503760386 03/30/2016

PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------------------|----------------|
| MITSUBISHI DENKI KABUSHIKI KAISHA | 03/24/2016 |

RECEIVING PARTY DATA

| Name: | RENESAS ELECTRONICS CORPORATION | |
|-----------------|---------------------------------|--|
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| City: | TOKYO | |
| State/Country: | JAPAN | |
| Postal Code: | 135-0061 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|----------------|---------|
| Patent Number: | 6461977 |

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| ATTORNEY DOCKET NUMBER: | T&A-GENERAL/Z-2016-2 | |
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| NAME OF SUBMITTER: | JOHN R. MATTINGLY | |
| SIGNATURE: | /John R. Mattingly/ | |
| DATE SIGNED: | 03/29/2016 | |

Total Attachments: 2

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PATENT REEL: 038137 FRAME: 0390 503760386

ASSIGNMENT

WHEREAS, MITSUBISHI DENKI KABUSHIKI KAISHA (also known as Mitsubishi Electric Corporation)(hereinafter referred to as ASSIGNOR), is a joint owner, by assignment, of the following United States Patent:

U.S. Patent No. 6,461,977, issue date October 8, 2002.

WHEREAS, Renesas Electronics Corporation (hereinafter referred to as ASSIGNEE), a corporation organized under the laws of Japan, having its place of business at 2-24, Toyosu 3-chome, Koutou-ku, Tokyo 135-0061, Japan, is desirous of acquiring ASSIGNOR's entire right, title and interest, in, to and under said Letter Patent, and any and all renewals, reissues, reexaminations and extensions thereof.

NOW, THEREFORE, for good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, said ASSIGNOR has sold, assigned, transferred and set over and does hereby sell, assign, transfer and set over to the said ASSIGNEE, its entire right, title and interest, in, to and under said Letter Patent and all renewals, reissues, reexaminations and extensions thereof, including any and all priority and or convention rights accruing or to accrue with respect to the filling or securing of patents in the United States, including the right to sue for past infringement, the same to be held and enjoyed by said ASSIGNEE for its own use and enjoyment, and for the use and enjoyment of its successors, assigns, or other legal representatives, to the end of the term for which said Letter Patent of the United States is granted including any and all renewals, reissues, reexaminations and extensions thereof, as fully and entirely, as the same would have been held and enjoyed by the said ASSIGNOR, if this assignment and sale had not been made.

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WHEREBY, ASSIGNOR hereby grants the law firm of MATTINGLY & MALUR, PC., 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.

MITSUBISHI DENKI KABUSHIKI KAISHA (also known as Mitsubishi Electric Corporation).

4,2016

Date

By: Hidéyuki OKUBO

Representative Executive Officer

PATENT REEL: 038137 FRAME: 0392

RECORDED: 03/30/2016