

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT3804545

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT	
<b>CONVEYING PARTY DATA</b>		
	<b>Name</b>	<b>Execution Date</b>
	HITACHI ULSI SYSTEMS CO., LTD	03/18/2016
<b>RECEIVING PARTY DATA</b>		
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<b>State/Country:</b>	JAPAN	
<b>PROPERTY NUMBERS Total: 2</b>		
	<b>Property Type</b>	<b>Number</b>
	<b>Application Number:</b>	14745040
	<b>Application Number:</b>	14100429
<b>CORRESPONDENCE DATA</b>		
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<b>DATE SIGNED:</b>	03/29/2016	
<b>Total Attachments: 2</b>		
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## ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, we, **HITACHI ULSI SYSTEMS CO., LTD.** (the Assignor) as owner of record of the rights in certain inventions for which applications for United States Patents have been filed as follows:

<u>U.S. Application Number</u>	<u>Filed</u>	<u>By Assignment Recorded at Reel/Frame</u>
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**U.S. Patent Appln. No. 14/100429 12-09-2013**

**012296 / 0798**

**Parent US Divisional App 09/985,309**

This application is a Continuation of	13/858,274	04-08-2013	No	Patented	8,604,505
is a continuation of	13/362,385	01-31-2012	No	Patented	8,426,969
is a continuation of	13/096,246	04-28-2011	No	Patented	8,119,495
is a continuation of	12/714,596	03-01-2010	No	Patented	7,948,086
is a continuation of	11/978,686	10-30-2007	No	Patented	7,687,914
is a continuation of	11/430,983	05-10-2006	No	Patented	7,411,302
is a continuation of	10/748,139	12-31-2003	No	Patented	7,071,560
is a Division of	09/985,309	11-02-2001	No	Patented	6,693,315

**U.S. Patent Appln. No. 14/745040 06-19-2015**

**012296 / 0798**

**Parent US Divisional App 09/985,309**

This application is a Continuation of	14/100,429	12-09-2013	No	Patented	9,064,926
is a continuation of	13/858,274	04-08-2013	No	Patented	8,604,505
is a continuation of	13/362,385	01-31-2012	No	Patented	8,426,969
is a continuation of	13/096,246	04-28-2011	No	Patented	8,119,495
is a continuation of	12/714,596	03-01-2010	No	Patented	7,948,086
is a continuation of	11/978,686	10-30-2007	No	Patented	7,687,914
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is a continuation of	10/748,139	12-31-2003	No	Patented	7,071,560
is a Division of	09/985,309	11-02-2001	No	Patented	6,693,315

do hereby sell and assign to: **RENESAS ELECTRONICS CORPORATION** located at  
2-24, Toyosu 3-chome, Koutou-ku, Tokyo 135-0061, Japan

(the "Assignee"), its successors and assigns, the full and exclusive right to the said inventions in the United States and the entire rights, title and interest in and to any and all Patents which may be granted therefore in the United States and elsewhere throughout the world in and to said above identified invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, and prolongations thereof, by virtue of assignment recorded in the U.S. Patent and Trademark Office and we hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue said United States Patents to said assignee, for his sole use and behoof; and for the use and behoof of his legal representatives, to the full end of the term for

which said Patents may be granted, as fully and entirely as the same would have been held by us had this assignment and sale not been made.

By this assignment, we, **HITACHI ULSI SYSTEMS CO., LTD.** also do hereby sell, assign, transfer and set over unto said **RENESAS ELECTRONICS CORPORATION** its legal representatives, successors and assigns, the entire right, title and interest in enforcing and asserting against any third parties, and recovering damages for past and future infringement of any patent rights related to said inventions, and in and to any and all improvements and/or modifications to the inventions.

WHEREAS, **Mikinori KAWAJI**, as President of **HITACHI ULSI SYSTEMS CO., LTD.** is authorized to execute assignment documents relating to patent applications owned by **HITACHI ULSI SYSTEMS CO., LTD.** We, **HITACHI ULSI SYSTEMS CO., LTD.** do hereby effect the aforementioned assignment to **RENESAS ELECTRONICS CORPORATION** by Mr. **Mikinori KAWAJI** signature below:

**HITACHI ULSI SYSTEMS CO., LTD.**

Date: 18. Mar., 2016

By: Mikinori Kawaji

Title: President

Name: **Mikinori KAWAJI**