503559527 11/06/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3606154

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
WOORAM SHIN	10/30/2015
CHEULSOON KIM	11/02/2015
SUNG-HYUN MOON	10/30/2015
YOUNG JO KO	11/03/2015

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:	14935290

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.

Phone: 6309087652

Email: uspto.actions@wpapat.com

Correspondent Name: WILLIAM PARK & ASSOCIATES LTD.

Address Line 1: 930 N. YORK ROAD, SUITE 201

Address Line 4: HINSDALE, ILLINOIS 60521

ATTORNEY DOCKET NUMBER:	R: PA2557-0	
NAME OF SUBMITTER: WOOCHOON W. PARK		
SIGNATURE:	/Woochoon W. Park/	
DATE SIGNED:	11/06/2015	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 4

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PATENT 503559527 REEL: 036983 FRAME: 0835

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PATENT REEL: 036983 FRAME: 0836

PR20140962US -Pan

Title of Invention		RANSMITTING REFERENCE SIGNAL, METHOD G AND REPORTING CHANNEL STATE CONFIGURING THE SAME	
Declaration	filed o The above-identified application wa- I believe that I am the original or a application. I hereby acknowledge that any v	·	
	or bath. NOW, THEREFORE, in considerati	on of the sum of one dollar (\$1), the receipt whereof valuable consideration, I, by these presents do sell,	
		MMUNICATIONS RESEARCH INSTITUTE	
	218 Gajeong-ro, Yuseong-gu, Daejeon, 34129, Republic of Korea		
Assignment	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 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.		
Legal Name Of Inventor	Inventor Name	Wooram SHIN	
	Inventor Signature:		
	Date:	30/10/2015	

☐ A total of 1 supplemental sheet(s) are attached hereto for additional inventors, if any.

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Title of Invention		RANSMITTING REFERENCE SIGNAL, METHOD G AND REPORTING CHANNEL STATE CONFIGURING THE SAME	
	As the below named inventor(s), I h	ereby declare that:	
	The declaration is directed to:		
	☑The attached application, o	or [°]	
	☐ United States application of	or PCT international application number	
	filed o	n	
Declaration	The above-identified application wa	s made or authorized to be made by me.	
	I believe that I am the original or a application.	n original joint inventor of a claimed invention in the	
	I hereby acknowledge that any v punishable under 18 U.S.C. 1001 by or both.	willful false statement made in this declaration is fine or imprisonment of not more than five (5) years	
	NOW, THEREFORE, in considerati is acknowledge, and other good and assign and transfer unto said assigne	on of the sum of one dollar (\$1), the receipt whereof valuable consideration, I, by these presents do sell, e(s)	
	ELECTRONICS AND TELECO	MMUNICATIONS RESEARCH INSTITUTE	
Assignment	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 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.		
Legal Name Of Inventor	Inventor Name	Cheulsoon KIM	
	Inventor Signature:	ひから	
	Date:	2015 . . 02	

 \square A total of 1 supplemental sheet(s) are attached hereto for additional inventors, if any.

PR20140962US -Pan

Title of Invention		RANSMITTING REFERENCE SIGNAL, METHOD G AND REPORTING CHANNEL STATE CONFIGURING THE SAME
Declaration	filed o The above-identified application was I believe that I am the original or a application. I hereby acknowledge that any v	
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 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 requivalents as may be known and accessible to me and will testify as to the same in any litigation related thereto and will promptly e	
Legal Name Of Inventor	Inventor Name	Sung-Hyun MOON
	Inventor Signature:	CCC
	Date:	70/10/2015

A total of 1 supplemental sheet(s) are attached hereto for additional inventors, if any. Page 3

PR20140962US -Pan METHOD AND APPARATUS FOR TRANSMITTING REFERENCE SIGNAL, METHOD Title of AND APPARATUS FOR MEASURING AND REPORTING CHANNEL STATE Invention INFORMATION, AND METHOD FOR CONFIGURING THE SAME 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 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. 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. Assignment 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 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 therenf inventor Name Young Jo KO Legal Name Inventor Signature: Of inventor Date:

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