

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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>Mark Templeman</td> <td>03/12/2013</td> </tr> <tr> <td>Yunfeng Yang</td> <td>03/12/2013</td> </tr> </tbody> </table>		Name	Execution Date	Mark Templeman	03/12/2013	Yunfeng Yang	03/12/2013
Name	Execution Date						
Mark Templeman	03/12/2013						
Yunfeng Yang	03/12/2013						
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							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13801994</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13801994		
Property Type	Number						
Application Number:	13801994						
CORRESPONDENCE DATA							
Fax Number:	3035714321						
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>							
Phone:	303-571-4000						
Email:	lzimmerman@kilpatricktownsend.com						
Correspondent Name:	Kilpatrick Townsend & Stockton LLP						
Address Line 1:	1400 Wewatta Street						
Address Line 2:	Attn: Matthew A. Hollister						
Address Line 4:	Denver, COLORADO 80202						
ATTORNEY DOCKET NUMBER:	P2012-08-15 (848978)						
NAME OF SUBMITTER:	Matthew A. Hollister						
Signature:	/Matthew A. Hollister/						
Date:	04/08/2013						
Total Attachments: 3 source=ASSGNMT_P2012-08-15-848978#page1.tif source=ASSGNMT_P2012-08-15-848978#page2.tif source=ASSGNMT_P2012-08-15-848978#page3.tif							

OP \$40.00 13801994

**ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR
LETTERS PATENT OF THE UNITED STATES OF AMERICA**

JOINT INVENTORS

WHEREAS, Mark Templeman, a citizen of the United States, residing at 17045 East Carr Avenue, Parker, Colorado 80134; and Yunfeng Yang, a citizen of the People's Republic of China, residing at 20453 East Layton Avenue, Aurora, Colorado 80015, (hereinafter singularly and collectively "Assignors") have jointly 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 "DYNAMIC TUNER ALLOCATION" filed in and/or with the United States Patent and Trademark Office on March 13, 2013, and which has been assigned Application Serial Number 13/801,994 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, Assignors, to the extent they own any right, title and interest in and to the Invention are 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, Assignors hereby sell, assign, transfer and set 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.

Assignors hereby authorize 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.

Assignors hereby declare that they are the joint inventors of the Invention.

UPON SAID CONSIDERATION, Assignors hereby covenant and agree with Assignee that they will not execute any writing or do any act whatsoever conflicting with these presents, and agree

that, when requested, without charge to Assignee but at its expense, will 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.

Assignors agree that they will communicate to Assignee or its representatives any facts known to Assignors respecting said inventions within a reasonable time of discovering or coming into possession of the same.

Assignors authorize and empower Assignee, its successors, assigns or nominees, to make application for patent or other form of protection for said inventions in its or their own name, or in Assignors' names, 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.

Assignors hereby consent 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.

Assignors covenant with Assignee, its successors, assigns, legal representatives, and nominees, that to the best of Assignors' knowledge the right, title and interest herein conveyed are free and clear of any encumbrance, and that Assignors have 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 L.L.C.
100 Inverness Terrace East
Englewood, CO 80112

JOINT

Inventor (1): Mark Templeman
(Name)

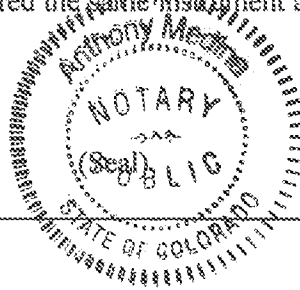
[Signature]
(Signature in Full)

Citizenship: US

Residence: 17045 East Carr Avenue, Parker, Colorado 80134

On this 12th day of March, 2013, before me a notary public in and for the county of Wapahoe in the State of Colorado, appeared Mark Templeman, 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.

Anthony Medina
My Commission Expires: 12/16/2013
Notary Public



JOINT

Inventor (2): Yunfeng Yang
(Name)

[Signature]
(Signature in Full)

Citizenship: CN

Residence: 20453 East Layton Avenue, Aurora, Colorado 80015

On this 12th day of March, 2013, before me a notary public in and for the county of Wapahoe in the State of Colorado, appeared Yunfeng Yang, 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.

Anthony Medina
My Commission Expires: 12/16/2013
Notary Public

