-	•	U.S. PTO 12/217868 07/09/2008
	Form PTO-1595 (Rev. 10/02)       07 - 21         OMB No. 0651-0027 (exp. 6/30/2005)       10351         Tab settings ⇒ ⇒ ▼       10351	U.S. DEPARTMENT OF COMMERCE U.S. Patent and Trademark Office SAMS06-08105
2-5-2	<ol> <li>Name of conveying party(ies):</li> <li>Eun-Seok Ko         <ul> <li>Tak-Ki Yu</li> <li>Yung-Soo Kim             Myeon-Kyun Cho</li> </ul> </li> <li>Additional name(s) of conveying party(ies) attached? Yes ✓ No</li> <li>Nature of conveyance:</li> <li>✓ Assignment</li></ol>	2. Name and address of receiving party(ies) Name: Samsung Electronics Co., Ltd. Internal Address: 416, Maetan-dong, Yeongtong-gu Suwon-si, Gyeonggi-do Republic of Korea 442-370 Street Address: Same as above
	City:       State:       Zip:         Execution Date:       July 7, 2008, respectively       Additional name(s) & address(es) attached?       Yes V         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:       07/07/08         A. Patent Application No.(s)       B. Patent No.(s)       B. Patent No.(s)	
	Additional numbers attached? Yes No 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1	
	concerning document should be mailed: Name:Docket Clerk	7. Total fee (37 CFR 3.41)\$40.00
	Internal Address: P.O. Drawer 800889 Dallas, Texas 75380	<ul> <li>Enclosed</li> <li>Authorized to be charged to deposit account</li> </ul>
	Street Address:	8. Deposit account number: 50-0208
40.00 DF	City:State:Zip:	
י אויבעים שאפאברגו טעעעעעט וכנוואאם ארטיניואטע איזיגעען ארטיאטען ארטיאטע	9. Signature.         9. Signature.         William A. Munck, Registration No. 39,308         Name of Person Signing         Total number of pages including cover sheet, attachments, and documents:         4         Mail documents to be recorded with required cover sheet information to:	
4 FC:8021	Commissioner of Patents & T	required cover sheet information to: (rademarks, Box Assignments , D.C. 20231 PATENT

REEL: 021284 FRAME: 0697

U.S. PTO 12/217868 07/09/2008

## DOCKET NO. SP8105-US (SAMS06-08105)

## PATENT

## ASSIGNMENT

WHEREAS, We, Eun-Seok Ko, resident of Seongnam-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, Tak-Ki Yu, resident of Yongin-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, Yung-Soo Kim, resident of Seongnam-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, and Myeon-Kyun Cho, resident of Seongnam-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, and Myeon-Kyun Cho, resident of Seongnam-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, and Myeon-Kyun Cho, resident of Seongnam-si, Gyeonggi-do, Republic of Korea, citizen of Republic of Korea, have invented certain new and useful improvements in a "APPARATUS AND METHOD FOR GENERATING EFFECTIVE SIGNAL TO NOISE RATIO (SNR) PER STREAM IN MULTIPLE-INPUT MULTIPLE-OUTPUT (MIMO) WIRELESS COMMUNICATION SYSTEM" disclosed in an application for United States Letters Patent (Application No. \_\_\_\_\_\_\_, filed \_\_\_\_\_\_\_), said application having been executed concurrently herewith;

WHEREAS, SAMSUNG ELECTRONICS CO., LTD, a corporation organized under the laws of the Republic of Korea, having a place of business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-370, Republic of Korea (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring my entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the full and exclusive right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, continuations-in-part and extensions thereof; We authorize William A. Munck or John T. Mockler of Munck Carter, P.C. to insert in the parenthesis above the application number and filing date of said application when known; and we hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as our interest is concerned, to the said ASSIGNEE of our entire right, title and interest.

We also hereby sell and assign to said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and we further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in ASSIGNEE, its successors, assigns and legal representatives.

고운석시스템연구 Lab.(중신연) 20080624110536

PATENT REEL: 021284 FRAME: 0698 We hereby further agree that we will communicate to said ASSIGNEE, or to its successors, assigns and legal representatives, any facts known to us respecting any improvements; and, at the expense of said ASSIGNEE, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, and make all lawful oaths, and generally do everything possible to vest title in said ASSIGNEE and to aid said ASSIGNEE, its successors, assigns and legal representatives to obtain and enforce proper protection for said invention in all countries.

Date: July 7,200

Date: July 7,2008

Date: July 7,2008

*.*, ,

Eun-Seok Ko

Date: \_\_\_\_\_

Myeon-Kyun Cho

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고은석시스템연구 Lab.(용산연) 20080624110536

PATENT REEL: 021284 FRAME: 0699 We hereby further agree that we will communicate to said ASSIGNEE, or to its successors, assigns and legal representatives, any facts known to us respecting any improvements; and, at the expense of said ASSIGNEE, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, and make all lawful oaths, and generally do everything possible to vest title in said ASSIGNEE and to aid said ASSIGNEE, its successors, assigns and legal representatives to obtain and enforce proper protection for said invention in all countries.

Date:	
	Eun-Seok Ko
Date:	
	Tak-Ki Yu
Date:	
	Yung-Soo Kim
Date: July 7,2008	AAmy
	Myeon-Kyun Cho

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