

RENESAS TECHNICAL UPDATE

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Product Category	SRAM		Document No.	TN-M62-A137A/E	Rev.	1.00
Title	Notice about the generation change of 2Mbit LP SRAM (3V ver.) series		Information Category	Product Generation Change		
Applicable Product	2Mbit Low Power SRAM (3V ver.) ; M5M5V208A series & M5M5V216A series	Lot No.	Reference Document	Nothing		
		All shipped lots after '11/4				

Please be informed that we, Renesas will be proceeding with the product generation change of 2Mbit LP SRAM 3V version, from "M5M5V208A series" to "R1LV0208B series" and from "M5M5V216A series" to "R1LV0216B series". This generation change is scheduled as follows.

So your acceptance of paper qualification and your kind understanding are greatly appreciated.

<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.

<Objective parts>

2Mb (x8) 3V, sTSOP : from M5M5V208AKV series to R1LV0208BSA series

2Mb (x16) 3V, TSOP (normal bend) : from M5M5V216ATP series to R1LV0216BSB series

<Document and Sample availability>

Data sheet : Jan., 2011 (preliminary) Mar., 2011 (fixed version)

ES sample : Jan., 2011

CS sample : Mar., 2011

Reliability report : Mar., 2011

<Launch date of this "generation change">

We will be starting to ship out new generation parts accordingly from Apr. in 2011. There is a possibility to ship out both current parts series (M5M5V208A series & M5M5V216A series) and new parts series (R1LV0208B series and R1LV0216B series) in parallel, because of our inventory of current parts series.

<replaced part name list on this generation change>

1) replaced part name on this generation change

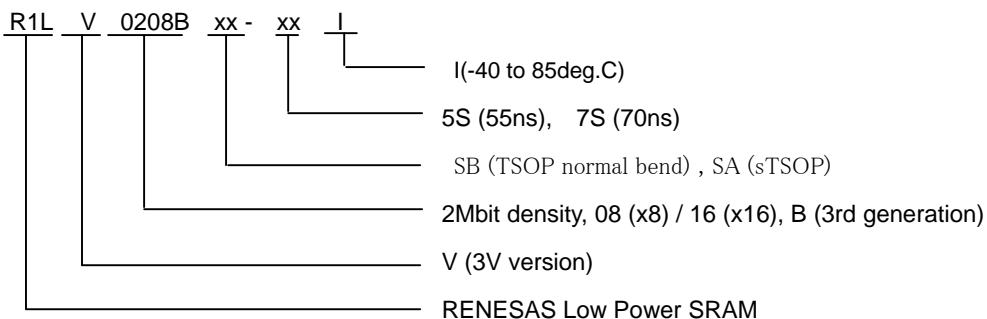
<2Mb Low Power SRAM(3V), x8bit>

Package	Current part name	Replaced part name
sTSOP	Not available	R1LV0208BSA-5SI
	M5M5V208AKV-70HI	R1LV0208BSA-7SI

<2Mb Low Power SRAM(3V), x16bit >

Package	Current part name	Replaced part name
TSOP	M5M5V216ATP-55HI	R1LV0216BSB-5SI
(normal bend)	M5M5V216ATP-70HI	R1LV0216BSB-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	M5M5V208A series M5M5V216A series	R1LV0208A series R1LV0216A series
Memory cell structure	TFT load	TFT load capacitor cell
Peripheral circuit	CMOS	CMOS

Process	M5M5V208A series M5M5V216A series	R1LV0208A series R1LV0216A series
Wafer process layer	3poly, 2metal	8poly, 2metal, 1tungsten
Design rule	0.25um	0.15um
Gate oxide thickness	7nm	6.5nm
Gate oxide material	SiO2	SiO2
Passivation thickness	0.75um	0.75um
Passivation material	p-SiN	p-SiN

Assembly	M5M5V208A series M5M5V216A series	R1LV0208A series R1LV0216A series
Resin material	Epoxy Resin	Epoxy Resin
Frame material	Fe-Ni 42 alloy	R1LV0208A series : Fe-Ni 42 alloy, R1LV0216A series : Cu
Lead frame plating	Sn/Cu	R1LV0208A series : Sn/Cu, R1LV0216A series : Sn
Inner wire material	Au	Au
Die bond material	Resin	Resin

Sincerely yours.