

# RENESAS TECHNICAL UPDATE

TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan  
Renesas Electronics Corporation

Product Category	MPU/MCU		Document No.	TN-RX*-A0262A/E	Rev.	1.00
Title	Addition of Specifications Regarding the Capacitive Touch Sensing Unit (CTSU)		Information Category	Technical Notification		
Applicable Product	RX113 Group, RX130 Group, RX230 Group, RX231 Group, RX23W Group, RX671 Group		Lot No.	Reference Document	User's Manual: Hardware for applicable products (see the table on the last page)	
			All			

This document describes an addition of specifications to the capacitive touch sensing unit (CTSU) section in User's Manual: Hardware for the applicable products.

Page and section numbers are based on the RX113 Group. Refer to the table on the last page for the corresponding page and section numbers in the other groups.

## • Page 1214 of 1491

The CTSUCLKSEL1 bit is added to bit 6 in the CTSU error status register (CTSUERRS) as follows:

### 35.2.18 CTSU Error Status Register (CTSUERRS)

Address(es): CTSU.CTSUERRS 000A 091Ch

b15	b14	b13	b12	b11	b10	b9	b8	b7	b6	b5	b4	b3	b2	b1	b0
CTSUI COMP	—	—	—	—	—	—	—	CTSUT SOC	CTSUCL KSEL1	—	—	CTSUD RV	CTSUT SOD	CTSUSPMD[1:0]	1

Value after reset: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Bit	Symbol	Bit Name	Description	R/W
Omitted				
b5 to b4	—	Reserved	These bits are read as 0. The write value should be 0.	R/W
b6	CTSUCLKSEL1	Calibration Setting 3	0: Capacitance measurement mode 1: Calibration setting 3	R/W
b7	CTSUTSOC	Calibration Setting 2	0: Capacitance measurement mode 1: Calibration setting 2	R/W
Omitted				

#### CTSUCLKSEL1 Bit (Calibration Setting 3)

This bit is used to calibrate the CTSU.

When measuring the capacitance, set this bit to 0.

Reference Documents

Group	Manual Title	Rev.	Document Number	Section Number (Page Number)
RX113 Group	RX113 Group User's Manual: Hardware	Rev.1.20	R01UH0448EJ0120	35.2.18 (P.1214)
RX130 Group	RX130 Group User's Manual: Hardware	Rev.3.00	R01UH0560EJ0300	32.2.18 (P.1068)
RX230 Group, RX231 Group	RX230 Group, RX231 Group User's Manual: Hardware	Rev.1.20	R01UH0496EJ0120	42.2.18 (P.1624)
RX23W Group	RX23W Group User's Manual: Hardware	Rev.1.10	R01UH0823EJ0110	43.2.24 (P.1529)
RX671 Group	RX671 Group User's Manual: Hardware	Rev.1.10	R01UH0899EJ0110	47.2.20 (P.2614)

End of document