PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3798480

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HITACHI ULSI SYSTEMS CO., LTD.	03/18/2016

RECEIVING PARTY DATA

Name:	RENESAS ELECTRONICS CORPORATION
Street Address:	2-24, TOYOSU 3-CHOME, KOUTOU-KU
City:	TOKYO
State/Country:	JAPAN
Postal Code:	135-0061

PROPERTY NUMBERS Total: 69

Property Type	Number
Patent Number:	6496418
Patent Number:	6459621
Patent Number:	6583049
Patent Number:	6480425
Patent Number:	6692989
Patent Number:	6538329
Patent Number:	6477671
Patent Number:	6809405
Patent Number:	6512265
Patent Number:	7180130
Patent Number:	8748266
Patent Number:	8704291
Patent Number:	8987810
Patent Number:	6069834
Patent Number:	5995439
Patent Number:	6097663
Patent Number:	6246629
Patent Number:	6335898
Patent Number:	6609236
Patent Number:	5854562

PATENT REEL: 038241 FRAME: 0507

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Patent Number: 5982239 Patent Number: 6046609 Patent Number: 6271687 Patent Number: 7190593 Patent Number: 6881646 Patent Number: 7402473 Patent Number: 66112174 Patent Number: 6624509 Patent Number: 6677230 Patent Number: 6016560 Patent Number: 6266792 Patent Number: 636560 Patent Number: 6342728 Patent Number: 6342728 Patent Number: 635255 Patent Number: 6355500 Patent Number: 6355975 Patent Number: 6365439 Patent Number: 6342726 Patent Number: 6342726 Patent Number: 66642083 Patent Number: 6664135 Patent Number: 6664135 Patent Number: 6684135 Patent Number: 6480418 Patent Number: 6480418 Patent Number: 6780757	Property Type	Number
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Patent Number: 6134148 Patent Number: 6163485	Patent Number:	6055651
Patent Number: 6163485	Patent Number:	6091640
	Patent Number:	6134148
Patent Number: 6285597	Patent Number:	6163485
	Patent Number:	6285597
Patent Number: 6300237	Patent Number:	6300237

Property Type	Number
Patent Number:	6242323
Patent Number:	6559027
Patent Number:	6461957
Patent Number:	6410959
Patent Number:	6720220
Patent Number:	6803281
Patent Number:	8076202
Patent Number:	7910985
Patent Number:	7507606
Application Number:	14624987
Patent Number:	9275863

CORRESPONDENCE DATA

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Correspondent Name: MATTINGLY & MALUR, PC **Address Line 1:** 1800 DIAGONAL ROAD

Address Line 2: SUITE 210

Address Line 4: ALEXANDRIA, VIRGINIA 22314

ATTORNEY DOCKET NUMBER:	T&A-GENERAL/Z-2023
NAME OF SUBMITTER:	JOHN R. MATTINGLY
SIGNATURE:	/John R. Mattingly/
DATE SIGNED:	03/24/2016

Total Attachments: 3

source=Assignment from Hitachi ULSI Systems Co Ltd to Renesas Electronics Corporation#page1.tif source=Assignment from Hitachi ULSI Systems Co Ltd to Renesas Electronics Corporation#page2.tif source=Assignment from Hitachi ULSI Systems Co Ltd to Renesas Electronics Corporation#page3.tif

ASSIGNMENT

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

استسسندا	
1	U.S. Patent No. 6,512,265, issue date January 28, 2003
2	U.S. Patent No. 7,180,130, issue date February 20, 2007
3	U.S. Patent No. 8,748,266, issue date June 10, 2014
4	U.S. Patent No. 9,275,863, issue date March 1, 2016
5	U.S. Patent No. 8,704,291, issue date April 22, 2014
6	U.S. Patent No. 8,987,810, issue date March 24, 2015
7	U.S. Patent Application No. 14/624,987, filing date February 18, 2015
8	U.S. Patent No. 6,069,834, issue date May 30, 2000
9	U.S. Patent No. 5,995,439, issue date November 30, 1999
1.0	U.S. Patent No. 6,097,663, issue date August 1, 2000
11	U.S. Patent No. 6,246,629, issue date June 12, 2001
12	U.S. Patent No. 6,335,898, issue date January 1, 2002
13	U.S. Patent No. 6,609,236, issue date August 19, 2003
14	U.S. Patent No. 5,854,562, issue date December 29, 1998
15	U.S. Patent No. 5,982,239, issue date November 9, 1999
16	U.S. Patent No. 6,046,609, issue date April 4, 2000
3.7	U.S. Patent No. 6,271,687, issue date August 7, 2001
18	U.S. Patent No. 7,190,593, issue date March 13, 2007
19	U.S. Patent No. 6,881,646, issue date April 19, 2005
20	U.S. Patent No. 7,402,473, issue date July 22, 2008
21	U.S. Patent No. 6,112,174, issue date August 29, 2000
22	U.S. Patent No. 6,624,509, issue date September 23, 2003
23	U.S. Patent No. 6,677,230, issue date January 13, 2004
24	U.S. Patent No. 7,160,759, issue date January 9, 2007
25	U.S. Patent No. 6,016,560, issue date January 18, 2000
26	U.S. Patent No. 6,266,792, issue date July 24, 2001
27	U.S. Patent No. 6,757,853, issue date June 29, 2004
28	U.S. Patent No. 6,342,728, issue date January 29, 2002
29	U.S. Patent No. 6,353,255, Issue date March 5, 2002
30	U.S. Patent No. 6,521,981, issue date February 18, 2003
31	U.S. Patent No. 6,355,500, issue date March 12, 2002
32	U.S. Patent No. 6,365,439, issue date April 2, 2002
33	U.S. Patent No. 6,355,975, issue date March 12, 2002
34	U.S. Patent No. 6,472,727, issue date October 29, 2002
35	U.S. Patent No. 6,342,726, issue date January 29, 2002
36	U.S. Patent No. 6,642,083, issue date November 4, 2003
37	U.S. Patent No. 6,670,215, issue date December 30, 2003
38	U.S. Patent No. 6,664,135, issue date December 16, 2003
39	U.S. Patent No. 5,736,948, issue date April 7, 1998
40	U.S. Patent No. 6,291,273, issue date September 18, 2001
41	U.S. Patent No. 6,558,980, issue date May 6, 2003
42	U.S. Patent No. 6,943,456, issue date September 13, 2005

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43	U.S. Patent No. 6,480,418, issue date November 12, 2002
44	U.S. Patent No. 6,643,182, issue date November 4, 2003
45	U.S. Patent No. 5,904,556, issue date May 18, 1999
46	U.S. Patent No. 6,780,757, issue date August 24, 2004
47	U.S. Patent No. 6,055,651, issue date April 25, 2000
48	U.S. Patent No. 6,091,640, issue date July 18, 2000
49	U.S. Patent No. 6,134,148, issue date October 17, 2000
50	U.S. Patent No. 6,163,485, issue date December 19, 2000
51	U.S. Patent No. 6,285,597, issue date September 4, 2001
52	U.S. Patent No. 6,300,237, issue date October 9, 2001
53	U.S. Patent No. 6,242,323, issue date June 5, 2001
54	U.S. Patent No. 6,559,027, issue date May 6, 2003
55	U.S. Patent No. 6,461,957 issue date October 8, 2002
56	U.S. Patent No. 6,410,959 issue date June 25, 2002
57	U.S. Patent No. 6,720,220 issue date April 13, 2004
58	U.S. Patent No. 6,803,281 issue date October 12, 2004
59	U.S. Patent No. 8,076,202 issue date December 13, 2011
60	U.S. Patent No. 7,910,985 issue date March 22, 2011
61	U.S. Patent No. 6,477,671 issue date November 5, 2002
62	U.S. Patent No. 6,809,405 issue date October 26, 2004
63	U.S. Patent No. 7,507,606 issue date March 24, 2009
64	U.S. Patent No. 6,692,989 issue date February 17, 2004
65	U.S. Patent No. 6,480,425 issue date November 12, 2002
66	U.S. Patent No. 6,538,329 issue date March 25, 2003
67	U.S. Patent No. 6,583,049 issue date June 24, 2003
68	U.S. Patent No. 6,459,621 issue date October 1, 2002
69	U.S. Patent No. 6,496,418 issue date December 17, 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 patent application and said patents, 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

Assignment from Hitachi ULSI Systems Co., Ltd.

To Renesas Electronics Corporation

said ASSIGNEE, its entire right, title and interest, in, to and under said patent

application and said patents 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, assigns, or other legal representatives, to the end of the term for which

said patents 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.

Hitachi ULSI Systems Co., Ltd.

Mikinori Kawaji

18, Mar., 2016

Title: President

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