504123124 12/05/2016

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BERNARD A. MCCARTHY III	09/16/2016
DAVID B. LETT	09/16/2016
GEORGE HORKAN SMITH	09/27/2016
ALLAN RICHARD BLY JR	11/14/2016

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:	15280804

CORRESPONDENCE DATA

Fax Number: (206)682-6031

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: (206)622-4900

Email: LorraineM@SeedIP.com **Correspondent Name:** JEREMIAH J. BAUNACH

Address Line 1: 701 FIFTH AVENUE, SUITE 5400 Address Line 4: SEATTLE, WASHINGTON 98104

ATTORNEY DOCKET NUMBER:	OOCKET NUMBER: 290110.659	
NAME OF SUBMITTER: JEREMIAH J. BAUNACH		
SIGNATURE:	/Jeremiah J. Baunach/	
DATE SIGNED:	12/05/2016	

Total Attachments: 7

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> **PATENT REEL: 040521 FRAME: 0078** 504123124

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> PATENT REEL: 040521 FRAME: 0079

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

WHEREAS, we

Name	Mailing Address
Bernard A. McCarthy III	7583 Spalding Lane
	Sandy Springs, GA 30350
David B. Lett	1987 Misty Woods Drive
	Duluth, GA 30097
George Horkan Smith	3469 Sunderland Circle NE
	Brookhaven, GA 30319
Allan Richard Bly Jr	2061 Kolb Ridge Court
	Marietta, GA 30008

(hereinafter, singularly and collectively "Assignor") having mailing addresses as listed in the above table, 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 "SYSTEMS AND METHODS FOR FINDING WIRELESS SIGNALS SUFFICIENT FOR INSTALLATION OF WIRELESS HOME AUTOMATION DEVICES" filed in and/or with the United States Patent and Trademark Office on September 29, 2016, and which has been assigned Application Serial Number 15/280,804 and which is further identified by the EchoStar Docket No. P2016-06-14 (290110.659) 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 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

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PATENT REEL: 040521 FRAME: 0080 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 the sole inventor (if only one inventor is named herein) or an original, first and joint inventor (if plural inventors are named herein) 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, 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 inventions 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 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.

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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 L.L.C. 100 Inverness Terrace East Englewood, CO 80112

JOINT	***************************************	
Inventor (1): Bernard		
	(Sig	natyré in Full) /
		Y //
On this 16 day of	. I stantour.	
Yn tnis 10 aay or -	2016, before	me a notary public in and for the county of
Will who is normally	n the State of CEONIA	appeared Bernard A. McCarthy
		person whose name is subscribed to the
	a acknowledged that he Signed, S or the use and purposes therein s	eals and delivered the same instrument as
To 11 Charles Advision of the Control of the Contro	have are and barboses merem s	A 104 (1).
K-714	1 2	
WATEN CO	THE REST	
My Columission Expires	· ·····	(Seal)
Notary Public		}
	Donna V Adams	
	Notery Public DeKalb County, Georgia	
	My commission expires on September 29, 2016	

JOINT Inventor (2): David B. Lett		Darridd	L. American
Inventor (2): David	15. 1.4TI	(Signature in Full)	
instrument, and acknow	in the State of <u>\$600</u> me to be the same person whedged that he signed, seals and purposes therein set for	r whose name is subscritt and delivered the same ins	sea to me totegonig
My Commission Expir	S. Dome V-Ademic	(Seal)	
Notary Public	Notery Public DeKelb County, Georgia My commission auditor on September 29, 2	9276	

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JOINT Inventor (3):	George Horkan Smith	(Signature in Full)	
Smith, who i foregoing inst	s personally known to me to t	2016, before me a notary public 2016, before me a notary public appearance the same person whose name he signed, seals and delivered to ses therein set forth.	ie is subscribed to the
My Commiss Notary Public	*	(Seal)	
	Notary Public DeKaib County, Geo	rgie	

JOINT Inventor (4): Allan Richard Bly Jr	Om la fr
	(Signature in Full)
who is personally known to me to be the same	appeared Allan Richard Bly Jr, e person whose name is subscribed to the foregoing seals and delivered the same instrument as a free and et forth.