PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Terry Pattison	11/01/2012
Dan Minnick	11/01/2012
Scott Fillingim	11/01/2012
Mike Cavanaugh	11/06/2012

RECEIVING PARTY DATA

Name:	EchoStar Technologies L.L.C.
Street Address:	100 Inverness Terrace East
City:	Englewood
State/Country:	COLORADO
Postal Code:	80112

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13675858

CORRESPONDENCE DATA

Fax Number: 4155760300
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 415-576-0200
Email: hedwards@kilpatricktownsend.com
Correspondent Name: Kilpatrick Townsend & Stockton LLP (Echo
Address Line 1:   Eighth Floor, Two Embarcadero Center
Address Line 4:   San Francisco, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER:	P2011-11-01 (857285)
NAME OF SUBMITTER:	Karam Saab
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4
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ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

WHEREAS, Terry Pattison, Dan Minnick, Scott Fillingim, and Mike Cavanaugh (hereinafter, singularly and collectively "Assignor") have solely and/or have jointly (as appropriate) invented and/or discovered certain new and useful invention, process, machine, manufacture, or composition of matter, or any new and useful improvement in an invention as described in an application for Letters Patent entitled "Channel Tuning Redirect" filed in and/or with the United States herewith, and which is further identified by the EchoStar Docket No. set forth above (hereinafter, the "Invention"); and

WHEREAS, EchoStar Technologies L.L.C., a limited liability company organized and existing under the laws of the State of Texas, United States of America, and having a principal place of business of 100 Inverness Terrace East, Englewood, Colorado 80112 (hereinafter, the "Assignee") desires to acquire all rights, title and interest in and to the Invention, including, but not limited to, all rights, title and interest in and to past, present and future damages, injunctive relief and to any and all other additional rights, title, interest, relief and/or remedies granted by any legislative, judicial, quasi-judicial, administrative or other body, or otherwise; and

WHEREAS, Assignor, to the extent he/she owns any right, title and interest in and to the Invention is desirous of assigning any and all such rights, title and/or interest to Assignee.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Assignor hereby sells, assigns, transfers and sets over unto Assignee and its legal representatives, successor and assigns, the entire right, title and interest, including any all rights in and/or to past, present and future damages, injunctive relief and/or any other remedy and relief granted by a legislative, judicial, quasi-judicial or administrative body, in and to said Invention, said application, for any and all non-provisional, national, international, foreign, and regional applications corresponding and/or claiming priority thereto, any divisions, continuations, continuation-in-parts, reissues, reexaminations, renewals, and extensions thereof, and the Letters Patent, both foreign and domestic, that may or shall issue thereon, and does request the Commissioner of Patents to issue said Letters Patent to the Assignee, consistent with the terms of this agreement.

Assignor hereby authorizes Assignee to insert in this instrument the filing date and Application Serial Number in the above fields if not already present at the time of execution of this instrument.

Assignor hereby declares that he/she is an original, first and joint inventor of the Invention. UPON SAID CONSIDERATION, Assignor hereby covenants and agrees with Assignee that he/she will not execute any writing or do any act whatsoever conflicting with these presents, and agrees that, when requested, he/she will, without charge to Assignee but at its expense, execute such additional assignments, declarations and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, renewal, reissued or extended Letters Patent of the United States, or of any and all foreign countries, on said invention, and in enforcing any rights or chooses in action accruing as a result of such applications or patents, by giving testimony in any proceedings

or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of both parties.

Assignor agrees that he/she will communicate to Assignee or its representatives any facts known to Assignor respecting said invention within a reasonable time of discovering or coming into possession of the same.

Assignor authorizes and empowers Assignee, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or his/her own name, or in Assignor's name, in any and all countries to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from me.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of Assignee or its successors, assigns or nominees to apply for patent or other proper protection for said inventions, and to claim the aforesaid benefits of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.

Assignor covenants with Assignee, its successors, assigns, legal representatives, and nominees, that to the best of Assignor's knowledge the right, title and interest herein conveyed are free and clear of any encumbrance, and that Assignor has the full right to convey the same as herein expressed.
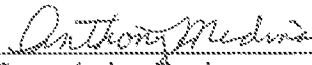
This Agreement and Assignment supersedes all other assignments, agreements and addendums related to the above-identified application.

After this Assignment has been recorded, please return it to:

> Attn: Max S. Gratton
> EchoStar Technologies LLC
> 100 Inverness Terrace East
> Englewood, Colorado 80112

**PATENT
REEL: 029290 FRAME: 0257**

JOINT

Inventor (1): <u>Terry Pattison</u>

             (Name)   (Signature in Full)

Citizenship: <u>USA</u>

Post Office Address: <u>NA</u>
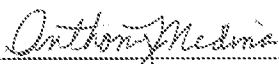
Residence: <u>Colorado</u>

On this <u>1st</u> day of <u>November</u>, 2012, before me a notary public in and for the county of <u>Arapahoe</u> in the State of <u>Colorado</u>, appeared **Terry Pattison**, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he signed, seals and delivered the same instrument as a free and voluntary act for the use and purposes therein set forth.
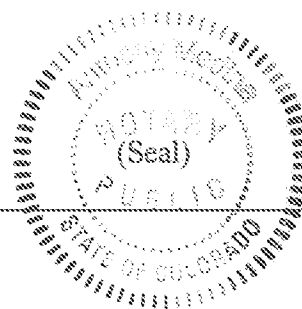
My Commission Expires: <u>12/16/2013</u>   (Seal)

Notary Public

JOINT

Inventor (2): <u>Dan Minnick</u>

             (Name)   (Signature in Full)

Citizenship: <u>USA</u>

Post Office Address: <u>NA</u>

Residence: <u>Colorado</u>

On this <u>1st</u> day of <u>November</u>, 2012, before me a notary public in and for the county of <u>Arapahoe</u> in the State of <u>Colorado</u>, appeared **Dan Minnick**, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he signed, seals and delivered the same instrument as a free and voluntary act for the use and purposes therein set forth.

My Commission Expires: _____   (Seal)

Notary Public

PATENT
REEL: 029290 FRAME: 0258

JOINT

Inventor (3): Scott Fillingim
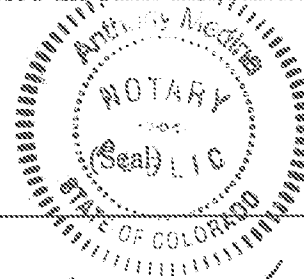(Name)   (Signature in Full)

Citizenship: USA
Post Office Address: NA

Residence: Colorado

On this 1st day of November, 2012, before me a notary public in and for the county of Arapahoe in the State of Colorado, appeared **Scott Fillingim**, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he signed, seals and delivered the same instrument as a free and voluntary act for the use and purposes therein set forth.

My Commission Expires: 12/16/2013
Notary Public

(Notary Seal)

JOINT

Inventor (4): Mike Cavanaugh
(Name)   (Signature in Full)

Citizenship: USA
Post Office Address: NA

Residence: Colorado

On this 16th day of November, 2012, before me a notary public in and for the county of Arapahoe in the State of Colorado, appeared **Mike Cavanaugh**, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he signed, seals and delivered the same instrument as a free and voluntary act for the use and purposes therein set forth.

My Commission Expires: 12/16/2013
Notary Public

(Notary Seal)

Kilpatrick Townsend 64498102 1