

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>Kong Soo Lee</td><td>04/28/2009</td></tr><tr><td>Kyoung Seok Kim</td><td>04/28/2009</td></tr><tr><td>Sang Jin Park</td><td>04/28/2009</td></tr><tr><td>Chang Hoon Lee</td><td>04/28/2009</td></tr><tr><td>Ji Hyun Jeong</td><td>04/28/2009</td></tr><tr><td>Jae Hyun Park</td><td>04/28/2009</td></tr><tr><td>Jae Hee Oh</td><td>04/29/2009</td></tr></tbody></table>		Name	Execution Date	Kong Soo Lee	04/28/2009	Kyoung Seok Kim	04/28/2009	Sang Jin Park	04/28/2009	Chang Hoon Lee	04/28/2009	Ji Hyun Jeong	04/28/2009	Jae Hyun Park	04/28/2009	Jae Hee Oh	04/29/2009
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<table border="1"><tr><td>Name:</td><td>Samsung Electronics Co., Ltd.</td></tr><tr><td>Street Address:</td><td>416 Maetan-dong, Yeongtong-gu</td></tr><tr><td>Internal Address:</td><td>Suwon-si</td></tr><tr><td>City:</td><td>Gyeonggi-do</td></tr><tr><td>State/Country:</td><td>REPUBLIC OF KOREA</td></tr></table>		Name:	Samsung Electronics Co., Ltd.	Street Address:	416 Maetan-dong, Yeongtong-gu	Internal Address:	Suwon-si	City:	Gyeonggi-do	State/Country:	REPUBLIC OF KOREA						
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PROPERTY NUMBERS Total: 1																	
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CORRESPONDENCE DATA																	
Fax Number: (919)854-1401 <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>																	
Phone: 919-854-1400																	
Email: criggs@myersbigel.com																	
Correspondent Name: MYERS BIGEL SIBLEY & SAJOVEC																	
Address Line 1: PO BOX 37428																	
Address Line 4: RALEIGH, NORTH CAROLINA 27627																	
ATTORNEY DOCKET NUMBER:	5649-2544																

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PATENT
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NAME OF SUBMITTER:

Candi L. Riggs

Total Attachments: 8

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ASSIGNMENT

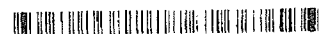
THIS ASSIGNMENT, made by us, **Kong-Soo Lee**, citizen of the Republic of Korea, residing at #108-1802, Doosan Apt., Byungjum-ri, Taeaeon-eup, Hwasung-si, Gyeonggi-do, Republic of Korea; **Kyoung-Seok Kim**, citizen of the Republic of Korea, residing at #20-1702, Namsan Town Apt., Sindang-dong, Jung-gu, Seoul, Republic of Korea; **Sang-Jin Park**, citizen of the Republic of Korea, residing at #312-1402, Saetbyeol-maeul Woobang Apt., Bundang-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea; **Chang-Hoon Lee**, citizen of the Republic of Korea, residing at #306-1506, Geumhwa-maeul Jugong Apt., Sanggal-dong, Giheung-gu, Yongin-si, Gyeonggi-do, Republic of Korea; **Ji-Hyun Jeong**, citizen of the Republic of Korea, residing at #1-201, Hanyang Villa, 309-120, Sageun-dong, Seongdong-gu, Seoul, Republic of Korea; **Jae-Hyun Park**, citizen of the Republic of Korea, residing at #103-706, Dongboo Apt., Pungdeokcheon 1-dong, Suji-gu, Yongin-si, Gyeonggi-do, Republic of Korea; and **Jae-Hee Oh**, citizen of the Republic of Korea, residing at #416-202, Sibeom-danji Hyundai Apt., Seohyeon-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in **METHODS OF FORMING INTEGRATED CIRCUIT DEVICES HAVING VERTICAL SEMICONDUCTOR INTERCONNECTS AND DIODES THEREIN AND DEVICES FORMED THEREBY** for which an application for United States Letters Patent has been filed, or is being filed concurrently, in the United States Patent and Trademark Office. We hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert here in parentheses (Application No. 12/498,528, filed 7/7/09) the filing date and application number of said application when known or to file this Assignment concurrently with the application, and

WHEREAS, **Samsung Electronics Co., Ltd.**, a Korean corporation having a principal place of business at 416 Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have



ASSIGNMENT – CONTINUED

sold and by these presents do hereby sell, assign, transfer and convey unto the said assignee, its successors and assigns, the entire right, title and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment

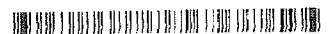
We further covenant and agree to bind our heirs, legal representatives and assigns, promptly to communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns and other legal representatives.

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 28 day of April, 2009.

Kong-Soo Lee (SEAL)
Kong-Soo Lee

Witnessed by:

Date: _____



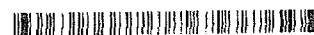
ASSIGNMENT – CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 28 day
of April, 2009.

Kyoung-Seok Kim (SEAL)
Kyoung-Seok Kim

Witnessed by:

Date: _____



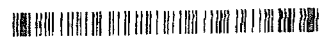
ASSIGNMENT – CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 28 day
of April, 2009.

Sang-Jin Park (SEAL)
Sang-Jin Park

Witnessed by:

Date: _____



ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 28 day
of April, 2009.

Chang-Hoon Lee (SEAL)
Chang-Hoon Lee

Witnessed by:

Date: _____



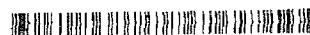
ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 28 day
of April, 2009.

Ji-Hyun Jeong (SEAL)
Ji-Hyun Jeong

Witnessed by:

Date: _____



ASSIGNMENT - CONTINUED

IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 28 day
of April, 2009.

Jae Hyun Park (SEAL)
Jae-Hyun Park

Witnessed by: _____

Date: _____

