## 506998036 11/29/2021 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT7044876

| SUBMISSION TYPE:  |   | NEW AS   | NEW ASSIGNMENT   |            |                          |  |
|---|---|--|--|------------|--------------------------|--|
| NATURE OF CONVEYANCE:   |   | ASSIGN   | ASSIGNMENT   |            |                          |  |
| CONVEYING PARTY [   | ΔΑΤΑ  |  |  |            |                          |  |
|   |   | Name   |  |            | Execution Date           |  |
| JUNG HO LIM   |   |  |  | 11/22/2021 |                          |  |
| RECEIVING PARTY D   | ΑΤΑ   |  |  |            |                          |  |
| Name: SK HYNIX INC.   |   |  |  |            |                          |  |
| Street Address:   | 2091, G`  | 2091, GYEONGCHUNG-DAERO, BUBAL-EUB   |  |            |                          |  |
| City:   | ICHEON  | ICHEON-SI GYEONGGI-DO  |  |            |                          |  |
| State/Country:  | KOREA,  | KOREA, REPUBLIC OF   |  |            |                          |  |
| Postal Code:  | 17336   |  |  |            |                          |  |
|   |   |  |  |            |                          |  |
|   |   |  |  |            |                          |  |
|   |   | 30/333 0335  |  |            |                          |  |
| Fax Number:   | (6  | 630)323-0335<br>t <b>he e-mail ad</b>  |  | s unsuc    | cessful, it will be sent |  |
| Fax Number:<br><i>Correspondence will</i><br>using a fax number, it   | (6<br>be sent to a<br>f provided;                                 | the e-mail ad<br>if that is uns  | ldress first; if that is<br>successful, it will be   |            |                          |  |
| Fax Number:<br><i>Correspondence will using a fax number, it</i><br>Email:  | (6<br><b>be sent to</b> a<br>f <b>provided;</b><br>u              | t <b>he e-mail ad</b><br><i>if that is uns</i><br>spto.actions@  | dress first; if that is<br>successful, it will be<br>wpapat.com  | e sent vi  |                          |  |
| Fax Number:<br><i>Correspondence will using a fax number, it</i><br>Email:<br>Correspondent Name  | (6<br><b>be sent to</b> a<br>f <b>provided;</b><br>u<br>: V       | the e-mail ad<br>if that is uns<br>spto.actions@<br>/ILLIAM PAR  | dress first; if that is<br>successful, it will be<br>wpapat.com<br>K & ASSOCIATES L  | e sent vi  |                          |  |
| Fax Number:<br><i>Correspondence will using a fax number, it</i><br>Email:  | (6<br><b>be sent to</b> i<br>f <b>provided;</b><br>u<br>: V<br>9  | the e-mail ad<br>if that is uns<br>spto.actions@<br>/ILLIAM PAR<br>30 N. YORK I  | dress first; if that is<br>successful, it will be<br>wpapat.com  | e sent vi  |                          |  |
| Fax Number:<br><i>Correspondence will using a fax number, in</i><br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:                        | (6<br><b>be sent to</b> a<br>f <b>provided;</b><br>u<br>:         | the e-mail ad<br>if that is uns<br>spto.actions@<br>/ILLIAM PAR<br>30 N. YORK I  | dress first; if that is<br>successful, it will be<br>wpapat.com<br>K & ASSOCIATES L<br>ROAD, SUITE 201<br>LINOIS 60521                               | e sent vi  |                          |  |
| Fax Number:<br><i>Correspondence will using a fax number, it</i><br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:                        | (6<br>be sent to a<br>f provided;<br>u<br>: V<br>9<br>H<br>UMBER: | the e-mail ad<br>if that is uns<br>spto.actions@<br>/ILLIAM PAR<br>30 N. YORK I<br>IINSDALE, ILI<br>PA4809-            | dress first; if that is<br>successful, it will be<br>wpapat.com<br>K & ASSOCIATES L<br>ROAD, SUITE 201<br>LINOIS 60521                               | e sent vi  |                          |  |
| Fax Number:<br><i>Correspondence will a using a fax number, it</i><br>Email:<br>Correspondent Name<br>Address Line 1:<br>Address Line 4:<br>ATTORNEY DOCKET N | (6<br>be sent to a<br>f provided;<br>u<br>: V<br>9<br>H<br>UMBER: | the e-mail ad<br>if that is uns<br>spto.actions@<br>VILLIAM PAR<br>30 N. YORK I<br>IINSDALE, ILI<br>PA4809-<br>W. WILL | dress first; if that is<br>successful, it will be<br>wpapat.com<br>K & ASSOCIATES L<br>ROAD, SUITE 201<br>LINOIS 60521                               | e sent vi  |                          |  |
| Fax Number:<br><i>Correspondence will a using a fax number, it</i><br>Email:<br>Correspondent Name<br>Address Line 1:   | (6<br>be sent to a<br>f provided;<br>u<br>: V<br>9<br>H<br>UMBER: | the e-mail ad<br>if that is uns<br>spto.actions@<br>VILLIAM PAR<br>30 N. YORK I<br>IINSDALE, ILI<br>PA4809-<br>W. WILL | dress first; if that is<br>successful, it will be<br>wpapat.com<br>K & ASSOCIATES L<br>ROAD, SUITE 201<br>LINOIS 60521<br>-0<br>IAM PARK<br>am Park/ | e sent vi  |                          |  |

## DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

| Title of<br>Invention     | SEMICONDUCTOR MEMORY APPARATUS, OPERATING METHOD THEREOF, AN<br>SEMICONDUCTOR MEMORY SYSTEM   |   |  |  |  |
|---------------------------|---|---|--|--|--|
| Declaration               | PCT/KR####################################  | or<br>or PCT international application number   |  |  |  |
|                           | is acknowledge, and other good and assign and transfer unto said assigne  | SK hynix Inc.   |  |  |  |
|                           | 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Republic of Korea<br>and the heirs, successors, assigns and legal representatives of the assignee(s) the fu<br>and exclusive right to the said invention in the United States and in its territori<br>possessions and in any and all foreign countries any and all improvements thereof, th   |   |  |  |  |
|                           | therefore in the United States. I her<br>Patent and Trademark Office to issue<br>entire right, title, and interest in and<br>legal representatives, to the full end of  | nd to any and all Patents which may be granted<br>eby authorize and request the Director of the U.S<br>said United States Patent to said assignee(s), of the<br>to the same, for his sole use and for the use of his<br>of the term for which said Patent may be granted, as<br>have been held by me had this assignment and sale |  |  |  |
| Assignment                | I agree promptly upon request of<br>legal representatives of the assignee<br>the patent and the invention set forth   | the assignee(s), its heirs, successors, assigns and<br>(s) to communicate any facts known to it respecting<br>h therein, and to execute and deliver without further<br>mey, Assignment, application, whether original<br>other papers that may be necessary.  |  |  |  |
|                           |   | int, sale agreement or encumbrance has been or will<br>conflict with this assignment and sale.  |  |  |  |
|                           | I further covenant that assignee(s) will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to me and will testify as to the same in any litigation related thereto and will promptly execute and deliver to assignee(s) or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. |   |  |  |  |
| Legal Name<br>Of Inventor | Inventor Name (First Middle LAST):  | Jung Ho LIM   |  |  |  |
|                           | Inventor Signature:   | Jung Ho LIM (2021, 11.22)   |  |  |  |
|                           | Date  | November 22, 2021   |  |  |  |

Page 1

임종호/Rige: DOR4 DERI1

SNK:OPX21129-066US PTPUS202100654

PATENT REEL: 058227 FRAME: 0654

RECORDED: 11/29/2021