

Docket No.: 312689-P0114

FORM PTO-1595
1-31-92

01-12-2005

U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

102917985

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

SHIN, CHEOL HO

CHOI, SANG SUNG

PARK, KWANG ROH

2. Name and address of receiving party(ies):

Name: Electronics and Telecommunications
Research InstituteAddress: 161 Kajong-Dong, Yusong-Gu, Taejon 305-
350, Republic of KoreaAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of Conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other

Execution Date: 12152004

Additional name(s) and address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: 12292004

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No5. Name and address of party to whom correspondence
concerning document should be mailed:

Customer No. 47604
or
PIPER RUDNICK LLP
P.O. Box 9271
Reston, VA 20195

6. Total applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40.00

- ☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number: 50-3266

(Attach duplicate copy of this page if paying by deposit account)

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9. Statement and signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Yoon S. Ham

Name of Person Signing

Signature

December 29, 2004

Date

Registration Number: 45,307

Total number of pages including this cover sheet: 3

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112904 U.S. PTO
11/023382
122904PATENT
REEL: 016137 FRAME: 0178

Piper Rudnick

P.O. Box 9271, Reston, VA 20195

UNITED STATES OF AMERICA & ASSIGNMENT

(1-5)	Insert Name(s) of Inventors	(1)	Cheol Ho SHIN
		(2)	Sang sung CHOI
		(3)	Kwang Roh PARK
		(4)	
		(5)	
		In consideration of the sum of one dollar (\$1.00), and other good and valuable considerations paid to each of the undersigned, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby assigns, transfers and sets over to	
(6)	Insert Name of Assignee	(6)	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE
(7)	Insert Address of Assignee	(7)	of 161 Kajong-Dong, Yusong-Gu, Taejon, 305-350, Korea
(8)	Insert Legal Entity and State or Country (e.g., a corporation or citizen of Japan)	(8)	A(n) Institution of Republic of Korea
		(hereinafter designated as the Assignee) the entire right, title and interest for the United States, its territories, dependencies and possessions, in the invention known as	
(9)	Insert Identification of Invention, such as Title, Case Number or Foreign Application Number	(9)	FREQUENCY ESTIMATION METHOD OF MB-OFDM UWB SYSTEM USING TIME FREQUENCY HOPPING STRATEGY
		for which the undersigned has (have) executed an application for patent in the United States of America	
(10)	Insert Date of signing of Application, or filing date and Serial No., if known	(10)	Said application having been executed/filed on (and assigned Serial No. New Application)

- 1) The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.
- 2) The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuing or divisional applications thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference.
- 3) The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Union for Protection of Industrial Property or similar agreements.
- 4) The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the Assignee.
- 5) The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue any and all Letters Patents of the United States resulting from this application or any continuing or divisional applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute any agreement in conflict herewith.
- 6) Assignor hereby further assigns to Assignee all claims and causes of action for infringement of the patent rights assigned herein, including the right to sue for, and collect damages for, any and all acts of past and future infringement.
- 7) The undersigned hereby grant(s) the law firm of Piper Rudnick LLP, P.O. Box 9271, Reston, VA 20195, the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	x 12/15/2004	Name of Inventor	Cheol Ho SHIN	x	(SEAL)
			typed name		signature
Date	x 12/15/2004	Name of Inventor	Sang sung CHOI	x	(SEAL)
			typed name		signature
Date	x 12/15/2004	Name of Inventor	Kwang Roh PARK	x	(SEAL)
			typed name		signature
Date	x	Name of Inventor		x	(SEAL)
			typed name		signature
Date	x	Name of Inventor		x	(SEAL)
			typed name		signature

This assignment should preferably be signed before a United States Consul if signed abroad, or a Notary Public if domestically signed. If not, then the execution by the inventor(s) should be witnessed by at least two witnesses who sign here:

<input checked="" type="checkbox"/>	Additional inventor's names and signatures on a separate sheet.	Witness	
		Witness	

UNITED STATES OF AMERICA - ASSIGNMENT

Separate Sheet For Additional Inventors

The following are inventors whose names would not fit on the Assignment form for the application executed/filed

on (and assigned serial No. New Application)

Names of Additional Inventors

(6)
(7)
(8)
(9)
(10)
(11)
(12)

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned name(s).

Date	x	Name of Inventor	x	(SEAL)
		typed name	signature	
Date		Name of Inventor		(SEAL)
		typed name	signature	
Date		Name of Inventor		(SEAL)
		typed name	signature	
Date		Name of Inventor		(SEAL)
		typed name	signature	
Date		Name of Inventor		(SEAL)
		typed name	signature	
Date		Name of Inventor		(SEAL)
		typed name	signature	

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Witness
Witness

Customer No. 47604

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