

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT2742162

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>ROMULO PONTUAL</td> <td>09/20/2013</td> </tr> <tr> <td>HANNO BASSE</td> <td>02/17/2014</td> </tr> <tr> <td>SASSAN PEJHAN</td> <td>05/08/2013</td> </tr> <tr> <td>JOSEPH SANTORU</td> <td>05/09/2013</td> </tr> <tr> <td>ERNEST C. CHEN</td> <td>10/23/2013</td> </tr> </tbody> </table>		Name	Execution Date	ROMULO PONTUAL	09/20/2013	HANNO BASSE	02/17/2014	SASSAN PEJHAN	05/08/2013	JOSEPH SANTORU	05/09/2013	ERNEST C. CHEN	10/23/2013
Name	Execution Date												
ROMULO PONTUAL	09/20/2013												
HANNO BASSE	02/17/2014												
SASSAN PEJHAN	05/08/2013												
JOSEPH SANTORU	05/09/2013												
ERNEST C. CHEN	10/23/2013												
RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>The DIRECTV Group, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>2230 E. Imperial Highway</td> </tr> <tr> <td>City:</td> <td>El Segundo</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>90245</td> </tr> </table>		Name:	The DIRECTV Group, Inc.	Street Address:	2230 E. Imperial Highway	City:	El Segundo	State/Country:	CALIFORNIA	Postal Code:	90245		
Name:	The DIRECTV Group, Inc.												
Street Address:	2230 E. Imperial Highway												
City:	El Segundo												
State/Country:	CALIFORNIA												
Postal Code:	90245												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13829916</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13829916								
Property Type	Number												
Application Number:	13829916												
CORRESPONDENCE DATA													
Fax Number:	(310)964-0941												
Email:	janet.shibata@directv.com												
<i>Correspondence will be sent via US Mail when the email attempt is unsuccessful.</i>													
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-212037												
NAME OF SUBMITTER:	JANET SHIBATA												

Signature:	/Janet Shibata/
Date:	02/25/2014
Total Attachments: 5 source=PD-212037-ASN#page1.tif source=PD-212037-ASN#page2.tif source=PD-212037-ASN#page3.tif source=PD-212037-ASN#page4.tif source=PD-212037-ASN#page5.tif	

ASSIGNMENT

WHEREAS, ROMULO PONTUAL, HANNO BASSE, SASSAN PEJHAN, JOSEPH SANTORU and ERNEST C. CHEN, as below named joint inventors of the city and state as stated below next to our names, have invented a(an) **METHOD AND APPARATUS FOR TRANSMITTING HIGH BANDWIDTH SIGNALS WITH LOW BANDWIDTH TRANSPONDERS** for which application for Letters Patent of the United States has been filed on March 14, 2013 as U.S. patent application Serial No. 13/829,916, and is a continuation-in-part application of U.S. patent application Serial No. 13/484,756 filed on May 31, 2012 entitled COMBINING TRANSPONDER BANDWIDTHS FOR SOURCE AND FORWARD ERROR CORRECTION ENCODING EFFICIENCY by Ernest C. Chen, which is a continuation of U.S. patent application Serial No. 11/193,856 filed on July 29, 2005 and issued on June 12, 2002 as U.S. Patent No. 8,200,149 .

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

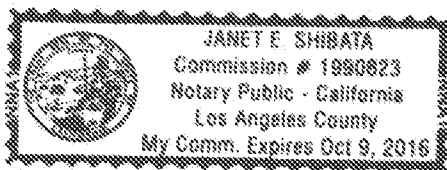
STATE OF CALIFORNIA)
) SS:
COUNTY OF LOS ANGELES)

On May 9, 2013, before me, Janet E. Shibata, a Notary Public in and for said State, personally appeared JOSEPH SANTORU, 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



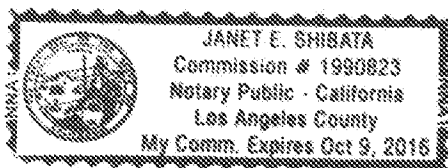
STATE OF CALIFORNIA)
) SS:
COUNTY OF LOS ANGELES)

On September 20, 2013, before me, Janet E. Shibata, a Notary Public in and for said State, personally appeared ROMULO PONTUAL, 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



STATEMENT BY WITNESS

I, _____, whose full post office address is
(name of witness)

(address of witness)

was personally present and did see **HANNO BASSE**, who is known to me, execute the above
assignment.

(signature of witness)

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

On October 23, 2013, before me, Janet E. Shibata, a Notary Public in and for said State,
personally appeared **ERNEST C. CHEN**, 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

