PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
AYKUT BULTAN	11/13/2017
NARAYANAN BHARATH	11/13/2017
SAM HEIDARI	11/13/2017
HOSSEIN DEHGHAN	11/13/2017

RECEIVING PARTY DATA

Name:	QUANTENNA COMMUNICATIONS, INC.		
Street Address:	1704 AUTOMATION PARKWAY		
Internal Address:	MAILDROP A700		
City:	SAN JOSE		
State/Country:	CALIFORNIA		
Postal Code:	95131		

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	16429731	

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	QTNA105CP01US
NAME OF SUBMITTER:	SHARRON CASTILLO
SIGNATURE:	/Sharron Castillo/
DATE SIGNED:	08/08/2019
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Total Attachments: 5

PATENT REEL: 050005 FRAME: 0342 source=QTNA105CP01US_20190808_Assignment_InvntrsQuantenna#page1.tif source=QTNA105CP01US_20190808_Assignment_InvntrsQuantenna#page2.tif source=QTNA105CP01US_20190808_Assignment_InvntrsQuantenna#page3.tif source=QTNA105CP01US_20190808_Assignment_InvntrsQuantenna#page4.tif source=QTNA105CP01US_20190808_Assignment_InvntrsQuantenna#page5.tif

PATENT REEL: 050005 FRAME: 0343

ASSIGNMENT OF PATENT APPLICATION

Whereas I/we the undersigned inventor(s) have invented certain new and useful improvements as set forth in the patent application entitled:

ACOUSTIC SPATIAL DIAGNOSTICS FOR SMART HOME MANAGEMENT

(Atty. Docket No.: Qtna)	P105usCIP1) for whi	ch I (we) have executed an	application for a United
States Letters Patent filed	11/12/2017	and allocated USSN	

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/We the undersigned inventor(s) hereby:

- 1) Sell(s), assign(s) and transfer(s) to QUANTENNA COMMUNICATIONS, INC., a Delaware corporation having a place of business at 1704 Automation Parkway, San Jose, CA 95131 United States, (hereinafter referred to as "ASSIGNEE"), the entire right title and interest in any and all improvements and inventions disclosed in, application(s) based upon, and Patent(s) (including foreign patents) granted upon the information which is disclosed in the above referenced application.
- 2) Authorize and request the Commissioner of Patents to issue any and all Letters Patents resulting from said application or any division(s), continuation(s), substitutes(s) or reissue(s) thereof to the ASSIGNEE.
- 3) Agree to execute all papers and documents and, entirely at the ASSIGNEE's expense, perform any acts which are reasonably necessary in connection with the prosecution of said application, as well as any derivative and applications thereof, foreign applications based thereon, and/or the enforcement of patents resulting from such applications.
- 4) Agree that the terms, covenants and conditions of this assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon the inventor(s), as well as the inventor's heirs, legal representatives and assigns.
- 5) Warrant and represent that I/we have not entered, and will not enter into any assignment, contract, or understanding that conflicts with this assignment.
- 6) Assignors hereby grant assignee or assignee's designee the right to insert the U.S. Patent Application number and filing date where space is provided above at any time subsequent to the date of the assignor's signature below.

Atty Docket No.: QtnaP105usCIP1

Page 1 of 5

Signed on the date(s) indicated beside my (our) signature(s).

1. Inventor Signate	ire: MA SWA	Date: _1	1- {\$2017
individual who sig	r other officer completing this ce med the document to which this macy, or validity of that documen	certificate is attached, a	identity of the and not the
proved to me on the t subscribed to the with in/his/her/their author	TMY DIAME, person passing of satisfactory evidence to the him instrument and acknowledge, rized capacity(iss), and that by(him).	oe the person(*) whose i I to me that he/she/they is/her/their signature(s)-t	name(s)/is/are executed the same on the instrument
	entity upon behalf of which the p PENALTY OF PERJURY under is true and correct.	,	
WITNESS my hand a	und offigial/seal.		
Notary Signature		(SE	EAL)
	THY DININ		THY DINH COMM. # 2123887 NOTARY PUBLIC - CALIFORNIA IN COUNTY OF SANTA CLARA TO COMM. EXP. AUG. 17, 2019

2. Inventor Si	gnature:	M	She	Date: 1	1-13 -2017
		V Naraya	nan BHARATH		
individual w	ho signed	er officer completing the document to wh , or validity of that d	ich this certificate	erifies only the is attached, a	identity of the and not the
State of Califor County of <u>S</u>		<u>CACA</u> THY DINH			
who proved to a subscribed to th in his her/their a	ne on the e within it authorized	basis of satisfactory nstrument and acknot capacity(ies), and the upon behalf of which	evidence to be the wledged to me the at by/his/her/their	e person(s) wl at he)she/they r signature(s)	hose name(s)(s/are executed the same on the instrument
I certify foregoing parag	under PEl raph is tru	NALTY OF PERJU	₹Y under the laws	s of the State o	f California that th
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	<i>"</i> "	Y 0124			THY DINE COMM. \$ 2123887 OF COUNTY OF SANTA CLARA PART COMM. EXP. AUG. 17, 2618 T

3. Inventor Signature:	Date: 11-\3 -2017
San H	IEIDARI
A notary public or other officer completing individual who signed the document to we truthfulness, accuracy, or validity of that	ng this certificate verifies only the identity of the hich this certificate is attached, and not the document.
State of California	
County of SANTA CLARA	
proved to me on the basis of satisfactory evi- subscribed to the within instrument and ackr in(his/her/their authorized capacity(ies), and the person(s), or the entity upon behalf of wh	e, personally appeared Sam HEIDARI, who dence to be the person(s) whose name(s) size nowledged to me that he she/they executed the same that by his/her/their signature(s) on the instrument nich the person(s) acted, executed the instrument. JRY under the laws of the State of California that the
WITNESS my hand and official seal.	
Notary Signature 4	(SEAL)
THYDINA	THY DINH COMM. # 2123887 OCIVET OF SANTA CLARA MY COMM. EXP. AUG. 17, 2019

4. Inventor Signatu	re: 74	9	832te.	11-/ 3-2017
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A notary public or individual who sig truthfulness, accur	ned the document	pleting this certifica t to which this certifi that document.	ite verifies only t icate is attached	he identity of the , and not the
State of California				
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On ///5//7 before proved to me on the b subscribed to the with in/his/her/their author the person(s), or the e	asis of satisfactory in instrument and ized capacity(ies), ntity upon behalf	y evidence to be the acknowledged to n, and that by his her of which the person	e person(s) who ne that he/she/the /their signature((s) acted, execur	se name(s) is are ey executed the same s) on the instrument ted the instrument.
I certify under foregoing paragraph is			laws of the State	e of California that the
WITNESS my hand a	nd official seal.			
Notary Signature	4/4	<u> </u>	((SEAL)
	7 H Y 10 10	V /7		THY DINH COMM. # 2923887 NOTARY PUBLIC - CALIFORNIA COUNTY OF SANTA CLARA MY COMM. EXP. AUC. 17, 2019

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RECORDED: 08/08/2019