Date: Nov. 27, 2020

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-RH8-B0314A/E	Rev.	1.00
Title	RH850/C1M-A RDC setting limitation		Information Category	Technical Notification		
Applicable Product	RH850/C1M-A1 RH850/C1M-A2	Lot No. -	Reference Document	R01UH0607EJ0120 [RH850/C1M-A1, RH850/C1M-A2 User's Manual: Hardware]		

There are RDC setting limitation in the User's Manual of RH850/C1M-A products which are listed in the applicable product and this RENESAS Technical update describes these changes.

1. Contents of modification 1 (After: blue)

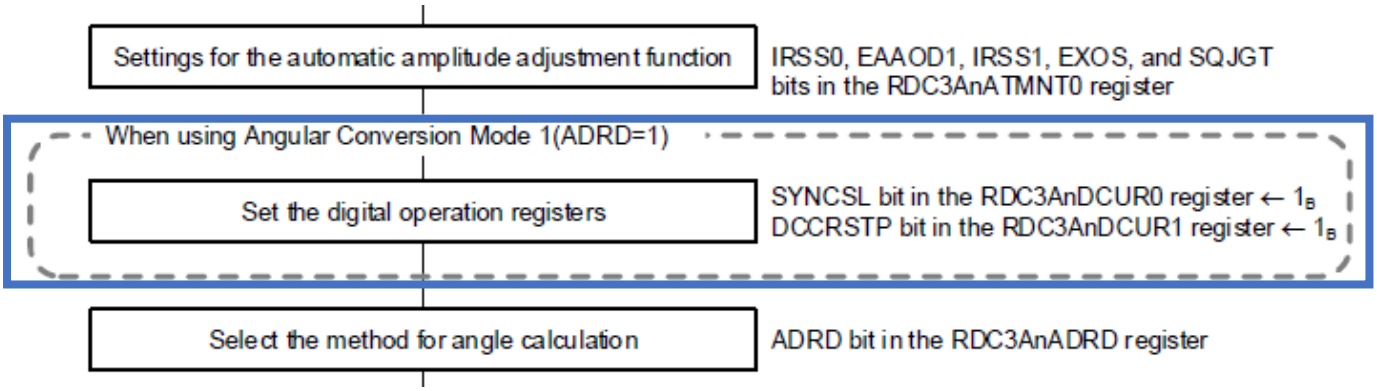
Table 26.51 RDC3AnDCUR0 Register Contents

5	SYNCSL	Synchronous Detection Setting in Angular Conversion Mode 1 (ADRD = 1) b5 0: Synchronous detection setting 0 1: Synchronous detection setting 1 In Angular Conversion Mode 0 (ADRD = 0), set this bit to 0.

Table 26.52 RDC3AnDCUR1 Register Contents

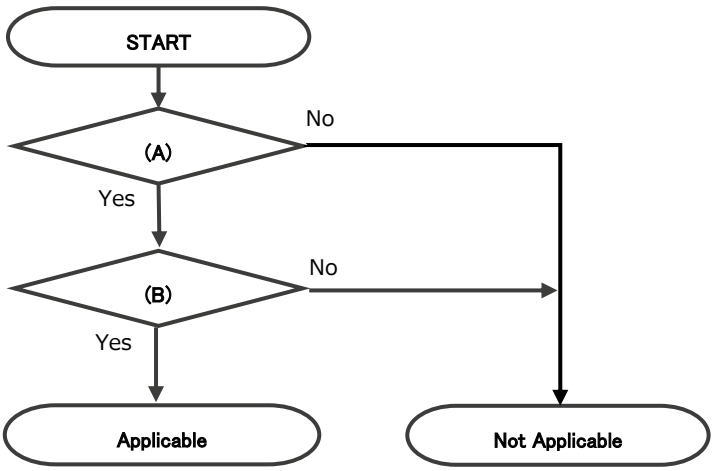
13	DCCRSTP	DC Error Correction Setting in Angular Conversion Mode 1 (ADRD = 1) b13 0: DC correction enabled 1: DC correction disabled Be sure to set this bit to 1 when the DC resolver is used. This setting has no effect when Angular Conversion Mode 0 (ADRD = 0).

Figure 26.29 Flow of Initial Settings of the Registers



The non-determination flows

The flow that determines whether or not this case applies is as follows.



(A) Always set ADRD=0 fixed input.

(B) Always set SYNCSL=1 fixed input.

2. Contents of modification 1 (After: blue)

26.4.5.1 Built-in Self-Test Function

"The BISTs are categorized into two groups depending on their execution timing as follows;

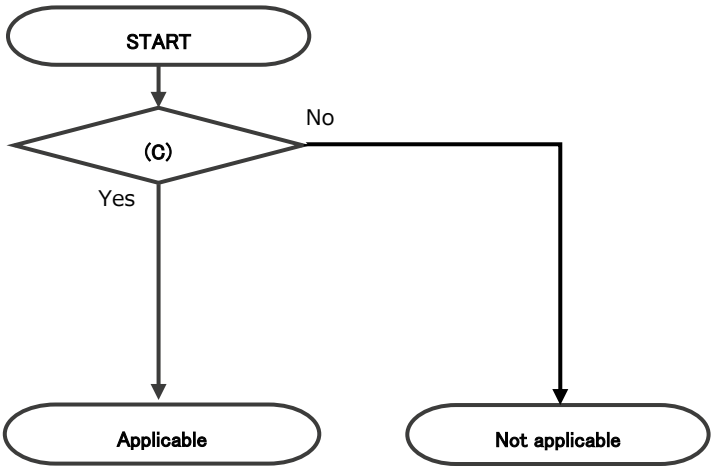
● Execution is possible during angle conversion and when starting up the power (short-period BIST): ADBIST, resolver signal error detection BIST, resolver signal disconnect detection BIST, power short error BIST, ground short error BIST, sum-of-squares amplitude error detection BIST (high side), sum-of-squares amplitude error detection BIST (low side)

● Execution is possible when starting up the power: angle conversion BIST, conversion error BIST

Short-period BIST can also be executed at starting up the power. However, if angle conversion BIST or conversion error BIST or both are executed at power-on, they must be executed before short-period BIST.

The non-determination flows

The flow that determines whether or not this case applies is as follows.



(C) Angle conversion BIST or conversion error BIST or both are executed, after Short-period BIST.