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| <b>PATENT ASSIGNMENT COVER SHEET</b> |
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 Stylesheet Version v1.2

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| <b>SUBMISSION TYPE:</b>      | NEW ASSIGNMENT |
| <b>NATURE OF CONVEYANCE:</b> | ASSIGNMENT     |

**CONVEYING PARTY DATA**

| Name                                      | Execution Date |
|---|----------------|
| mitsubishi electric engineering co., ltd. | 06/26/2017     |

**RECEIVING PARTY DATA**

|                        |                                 |
|------------------------|---------------------------------|
| <b>Name:</b>           | RENESAS SYSTEM DESIGN CO., LTD. |
| <b>Street Address:</b> | 5-20-1 JOSUIHON-CHO, KODAIRA    |
| <b>City:</b>           | TOKYO                           |
| <b>State/Country:</b>  | JAPAN                           |
| <b>Postal Code:</b>    | 187-8588                        |

**PROPERTY NUMBERS Total: 123**

| Property Type  | Number  |
|----------------|---------|
| Patent Number: | 6218196 |
| Patent Number: | 6101112 |
| Patent Number: | 6337042 |
| Patent Number: | 6242875 |
| Patent Number: | 6262607 |
| Patent Number: | 6268752 |
| Patent Number: | 6363976 |
| Patent Number: | 6441472 |
| Patent Number: | 6347655 |
| Patent Number: | 6469575 |
| Patent Number: | 6411560 |
| Patent Number: | 6166912 |
| Patent Number: | 6239981 |
| Patent Number: | 6011500 |
| Patent Number: | 6137332 |
| Patent Number: | 6287980 |
| Patent Number: | 6268771 |
| Patent Number: | 5894445 |
| Patent Number: | 5912851 |
| Patent Number: | 5892730 |

PATENT

| <b>Property Type</b> | <b>Number</b> |
|----------------------|---------------|
| Patent Number:       | 5905617       |
| Patent Number:       | 5926374       |
| Patent Number:       | 6416618       |
| Patent Number:       | 6184738       |
| Patent Number:       | 5825702       |
| Patent Number:       | 6072338       |
| Patent Number:       | 5930194       |
| Patent Number:       | 6181269       |
| Patent Number:       | 6166415       |
| Patent Number:       | 6118730       |
| Patent Number:       | 6330202       |
| Patent Number:       | 6400628       |
| Patent Number:       | 6634002       |
| Patent Number:       | 6603685       |
| Patent Number:       | 6445633       |
| Patent Number:       | 6430091       |
| Patent Number:       | 6333869       |
| Patent Number:       | 6472926       |
| Patent Number:       | 6424134       |
| Patent Number:       | 6399999       |
| Patent Number:       | 6418075       |
| Patent Number:       | 6530764       |
| Patent Number:       | 6424579       |
| Patent Number:       | 6400632       |
| Patent Number:       | 6472716       |
| Patent Number:       | 6496429       |
| Patent Number:       | 6636087       |
| Patent Number:       | 6515461       |
| Patent Number:       | 6288573       |
| Patent Number:       | 5940344       |
| Patent Number:       | 6075401       |
| Patent Number:       | 6463098       |
| Patent Number:       | 6404976       |
| Patent Number:       | 6888774       |
| Patent Number:       | 6163145       |
| Patent Number:       | 5926425       |
| Patent Number:       | 5825141       |
| Patent Number:       | 6087850       |

| Property Type  | Number  |
|----------------|---------|
| Patent Number: | 6242287 |
| Patent Number: | 5939850 |
| Patent Number: | 6249175 |
| Patent Number: | 6765855 |
| Patent Number: | 6700434 |
| Patent Number: | 6731449 |
| Patent Number: | 6781882 |
| Patent Number: | 6847512 |
| Patent Number: | 6980409 |
| Patent Number: | 6707737 |
| Patent Number: | 6064327 |
| Patent Number: | 6034904 |
| Patent Number: | 5946268 |
| Patent Number: | 6109208 |
| Patent Number: | 6052329 |
| Patent Number: | 6054904 |
| Patent Number: | 6252807 |
| Patent Number: | 6597040 |
| Patent Number: | 6429729 |
| Patent Number: | 6381167 |
| Patent Number: | 6549445 |
| Patent Number: | 6738285 |
| Patent Number: | 6768354 |
| Patent Number: | 6614270 |
| Patent Number: | 6473352 |
| Patent Number: | 6515908 |
| Patent Number: | 7050349 |
| Patent Number: | 6885235 |
| Patent Number: | 7009897 |
| Patent Number: | 6466509 |
| Patent Number: | 6724166 |
| Patent Number: | 6728122 |
| Patent Number: | 6993854 |
| Patent Number: | 6864982 |
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| Patent Number: | 7233537 |
| Patent Number: | 6788569 |
| Patent Number: | 7295465 |

| Property Type  | Number  |
|----------------|---------|
| Patent Number: | 6777707 |
| Patent Number: | 7225358 |
| Patent Number: | 6762576 |
| Patent Number: | 6781873 |
| Patent Number: | 6778445 |
| Patent Number: | 6791876 |
| Patent Number: | 6762953 |
| Patent Number: | 7162707 |
| Patent Number: | 6806663 |
| Patent Number: | 6768542 |
| Patent Number: | 6407573 |
| Patent Number: | 6310808 |
| Patent Number: | 6781431 |
| Patent Number: | 6888776 |
| Patent Number: | 6829193 |
| Patent Number: | 6842366 |
| Patent Number: | 6856537 |
| Patent Number: | 6829318 |
| Patent Number: | 6870771 |
| Patent Number: | 6940767 |
| Patent Number: | 6775198 |
| Patent Number: | 7023754 |
| Patent Number: | 7092305 |
| Patent Number: | 6356480 |
| Patent Number: | 6466484 |
| Patent Number: | 6459640 |
| Patent Number: | 6587916 |

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| <b>ATTORNEY DOCKET NUMBER:</b> | 067161-0010 |
|--------------------------------|-------------|

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|---|-------------------------------------|
| <b>NAME OF SUBMITTER:</b>   | RENELL FEIMSTER FOR TOMOKI TANIDA   |
| <b>SIGNATURE:</b>   | /Renell Feimster for Tomoki Tanida/ |
| <b>DATE SIGNED:</b>   | 08/24/2017                          |
| <b>Total Attachments: 7</b><br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page1.tif<br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page2.tif<br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page3.tif<br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page4.tif<br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page5.tif<br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page6.tif<br>source=PATTERN_1_ASSIGNMENT_MEE_to_RSD#page7.tif |                                     |

## ASSIGNMENT

**WHEREAS**, MITSUBISHI ELECTRIC ENGINEERING CO., LTD., a corporation organized under and pursuant to the laws of Japan having its principal place of business at 1-13-5, Kudan Kita, Chiyoda-ku, Tokyo 102-0073 Japan (hereinafter referred to as Assignor), is the joint owner, by assignment, of the patents listed in Schedule A; and

**WHEREAS**, RENESAS SYSTEM DESIGN CO., LTD., a corporation organized under and pursuant to the laws of Japan having its principal place of business at 5-20-1 Josuihoncho, Kodaira, Tokyo 187-8588 Japan (hereinafter referred to as Assignee), is desirous of acquiring the right, title and interest in, to and under said patents;

**NOW, THEREFORE**, in consideration of and in exchange for the sum of One Dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, the said Assignor has sold, assigned, transferred and set over, and does hereby sell, assign, transfer and set over to the said Assignee, the Assignor's entire right, title and interest in the patents on the attached list of *Schedule A*; and the undersigned for itself and its legal representatives, heirs and assigns does hereby agree and covenant without further remuneration, to communicate to said assignee or its representatives all facts known to the undersigned respecting said patents listed on *Schedule A* whenever requested, to testify in any interferences or other legal proceedings in which said patents may become involved, to sign all lawful papers, make all rightful oaths, and do generally everything necessary to aid assignee, its successors, assigns and nominees for said patents listed on *Schedule A*, the expenses incident to said patents listed on *Schedule A* to be borne and paid by said assignee.

SCHEDULE A

| FILING DATE | US APPLICATION NUMBER | GRANT DATE | US PATENT NUMBER |
|-------------|-----------------------|------------|------------------|
| 11/9/1998   | 09/188117             | 4/17/2001  | 6218196          |
| 5/5/1999    | 09/305205             | 8/8/2000   | 6101112          |
| 9/14/1999   | 09/395185             | 1/8/2002   | 6337042          |
| 11/5/1999   | 09/434447             | 6/5/2001   | 6242875          |
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| 12/8/1999   | 09/456313             | 7/31/2001  | 6268752          |
| 2/2/2000    | 09/496412             | 4/2/2002   | 6363976          |
| 10/6/2000   | 09/680304             | 8/27/2002  | 6441472          |
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| 3/19/2001   | 09/810505             | 10/22/2002 | 6469575          |
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| 1/28/1999   | 09/238166             | 5/29/2001  | 6239981          |
| 10/28/1997  | 08/959614             | 1/4/2000   | 6011500          |
| 8/4/1998    | 09/128789             | 10/24/2000 | 6137332          |
| 10/12/1999  | 09/415910             | 9/11/2001  | 6287980          |
| 3/10/2000   | 09/523650             | 7/31/2001  | 6268771          |
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| 12/10/1997  | 08/988208             | 6/15/1999  | 5912851          |
| 12/1/1997   | 08/980963             | 4/6/1999   | 5892730          |
| 2/3/1998    | 09/017674             | 5/18/1999  | 5905617          |
| 4/17/1998   | 09/061869             | 7/20/1999  | 5926374          |
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| 2/5/1998    | 09/019199             | 2/6/2001   | 6184738          |
| 1/23/1998   | 09/012408             | 10/20/1998 | 5825702          |
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| FILING DATE | US APPLICATION NUMBER | GRANT DATE | US PATENT NUMBER |
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| 2/8/2001    | 09/778261             | 8/5/2003   | 6603685          |
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| 9/24/2001   | 09/961190             | 10/29/2002 | 6472716          |
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| 4/26/1999   | 09/298949             | 10/8/2002  | 6463098          |
| 12/3/1998   | 09/204165             | 6/11/2002  | 6404976          |
| 8/21/2002   | 10/224499             | 5/3/2005   | 6888774          |
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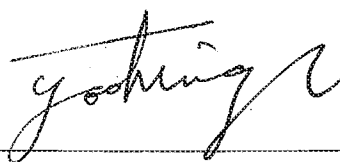
| FILING DATE | US APPLICATION NUMBER | GRANT DATE | US PATENT NUMBER |
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| 8/10/1998   | 09/132074             | 8/17/1999  | 5939850          |
| 2/2/2000    | 09/496461             | 6/19/2001  | 6249175          |
| 6/7/2000    | 09/588296             | 7/20/2004  | 6765855          |
| 6/14/2001   | 09/879914             | 3/2/2004   | 6700434          |
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| 7/3/2002    | 10/187981             | 8/24/2004  | 6781882          |
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| 12/13/2002  | 10/318097             | 3/16/2004  | 6707737          |
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| 3/6/1998    | 09/035989             | 3/7/2000   | 6034904          |
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| 7/27/1998   | 09/122061             | 8/29/2000  | 6109208          |
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| 9/17/1998   | 09/154753             | 4/25/2000  | 6054904          |
| 12/9/1999   | 09/457529             | 6/26/2001  | 6252807          |
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| 7/9/2002    | 10/190668             | 5/18/2004  | 6738285          |
| 2/12/2001   | 09/780477             | 7/27/2004  | 6768354          |
| 3/16/2001   | 09/809212             | 9/2/2003   | 6614270          |
| 4/30/2001   | 09/843690             | 10/29/2002 | 6473352          |
| 5/1/2001    | 09/845300             | 2/4/2003   | 6515908          |
| 4/12/2002   | 10/120442             | 5/23/2006  | 7050349          |
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| FILING DATE | US APPLICATION NUMBER | GRANT DATE | US PATENT NUMBER |
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| 6/12/2002   | 10/167078             | 4/20/2004  | 6724166          |
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| 6/6/2002    | 10/162882             | 3/8/2005   | 6864982          |
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| 1/27/2003   | 10/351442             | 7/13/2004  | 6762576          |
| 2/12/2003   | 10/364329             | 8/24/2004  | 6781873          |
| 1/30/2003   | 10/353913             | 8/17/2004  | 6778445          |
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| 6/6/2003    | 10/455479             | 7/13/2004  | 6762953          |
| 5/28/2003   | 10/445832             | 1/9/2007   | 7162707          |
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| 8/16/2002   | 10/219292             | 7/27/2004  | 6768542          |
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| 6/5/2002    | 10/162200             | 12/7/2004  | 6829193          |
| 3/10/2003   | 10/383570             | 1/11/2005  | 6842366          |
| 11/20/2002  | 10/299776             | 2/15/2005  | 6856537          |
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|-------------|-----------------------|------------|------------------|
| 9/25/2002   | 10/253512             | 8/10/2004  | 6775198          |
| 10/24/2002  | 10/279069             | 4/4/2006   | 7023754          |
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| 6/7/2000    | 09/588645             | 3/12/2002  | 6356480          |
| 1/28/2002   | 10/056107             | 10/15/2002 | 6466484          |
| 8/17/2001   | 09/931243             | 10/1/2002  | 6459640          |
| 9/7/2001    | 09/948042             | 7/1/2003   | 6587916          |

Date: 2017. 6. 26

Signature: \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'yoshinaga', written over a horizontal line.

Name: Toru YOSHINAGA

Title: President

MITSUBISHI ELECTRIC ENGINEERING CO., LTD.