PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| Hyun-Su YOON | 10/24/2007 |

RECEIVING PARTY DATA

| Name: | Samsung Electronics Co. Ltd. | |
|-----------------------------------|------------------------------------|--|
| Street Address: | ss: 416, Maetan-dong, Yeongtong-gu | |
| City: | Suwon-si, Gyeonggi-do | |
| State/Country: KOREA, REPUBLIC OF | | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 11925410 |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 0202-0034

NAME OF SUBMITTER: George C. Eckert

Total Attachments: 3

source=0202-0034 Assignment As Filed#page1.tif source=0202-0034 Assignment As Filed#page2.tif source=0202-0034 Assignment As Filed#page3.tif

> PATENT REEL: 020023 FRAME: 0307

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U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

| RECORDATION FORM COVER SHEET | | | | |
|--|--|--|--|--|
| PATENTS ONLY | | | | |
| To the Director of the U.S. Patent and Trademark Office: Please | se record the attached documents or the new address(es) below. | | | |
| 1. Name of conveying party(ies) | 2. Name and address of receiving party(ies) | | | |
| 1) Hyun-Su YOON | Name: Samsung Electronics Co., Ltd. | | | |
| | Internal Address: | | | |
| | | | | |
| Additional name(s) of conveying party(ies) attached? Yes ✓ No 3. Nature of conveyance/Execution Date(s): | Street Address: 416, Maetan-dong, Yeongtong-gu | | | |
| Execution Date(s) October 24, 2007 | Officer Address. 410, Macran doing, Leongrong ga | | | |
| Assignment Merger | | | | |
| Security Agreement Change of Name | City: Suwon-si | | | |
| Joint Research Agreement | State: Gyeonggi-do | | | |
| Government Interest Assignment | | | | |
| Executive Order 9424, Confirmatory License | Country: Republic of Korea Zîp: | | | |
| Other | Additional name(s) & address(es) attached? Yes V No | | | |
| | document is being filed together with a new application. | | | |
| A. Patent Application No.(s) 11/925,410 | B. Patent No.(s) | | | |
| 111925,410 | | | | |
| | | | | |
| Additional numbers att | ached? Yes VNo | | | |
| 5. Name and address to whom correspondence concerning document should be mailed: | 6. Total number of applications and patents involved: One | | | |
| Name: Jefferson IP Law, LLP | 7. Total fee (37 CFR 1.21(h) & 3.41) \$ | | | |
| Internal Address:George Eckert | Authorized to be charged by credit card | | | |
| | Authorized to be charged by credit card Authorized to be charged to deposit account | | | |
| Street Address: 1730 M Street, NW, Suite 807 | Enclosed | | | |
| Ottober / Iddi Cook, 1700 M. Oktober 1747, Odilo Sor | None required (government interest not affecting title) | | | |
| City: Washington | 8. Payment Information | | | |
| | a. Credit Card Last 4 Numbers | | | |
| State: DC Zip:20036 | Expiration Date | | | |
| Phone Number: 202-293-0804 | b. Deposit Account Number | | | |
| Fax Number: 202-403-3587 | Authorized User Name | | | |
| Email Address: usdocketing@jeffersonip.com | Addition20d 036 Name | | | |
| 9. Signature: /George C. ECKERT/ Reg. No. | . 58,892 October 26, 2007 | | | |
| Signature | Date | | | |
| George C. Eckert Name of Person Signing | Total number of pages including cover sheet, attachments, and documents: | | | |

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT REEL: 020023 FRAME: 0308 Attorney Docket No.: 0202-0034 Client Docket No.: SP7136-US

Assignment

WHEREAS, the following inventor, namely 1) Hyun-Su YOON, a citizen of the Republic of Korea and residing at 1) #601-101, Woosung APT, Poongdeokcheon 2-dong, Sooji-gu, Yongin-si, Gyeonggi-do, Republic of Korea, (hereinafter called "Assignor"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

APPARATUS FOR TX/RX ANTENNA SWITCH IN TDD WIRELESS COMMUNICATION SYSTEM,

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on Oct. 76, 2007, and assigned Serial No. 11 | 925,410; and,

e laws of Suwon-si,

WHEREAS, Samsung Electronics Co., Ltd., a corporation duly organized under the laws of the Republic of Korea, located and doing business at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea (hereinafter called "Assignee"), is desirous of acquiring the entire right, title and interest therein;

NOW, THEREFORE, BE IT KNOWN that for and in good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor does hereby sell, assign and transfer unto said Assignee the entire and exclusive worldwide right, title and interest in and to all said inventions and discoveries disclosed in said application, and in and to said application, any and all substitutions, divisions, provisionals, conversions of provisionals and continuations thereof, and in and to all Letters Patent, United States and foreign, that may be granted for said inventions and discoveries, and in and to all extensions, renewals and reissues thereof; and the right to file any foreign application and/or claim priority under the provisions of any international treaty or convention arising from this application or any divisional, continuing, substitute or reissue application thereform. The aforesaid assignment includes the right in and to all income, royalties, damages and payments, now or hereafter due or payable with respect to any Letters Patent which may be granted, and in and to all causes of action (either in law or in equity), and the right to sue, counterclaim, and recover for past, present and future infringement of the rights assigned or to be assigned under this Assignment, as fully and entirely as the same would have been held and enjoyed by Assignor if this sale, assignment and transfer had not been made.

Assignor covenants and agrees, without further compensation to said Assignor but at Assignee's expense:

- a. to execute:
 - all papers to be used in connection with this application and any divisional, continuing, substitute or reissue application thereof, as the Assignee may deem necessary or expedient, and
 - all papers in connection with any interference, litigation, mediation, arbitration or other proceeding relating to this application or any divisional, continuing, substitute or reissue application thereof, as may be necessary or expedient;
- to cooperate with the Assignee in every way possible in obtaining evidence and going
 forward in any interference, litigation, mediation, arbitration or other proceeding
 relating to said invention, said application and any divisional, continuing, substitute or
 reissue application thereof;
- to communicate to the Assignee any facts relating to said invention, said application and
 any divisional, continuing, substitute or reissue application thereof, including evidence
 for any interference, litigation, mediation, arbitration or other proceeding relating to
 said invention, whenever requested;

윤현수시스템요소가술 Lab.(용신언) 20071023100045

Attorney Docket No.: 0202-0034 Client Docket No.: SP7136-US

- to testify in any interference, litigation, mediation, arbitration or other proceeding relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof whenever requested; and
- to perform all other affirmative acts which may be necessary or desirable to secure full and complete protection of the inventions and discoveries or that may be necessary or desirable to vest in Assignee the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignee to record title.

Assignor hereby authorizes and requests the United States Patent and Trademark Office or any other issuing authority to issue any and all Letters Patent that may be granted upon this invention and/or this application or any divisional, continuing, substitute or reissue application thereof to the Assignee, its legal representatives, successors and assigns.

Assignor hereby represents, covenants and warrants that he or she has the full right to convey the entire right, title and interest by this instrument, free of any encumbrances and that no other agreement has been or will be executed in conflict herewith.

The provisions of this Assignment are binding upon Assignor's heirs, legal representatives and/or administrators and assigns.

Assignor hereby grants to the law firm of Stimson, Shin & Associates LLP of Washington, DC and its attorneys and agents as associated with Customer No. 68103 the authority and power to insert on this instrument any further identification which may be necessary or desirable for purposes of recordation in the United States Patent and Trademark Office or a Patent Office of any foreign country.

Signature of Inventor:

윤원수시스템요소기술 teb.(용산면) 20071023100045

REEL: 020023 FRAME: 0310