

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

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

CONVEYING PARTY DATA

| Name | Execution Date |
|-------------------|----------------|
| Dong-Seung KWON | 04/23/2007 |
| Young-Seog SONG | 04/23/2007 |
| In-Kyeong CHOI | 04/23/2007 |
| Myoung-Seok KIM | 04/23/2007 |
| Seung-Joon LEE | 04/23/2007 |
| Chung-Yong LEE | 04/23/2007 |
| Myeong-Cheol SHIN | 04/23/2007 |

RECEIVING PARTY DATA

| | |
|-------------------|---|
| Name: | ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE |
| Street Address: | 161 Gajeong-dong |
| Internal Address: | Yusong-gu |
| City: | Daejeon |
| State/Country: | KOREA, REPUBLIC OF |
| Postal Code: | 305-350 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 11743147 |

CORRESPONDENCE DATA

Fax Number: (206)623-6793
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
 Phone: 206-467-9600
 Email: cmf@townsend.com
 Correspondent Name: Steve Y. Cho
 Address Line 1: Townsend & Townsend & Crew LLP
 Address Line 2: 1420 5th Avenue, Suite 4400
 Address Line 4: Seattle, WASHINGTON 98101

CH \$40.00 11743147

| | |
|-------------------------|-----------------|
| ATTORNEY DOCKET NUMBER: | 26699M-001500US |
|-------------------------|-----------------|

| | |
|--------------------|---------------------|
| NAME OF SUBMITTER: | Cathy M. FitzGerald |
|--------------------|---------------------|

Total Attachments: 2

source=26699M_001500US_Assignment#page1.tif

source=26699M_001500US_Assignment#page2.tif

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, the inventors listed below, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

KWON, Dong-Seung of 204-1304, Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon-city, Republic of Korea

SONG, Young-Seog of 305-602, Songrimmaeul 3dangi Apt., Hagi-dong, Yuseong-Gu, Daejeon-city, Republic of Korea

CHOI, In-Kyeong of 7-703, Haennim Apt., Dunsan-dong, Seo-gu, Daejeon-city, Republic of Korea

LEE, Chungyong of 104-1803, Yuwon Apt., Seocho-dong, Seocho-gu, Seoul, Republic of Korea

SHIN, Myeongcheol of 229-907, Saemteomaeul Apt., Haengsin 1-dong, Deogyang-gu, Goyang-city, Gyeonggi-do, Republic of Korea

KIM, Myoung-Seok of 102, 245-53, Yeonnam-dong, Mapo-gu, Seoul, Republic of Korea

LEE, Seung-Joon of 119-903 Clover Apt., Dunsan-dong, Seo-gu, Daejeon-city, Republic of Korea

Title of Invention: METHOD AND DEVICE FOR OPTIMIZING
 CODEBOOK FOR QUANTIZED PRECODER BY
 USING STEEPEST DECENT ALGORITHM

Date(s) of Execution: Apr. 23, 2007

Filing Date: MAY 2, 2007

Application No.: 11/743,147 ; and

WHEREAS, Electronics and Telecommunications Research Institute of 161, Gajeong-dong, Yuseong-gu, Daejeon 305-350, Republic of Korea, hereinafter referred to as "ASSIGNEE," is desirous of acquiring ASSIGNORS' interest in the said invention and application and in any U.S. Letters Patent which may be granted on the same;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN: Be it known that, for good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the said Assignees, and Assignees' successors and assigns, all their right, title and interest in and to the said invention and application, and in and to any Letters Patent which may hereafter be granted on the same in the United States, the said interest to be held and enjoyed by said Assignees as fully and exclusively as it would have been held and enjoyed by said Assignors had this Assignment and transfer not been made, to the full end and term of any Letters Patent which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, cooperate with Assignee in the prosecution of said application and/or applications, execute, verify, acknowledge and deliver all such further papers, including applications for Letters Patent and for the reissue thereof, and instruments of assignment and transfer thereof, and will perform such other acts as Assignee lawfully may request, to obtain or maintain Letters Patent for said invention and improvement, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Assignors hereby authorize and request Townsend and Townsend and Crew LLP, Two Embarcadero Center, Eighth Floor, San Francisco, CA 94111-3834, to insert herein above the application number and filing date of said application when known.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Apr. 23, 2007
Date:

Dong Seung KWON
Name: KWON, Dong-Seung

Apr. 23, 2007
Date:

YJS
Name: SONG, Young-Seog

Apr. 23, 2007
Date:

[Signature]
Name: CHOI, In-Kyeong

Apr. 23, 2007
Date:

Chungyong Lee
Name: LEE, Chungyong

Apr. 23, 2007
Date:

Myeongcheol Shin
Name: SHIN, Myeongcheol

Apr. 23, 2007
Date:

Myung Seok Kim
Name: KIM, Myung-Seok

Apr. 23, 2007
Date:

S. J. Lee
Name: LEE, Seung-Joon