

# PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| <b>SUBMISSION TYPE:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | NEW ASSIGNMENT                         |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------|-------------------------------|----------------------------|---------------------------------|--------------------------|--------------|--------------|------------|-----------------------|-------------------|-------------|------------|
| <b>NATURE OF CONVEYANCE:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                               | ASSIGNMENT                             |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>CONVEYING PARTY DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Ho-jin HA</td> <td>01/21/2011</td> </tr> <tr> <td>O-hoon KWON</td> <td>01/21/2011</td> </tr> <tr> <td>Sung-bin IM</td> <td>01/21/2011</td> </tr> <tr> <td>Guanhua ZHANG</td> <td>01/21/2011</td> </tr> <tr> <td>Ji-Eun KEUM</td> <td>01/21/2011</td> </tr> </tbody> </table> |                                        | Name          | Execution Date                | Ho-jin HA                  | 01/21/2011                      | O-hoon KWON              | 01/21/2011   | Sung-bin IM  | 01/21/2011 | Guanhua ZHANG         | 01/21/2011        | Ji-Eun KEUM | 01/21/2011 |
| Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Execution Date                         |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| Ho-jin HA                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 01/21/2011                             |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| O-hoon KWON                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 01/21/2011                             |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| Sung-bin IM                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 01/21/2011                             |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| Guanhua ZHANG                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 01/21/2011                             |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| Ji-Eun KEUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 01/21/2011                             |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>RECEIVING PARTY DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                        |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"><b>Name:</b></td> <td>Samsung Electronics Co., Ltd.</td> </tr> <tr> <td><b>Street Address:</b></td> <td>416, Maetan-dong, Yeongtong-gu,</td> </tr> <tr> <td><b>Internal Address:</b></td> <td>Gyeonggi-do,</td> </tr> <tr> <td><b>City:</b></td> <td>Suwon-si</td> </tr> <tr> <td><b>State/Country:</b></td> <td>REPUBLIC OF KOREA</td> </tr> </table>                     |                                        | <b>Name:</b>  | Samsung Electronics Co., Ltd. | <b>Street Address:</b>     | 416, Maetan-dong, Yeongtong-gu, | <b>Internal Address:</b> | Gyeonggi-do, | <b>City:</b> | Suwon-si   | <b>State/Country:</b> | REPUBLIC OF KOREA |             |            |
| <b>Name:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Samsung Electronics Co., Ltd.          |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>Street Address:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 416, Maetan-dong, Yeongtong-gu,        |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>Internal Address:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Gyeonggi-do,                           |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>City:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Suwon-si                               |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>State/Country:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | REPUBLIC OF KOREA                      |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>PROPERTY NUMBERS Total: 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td><b>Application Number:</b></td> <td>12945498</td> </tr> </tbody> </table>                                                                                                                                                                                                                       |                                        | Property Type | Number                        | <b>Application Number:</b> | 12945498                        |                          |              |              |            |                       |                   |             |            |
| Property Type                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Number                                 |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>Application Number:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12945498                               |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>CORRESPONDENCE DATA</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <p>Fax Number: (202)293-7860</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 202-293-7060</p> <p>Email: mleahy@sughrue.com</p> <p>Correspondent Name: Sughrue Mion PLLC</p> <p>Address Line 1: 2100 Pennsylvania Ave NW</p> <p>Address Line 2: Suite 800</p> <p>Address Line 4: Washington, DISTRICT OF COLUMBIA 20037-3213</p>                                                                                  |                                        |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>ATTORNEY DOCKET NUMBER:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                             | Q121692                                |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |
| <b>NAME OF SUBMITTER:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Madeliene B. Leahy - Patent Specialist |               |                               |                            |                                 |                          |              |              |            |                       |                   |             |            |

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**PATENT**  
**REEL: 025727 FRAME: 0604**

Total Attachments: 1  
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## Assignment

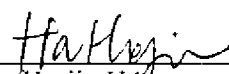
Whereas, We, Ho-jin HA of Suwon-si, Republic of Korea; O-hoon KWON of Suwon-si, Republic of Korea; Sung-bin IM of Yongin-si, Republic of Korea; Guanhua ZHANG of Suwon-si, Republic of Korea; and Ji-Eun KEUM of Suwon-si, Republic of Korea, hereinafter called assignors, have invented certain improvements in ADAPTIVE STREAMING METHOD AND APPARATUS and filed a United States Non-Provisional Patent Application therefor; and

Whereas, SAMSUNG ELECTRONICS CO., LTD., a Korean Corporation of 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea (assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

We, the above named assignors, hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including the right to claim priority under 35 U.S.C. §119, and we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

We hereby authorize and request our attorneys SUGHRUE MION, PLLC of 2100 Pennsylvania Avenue, NW, Washington, DC 20037-3213 to insert here in parentheses (Application number 12/945,498 and Confirmation number 7885, filed November 12, 2010) the application number, confirmation number and filing date of said application when known.

|       |                                                                                                        |               |
|-------|--------------------------------------------------------------------------------------------------------|---------------|
| Date: | <br>s/Ho-jin HA     | Jan. 21. 2011 |
| Date: | <br>s/O-hoon KWON   | Jan. 21. 2011 |
| Date: | Sung bin IM<br>s/Sung-bin IM                                                                           | Jan. 21. 2011 |
| Date: | <br>s/Guanhua ZHANG | Jan. 21. 2011 |
| Date: | <br>s/Ji-Eun KEUM   | Jan. 21. 2011 |

(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)

PATENT