# [Notes] Renesas Starter Kit for RX111

#### Outline

When using the sample project in the Renesas Starter Kit for RX111, note the following point.

1. Procedures for setting voltage monitoring 1 interrupt

## 1. Procedures for Setting Voltage Monitoring 1 Interrupt

## 1.1 Applicable Products

Product name: Renesas Starter Kit for RX111 (Mounted MCU: R5F51115ADFM)

Applicable items: • Sample project in the attached installer

· Sample project in the web-released application notes

- R01AN1789EG0100 (e<sup>2</sup> studio)

- R01AN1790EG0100 (Cube Suite+)

Applicable sample projects: Voltage\_Detect

## 1.2 Details

A voltage monitoring 1 interrupt request may not be output because it applies to 1. of the 'Notes' in TN-RX\*-A194A/E of TECHNICAL UPDATE.

For details on TECHNICAL UPDATE (TN-RX\*-A194A/E), please refer to the following document.

https://www.renesas.com/search/keyword-search.html#genre=document&q=tnrxa194

#### 1.3 Workaround

To implement 'Counter Measure' in the TECHNICAL UPDATE(TN-RX\*-A194A/E), you must add "the set wait time of at least 2  $\mu$  s" after setting the LVD1CR0.LVD1CMPE bit to "1".

Add the processing in red to the "Function to add the processing" below.

| Sample project | Target source file | Function to add the processing |
|----------------|--------------------|--------------------------------|
| Voltage_Detect | r_cg_lvd.c         | R_LVD1_Start                   |

For details about the change in the processing procedure, see Page 147 of 1389 in 'Corrections to the User's Manuals' in the TECHNICAL UPDATE (TN-RX\*-A194A/E).

■ r\_cg\_lvd.c file

```
void R_LVD1_Start(void)
 {
 -----Omitted-----
    SYSTEM.LVCMPCR.BIT.LVD1E = 1U;
     /* Wait for LVD voltage detection to start */
     for (w_count = 0U; w_count <= _31_LVD1_STABLE_WAIT_TIME;</pre>
w_count++)
     {
        nop();
     }
     SYSTEM.LVD1CR0.BIT.LVD1CMPE = 1U;
     /* Wait for stable Analog noise filter */
     for (w_count = 0U; w_count <= _31_LVD1_STABLE_WAIT_TIME;</pre>
w_count++)
     {
        nop();
     }
     SYSTEM.LVD1SR.BIT.LVD1DET = 0U;
     SYSTEM.LVD1CR0.BIT.LVD1RIE = 1U;
     /* Enable LVD1 interrupt in ICU */
     IEN(LVD, LVD1) = 1U;
      -----The rest is omitted-----The rest is omitted-----
```

# 1.4 Schedule for Fixing the Problem

There will be no update scheduled for this sample project. Please implement the countermeasure in 1.3 Workaround.

# **Revision History**

|      |               | Description |                      |
|------|---------------|-------------|----------------------|
| Rev. | Date          | Page        | Summary              |
| 1.00 | Sep. 01, 2018 | -           | First edition issued |
|      |               |             |                      |

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