

PATENT ASSIGNMENT

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Sung Kyung KIM | 04/29/2010 |
| Sung Cheol CHANG | 04/29/2010 |
| Hyun-Jae KIM | 04/29/2010 |
| Won-Ik KIM | 04/29/2010 |
| Chul Sik YOON | 04/29/2010 |
| Jee Hwan AHN | 04/29/2010 |

RECEIVING PARTY DATA

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| City: | Suwon-si, Gyeonggi-do |
| State/Country: | REPUBLIC OF KOREA |

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| Name: | Electronics and Telecommunications Research Institute |
| Street Address: | 161, Gajeong-dong, Yuseong-gu |
| City: | Daejeon |
| State/Country: | REPUBLIC OF KOREA |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 12770210 |

CORRESPONDENCE DATA

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| Total Attachments: 4 source=0204-0111AssignmentAsFiled#page1.tif source=0204-0111AssignmentAsFiled#page2.tif source=0204-0111AssignmentAsFiled#page3.tif source=0204-0111AssignmentAsFiled#page4.tif |
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Assignment

WHEREAS, the following inventors, namely 1) **KIM, Sung Kyung** of 12-304, KIT Gyosu Apt., 236-2, Gajeong-dong, Yuseong-gu, Daejeon 305-345, Republic of Korea; 2) **CHANG, Sung Cheol** of 309-901, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon 305-761, Republic of Korea; 3) **KIM, Hyun-Jae** of 709-1201, Samsan Town Jugong Apt., Samsan-dong, Bupyeong-gu, Incheon 403-090, Republic of Korea ; 4) **KIM, Won-Ik** of 709-602, Yeolmae Maeul 7 Danji, Jijok-dong, Yuseong-gu, Daejeon 305-770, Republic of Korea ; 5) **YOON, Chul Sik** of 4-402, Samik Sunkyung Apt., Hagye 1-dong, Nowon-gu, Seoul 139-777, Republic of Korea ; and 6) **AHN, Jee Hwan** of 102-305, Dulae Apt., 152-1, Sinseong-dong, Yuseong-gu, Daejeon 305-720, Republic of Korea (hereinafter called "Assignors"), having made or discovered certain new, useful and non-obvious improvements in an invention having a working title of:

METHOD FOR CONTROLLING INTERFERENCE

for which a United States Patent Application is being filed concurrently herewith or, if not being concurrently filed, was filed on April 29, 2010, and assigned Serial No. 12/770,210; and,

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 442-742, Republic of Korea; and **Electronics and Telecommunications Research Institute**, a research institute duly organized under the laws of the Republic of Korea, located and doing business at 161, Gajeong-dong, Yuseong-gu, Daejeon 305-350, Republic of Korea (hereinafter called "Assignees"), 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, Assignors do hereby sell, assign and transfer unto said Assignees 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 therefrom. 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 Assignors if this sale, assignment and transfer had not been made.

Assignors covenant and agree, without further compensation to said Assignors but at Assignees' expense:

- a. to execute:
 - i. all papers to be used in connection with this application and any divisional, continuing, substitute or reissue application thereof, as the Assignees may deem necessary or expedient, and
 - ii. 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;
- b. to cooperate with the Assignees 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;
- c. to communicate to the Assignees any facts relating to said invention, said application and any divisional, continuing, substitute or reissue application thereof, including evidence for

Attorney Docket No.:

Client Docket No.:

- d. any interference, litigation, mediation, arbitration or other proceeding relating to said invention, whenever requested;
- e. 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
- f. 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 Assignees the complete title to the inventions and discoveries and Letters Patent hereby conveyed and to enable Assignees to record title.

Assignors hereby authorize and request 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 Assignees, their legal representatives, successors and assigns.

Assignors each hereby represent, covenant and warrant 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 each Assignors' heirs, legal representatives and/or administrators and assigns.

Assignors hereby grant to the law firm of JEFFERSON IP Law, LLP of Washington, DC and their 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.

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| Signature of First Inventor: | Sungkyung KIM | 29/04/2010 |
| | KIM, Sung Kyung | Date |
| Signature of Second Inventor: | [Handwritten Signature] | 29/04/2010 |
| | CHANG, Sung Cheol | Date |
| Signature of Third Inventor: | Kim hyun Jae | 29/04/2010 |
| | KIM, Hyun-Jae | Date |
| Signature of Fourth Inventor: | Kim WonIk | 29/04/2010 |
| | KIM, Won-ik | Date |
| Signature of Fifth Inventor: | Yoon, ChulSik | 29/04/2010 |
| | YOON, Chul Sik | Date |
| Signature of Sixth Inventor: | Ahn, Jeethwan | 29/04/2010 |
| | AHN, Jee Hwan | Date |