

## Product Change Notice

(PCN tracking number: CST-R2-AJ129 Rev.1.0)

August 1, 2018

**To:** Valued Renesas Customer

**Renesas Product** Standard SRAM products.

**Summary:**

**Change Description:** **Assembly site transfer and material change for Renesas SRAM products assembled in Renesas Semiconductor (Beijing) Co., Ltd.**

**Reason for Change:** Assembly site transfer to serve the objective of stable supply  
Assembly material change to serve the objective of stable supply and further improve mounting reliability

**Identification:** Identifiable by the orderable part name marked on a shipping label

**Anticipated Impact:**

- Assembly material, die thickness
- Moisture sensitivity level  
(Affected package type: 28pin-SOP, 52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ)
- Packing Specification (Affected packing type: Magazine, Tape & Reel)

**Schedule:** 52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ : June 2019  
28pin-SOP, 32pin-SOP : November 2019

**Supplemental Information:** Refer to pp. 3 - 6 in this notification and the attachment (Appendix for CST-R2-AJ129)

**Contact:** Renesas Electronics Corporation  
Broad-based Solution Business Unit, Industrial Analog & Power Business Division,  
Analog Products Department, Standard Memory Products Section

**Attachments:** Appendix for CST-R2-AJ129

In case of any questions, please contact your Renesas sales representative.

Note:

1. Acknowledgement must be received by Renesas within 30 days or Renesas will consider the change as approved.
2. If timely acknowledgement is provided by Customer, then Customer shall have 90 days from the date of acknowledgement of this PCN in which to make any objections to the PCN. If Customer fails to make objections to this PCN within 90 days of the acknowledgement of the PCN then Renesas will consider the PCN changes as approved.
3. If customer cannot accept the PCN then customer must provide Renesas with a last time buy demand and purchase order.

## Customer Response (PCN tracking number: CST-R2-AJ129 )

Please response in the case you could not accept this PCN.  
(to be returned by email or mail)

Company: \_\_\_\_\_

Name & Position: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
Signature of customer

**The reason why you could not accept this PCN (please comment below);**

## 1. Background of Change

Renesas announces assembly site transfer and material change for Renesas SRAM products assembled in Renesas Semiconductor (Beijing) Co., Ltd. The reasons of these changes are as follows:

- Assembly site transfer to serve the objective of stable supply
- Assembly material change to serve the objective of stable supply and further improve mounting reliability

In addition, packing specification will be changed for ease of procurement.

We greatly appreciate your understanding and cooperation in this matter.

## 2. Details of Change

Details of change are described according to each package type in the following.

(1) Affected package type : 32pin-SOP

Affected parts : R1LP0108ESN-5SI, R1LV0108ESN-5SI, R1LP0408DSP-5SI, RMLV0408EGSP-4S2

Comparison Table

Item		Pre-change	Post-change	
<b>Assembly</b>	Site Name	Renesas Semiconductor (Beijing) Co., Ltd.	Greatek Electronics Inc.	
	Site Location	China	Taiwan	
	Material	Base Metal of Lead Frame	Cu	No change
		Lead Plating	Sn	No change
	Marking on package surface	Current specification Refer to the attachment.	No change	
<b>Moisture Sensitivity Level</b>		MSL3	No change	
<b>Packing Specification</b>	Magazine (Tube)	Current Specification	New Specification	
		Dimensions of Magazine will be changed. Refer to the attachment.		
	Tape & Reel	Current Specification	New Specification	
		Dimensions of emboss tape will be changed. Refer to the attachment.		

Before and after this change,

- Package form, fit and pin assignment are unchanged.
- Along with this site change, the inner lead form of lead frame and die thickness will be changed, while base metal, lead plating and the moisture sensitivity level are unchanged.
- The details appear in the attachment for CST-R2-AJ129.

Post-change products are completely compatible with pre-change from electrical characteristics, reliability and quality level perspectives.

(2) Affected package type : 28pin-SOP, 52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ

Affected parts : R1LP5256ESP-5SI, R1LV5256ESP-5SI

RMLV0816BGSD-4S2, RMLV1616AGSD-5S2

R1RP0408DGE-2LR/-2PI/-2PR

R1RW0408DGE-2LR/-2PI/-2PR

R1RP0416DGE-2LR/-2PI/-2PR/-2SR/-2UR/-2VR

R1RW0416DGE-2LR/-2PI/-2PR

### Comparison Table

Item		Pre-change	Post-change	
<b>Assembly</b>	Site Name	Renesas Semiconductor (Beijing) Co., Ltd.	Greatek Electronics Inc.	
	Site Location	China	Taiwan	
	Material	Base Metal of Lead Frame	42Alloy	Cu
		Lead Plating	Sn-Cu	Sn
	Marking on package surface	28pin-SOP	Current specification	No change
		52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ	Current specification	New specification
		Refer to the attachment.		
<b>Moisture Sensitivity Level</b>		MSL2	MSL3	
<b>Packing Specification</b>	Magazine (Tube)	Current Specification	New Specification	
		Dimensions of Magazine will be changed. Refer to the attachment.		
	Tape & Reel	Current Specification	New Specification	
		Dimensions of emboss tape will be changed. Refer to the attachment.		

Before and after this change,

- Package form, fit and pin assignment are unchanged.
- Base metal material of lead frame will be changed from 42Alloy to Copper in order to further improve mounting reliability such as soldering strength with printed circuit board(PCB). Accompanied with the copper lead frame, the moisture sensitivity level is changed from MSL2 to MSL3. Along with this site change, the form of inner lead and die thickness will be changed.
- Lead plating will be changed from Sn-Cu to Sn.
- The details appear in the attachment for CST-R2-AJ129.

Post-change products are completely compatible with pre-change from electrical characteristics, reliability and quality level perspectives.

### 3. Release Support and Milestones

Sample submission	52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ : March 2019 28pin-SOP, 32pin-SOP : August 2019
Reliability report	Same as above

### 4. Identification

It is identifiable by the orderable part name marked on a shipping label.

### 5. Schedule

EOL schedule for current products are as follows:

- 52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ :
  - December 2018 : EOL announcement
  - June 2019 : Input Last Time Buy amount
  - December 2019 : Last order due date
  - December 2020 : Last shipment
- 28pin-SOP, 32pin-SOP :
  - June 2019 : EOL announcement
  - December 2019 : Input Last Time Buy amount
  - June 2020 : Last order due date
  - December 2020 : Last shipment

The shipment of successor parts will be started as follows:

52pin- $\mu$ TSOP, 36pin-SOJ, 44pin-SOJ : June 2019  
28pin-SOP, 32pin-SOP : November 2019

### 6. Supplemental Information

Please refer to the attachment for CST-R2-AJ129.

## 7. Product list

Package Type	Density Vcc	Orderable Part Name	
		Pre-change	Post-change
28pin-SOP	256Kb 5V	R1LP5256ESP-5SI#B0	R1LP5256ESP-5SI#B1
		R1LP5256ESP-5SI#S0	R1LP5256ESP-5SI#S1
	256Kb 3V	R1LV5256ESP-5SI#B0	R1LV5256ESP-5SI#B1
		R1LV5256ESP-5SI#S0	R1LV5256ESP-5SI#S1
32pin-SOP	1Mb 5V	R1LP0108ESN-5SI#B0	R1LP0108ESN-5SI#B1
		R1LP0108ESN-5SI#S0	R1LP0108ESN-5SI#S1
	1Mb 3V	R1LV0108ESN-5SI#B0	R1LV0108ESN-5SI#B1
		R1LV0108ESN-5SI#S0	R1LV0108ESN-5SI#S1
	4Mb 5V	R1LP0408DSP-5SI#B0	R1LP0408DSP-5SI#B1
		R1LP0408DSP-5SI#S0	R1LP0408DSP-5SI#S1
	4Mb 3V	RMLV0408EGSP-4S2#CA0	RMLV0408EGSP-4S2#CA1
		RMLV0408EGSP-4S2#HA0	RMLV0408EGSP-4S2#HA1
52pin- $\mu$ TSOP	8Mb 3V	RMLV0816BGSD-4S2#AC0	RMLV0816BGSD-4S2#AA1
		RMLV0816BGSD-4S2#HC0	RMLV0816BGSD-4S2#HA1
	16Mb 3V	RMLV1616AGSD-5S2#AC0	RMLV1616AGSD-5S2#AA1
		RMLV1616AGSD-5S2#HC0	RMLV1616AGSD-5S2#HA1
36pin-SOJ	4Mb Fast 5V	R1RP0408DGE-2LR#B0	R1RP0408DGE-2LR#B1
		R1RP0408DGE-2PI#B0	R1RP0408DGE-2PI#B1
		R1RP0408DGE-2PR#B0	R1RP0408DGE-2PR#B1
	4Mb Fast 3V	R1RW0408DGE-2LR#B0	R1RW0408DGE-2LR#B1
		R1RW0408DGE-2PI#B0	R1RW0408DGE-2PI#B1
		R1RW0408DGE-2PR#B0	R1RW0408DGE-2PR#B1
44pin-SOJ	4Mb Fast 5V	R1RP0416DGE-2LR#B0/#BN	R1RP0416DGE-2LR#B1
		R1RP0416DGE-2PI#B0	R1RP0416DGE-2PI#B1
		R1RP0416DGE-2PR#B0/#BN	R1RP0416DGE-2PR#B1
		R1RP0416DGE-2SR#B0	R1RP0416DGE-2SR#B1
		R1RP0416DGE-2UR#B0	R1RP0416DGE-2UR#B1
		R1RP0416DGE-2VR#B0	R1RP0416DGE-2VR#B1
	4Mb Fast 3V	R1RW0416DGE-2LR#B0	R1RW0416DGE-2LR#B1
		R1RW0416DGE-2PI#B0	R1RW0416DGE-2PI#B1
		R1RW0416DGE-2PR#B0	R1RW0416DGE-2PR#B1

To: Valued Renesas Customer

Renesas Electronics Corporation  
IoT and Infrastructure Business Unit,  
Industrial and Communications Business Division,  
Standard Memory Products Section

Rev. 1.00 : August 1, 2018  
Rev. 1.01 : August 28, 2018  
Rev. 1.02 : April 22, 2019  
Rev. 1.03 : February 13, 2020  
Rev. 1.04 : January 22, 2021

## Appendix for CST-R2-AJ129

This appendix states the detailed information of PCN: CST-R2-AJ129;  
Assembly site transfer and material change for Renesas SRAM products assembled in "Renesas Semiconductor (Beijing) Co., Ltd." (hereinafter called "Renesas Semiconductor Beijing").

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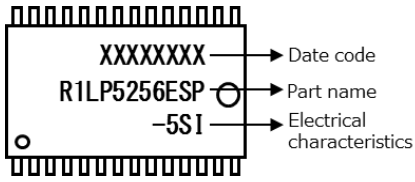
# 1. Product List

Package Type	Product Type (Density, Supply Voltage)	Organization (bit)	Orderable Part Name		Packing Type	Page No. of Comparison Table
			Pre Change (EOL product)	Post Change (Successor product)		
28pin-SOP	256Kb 5V	x8	R1LP5256ESP-5SI#B0	R1LP5256ESP-5SI#B1	Magazine	p.3
			R1LP5256ESP-5SI#S0	R1LP5256ESP-5SI#S1	Tape & Reel	
	256Kb 3V	x8	R1LV5256ESP-5SI#B0	R1LV5256ESP-5SI#B1	Magazine	p.4
			R1LV5256ESP-5SI#S0	R1LV5256ESP-5SI#S1	Tape & Reel	
32pin-SOP	1Mb 5V	x8	R1LP0108ESN-5SI#B0	R1LP0108ESN-5SI#B1	Magazine	p.5
			R1LP0108ESN-5SI#S0	R1LP0108ESN-5SI#S1	Tape & Reel	
	1Mb 3V	X8	R1LV0108ESN-5SI#B0	R1LV0108ESN-5SI#B1	Magazine	p.6
			R1LV0108ESN-5SI#S0	R1LV0108ESN-5SI#S1	Tape & Reel	
	4Mb 5V	X8	R1LP0408DSP-5SI#B0	R1LP0408DSP-5SI#B1	Magazine	p.7
			R1LP0408DSP-5SI#S0	R1LP0408DSP-5SI#S1	Tape & Reel	
	4Mb 3V	x8	RMLV0408EGSP-4S2#CA0	RMLV0408EGSP-4S2#CA1	Magazine	p.8
			RMLV0408EGSP-4S2#HA0	RMLV0408EGSP-4S2#HA1	Tape & Reel	
52pin-μTSOP	8Mb 3V	X16	RMLV0816BGSD-4S2#AC0	RMLV0816BGSD-4S2#AA1	Tray	p.9
			RMLV0816BGSD-4S2#HC0	RMLV0816BGSD-4S2#HA1	Tape & Reel	
	16Mb 3V	x16	RMLV1616AGSD-5S2#AC0	RMLV1616AGSD-5S2#AA1	Tray	p.10
			RMLV1616AGSD-5S2#HC0	RMLV1616AGSD-5S2#HA1	Tape & Reel	
36pin-SOJ	4Mb Fast 5V	x8	R1RP0408DGE-2LR#B0	R1RP0408DGE-2LR#B1	Magazine	p.11
			R1RP0408DGE-2PI#B0	R1RP0408DGE-2PI#B1		
			R1RP0408DGE-2PR#B0	R1RP0408DGE-2PR#B1		
	4Mb Fast 3V	x8	R1RW0408DGE-2LR#B0	R1RW0408DGE-2LR#B1	Magazine	p.12
			R1RW0408DGE-2PI#B0	R1RW0408DGE-2PI#B1		
			R1RW0408DGE-2PR#B0	R1RW0408DGE-2PR#B1		
44pin-SOJ	4Mb Fast 5V	x16	R1RP0416DGE-2LR#B0	R1RP0416DGE-2LR#B1	Magazine	p.13
			R1RP0416DGE-2LR#BN			
			R1RP0416DGE-2PI#B0	R1RP0416DGE-2PI#B1		
			R1RP0416DGE-2PR#B0	R1RP0416DGE-2PR#B1		
			R1RP0416DGE-2PR#BN			
			R1RP0416DGE-2SR#B0	R1RP0416DGE-2SR#B1		
			R1RP0416DGE-2UR#B0	R1RP0416DGE-2UR#B1		
	R1RP0416DGE-2VR#B0	R1RP0416DGE-2VR#B1				
	4Mb Fast 3V	x16	R1RW0416DGE-2LR#B0	R1RW0416DGE-2LR#B1	Magazine	p.14
			R1RW0416DGE-2PI#B0	R1RW0416DGE-2PI#B1		
R1RW0416DGE-2PR#B0			R1RW0416DGE-2PR#B1			



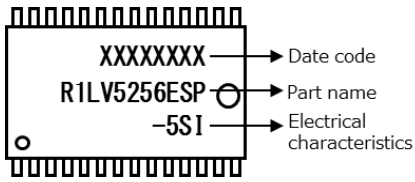
## 2. Comparison table

(1) 28pin-SOP 256Kb(5V) Part name : R1LP5256ESP-5SI

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1LP5256ESP-5SI#B0 (Magazine packing)	R1LP5256ESP-5SI#B1 (Magazine packing)
		R1LP5256ESP-5SI#S0 (Tape & Reel packing)	R1LP5256ESP-5SI#S1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
JEITA Package Code		P-SOP28-8.4x17.5-1.27	←
Package marking specification			←
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy paste	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : MP024PC	New specification
	Storage number	30pcs/magazine	←
	Number of magazines (Max.)	40 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Tape & Reel packing	Embossed tape	Emboss type name : MTE2416H-28P2W-C	←
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	347mm x 368mm x 54mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)

- Note: Regarding the details of change in the magazine, please see p.15.

(2) 28pin-SOP 256Kb(3V) Part name : R1LV5256ESP-5SI

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1LV5256ESP-5SI#B0 (Magazine packing)	R1LV5256ESP-5SI#B1 (Magazine packing)
		R1LV5256ESP-5SI#S0 (Tape & Reel packing)	R1LV5256ESP-5SI#S1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
JEITA Package Code		P-SOP28-8.4x17.5-1.27	←
Package marking specification			←
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy paste	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : MP024PC	New specification
	Storage number	30pcs/magazine	←
	Number of magazines (Max.)	40 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Tape & Reel packing	Embossed tape	Emboss type name : MTE2416H-28P2W-C	←
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	347mm x 368mm x 54mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)

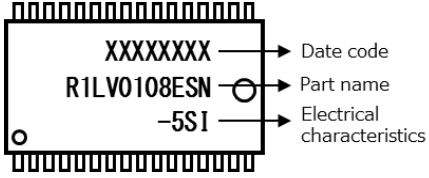
- Note: Regarding the details of change in the magazine, please see p.15.

(3) 32pin-SOP 1Mb(5V) Part name : R1LP0108ESN-5SI

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1LP0108ESN-5SI#B0 (Magazine packing)	R1LP0108ESN-5SI#B1 (Magazine packing)
		R1LP0108ESN-5SI#S0 (Tape & Reel packing)	R1LP0108ESN-5SI#S1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
JEITA Package Code		P-SOP32-11.4x20.75-1.27	←
Package marking specification			←
Assembly Material	Lead frame material	Cu	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn (pure tin)	Sn (pure tin)
	Die bonding	Epoxy paste	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-free)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : MP525PC	New specification
	Storage number	25pcs/magazine	←
	Number of magazines (Max.)	36 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Tape & Reel packing	Embossed tape	Emboss type name : MTE3216H-32P2M-A	New specification
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	362mm x 340mm x 60mm	←
Moisture-proof performance		MSL 3	←
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin display)

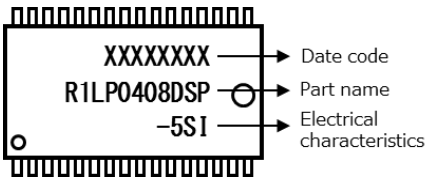
● Note: Regarding the details of change in the magazine and embossed tape, please see pp.15-16.

(4) 32pin-SOP 1Mb(3V) Part name : R1LV0108ESN-5SI

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1LV0108ESN-5SI#B0 (Magazine packing)	R1LV0108ESN-5SI#B1 (Magazine packing)
		R1LV0108ESN-5SI#S0 (Tape & Reel packing)	R1LV0108ESN-5SI#S1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
JEITA Package Code		P-SOP32-11.4x20.75-1.27	←
Package marking specification			←
Assembly Material	Lead frame material	Cu	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn (pure tin)	Sn (pure tin)
	Die bonding	Epoxy paste	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-free)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : MP525PC	New specification
	Storage number	25pcs/magazine	←
	Number of magazines (Max.)	36 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Tape & Reel packing	Embossed tape	Emboss type name : MTE3216H-32P2M-A	New specification
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	362mm x 340mm x 60mm	←
Moisture-proof performance		MSL 3	←
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin display)

- Note: Regarding the details of change in the magazine and embossed tape, please see pp.15-16.

(5) 32pin-SOP 4Mb(5V) Part name : R1LP0408DSP-5SI

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1LP0408DSP-5SI#B0 (Magazine packing)	R1LP0408DSP-5SI#B1 (Magazine packing)
		R1LP0408DSP-5SI#S0 (Tape & Reel packing)	R1LP0408DSP-5SI#S1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Gretek Electronics Inc. (Taiwan)
JEITA Package Code		P-SOP32-11.4x20.75-1.27	←
Package marking specification			←
Assembly Material	Lead frame material	Cu	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn (pure tin)	Sn (pure tin)
	Die bonding	Epoxy paste	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-free)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : MP525PC	New specification
	Storage number	25pcs/magazine	←
	Number of magazines (Max.)	36 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Tape & Reel packing	Embossed tape	Emboss type name : MTE3216H-32P2M-A	New specification
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	362mm x 340mm x 60mm	←
Moisture-proof performance		MSL 3	←
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin display)

- Note: Regarding the details of change in the magazine and embossed tape, please see pp.15-16.

(6) 32pin-SOP 4Mb(3V) Part name : RMLV0408EGSP-4S2

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		RMLV0408EGSP-4S2#CA0 (Magazine packing)	RMLV0408EGSP-4S2#CA1 (Magazine packing)
		RMLV0408EGSP-4S2#HA0 (Tape & Reel packing)	RMLV0408EGSP-4S2#HA1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Gretek Electronics Inc. (Taiwan)
JEITA Package Code		P-SOP32-11.4x20.75-1.27	←
Package marking specification			←
Assembly Material	Lead frame material	Cu	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn (pure tin)	Sn (pure tin)
	Die bonding	Epoxy paste	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-free)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : MP525PC	New specification
	Storage number	25pcs/magazine	←
	Number of magazines (Max.)	36 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Tape & Reel packing	Embossed tape	Emboss type name : MTE3216H-32P2M-A	New specification
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	362mm x 340mm x 60mm	←
Moisture-proof performance		MSL 3	←
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin display)

- Note: Regarding the details of change in the magazine and embossed tape, please see pp.15-16.

(7) 52pin- $\mu$ T SOP 8Mb(3V) Part name : RMLV0816BGSD-4S2

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		RMLV0816BGSD-4S2#AC0 (Tray packing) RMLV0816BGSD-4S2#HC0 (Tape & Reel packing)	RMLV0816BGSD-4S2#AA1 (Tray packing) RMLV0816BGSD-4S2#HA1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
JEITA Package Code		P-TSOP(2)52-8.89x10.79-0.40	←
Package marking specification			
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy film	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Tray packing	Tray	JEDEC Tray with Renesas Logo (Tray type name : L196-24)	←
	Storage number	230pcs/tray	←
	Number of trays (Max.)	10 trays + 1 tray (cover)	←
	Inner box size (LxWxH)	351mm x 175mm x 104mm	←
Tape & Reel packing	Embossed tape	Current specification	<b>Unchanged</b>
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	289mm x 264mm x 60mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)

(8) 52pin- $\mu$ TSOP 16Mb(3V) Part name : RMLV1616AGSD-5S2

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		RMLV1616AGSD-5S2#AC0 (Tray packing)	RMLV1616AGSD-5S2#AA1 (Tray packing)
		RMLV1616AGSD-5S2#HC0 (Tape & Reel packing)	RMLV1616AGSD-5S2#HA1 (Tape & Reel packing)
Assembly line		Renesas Semiconductor Beijing (China)	Gretek Electronics Inc. (Taiwan)
JEITA Package Code		P-TSOP(2)52-8.89x10.79-0.40	←
Package marking specification			
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy film	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Tray packing	Tray	JEDEC Tray with Renesas Logo (Tray type name : L196-24)	←
	Storage number	230pcs/tray	←
	Number of trays (Max.)	10 trays + 1 tray (cover)	←
	Inner box size (LxWxH)	351mm x 175mm x 104mm	←
Tape & Reel packing	Embossed tape	Current specification	<b>Unchanged</b>
	Storage number	1,000pcs/reel	←
	Inner box size (LxWxH)	289mm x 264mm x 60mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)



(9) 36pin-SOJ 4Mb Fast(5V) x8 Part name : R1RP0408DGE-\*\*\*

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1RP0408DGE-2LR/-2PI/-2PR#B0 (Magazine packing)	R1RP0408DGE-2LR/-2PI/-2PR#B1 (Magazine packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
Country of origin display		CHINA	TAIWAN
JEITA Package Code		P-SOJ36-10.16x23.39-1.27	←
Package marking specification (The Electrical characteristics is an example.)			
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy film	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : JP400PC	New specification
	Storage number	22pcs/magazine	←
	Number of magazines (Max.)	60 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)

- Note: Regarding the details of change in the magazine, please see p.15.
- Regarding R1RP0408DGE-\*\*\*, laser marking on the package's surface is processed at final test site.

(10) 36pin-SOJ 4Mb Fast(3V) x8 Part name : R1RW0408DGE-\*\*\*

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1RW0408DGE-2LR/-2PI/-2PR#B0 (Magazine packing)	R1RW0408DGE-2LR/-2PI/-2PR#B1 (Magazine packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
Country of origin display		CHINA	TAIWAN
JEITA Package Code		P-SOJ36-10.16x23.39-1.27	←
Package marking specification (The Electrical characteristics is an example.)			
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy film	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness		Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : JP400PC	New specification
	Storage number	22pcs/magazine	←
	Number of magazines (Max.)	60 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)

- Note: Regarding the details of change in the magazine, please see p.15.
- Regarding R1RW0408DGE-\*\*\*, laser marking on the package's surface is processed at final test site.

(11) 44pin-SOJ 4Mb Fast(5V) x16 Part name : R1RP0416DGE-\*\*\*

Item	Pre change (EOL product)	Post change (Successor product)	
Orderable part name	R1RP0416DGE -2LR/-2PI/-2PR/-2SR/-2UR/-2VR#B0 (Magazine packing) -2LR/-2PR#BN (Magazine packing)	R1RP0416DGE -2LR/-2PI/-2PR/-2SR/-2UR/-2VR#B1 (Magazine packing)	
Assembly line	Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)	
Country of origin display	CHINA	TAIWAN	
JEITA Package Code	P-SOJ44-10.16x28.47-1.27	←	
Package marking specification (The Electrical characteristics is an example.)			
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy film	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
Die thickness	Current thickness	Changed	
Final test line	Powertech Technology Inc. (Taiwan)	←	
Magazine packing	Magazine	Magazine code : JP400PC	New specification
	Storage number	18pcs/magazine	←
	Number of magazines (Max.)	60 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Moisture-proof performance	MSL 2	MSL 3	
Shipping label	Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)	

- Note: Regarding the details of change in the magazine, please see p.15.
- Regarding R1RP0416DGE-\*\*\*, laser marking on the package's surface is processed at final test site.

(12) 44pin-SOJ 4Mb Fast(3V) x16 Part name : R1RW0416DGE-\*\*\*

Item		Pre change (EOL product)	Post change (Successor product)
Orderable part name		R1RW0416DGE-2LR/-2PI/-2PR#B0 (Magazine packing)	R1RW0416DGE-2LR/-2PI/-2PR#B1 (Magazine packing)
Assembly line		Renesas Semiconductor Beijing (China)	Greatek Electronics Inc. (Taiwan)
Country of origin display		CHINA	TAIWAN
JEITA Package Code		P-SOJ44-10.16x28.47-1.27	←
Package marking specification (The Electrical characteristics is an example.)			
Assembly Material	Lead frame material	42Alloy	Cu
	Inner lead pattern	Current pattern	Changed
	Outer lead pattern	Current pattern	Unchanged
	Lead plating	Sn-Cu	Sn (pure tin)
	Die bonding	Epoxy film	Epoxy paste
	Wire bonding	Au	Au
	Mold	Epoxy resin (Halogen-included)	Epoxy resin (Halogen-free)
	Die thickness	Current thickness	Changed
Final test line		Powertech Technology Inc. (Taiwan)	←
Magazine packing	Magazine	Magazine code : JP400PC	New specification
	Storage number	18pcs/magazine	←
	Number of magazines (Max.)	60 magazines	←
	Inner box size (LxWxH)	595mm x 170mm x 72mm	←
Moisture-proof performance		MSL 2	MSL 3
Shipping label		Current specification	No change in format (Changes in orderable part name, country of origin and MSL display)

- Note: Regarding the details of change in the magazine, please see p.15.
- Regarding R1RW0416DGE-\*\*\*, laser marking on the package's surface is processed at final test site.

### 3. Packing specification

(1) Change the specification of the magazine

- The cross-sectional shape of magazine is to be changed (see below).
- No change in the length of magazine (L=550mm).

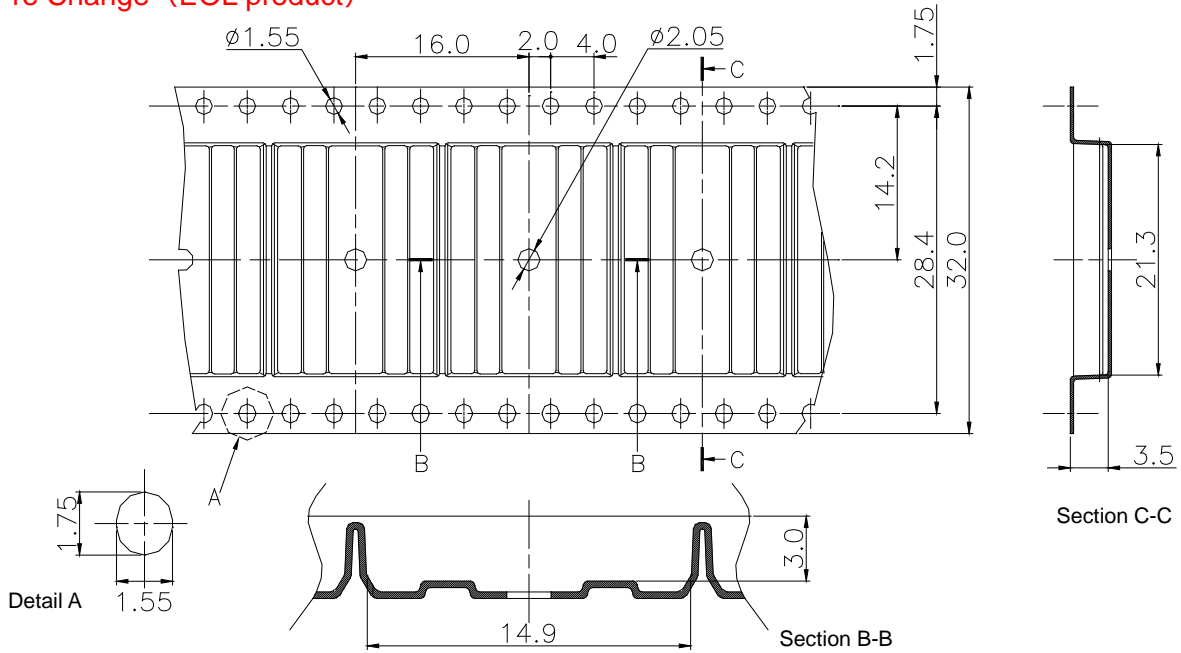
	Pre Change (EOL product)	Post Change (Successor product)
28pin-SOP (Unit:mm)		
32pin-SOP (Unit:mm)		
36pin-SOJ 44pin-SOJ (Unit:mm)		

(2) Change the specification of the 32pin-SOP Tape & Reel

- The pocket shape and pocket size of embossed carrier tape are changed, but the package seat position in taping pocket is not changed.
- No change in width and pitch of embossed carrier tape.
- No change in reel diameter.

	Width of embossed	Pitch of embossed	Pocket size	PKG seat position	Reel diameter
Pre Change	32mm	16mm	14.9mm x 21.3mm	3.0mm	330mm
Post Change	32mm	16mm	14.6mm x 20.9mm	3.0mm	330mm

Pre Change (EOL product)



Post Change (Successor product)

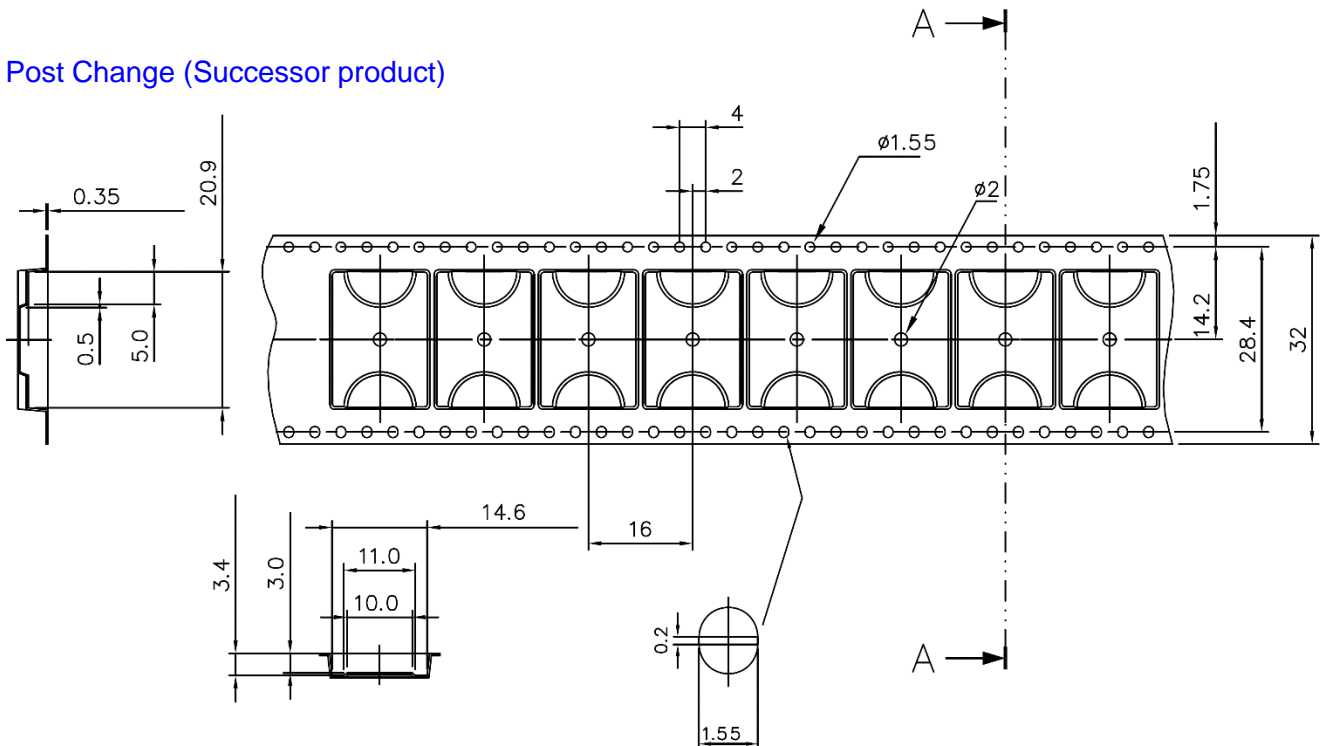


Figure. 32pin-SOP Embossed carrier tape Dimensions (Unit: mm)

## 4. Shipping label

- Label format itself is unchanged.
- Written specifications: "Orderable part name", "the country of origin" and MSL are changed.

See below for example.

( Note: Regarding R1LP0108ESN-5SI, R1LV0108ESN-5SI, R1LP0408DSP-5SI, RMLV0408EGSP-4S2, no change in MSL. )

- (1) Example of the part names which first two letters start with RM

Pre Change  
(EOL product)

Pb-Free T. **Display of the country of origin** **MSL:2**

RENESAS

D/N RMLV1616AGSD-5S2 ACOD402000

SPN **RMLV1616AGSD-5S2#ACO** ACOD402000 **MSL**

2018/02/01 **MC:JPCN**  
ASSEMBLED IN CHINA  
FROM WAFERS OF JAPAN

**Orderable part name**

PID 15490GF90F-001

QTY 777 (PARTIAL)

PCD P000002098

T/c 1849 80221E0E

S. LOT ZEZ933093Z



Post Change  
(Successor product)

Pb-Free T. **MSL:3**

RENESAS

D/N RMLV1616AGSD-5S2 AA1MB01000

SPN **RMLV1616AGSD-5S2#AA1** AA1MB01000

2020/02/01 **MC:JPTW**  
ASSEMBLED IN TAIWAN  
FROM WAFERS OF JAPAN

PID 19490GF90G-001

QTY 777 (PARTIAL)

PCD P00000209G

T/c 2049 00221E0E

S. LOT ZGZ933093Z



- (2) Example of the part names which first two letters start with R1

Pre Change  
(EOL product)

Pb-Free T. **Display of the country of origin** **MSL:3**

RENESAS

D/N R1LP0408DSP-5SI B00P

SPN **R1LP0408DSP-5SI#B0** B00P **MSL**

2018/02/01 **MC:JPCN**  
ASSEMBLED IN CHINA  
FROM WAFERS OF JAPAN

**Orderable part name**

PID 157009G00F-001

QTY 777 (PARTIAL)

PCD R1LP0408DSP-5SI#B0

T/c 1849 8022ZE2C

S. LOT ZEZ533002Z



Post Change  
(Successor product)

Pb-Free T. **MSL:3**

RENESAS

D/N R1LP0408DSP-5SI B10R

SPN **R1LP0408DSP-5SI#B1** B10R

2020/02/01 **MC:JPTW**  
ASSEMBLED IN TAIWAN  
FROM WAFERS OF JAPAN

PID 197009G00G-001

QTY 777 (PARTIAL)

PCD R1LP0408DSP-5SI#B1

T/c 2049 0022ZE2C

S. LOT ZGZ538002Z

Revision history	Appendix for CST-R2-AJ129
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Rev.	Date	Outline of changed content
1.00	2018/8/1	Initial issue
1.01	2018/8/24	Added the detailed figure about dimensions of embossed carrier tape
1.02	2019/4/22	<p>p.9, p.10 :</p> <ul style="list-style-type: none"> <li>Revised the embossed carrier tape from “New specification” to “Unchanged.”</li> <li>Deleted the footnote: “Note: Regarding the details of change in the embossed tape, please see p.16. “</li> </ul>
1.03	2020/2/13	<p>p.15 :</p> <ul style="list-style-type: none"> <li>Corrected dimensions in cross sectional drawings of 28pin- and 32pin- SOP’s magazine for Post Change (Successor) products.</li> </ul>
1.04	2021/1/22	<p>p.16 :</p> <ul style="list-style-type: none"> <li>Corrected the following typo.</li> </ul> <p>(wrong) Figure. 52pin-<math>\mu</math>TSOP Embossed carrier tape Dimensions  (right) Figure. 32pin-SOP Embossed carrier tape Dimensions</p>