

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RX*-A193A/E	Rev.	1.00
Title	Errata to RX Family User's Manuals Regarding the Examples of the Register Settings for I ² C-bus Interface (RIIC)		Information Category	Technical Notification		
Applicable Product	RX110 Group, RX111 Group, RX113 Group, RX130 Group, RX210 Group, RX231 Group, RX230 Group, RX23T Group, RX24T Group, RX24U Group, RX610 Group, RX62N Group, RX621 Group, RX62T Group, RX62G Group, RX630 Group, RX634 Group, RX63N Group, RX631 Group, RX63T Group, RX64M Group, RX65N Group, RX651 Group, RX71M Group	Lot No.	Reference Document	User's Manual: Hardware for applicable products (Refer to the table on the last page for details)		
	All					

This document describes corrections to the examples of the settings for registers ICBRH and ICBRL in the “I²C-bus Interface (RIIC)” section of User's manual: Hardware for the applicable products mentioned above. Page and table numbers are based on the RX64M Group. Refer to the table on the last page for corresponding page and table numbers in the other groups.

•Page 2178 of 2936

The setting values for the operating frequencies of 30, 32, 40, and 60 MHz in Table 42.5, Examples of ICBRH/ICBRL Settings for Transfer Rate are corrected as follows.

Note that the operating frequencies and the transfer rates listed in the table depend on the product group.

Before correction

Transfer Rate (kbps)	Operating Frequency PCLK (MHz)					
	30			32		
	CKS[2:0]	ICBRH	ICBRL	CKS[2:0]	ICBRH	ICBRL
10	110b	20 (F4h)	24 (F8h)	110b	22 (F6h)	25 (F9h)
50	100b	15 (EFh)	18 (F2h)	100b	16 (F0h)	19 (F3h)
100	010b	2 (E2h)	3 (E3h)	011b	15 (EFh)	18 (F2h)
400	001b	8 (E8h)	19 (F3h)	001b	9 (E9h)	20 (F4h)
1000	000b	7 (E7h)	14 (EEh)	000b	7 (E7h)	16 (F0h)

Transfer Rate (kbps)	Operating Frequency PCLK (MHz)					
	40			60		
	CKS[2:0]	ICBRH	ICBRL	CKS[2:0]	ICBRH	ICBRL
10	111b	13 (7Dh)	15 (7Fh)	111b	20 (F4h)	24 (F8h)
50	100b	21 (F5h)	24 (F8h)	101b	15 (EFh)	18 (F2h)
100	011b	19 (F3h)	23 (F7h)	011b	2 (E2h)	3 (E3h)
400	001b	11 (7Bh)	25 (F9h)	010b	8 (E8h)	19 (F3h)
1000	000b	9 (E9h)	20 (F4h)	000b	15 (EFh)	29 (FDh)

After correction

Transfer Rate (kbps)	Operating Frequency PCLK (MHz)					
	30			32		
	CKS[2:0]	ICBRH	ICBRL	CKS[2:0]	ICBRH	ICBRL
10	110b	20 (F4h)	24 (F8h)	110b	22 (F6h)	25 (F9h)
50	100b	15 (EFh)	18 (F2h)	100b	16 (F0h)	19 (F3h)
100	011b	14 (EEh)	17 (F1h)	011b	15 (EFh)	18 (F2h)
400	001b	8 (E8h)	19 (F3h)	001b	9 (E9h)	20 (F4h)
1000	000b	7 (E7h)	14 (EEh)	000b	8 (E8h)	16 (F0h)

Transfer Rate (kbps)	Operating Frequency PCLK (MHz)					
	40			60		
	CKS[2:0]	ICBRH	ICBRL	CKS[2:0]	ICBRH	ICBRL
10	111b	13 (EDh)	15 (EFh)	111b	20 (F4h)	24 (F8h)
50	100b	21 (F5h)	24 (F8h)	101b	15 (EFh)	18 (F2h)
100	011b	19 (F3h)	23 (F7h)	100b	14 (EEh)	17 (F1h)
400	001b	11 (EBh)	25 (F9h)	010b	8 (E8h)	19 (F3h)
1000	000b	10 (EAh)	20 (F4h)	000b	15 (EFh)	29 (FDh)

Reference Documents

Group	Manual Title (Document Number)	Page Number	Table Number
RX110 Group	RX110 Group User's Manual: Hardware Rev1.20 (R01UH0421EJ0120)	Page 647 of 968	Table 24.5
RX111 Group	RX111 Group User's Manual: Hardware Rev1.30 (R01UH0365EJ0130)	Page 900 of 1265	Table 27.5
RX113 Group	RX110 Group User's Manual: Hardware Rev1.10 (R01UH0448EJ0110)	Page 982 of 1483	Table 30.5
RX130 Group	RX130 Group User's Manual: Hardware Rev2.00 (R01UH0560EJ0200)	Page 914 of 1383	Table 29.5
RX210 Group	RX210 Group User's Manual: Hardware Rev.1.50 (R01UH0037EJ0150)	Page 1122 of 1630	Table 30.6
RX230 Group, RX231 Group	RX230 Group, RX231 Group User's Manual: Hardware Rev.1.10 (R01UH0496EJ0110)	Page 1282 of 1977	Table 35.5
RX23T Group	RX23T Group User's Manual: Hardware Rev.1.10 (R01UH0520EJ0110)	Page 771 of 1119	Table 26.5
RX24T Group	RX24T Group User's Manual: Hardware Rev.2.00 (R01UH0576EJ0200)	Page 1058 of 1580	Table 27.5
RX24U Group	RX24U Group User's Manual: Hardware Rev.1.00 (R01UH0658EJ0100)	Page 1068 of 1588	Table 27.5
RX610 Group	RX610 Group User's Manual: Hardware Rev.1.20 (R01UH0032EJ0120)	Page 724 of 1006	Table 22.6
RX62N Group, RX621 Group	RX62N Group, RX621 Group User's Manual: Hardware Rev.1.40 (R01UH0033EJ0140)	Page 1512 of 2026	Table 31.6
RX62T Group, RX62G Group	RX62T Group, RX62G Group User's Manual: Hardware Rev.2.00 (R01UH0034EJ0200)	Page 1023 of 1489	Table 24.6
RX630 Group	RX630 Group User's Manual: Hardware Rev.1.60 (R01UH0040EJ0160)	Page 1189 of 1681	Table 33.5
RX634 Group	RX634 Group User's Manual: Hardware Rev.1.00 (R01UH0495EJ0100)	Page 1157 of 1486	Table 33.5
RX63N Group, RX631 Group	RX63N Group, RX631 Group User's Manual: Hardware Rev.1.80 (R01UH0041EJ0180)	Page 1465 of 2029	Table 36.5
RX63T Group	RX63T Group User's Manual: Hardware Rev.2.20 (R01UH0238EJ0220)	Page 1279 of 1865	Table 30.5
RX64M Group	RX64M Group User's Manual: Hardware Rev.1.10 (R01UH0377EJ0110)	Page 2178 of 2936	Table 42.5
RX65N Group, RX651 Group	RX65N Group, RX651 Group User's Manual: Hardware Rev.2.10 (R01UH0590EJ0210)	Page 1786 of 2695	Table 38.5
RX71M Group	RX71M Group User's Manual: Hardware Rev.1.10 (R01UH0493EJ0110)	Page 2195 of 2952	Table 42.5

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