RX64M Group

RX Driver Package Release Note

R01AN2232EJ0100
Rev.1.00
Sep 1, 2014

Contents

1. Operating Environment

This product runs under the operating environment described below.

Table 1.1 Operating Environment

Microcontroller	RX64M Group
Evaluation board	Renesas Starter Kit+ RX64M
Integrated development environment (IDE)	e^2 studio, V3.0.1.09 or later Or: CubeSuite+ V2.02.00 or later
Cross tools	RX Family C/C++ Compiler Package V2.01.00 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
RX64M Group RX Driver Package User's Manual	R01AN2144EJ0100

3. Product Structure

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

Table 3.1 RX64M Group RX Driver Package FIT Modules

Type	Module	FIT Module Name	Version
Board Support Package	Board support package	r_bsp	2.60
Device Driver	Compare match timer (CMT)	r_cmt_rx	2.30
Device Driver	DMA controller (DMACA)	r_dmaca_rx	1.01
Device Driver	Data transfer controller (DTC)	r_dtc_rx	2.00
Device Driver	Ethernet controller (ETHERC)	r_ether_rx	1.00
Device Driver	General-purpose I/O	r_gpio_rx	1.30
Device Driver	Interrupt Controller (IRQ)	r_irq_rx	1.30
Device Driver	Multi-function pin controller (MPC)	r_mpc_rx	1.30
Device Driver	Ethernet controller PTP controller (EPTPC)	r_ptp_api_rx	1.01
Device Driver	Quad serial peripheral interface (QSPI)	r_qspi_smstr_rx	1.06
Device Driver	Serial peripheral interface (RSPI)	r_rspi_smstr_rx	1.06
Middleware	M3S-S2-Tiny (ADPCM encoding/decoding library)	r_s2_rx	3.01
Interface	M3S-T4-Tiny socket API module	r_socket	1.10
Device Driver	Sampling rate converter (SRC)	r_src_api_rx	1.00
Device Driver	Serial Sound Interface (SSI)	r_ssi_api_rx	1.00
Middleware	M3S-T4-Tiny interface conversion module	r_t4_driver_rx64m	1.00
Middleware	M3S-T4-Tiny (TCP/IP protocol stack library)	r_t4_rx	2.00
Middleware	M3S-TFAT-Tiny (FAT file system)	r_tfat_rx	3.00
Device Driver	USB basic firmware	r_usb_basic	1.00
Device Driver	USB host communication device class	r_usb_hcdc	1.00
Device Driver	USB host human interface device class	r_usb_hhid	1.00
Device Driver	USB host mass storage class	r_usb_hmsc	1.00
Device Driver	USB peripheral communication device class	r_usb_pcdc	1.00
Device Driver	USB peripheral mass storage class	r_usb_pmsc	1.00

4. Cautions

4.1 Use of evaluation version

This product include the M3S-T4-Tiny (TCP/IP protocol stack library) of evaluation version.

We provide the evaluation version as a sample code for customers adopting Renesas microcontrollers. In addition, we do not offer any technical supports for the evaluation version.

For the commercial version, please go to the below URL.

http://www.renesas.com/mw/t4

5. Changes

This is the first edition, and changes are not.

Website and Support

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

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

M3S-T4-Tiny (TCP/IP protocol stack library)
http://www.renesas.com/mw/t4

M3S-TFAT-Tiny (FAT file system)
http://www.renesas.com/mw/tfat

M3S-S2-Tiny (ADPCM encoding/decoding library)
http://www.renesas.com/mw/s2

Revision History

		Description	
Rev.	**Date**	**Page**	**Summary**
1.00	Sep 1, 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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