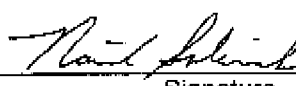


Client Code: SAMINF.155A

**RECORDATION FORM COVER SHEET  
PATENTS ONLY**

To the Director, U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies): (List using letters or numbers for multiple parties)</p> <p>(1) Su Khiong Yong (2) Huai-Rong Shao (3) Xiangping Qin (4) Pengfei Xia (5) Chiu Ngo</p> <p>Additional name(s) of conveying party(ies) attached?</p> <p>( ) Yes (X) No</p>	<p>2. Name and address of receiving party(ies):</p> <p><b>Name:</b> Samsung Electronics Co., Ltd.</p> <p><b>Internal Address:</b></p> <p><b>Street Address:</b></p> <p>416 Maetan-3Dong, Yeongtong-Gu</p> <p><b>City:</b> Suwon, Kyungki-Do <b>Country:</b> Korea</p> <p><b>ZIP:</b> 443-742</p> <p>Additional name(s) of receiving party(ies) attached?</p> <p>( ) Yes (X) No</p>
<p>3. Nature of conveyance:</p> <p>(X) Assignment ( ) Security Agreement</p> <p>( ) Merger ( ) Change of Name</p> <p>( ) Other:</p> <p>Execution Date: (List as in section 1 if multiple signatures)</p> <p>(1) January 8, 2009 (2) January 8, 2009 (3) January 24, 2009 (4) January 21, 2009 (5) January 8, 2009</p>	<p>4. US or PCT Application number(s) or US Patent number(s):</p> <p>(X) Patent Application No.: 12/362,407</p> <p>Filing Date: January 29, 2009</p> <p>Additional numbers attached?</p> <p>( ) Yes (X) No</p>
<p>5. Party to whom correspondence concerning document should be mailed:</p> <p><b>Customer No.</b> 70,590</p> <p><b>Address:</b> Knobbe, Martens, Olson &amp; Bear, LLP 2040 Main Street, 14<sup>th</sup> Floor Irvine, CA 92614</p> <p><b>Return Fax:</b> (949) 760-9502</p> <p><b>Attorney's Docket No.:</b> SAMINF.155A</p>	<p>6. Total number of applications and patents involved: 1</p>
<p>7. Total fee (37 CFR 1.21(h)): \$40</p> <p>(X) Authorized to be charged to deposit account</p>	<p>8. Deposit account number: 11-1410</p> <p>Please charge this account for any additional fees which may be required, or credit any overpayment to this account.</p>
<p>9. Statement and signature.</p> <p>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.</p> <p>Raimond J. Salenieks Name of Person Signing</p> <p> Signature</p> <p>1-29-2009 Date</p> <p>37,924 Registration No.</p> <p>Total number of pages including cover sheet, attachments and document: 7</p>	

Documents transmitted via Facsimile to be recorded with required cover sheet information to:

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**PATENT**  
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Application No.: Unknown  
Filing Date: Herewith

**PATENT**  
Client Code: SAMINF.155A  
Page 1

### ASSIGNMENT

WHEREAS, We, Su Khiong Yong, a Malaysian citizen, residing at 4048 Fitzpatrick Way, Santa Clara, CA 95054, Huai-Rong Shao, a People's Republic of China citizen, residing at 1135 Harrison St., Apt. 6, Santa Clara, CA 95050, Xiangping Qin, a People's Republic of China citizen, residing at 1001 E. Park St., Apt. 10B, Carbondale, IL 62901, Pengfei Xia, a People's Republic of China citizen, residing at 10860 Ivy Hill Dr., Unit 6, San Diego, CA 92131, and Chiu Ngo, a United States citizen, residing at 227 Monticello Street, San Francisco, CA 94132, have invented certain new and useful improvements in SYSTEM AND METHOD FOR ANTENNA TRAINING OF BEAMFORMING VECTORS BY SELECTIVE USE OF BEAM LEVEL TRAINING for which we have executed an application for Letters Patent in the United States, on even date herewith;

AND WHEREAS, Samsung Electronics Co., Ltd. (hereinafter "ASSIGNEE"), a KOREA Corporation, with its principal place of business at 416 Maetan-3Dong, Yeongtong-Gu, Suwon, Kyungki-Do 443-742, Korea, desires to acquire the entire right, title, and interest in and to said improvements and said Application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to me in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, said inventor, do hereby acknowledge that I have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto said ASSIGNEE, its successors, legal representatives and assigns, the entire right, title, and interest throughout the world in, to and under said improvements, and said application including all provisional applications relating thereto and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all extensions, renewals and reissues thereof; and I hereby authorize and request the Commissioner of Patents of the United States, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

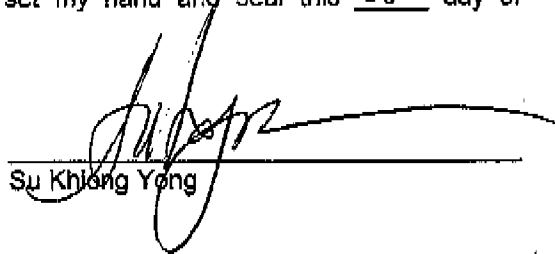
AND WE DO HEREBY sell, assign, transfer, and convey to ASSIGNEE, his successors, legal representatives, and assigns all claims for damages and all remedies arising out of any violation of the rights assigned hereby that may have accrued prior to the date of assignment to ASSIGNEE, or may accrue hereafter, including, but not limited to, the right to sue for, collect, and retain damages for past infringements of said Letters Patent before or after issuance.

AND WE HEREBY covenant and agree that we will communicate to said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said improvements in all countries.

Application No.: Unknown  
Filing Date: Herewith

**PATENT**  
Client Code: SAMINF.155A  
Page 2

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 08 day of  
Jan, 2009

  
\_\_\_\_\_  
Su Khiong Yeng

Application No.: Unknown  
Filing Date: Herewith

**PATENT**  
Client Code: SAMINF.155A  
Page 3

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 08 day of  
January, 2009.

  
\_\_\_\_\_  
Huai-Rong Shao

Application No.: Unknown  
Filing Date: Herewith

**PATENT**  
Client Code: SAMINF.155A  
Page 4


IN TESTIMONY WHEREOF, I hereunto set my hand and seal this \_\_24th\_\_ day of  
\_\_\_\_January\_\_\_\_\_, 20\_\_09\_\_.

/Xiangping QIN/  
Xiangping Qin

Application No.: Unknown  
Filing Date: Herewith

PATENT  
Client Code: SAMINF.155A  
Page 5

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 21<sup>st</sup> day of January 2007

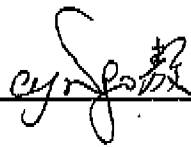
  
\_\_\_\_\_  
Pengfei Xia

Application No.: Unknown  
Filing Date: Herewith

PATENT  
Client Code: SAMINF.155A  
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IN TESTIMONY WHEREOF, I hereunto set my hand and seal this 8<sup>th</sup> day of  
January, 2009

Chiu Ngo



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