To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

Send any inquiries to http://www.renesas.com/inquiry.

RENESAS

Date: Oct.05,2009

RENESAS TECHNICAL UPDATE

Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Renesas Technology Corp.

Product Category	SRAM		Document No.	TN-M62-A132A/E	Rev.	1.00
Title	Notice about the generation change of 8Mbit LP SRAM 3V version		Information Category	Product Generation Change		
Applicable Product	8Mbit Low Power SRAM 3V version ; M5M5W816/817 series and HM62V8100LTTI series to R1LV08xxA series	Lot No. All shipped lots after '09/12	Reference Document			

Please be informed that we, Renesas will be proceeding with the product generation change of 8Mbit LP SRAM 3V version from "M5M5W816/817 series" and "HM62V8100LTTI series" to "R1LV08xxA series". This generation change is scheduled as follows.

"R1LV08xxA series" is upper compatible to "M5M5W816/817 series" and "HM62V8100LTTI series", from the electrical characteristics specifications and package dimension. We'd greatly appreciate your kind understanding.

<Generation Change>

This generation change is to shrink die with 0.15um technology, in order to improve the production efficiency.

All packages' outline is completely same.

We make a use of Renesas original technology with adoption of memory cell with TFT load and capacitor structure for this part. By adopting the original technology, we could offer an excellent high reliability against Soft error and latch-up phenomenon.

<Document and Sample availability>

Data sheet : already available(Rev. 0.02) Oct., 2009(Rev. 1.0)

ES sample : already available

CS sample : Nov., 2009

Reliability report : Nov., 2007

<Launch date of this "generation change">

We will be starting to ship out new generation parts accordingly from Dec. in 2009. There is a possibility to ship out both current parts series (M5M5W816/817, HM62V8100LTTI) and new parts series (R1LV08xxA) in parallel, because of our inventory of current parts series.

(c) 2009. Renesas Technology Corp., All rights reserved.

RENESAS

<replaced part name list on this generation change>

1) replaced part name on this generation change

** 8Mb (x8) 3V **

Package	Current part name		Replaced part name
TSOP II	HM62V8100LTTI-5	→	R1LV0808ASB-5SI
	HM62V8100LTTI-5SL	↗	R1LV0808ASB-7SI

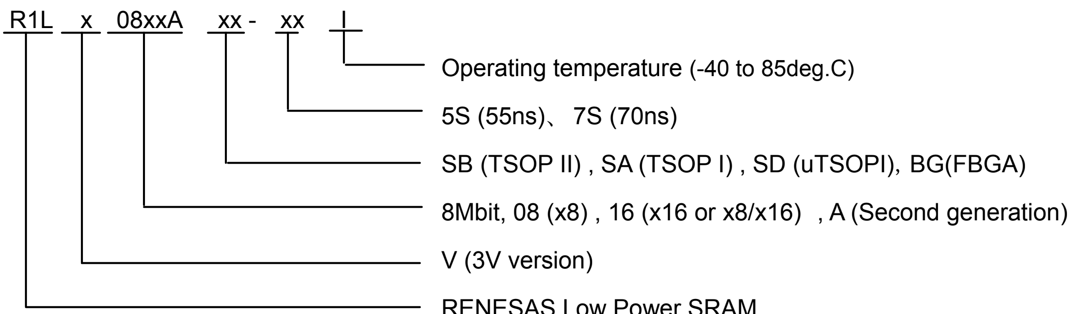
** 4Mb (x16) 3V**

Package	Current part name		Replaced part name
TSOP II	M5M5W816TP-70HI	→	R1LV0816ASB -7SI
	M5M5W816TP-55HI	→	R1LV0816ASB -5LI
FBGA	M5M5W816WG-70HI	→	R1LV0816ABG -7SI
	M5M5W816WG-55HI	→	R1LV0816ABG -5LI

** 4Mb (x16) 3V**

Package	Current part name		Replaced part name
uTSOP	M5M5W817KT-70HI	→	R1LV0816ASD-5SI/7SI

2) Explanation about part name



Basically each correspondence follows above the list, however we'd like to ask you all to check data sheet of new part and to confirm whether all characteristics satisfy you or not.

<Comparison table between current parts series and new parts series>

Circuit	M5M5W816/817 Series	HM62V8100LTTI Series	R1LV08**A Series
Memory cell structure	Full CMOS cell	Full CMOS cell	TFT load capacitor cell
Peripheral circuit	CMOS	CMOS	CMOS

Process	M5M5W816/817 Series	HM62V8100LTTI Series	R1LV08**A Series
Wafer process layer	1poly, 2metal, 1tungsten	1poly, 3metal	8poly, 2metal, 1tungsten
Design rule	0.18μm	0.18μm	0.15μm
Gate oxide thickness	5.7nm	Memory cell : 2.3nm peripheral circuit : 8nm	6.5nm
Gate oxide material	SiO2	SiO2	SiO2
Passivation thickness	0.78um	0.6um	1.5um
Passivation material	p-SiN	SiN	HDP, p-SiN

Assembly	M5M5W816/817Series	HM62V8100LTTI Series	R1LV08**ASB Series R1LV0816ASA Series	R1LV08**ASD Series R1LV08**ABG Series
Resin material	Epoxy Resin	Epoxy Resin	Epoxy Resin	Epoxy Resin
Frame material	Fe-Ni 42 alloy	Fe-Ni 42 alloy	Cu	Fe-Ni 42 alloy
Lead frame plating	Sn/Cu	Sn/Bi	Sn	Sn/Cu
Inner wire material	Au	Au	Au	Au
Die bond material	Resin	Resin	Resin	Resin
Solder ball material for FBGA	Sn-Ag-Cu	-	-	Sn-Ag-Cu

Package	HM62V8100LTTI	R1LV0808A*
TSOP II	O	O

Package	M5M5W816*	R1LV0816A*
TSOP II	O	O
FBGA	O	O

Package	M5M5W817*	R1LV0816A*
uTSOP	O	O
TSOP I	-	O

RENESAS