

Product Change Notice (PCN)

Subject: Assembly factory addition and assembly materials addition & change for RL78 family
LQFP package products

Publication Date: 12/29/2021

Effective Date: 3/1/2022

Revision Description:

Initial release.

Description of Change:

	PKG type		Products Group								
			G13	G14	G1F	I1B	I1C	L12	L13	L1A	L1C
Case1	LQFP	07x07mm 32pin		√	√			√			
	LFQFP	07x07mm 48pin	√	√	√			√			
	LFQFP	10x10mm 64pin	√	√	√		√	√	√		
Case2	LQFP	10x10mm 44pin	√	√				√			
Case3	LFQFP	12x12mm 80pin	√	√		√	√		√	√	√
	LFOFP	14x14mm 100pin	√	√		√	√				

1. Case1

Kawashiri wafer and Saijo wafer:

Greatek Electronics Inc., (Greatek) addition

“Note: Greatek products are only full carton products and T&R products.”

“Refer to the difference specification for details.”

MCP-AB-21-0075_RL78_LQFP_Difference specification1_Greatek

2. Case2

Kawashiri wafer:

Greatek Electronics Inc., (Greatek) addition

Saijo wafer:

Greatek Electronics Inc., (Greatek) addition

Renesas Semiconductor KL Sdn. Bhd. (RSKL) addition

“Note: Greatek products are only full carton products and T&R products.”

“Refer to the difference specification for details.”

MCP-AB-21-0075_RL78_LQFP_Difference specification1_Greatek

MCP-AB-21-0084_RL78_LQFP_Difference specification2_RSKL_44pin

3. Case3

Kawashiri wafer and Saijo wafer:

Greatek Electronics Inc., (Greatek) addition

Renesas Semiconductor (Beijing) Co.,Ltd (RSB) lead frame consolidation

“Note: Greatek products are only full carton products and T&R products.”

“Refer to the difference specification for details.”

MCP-AB-21-0075_RL78_LQFP_Difference specification1_Greatek

MCP-AB-21-0079_RL78_LQFP_Difference specification3_RSB_LF

4. Description of change point case

	Before change			After change		
	WP&WT	ASSY	FT	WP&WT	ASSY	FT
Case1	Kawashiri Saijo	RSB ASEKH	RSB Kyec	Kawashiri Saijo	RSB ASEKH Greatek	RSB Kyec
Case2	Kawashiri	RSKL ASEKH	RSKL Kyec	Kawashiri	RSKL ASEKH Greatek	RSKL Kyec
	Saijo	ASEKH	Kyec	Saijo	RSKL** ASEKH Greatek*	RSKL** Kyec
Case3	Kawashiri Saijo	RSB ASEKH	RSB Kyec	Kawashiri Saijo	RSB*** ASEKH Greatek*	RSB Kyec

Note: Description for change point.

“Bold: Factory addition”

*: Some products add Greatek and some do not.

**: Some products add RSKL and some do not.

***: Change the lead frame. However, there are non-target products.

Affected Product List:

Refer to attached file “PN_list_RL78_LQFP_Greatek_RSKL_RSB”.

Reason for Change:

Stable supply for RL78 series LQFP products.

Impact on specifications and characteristics:

No change.

Impact on quality & reliability

No change.

Product Identification:

Possible to confirm the production history data from the packing label or trace code.

Qualification Status: We will prepare by 2/28/2022.

Sample Availability Date: 3/1/2022

Device Material Declaration: Contact Renesas sales, distributor, or agency.

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 receipt of this PCN to make any objections to this PCN. If Customer fails to make objections to this PCN within 90 days of the receipt 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.

For additional information regarding this notice, please contact your Renesas sales representative.

										Addition for Greek (Additional WP)		Addition for RSKL (Existing)		Change for RSB (Existing)		Applicable difference document				Reliability report	
	Package	Group	Case	Kawachi wafer	Saio wafer		Saio wafer with Cu wire	LF consolidation		Greek addition	Addition for RSKL	LF consolidation for RSB									
RSF104BAAP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BAGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BAGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104CAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104CAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BDAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BDGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BDGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BEGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BEGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BFGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BFGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGAFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1			MCR-22-0100								
RSF104BGCGFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGCGFP#50	7mm x 7mm 32pin	RL78/G14	Case1	Y						Difference specification 1			MCR-22-0100								
RSF104BGAFP#10	7mm x 7mm 32pin	RL78/G14	Case1	Y	Y					Difference specification 1											

Booking pin	Package	Group	Case	Addition for Greek (Additional WP)		Addition for RSKL (Existing)		Change for RSB (Existing)		Applicable difference document		Reliability report			
				Kawachi wafer	Saio wafer	Saio wafer with Cu wire	LF consolidation	Greatest addition	Addition for RSKL	LF consolidation for RSB					
RSF11BGCAF#10	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGCAF#50	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGCGF#10	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGCGF#50	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGEAF#10	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGEAF#50	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGEGB#10	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF11BGEGB#50	7mm x 7mm 48pin	RL78/G1F	Case1	Y						Difference specification 1			MCR-22-0100		
RSF10RG8AF#10	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RG8AF#50	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RG8GB#10	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RG8GB#50	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGAFA#10	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGAFA#50	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGAGF#10	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGAGF#50	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGCFA#10	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGCFA#50	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGCGB#10	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF10RGCGB#50	7mm x 7mm 48pin	RL78/L12	Case1	Y	Y					Difference specification 1			MCR-22-0100		
RSF100FAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y					Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FAGP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FAGP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FCAPP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FCAPP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FCGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FCGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FDAPP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FDAPP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FDGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FDGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FEAP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FEAP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FEAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FEAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FEGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FEGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FFAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FFAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FFGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FFGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FGAPP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FGAPP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100FGAPP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100GGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100GGFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100GGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100HAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100HAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100HAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100HGGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100HGGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100JAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100JAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100JAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100JGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100JGFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100JGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100KAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100KAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100KAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100KDFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100KDFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100KDFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100LAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100LAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100LAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100LDFF#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100LDFF#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF100LDFF#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAGFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAGFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAGFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAPP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAPP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FAPP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FFAFP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FFAFP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FFAFP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FGAPP#10	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FGAPP#30	10mm x 10mm 44pin	RL78/G13	Case2	Y	Y	Y	Y			Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF101FGAPP#50	10mm x 10mm 44pin	RL78/G13	Case2	Y											

											Reliability report		
	Package	Group	Case	Addition for Greek (Additional WP)	Addition for RSKL (Existing)	Change for RSB (Existing)	Applicable difference document						
				Kawachi wafer	Saio wafer	Saio wafer with Cu wire	LF consolidation	Greek addition	Addition for RSKL	LF consolidation for RSB			
RSF10RFAGFP#10	10mm x 10mm 44pin	RL78/L12	Case2	Y				Difference specification 1			MCR-22-0101		
RSF10RFAGFP#50	10mm x 10mm 44pin	RL78/L12	Case2	Y				Difference specification 1			MCR-22-0101		
RSF10RFCAPP#10	10mm x 10mm 44pin	RL78/L12	Case2	Y	Y	Y		Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF10RFCAPP#30	10mm x 10mm 44pin	RL78/L12	Case2	Y	Y	Y		Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF10RFCAPP#50	10mm x 10mm 44pin	RL78/L12	Case2	Y	Y	Y		Difference specification 1	Difference specification 2		MCR-22-0101	MCR-22-0102	MCR-22-0103
RSF10RFCGFP#10	10mm x 10mm 44pin	RL78/L12	Case2	Y				Difference specification 1			MCR-22-0101		
RSF10RFCGFP#50	10mm x 10mm 44pin	RL78/L12	Case2	Y				Difference specification 1			MCR-22-0101		
RSF100LCAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LCAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LCGFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LCGFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LDAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LDAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LDGFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LDGFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LEAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LEAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LEGFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LEGFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LFAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LFAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LGFBB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LGFBB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LGFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LGFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LHAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LHAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LHGB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LHGB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LJAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LJAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LJGB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LJGB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF100LKAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LKAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LKDFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LKDFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LDGB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LDGB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LDFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF100LDFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LCAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LCAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LDAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LDAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LEAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LEAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LFAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LFAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LHAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LHAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LJAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LJAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LJGB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LJGB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF101LKAFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LKAFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LKDFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LKDFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LDGB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LDGB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LDFB#10	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF101LDFB#50	10mm x 10mm 64pin	RL78/G13	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LCAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LCAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LCGFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LCGFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LDAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LDAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LDGFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LDGFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LEAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LEAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LEGFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LEGFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LFAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LFAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LGFBB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LGFBB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LGFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LGFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LHAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LHAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LHGB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LHGB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LJAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LJAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y	Y			Difference specification 1			MCR-22-0100		
RSF104LJGB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LJGB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LKAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LKAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LKGB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LKGB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LAFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LAFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LDFB#10	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF104LDFB#50	10mm x 10mm 64pin	RL78/G14	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LCAFB#10	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LCAFB#50	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LCGFB#10	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LCGFB#50	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LEAFB#10	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LEAFB#50	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LEGFB#10	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LEGFB#50	10mm x 10mm 64pin	RL78/G1F	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LDFB#10	10mm x 10mm 64pin	RL78/L1C	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LDFB#50	10mm x 10mm 64pin	RL78/L1C	Case1	Y				Difference specification 1			MCR-22-0100		
RSF111LDGB#10	10mm x 10mm 64pin	RL											

					Addition for Greek (Additional WP)	Addition for RSKL (Existing)	Change for RSB (Existing)	Applicable difference document			Reliability report
	Package	Group	Case	Kavachiri water	Saip water	Saip water with Cu wire	LF consolidation	Grossly addition	Addition for RSKL	LF consolidation for RSB	
RSF10WLDFGB#50	10mm x 10mm 64pin	RL78/L13	Case1	Y				Difference specification 1			MCR-22-0100
RSF10WLEAFB#10	10mm x 10mm 64pin	RL78/L13	Case1	Y	Y			Difference specification 1			MCR-22-0100
RSF10WLEAFB#50	10mm x 10mm 64pin	RL78/L13	Case1	Y	Y			Difference specification 1			MCR-22-0100
RSF10WLEGFB#10	10mm x 10mm 64pin	RL78/L13	Case1	Y				Difference specification 1			MCR-22-0100
RSF10WLEGFB#50	10mm x 10mm 64pin	RL78/L13	Case1	Y				Difference specification 1			MCR-22-0100
RSF10WLEAFB#10	10mm x 10mm 64pin	RL78/L13	Case1	Y	Y			Difference specification 1			MCR-22-0100
RSF10WLEAFB#50	10mm x 10mm 64pin	RL78/L13	Case1	Y	Y			Difference specification 1			MCR-22-0100
RSF10WLGFB#10	10mm x 10mm 64pin	RL78/L13	Case1	Y				Difference specification 1			MCR-22-0100
RSF10WLGFB#50	10mm x 10mm 64pin	RL78/L13	Case1	Y				Difference specification 1			MCR-22-0100
RSF100MFAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MFAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MFGFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MFGFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MGAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MGAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MGFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MGFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MHAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MHAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MHGFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MHGFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MJAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MJAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF100MJGFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MJGFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MKAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MKAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MKDFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MKDFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MKGFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MKGFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MLAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MLAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MLDFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MLDFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MLGFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF100MLGFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MFAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MFAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MGAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MGAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MHAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MHAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MJAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MJAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y	Y			Difference specification 1			MCR-22-0100
RSF101MKAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MKAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MKDFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MKDFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MLAFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MLAFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MLDFB#10	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF101MLDFB#50	12mm x 12mm 80pin	RL78/G13	Case3	Y				Difference specification 1			MCR-22-0100
RSF104MAA06FB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y		Difference specification 3		MCR-22-0104
RSF104MAFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MAFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MAFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MDFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MDFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MDFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MFGFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MFGFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MFGFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGAFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGAFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGAFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGDFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGDFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGDFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MGFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHA06FB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHA06FB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHA06FB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHAFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHAFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHAFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHDFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHDFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHDFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHGFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHGFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MHGFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJAFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJAFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJAFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJDFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJDFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJDFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJGFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJGFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MJGFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MKAFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MKAFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MKAFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MKGFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MKGFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MKGFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MLAFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MLAFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MLAFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MLGFB#10	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MLGFB#30	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MLGFB#50	12mm x 12mm 80pin	RL78/G14	Case3	Y			Y	Difference specification 1		Difference specification 3	MCR-22-0104
RSF104MEDFB#10	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MEDFB#30	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MEDFB#50	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MEDH99FB#10	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MEDH99FB#30	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MEDH99FB#50	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MGDFB#10	12mm x 12mm 80pin	RL78/L1B	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100
RSF104MGDFB#30	12mm x 12mm 80pin	RL78/L1B	Case3	Y							

				Addition for Greek (Additional WP)	Addition for RSKL (Existing)	Change for RSB (Existing)	Applicable difference document				Reliability report
	Package	Group	Case	Kawashiri wafer	Saijo wafer with Cu wire	LF consolidation	Greatest addition	Addition for RSKL	LF consolidation for RSB		
RSF10WMDGFB#30	12mm x 12mm 80pin	RL78/L13	Cas3			Y			Difference specification 3		MCR-22-0104
RSF10WMDGFB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y			Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMEAFB#10	12mm x 12mm 80pin	RL78/L13	Cas3		Y		Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMEAFB#30	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMEAFB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMEGFB#10	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMEGFB#30	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMEGFB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMAFB#10	12mm x 12mm 80pin	RL78/L13	Cas3		Y	Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMAFB#30	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMAFB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y	Y	Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMFGFB#10	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMFGFB#30	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMFGFB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMGAFB#10	12mm x 12mm 80pin	RL78/L13	Cas3		Y	Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMGAFB#30	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMGAFB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y	Y	Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMGGB#10	12mm x 12mm 80pin	RL78/L13	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMGGB#30	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WMGGB#50	12mm x 12mm 80pin	RL78/L13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10WGGGOOFB#30	12mm x 12mm 80pin	RL78/L1A	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMDAFB#10	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMDAFB#30	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMDAFB#50	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMEAFB#10	12mm x 12mm 80pin	RL78/L1A	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMEAFB#30	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMEAFB#50	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMFAFB#10	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMFAFB#30	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMFAFB#50	12mm x 12mm 80pin	RL78/L1A	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MMAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MEAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MEAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MEAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MEGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MEGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MEGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MFAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MFAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MFAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MFGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MFGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MFGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MGGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MHGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJAFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJAFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJAFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJGFB#10	12mm x 12mm 80pin	RL78/L1C	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJGFB#30	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF11MJGFB#50	12mm x 12mm 80pin	RL78/L1C	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPAFB#10	14mm x 14mm 100pin	RL78/G13	Cas3		Y		Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPAFB#30	14mm x 14mm 100pin	RL78/G13	Cas3		Y		Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPAFB#50	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPDFB#30	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPDFB#50	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPGFB#10	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPGFB#30	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PPGFB#50	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGAFB#10	14mm x 14mm 100pin	RL78/G13	Cas3	Y	Y	Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGAFB#30	14mm x 14mm 100pin	RL78/G13	Cas3	Y	Y	Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGDB#10	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGDB#30	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGDB#50	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGGFB#10	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGGFB#30	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGGFB#50	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PGGOFB#50	14mm x 14mm 100pin	RL78/G13	Cas3	Y		Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PHAFB#10	14mm x 14mm 100pin	RL78/G13	Cas3		Y		Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PHAFB#30	14mm x 14mm 100pin	RL78/G13	Cas3	Y	Y	Y	Difference specification 1		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PHDFB#10	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104
RSF10PHDFB#30	14mm x 14mm 100pin	RL78/G13	Cas3			Y	Difference specification 3		Difference specification 3	MCR-22-0100	MCR-22-0104

		Addition for Greek (Additional WP)		Addition for RSKL (Existing)		Change for RSB (Existing)		Applicable difference document				Reliability report	
Boring PN	Package	Group	Case	Kawashiri wafer	Saio wafer	Cu wire	LF consolidation	Greatest addition	Addition for RSKL	LF consolidation for RSB			
RSF101PDDFB#10	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PDDFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PDDFB#50	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PGAFA#10	14mm x 14mm 100pin	RL78/G13	Case3	Y	Y			Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PGAFA#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PGAFA#50	14mm x 14mm 100pin	RL78/G13	Case3	Y	Y			Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PGDFFB#10	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PGDFFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PGDFFB#50	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PHAFB#10	14mm x 14mm 100pin	RL78/G13	Case3	Y	Y			Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PHAFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PHAFB#50	14mm x 14mm 100pin	RL78/G13	Case3	Y	Y			Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PHDFB#10	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PHDFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PHDFB#50	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PJAFB#10	14mm x 14mm 100pin	RL78/G13	Case3	Y	Y			Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PJAFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PJAFB#50	14mm x 14mm 100pin	RL78/G13	Case3	Y	Y			Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PJDFB#10	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PJDFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PJDFB#50	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PKAFB#10	14mm x 14mm 100pin	RL78/G13	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PKAFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PKAFB#50	14mm x 14mm 100pin	RL78/G13	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PKDFB#10	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PKDFB#30	14mm x 14mm 100pin	RL78/G13	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PKDFB#50	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PLAFB#10	14mm x 14mm 100pin	RL78/G13	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PLAFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PLAFB#50	14mm x 14mm 100pin	RL78/G13	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100		MCR-22-0104
RSF101PLDFB#10	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PLDFB#30	14mm x 14mm 100pin	RL78/G13	Case3				Y			Difference specification 3			MCR-22-0104
RSF101PLDFB#50	14mm x 14mm 100pin	RL78/G13	Case3	Y				Difference specification 1		Difference specification 3	MCR-22-0100		MCR-

DIFFERENCE OF SPECIFICATION 1 (RL78 FAMILY LQFP PRODUCTS)

Additional assembly factory: Greatek

December 23. 2021

MCU PRODUCT MARKETING DEPARTMENT
MCU DEVICE SOLUTION BUSINESS DIVISION
IoT AND INFRASTRUCTURE BUSINESS UNIT
RENESAS ELECTRONICS CO., LTD.

Ver.1.0

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MCP-AB-21-0075

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(Rev. 5.0-1 October 2020)

DIFFERENCE OUTLINE

1. Targets:

Assembly factory: Renesas Semiconductor (Beijing) Co.,Ltd (RSB)
Renesas Semiconductor KL Sdn. Bhd. (RSKL)
ADVANCED SEMICONDUCTOR ENGINEERING, INC. (ASEKH)

Package: 7x7mm 32pin, 10x10mm 44pin LQFP
7x7mm 48pin, 10x10mm 64pin, 12x12mm 80pin, 14x14mm 100pin LFQFP

2. Additional assembly factory

Greatek Electronics Inc. (Greatek)

3. Assembly material:

Lead frame, Die mount paste and Mold resin are used certificated materials.

4. Package outline

There is no change in footprint for additional factory products.

Please refer to the package outline drawing and dimension comparison for the external dimensions.

DIFFERENCE OUTLINE

5. Marking

Change the marking font for additional factory products.

Only 10x10mm 0.8mm pitch 44pin LQFP has different marking specification.

6. Storage conditions after opening the moisture proof packaging:

The storage conditions for Greatek products after opening the moisture-proof bag comply with JEDEC standards.

Existing products(RSB, RSKL) : 30°C/70%RH/ within 168hr

Existing products(ASEKH) : 30°C/60%RH/ within 168hr (Confirming to the JEDEC standard)

Additional products(Greatek) : 30°C/60%RH/ within 168hr (Confirming to the JEDEC standard)

(Note) Since the existing ASEKH assembly is already JEDEC compliant, there is no change.

■ Specification and characteristics of product:

No change

■ Quality and reliability:

No change

PKG LIST

PKG	Size [mm]	Pin count	Pitch [mm]	PKG thickness [mm]	Additional factory		Existing factory	
					Assembly	Sorting	Assembly	Sorting
LQFP	07x07	32	0.8	1.4	Greatek	KYEC	RSB	RSB
	07x07	48	0.5	1.4	Greatek	KYEC	RSB ASEKH	RSB KYEC
	10x10	44	0.8	1.4	Greatek	KYEC	RSKL ASEKH	RSKL KYEC
	10x10	64	0.5	1.4	Greatek	KYEC	RSB ASEKH	RSB KYEC
	12x12	80	0.5	1.4	Greatek	KYEC	RSB ASEKH	RSB KYEC
	14x14	100	0.5	1.4	Greatek	KYEC	RSB ASEKH	RSB KYEC

Renesas Semiconductor (Beijing) Co.,Ltd (RSB)

Renesas Semiconductor KL Sdn. Bhd. (RSKL)

ADVANCED SEMICONDUCTOR ENGINEERING, INC. (ASEKH)

King Yuan ELECTRONICS CO., LTD (KYEC)

Greatek Electronics Inc. (Greatek)

Difference of specification

Item		Additional factory	Existing factory
Assembly factory		Greatek	RSB
Sorting factory		KYEC	RSB
Package	Outline	There are differences(Refer to pages 9 to14, 19 to 27)	
Lead frame	Material	No difference	
	Inner pattern	There are differences(Refer to page 28)	
Die mount	Material	Ag epoxy paste D *	Ag epoxy paste A *
Bonding wire	Material	No difference; Cu (Pd coating)	
Resin	Material	Epoxy resin D * (halogen-free)	Epoxy resin A * (halogen-free)
Plating	Material	No difference	
Marking	Font	There are differences(Refer to page 29)	
	Digit number	No difference	
Packing	Tray/ Emboss tape	No difference	
Storage conditions	after opening	30°C/60%RH/ within168hr	30°C/70%RH/ within 168hr

* Factory certified materials.

There are differences in materials, but there is no change in reliability or characteristics.

Difference of specification

Item		Additional factory	Existing factory
Assembly factory		Greatek	RSKL
Sorting factory		KYEC	RSKL
Package	Outline	There are differences(Refer to pages 15 to 18)	
Lead frame	Material	No difference	
	Inner pattern	There are differences(Refer to page 28)	
Die mount	Material	Ag epoxy paste D *	Ag epoxy paste B *
Bonding wire	Material	No difference; Cu (Pd coating)	
Resin	Material	Epoxy resin D * (halogen-free)	Epoxy resin B * (halogen-free)
Plating	Material	No difference	
Marking	Font	There are differences(Refer to page 29)	
	Digit number	There are differences(Refer to page 30)	
Packing	Tray/ Emboss tape	No difference	
Storage conditions	after opening	30°C/60%RH/ within 168hr	30°C/70%RH/within 168hr

* Factory certified materials.

There are differences in materials, but there is no change in reliability or characteristics.

Difference of specification

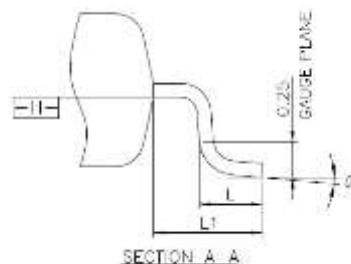
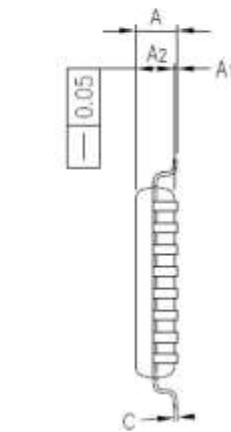
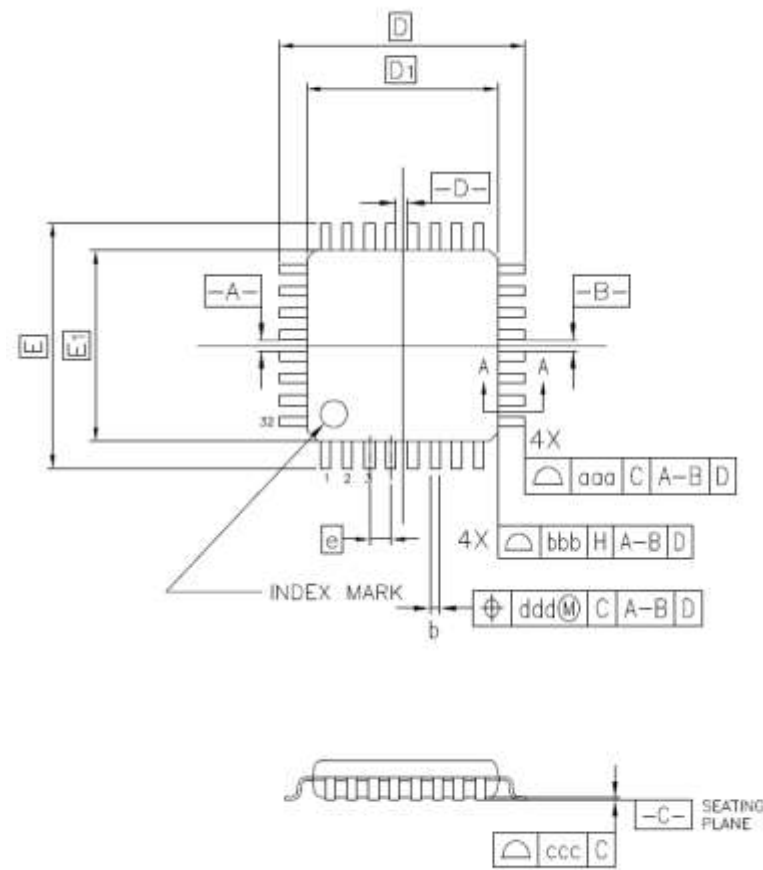
Item		Additional factory	Existing factory
Assembly factory		Greatek	ASEKH
Sorting factory		KYEC	RSB or KYEC
Package	Outline	There are differences(Refer to pages 12 to 27)	
Lead frame	Material	No change	
	Inner pattern	There are differences(Refer to page 28)	
Die mount	Material	Ag epoxy paste D *	Ag epoxy paste C *
Bonding wire	Material	No difference; Cu (Pd coating)	
Resin	Material	Epoxy resin D * (halogen-free)	Epoxy resin C * (halogen-free)
Plating	Material	No change	
Marking	Font	There are differences(Refer to page 29)	
	Digit number	No change	
Packing	Tray/ Emboss tape	No change	
Storage conditions	after opening	No change	

* Factory certified materials.

There are differences in materials, but there is no change in reliability or characteristics.

7mm x 7mm 0.8mm pitch 32pin LQFP Package outline (Greatek)

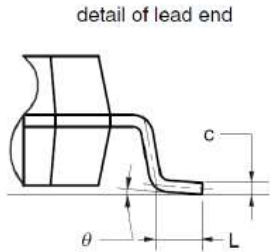
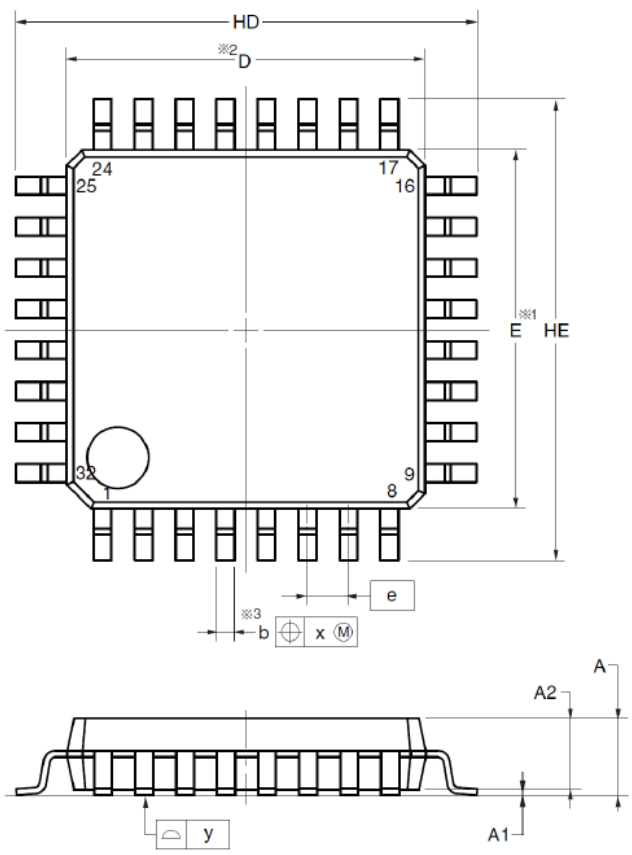
RENESAS Code : PLQP0032GE-A



Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	1.60
A ₁	0.05	—	0.15
A ₂	1.35	1.40	1.45
D	—	9.00	—
D1	—	7.00	—
E	—	9.00	—
E ₁	—	7.00	—
N	—	32	—
e	—	0.80	—
b	0.30	0.37	0.45
c	0.09	—	0.20
θ	0°	3.5°	7°
L	0.45	0.60	0.75
L ₁	—	1.00	—
aaa	—	—	0.20
bbb	—	—	0.20
ccc	—	—	0.10
ddd	—	—	0.20

7mm×7mm 0.8mm pitch 32pin LQFP Package outline (RSB)

RENESAS Code : PLQP0032GB-A



(UNIT:mm)

ITEM	DIMENSIONS
D	7.00±0.10
E	7.00±0.10
HD	9.00±0.20
HE	9.00±0.20
A	1.70 MAX.
A1	0.10±0.10
A2	1.40
b	0.37±0.05
c	0.145±0.055
L	0.50±0.20
θ	0° to 8°
e	0.80
x	0.20
y	0.10

Dimension comparison: 7mm x 7mm 0.8mm pitch 32pin LQFP

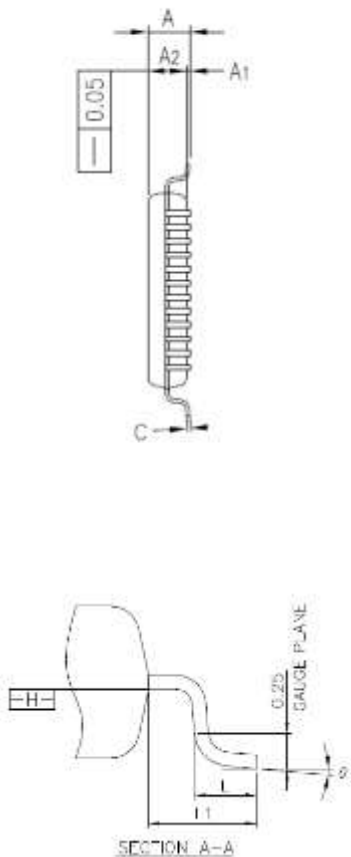
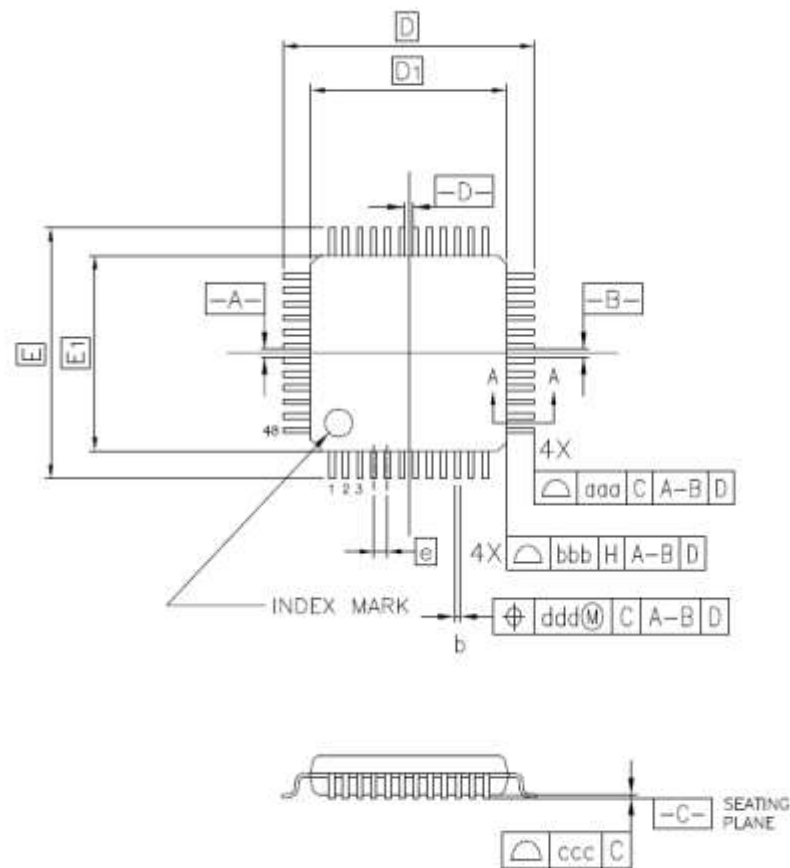
Greatek package symbols complied JEDEC standard.

Greatek Symbol	7x7mm 32pin LQFP PLQP0032GE-A			RSB Symbol	7x7mm 32pin LQFP PLQP0032GB-A		
	Dimension in Millimeters				Dimension in Millimeters		
	Min	Nom	Max		Min	Nom	Max
A	-	-	1.60	A	-	-	1.70
A1	0.05	-	0.15	A1	0.00	0.10	0.20
A2	1.35	1.40	1.45	A2	-	1.40	-
D	-	9.00	-	HD	8.80	9.00	9.20
D1	-	7.00	-	D	6.90	7.00	7.10
E	-	9.00	-	HE	8.80	9.00	9.20
E1	-	7.00	-	E	6.90	7.00	7.10
N	-	32	-	-	-	-	-
e	-	0.80	-	e	-	0.80	-
b	0.30	0.37	0.45	b	0.32	0.37	0.42
c	0.09	-	0.20	c	0.09	0.145	0.20
θ	0°	3.5°	7°	θ	0°	-	8°
L	0.45	0.60	0.75	L	0.30	0.50	0.70
L1	-	1.00	-	-	-	-	-
aaa	-	-	0.20	-	-	-	-
bbb	-	-	0.20	-	-	-	-
ccc	-	-	0.10	y	-	0.10	-
ddd	-	-	0.20	x	-	0.20	-

※There is a difference in the measurement point.

7mm x 7mm 0.5mm pitch 48pin LFQFP Package outline (Greatek)

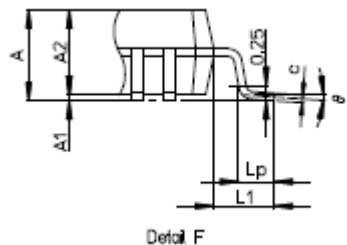
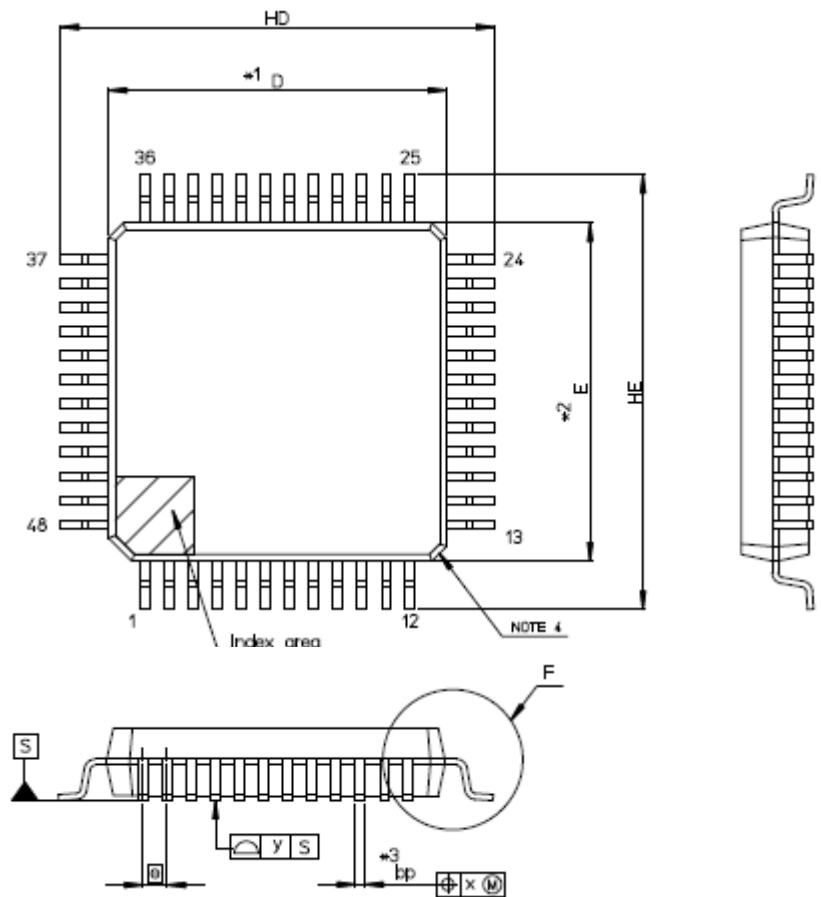
RENESAS Code : PLQP0048KL-A



Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	1.60
A ₁	0.05	—	0.15
A ₂	1.35	1.40	1.45
D	—	9.00	—
D1	—	7.00	—
E	—	9.00	—
E ₁	—	7.00	—
N	—	48	—
e	—	0.50	—
b	0.17	0.22	0.27
c	0.09	—	0.20
θ	0°	3.5°	7°
L	0.45	0.60	0.75
L ₁	—	1.00	—
aaa	—	—	0.20
bbb	—	—	0.20
ccc	—	—	0.08
ddd	—	—	0.08

7mm x 7mm 0.5mm pitch 48pin LFQFP Package outline (RSB/ASEKH)

RENESAS Code : PLQP0048KB-B



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
D	6.9	7.0	7.1
E	6.9	7.0	7.1
A2	—	1.4	—
HD	8.8	9.0	9.2
HE	8.8	9.0	9.2
A	—	—	1.7
A1	0.05	—	0.15
bp	0.17	0.20	0.27
c	0.09	—	0.20
e	0°	3.5°	8°
e	—	0.5	—
x	—	—	0.08
y	—	—	0.08
Lp	0.45	0.6	0.75
L1	—	1.0	—

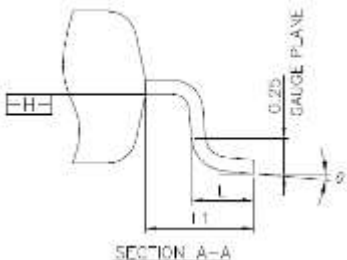
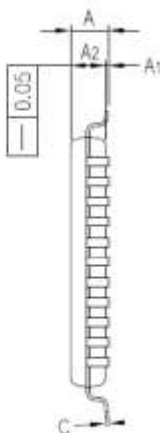
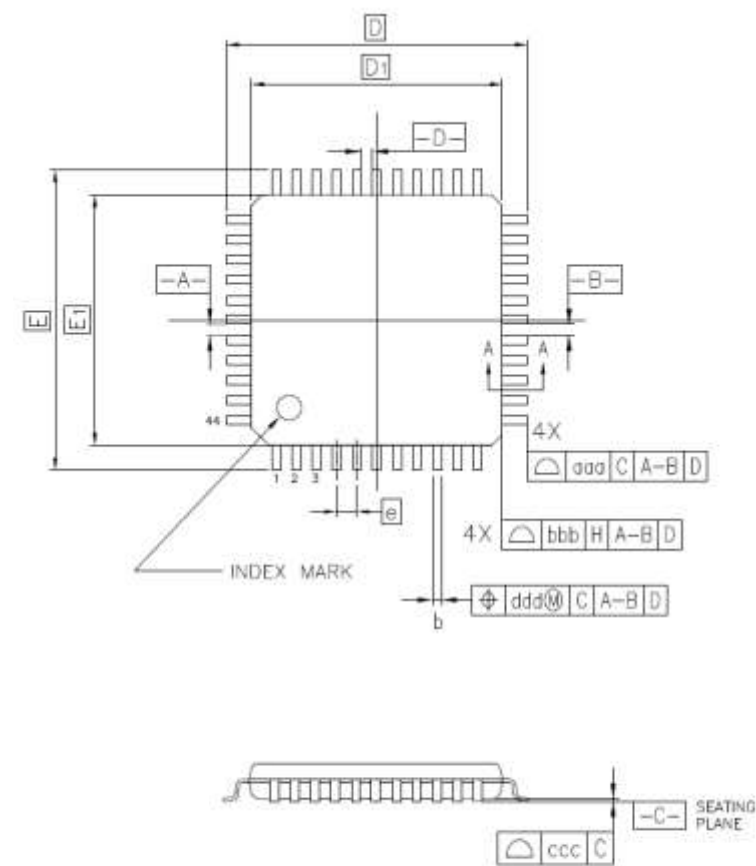
Dimension comparison: 7mm x 7mm 0.5mm pitch 48pin LFQFP

Greatek package symbols complied JEDEC standard.

Greatek Symbol	7x7mm 48pin LQFP PLQP0048KL-A			RSB ASEKH Symbol	7x7mm 48pin LQFP PLQP0048KB-B		
	Dimension in Millimeters				Dimension in Millimeters		
	Min	Nom	Max		Min	Nom	Max
A	-	-	1.60	A	-	-	1.70
A1	0.05	-	0.15	A1	0.05	-	0.15
A2	1.35	1.40	1.45	A2	-	1.40	-
D	-	9.00	-	HD	8.80	9.00	9.20
D1	-	7.00	-	D	6.90	7.00	7.10
E	-	9.00	-	HE	8.80	9.00	9.20
E1	-	7.00	-	E	6.90	7.00	7.10
N	-	48	-	-	-	-	-
e	-	0.50	-	e	-	0.50	-
b	0.17	0.22	0.27	bp	0.17	0.20	0.27
c	0.09	-	0.20	c	0.09	-	0.20
θ	0°	3.5°	7°	θ	0°	3.5°	8°
L	0.45	0.60	0.75	Lp	0.45	0.60	0.75
L1	-	1.00	-	L1	-	1.00	-
aaa	-	-	0.20	-	-	-	-
bbb	-	-	0.20	-	-	-	-
ccc	-	-	0.08	y	-	-	0.08
ddd	-	-	0.08	x	-	-	0.08

10mm×10mm 0.8mm pitch 44pin LQFP Package outline (Greatek)

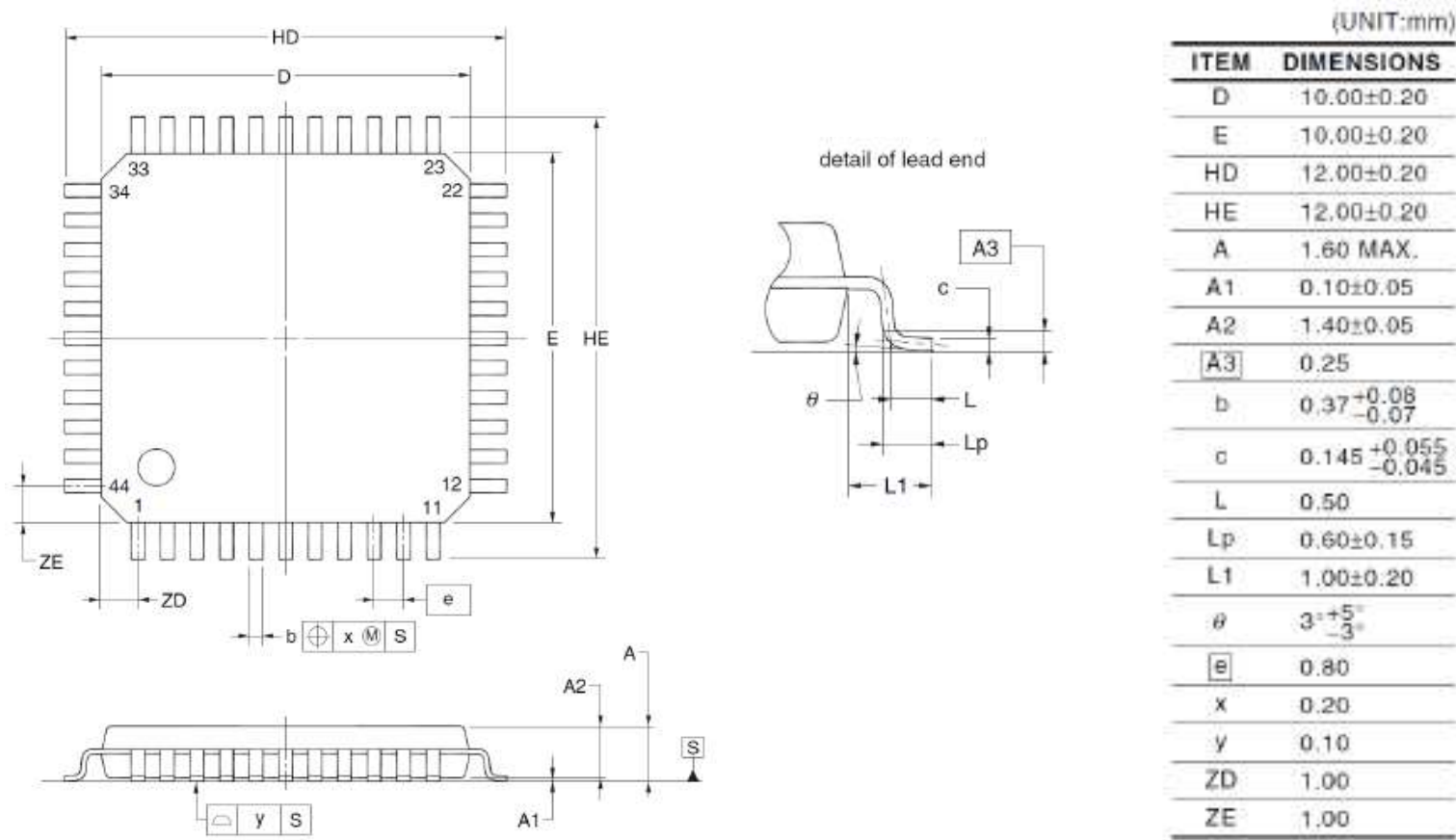
RENESAS Code : PLQP0044GE-A



Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	1.60
A ₁	0.05	—	0.15
A ₂	1.35	1.40	1.45
D	—	12.00	—
D ₁	—	10.00	—
E	—	12.00	—
E ₁	—	10.00	—
N	—	44	—
e	—	0.80	—
b	0.30	0.37	0.45
c	0.09	—	0.20
ø	0°	3.5°	7°
L	0.45	0.60	0.75
L ₁	—	1.00	—
aaa	—	—	0.20
bbb	—	—	0.20
ccc	—	—	0.10
ddd	—	—	0.20

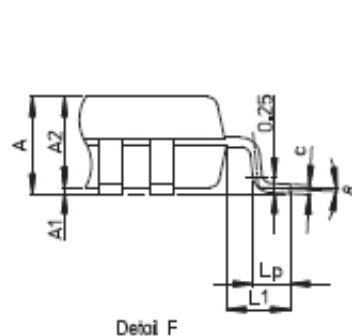
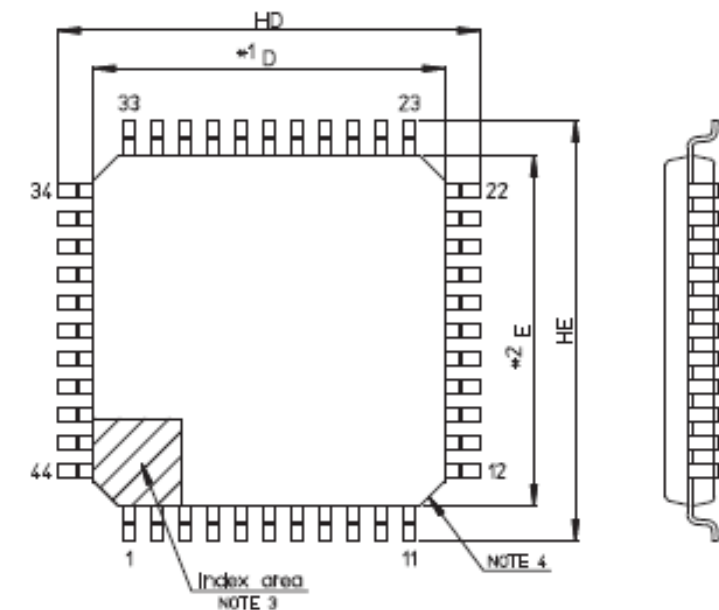
10mm x 10mm 0.8mm pitch 44pin LQFP Package outline (RSKL)

RENESAS Code : PLQP0044GC-A

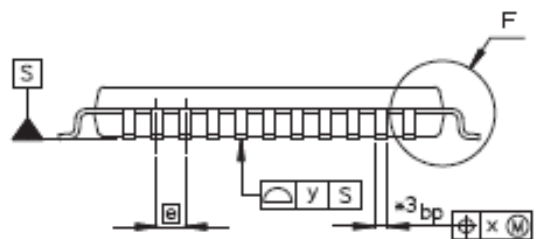


10mm x 10mm 0.8mm pitch 44pin LQFP Package outline (ASEKH)

RENESAS Code : PLQP0044GC-D



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
D	9.8	10.0	10.2
E	9.8	10.0	10.2
A2	—	1.4	—
HD	11.8	12.0	12.2
HE	11.8	12.0	12.2
A	—	—	1.6
A1	0.05	—	0.15
bp	0.22	0.37	0.45
c	0.09	—	0.20
e	0	3.5	8
e	—	0.80	—
x	—	—	0.20
y	—	—	0.10
Lp	0.45	0.6	0.75
L1	—	1.0	—



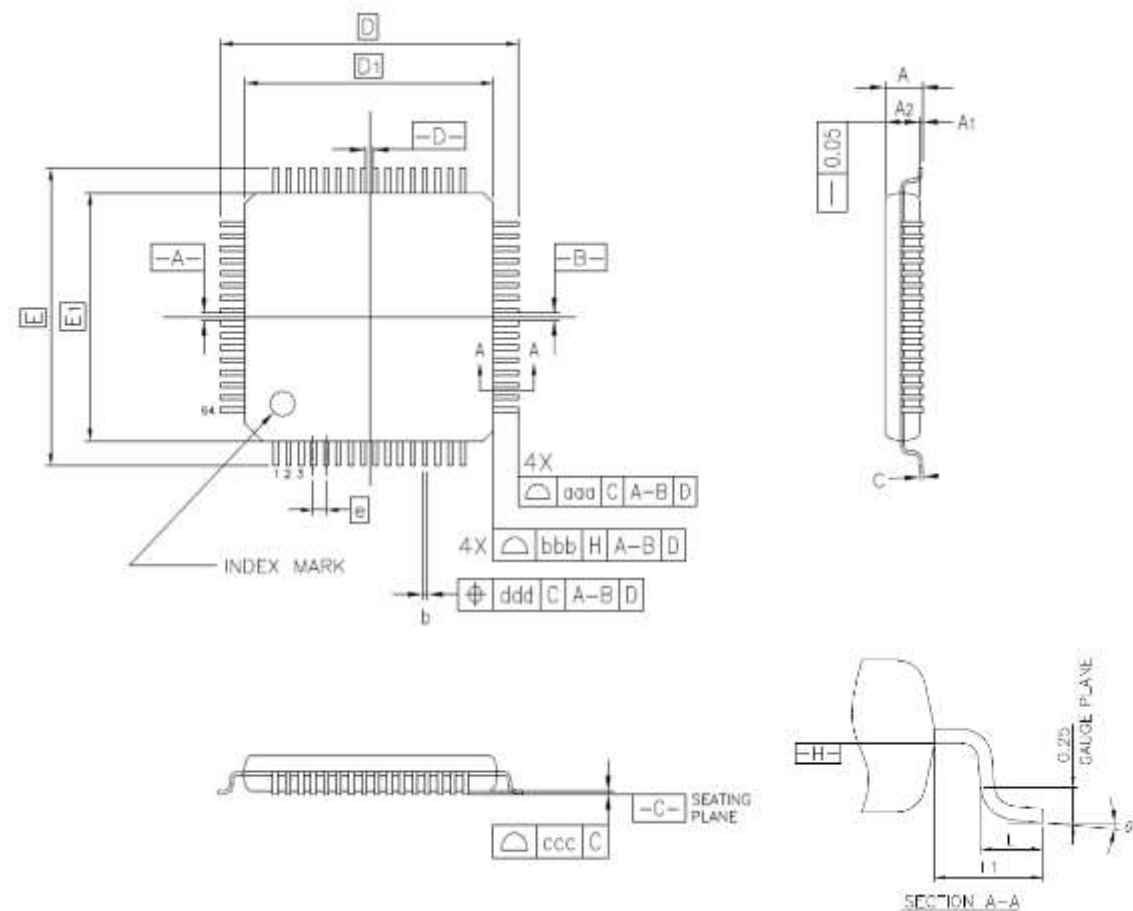
Dimension comparison: 10mm x 10mm 0.8mm pitch 44pin LQFP

Greatek package symbols
complied JEDEC standard.

Greatek Symbol	10x10mm 44pin LQFP PLQP0044GE-A			RSKL Symbol	10x10mm 44pin LQFP PLQP0044GC-A			ASEKH Symbol	10x10mm 44pin LQFP PLQP0044GC-D		
	Dimension in Millimeters				Dimension in Millimeters				Dimension in Millimeters		
	Min	Nom	Max		Min	Nom	Max		Min	Nom	Max
A	-	-	1.60	A	-	-	1.60	A	-	-	1.60
A1	0.05	-	0.15	A1	0.05	0.10	0.15	A1	0.05	-	0.15
A2	1.35	1.40	1.45	A2	1.35	1.40	1.45	A2	-	1.40	-
D	-	12.00	-	HD	11.80	12.00	12.20	HD	11.80	12.00	12.20
D1	-	10.00	-	D	9.80	10.00	10.20	D	9.80	10.00	10.20
E	-	12.00	-	HE	11.80	12.00	12.20	HE	11.80	12.00	12.20
E1	-	10.00	-	E	9.80	10.00	10.20	E	9.80	10.00	10.20
N	-	44	-	-	-	-	-	-	-	-	-
e	-	0.80	-	e	-	0.80	-	e	-	0.80	-
b	0.30	0.37	0.45	b	0.30	0.37	0.45	bd	0.22	0.37	0.45
c	0.09	-	0.20	c	0.10	0.145	0.20	c	0.09	-	0.20
θ	0°	3.5°	7°	θ	0°	3°	8°	θ	0°	3.5°	8°
L	0.45	0.60	0.75	Lp	0.45	0.60	0.75	Lp	0.45	0.60	0.75
L1	-	1.00	-	L1	0.80	1.00	1.20	L1	-	1.00	-
aaa	-	-	0.20	-	-	-	-	-	-	-	-
bbb	-	-	0.20	-	-	-	-	-	-	-	-
ccc	-	-	0.10	y	-	0.10	-	y	-	0.10	-
ddd	-	-	0.20	x	-	0.20	-	x	-	0.20	-

10mm x 10mm 0.5mm pitch 64pin LFQFP Package outline (Greatek)

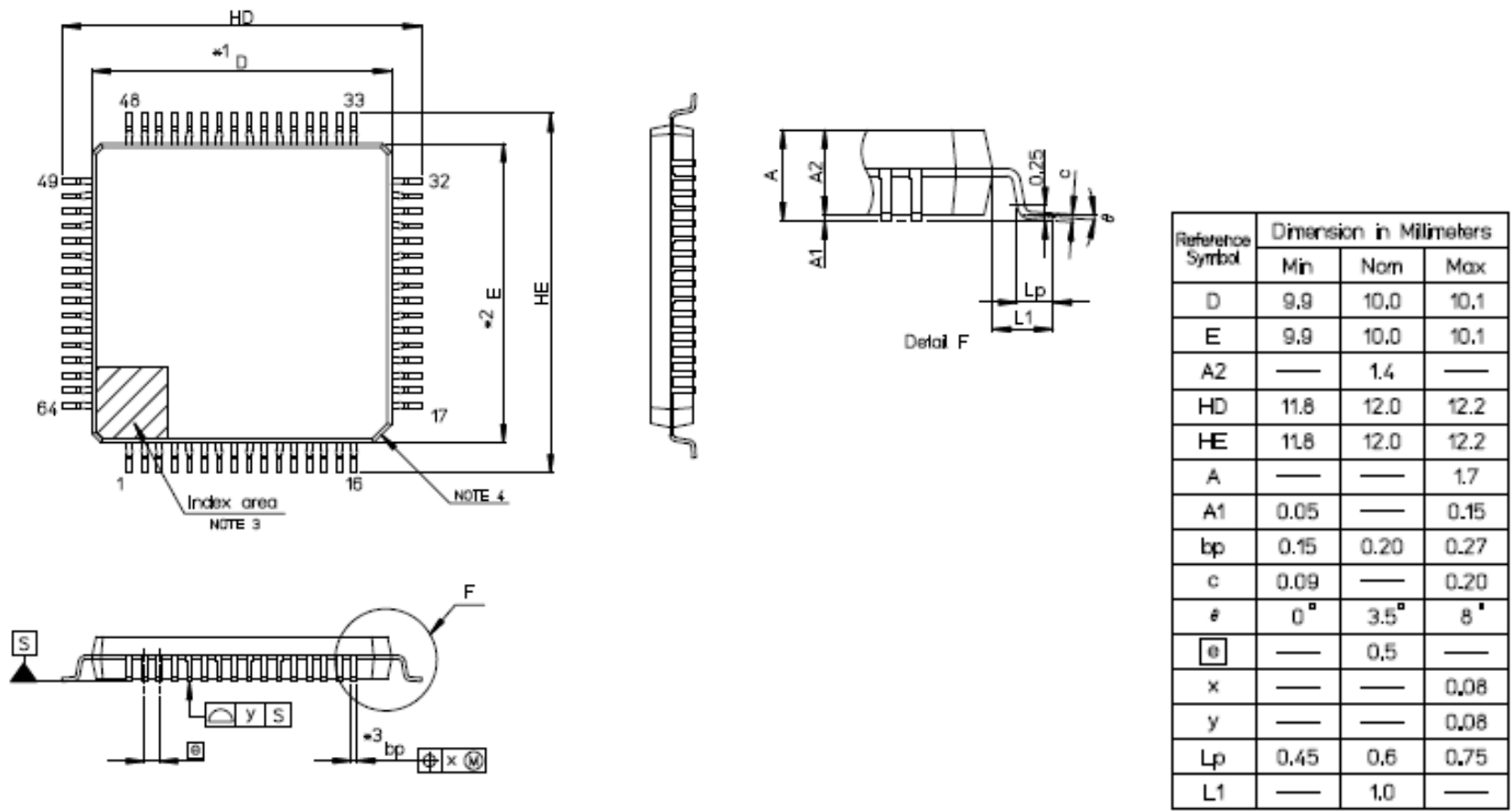
RENESAS Code : PLQP0064KL-A



Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	1.60
A ₁	0.05	—	0.15
A ₂	1.35	1.40	1.45
D	—	12.00	—
D ₁	—	10.00	—
E	—	12.00	—
E ₁	—	10.00	—
N	—	64	—
e	—	0.50	—
b	0.17	0.22	0.27
c	0.09	—	0.20
ø	0°	3.5°	7°
L	0.45	0.60	0.75
L ₁	—	1.00	—
aaa	—	—	0.20
bbb	—	—	0.20
ccc	—	—	0.08
ddd	—	—	0.08

10mm x 10mm 0.5mm pitch 64pin LFQFP Package outline (RSB/ASEKH)

RENESAS Code : PLQP0064KB-C



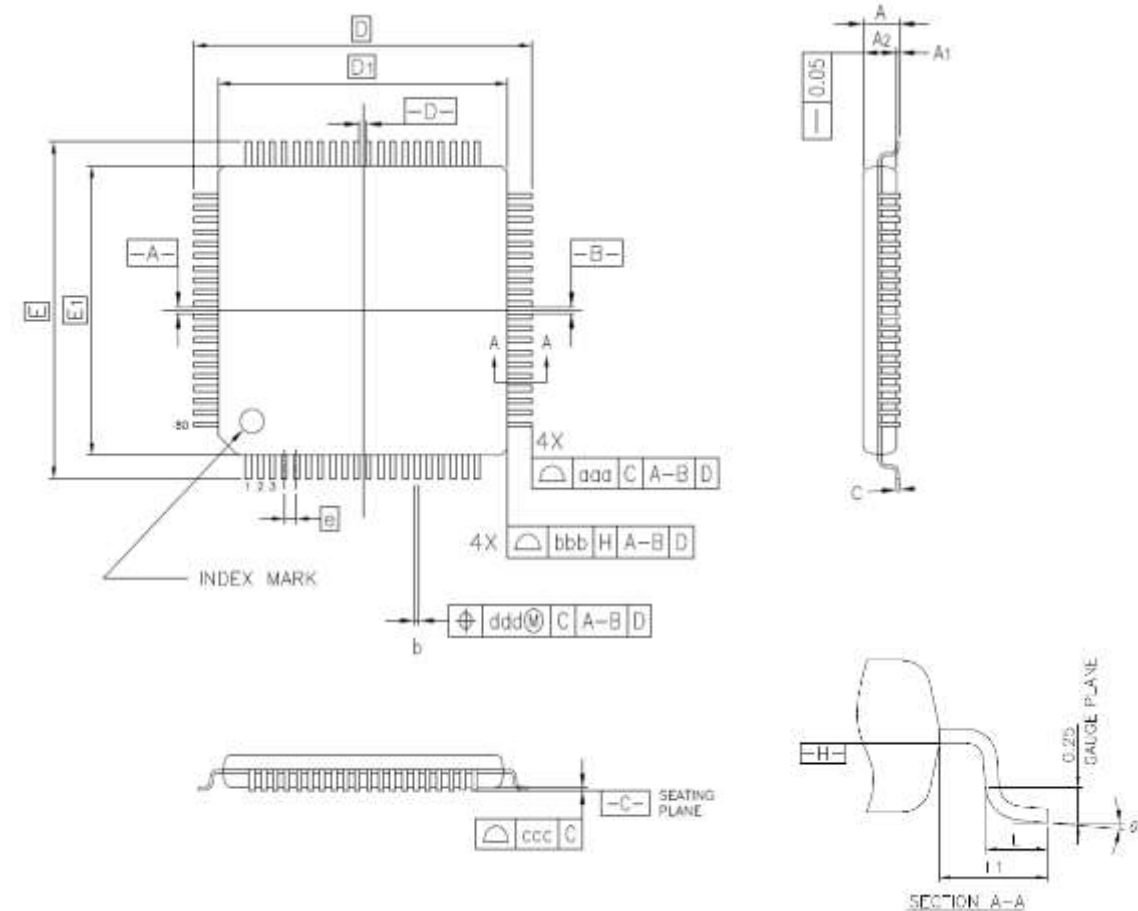
Dimension comparison: 10mm x 10mm 0.5mm pitch 64pin LFQFP

Greatek package symbols complied JEDEC standard.

Greatek Symbol	10x10mm 64pin LQFP PLQP0064KL-A			RSB ASEKH Symbol	10x10mm 64pin LQFP PLQP0064KB-C		
	Dimension in Millimeters				Dimension in Millimeters		
	Min	Nom	Max		Min	Nom	Max
A	-	-	1.60	A	-	-	1.70
A1	0.05	-	0.15	A1	0.05	-	0.15
A2	1.35	1.40	1.45	A2	-	1.40	-
D	-	12.00	-	HD	11.80	12.00	12.20
D1	-	10.00	-	D	9.90	10.00	10.10
E	-	12.00	-	HE	11.80	12.00	12.20
E1	-	10.00	-	E	9.90	10.00	10.10
N	-	64	-	-	-	-	-
e	-	0.50	-	e	-	0.50	-
b	0.17	0.22	0.27	bp	0.15	0.20	0.27
c	0.09	-	0.20	c	0.09	-	0.20
θ	0°	3.5°	7°	θ	0°	3.5°	8°
L	0.45	0.60	0.75	Lp	0.45	0.60	0.75
L1	-	1.00	-	L1	-	1.000	-
aaa	-	-	0.20	-	-	-	-
bbb	-	-	0.20	-	-	-	-
ccc	-	-	0.08	y	-	-	0.08
ddd	-	-	0.08	x	-	-	0.08

12mm x 12mm 0.5mm pitch 80pin LFQFP Package outline (Greatek)

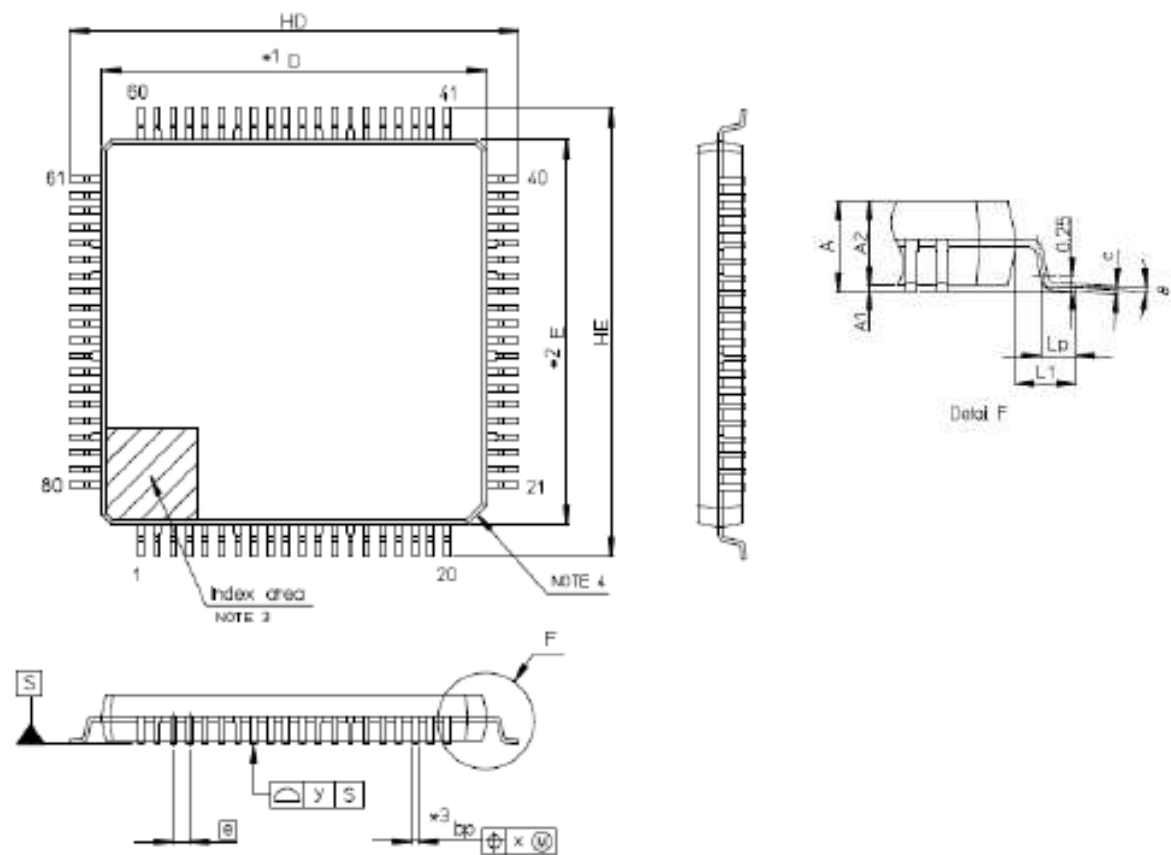
RENESAS Code : PLQP0080KJ-A



Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	1.60
A ₁	0.05	—	0.15
A ₂	1.35	1.40	1.45
D	—	14.00	—
D ₁	—	12.00	—
E	—	14.00	—
E ₁	—	12.00	—
N	—	80	—
e	—	0.50	—
b	0.17	0.22	0.27
c	0.09	—	0.20
θ	0°	3.5°	7°
L	0.45	0.60	0.75
L ₁	—	1.00	—
aaa	—	—	0.20
bbb	—	—	0.20
ccc	—	—	0.08
ddd	—	—	0.08

12mm x 12mm 0.5mm pitch 80pin LFQFP Package outline (RSB/ASEKH)

RENESAS Code : PLQP0080KB-B



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
D	11.9	12.0	12.1
E	11.9	12.0	12.1
A2	—	1.4	—
HD	13.8	14.0	14.2
HE	13.8	14.0	14.2
A	—	—	1.7
A1	0.05	—	0.15
bp	0.15	0.20	0.27
c	0.09	—	0.20
θ	0°	3.5°	8°
⌀	—	0.5	—
x	—	—	0.08
y	—	—	0.08
Lp	0.45	0.6	0.75
L1	—	1.0	—

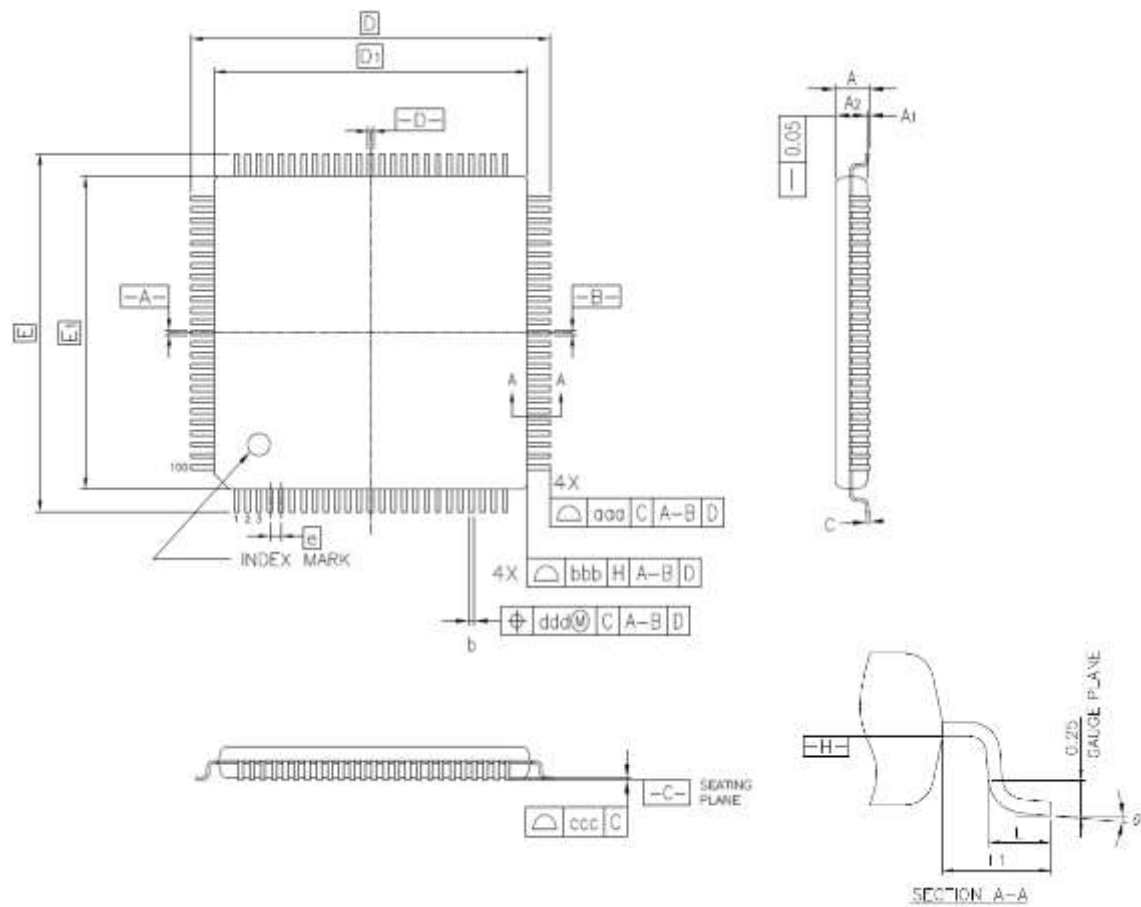
Dimension comparison: 12mm x 12mm 0.5mm pitch 80pin LFQFP

Greatek package symbols complied JEDEC standard.

Greatek Symbol	12x12mm 80pin LQFP PLQP0080KJ-A			RSB ASEKH Symbol	12x12mm 80pin LQFP PLQP0080KB-B		
	Dimension in Millimeters				Dimension in Millimeters		
	Min	Nom	Max		Min	Nom	Max
A	-	-	1.60	A	-	-	1.70
A1	0.05	-	0.15	A1	0.05	-	0.15
A2	1.35	1.40	1.45	A2	-	1.40	-
D	-	14.00	-	HD	13.80	14.00	14.20
D1	-	12.00	-	D	11.90	12.00	12.10
E	-	14.00	-	HE	13.80	14.00	14.20
E1	-	12.00	-	E	11.90	12.00	12.10
N	-	80	-	-	-	-	-
e	-	0.50	-	e	-	0.50	-
b	0.17	0.22	0.27	bp	0.15	0.20	0.27
c	0.09	-	0.20	c	0.09	-	0.20
θ	0°	3.5°	7°	θ	0°	3.5°	8°
L	0.45	0.60	0.75	Lp	0.45	0.60	0.75
L1	-	1.00	-	L1	-	1.000	-
aaa	-	-	0.20	-	-	-	-
bbb	-	-	0.20	-	-	-	-
ccc	-	-	0.08	y	-	-	0.08
ddd	-	-	0.08	x	-	-	0.08

14mm x 14mm 0.5mm pitch 100pin LQFP Package outline (Greatek)

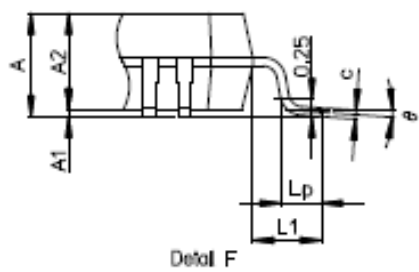
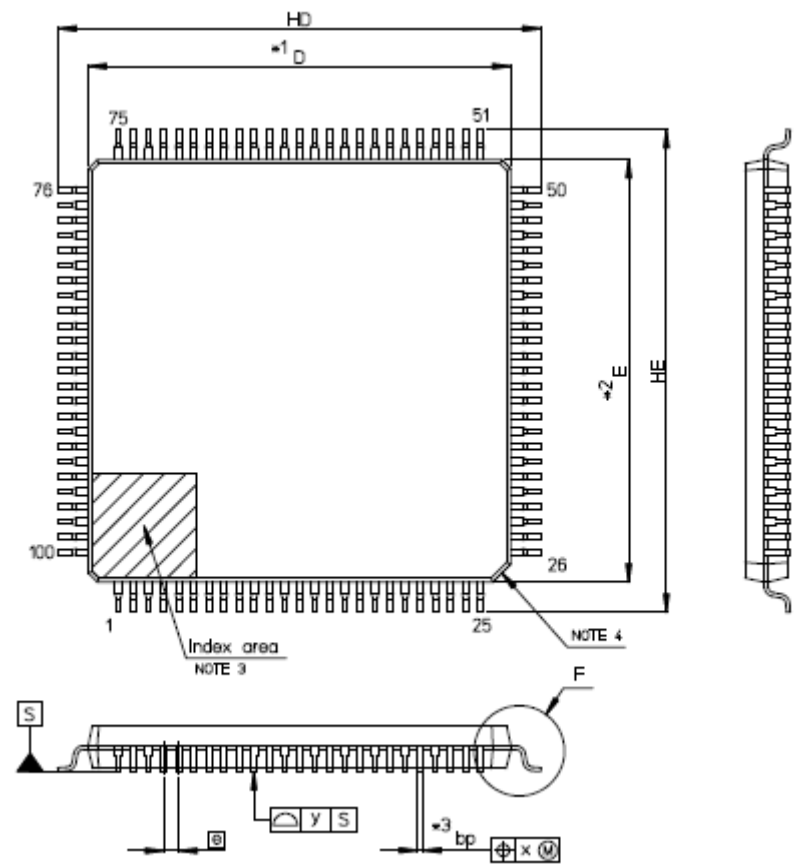
RENESAS Code : PLQP0100KP-A



Reference Symbol	Dimension in Millimeters		
	Min.	Nom.	Max.
A	—	—	1.60
A ₁	0.05	—	0.15
A ₂	1.35	1.40	1.45
D	—	16.00	—
D ₁	—	14.00	—
E	—	16.00	—
E ₁	—	14.00	—
N	—	100	—
e	—	0.50	—
b	0.17	0.22	0.27
c	0.09	—	0.20
θ	0°	3.5°	7°
L	0.45	0.60	0.75
L ₁	—	1.00	—
aaa	—	—	0.20
bbb	—	—	0.20
ccc	—	—	0.08
ddd	—	—	0.08

14mm x 14mm 0.5mm pitch 100pin LFQFP Package outline (RSB/ASEKH)

RENESAS Code : PLQP0100KB-B



Reference Symbol	Dimension in Millimeters		
	Min	Nom	Max
D	13.9	14.0	14.1
E	13.9	14.0	14.1
A2	—	1.4	—
HD	15.8	16.0	16.2
HE	15.8	16.0	16.2
A	—	—	1.7
A1	0.05	—	0.15
bp	0.15	0.20	0.27
c	0.09	—	0.20
e	0*	3.5*	8*
e	—	0.5	—
x	—	—	0.08
y	—	—	0.08
Lp	0.45	0.6	0.75
L1	—	1.0	—

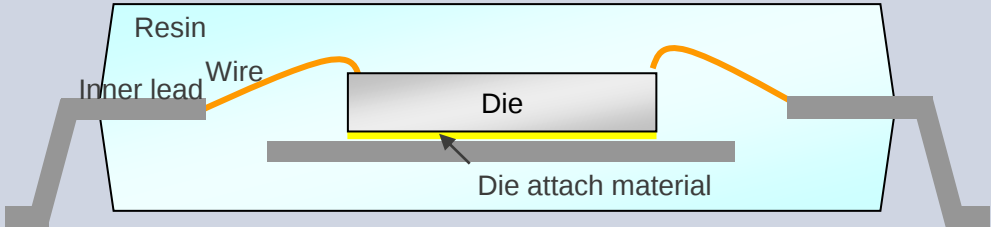
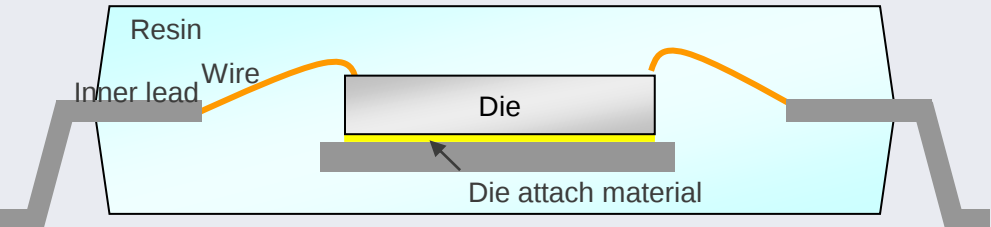
Dimension comparison: 14mm x 14mm 0.5mm pitch 100pin LFQFP

Greatek package symbols complied JEDEC standard.

Greatek Symbol	14x14mm 100pin LQFP PLQP0100KP-A			RSB ASEKH Symbol	14x14mm 100pin LQFP PLQP0100KB-B		
	Dimension in Millimeters				Dimension in Millimeters		
	Min	Nom	Max		Min	Nom	Max
A	-	-	1.60	A	-	-	1.70
A1	0.05	-	0.15	A1	0.05	-	0.15
A2	1.35	1.40	1.45	A2	-	1.40	-
D	-	16.00	-	HD	15.80	16.00	16.20
D1	-	14.00	-	D	13.90	14.00	14.10
E	-	16.00	-	HE	15.80	16.00	16.20
E1	-	14.00	-	E	13.90	14.00	14.10
N	-	100	-	-	-	-	-
e	-	0.50	-	e	-	0.50	-
b	0.17	0.22	0.27	bp	0.15	0.20	0.27
c	0.09	-	0.20	c	0.09	-	0.20
θ	0°	3.5°	7°	θ	0°	3.5°	8°
L	0.45	0.60	0.75	Lp	0.45	0.60	0.75
L1	-	1.00	-	L1	-	1.000	-
aaa	-	-	0.20	-	-	-	-
bbb	-	-	0.20	-	-	-	-
ccc	-	-	0.08	y	-	-	0.08
ddd	-	-	0.08	x	-	-	0.08

Package structure image

* Package Section and die pad shape is a reference example.

Assembly Line	PKG cross section	Die pad shape
Additional factory		 Greatek
Existing factory		 RSB RSB RSKL ASEKH

✂ There is no impact on the reliability by die pad shape

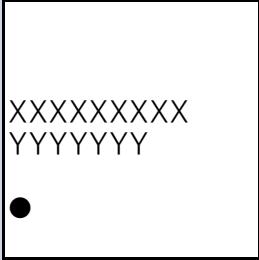
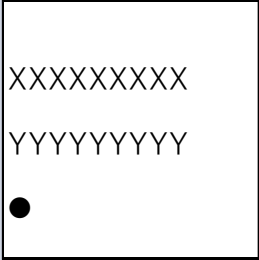
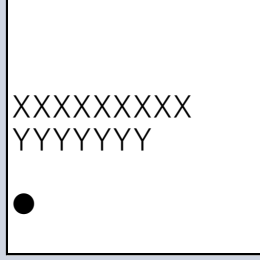
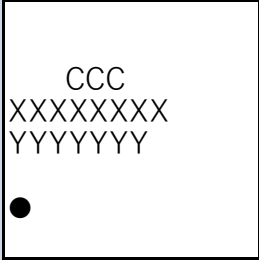
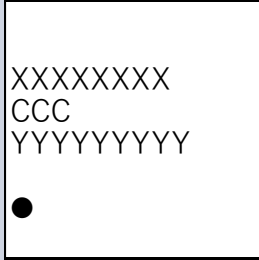
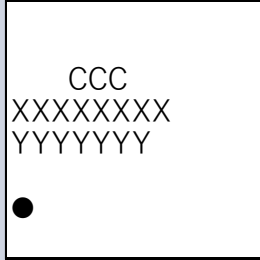
Marking visibility

※Character is reference example

Assembly Line	Greatek (Additional factory)	RSB (Existing factory)	RSKL (Existing factory)	ASEKH (Existing factory)
Overall photo				
Enlarged photo				

10x10mm 0.8mm pitch 44pin LQFP marking specifications

※For packages other than 10x10mm 0.8mm pitch 44pin LQFP, there is no change other than the marking visibility on the previous page.

Product	Greatek (Additional factory)	RSKL (Existing factory)	ASEKH (Existing factory) Appendix
Blank products			
	1st row – 2nd row 9 characters: product name 3rd row 7 characters: Lot No.	1st row 9 characters: product name 2nd row – 3rd row 9 characters: Lot No.	1st row – 2nd row 9 characters: product name 3rd row 7 characters: Lot No.
ROM products			
	1st row 3 characters: ROM code 2nd row 8 characters: product name 3rd row 7 characters: Lot No.	1st row 8 characters: product name 2nd row 3 characters: ROM code 3rd row 9 characters: Lot No.	1st row 3 characters: ROM code 2nd row 8 characters: product name 3rd row 7 characters: Lot No.

* Marking specification of ASEKH products is as same as Geatek one.

4M changing points (Additional assembly factory)

Item	Check Result	Judgement
Machine	There are differences. The machines are equivalent to present machines. There are production of similar products and we have already checked the additional products have no risk on the production.	No risk
Method	The same as existing products.	No risk
Operator	Adopt operator certification system. Only certificated operator can work for the production.	No risk
Material	Only use certificated materials. The products has been certificated by reliability test same as existing products and have no risk.	No risk

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