[Notes] RX Family Clock Synchronous Control Module for EEPROM Access Firmware Integration Technology RX Driver Package

R20TS1087EJ0100
Rev.1.00
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Outline

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

1. The contents of the EEPROM Access Clock Synchronous Control Module(*1) Rev.3.10 included in the individual package(*2) and the RX Driver Package are different.

   Note 1: Hereafter, it says an EEPROM SPI FIT module.

   Note 2: A module package that can be obtained from a web page separately from the RX Driver Package (r01an2325xx0310-rx-serial.zip)

1. The contents of the EEPROM Access Clock Synchronous Control Module Rev.3.10 included in the individual package and the RX Driver Package are different.

1.1 Applicable Products

(1) EEPROM SPI FIT module

The applicable revision numbers and document numbers are as follows:

Table 1.1 EEPROM SPI FIT module applicable products

Revision number of the EEPROM SPI FIT module	Document number
Rev.3.10	R01AN2325EJ0310

(2) RX Driver Package

The EEPROM SPI FIT module in (1) is also included in the RX Driver Package.

The product names and revision numbers of the applicable RX Driver Package and the revision numbers of the EEPROM SPI FIT module are as follows:

Table 1.2 EEPROM SPI FIT module applicable products

RX Driver Package product name	RX Driver Package revision number	Document number	Revision number of the included EEPROM SPI FIT module
RX Family RX Driver Package Ver.1.45	Rev.1.45	R01AN7470xx0145	Rev.3.10
RX Family RX Driver Package Ver.1.44	Rev.1.44	R01AN7446xx0144	Rev.3.10
RX Family RX Driver Package Ver.1.42	Rev.1.42	R01AN7163xx0142	Rev.3.10
RX Family RX Driver Package Ver.1.41	Rev.1.41	R01AN6907xx0141	Rev.3.10
RX Family RX Driver Package Ver.1.40	Rev.1.40	R01AN6906xx0140	Rev.3.10
RX Family RX Driver Package Ver.1.39	Rev.1.39	R01AN6905xx0139	Rev.3.10
RX Family RX Driver Package Ver.1.37	Rev.1.37	R01AN6721xx0137	Rev.3.10

1.2 Applicable Devices

RX110, RX111, RX113, RX130, RX13T, and RX140 groups

RX230, RX231, RX23E-A, RX23E-B, RX23T, RX23W, RX24T, RX24U, RX26T, RX260, and RX261 groups

RX64M, RX651, RX65N, RX660, RX66N, RX66T, and RX671 groups

RX71M, RX72M, RX72N, and RX72T groups

1.3 Details and Conditions

The EEPROM SPI FIT module are different for the RX Driver Package and the individual package as follows.

r_eeprom_spi_config.h in RX Driver Package (Line 118 to 122):

```
/* The #defines specify the ports used for SS#. */
#define EEPROM_SPI_CS_DEV0_CFG_PORTNO   ('C')    /* Device 0 Port Number :
EEPROM SS#    */
#define EEPROM_SPI_CS_DEV0_CFG_BITNO    ('0')    /* Device 0 Bit Number  :
EEPROM SS#    */
#define EEPROM_SPI_CS_DEV1_CFG_PORTNO   ('C')    /* Device 1 Port Number :
EEPROM SS#    */
#define EEPROM_SPI_CS_DEV1_CFG_BITNO    ('0')    /* Device 1 Bit Number  :
EEPROM SS#    */
```

r_eeprom_spi_config.h in individual package (Line 118 to 125):

```
/* The macros to specify the ports used for SS#.
   Default value 'X' is for reference only, If this default value is kept,
then the code
   support for device port will be temporarily disabled until user assigns a
value of port
   used for SS# according to a device. */
#define EEPROM_SPI_CS_DEV0_CFG_PORTNO   ('X')    /* Device 0 Port Number :
EEPROM SS#    */
#define EEPROM_SPI_CS_DEV0_CFG_BITNO    ('0')    /* Device 0 Bit Number  :
EEPROM SS#    */
#define EEPROM_SPI_CS_DEV1_CFG_PORTNO   ('X')    /* Device 1 Port Number :
EEPROM SS#    */
#define EEPROM_SPI_CS_DEV1_CFG_BITNO    ('0')    /* Device 1 Bit Number  :
EEPROM SS#    */
```

r_eeprom_spi_dev_port.h in RX Driver Package (Line 158 to 164):

```
    #elif (('X' == EEPROM_SPI_CS_DEV0_CFG_PORTNO) || ('x' ==
EEPROM_SPI_CS_DEV0_CFG_PORTNO))
        #define EEPROM_SPI_CS_DEV0_CFG_PORTNO_SFR    X
    #elif (('Y' == EEPROM_SPI_CS_DEV0_CFG_PORTNO) || ('y' ==
EEPROM_SPI_CS_DEV0_CFG_PORTNO))
        #define EEPROM_SPI_CS_DEV0_CFG_PORTNO_SFR    Y
    #elif (('Z' == EEPROM_SPI_CS_DEV0_CFG_PORTNO) || ('z' ==
EEPROM_SPI_CS_DEV0_CFG_PORTNO))
        #define EEPROM_SPI_CS_DEV0_CFG_PORTNO_SFR    Z
    #endif
```

r_eeprom_spi_dev_port.h in individual package (Line 159 to 161):

```
    #elif (('X' == EEPROM_SPI_CS_DEV0_CFG_PORTNO) || ('x' ==
EEPROM_SPI_CS_DEV0_CFG_PORTNO))
       #define EEPROM_SPI_CS_DEV0_CFG_PORTNO_SFR    X
    #endif
```

r_eeprom_spi_dev_port.h in RX Driver Package (Line 278 to 284):

```
    #elif (('X' == EEPROM_SPI_CS_DEV1_CFG_PORTNO) || ('x' ==
EEPROM_SPI_CS_DEV1_CFG_PORTNO))
       #define EEPROM_SPI_CS_DEV1_CFG_PORTNO_SFR    X
    #elif (('Y' == EEPROM_SPI_CS_DEV1_CFG_PORTNO) || ('y' ==
EEPROM_SPI_CS_DEV1_CFG_PORTNO))
       #define EEPROM_SPI_CS_DEV1_CFG_PORTNO_SFR    Y
    #elif (('Z' == EEPROM_SPI_CS_DEV1_CFG_PORTNO) || ('z' ==
EEPROM_SPI_CS_DEV1_CFG_PORTNO))
       #define EEPROM_SPI_CS_DEV1_CFG_PORTNO_SFR    Z
    #endif
```

r_eeprom_spi_dev_port.h in individual package (Line 275 to 277):

```
    #elif (('X' == EEPROM_SPI_CS_DEV1_CFG_PORTNO) || ('x' ==
EEPROM_SPI_CS_DEV1_CFG_PORTNO))
       #define EEPROM_SPI_CS_DEV1_CFG_PORTNO_SFR    X
    #endif
```

In addition, the following contents have been added in the individual package.

r_eeprom_spi_dev_port.h (Line 357 to 362):

```
/* ---- Temporary disable support for code without target device port ----
*/

#if (defined(EEPROM_SPI_CFG_DEV0_INCLUDED) && ('X' ==
EEPROM_SPI_CS_DEV0_CFG_PORTNO)) ¥

     || (defined(EEPROM_SPI_CFG_DEV1_INCLUDED) && ('X' ==
EEPROM_SPI_CS_DEV1_CFG_PORTNO))

#define EEPROM_SPI_TEMPORARY_DISABLE_DEV_PORT

#endif /* #if (defined(EEPROM_SPI_CFG_DEV0_INCLUDED) && ('X' ==
EEPROM_SPI_CS_DEV0_CFG_PORTNO)) ¥

          || (defined(EEPROM_SPI_CFG_DEV1_INCLUDED) && ('X' ==
EEPROM_SPI_CS_DEV1_CFG_PORTNO)) */
```

r_eeprom_spi_dev_port_gpio.c (Line 60, 61):

```
 /* Check the value of the port is usable or not */
#if !defined(EEPROM_SPI_TEMPORARY_DISABLE_DEV_PORT)
```

r_eeprom_spi_dev_port_gpio.c (Line 290 to 315):

```
#else
    #warning "Please select a port number assigned to SS# to enable code
support for device port. Check in file r_eeprom_spi_config.h"
void r_eeprom_spi_cs_init(uint8_t devno)
{
    /* This is dummy function. */
    R_BSP_NOP();
} /* End of function r_eeprom_spi_cs_init() */

void r_eeprom_spi_set_cs(uint8_t devno, uint8_t lv)
{
    /* This is dummy function. */
    R_BSP_NOP();
} /* End of function r_eeprom_spi_set_cs() */

void r_eeprom_spi_cs_reset(uint8_t devno)
{
    /* This is dummy function. */
    R_BSP_NOP();
}  /* End of function r_eeprom_spi_cs_reset() */

eeprom_status_t r_eeprom_spi_wait_lp(uint8_t unit)
{
    /* This is dummy function. */
    return EEPROM_SPI_SUCCESS;
}  /* End of function r_eeprom_spi_wait_lp() */
#endif /* #if !defined(EEPROM_SPI_TEMPORARY_DISABLE_DEV_PORT) */
```

r_eeprom_spi_dev_port_iodefine.c (Line 61, 62):

```
 /* Check the value of the port is usable or not */
#if !defined(EEPROM_SPI_TEMPORARY_DISABLE_DEV_PORT)
```

r_eeprom_spi_dev_port_iodefine.c (Line 332 to 357):

```
#else
    #warning "Please select a port number assigned to SS# to enable code
support for device port. Check in file r_eeprom_spi_config.h"
void r_eeprom_spi_cs_init(uint8_t devno)
{
    /* This is dummy function. */
    R_BSP_NOP();
} /* End of function r_eeprom_spi_cs_init() */

void r_eeprom_spi_set_cs(uint8_t devno, uint8_t lv)
{
    /* This is dummy function. */
    R_BSP_NOP();
} /* End of function r_eeprom_spi_set_cs() */

void r_eeprom_spi_cs_reset(uint8_t devno)
{
    /* This is dummy function. */
    R_BSP_NOP();
}  /* End of function r_eeprom_spi_cs_reset() */

eeprom_status_t r_eeprom_spi_wait_lp(uint8_t unit)
{
    /* This is dummy function. */
    return EEPROM_SPI_SUCCESS;
}  /* End of function r_eeprom_spi_wait_lp() */
#endif /* #if !defined(EEPROM_SPI_TEMPORARY_DISABLE_DEV_PORT) */
```

1.4 Permanent Measures

Please use individual package.

https://www.renesas.com/en/document/scd/rx-family-clock-synchronous-control-module-eeprom-access-firmware-integration-technology

Or please use RX Driver Package Ver.1.46 or more.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Feb.05.25	-	First edition issued

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