To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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RENESAS TECHNICAL UPDATE

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Product Category	MPU&MCU		Document No.	TN-SH7-A607A/E	Rev.	1.00
Title	The error correction and change description about bit synchronous circuit of I^{2}C bus interface 3 (IIC3)		Information Category	Technical Notification		
Applicable Product	SH7200 Series SH7210 Series SH7260 Series	Lot No. ALL	Reference Document	See below		

We would like to inform you of the following error correction and change description about bit synchronous circuit of the I^{2}C bus interface 3 (IIC3) included in the applicable products listed in the following table.

1. Error correction about time for monitoring SCL

Following shows error correction of values on CKS[3]=1.

[Error]

CKS[3]	CKS[2]	Time for Monitoring SCL
0	0	9 tpcyc
	1	21 tpcyc
1	0	19 tpcyc
	1	43 tpcyc

[Correction]

CKS[3]	CKS[2]	Time for Monitoring SCL
0	0	9 tpcyc
	1	21 tpcyc
1	0	33 tpcyc
	1	81 tpcyc

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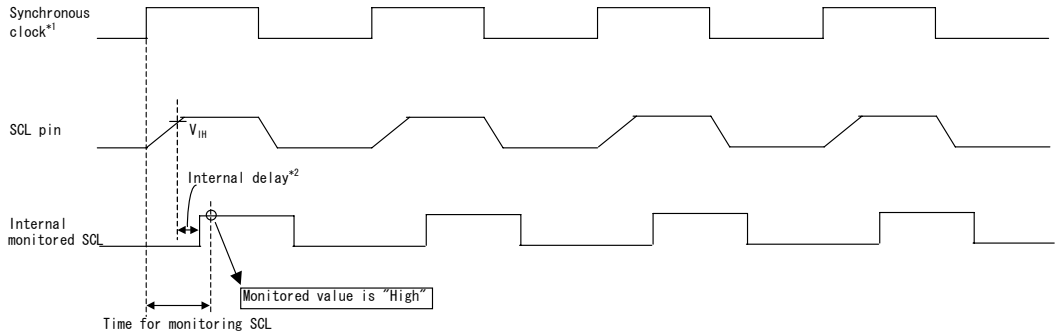
2. Change description about bit synchronous circuit timing figure

Following shows the figure of bit synchronous circuit timing after description changed.

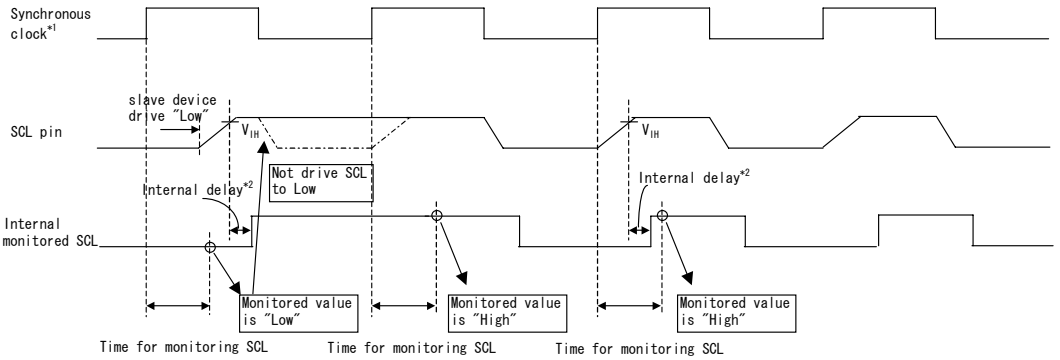
・Add “Normal case” and “Case that SCL is driven to low by the slave device” .

・Add supplemental description.

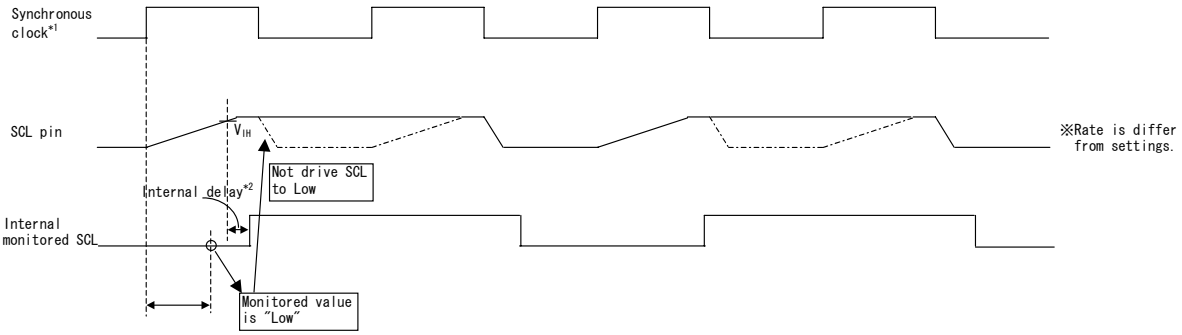
(a) Normal case



(b) Case that SCL is driven to low by the slave device



(c) Case that the rising speed of SCL is slow



Notes: *1 Clock whose rate is set by CKS[3:0] bits of I^2C bus control register 1 (ICCR1).

*2 3～4 t_{pcyc} when NF2CYC bit of NF2CYC register (NF2CYC) is 0、and 4～5 t_{pcyc} when NF2CYC bit is 1.

■ Applicable Products and Reference Documents

Applicable Products		Reference Document Title	Rev.	Document No.
Series	Group			
SH7200 Series	SH7201	SH7201 Group Hardware Manual	Rev.1.0	REJ09B0321-0100
	SH7203	SH7203 Group Hardware Manual	Rev.1.0	REJ09B0313-0100
	SH7206	SH7206 Group Hardware Manual	Rev.2.0	REJ09B0191-0200
SH7210 Series	SH7211	SH7211 Group Hardware Manual	Rev.1.0	REJ09B0344-0100
SH7260 Series	SH7261	SH7261 Group Hardware Manual	Rev.1.0	REJ09B0320-0100
	SH7263	SH7263 Group Hardware Manual	Rev.1.0	REJ09B0290-0100