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PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4131679

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Richard C. Gerdes	04/26/2016
Daniel L. Hodges	04/26/2016
Quinn Colin McIntosh	04/26/2016

RECEIVING PARTY DATA

Name:	TM IP HOLDINGS, LLC	
Street Address:	6969 E. SUNRISE DRIVE	
Internal Address:	SUITE 100	
City:	TUCSON	
State/Country:	ARIZONA	
Postal Code:	85750	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15293910

CORRESPONDENCE DATA

Fax Number: (877)769-7945

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: (512) 226-8117 Email: apsi@fr.com

KENNETH J. HOOVER **Correspondent Name:** FISH & RICHARDSON P.C. Address Line 1:

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	39785-0018002	
NAME OF SUBMITTER:	VERONICA JUAREZ	
SIGNATURE:	/Veronica Juarez/	
DATE SIGNED:	11/07/2016	

Total Attachments: 4

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PATENT REEL: 040244 FRAME: 0424

Attorney Docket No.: 39785-0018001

<u>ASSIGNMENT</u>

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, RICHARD C. GERDES, DANIEL L. HODGES, and QUINN COLIN MCINTOSH, each individually assign to TM IP HOLDINGS, LLC, a limited liability company formed under the laws of Arizona and having a principal place of business at 6969 E. Sunrise Drive, Suite 100, Tucson, AZ 85750, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "TRANSPOSITIONAL MODULATION COMMUNICATIONS BETWEEN DEVICES," and was filed in the United States Patent and Trademark Office on April 26, 2016, as application 15/139,213 (the "Application"). We authorize the insertion of the filing date and application number above.

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and

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Attorney Docket No.: 39785-0018001

declarations, statements, testimony, assignments, powers of attorney, applications, and documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

1 Sulate SulA DATE: 4)26/2016
Richard C. Gerdes

On this 26th day of APRIL , 2016, before me personally appeared RICHARD C. GENDEC , whose identity was proven to me on the basis of satisfactory evidence to be the person who he or she claims to be, and acknowledged that he or she signed the above/attached document.

TAMARA WILLEY
Notary Public - Arizona
Pima County
My Comm. Expires Mar 25, 2020

Tamalá Willy Notary Public

Aitomey Docket No.: 39785-0018001

	DATE:	April 26, 2016
Daniel L. Hodges		
State of Arizona)		
County of PIMA		
On this <u>26*</u> day of <u>QOZIL</u>	, 20_1	(e., before me personally appeared
DANIEL L HOXES	, whose ide	entity was proven to me on the basis of
satisfactory evidence to be the person wh		
she signed the above/attached document		
	manufacture of the second	Inil
TAMARA WILLEY Notary Public: - Arizona Pima County My Comm. Expires Mar 25, 2020	tary Public	ma luily

Attorney Docket No.: 39785-0018001

	DATE: April 26, 2016
Quien Colin McIntosh	
State of Arizona) County of PINA	
Quinn Colin McIrlosh	, 20 6, before me personally appeared , whose identity was proven to me on the basis of
satisfactory evidence to be the person v she signed the above/attached documen	who he or she claims to be, and acknowledged that he or nt.
TAMARA WILLEY Notary Public - Arizona Pima County My Comm. Expires Mar 25, 2020	Tamara Willy Sotary Public
The Assignee hereby acknowledges an	nd accepts the foregoing assignment.
Assignee: TM IP HOLDINGS, LLC Signature:	
Name: DANIEL L. HODGES Title: Chief Executive Officer	

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RECORDED: 11/07/2016