# 505994398 04/01/2020

# PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE:                                                                                                                                                                                                           |                                   | NEW ASSIGNMENT                                                                                                                                                                                                                                                      |                          |  |
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| NATURE OF CONVEYANCE:                                                                                                                                                                                                      |                                   | ASSIGNMENT                                                                                                                                                                                                                                                          |                          |  |
| CONVEYING PARTY DA                                                                                                                                                                                                         | TA                                |                                                                                                                                                                                                                                                                     |                          |  |
|                                                                                                                                                                                                                            |                                   | Name                                                                                                                                                                                                                                                                | Execution Date           |  |
| RYUJI UKAI                                                                                                                                                                                                                 |                                   |                                                                                                                                                                                                                                                                     | 03/06/2020               |  |
| TOMOTO KAWAMURA                                                                                                                                                                                                            |                                   |                                                                                                                                                                                                                                                                     | 03/06/2020               |  |
| SATOSHI OUCHI                                                                                                                                                                                                              |                                   |                                                                                                                                                                                                                                                                     | 03/23/2020               |  |
| YOSHIHO SEO                                                                                                                                                                                                                |                                   |                                                                                                                                                                                                                                                                     | 03/11/2020               |  |
| SEIJI MURATA                                                                                                                                                                                                               |                                   |                                                                                                                                                                                                                                                                     | 03/13/2020               |  |
| RECEIVING PARTY DAT                                                                                                                                                                                                        | <br>·Δ                            |                                                                                                                                                                                                                                                                     |                          |  |
|                                                                                                                                                                                                                            | HITACHI-LG DATA STORAGE, INC.     |                                                                                                                                                                                                                                                                     |                          |  |
|                                                                                                                                                                                                                            | 22-23, KAIGAN 3-CHOME, MINATO-KU, |                                                                                                                                                                                                                                                                     |                          |  |
|                                                                                                                                                                                                                            | ΤΟΚΥΟ                             | , ,                                                                                                                                                                                                                                                                 |                          |  |
| ,                                                                                                                                                                                                                          | JAPAN                             |                                                                                                                                                                                                                                                                     |                          |  |
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| Property Type                                                                                                                                                                                                              |                                   | Number                                                                                                                                                                                                                                                              |                          |  |
| Application Number:                                                                                                                                                                                                        |                                   | 16652690                                                                                                                                                                                                                                                            |                          |  |
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| CORRESPONDENCE DA                                                                                                                                                                                                          |                                   |                                                                                                                                                                                                                                                                     |                          |  |
| CORRESPONDENCE DA                                                                                                                                                                                                          |                                   | (703)684-1157                                                                                                                                                                                                                                                       | eccentul it will be cont |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be</i>                                                                                                                                                          | sent to                           | (703)684-1157<br><i>The e-mail address first; if that is unsuc</i><br><i>I; if that is unsuccessful, it will be sent v</i>                                                                                                                                          |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be</i>                                                                                                                                                          | sent to<br>rovideo                | the e-mail address first; if that is unsuc                                                                                                                                                                                                                          |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be</i><br><i>using a fax number, if p</i>                                                                                                                       | sent to<br>rovideo                | the e-mail address first; if that is unsuc<br>I; if that is unsuccessful, it will be sent v                                                                                                                                                                         |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:                                                                                                        | sent to<br>rovideo                | <i>the e-mail address first; if that is unsuc</i><br><i>I; if that is unsuccessful, it will be sent v</i><br>703-684-1120                                                                                                                                           |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:                                                              | sent to<br>rovideo                | <i>the e-mail address first; if that is unsuc</i><br><i>i; if that is unsuccessful, it will be sent v</i><br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD                                                                  |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:<br>Address Line 2:                                           | sent to<br>rovideo                | <i>the e-mail address first; if that is unsuc<br/>t; if that is unsuccessful, it will be sent v</i><br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210                                                           |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:                                                              | sent to<br>rovideo                | <i>the e-mail address first; if that is unsuc</i><br><i>i; if that is unsuccessful, it will be sent v</i><br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD                                                                  |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pa</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:<br>Address Line 2:                                           | sent to<br>rovideo                | <i>the e-mail address first; if that is unsuc<br/>t; if that is unsuccessful, it will be sent v</i><br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210                                                           |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:<br>Address Line 2:<br>Address Line 4:                        | sent to<br>rovideo                | o the e-mail address first; if that is unsuc<br>l; if that is unsuccessful, it will be sent v<br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210<br>ALEXANDRIA, VIRGINIA 22314                                   |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:<br>Address Line 2:<br>Address Line 4:                        | sent to<br>rovideo                | b the e-mail address first; if that is unsuc<br>f; if that is unsuccessful, it will be sent v<br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210<br>ALEXANDRIA, VIRGINIA 22314<br>SHO-12501                      |                          |  |
| CORRESPONDENCE DA<br>Fax Number:<br><i>Correspondence will be<br/>using a fax number, if pl</i><br>Phone:<br>Email:<br>Correspondent Name:<br>Address Line 1:<br>Address Line 2:<br>Address Line 4:<br>ATTORNEY DOCKET NUI | sent to<br>rovideo                | b the e-mail address first; if that is unsuc<br>f; if that is unsuccessful, it will be sent v<br>703-684-1120<br>svannarath@mmiplaw.com<br>MATTINGLY & MALUR, PC<br>1800 DIAGONAL ROAD<br>SUITE 210<br>ALEXANDRIA, VIRGINIA 22314<br>SHO-12501<br>JOHN R. MATTINGLY |                          |  |

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| source=12501_ASN#page3.tif |  |

#### ASSIGNMENT

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi-LG Data Storage, Inc. (hereinafter referred to as ASSIGNEE), a corporation organized under the laws of Japan, located at 22-23, Kaigan 3-chome, Minato-ku, Tokyo, 108-0022 Japan, receipt of which is hereby acknowledged, I do hereby sell and assign to said ASSIGNEE, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to application serial no. \_\_\_\_\_\_, filed \_\_\_\_\_\_, and entitled:

### LIGHT GUIDING PLATE AND VIDEO IMAGE DISPLAY DEVICE

invented by me (if only one inventor is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all non-provisional applications, divisions, continuations and extensions thereof, said interest being the entire ownership of said Letters Patent when granted, to be held and enjoyed by said ASSIGNEE, its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, interference proceeding, or post-grant proceeding, or otherwise to secure the title thereto in said assignee;

Whereby, I hereby grant the law firm of MATTINGLY & MALUR, P.C., 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 and Trademark Office for recordation of this document, including inserting the application serial number and filing date when known.

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said ASSIGNEE.

Signed on the date(s) indicated aside signature(s):

INVENTOR(S) 1) <u>Ryuji Ukai</u> Ryuji Ukai 2) Tomoto Kawamura Tomoto Kawamura 3) <u>de Toshi</u> Ouch Satoshi OUCHI Yoshiho SEO 5) \_ Seiji MURATA

| March 6, 2020 |
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| Moven, 6,2020 |
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| Mar. 23, 2020 |
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PATENT REEL: 052280 FRAME: 0174

#### ASSIGNMENT

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi-LG Data Storage, Inc. (hereinafter referred to as ASSIGNEE), a corporation organized under the laws of Japan, located at 22-23, Kaigan 3-chome, Minato-ku, Tokyo, 108-0022 Japan, receipt of which is hereby acknowledged, I do hereby sell and assign to said ASSIGNEE, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to application serial no. \_\_\_\_\_\_\_, filed \_\_\_\_\_\_\_, and entitled

#### LIGHT GUIDING PLATE AND VIDEO IMAGE DISPLAY DEVICE

invented by me (if only one inventor is named below) or us (if plural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all non-provisional applications, divisions, continuations and extensions thereof, said interest being the entire ownership of said Letters Patent when granted, to be held and enjoyed by said ASSIGNEE, its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any further documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or reissue applications or in any amendment, extension, interference proceeding, or post-grant proceeding, or otherwise to secure the title thereto in said assignee;

Whereby, I hereby grant the law firm of MATTINGLY & MALUR, P.C., 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 and Trademark Office for recordation of this document, including inserting the application serial number and filing date when known.

And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said ASSIGNEE.

Signed on the date(s) indicated aside signature(s):

INVENTOR(S)

Date Signed

1) \_\_\_\_\_\_ Ryuji UKAI

2) \_\_\_\_\_ Tomoto KAWAMURA

3) \_\_\_\_\_Satoshi OUCHI

4) Unhutr Seo

5) \_\_\_\_\_\_ Seiji MURATA Mar. 11, 2020

PATENT REEL: 052280 FRAME: 0175

#### ASSIGNMENT

As a below named inventor, I hereby declare that:

IN CONSIDERATION of the sum of One Dollar (\$1.00) or the equivalent thereof, and other good and valuable consideration paid to me by Hitachi-LG Data Storage, Inc. (hereinafter referred to as ASSIGNEE), a corporation organized under the laws of Japan, located at 22-23, Kaigan 3-chome, Minato-ku, Tokyo, 108-0022 Japan, receipt of which is hereby acknowledged, I do hereby sell and assign to said ASSIGNEE, its successors and assigns, all my right, title and interest, in and for the United States of America, in and to application serial no.\_\_\_\_\_, filed\_\_\_\_\_, and entitled:

## LIGHT GUIDING PLATE AND VIDEO IMAGE DISPLAY DEVICE

invented by me (if only one inventor is named below) or us (if phural inventors are named below) and described in the application for United States Letters Patent therefor, executed on even date herewith, and all United States Letters Patent which may be granted therefor, and all non-provisional applications, divisions, continuations and extensions thereof, said interest being the entire ownership of said Letters Patent when granted, to be held and enjoyed by said ASSIGNEE, its successors, assigns or other legal representatives, to the full end of term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me or us if this assignment and sale had not been made;

And I hereby agree to sign and execute any firther documents or instruments which may be necessary, lawful, and proper in the prosecution of the above-named application or in the preparation and prosecution of any continuing, continuation-in-part, substitute, divisional, renewal, reviewed or relssue applications or in any amendment, extension, interference proceeding, or post-grant proceeding, or otherwise to secure the title thereto in said assignee;

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And I do hereby authorize and request the Commissioner of Patents to issue said Letters Patent to said ASSIGNEE.

Signed on the date(s) indicated aside signature(s):

INVENTOR(S)

Date Signed

| Ŋ.,  | Rynji UKAI      |
|------|-----------------|
| 2)   | Tomoto KAWAMURA |
| 3) _ | Satoshi OUCHI   |
| 4)   | Voshiho SFO     |

5) <u>Jein minata</u> Seili MURATA

Mar, 13, 2020

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PATENT REEL: 052280 FRAME: 0176

**RECORDED: 04/01/2020**