

[Notes]

R20TS0067EJ0100

Rev.1.00

Sep. 01, 2016

RL78 USB Peripheral Firmware Updater,

RL78 USB Peripheral Firmware Updater GNU/IAR Ver.

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## Outline

When using the RL78 USB Peripheral Firmware Updater or the GNU/IAR Ver. of the RL78 USB Peripheral Firmware Updater, take note of the problem described in this note regarding the following point.

1. Writing a user program to the internal ROM while using an RL78/L1C

## 1. Writing a User Program to the Internal ROM while Using an RL78/L1C

### 1.1 Applicable Products

- RL78 USB Peripheral Firmware Updater Rev.1.04
- RL78 USB Peripheral Firmware Updater GNU/IAR Ver. Rev.1.03

### 1.2 Applicable MCU

RL78/L1C

### 1.3 Details

The user program\*, if placed at the address 10000H or higher addresses, is not correctly written to the internal ROM (flash memory) of the RL78/L1C.

\*: Only the Motorola S-record format is supported for the applicable products of this article.

### 1.4 Conditions

This problem arises if the program, which is written to the flash memory of RL78/L1C, is placed at the address 10000H or higher addresses.

### 1.5 Workaround

Obtain the C source file `r_usb_fwupdate_apl.c` from the following URL and replace the one you currently have.

<https://www.renesas.com/software/D3017778.html> (RL78 USB Peripheral Firmware Updater)

<https://www.renesas.com/en-us/software/D3017781.html> (RL78 USB Peripheral Firmware Updater GNU/IAR Ver.)

If you are using the CC-RL C compiler package for the RL78 family or GCC compiler, change the section placement as follows after replacing the C source file.

You do not have to change the section placement if you are using the CA78K0R C compiler package for the RL78 family and 78K0R group or IAR compiler.

- a. If you are using the CC-RL C compiler package for the RL78 family

0x00002000	FSL_FCD
	FSL_FECD
	FSL_RCD
	FSL_BCD
	FSL_BECD
0x00003000	.const
	.text
	.RLIB
	.SLIB
	.textf
	.constf
	.data
	.sdata
0x000FD000	.dataR
	.bss
0x000FFE20	.sdataR
	.sbss

- b. If you are using the GCC compiler\*

▶ .vec ( 0x00000 ) > VEC
▶ .vects ( 0x00004 ) > IVEC
▶ .option_bytes ( 0x000C0 ) > OPT
▶ .security_id ( 0x000C4 ) > SEC_ID
▶ .lowtext ( 0x02000 ) > ROM
▶ .text
▶ .init
▶ .fini
▶ .got
▶ .rodata MAX(., 0x3000) > ROM
▶ .eh_frame_hdr
▶ .eh_frame
▶ .jcr
▶ .tors ( 0x05D00 ) > ROM
▶ .data ( 0xFC310 ) > RAM
▶ .bss
▶ .stack ( 0xFFE00 ) > RAM

\*: Rev.1.03 of the RL78 USB Peripheral Firmware Updater GNU/IAR Ver. only supports the GCC compiler.

## 1.6 Schedule for Fixing the Problem

This problem will be fixed in the next versions. These will be released on September 30, 2016.

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Sep. 01, 2016	-	First edition issued

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