RX113 Group

RX Driver Package Release Note

Contents

1.   Operating Environment

This product runs under the operating environment described below.

Table 1.1   Operating Environment

Microcontroller	RX113 Group
Evaluation board	Renesas Starter Kit RX113
Integrated development environment (IDE)	e^2 studio, V3.1.2 or later Or: CS+ V3.00.00 or later
Cross tools	RX Family C/C++ Compiler Package V2.02.00 or later
Emulator	E1, E20

2.   User's Manual

Please read the following user's manuals together with this document.

Table 2.1   User's Manual

Manual Name	Document Number
RX113 Group RX Driver Package User's Manual	R01AN2466EJ0100

3. Product Structure

The table below lists the FIT modules included in this product.

Table 3.1 RX113 Group RX Driver Package FIT Modules

Type	Module	FIT Module Name	Version
Board Support Package	Board support package	r_bsp	2.70
Device Driver	Clock Generation Circuit (CGC)	r_cgc_rx100	1.30
Device Driver	Data Transfer Controller (DTC)	r_dtc_rx	2.01
Device Driver	Compare match timer (CMT)	r_cmt_rx	2.40
Device Driver	Serial Communications Interface (SCI: Simple I²C Bus)	r_sci_iic_rx	1.40
Device Driver	I²C Bus Interface (RIIC)	r_riic_rx	1.50
Device Driver	Serial peripheral interface (RSPI)	r_rspi_smstr_rx	1.07
Device Driver	USB Basic Mini Firmware	r_usb_basic_mini	1.00
Device Driver	USB Host Mass Storage Class	r_usb_hmsc_mini	1.00
Device Driver	USB Host Communication Device Class	r_usb_hcdc_mini	1.00
Device Driver	USB Host Human Interface Device Class	r_usb_hhid_mini	1.00
Device Driver	USB Peripheral Mass Storage Class	r_usb_pmsc_mini	1.00
Device Driver	USB Peripheral Communications Device Class	r_usb_pcdc_mini	1.00
Device Driver	USB Peripheral Human Interface Device Class	r_usb_phid_mini	1.00
Device Driver	IrDA Interface (IrDA)	r_irda_sci_rx	1.00
Device Driver	LCD Controller/Driver (LCDC)	r_lcdc_rx	1.00
Device Driver	Unique ID Read	r_uid_rx	1.00
Middleware	Simple I2C Module for EEPROM Access	r_eeprom_sci_iic_rx	1.30
Middleware	I2C Bus Interface (RIIC) Module for EEPROM Access	r_eeprom_riic_rx	1.40

4. Cautions

4.1   Data Transfer Controller (DTC)

If you use Data Transfer Controller (DTC) on RX113, you set #define DTC_CFG_USE_DMAC_FIT_MODULE to DTC_DISABLE in "r_dtc_rx_config.h".

4.2   USB Class Driver

USB device class driver has 2 type device drivers for USB Host and USB peripheral. When you use these class drivers to create your project, add either of the device class driver for USB Host and USB peripheral since the number of USB channels which RX113 group (MCU) supports is one channel.

4.3   USB Host Mass Storage Class

USB Host Mass Storage Class driver needs TFAT FIT module. Note that the compile error is generated when the project which USB Host Mass Storage Class is plugged in is compiled since this product does not including TFAT FIT module.

If you use USB Host Mass Storage Class driver, please uses the following package.

"USB Host Mass Storage Class Driver for USB Mini Firmware
Using Firmware Integration Technology Modules" (Document No. R01AN2295EJ)

5. Changes

This is the first edition, there are no changes.

Website and Support

Renesas Electronics Website
   http://www.renesas.com/

Inquiries
   http://www.renesas.com/contact/

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Revision History

Rev.	Date	Description	
		Page	**Summary**
1.00	Nov 28, 2014	—	First edition issued

General Precautions in the Handling of MPU/MCU Products

The following usage notes are applicable to all MPU/MCU products from Renesas. For detailed usage notes on the products covered by this document, refer to the relevant sections of the document as well as any technical updates that have been issued for the products.

1. Handling of Unused Pins

   Handle unused pins in accord with the directions given under Handling of Unused Pins in the manual.

   —— The input pins of CMOS products are generally in the high-impedance state. In operation with an unused pin in the open-circuit state, extra electromagnetic noise is induced in the vicinity of LSI, an associated shoot-through current flows internally, and malfunctions occur due to the false recognition of the pin state as an input signal become possible. Unused pins should be handled as described under Handling of Unused Pins in the manual.

2. Processing at Power-on

   The state of the product is undefined at the moment when power is supplied.

   —— The states of internal circuits in the LSI are indeterminate and the states of register settings and pins are undefined at the moment when power is supplied.

   In a finished product where the reset signal is applied to the external reset pin, the states of pins are not guaranteed from the moment when power is supplied until the reset process is completed.

   In a similar way, the states of pins in a product that is reset by an on-chip power-on reset function are not guaranteed from the moment when power is supplied until the power reaches the level at which resetting has been specified.

3. Prohibition of Access to Reserved Addresses

   Access to reserved addresses is prohibited.

   —— The reserved addresses are provided for the possible future expansion of functions. Do not access these addresses; the correct operation of LSI is not guaranteed if they are accessed.

4. Clock Signals

   After applying a reset, only release the reset line after the operating clock signal has become stable. When switching the clock signal during program execution, wait until the target clock signal has stabilized.

   —— When the clock signal is generated with an external resonator (or from an external oscillator) during a reset, ensure that the reset line is only released after full stabilization of the clock signal. Moreover, when switching to a clock signal produced with an external resonator (or by an external oscillator) while program execution is in progress, wait until the target clock signal is stable.

5. Differences between Products

   Before changing from one product to another, i.e. to a product with a different type number, confirm that the change will not lead to problems.

   —— The characteristics of an MPU or MCU in the same group but having a different part number may differ in terms of the internal memory capacity, layout pattern, and other factors, which can affect the ranges of electrical characteristics, such as characteristic values, operating margins, immunity to noise, and amount of radiated noise. When changing to a product with a different part number, implement a system-evaluation test for the given product.

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