### PATENT ASSIGNMENT COVER SHEET

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

#### CONVEYING PARTY DATA

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<th>Execution Date</th>
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<td>HITACHI ULSI SYSTEMS CO., LTD.</td>
<td>10/06/2015</td>
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#### RECEIVING PARTY DATA

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<tr>
<td>RENESAS ELECTRONICS CORPORATION</td>
<td>2-24, TOYOSU 3-CHOME, KOUTOU-KU</td>
<td>TOKYO</td>
<td>JAPAN</td>
<td>135-0061</td>
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#### PROPERTY NUMBERS Total: 7

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#### CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: T&A-GENERAL  
NAME OF SUBMITTER: JOHN R. MATTINGLY  
SIGNATURE: /John R. Mattingly/  
DATE SIGNED: 10/15/2015
ASSIGNMENT

WHEREAS, Hitachi ULSI Systems Co., Ltd. (hereinafter referred to as ASSIGNOR), is an owner, by assignment, of the following United States Letters Patent(s) of the United States of America:

U.S. Patent No. 5,959,894
U.S. Patent No. 5,949,715
U.S. Patent No. 6,016,273
U.S. Patent No. 6,157,576
U.S. Patent No. 6,181,600
U.S. Patent No. 6,259,629
U.S. Patent No. 6,438,036

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 Letters Patent(s), 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 Letters Patent(s) 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 filing 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,
Assignment
Hitachi ULSI Systems Co., Ltd. to Renesas Electronics Corporation

assigns, or other legal representatives, to the end of the term for which said Letters

Patent(s) of the United States are 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.

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.

Oct. 6, 2015
Date

By: Mikinori KAWAJI
President

Hitachi ULSI Systems Co., Ltd.