

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RA*-A0129A/E	Rev.	1.00
Title	Correction to Function comparison table		Information Category	Technical Notification		
Applicable Product	RA6M2 Group, RA6M3 Group, RA6M4 Group, RA6M5 Group, RA6E1 Group		Lot No.	Reference Document	Refer table at the end of this document	
			All			

The descriptions of Functional comparison tables are corrected as follows.

1) RA6M2

[Current description]

Table 1.16 Functional comparison

Function	Part numbers		
	R7FA6M2AF2CLK/ R7FA6M2AD2CLK/ R7FA6M2AF3CLK/ R7FA6M2AD3CLK	R7FA6M2AF3CFB/ R7FA6M2AD3CFB	R7FA6M2AF3CFP/ R7FA6M2AD3CFP
Pin count	145	144	100
Package	LGA	LQFP	LQFP

(omitted)

Communication	SCI	10	
	IIC	3	2
	SPI	2	
	SSIE	1	
	QSPI	1	
	SDHI	2	
	CAN	2	
	USBFS	Yes	
	ETHERC	1	

Note 1. Some input channels of the ADC units are sharing same port pin.

[Corrected description]

Table 1.16 Functional comparison

Function	Part numbers		
	R7FA6M2AF2CLK/ R7FA6M2AD2CLK/ R7FA6M2AF3CLK/ R7FA6M2AD3CLK	R7FA6M2AF3CFB/ R7FA6M2AD3CFB	R7FA6M2AF3CFP/ R7FA6M2AD3CFP
Pin count	145	144	100
Package	LGA	LQFP	LQFP

(omitted)

Communication	SCI	10	
	IIC	3	2
	SPI	2	
	SSIE	1	
	QSPI	1	
	SDHI	2	
	CAN	2	
	USBFS	Yes	
	ETHERC	1	1 ²

Note 1. Some input channels of the ADC units are sharing same port pin.

Note 2. Available for RMII only

2) RA6M3

[Current description]

Table 1.16 Functional comparison

Function	Part numbers				
	R7FA6M3AH2CBG/ R7FA6M3AF2CBG/ R7FA6M3AH3CBG/ R7FA6M3AF3CBG	R7FA6M3AH3CFC/ R7FA6M3AF3CFC	R7FA6M3AH2CLK/ R7FA6M3AF2CLK/ R7FA6M3AH3CLK/ R7FA6M3AF3CLK	R7FA6M3AH3CFB/ R7FA6M3AF3CFB	R7FA6M3AH3CFP/ R7FA6M3AF3CFP
Pin count	176	176	145	144	100
Package	BGA	LQFP	LGA	LQFP	LQFP

(omitted)

Communication	Part numbers				
	R7FA6M3AH2CBG/ R7FA6M3AF2CBG/ R7FA6M3AH3CBG/ R7FA6M3AF3CBG	R7FA6M3AH3CFC/ R7FA6M3AF3CFC	R7FA6M3AH2CLK/ R7FA6M3AF2CLK/ R7FA6M3AH3CLK/ R7FA6M3AF3CLK	R7FA6M3AH3CFB/ R7FA6M3AF3CFB	R7FA6M3AH3CFP/ R7FA6M3AF3CFP
SCI	10				
IIC	3			2	
SPI	2				
SSIE	2			1	
QSPI	1				
SDHI	2				
CAN	2				
USBFS	Yes				
USBHS	Yes		No		
ETHERC	1				

Note 1. Some input channels of the ADC units are sharing same port pin.

[Corrected description]

Table 1.16 Functional comparison

Function	Part numbers				
	R7FA6M3AH2CBG/ R7FA6M3AF2CBG/ R7FA6M3AH3CBG/ R7FA6M3AF3CBG	R7FA6M3AH3CFC/ R7FA6M3AF3CFC	R7FA6M3AH2CLK/ R7FA6M3AF2CLK/ R7FA6M3AH3CLK/ R7FA6M3AF3CLK	R7FA6M3AH3CFB/ R7FA6M3AF3CFB	R7FA6M3AH3CFP/ R7FA6M3AF3CFP
Pin count	176	176	145	144	100
Package	BGA	LQFP	LGA	LQFP	LQFP

(omitted)

Communication	Part numbers				
	R7FA6M3AH2CBG/ R7FA6M3AF2CBG/ R7FA6M3AH3CBG/ R7FA6M3AF3CBG	R7FA6M3AH3CFC/ R7FA6M3AF3CFC	R7FA6M3AH2CLK/ R7FA6M3AF2CLK/ R7FA6M3AH3CLK/ R7FA6M3AF3CLK	R7FA6M3AH3CFB/ R7FA6M3AF3CFB	R7FA6M3AH3CFP/ R7FA6M3AF3CFP
SCI	10				
IIC	3			2	
SPI	2				
SSIE	2			1	
QSPI	1				
SDHI	2				
CAN	2				
USBFS	Yes				
USBHS	Yes		No		
ETHERC	1 ^{1,2}			1 ^{1,2}	

Note 1. Some input channels of the ADC units are sharing same port pin.

Note 2. Available for RMII only

3) RA6M4

[Current description]

Table 1.15 Function Comparison

Parts number	R7FA6M4AXXCFB	R7FA6M4AXXCBM	R7FA6M4AXXCFP	R7FA6M4AXXCFM	R7FA6M4AXXCBQ
Pin count	144		100	64	
Package	LQFP	BGA	LQFP		BGA

(omitted)

Communication	SCI	10		8	
	IIC	2			
	SPI	2			
	CAN	2			
	USBFS	Yes			
	QSPI	Yes			
	OSPI	Yes		No	
	SSIE	Yes		No	Yes
	SDHI/MMC	Yes		No	
	ETHERC	Yes		No	

Note 1. Available pins depend on the Pin count, about details see section 1.7. Pin Lists.

Note 2. Some input channels of the ADC units are sharing same port pin.

[Corrected description]

Table 1.15 Function Comparison

Parts number	R7FA6M4AXXCFB	R7FA6M4AXXCBM	R7FA6M4AXXCFP	R7FA6M4AXXCFM	R7FA6M4AXXCBQ
Pin count	144		100	64	
Package	LQFP	BGA	LQFP		BGA

(omitted)

Communication	SCI	10		8	
	IIC	2			
	SPI	2			
	CAN	2			
	USBFS	Yes			
	QSPI	Yes			
	OSPI	Yes		No	
	SSIE	Yes		No	Yes
	SDHI/MMC	Yes		No	
	ETHERC	Yes		Yes ³	No

Note 1. Available pins depend on the Pin count, about details see section 1.7. Pin Lists.

Note 2. Some input channels of the ADC units are sharing same port pin.

Note 3. Available for RMII only

4) RA6M5

[Current description]

Table 1.15 Function Comparison

Parts number	R7FA6M5XX2CBG	R7FA6M5XX3CFC	R7FA6M5XXCBM	R7FA6M5XX3CFB	R7FA6M5XX3CFP
Pin count	176		144		100
Package	BGA	LQFP	BGA	LQFP	LQFP

(omitted)

Communication	SCI	10	10	10
	IIC	3		
	SPI	2		
	CAN or CANFD	2		
	USBFS	Yes		
	USBHS	Yes	No	
	QSPI	Yes		
	OSPI	Yes		
	SSIE	Yes		
	SDHI/MMC	Yes		
	ETHERC		Yes	
	CEC	Yes		

(omitted)

HMI	CTSU	20	12
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Note: The product name differs depend on the memory size and whether CAN or CANFD is supported. see section 1.3. Part Numbering
 Note 1. Available pins depend on the Pin count, about details see section 1.7. Pin Lists.
 Note 2. Some input channels of the ADC units are sharing same port pin.

[Corrected description]

Table 1.15 Function Comparison

Parts number	R7FA6M5XX2CBG	R7FA6M5XX3CFC	R7FA6M5XXCBM	R7FA6M5XX3CFB	R7FA6M5XX3CFP
Pin count	176		144		100
Package	BGA	LQFP	BGA	LQFP	LQFP

(omitted)

Communication	SCI	10	10	10
	IIC	3		
	SPI	2		
	CAN or CANFD	2		
	USBFS	Yes		
	USBHS	Yes	No	
	QSPI	Yes		
	OSPI	Yes		
	SSIE	Yes		
	SDHI/MMC	Yes		
	ETHERC	Yes ³	Yes	Yes ³
	CEC	Yes		

(omitted)

HMI	CTSU	15	20	12
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Note: The product name differs depend on the memory size and whether CAN or CANFD is supported. see section 1.3. Part Numbering
 Note 1. Available pins depend on the Pin count, about details see section 1.7. Pin Lists.
 Note 2. Some input channels of the ADC units are sharing same port pin.
 Note 3. Available for RMII only

5) RA6E1

[Current description]

Table 1.14 Function Comparison

Parts number	R7FA6E10F2CFP R7FA6E10D2CFP	R7FA6E10F2CFM R7FA6E10D2CFM	R7FA6E10F2CNE R7FA6E10D2CNE
Pin count	100	64	48

(omitted)

Communication	SCI ¹	6	
	IIC	2	1
	SPI	2	1
	CAN	1	
	USBFS	Yes	
	QSPI	Yes	No
	SSIE	Yes	No
	SDHI/MMC	Yes	No
	ETHERC	Yes	No

Note 1. Available pins depend on the Pin count, about details see section 1.7. Pin Lists.

Note 2. Only access control circuit, random number generation circuit, and unique ID are supported. The operation of other circuits is not guaranteed.

[Corrected description]

Table 1.14 Function Comparison

Parts number	R7FA6E10F2CFP R7FA6E10D2CFP	R7FA6E10F2CFM R7FA6E10D2CFM	R7FA6E10F2CNE R7FA6E10D2CNE
Pin count	100	64	48

(omitted)

Communication	SCI ¹	6	
	IIC	2	1
	SPI	2	1
	CAN	1	
	USBFS	Yes	
	QSPI	Yes	No
	SSIE	Yes	No
	SDHI/MMC	Yes	No
	ETHERC	Yes ³	No

Note 1. Available pins depend on the Pin count, about details see section 1.7. Pin Lists.

Note 2. Only access control circuit, random number generation circuit, and unique ID are supported. The operation of other circuits is not guaranteed.

Note 3. Available for RMII only

Reference Document Table

Product	Document name
RA6M2 Group	Renesas RA6M2 Group User's Manual: Hardware Rev.1.20
RA6M3 Group	Renesas RA6M3 Group User's Manual: Hardware Rev.1.20
RA6M4 Group	Renesas RA6M4 Group User's Manual: Hardware Rev.1.40
RA6M5 Group	Renesas RA6M5 Group User's Manual: Hardware Rev.1.30
RA6E1 Group	Renesas RA6E1 Group User's Manual: Hardware Rev.1.20