
QB-RL78F12 (Control code A, B)R20UT2273EJ0100
Rev.1.00
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This document describes the following items. Refer to the user's manual for cautions on using an in-circuit emulator.

- Restrictions not applicable to the target device but applicable to an in-circuit emulator
- Restrictions applicable to both the target device and an in-circuit emulator but the correction is planned only for the in-circuit emulator

Also refer to the following documents for the restrictions in the target device.

- User's manual of target device
- Restrictions notification document for target device

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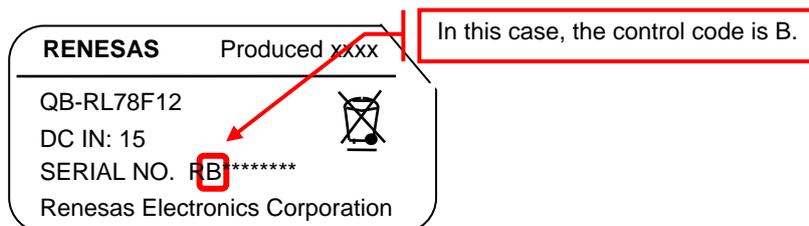
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Chapter 1. Product version

1.1 Control Code

The product versions of Renesas Electronics in-circuit emulators IECUBE are indicated by a control code. The control code is the second digit from the left in the 10-digit serial number.

Figure 1. Checking Control Code (Label on QB-RL78F12)



Chapter 2. Changed Specifications

2.1 List of changed specifications

No.	Changed or Added Specifications	Control Code	
		A	B
1	Emulating the 3-wired serial I/O (CSI**)	×	○

×: Change not implemented, ○: Change implemented

2.2 Details of specifications

- No.1 Emulating the 3-wired serial I/O (CSI**)
- 【contents】 Emulating systems equipped with the 3-wired serial I/O (CSI**) whose baud rate is 16 Mbps or 12 Mbps

Chapter 3. Restrictions

3.1 List of restrictions

Restrictions applicable, depending on the combination of control code of IECUBE and CubeSuite+ version.
Please refer to 3.2 List of restrictions.

No.	Restrictions
1	On supplying the negative reference voltage to the A/D converter
2	On using dual power supplies for devices having the EVDD pin
3	On emulating the Voltage Detection Function (LVD)

3.2 List of restrictions

IECUBE Control Code	CubeSuite+ version	Restriction number		
		1	2	3
A	V1.01.00	×	×	×
	V1.01.01			
	V1.02.00			
	V1.02.01			
B	V1.02.01	○	○	○

×: Applicable, ○: Corrected

Remark 1. QB-RL78F12 (control code A) is supported with CubeSuite+ V1.01.00 and later.

2. QB-RL78F12 (control code B) is supported with CubeSuite + V1.02.01 and later.

3.3 Details of restrictions

- No.1
【Description】 On Supplying the Negative Reference Voltage to the A/D Converter
 Do not supply the negative reference voltage to the A/D converter through the AVREFM pin. Otherwise, the problem described below arises if bit 5 (ADREFM) of the A/D Converter Mode register 2 (ADM2) is set to 1.
 Problem:
 The AVREFM pin is pulled up to the potential of the AVREFP pin through a 600-ohm resistor.
 So, be sure to supply the negative reference voltage through the VSS pin.
- 【Workaround】** There is no workaround
【Implementation】 This issue has been corrected in products with control code B and later.
- No.2
【Description】 On Using Dual Power Supplies for Devices Having the EVDD Pin
 Do not apply different voltages to the VDD and the EVDD pin (for example, VDD = 3.3 V and EVDD = 1.8 V) because these pins are short-circuited in the IECUBE. To use these pins, be sure that the same voltage is applied to both of them.
- 【Workaround】** There is no workaround
【Implementation】 This issue has been corrected in products with control code B and later.
- No.3
【Description】 On Emulating the Voltage Detection Function (LVD)
 Do not emulate the Voltage Detection Function (LVD). This emulation is not supported.
- 【Workaround】** There is no workaround
【Implementation】 This issue has been corrected in products with control code B and later.

Chapter 4. Revision History

Document Number	Issued on	Description
R20UT2273EJ0100	October 19, 2012	Newly created.