505143399 10/16/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY [ΟΑΤΑ		
		Name	Execution Date
GARY AARON HOWARD			10/16/2018
RECEIVING PARTY D	ΔΤΔ		
Name:		SENSUS SPECTRUM, LLC	
Street Address:	639 DAVIS DRIVE		
City:	MORRIS	MORRISVILLE	
State/Country:	NORTH	NORTH CAROLINA	
Postal Code:	27560	27560	
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		Normala a re	
Property Type		Number	
Application Number:	16	161225	
CORRESPONDENCE	DATA		
	(9	19)277-9177	
Fax Number: Correspondence will	be sent to ti	he e-mail address first; if that is	
Fax Number: <i>Correspondence will i</i> using a fax number, if	be sent to the s	he e-mail address first; if that is f that is unsuccessful, it will be	
Fax Number: <i>Correspondence will i using a fax number, if</i> Phone:	be sent to ti f provided; I 91	he e-mail address first; if that is f that is unsuccessful, it will be 9-277-9100	
Fax Number: <i>Correspondence will using a fax number, if</i> Phone: Email:	be sent to ti f provided; i 91 pa	<i>e-mail address first; if that is f that is unsuccessful, it will be</i> 9-277-9100 tents@wardandsmith.com	
Fax Number: <i>Correspondence will i</i> <i>using a fax number, if</i> Phone:	be sent to th f provided; i 91 pa W	he e-mail address first; if that is f that is unsuccessful, it will be 9-277-9100	sent via US Mail.
Fax Number: <i>Correspondence will a using a fax number, if</i> Phone: Email: Correspondent Name	be sent to th f provided; i 91 pa : W 75	be e-mail address first; if that is If that is unsuccessful, it will be 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A.	sent via US Mail.
Fax Number: <i>Correspondence will a using a fax number, if</i> Phone: Email: Correspondent Name Address Line 1:	be sent to the f provided; i 91 pa c W 75 St	<i>e-mail address first; if that is f that is unsuccessful, it will be</i> 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A. 1 CORPORATE CENTER DRIVE	sent via US Mail.
Fax Number: <i>Correspondence will a</i> <i>using a fax number, if</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4:	be sent to the provided; i 91 pa 5 5 5 8 8 8	be e-mail address first; if that is <i>f that is unsuccessful, it will be</i> 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A. 1 CORPORATE CENTER DRIVE JITE 300	sent via US Mail.
Fax Number: <i>Correspondence will a</i> <i>using a fax number, if</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N	be sent to the provided; if 91 91 pa : W 75 SU R/	<i>e e-mail address first; if that is f that is unsuccessful, it will be</i> 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A. 1 CORPORATE CENTER DRIVE JITE 300 ALEIGH, NORTH CAROLINA 276	sent via US Mail.
Fax Number: Correspondence will using a fax number, if Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER	be sent to the provided; if 91 91 pa : W 75 SU R/	ne e-mail address first; if that is f that is unsuccessful, it will be 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A. 1 CORPORATE CENTER DRIVE JITE 300 ALEIGH, NORTH CAROLINA 276 170084-00020	sent via US Mail.
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Fax Number: <i>Correspondence will using a fax number, it</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE:	be sent to the provided; if 91 91 pa : W 75 SU R/	he e-mail address first; if that is f that is unsuccessful, it will be 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A. 1 CORPORATE CENTER DRIVE JITE 300 ALEIGH, NORTH CAROLINA 276 170084-00020 CANDI L. RIGGS /clr/	sent via US Mail.
Fax Number: <i>Correspondence will using a fax number, it</i> Phone: Email: Correspondent Name Address Line 1: Address Line 2: Address Line 4: ATTORNEY DOCKET N NAME OF SUBMITTER SIGNATURE: DATE SIGNED: Total Attachments: 3	be sent to the provided; if provided; if 91 pathods is a second s	he e-mail address first; if that is f that is unsuccessful, it will be 9-277-9100 tents@wardandsmith.com ARD AND SMITH, P.A. 1 CORPORATE CENTER DRIVE JITE 300 ALEIGH, NORTH CAROLINA 276 170084-00020 CANDI L. RIGGS /clr/ 10/16/2018	sent via US Mail.
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Attorney Docket No. 170084-00020

ASSIGNMENT

THIS ASSIGNMENT, made by me; Gary Aaron Howard, residing at 3691 Widgeon Way, Eagan, Minnesota 55123;

WITNESSETH: That,

WHEREAS, I am the sole inventor of certain new and useful improvements in METHODS, SYSTEMS AND COMPUTER PROGRAM PRODUCTS FOR SLOTTED-ALOHA COLLISION IMPROVEMENT BY-POPULATION DENSITY TIMESLOT SELECTION PER RADIO FREQUENCY PROPAGATION PATHLOSS for which an application has been filed, or is being concurrently filed, in the United States Patent and Trademark Office. I hereby authorize and request Ward and Smith, P.A., to insert here in parentheses (Application No. <u>16/161,225</u>, filed <u>October 16, 2018</u>) the application number and filing date of said application when known or to file this Assignment concurrently with the application; and

WHEREAS; SENSUS SPECTRUM, LLC, a Delaware corporation having a principal place of business at 639 Davis-Drive, Morrisville, North Carolina 27560, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said provisional application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and provisional application, and in and to any and all subsequent patent applications which claim the benefit of priority from said provisional application including regular utility, continuations, and continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted for the invention in or on applications claiming the benefit of priority from said provisional application, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereof or therefor, together with the right to claim the benefit of priority from said application in all foreign countries in accordance with the International

PATENT REEL: 047178 FRAME: 0197

Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

I further covenant and agree that, at the time of the execution and delivery of these presents, I possess full title to the invention and provisional application above-mentioned, and that I have the unencumbered right and authority to make this assignment.

I further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may berequested to confirm the right of the assignce, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and I hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

IN WITNESS WHEREOF, I have hereunto set our hands and seals on this day of 16 October, 2018.

(SEAL)

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Page 2

WHEREBY SENSUS SPECTRUM, LLC acknowledges and accepts the assignment;

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this $\underline{\mu}^{+}$ day of $\underline{0c4. ber}$, 20 <u>l</u>. The undersigned warrants and represents that he/she has the authority to sign this Assignment on behalf of the Assignee, SENSUS SPECTRUM, LLC.

(SEAL) By:

David Alban Senior IP Counsel

PATENT REEL: 047178 FRAME: 0199

Page 3