RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU			Document No.	TN-SY*-A015A/E	Rev.	1.00
Title	Revised information of S124 User's Manual from Rev.1.20			Information Category	Technical Notification		
Applicable Product	Renesas Synergy™ S1 Series S124	Lot No.		Reference Document	S124 User's Manual: Microcontrollers, Rev.1.20		
		All lots					

1. 20.4.7 When Selecting AGT0 Underflow as Count Source

    [Before]

    (1) Procedure for starting operation

      1. Set AGT0 and AGT1.

      2. Start the count operation of AGT0.

      3. Start the count operation of AGT1.

    (2) Procedure for stopping operation

      1. Stop the count operation of AGT1.

      2. Stop the count operation of AGT0.

    [After]

    (1) Procedure for starting operation

      1. Set AGT0 and AGT1.

      2. Start the count operation of AGT1.

      3. Start the count operation of AGT0.

    (2) Procedure for stopping operation

      1. Stop the count operation of AGT0.

      2. Stop the count operation of AGT1.

      3. Stop the count source clock of AGT1. (Write "000b" in AGT1.AGTMR1.TCK[2:0] bits)

2. 7.2.7 Voltage Monitor 1 Circuit Control Register 0 (LVD1CR0)

    7.2.8 Voltage Monitor 2 Circuit Control Register 0 (LVD2CR0)

    [Before]

	b7	b6	b5	b4	b3	b2	b1	b0
	RN	RI	-	-	-	CMPE	-	RIE
Value after reset	1	0	0	0	0	0	0	0

    [After]

	b7	b6	b5	b4	b3	b2	b1	b0
	RN	RI	-	-	-	CMPE	-	RIE
Value after reset	1	0	0	0	X	0	0	0

3.   24.3.1.4 Example of USB External Connection Circuit

3.1. Figure 24.5 USB functional connection of USB connector in self-powered state
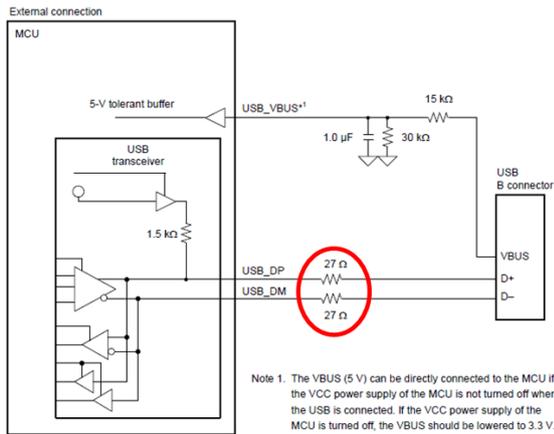
[Before]   [After]
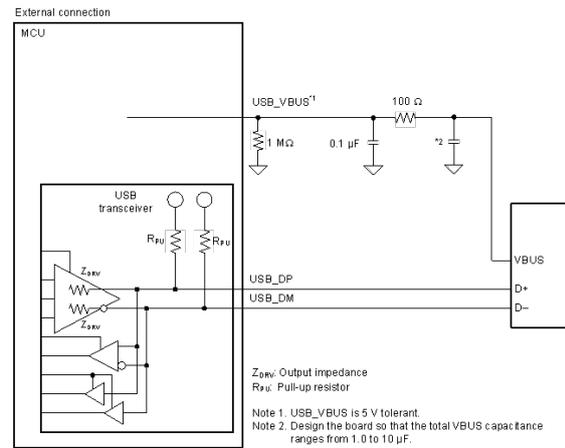
3.2. Figure 24.6 Functional connection sample of USB connector in bus-powered state
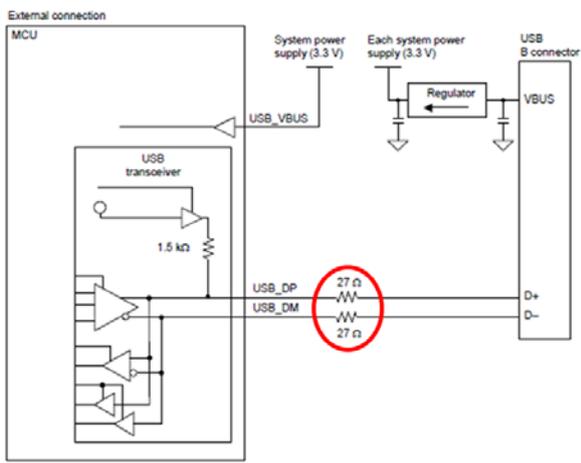
[Before]   [After]
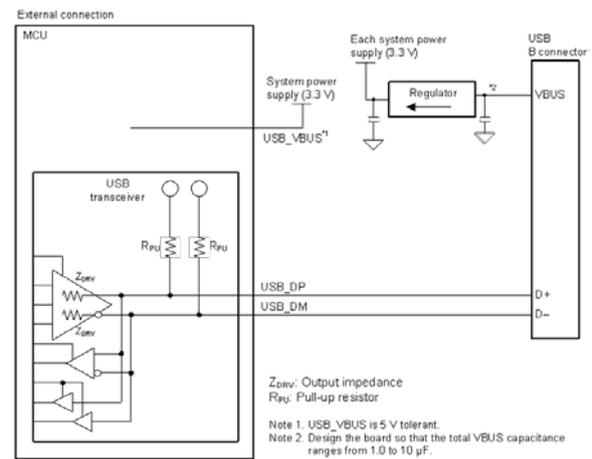
3.3. Functional connection sample of USB connector in bus-powered state2

[Before]

Not described.

[After]

External connection

MCU

USB_VBUS[1]

USB
B connector

VBUS

USB
transceiver

R_{PU} R_{PU}

Z_{DRV}

Z_{DRV}

USB_DP   D+
USB_DM   D−

Z_{DRV}: Output impedance
R_{PU}: Pull-up resistor

Note 1. USB_VBUS is 5 V tolerant.
Note 2. Design the board so that the total VBUS capacitance
          ranges from 1.0 to 10 µF.