504950212 06/07/2018

PATENT ASSIGNMENT COVER SHEET

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| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
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| SATOSHI NARUMI | 01/05/2018 |

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

| Property Type | Number |
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| Application Number: | 16000643 |

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|-------------------------|------------------|
| NAME OF SUBMITTER: | SEAN M. MCGINN |
| SIGNATURE: | /Sean M. McGinn/ |
| DATE SIGNED: | 06/07/2018 |

Total Attachments: 2

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PATENT 504950212 REEL: 046020 FRAME: 0386

Docket No.: FEN 422. Only After Sept 16, 2012

ASSIGNMENT WITH DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 OFR 1.63)

Whereas, I/We, the undersigned inventor(s) hereinafter called assignor(s), have invented certain improvements described in the application identified below, and

Whereas, Renesas Electronics Corporation of 2-24, Toyosu 3-chome, Koutou-ku, Tokyo 135-0061, Japan, (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,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignse, 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 USC 119, and I/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 I/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.

| (Legalization not required for recording | g but is | prima facie evidence of execution under 35 USC 261) |
|---|-----------------------------------|---|
| As the below named inventor, I hereby | declare | that: |
| This assignment with declaration is directed to: | X | The stached application, or |
| | | United States Application or PCT International Application Number |
| | | filed on |
| The application is entitled: | | |
| SEMICONDUCTOR DEV | (ICE, PC | WER MODULE AND CONTROL METHOD OF POWER CONVERSION DEVICE |
| The above identified application was n | ade or i | was authorized to be made by me. |
| I believe that I am the original invento | roran o | riginal joint inventor of a claimed invention in the application. |
| I have reviewed and understand the o | ontents | of the application for which this assignment with declaration is being submitted. |
| I am aware of the duty to disclose to | the Offic | e all information known to me to be material to patentability as defined in 37 CFR 1.56. |
| I hereby acknowledge that any willful to crimprisonment of not more than five | | tement made in this assignment with declaration is punishable under 18 USC 1001 by fine s, or both, |
| Authorization To Permit Access To / | \pplicati | on by Participating Office |
| (JPO), the Korean Intellectual Property property offices in which a foreign app patent application. See 37 CFR 1.14(c | y Office lication) and (h) | the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual claiming priority to the above-identified application is filed access to the above-identified. This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, or reign application claiming priority to the above-identified application is filed to have |
| in accordance with 37 CFR 1.14(h)(3), identified patent application-as-filed, | access 2) any fo | will be provided to a copy of the application-as-filed with respect to: 1) the above- reign application to which the above-identified application claims priority under 35 USC |

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Office.

119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application, and 3) any U.S. application—as—filed from which benefit is sought in the above-identified patent application.

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Legal Name of Inventor Satoshi Narumi

Date January 5, 2018