

PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT																
NATURE OF CONVEYANCE:	ASSIGNMENT																
CONVEYING PARTY DATA																	
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Young Jun Hong</td> <td>12/02/2010</td> </tr> <tr> <td>Bruno Clerckx</td> <td>12/02/2010</td> </tr> <tr> <td>Young Ho Jung</td> <td>12/02/2010</td> </tr> <tr> <td>Joon Young Cho</td> <td>12/02/2010</td> </tr> <tr> <td>Jin Kyu Han</td> <td>12/02/2010</td> </tr> <tr> <td>In Ho Lee</td> <td>12/02/2010</td> </tr> <tr> <td>Hyoung Ju Ji</td> <td>12/02/2010</td> </tr> </tbody> </table>		Name	Execution Date	Young Jun Hong	12/02/2010	Bruno Clerckx	12/02/2010	Young Ho Jung	12/02/2010	Joon Young Cho	12/02/2010	Jin Kyu Han	12/02/2010	In Ho Lee	12/02/2010	Hyoung Ju Ji	12/02/2010
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In Ho Lee	12/02/2010																
Hyoung Ju Ji	12/02/2010																
RECEIVING PARTY DATA																	
Name:	Samsung Electronics Co., Ltd.																
Street Address:	416, Maetan-dong, Yeongtong-gu																
City:	Suwon-si, Gyeonggi-do																
State/Country:	REPUBLIC OF KOREA																
Postal Code:	443-742																
PROPERTY NUMBERS Total: 1																	
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12983702</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12983702												
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Application Number:	12983702																
CORRESPONDENCE DATA																	
Fax Number:	(202)315-3758																
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
Phone:	(202) 429-0020																
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Correspondent Name:	North Star Intellectual Property Law, PC																
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ATTORNEY DOCKET NUMBER:	12000.SMG.0903																

OP \$40.00 12983702

501395383

**PATENT
 REEL: 025575 FRAME: 0834**

NAME OF SUBMITTER:

Nicholas M. Stabler

Total Attachments: 3

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ASSIGNMENT

For valuable consideration, we,

HONG, Young Jun	No. 88-202, Jugong Apt. Banpobon-dong, Seocho-gu, Seoul 137-813, Republic of Korea
CLERCKX Bruno	No. 920, Seocho EO Vill 1593-7, Seocho-dong, Seocho-gu, Seoul, Republic of Korea
JUNG, Young Ho	No. 207, Electron Zone, Korea Aerospace University 200-1, Hwajeon-dong, Deokyang-gu, Goyang-si, Gyeonggi-do 412-791, Republic of Korea
CHO, Joon Young	No. 224-101, Hwanggol Maeul 2-danji Apt. Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-470, Republic of Korea
HAN, Jin Kyu	No. 112-1113, Kukdong Apt. Sadang 2-dong, Dongjak-gu, Seoul 156-772, Republic of Korea
LEE, In Ho	No. 846-905, Byeokjeokgol Jugong Apt. (23/1) 972-2 Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-470, Republic of Korea
Jl, Hyoung Ju	No. 6-201, 79 Hongsil Apt. Samsung 1-dong, Gangnam-gu, Seoul 135-866, Republic of Korea

hereby assign to:

SAMSUNG ELECTRONICS CO., LTD., a Republic of Korea

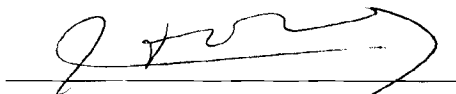
corporation/institute/institution having principal executive office(s) or place of business
at: 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742, Republic of
Korea; and

its successors and assigns (collectively hereinafter called "the Assignee"), the entire right,
title and interest throughout the world in the inventions and improvements which are subject of
U.S. Patent Application Number 12/983/702 filed January 3, 2011 at the U.S. Patent &
Trademark Office signed by us, with title **METHOD OF TRANSMITTING AND
RECEIVING CONTROL INFORMATION BASED ON SPATIAL-MULTIPLEXING
GAIN**, and we authorize and request the attorneys appointed in said application to hereafter
complete this assignment by inserting above the filing date and application serial number of said
application when known; this Assignment including said application, any and all United States
and foreign patents, utility models, and design registrations granted for any of said inventions or
improvements, and the right to claim priority based on the filing date of said application under
the International Convention for the Protection of Industrial Property, the Patent Cooperation
Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize
the Assignee to apply in all countries in our name or in its own name for patents, utility models,

design registrations and like rights of exclusion and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, preliminary statements and other lawful documents as the Assignee may reasonably request to effectuate fully this Assignment.

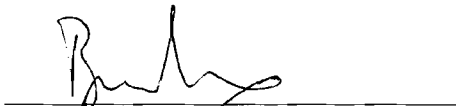
IN TESTIMONY/WITNESS WHEREOF, we, undersigned inventors (Assignors) intending to be legally bound, have hereto affixed our signatures.

This 2 day of Dec, 2010



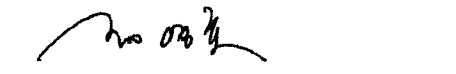
Signature: HONG, Young Jun

This 2 day of Dec, 2010



Signature: CLERCKX Bruno

This 2 day of Dec, 2010



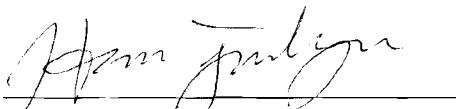
Signature: JUNG, Young Ho

This 2 day of Dec, 2010



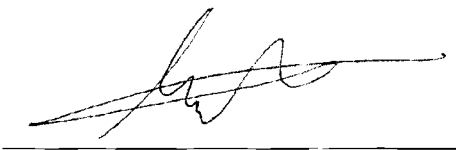
Signature: CHO, Joon Young

This 2 day of Dec, 2010



Signature: HAN, Jin Kyu

This 2 day of Dec, 2010



Signature: LEE, In Ho

This 2 day of Dec, 2010



Signature: JI, Hyung Ju