## PATENT ASSIGNMENT

## Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE:  |   | NEW ASSIGNMENT  |                |          |
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| CONVEYING PARTY   | DATA  |   |                |          |
| Name  |   |   | Execution Date |          |
| Myung-hyun Jo   |   |   | 05/24/2010     |          |
| Chan-ik Park  |   |   | 05/24/2010     |          |
| RECEIVING PARTY D   | )ATA  |   |                |          |
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| Postal Code:  | 442-742   |   |                |          |
|   | RS Total: 1   |   | ]              |          |
| Property Type   |   |   |                |          |
|   | /pe   | Number  |                | 445      |
| Application Number:   |   | Number   15445  |                | 2815445  |
|   | 128   |   |                | 12815445 |
| Application Number:   | 128   | 15445   |                |          |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:  | DATA<br>(571)283-07   | 15445   |                |          |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will b</i><br>Phone:  | DATA<br>(571)283-07<br>be sent via US Mail<br>5712830720  | 15445<br>40<br><i>I when the fax attempt is unsuccessful.</i>   |                | \$40.00  |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will L</i><br>Phone:<br>Email:  | DATA<br>(571)283-07<br><i>De sent via US Mail</i><br>5712830720<br>aloomis@vo                                   | 40<br><i>I when the fax attempt is unsuccessful.</i><br>lentine.com   |                |          |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will E</i><br>Phone:<br>Email:<br>Correspondent Name:                                       | DATA<br>(571)283-07<br><i>De sent via US Mail</i><br>5712830720<br>aloomis@vo<br>VOLENTINE                      | 40<br><i>when the fax attempt is unsuccessful.</i><br>lentine.com<br>E & WHITT, PLLC  |                | \$40.00  |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will L</i><br>Phone:<br>Email:  | DATA<br>(571)283-07<br><i>De sent via US Maii</i><br>5712830720<br>aloomis@vo<br>VOLENTINE<br>11951 FREE        | 40<br><i>I when the fax attempt is unsuccessful.</i><br>lentine.com   |                | \$40.00  |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will L</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:                    | DATA<br>(571)283-07<br>be sent via US Mail<br>5712830720<br>aloomis@vo<br>VOLENTINE<br>11951 FREE<br>RESTON, V  | 40<br><i>I when the fax attempt is unsuccessful.</i><br>lentine.com<br>E & WHITT, PLLC<br>EDOM DRIVE, SUITE 1260                  |                | \$40.00  |
| Application Number:<br>CORRESPONDENCE<br>Fax Number:<br><i>Correspondence will L</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:<br>Address Line 4: | DATA<br>(571)283-07<br>be sent via US Mail<br>5712830720<br>aloomis@vo<br>VOLENTINE<br>11951 FREE<br>RESTON, VI | 40<br><i>I when the fax attempt is unsuccessful.</i><br>Ientine.com<br>E & WHITT, PLLC<br>EDOM DRIVE, SUITE 1260<br>IRGINIA 20190 |                | \$40.00  |

VOLENTINE & WHITT, P.L.L.C. (01/2007)

ATTORNEY DOCKET NO. <u>SEC.2705</u>

REEL: 024534 FRAME: 0596

## ASSIGNMENT

|                                      | In consideration of the sum of On-<br>consideration paid to each of the und  | e Dollar (\$1.00) and other good and valuable<br>ersigned                 |  |  |  |
|--------------------------------------|--|---|--|--|--|
| Insert<br>Name(s) of                 | 1. Myung-hyun Jo   | 7   |  |  |  |
| Inventor(s)                          | 2. Chan-ik Park  | 8   |  |  |  |
|                                      | 3.   | 9   |  |  |  |
|                                      | 4  | 10  |  |  |  |
|                                      | 5  | 11  |  |  |  |
| Insert                               | 6  | 12  |  |  |  |
| Name(s) of<br>Assignee(s) &          | SAMSUNG ELECTRONICS CO., LTD.  |   |  |  |  |
| Address(es)                          | 416, Maetan-dong,<br>of Suwon-si, Cyconggi   | Yeongtong-gu,<br>-do 442-742, Republic of Korea                           |  |  |  |
|                                      |  | ce) the entire right, title and interest for the United                   |  |  |  |
| Title of                             | States as defined in 35 USC 100, in the invention known as   |   |  |  |  |
| Invention                            | METHOD AND SYSTEM FOR MANIPULATING DATA  |   |  |  |  |
| Date of<br>Signing of<br>Application | for which an application for patent in the undersigned on May 24, 201  | the United States of America has been executed by                         |  |  |  |
|                                      | The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.                         |   |  |  |  |
|                                      | The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or continuing, division or reissue thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference. |   |  |  |  |
|                                      | The undersigned agree(s) to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial Property or similar agreements.   |   |  |  |  |
|                                      | The undersigned agree(s) to perform a grant of a valid United States patent  | all affirmative acts which may be necessary to obtain<br>to the Assignce. |  |  |  |
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VOLENTINE & WHITT, P.L.L.C. (01/2007)

REEL: 024534 FRAME: 0597

The undersigned hereby grant(s) the practitioners associated with the <u>CUSTOMER NUMBER 20987</u> the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent Office for recordation of this document.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents to issue any and all Letters Patents of the United States resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignce, as Assignee of the entire interest, and hereby covenants that he has (they have) full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

| In witness whereof, executed | d by the undersigned | on the date(s) | opposite the | undersigned |
|------------------------------|----------------------|----------------|--------------|-------------|
| name(s).                     |                      |                | Λ            |             |

| nume(3).  |                       |                  |
|---|-----------------------|------------------|
| Date <u>2010. 5. 24</u>   | Signature of Inventor | Yung-hyun Jo     |
| Date 2010. 5. 24  | Signature of Inventor | han-ik Park      |
| Date  |                       | nan-ik Park      |
| Date  | Signature of Inventor |                  |
| Date  | Signature of Inventor |                  |
|   |                       |                  |
|   |                       |                  |
| Witness   |                       |                  |
|   |                       |                  |
| oplicant Reference No   | SS-35018-US           |                  |
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|   | Page 2 of 2           |                  |
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