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Name of conveying party(ies): (List using letters or numbers for multiple parties) a) Xiangping Qin b) Chiu Ngo Additional name(s) of conveying party(ies) attached? () Yes (X) No	Name and address of receiving party(les): Name: Samsung Electronics Co., Ltd. Address: 416 Maetan-Dong, Paldal-Gu Suwon City, Kyungki-Do Korea
() Yes (X) No 3. Nature of conveyance: (X) Assignment () Security Agreement () Merger () Change of Name () Other: Execution Date: (List as in section 1 if multiple signatures) a) 07 August 2008 b) 07 August 2008	Additional name(s) of receiving party(ies) attached? () Yes (X) No 4. US or PCT Application number(s) or US Patent number(s): (X) Patent Application No.: 12/188,954 Filling Date: 08 August 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, 14 th Floor livine, CA 92614 Return Fax: (949) 760-9502 Attorney's Docket No.: SAMINF.135A 7. Total fee (37 CFR 1.21(h)): \$40 (X) Authorized to be charged to deposit account	Total number of applications and patents involved: 1 Deposit account number: 11-1410 Please charge this account for any additional fees which may be required, or credit any overpayment to this account.
John M. Carson Name of Person Signing 34,303 Registration No.	ing information is true and correct, and any attached copy B 13 08 Date Date Output
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PATENT REEL: 021385 FRAME: 0854 Application No.: 12/108
Filing Date: Avavst 08.

PATENT

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ASSIGNMENT

WHEREAS, We, Xiangping Qin, a P.R. China citizen, residing at 330 Elan Village Lane Apt 301, San Jose, CA 95134; and Chiu Ngo, a U.S. citizen, residing at 227 Monticello Street, San Francisco, CA 94132; have invented certain new and useful improvements in a SYSTEM AND METHOD FOR DEVICE DISCOVERY IN A WIRELESS NETWORK OF DEVICES HAVING DIRECTIONAL ANTENNAS for which we caused to be filled an application for Letters Patent in the United States; and we hereby authorize and request the attorneys of Knobbe, Martens, Olson & Bear, LLP, Customer No. 70,590, to insert here in parentheses (Application Number 12 100 954 , filed Avg. 100 2000) the filing date and application number of said application when known;

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

NOW, THEREFORE, in return for good and valuable consideration, the receipt of which is hereby acknowledged, we, said inventors, do hereby acknowledge that we 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 and all provisional applications relating thereto, (including but not limited to U.S. Provisional Application No. 60/972,184, filed September 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 we 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, its 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: 021385 FRAME: 0855

Application No.: 12 186, 954 Filing Date: Avg 4 06, 2008	Client Code: SAMINF.135A Page 2
IN TESTIMONY WHEREOF, I hereunto	set my hand and seal this 7th day of Xiangping Qin
IN TESTIMONY WHEREOF, I hereund August , 2008.	set my hand and seal this $\frac{7^{ih}}{2}$ day of
	Chiu Ngo

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> PATENT REEL: 021385 FRAME: 0856

RECORDED: 08/13/2008