

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
Henry Derovanessian	08/14/2013
Robin M. Mathews	08/14/2013
RECEIVING PARTY DATA	
Name:	The DIRECTV Group, Inc.
Street Address:	2230 E. Imperial Highway
City:	El Segundo
State/Country:	CALIFORNIA
Postal Code:	90245
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	13967011
CORRESPONDENCE DATA	
Fax Number:	3109640941
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
Email:	janet.shibata@directv.com
Correspondent Name:	The DIRECTV Group, Inc.
Address Line 1:	2230 E. Imperial Highway
Address Line 2:	CA/LA5/A109
Address Line 4:	El Segundo, CALIFORNIA 90245
ATTORNEY DOCKET NUMBER:	PD-213056
NAME OF SUBMITTER:	Janet Shibata
Signature:	/Janet Shibata/
Date:	08/14/2013
Total Attachments: 2 source=PD-213056-Assignment#page1.tif source=PD-213056-Assignment#page2.tif	

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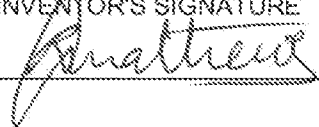
WHEREAS, HENRY DEROVANESEAN and ROBIN M. MATHEWS, as below named joint inventors of the city and state as stated below next to our names, have invented a(an) **ELECTRONIC DEVICE COOLING SYSTEMS** for which application for Letters Patent of the United States has been filed on August 14, 2013 as U.S. Patent Application Serial No. 13/967,011.

WHEREAS, The DIRECTV Group, Inc. (hereinafter referred to as the "Company"), a Delaware Corporation, having its principal place of business in El Segundo, California, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefore in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by us and set forth in invention agreements between us and our employer, effective the date as stated below next to our names, and other good and valuable consideration, receipt of which is hereby acknowledged, we do hereby sell, assign and transfer to the Company, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by us, to said application and any and all applications which are continuations, continuations-in-part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefore in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said Company, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to the Company, its successors, assigns or other legal representatives, upon request and at no cost or expense to us, any facts known by us respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by the Company, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of the Company, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in the Company, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, we have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
HENRY DEROVANESSION		8-14-2013
RESIDENCE (CITY AND STATE) Manhattan Beach, California		

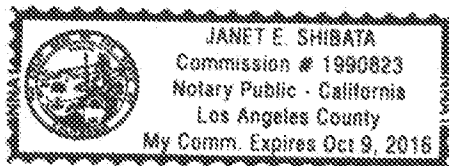
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
ROBIN M. MATHEWS		8/14/2013
RESIDENCE (CITY AND STATE) Westford, Massachusetts		

STATE OF CALIFORNIA )  
 ) SS:  
COUNTY OF LOS ANGELES )

On August 14, 2013, before me, Janet E. Shibata, a Notary Public in and for said State, personally appeared HENRY DEROVANESSION, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



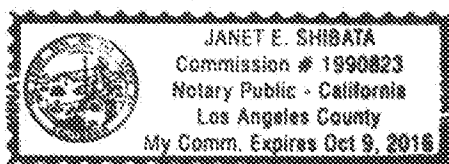
  
Notary Public

STATE OF CALIFORNIA )  
 ) SS:  
COUNTY OF LOS ANGELES )

On August 14, 2013, before me, Janet E. Shibata, a Notary Public in and for said State, personally appeared ROBIN M. MATHEWS, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



  
Notary Public