PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5479093

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SVITLANA TRYGUBOVA	01/06/2016
MORGAN KIRBY	01/06/2016

RECEIVING PARTY DATA

Name:	DISH TECHNOLOGIES L.L.C.
Street Address:	9601 S. MERIDIAN BLVD.
City:	ENGLEWOOD
State/Country:	COLORADO
Postal Code:	80112

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16386065

CORRESPONDENCE DATA

Fax Number: (303)571-4321

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.

Phone: 303-571-4000

Email: kheil@kilpatricktownsend.com

Correspondent Name: KILPATRICK TOWNSEND & STOCKTON LLP Address Line 1: 1100 PEACHTREE STREET, SUITE 2800

Address Line 2: MAILSTOP: IP DOCKETING-22
Address Line 4: ATLANTA, GEORGIA 30309

ATTORNEY DOCKET NUMBER:	P2015-09-19.1 (1124336)
NAME OF SUBMITTER:	KRISTIN M. HEIL
SIGNATURE:	/Kristin M. Heil/
DATE SIGNED:	04/17/2019

Total Attachments: 10

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ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT

WHEREAS, Syitlana Trygubova and Morgan Kirby (hereinafter, singularly and collectively "Assignor") 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 "SELF-ADJUSTABLE HEAT SPREADER SYSTEM FOR SET-TOP BOX ASSEMBLIES" filed in and/or with the United States Patent and Trademark Office on <u>December 31, 2015</u>, and which has been assigned Application Serial Number 14:986.065 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 hability 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 (hereinatier, 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 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. 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.

Assigner 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 they 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, tenewal, 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 inute 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 inventions within a reasonable time of discovering or coming into possession of the same.

Assigner authorizes and empowers Assignee, its successors, assigns or nominees, to make application for putent or other form of protection for said inventions in its or their 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 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.

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

Legal Department

EchoStar Technologies LLC 100 Inverness Terrace East Englewood, CO 80112

Echostar Docket Na. P2015-09-19 (0959845)

JOINT		processing the second s
Inventor: <u>Systiana Tryp</u>	ubova (Name)	(Signature in Full)
Citizenship: U.S. Post Office Address:	502 Sou	th Xeton Ct. Lakewood, CO 80228
Residence: 602 South Xe	oon Ct. Lakewe	ood, CO 8022 8
personally known to me t	to be the same od, seals and del	2016, before me a notary public in and for the county of Colocado appeared Svitlana Trygubova, who is person whose name is subscribed to the foregoing instrument, and livered the same instrument as a free and voluntary act for the use and ANTHONY MEDINA NCTARY PUBLIC STATE OF COLORADO AND JARY ID 2005/448173 MY COMMISSION EXPRES DECIMIES 16 2017
Notary Public		A

Rebostar Docket No. P2015-09-19 (0959845)

JOINT //// //
inventor: Moreau Kirby // (Şirenature in Full)
Citizenship: U.S. Post Office Address: PO Box 1173 Palmer Lake CO 80133
Residence: 365 Suncrest Road, Palmer Lake, CO 80133
On this
that he signed, scals and delivered the same instrument as a free and voluntary act for the assumed purposes therein set furth. ARTHONY MEDINA ROTARY PUBLIC REST OF COLORADO
My Commission Expires: 12/14/17.

68066243V.1

OFFICE OF THE SECRETARY OF STATE OF THE STATE OF COLORADO

CERTIFICATE OF DOCUMENT FILED

I, Wayne W. Williams, as the Secretary of State of the State of Colorado, hereby certify that, according to the records of this office, the attached document is a true and complete copy of the

Combined Statement of Conversion

with Document # 20181106099 of DISH Technologies L.L.C.

Colorado Limited Liability Company

(Entity ID # 19881017900)

consisting of 5 pages.

This certificate reflects facts established or disclosed by documents delivered to this office on paper through 05/11/2018 that have been posted, and by documents delivered to this office electronically through 05/14/2018@ 15:04:18.

I have affixed hereto the Great Seal of the State of Colorado and duly generated, executed, and issued this official certificate at Denver, Colorado on 05/14/2018 @ 15:04:18 in accordance with applicable law. This certificate is assigned Confirmation Number 10899283



Secretary of State of the State of Colorado

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Colorado Secretary of State

Date and Time: 02/02/2018 02:14 PM

ID Number: 19881017900

Document number: 20181106099

Amount Paid: \$100.00

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Statement of Conversion

filed pursuant to § 7-90-201.7 (3) of the Colorado Revised Statutes (C.R.S.)

1.	For the converting entity, its ID numbe jurisdiction under the law of which it is		
	ID number	19881017900 (Colorado Secretary of State ID numb	er)
	Entity name or true name	EchoStar Technologies	_L.C.
	Form of entity	Foreign Limited Liability	Company
	Jurisdiction	Texas	
	Street address	9601 S. Meridian Blvd.	7
		(Street mi	mber and name)
		Englewood	CO 80112
		(City)	(State) (ZIP/Postal Code) United States
		(Province – if applicable)	(Country)
	Mailing address	PO BOX 6655	
	(leave blank if same as street address)	(Street number and name	or Post Office Box information)
		Englewood	CO 80112
		(City)	(State) (ZIP/Pastal Code) United States
		(Province – if applicable)	(Country)
2.	The entity name of the resulting entity	is DISH Technologies L.L	.C.
	(Caution: The use of certain terms or abbrev		
3.	The converting entity has been convert	ed into the resulting entity pur	suant to section 7-90-201.7, C.R.S.
4.	(If applicable, adopt the following statement by maximum.) This document contains additional	=	
5.	(Caution: Leave blank if the document does n legal consequences. Read instructions before		ating a delayed effective date has significant
	tIf the following statement applies, adopt the statem. The delayed effective date and, if applies		
	many and and any or many or many		(mm/dd/yyyy hour:mimste am/pm)

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	Conroy	Daniel	W.	
	9601 S. Meridian Bly	(First)	(Middle)	(Suffix
	(Street number	and name or Post Offic	e Box information)	
	Englweood	CO	80112	
	(City)	United St	(ZIP/Postal Cod	łe)
	(Province – if applicable)	(Country)	
(If applicable, adopt the following statement.) This document contains the true causing the document to be delivered.	name and mailing address		ditional individual	ls

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Street address

Colorado Secretary of State

Date and Time: 02/02/2018 02:14 PM

ID Number: 19881017900

Document number: 20181106099

Amount Paid: \$100.00

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Articles of Organization

filed pursuant to § 7-80-203 and § 7-80-204 of the Colorado Revised Statutes (C.R.S.)

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DISH Technologies L.L.C.

9601 S. Meridian Blvd.

(The name of a limited liability company must contain the term or abbreviation "limited liability company", "ltd. liability company", "limited liability co.", "ltd. liability co.", "limited", "l.l.c.", "llc", or "ltd.". See §7-90-601, C.R.S.)

(Street number and name)

(Caution: The use of certain terms or abbreviations are restricted by law. Read instructions for more information.)

2. The principal office address of the limited liability company's initial principal office is

	Englewood	CO	80112	
	(City)	(State) United S	(ZIP/Postal Citates	ode)
	(Province – if applicable)	(Countr	y)	
Mailing address	PO BOX 6655			
(leave blank if same as street address)	(Street number am	d name or Post Office .	Box information)	
	Englewood	co	80112	
	(City)	(State) United S	(ZIP/Postal C	ode)
	(Province – if applicable)	(Country		
Name (if an individual)	Messner	Timothy	Α.	
	Messner	Timothy	Α.	
(17 th martinally)	(Last)	(First)	(Middle)	(Suffix)
or				
(if an entity)	33 d			
(Caution: Do not provide both an individ	зиол ana an entity name.)			
Street address	9601 S. Meridian Blv	/d.		
	(Str	reet number and name,)	
	Englewood	СО	80112	
	(City)	(State)	(ZIP Code)	:
3 6 . W				
Mailing address (leave blank if same as street address)	(Street number am	d name or Post Office .	Box information)	
•	-			
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	(City)	(State)	(ZIP Code)	
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The person appointed as reg	istered agent has consented to	ocing so appointed	۵.	
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4. The true name and mailing addre	ss of the person forming the lin	nited hability com	pany are	
Name				
(if an individual)				
,	(Last)	(First)	(Middle)	(Suffix)
or				
(if an entity)	EchoStar Technolog	aies Holdina Ca	rporation	
(Caution: Do not provide both an		g.00 ()0,0g		
(• • • • • • • • • • • • • • • • • • • •			
Mailing address	9601 S. Meridian Bl			
	(Street number	r and name or Post Offi	ce Box information)	
	Englewood	<u>CO</u>	80112	
		(State)	(ZIP/Postal C	ode)
	(City)			
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	(Street number and name or Post Office Box information)			
	Englweood	CO	80112	
	(City)	United S	(State) (ZIP/Postal Code) United States (Country)	
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(If the following statement applies, ado	pt the statement by marking the box and	l include an attachme	nt.)	
This document contains the tr causing the document to be d	ue name and mailing address of elivered for filing.	of one or more a	dditional individu	als

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