# 504858417 04/09/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4905156

SUBMISSION TYPE:		NEW ASSIGNMENT	NEW ASSIGNMENT									
NATURE OF CONVEYA	NCE:	ASSIGNMENT	ASSIGNMENT									
CONVEYING PARTY D	ΑΤΑ											
		Name	Execution Date									
MR. TAE-YOUNG YAN	G		03/29/2018									
MR. EDUARDO X. ALB	AN		03/29/2018									
YANG-SEOK CHOI			03/29/2018									
TIMO HUUSARI			04/03/2018									
RECEIVING PARTY DA												
Name:		ORPORATION										
Street Address:	2200 MIS	SSION COLLEGE BOULEVARD										
City:	SANTA	CLARA										
State/Country: CALIFORNIA												
Postal Code:	95054											
Property Type		Number										
Property Type Application Number:		<b>Number</b> 5941446										
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## <u>ASSIGNMENT</u>

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

#### Tae Young YANG, Timo S HUUSARI, Eduardo X ALBAN; and Yang-Seok CHOI

hereby sell, assign, and transfer to:

### Intel Corporation

a corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California, 95054 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

### METHOD AND APPARATUS FOR BROADBAND HIGH-ISOLATION CIRCULATOR FOR SIMULTANEOUS TRANSMIT AND RECEIVE SYSTEMS

(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)

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U.S. Application Number <u>15/941,446</u>

and

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which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below,

and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the

Page 1 of

undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof, and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Tae Young YANG

129/2018

Date signed

Timo S HUUSARI

Date signed

Eduardo X ALBAN

Date signed

Yang-Seok CHOI

Date signed

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Page 2 of

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which was filed on March 30, 2018

U.S. COUNTRY or International Office

Application Number 15/941,446

as

and

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and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

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Page 1 of

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> PATENT REEL: 045476 FRAME: 0420

undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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Tae Young YANG Hunto

Date signed

4/3/2*018* Date signed

Eduardo X ALBAN Date signed

Yang-Seok CHOI

Timo S HUIJISARI

Date signed

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PATENT REEL: 045476 FRAME: 0421



Page 2 of

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and

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and in and to said application and all Additional Applications, and all other patent applications that have been or shall be filed in the United States and all other countries and international filing offices on any of said inventions and improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and all other countries and international filing offices on said inventions and improvements; and in and to all rights of priority resulting from the filing of said applications; as used herein "Additional Applications" includes but is not limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

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Page 1 of

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Tae Young YANG

Timo S HUUSARI

Eduardo X ALBAN

Yang-Seok CHOI

Date signed

Date signed

03/29/2018 Date signed

Date signed

Page 2 of

PATENT REEL: 045476 FRAME: 0423

# **ASSIGNMENT**

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which was filed on	March 30, 2018	as	
U.S.	Application	Number	
COUNTRY or Inte	rnational Office		

and

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PATENT REEL: 045476 FRAME: 0424

undersigned will execute all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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Tae-Young YANG	Date signed
Timo S HUUSARI	Date signed
Eduardo X ALBAN	Date signed
Yang Seok CHOI	$\frac{3}{27}/1$

Page 2 of

**RECORDED: 04/09/2018**