[Note]

R20TS0495EJ0100
Rev.1.00
Oct. 01, 2019

RX Family
CAN Module Firmware Integration Technology,
Board Support Package Module Firmware Integration Technology,
RX Driver Package

Outline

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

1. Software Configurable Interrupts Settings

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1.1 Applicable Products

(1) CAN module Firmware Integration Technology (CAN FIT module)

The applicable revision numbers and document numbers are as follows.

Table 1.1 CAN FIT module applicable products

CAN FIT module revision number	Document number
Rev.3.10	R01AN2472EU0310

(2) Board Support Package Module Firmware Integration Technology (BSP FIT module)

The applicable revision numbers and document numbers are as follows.

Table 1.2 BSP FIT module applicable products

BSP FIT module revision number	Document number
Rev.5.20	R01AN1685EJ0520
Rev.5.21	R01AN1685EJ0521

(3) RX Driver Package

CAN FIT and BSP FIT modules in (1) and (2) are also included in the RX Driver Package listed below. The product names and revision numbers of the applicable RX Driver Package and the revision numbers of the included CAN FIT and BSP FIT modules are as follows.

Table 1.3 Products that include the CAN FIT and BSP FIT modules

RX Driver Package Product name	RX Driver Package revision number	Document number	Revision number of the included CAN FIT module	Revision number of the included BSP FIT module
RX Family RX Driver Package, Ver.1.20	Rev.1.20	R01AN4794EJ0120	Rev.3.00 (Note)	Rev.5.20
RX Family RX Driver Package, Ver.1.22	Rev.1.22	R01AN4873EJ0122	Rev.3.10	Rev.5.20

Note: This note does not apply to the CAN FIT module Rev.3.00.

1.2 Applicable Devices

- RX72M group

1.3 Details and Conditions

When combining the BSP FIT module and the CAN FIT module, a build error(Note 2) occurs if the following definitions (vector numbers for CAN2 interrupt sources) classified as software configurable interrupt B in "¥src¥smc_gen¥r_config¥r_bsp_interrupt_config.h" are built using the default setting (with vector numbers unallocated)(Note 1).

```
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_RXF2
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_TXF2
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_RXM2
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_TXM2
```

Note 1: The following definitions are not enabled if they are built without allocating vector numbers:

- VECT_CAN2_TXM2
- IPR_CAN2_TXM2
- VECT_CAN2_RXM2
- IPR_CAN2_RXM2, etc.

Note 2: The error messages for CC-RX are as follows.

- E0520020:Identifier “VECT_CAN2_TXM2" is undefined
- E0520020:Identifier “IPR_CAN2_TXM2" is undefined
- E0520020:Identifier "VECT_CAN2_RXM2" is undefined
- E0520020:Identifier “IPR_CAN2_RXM2" is undefined

In the "config_can_interrupts" function called by the "R_CAN_Create" function, the CAN FIT module tries to reference the definitions shown in Note 1, irrespective of whether CAN2 is used. A build error occurs because the definitions in Note 1 are not enabled by the BSP FIT module.

1.4 Workaround

Delete the vector numbers for unused interrupt sources from interrupt sources classified as software configurable interrupt B, and allocate the deleted vector numbers to CAN2 interrupt sources in "r_bsp_interrupt_config.h".

The following is an example of the required modification when interrupt sources for TPU5 are not used.

- Before correction (Vector numbers are allocated to interrupt sources of unused TPU5, and no vector number is allocated to interrupt sources of CAN2 which is used)

```
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TGI5A                    164
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TGI5B                    165
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TCI5V                    166
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TCI5U                    167
-------------------------(Omitted) -------------------------
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_RXF0                   177
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_TXF0                   178
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_RXM0                   179
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_TXM0                   180
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_RXF1                   181
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_TXF1                   182
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_RXM1                   183
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_TXM1                   184
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_RXF2
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_TXF2
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_RXM2
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_TXM2
```

- After correction (Delete vector numbers for TPU5 which is not used, and allocate these vector numbers to interrupt sources of CAN2 which is used)

```
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TGI5A
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TGI5B
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TCI5V
#define BSP_MAPPED_INT_CFG_B_VECT_TPU5_TCI5U
-------------------------(Omitted)-------------------------
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_RXF0                   177
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_TXF0                   178
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_RXM0                   179
#define BSP_MAPPED_INT_CFG_B_VECT_CAN0_TXM0                   180
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_RXF1                   181
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_TXF1                   182
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_RXM1                   183
#define BSP_MAPPED_INT_CFG_B_VECT_CAN1_TXM1                   184
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_RXF2                   164
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_TXF2                   165
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_RXM2                   166
#define BSP_MAPPED_INT_CFG_B_VECT_CAN2_TXM2                   167
```

1.5 Schedule for Fixing the Problem

There is no schedule for fixing this problem.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Oct.01.19	-	First edition issued

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