504250856 03/01/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4297534

NATURE OF CONVEYANCE: Corrective Assignment to correct the ASSIGNEE NAME previously	SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
recorded on Reel 036547 Frame 0415. Assignor(s) hereby confirms the ASSIGNMENT.		recorded on Reel 036547 Frame 0415. Assignor(s) hereby confirms the

CONVEYING PARTY DATA

Name	Execution Date
DUK HYUN YOU	08/13/2015

RECEIVING PARTY DATA

Name:	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE
Street Address:	218 GAJEONG-RO, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14852217

CORRESPONDENCE DATA

Fax Number: (630)323-0335

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.

Email: uspto.actions@wpapat.com
Correspondent Name: WILLIAM PARK & ASSOCIATE
Address Line 1: 930 N. YORK ROAD, SUITE 201
Address Line 4: HINSDALE, ILLINOIS 60521

	•
ATTORNEY DOCKET NUMBER:	PA2460-0
NAME OF SUBMITTER:	WOOCHOON W. PARK
SIGNATURE:	/Woochoon W. Park/
DATE SIGNED:	03/01/2017
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 5

source=2015-09-17 PA2460-0 Assignment Confirmation#page1.tif source=2015-09-17 PA2460-0 Assignment Confirmation#page2.tif source=2015-09-17 PA2460-0 Assignment Confirmation#page3.tif source=2015-09-17 PA2460-0 Assignment Confirmation#page4.tif source=2015-09-11 PA2460-0 Declaration_Assignment#page1.tif

PATENT 504250856 REEL: 041851 FRAME: 0964

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

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SUBMISSION TY	UBMISSION TYPE: NEW ASSIGNMENT				
NATURE OF CONVEYANCE:			ASSIGNMENT		
CONVEYING PA	RTY DATA	***************************************			
		Na	ıme	Execution Date	
DUK HYUN YOU				08/13/2015	
RECEIVING PAR	TY DATA				
Name:	ETRI	ETRI			
Street Address:	218 GAJEC	218 GAJEONG-RO, YUSEONG-GU			
City:	DAEJEON				
State/Country:	KOREA, R	KOREA, REPUBLIC OF			
Application Numb	oer:	14852	2217		
CORRESPONDE					
Fax Number: Phone: Email: Correspondence will be so is unsuccessful, it will be Correspondent Name:	630 uspt ent to the e-mall ad sent via US Mail.	ldress fir	53 @wpspat.com st; if that is unsuccessful, it will be sent u ARK & ASSOCIATES LTD	ising a fax number, if provided; if that	
Address Line I:	930	N. YOR	K ROAD, SUITE 201		
Address Line 4:	HEN	SDALE,	ILLINOIS 60521		
ATTORNEY DOC	KET NUMBE	R:	PA2460-0		
NAME OF SUBMI	TTER:		WOOCHOON W. PARK		
Signature:		*************	/Woochoon W. Park/		
Deta:		•••••••	09/11/2015		

This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 1

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RECEIPT INFORMATION

EPAS ID:

PAT3523195

Receipt Date:

09/11/2015

PATENT I.maxey29/3 1/2016 REEL: 041851 FRAME: 0966

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

PR20140606US -Pan

Title of Invention	METHOD AND APPARTUS FOR MODULATING BASEBAND SIGNAL IN BEAM SPACE MULTI-INPUT MULTI-OUTPUT, AND METHOD FOR RECEIVING THEREIN			
Declaration	As the below named inventor(s), I hereby declare that: The declaration is directed to: The attached application, or United States application or PCT international application number filed on The above-identified application was made or authorized to be made by me I believe that I am the original or an original joint inventor of a claimed invention in the application. I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both.			
Assignment	NOW, THEREFORE, in consideration of the sum of one dollar (\$1), the receipt whereof is acknowledge, and other good and valuable consideration. It by these presents do sell, assign and transfer unto said assignee(s) ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE 218 Gajeong-ro, Yuseong-gu, Daejeon, 34129, Republic of Korea and the heirs, successors, assigns and legal representatives of the assignee(s) the full and exclusive right to the said invention in the United States and in its territorial possessions and in any and all foreign countries any and all improvements thereof, the entire rights, title and interest in and to any and all Patents which may be granted therefore in the United States. I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue said United States Patent to said assignee(s), of the entire right, title, and interest in and to the same, for his sole use and for the use of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made. I agree promptly upon request of the assignee(s), its heirs, successors, assigns and legal representatives of the assignee(s) to communicate any facts known to it respecting the patent and the invention set forth therein, and to execute and deliver without further compensation any power of attorney, Assignment, application, whether original continuation, divisional or reissue, or other papers that may be necessary. I hereby covenant that no assignment, sale agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale. I further covenant that assignee(s) will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to me and will testify as to the same in any litigation related thereto and will promptly ex			
Legal Name Of Inventor	Inventor Name: Duk Hyun YOU Inventor Signature:			
	Date: Aug. 13. 2015			

☐ A total of _ supplemental sheet(s) are attached hereto for additional inventors, if any.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

PR20140606US -Pan

Title of	METHOD AND APPARTUS FOR MODULATING BASEBAND SIGNAL IN BEAM				
Invention	SPACE MULTI-INPUT MULTI-OUTPUT, AND METHOD FOR RECEIVING THEREIN				
	As the below named inventor(s), I hereby declare that:				
	The declaration is directed to:				
	⊠The attached application, or				
4 4 4 8	☐ United States application or PCT international application number				
	filed on				
Declaration	The above-identified application was made or authorized to be made by me.				
	I believe that I am the original or an original joint inventor of a claimed invention in the application.				
	I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years or both.				
Assignment	NOW, THEREFORE, in consideration of the sum of one dollar (\$1), the receipt whereof is acknowledge, and other good and valuable consideration, I, by these presents do sell, assign and transfer unto said assignee(s)				
	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE				
	218 Gajeong-ro, Yuseong-gu, Daejeon, 34129, Republic of Korea				
	and the heirs, successors, assigns and legal representatives of the assignee(s) the full and exclusive right to the said invention in the United States and in its territorial possessions and in any and all foreign countries any and all improvements thereof, the entire rights, title and interest in and to any and all Patents which may be granted therefore in the United States. I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue said United States Patent to said assignee(s), of the entire right, title, and interest in and to the same, for his sole use and for the use of his legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by me had this assignment and sale not been made.				
	I agree promptly upon request of the assignee(s), its heirs, successors, assigns and legal representatives of the assignee(s) to communicate any facts known to it respecting the patent and the invention set forth therein, and to execute and deliver without further compensation any power of attorney, Assignment, application, whether original, continuation, divisional or reissue, or other papers that may be necessary. I hereby covenant that no assignment, sale agreement or encumbrance has been or will				
1	be made or entered into which would conflict with this assignment and sale.				
	I further covenant that assignee(s) will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to me and will testify as to the same in any litigation related thereto and will promptly execute and deliver to assignee(s) or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.				
	Inventor Name: Duk Hyun YOU				
Legal Name Of Inventor	Inventor Signature:				
	Date: Aug. 13. 2015				

☐ A total of _ supplemental sheet(s) are attached hereto for additional inventors, if any.