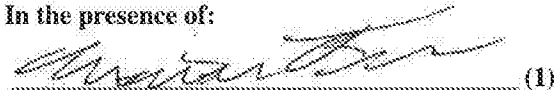
4. The terms, covenants and provisions of this ASSIGNMENT shall inure to the benefit of ASSIGNEE(S), its successors, assigns and other legal representatives, and shall be binding upon ASSIGNOR, his/her heirs, legal representatives and assigns.

IN TESTIMONY WHEREOF, I have executed this instrument.

Sept. 22 2016  
Date

  
Seefeldt, Alan J.

In the presence of:

 (1)  
Signature of Witness

Matthew Fellows  
Print Witness's Name

1890 Clay St #202  
San Francisco CA 94109  
Print Witness's Address

In the presence of:

 (2)  
Signature of Witness

Grant Davidson  
Print Witness's Name

3048 Rivera Drive  
Burlingame, CA 94010  
Print Witness's Address

Docket: D15112EP