

[Notes]

R20TS1218EJ0101

Rev.1.01

Apr 07, 2026

RX Family

Board Support Package Module Using Firmware Integration Technology,
RX Driver Package

Outline

When using the product in the title, note the following point.

- 1. Notes on using BSP in user boot mode on RX660

1. Notes on using BSP in user boot mode on RX660

1.1 Applicable Products

(1) Board Support Package Module Using Firmware Integration Technology (BSP FIT Module)

The applicable revisions and documents are as follows.

Table 1.1 BSP FIT Module applicable products

Revision	Document number
Rev.7.20	R01AN1685EJ0720
Rev.7.21	R01AN1685EJ0721
Rev.7.30	R01AN1685EJ0730
Rev.7.40	R01AN1685EJ0740
Rev.7.41	R01AN1685EJ0741
Rev.7.42	R01AN1685EJ0742
Rev.7.50	R01AN1685EJ0750
Rev.7.51	R01AN1685EJ0751
Rev.7.52	R01AN1685EJ0752
Rev.7.53	R01AN1685EJ0753
Rev.7.54	R01AN1685EJ0754
Rev.7.60	R01AN1685EJ0760
Rev.7.70	R01AN1685EJ0770

(2) RX Driver Package

The following RX Driver Packages include the BSP FIT Modules in (1).

The product names, revisions, documents of the RX Driver Packages, and the revisions of the included BSP FIT Modules are as follows.

Table 1.2 Products that include the BSP FIT Module (1)

RX Driver Package product name	RX Driver Package revision	Document number	BSP FIT Module revision
RX Family RX Driver Package Ver.1.36	Rev.1.36	R01AN6515EJ0136	Rev.7.20
RX Family RX Driver Package Ver.1.37	Rev.1.37	R01AN6721EJ0137	Rev.7.21
RX Family RX Driver Package Ver.1.39	Rev.1.39	R01AN6905EJ0139	Rev.7.30

Table 1.3 Products that include the BSP FIT Module

RX Driver Package product name	RX Driver Package revision	Document number	BSP FIT Module revision
RX Family RX Driver Package Ver.1.40	Rev.1.40	R01AN6906EJ0140	Rev.7.41
RX Family RX Driver Package Ver.1.41	Rev.1.41	R01AN6907EJ0141	Rev.7.41
RX Family RX Driver Package Ver.1.42	Rev.1.42	R01AN7163EJ0142	Rev.7.42
RX Family RX Driver Package Ver.1.44	Rev.1.44	R01AN7446EJ0144	Rev.7.42
RX Family RX Driver Package Ver.1.45	Rev.1.45	R01AN7470EJ0145	Rev.7.51
RX Family RX Driver Package Ver.1.46	Rev.1.46	R01AN7577EJ0146	Rev.7.52
RX Family RX Driver Package Ver.1.47	Rev.1.47	R01AN7754EJ0147	Rev.7.53
RX Family RX Driver Package Ver.1.48	Rev.1.48	R01AN8121EJ0148	Rev.7.60
RX Family RX Driver Package Ver.1.49	Rev.1.49	R01AN8228EJ0149	Rev.7.70

1.2 Applicable Devices

RX660 Group

1.3 Details

If you enable user boot mode in a program that uses the BSP of 1.1 Applicable Products in a project for 1.2 Applicable Devices, an error in the UB code may cause the user boot mode to not start.

1.4 Conditions

This may occur if all of the following conditions are met:

- (1) RX660 is selected for the device.
- (2) You are using the BSP version of 1.1 Applicable Products for the BSP component.
- (3) In the "User Boot Mode" item in the BSP component settings, you have selected "User Boot Mode." (BSP_CFG_USER_BOOT_ENABLE = 1.)
- (4) This program was built after changing the section settings in the build settings to those for user boot mode. (The BSP UB code user_boot_settings[] is enabled.)
- (5) The program containing the UB code built in (4) was written to the user boot area.
- (6) The MD pin is set to Low, the UB pin to High, and the reset is released to start the device in user boot mode.
- (7) If you follow steps (1) to (6) to start up in user boot mode, the UB code may be incorrect which may cause failure to start up in user boot mode.

1.5 Workaround

Refer to the following mcu¥rx660¥vecttbl.c and change the number shown in red.

vecttbl.c (Excerpt)

Before modification

```
R_BSP_ATTRIB_SECTION_CHANGE_UBSETTINGS const uint32_t user_boot_settings[6] =
{
    0x55736572, /* Required setting for UB Code A to get into User Boot */
    0x426f6f74, /* Required setting for UB Code A to get into User Boot */
    0xffffffff00, /* Required setting for UB Code B to get into User Boot */
    0x0008c040, /* Required setting for UB Code B to get into User Boot */
    0xFFFFFFFF, /* Reserved */
}
```

After modification

```
R_BSP_ATTRIB_SECTION_CHANGE_UBSETTINGS const uint32_t user_boot_settings[6] =
{
    0x55736572, /* Required setting for UB Code A to get into User Boot */
    0x426f6f74, /* Required setting for UB Code A to get into User Boot */
    0xffffffff07, /* Required setting for UB Code B to get into User Boot */
    0x0008c04c, /* Required setting for UB Code B to get into User Boot */
    0xFFFFFFFF, /* Reserved */
}
```

1.6 Schedule for Fixing the Problem

(1) Board Support Package Module Using Firmware Integration Technology (BSP FIT Module)

This will be corrected in BSP Rev.7.71 (Document number: R01AN1685EJ0771).

Please use BSP Rev.7.71 or later version.

(2) RX Driver Package

The BSP FIT module Rev.7.71 which has been modified in accordance with this note will be included in the upcoming RX Family RX Driver Package Ver.1.50.

1.7 Related Technical Update

A technical update will be issued regarding this issue.

Please see below for details.

Document number: TN-RX*-A0292A/E

Errata Regarding UB Code B in the RX660 Group User's Manual and Precaution on Debugging the User Boot Program.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Mar.20.26	-	First edition issued
1.01	Apr.07.26	1, 2	Added applicable products to 1.1 Applicable Products.

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