

08-22-2007

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and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

1) FAROOQ KHAN



Additional name(s) of conveying party(ies) attached?  Yes  No

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

**SAMSUNG ELECTRONICS CO., LTD.,**  
*a corporation organized under the laws of  
the Republic of Korea*  
416 Maetan-dong, Yeongtong-gu  
Suwon-si, Gyeonggi-do  
Republic of KOREA

Additional name(s) & addresses attached?  Yes  No

3. Nature of conveyance

- Assignment  Merger
- Security Agreement  Change of Name
- Other

Execution Date: 25 July 2007

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

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

A. Patent Application No.(s)  
11/882,316

B. Patent No.(s)

Additional number(s) attached?  Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: **Robert E. Bushnell**  
Attorney at Law  
Suite 300, 1522 "K" Street, N.W.  
Washington, D.C. 20005-1202  
(202) 408-9040

6. Total Number of applications and patents involved: ONE

7. Total fee (37 CFR § 3.41) ..... \$ U.S. \$40.00  
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*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.*

ROBERT E. BUSHNELL  
Name of Person Signing

*Robert E. Bushnell*  
Signature

17 August 2007  
Date

Total number of pages including cover sheet: TWO

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# ASSIGNMENT

AS A BELOW NAMED INVENTOR, I, and each of us, individually hereby declare that: IN CONSIDERATION of the sum of TEN (\$10.00) dollars or the equivalent thereof, and other good and valuable consideration, the receipt of which from the hereinafter named Assignee is hereby acknowledged, I do hereby sell, assign and forever grant and convey unto:

**ASSIGNEE:** **SAMSUNG ELECTRONICS CO., LTD.,**  
*a corporation organized under the laws of the Republic of Korea,*

**ADDRESS:** 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-370, Republic of Korea

Who is my Assignee, and to the successors and assigns of my Assignee, all my right, title and interest, in and for the United States of America and all other countries, including all rights of priority, in and to the invention entitled:

**TITLE: PRECODING SIGNALING IN A MIMO WIRELESS COMMUNICATION SYSTEM**

invented by me (if only one inventor is named below) or us (if more than one inventor is named below) and described in an application for a United States patent the specification of which is either attached hereto or otherwise accompanies this Assignment, or is more particularly identified as:

executed on even date herewith, or

X Serial No. 11/882,316 filed in the U.S. Patent & Trademark Office on 31 July 2007, or

executed on \_\_\_\_\_

and in and to all United States patents which may be granted thereon and therefore, and in and to all certificates of corrections, divisions, continuations, continuations-in-part, reissued and re-examined patents, and to any extensions thereof, said interest being the entire ownership of the patent when granted, to be held and enjoyed by said SAMSUNG ELECTRONICS CO., LTD., my Assignee, its successors, assigns or other legal representatives, to the full end of the term, terms, or any extension or renewal thereof, for which said patent or patents may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment, sale and conveyance had not been made;

AND I hereby covenant and agree to sign and execute, without receiving any money or other consideration, any further documents or instruments which may from time-to-time be either necessary, lawful, proper or requested by the Assignee, in the prosecution of the above-named application or in the preparation and prosecution of all substitute applications, certificate of correction, division, continuation, continuation-in-part, reissue, re-examination, in any amendment, extension, or interference proceeding, whether administrative or judicial, or otherwise, to secure the title hereto in said Assignee, together with the right of priority under the International Convention for the Protection of Industrial Property, Inter-American Convention Relating to Patents, Designs and Industrial Models, and any other international agreement or treaty to which the United States of America adheres;

AND I do hereby authorize and request the Commissioner of Patent & Trademarks to issue said Patent or Patents to the Assignee, and I hereby appoint as my, or our attorney, and authorize and request R. E. Bushnell, Reg. No. 27,774, to insert on this Assignment any further identification or to complete such identification which may be either necessary or desirable in order to comply the rules of the United States Patent & Trademark Office for recordation of this document.

IN WITNESS WHEREOF, I and we have set our hands and seals on the dates written beside my and our respective names:

INVENTOR(s)

Date Signed

Witness(es)

1)  (Seal)  
FAROOQ KHAN

7/25/07



2) \_\_\_\_\_ (Seal)

*Lori L. Deninger*  
*June 14, 2010*

Additional inventors are being named on separately numbered sheets attached hereto.