RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-SH7-A909A/E	Rev.	1.00
Title	SH7260 series enhancement in peripheral functions (IEB & RCAN-TL1) and status change of related product code		Information Category	Technical Notification		
Applicable Product	Described in following table	Lot No.	Reference Document	Described in following table		
		All, after November 2016 shipment				

[Applicable Products and Reference Documents]

Series	Group	Reference Document	Rev.	Document Number
SH7260	SH7263	SH7263 Group User's Manual: Hardware	4.00	R01UH0459EJ0400
	SH7262, SH7264	SH7262 Group, SH7264 Group User's Manual: Hardware	4.00	R01UH0134EJ0400
	SH7266, SH7267	SH7266 Group, SH7267 Group User's Manual: Hardware	2.00	R01UH0412EJ0200
	SH7268, SH7269	SH7268 Group, SH7269 Group User's Manual: Hardware	2.00	R01UH0048EJ0200
	SH726A, SH726B	SH726A Group, SH726B Group User's Manual: Hardware	2.00	R01UH0202EJ0200

[Enhancement in peripheral functions (IEB & RCAN-TL1) and Status Change of related product codes*]

In the Applicable Products, dedicated peripheral functions (IEB & RCAN-TL1) are newly included in the combination of the peripheral functions of the existing product code.

The combination of the peripheral functions is expressed by product code variation. This enhancement result in multiple product code with same combination of peripheral functions. One product code will be assigned status as "recommended" and the other(s) will be assigned status as "not recommended for new project launch". The User's Manual: Hardware describes this status and alternative (recommended) product code, when revised.

The status "not recommended for new project launch" doesn't affect to production process. The products can be ordered and shipped continuously. It isn't mandatory to change to "recommended" product code from "not recommended" one in existing project. But, in long term, "recommended" product will have more benefit because of larger production volume.

* The Applicable Products are listed up as Standard Ordering Part Number in the appendix.

[Enhanced peripheral functions]

Followings are fully included in the combination of peripheral functions of the Applicable Products.

1) IEBus™ Controller (IEB)
2) Controller Area Network (RCAN-TL1)

[Difference between alternative (recommended) product in Hardware/Software/Characteristics/Quality]

In this enhancement, modification of the external circuit and software are NOT needed, even if the dedicated peripheral function is changed to "included". The characteristics and the quality are also kept same.

When changing to the alternative (recommended) product the situation is same.

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[1] SH7263 Group

(1) Before revision

Product Classification	Product Code	IEB	SDHI	Package
SH7263	R5S72630P200FP	Not included	Not included	QFP3232-240Cu
	R5S72631P200FP	Not included	Included	
	R5S72632P200FP	Included	Not included	
	R5S72633P200FP	Included	Included	

(2) After revision

Product Classification	Product Code	IEB	SDHI	Package	New project launch	Alternative Product
SH7263	**R5S72630P200FP**	Included	Not included	QFP3232-240Cu	recommended	-
	R5S72631P200FP	Included	included		recommended	-
	R5S72632P200FP	Included	Not included		Not recommended	R5S72630P200FP
	R5S72633P200FP	Included	Included		Not recommended	R5S72631P200FP

[2] SH7262 Group, SH7264 Group

(1) Before revision

Product Classification	Product Code		IEBus Controller	Controller Area Network	Operating Temperature	Package
SH7262 Group	R5S72620W144FPU		Not included	Not included	Regular specifications (-20 to +85 °C)	176-pin QFP
	R5S72621W144FPU		Not included	Included		
	R5S72622W144FPU		Included	Not included		
	R5S72623W144FPU	1 M byte	Included	Included		
	R5S72620P144FPU		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72621P144FPU		Not included	Included		
	R5S72622P144FPU		Included	Not included		
	R5S72623P144FPU		Included	Included		
	R5S72624W144FPU		Not included	Not included	Regular specifications (-20 to +85 °C)	
	R5S72625W144FPU		Not included	Included		
	R5S72626W144FPU		Included	Not included		
	R5S72627W144FPU	640 K byte	Included	Included		
	R5S72624P144FPU		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72625P144FPU		Not included	Included		
	R5S72626P144FPU		Included	Not included		
	R5S72627P144FPU		Included	Included		
SH7264 Group	R5S72640W144FPU		Not included	Not included	Regular specifications (-20 to +85 °C)	208-pin QFP
	R5S72641W144FPU		Not included	Included		
	R5S72642W144FPU		Included	Not included		
	R5S72643W144FPU	1 M byte	Included	Included		
	R5S72640P144FPU		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72641P144FPU		Not included	Included		
	R5S72642P144FPU		Included	Not included		
	R5S72643P144FPU		Included	Included		
	R5S72644W144FPU		Included	Not included	Regular specifications (-20 to +85 °C)	
	R5S72645W144FPU		Not included	Included		
	R5S72646W144FPU		Included	Not included		
	R5S72647W144FPU	640 K byte	Included	Included		
	R5S72644P144FPU		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72645P144FPU		Not included	Included		
	R5S72646P144FPU		Included	Not included		
	R5S72647P144FPU		Included	Included		

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(2) After revision

Product Classification	Product Code		IEBus Controller	Controller Area Network	Operating Temperature	Package	New project launch	Alternative Product
SH7262 Group	**R5S72620W144FPU**		Included	Included	Regular specifications (-20 to +85 °C)	176-pin QFP	recommended	-
	R5S72621W144FPU		Not included	Included			Not recommended	R5S72620W144FPU
	R5S72622W144FPU		Included	Not included			Not recommended	R5S72620W144FPU
	R5S72623W144FPU	1 M	Included	Included			Not recommended	R5S72620W144FPU
	R5S72620P144FPU	byte	Not included	Not included	Wide-range specifications (-40 to +85 °C)		Not recommended	R5S72621P144FPU
	R5S72621P144FPU		Included	Included			recommended	-
	R5S72622P144FPU		Included	Not included			Not recommended	R5S72621P144FPU
	R5S72623P144FPU		Included	Included			Not recommended	R5S72621P144FPU
	R5S72624W144FPU		Included	Included	Regular specifications (-20 to +85 °C)		recommended	-
	R5S72625W144FPU		Not included	Included			Not recommended	R5S72624W144FPU
	R5S72626W144FPU		Included	Not included			Not recommended	R5S72624W144FPU
	R5S72627W144FPU	640 K	Included	Included			Not recommended	R5S72624W144FPU
	R5S72624P144FPU	byte	Not included	Not included	Wide-range specifications (-40 to +85 °C)		Not recommended	R5S72625P144FPU
	R5S72625P144FPU		Included	Included			recommended	-
	R5S72626P144FPU		Included	Not included			Not recommended	R5S72625P144FPU
	R5S72627P144FPU		Included	Included			Not recommended	R5S72625P144FPU
SH7264 Group	**R5S72640W144FPU**		Included	Included	Regular specifications (-20 to +85 °C)	208-pin QFP	recommended	-
	R5S72641W144FPU		Not included	Included			Not recommended	R5S72640W144FPU
	R5S72642W144FPU		Included	Not included			Not recommended	R5S72640W144FPU
	R5S72643W144FPU	1 M	Included	Included			Not recommended	R5S72640W144FPU
	R5S72640P144FPU	byte	Not included	Not included	Wide-range specifications (-40 to +85 °C)		Not recommended	R5S72641P144FPU
	R5S72641P144FPU		Included	Included			recommended	-
	R5S72642P144FPU		Included	Not included			Not recommended	R5S72641P144FPU
	R5S72643P144FPU		Included	Included			Not recommended	R5S72641P144FPU
	R5S72644W144FPU		Included	Included	Regular specifications (-20 to +85 °C)		recommended	-
	R5S72645W144FPU		Not included	Included			Not recommended	R5S72644W144FPU
	R5S72646W144FPU		Included	Not included			Not recommended	R5S72644W144FPU
	R5S72647W144FPU	640 K	Included	Included			Not recommended	R5S72644W144FPU
	R5S72644P144FPU	byte	Not included	Not included	Wide-range specifications (-40 to +85 °C)		Not recommended	R5S72645P144FPU
	R5S72645P144FPU		Included	Included			recommended	-
	R5S72646P144FPU		Included	Not included			Not recommended	R5S72645P144FPU
	R5S72647P144FPU		Included	Included			Not recommended	R5S72645P144FPU

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[3] SH7266 Group, SH7267 Group

(1) Before revision

Product Classification	Product Code	Controller Area Network	Operating Temperature	Package
SH7266 Group	R5S72660W144FP	Not included	Regular specifications (-20 to +85°C)	144-pin QFP
	R5S72661W144FP	Included		
	R5S72660P144FP	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72661P144FP	Included		
SH7267 Group	R5S72670W144FP	Not included	Regular specifications (-20 to +85°C)	176-pin QFP
	R5S72671W144FP	Included		
	R5S72670P144FP	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72671P144FP	Included		

(2) After revision

Product Classification	Product Code	Controller Area Network	Operating Temperature	Package	New project launch	Alternative Product
SH7266 Group	**R5S72660W144FP**	Included	Regular specifications (-20 to +85°C)	144-pin QFP	recommended	-
	R5S72661W144FP	Included			Not recommended	R5S72660W144FP
	R5S72660P144FP	Not included	Wide-range specifications (-40 to +85°C)		Not recommended	R5S72661P144FP
	R5S72661P144FP	Included			recommended	-
SH7267 Group	**R5S72670W144FP**	Included	Regular specifications (-20 to +85°C)	176-pin QFP	recommended	-
	R5S72671W144FP	Included			Not recommended	R5S72670W144FP
	R5S72670P144FP	Not included	Wide-range specifications (-40 to +85°C)		Not recommended	R5S72671P144FP
	R5S72671P144FP	Included			recommended	-

[4] SH7268 Group, SH7269 Group

(1) Before revision

Product Classification	Product Code	Controller Area Network	Operating Temperature	Package
SH7268 Group	R5S72680W266FP	Not included	Regular specifications (-20 to +85°C)	208-pin QFP
	R5S72681W266FP	Included		
	R5S72680P266FP	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72681P266FP	Included		
SH7269 Group	R5S72690W266FP	Not included	Regular specifications (-20 to +85°C)	256-pin QFP
	R5S72691W266FP	Included		
	R5S72690P266FP	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72691P266FP	Included		
	R5S72690W266BG	Not included	Regular specifications (-20 to +85°C)	272-pin BGA
	R5S72691W266BG	Included		
	R5S72690P266BG	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72691P266BG	Included		

(2) After revision

Product Classification	Product Code	Controller Area Network	Operating Temperature	Package	New project launch	Alternative Product
SH7268 Group	**R5S72680W266FP**	Included	Regular specifications (-20 to +85°C)	208-pin QFP	recommended	-
	R5S72681W266FP	Included			Not recommended	R5S72680W266FP
	R5S72680P266FP	Not included	Wide-range specifications (-40 to +85°C)		Not recommended	R5S72681P266FP
	R5S72681P266FP	Included			recommended	-
SH7269 Group	**R5S72690W266FP**	Included	Regular specifications (-20 to +85°C)	256-pin QFP	recommended	-
	R5S72691W266FP	Included			Not recommended	R5S72690W266FP
	R5S72690P266FP	Not included	Wide-range specifications (-40 to +85°C)		Not recommended	R5S72691P266FP
	R5S72691P266FP	Included			recommended	-
	R5S72690W266BG	Included	Regular specifications (-20 to +85°C)	272-pin BGA	recommended	-
	R5S72691W266BG	Included			Not recommended	R5S72690W266BG
	R5S72690P266BG	Not included	Wide-range specifications (-40 to +85°C)		Not recommended	R5S72691P266BG
	R5S72691P266BG	Included			recommended	-

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[5] SH726A Group, SH726B Group

(1) Before revision

Product Classification	Product Code	Controller Area Network	Operating Temperature	Quality Level	Package
SH726A Group	R5S726A0D216FP	Not included	-40 to +85°C	Industry usage etc.	PLQP0120KA-A (120-pin LQFP, 16-mm square, 0.5-mm pitch)
	R5S726A0P216FP			Car Accessories	
	R5S726A1D216FP	Included		Industry usage etc.	
	R5S726A1P216FP			Car Accessories	
	R5S726A2D216FP	Not included		Industry usage etc.	PLQP0120LA-A (120-pin LQFP, 14-mm square, 0.4-mm pitch)
	R5S726A2P216FP			Car Accessories	
	R5S726A3D216FP	Included		Industry usage etc.	
	R5S726A3P216FP			Car Accessories	
SH726B Group	R5S726B0D216FP	Not included		Industry usage etc.	PLQP0144KA-A (144-pin LQFP, 20-mm square, 0.5-mm pitch)
	R5S726B0P216FP			Car Accessories	
	R5S726B1D216FP	Included		Industry usage etc.	
	R5S726B1P216FP			Car Accessories	

(2) After revision

Product Classification	Product Code	Controller Area Network	Operating Temperature	Quality Level	Package	New project launch	Alternative Product
SH726A Group	**R5S726A0D216FP**	Included	-40 to +85°C	Industry usage etc.	PLQP0120KA-A (120-pin LQFP, 16-mm square, 0.5-mm pitch)	recommended	-
	R5S726A0P216FP	Not included		Car Accessories		Not recommended	R5S726A1P216FP
	R5S726A1D216FP	Included		Industry usage etc.		Not recommended	R5S726A0D216FP
	R5S726A1P216FP			Car Accessories		recommended	-
	R5S726A2D216FP	Included		Industry usage etc.	PLQP0120LA-A (120-pin LQFP, 14-mm square, 0.4-mm pitch)	recommended	-
	R5S726A2P216FP	Not included		Car Accessories		Not recommended	R5S726A3P216FP
	R5S726A3D216FP	Included		Industry usage etc.		Not recommended	R5S726A2D216FP
	R5S726A3P216FP			Car Accessories		recommended	-
SH726B Group	**R5S726B0D216FP**	Included		Industry usage etc.	PLQP0144KA-A (144-pin LQFP, 20-mm square, 0.5-mm pitch)	recommended	-
	R5S726B0P216FP	Not included		Car Accessories		Not recommended	R5S726B1P216FP
	R5S726B1D216FP	Included		Industry usage etc.		Not recommended	R5S726B0D216FP
	R5S726B1P216FP			Car Accessories		recommended	-

End of Document

[Appendix] The Standard Ordering Part Number of the Applicable Products (before revision)

(1) SH7263 Group

Product Classification	Product Code	Standard Ordering Part Number	IEB	SDHI	Package
SH7263	**R5S72630P200FP**	Same as Product Code	Not included	Not included	QFP3232-240Cu
	R5S72631P200FP	Same as Product Code	Not included	Included	
	R5S72632P200FP	Same as Product Code	Included	Not included	
	R5S72633P200FP	Same as Product Code	Included	Included	

(2) SH7262 Group, SH7264 Group

Product Classification	Product Code	Standard Ordering Part Number		IEBus Controller	Controller Area Network	Operating Temperature	Package
SH7262 Group	**R5S72620W144FPU**	**R5S72620W144FP#U0**	1 M byte	Not included	Not included	Regular specifications (-20 to +85 °C)	176-pin QFP
	R5S72621W144FPU	R5S72621W144FP#U0		Not included	Included		
	R5S72622W144FPU	R5S72622W144FP#U0		Included	Not included		
	R5S72623W144FPU	R5S72623W144FP#U0		Included	Included		
	R5S72620P144FPU	R5S72620P144FP#UZ		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72621P144FPU	**R5S72621P144FP#UZ**		Not included	Included		
	R5S72622P144FPU	R5S72622P144FP#UZ		Included	Not included		
	R5S72623P144FPU	R5S72623P144FP#UZ		Included	Included		
	R5S72624W144FPU	**R5S72624W144FP#U0**	640 K byte	Not included	Not included	Regular specifications (-20 to +85 °C)	
	R5S72625W144FPU	R5S72625W144FP#U0		Not included	Included		
	R5S72626W144FPU	R5S72626W144FP#U0		Included	Not included		
	R5S72627W144FPU	R5S72627W144FP#U0		Included	Included		
	R5S72624P144FPU	R5S72624P144FP#UZ		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72625P144FPU	**R5S72625P144FP#UZ**		Not included	Included		
	R5S72626P144FPU	R5S72626P144FP#UZ		Included	Not included		
	R5S72627P144FPU	R5S72627P144FP#UZ		Included	Included		
SH7264 Group	**R5S72640W144FPU**	**R5S72640W144FP#U0**	1 M byte	Not included	Not included	Regular specifications (-20 to +85 °C)	208-pin QFP
	R5S72641W144FPU	R5S72641W144FP#U0		Not included	Included		
	R5S72642W144FPU	R5S72642W144FP#U0		Included	Not included		
	R5S72643W144FPU	R5S72643W144FP#U0		Included	Included		
	R5S72640P144FPU	R5S72640P144FP#UZ		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72641P144FPU	**R5S72641P144FP#UZ**		Not included	Included		
	R5S72642P144FPU	R5S72642P144FP#UZ		Included	Not included		
	R5S72643P144FPU	R5S72643P144FP#UZ		Included	Included		
	R5S72644W144FPU	**R5S72644W144FP#U0**	640 K byte	Included	Not included	Regular specifications (-20 to +85 °C)	
	R5S72645W144FPU	R5S72645W144FP#U0		Not included	Included		
	R5S72646W144FPU	R5S72646W144FP#U0		Included	Not included		
	R5S72647W144FPU	R5S72647W144FP#U0		Included	Included		
	R5S72644P144FPU	R5S72644P144FP#UZ		Not included	Not included	Wide-range specifications (-40 to +85 °C)	
	R5S72645P144FPU	**R5S72645P144FP#UZ**		Not included	Included		
	R5S72646P144FPU	R5S72646P144FP#UZ		Included	Not included		
	R5S72647P144FPU	R5S72647P144FP#UZ		Included	Included		

(3) SH7266 Group, SH7267 Group

Product Classification	Product Code	Standard Ordering Part Number	Controller Area Network	Operating Temperature	Package
SH7266 Group	**R5S72660W144FP**	**R5S72660W144FP#V0**	Not included	Regular specifications (-20 to +85°C)	144-pin QFP
	R5S72661W144FP	R5S72661W144FP#V0	Included		
	R5S72660P144FP	R5S72660P144FP#VZ	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72661P144FP	**R5S72661P144FP#VZ**	Included		
SH7267 Group	**R5S72670W144FP**	**R5S72670W144FP#V0**	Not included	Regular specifications (-20 to +85°C)	176-pin QFP
	R5S72671W144FP	R5S72671W144FP#V0	Included		
	R5S72670P144FP	R5S72670P144FP#VZ	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72671P144FP	**R5S72671P144FP#VZ**	Included		

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(4) SH7268 Group, SH7269 Group

Product Classification	Product Code	Standard Ordering Part Number	Controller Area Network	Operating Temperature	Package
SH7268 Group	**R5S72680W266FP**	**R5S72680W266FP#V0**	Not included	Regular specifications (-20 to +85°C)	208-pin QFP
	R5S72681W266FP	R5S72681W266FP#V0	Included		
	R5S72680P266FP	R5S72680P266FP#VZ	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72681P266FP	**R5S72681P266FP#VZ**	Included		
SH7269 Group	**R5S72690W266FP**	**R5S72690W266FP#V0**	Not included	Regular specifications (-20 to +85°C)	256-pin QFP
	R5S72691W266FP	R5S72691W266FP#V0	Included		
	R5S72690P266FP	R5S72690P266FP#VZ	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72691P266FP	**R5S72691P266FP#VZ**	Included		
	R5S72690W266BG	**R5S72690W266BG#U0**	Not included	Regular specifications (-20 to +85°C)	272-pin BGA
	R5S72691W266BG	R5S72691W266BG#U0	Included		
	R5S72690P266BG	R5S72690P266BG#UZ	Not included	Wide-range specifications (-40 to +85°C)	
	R5S72691P266BG	**R5S72691P266BG#UZ**	Included		

(5) SH726A Group, SH726B Group

Product Classification	Product Code	Standard Ordering Part Number	Controller Area Network	Operating Temperature	Quality Level	Package
SH726A Group	**R5S726A0D216FP**	**R5S726A0D216FP#V0**	Not included	-40 to +85°C	Industry usage etc.	PLQP0120KA-A (120-pin LQFP, 16-mm square, 0.5-mm pitch)
	R5S726A0P216FP	R5S726A0P216FP#VZ			Car Accessories	
	R5S726A1D216FP	R5S726A1D216FP#V0	Included		Industry usage etc.	
	R5S726A1P216FP	**R5S726A1P216FP#VZ**			Car Accessories	
	R5S726A2D216FP	**R5S726A2D216FP#V0**	Not included		Industry usage etc.	PLQP0120LA-A (120-pin LQFP, 14-mm square, 0.4-mm pitch)
	R5S726A2P216FP	R5S726A2P216FP#VZ			Car Accessories	
	R5S726A3D216FP	R5S726A3D216FP#V0	Included		Industry usage etc.	
	R5S726A3P216FP	**R5S726A3P216FP#VZ**			Car Accessories	
SH726B Group	**R5S726B0D216FP**	**R5S726B0D216FP#V0**	Not included		Industry usage etc.	PLQP0144KA-A (144-pin LQFP, 20-mm square, 0.5-mm pitch)
	R5S726B0P216FP	R5S726B0P216FP#VZ			Car Accessories	
	R5S726B1D216FP	R5S726B1D216FP#V0	Included		Industry usage etc.	
	R5S726B1P216FP	**R5S726B1P216FP#VZ**			Car Accessories	

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