RL78 Family
Flash Self-Programming Library
Type01 Ver.2.21 for the CC-RL compiler

R20UT3470EJ0100
Rev.1.00
Jun 15, 2015

Release Note

Thank you for using the RL78 Family Flash Self-Programming Library Type01 Ver.2.21 for the CC-RL compiler.

This document contains notes and points for caution on using the Flash Self-Programming Library Type01 Ver.2.21 for the CC-RL compiler. Please read this document before use.

Contents

1. Target Product

The target product of this release note is as follows:

Product Name	Ver.	ZIP File Name	Zip Ver.
RL78 Family Flash Self-Programming Library Type01 for the CC-RL compiler	Ver.2.21	JP_R_FSL_RL78_T01_V2.21_CCRL_A_E	V2.21A

2. User's Manual

The user's manual and "difference document" listed below are available for this version. Please read both documents before using this product.

Title	Document Number
RL78 Family Flash Self-Programming Library Type01 User's Manual	R01US0050EJ0103
RL78 Family Flash Self-Programming Library Type01 Differences between the CA78K0R compiler version and the CC-RL compiler version	R20UT3474EJ0100

3. Revisions

There is no correction item.

4. Points for Caution

For points for caution on using the Flash Self-Programming Library Type01 Ver.2.21 for the CC-RL compiler, read this chapter and the user's manual described later.

<table>
<tr><th>No.</th><th>Description</th></tr>
<tr><td>1</td><td>• Debugging by a simulator

The flash self-programming library cannot be debugged by a simulator. To perform debugging, either use the on-chip debugging function of the RL78 microcontroller or prepare the IECUBE.</td></tr>
<tr><td></td><td>Restriction on changing an interrupt vector

[Restricted contents]
In an RL78 microcontroller that falls into the "Sample Versions to Which the Restriction Applies" column of "Table 1-1. Applicability of Restriction to Sample Versions" shown below, the interrupt vector change processing cannot be operated normally due to the restriction of the flash self-programming library. Therefore, do not use the following flash functions included in the flash self-programming library.

• FSL_ChangeInterruptTable
• FSL_RestoreInterruptTable

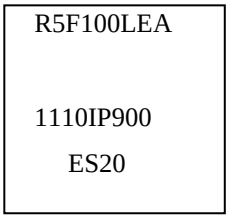
Table 1-1. Applicability of Restriction to Sample Versions

<table>
<tr><th>RL78/G13
Number of Pins: Model</th><th>Flash Memory Size</th><th>Sample Versions to Which the Restriction Applies
(Older Versions)</th><th>Sample Versions to Which the Restriction Does Not Apply
(New Versions)</th></tr>
<tr><td>20 pins: R5F10x6
24 pins: R5F10x7
25 pins: R5F10x8</td><td>16 Kbytes to 64 Kbytes</td><td>Earlier than Ver. 2.1</td><td>Ver. 3 or later</td></tr>
<tr><td rowspan="2">30 pins: R5F10xA
32 pins: R5F10xB
36 pins: R5F10xC</td><td>16 Kbytes to 64 Kbytes</td><td>Earlier than Ver. 2.1</td><td>Ver. 3 or later</td></tr>
<tr><td>96 Kbytes, 128 Kbytes</td><td>Ver. 1</td><td>Ver. 2 or later</td></tr>
<tr><td rowspan="2">40 pins: R5F10xE</td><td>16 Kbytes to 64 Kbytes</td><td>Earlier than Ver. 2.1</td><td>Ver. 3 or later</td></tr>
<tr><td>96 Kbytes to 192 Kbytes</td><td>Ver. 1</td><td>Ver. 2 or later</td></tr>
<tr><td rowspan="3">44 pins: R5F10xF
48 pins: R5F10xG
52 pins: R5F10xJ
64 pins: R5F10xL</td><td>16 Kbytes to 64 Kbytes</td><td>Earlier than Ver. 2.1</td><td>Ver. 3 or later</td></tr>
<tr><td>96 Kbytes to 256 Kbytes</td><td>Ver. 1</td><td>Ver. 2 or later</td></tr>
<tr><td>384 Kbytes to 512 Kbytes</td><td>–</td><td>All versions</td></tr>
<tr><td rowspan="2">80 pins: R5F10xM
100 pins: R5F10xP</td><td>96 Kbytes to 256 Kbytes</td><td>Ver. 1</td><td>Ver. 2 or later</td></tr>
<tr><td>384 Kbytes to 512 Kbytes</td><td>–</td><td>All versions</td></tr>
<tr><td>128 pins: R5F10xS</td><td>192 Kbytes to 512 Kbytes</td><td>–</td><td>All versions</td></tr>
</table>
</td></tr>
</table>

• **How to identify the sample version**

The sample version can be identified by the marking on the product.
The four letters that represent the sample level and sample version are printed on the product as shown in the example below. These letters are not printed on CS products or mass production products.

Example: ES of R5F100LEAFB (64-pin LQFP/64 Kbytes) Ver. 2.0:



1st line: Product ordering code
2nd line: Manufacturing lot number
3rd line: Sample level (ES) and sample version (2.0)

How to read the sample level and version:

ES 20

Sample version (two numbers)
Ver. 2.0: 20
Ver. 2.1: 21
Ver. 3.0: 30

Sample level (two letters)
WS: DS
ES: ES

Remark WS: Working sample, ES: Engineering sample, CS: Commercial sample

5. Supported Tools

Use the following tool version when using the Flash Self-Programming Library Type01 Ver.2.21 for the CC-RL compiler.

Tool Name	Version
Integrated development environment CS+	V3.01.00 or later

6. Installation

This chapter describes how to install and uninstall the Flash Self-Programming Library Type01 Ver.2.21 for the CC-RL compiler.

6.1 Installation

Install the Flash Self-Programming Library Type01 by using the following procedure:

(1) Start Windows.
(2) Decompress the folder that contains the Flash Self-Programming Library Type01 files and place the extracted folder at any location chosen by the user.

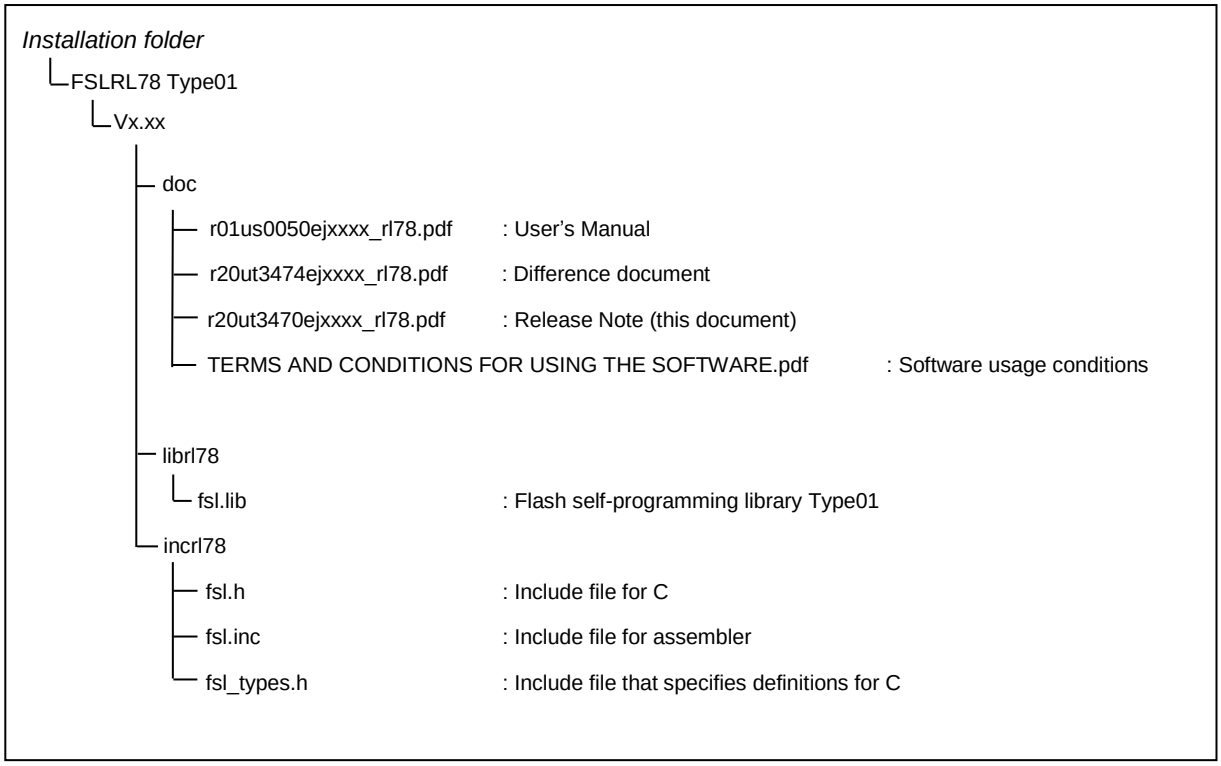
6.2 Uninstallation

Uninstall the Flash Self-Programming Library Type01 by using the following procedure:

(1) Start Windows.
(2) Delete the folder that contains the Flash Self-Programming Library Type01 files and was placed at the location chosen by the user.

6.3 File Configuration

The file configuration after decompressing the folder that contains the Flash Self-Programming Library Type01 for the CC-RL compiler files is shown below.



Note1 : Since "x" in this table means a version number or revision number, these numbers are omitted.

7. How to Debug a Program

For details on how to perform debugging by using IECUBE or the on-chip debugging emulator E1 or E20, see the following document:

Title
CS+ Integrated Development Environment User's Manual: RL78 Debug Tool[Note1]

Note1: You can download this document from the "CS+ Integrated Development Environment" of the Renesas Electronics website.

8. How to Allocate Sections

The CC-RL compiler has a -start option that is used to allocate sections to desired locations.

-start = [Section name]/Address

Note that the sizes of the sections are not specifiable.[Note2]

The segment names for flash-library functions defined in the user's manual for the Flash Self-Programming Library Type01 for the CA78K0R compiler are also used as section names by the Flash Self-Programming Library Type01 for the CC-RL compiler. Use the -start option to specify all sections for which settings are required by the Flash Self-Programming Library Type01.

While the CA78K0R compiler reserves the self-RAM as an area not for use by the user program, the CC-RL compiler does not require designation of the self-RAM because there is no need to make settings for addresses in unused areas.

Note2: For details on the methods of defining and allocating all data, refer to the user's manual for CS+. Reference to the map file (*.map) generated in building is required to confirm the state of allocation.

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