Client Code: SAMINF.181A

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1. Name of conveying party(ies): (List using letters or numbers for multiple parties) 1. Huaning Nlu 2. Pengfel Xia 3. Chlu Ngc Additional name(s) of conveying party(ies) attached? () Yes (X) No	2. Name and address of receiving party(ies): Name: Samsung Electronics Co., Ltd. Street Address: 416 Maetan-3Dong,
 Nature of conveyance: (X) Assignment Execution Date: (List as in section 1 if multiple signatures) August 11, 2008 August 11, 2008 August 11, 2008 	() Yes (X) No 4. US or PCT Application number(s) or US Patent number(s): (X) Patent Application No.: 12/189,726 Filing Date: August 11, 2008 Additional numbers attached? () Yes (X) No
 5. Party to whom correspondence concerning document should be mailed: Customer No. 70,590 Address: Knobbe, Martens, Olson & Bear, LLP 2040 Main Street, 14th Floor Irvine, CA 92614 Return Fax: (949) 760-9502 Attorney's Docket No.: SAMINF.181A 	Total number of applications and patents involved: one (1)
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PATENT REEL: 021378 FRAME: 0245

PATENT

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Application No.: Unknown Filing Date: Filed herewith

ASSIGNMENT

WHEREAS, We, Huaning Niu, a People's Republic of China citizen, residing at 1308 Knollview Dr., Milpitas, CA 95035, Pengfei Xia, a People's Republic of China citizen, residing at 2005 California St., Apt. 25, Mountain View, CA 94040, and Chiu Ngo, a United States citizen, residing at 227 Monticello Street, San Francisco, CA 94132, have invented certain new and useful improvements in a SYSTEM AND METHOD FOR TRAINING DIFFERENT TYPES OF DIRECTIONAL ANTENNAS THAT ADAPTS THE TRAINING SEQUENCE LENGTH TO THE NUMBER OF ANTENNAS; 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 City, Gyeonggi-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 (including but not limited to U.S. Provisional Application No. 60/955,613, filed August 13, 2007) 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.

PATENT REEL: 021378 FRAME: 0246

PATENT

Client Code: SAMINF.181A

Application Not: Unknown Page 2 Filing Date: Filed herewith

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this // day of

Huaning Niu

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this Ithday of

IN TESTIMONY WHEREOF, I hereunto set my hand and seal this <u>()</u> day of

5769356 080808

> **PATENT REEL: 021378 FRAME: 0247**

RECORDED: 08/12/2008