

September 20, 2013

## Product Specifications of the RX63T Group of MCUs with the Newly Added Functions

Item	Specification
<b>Group name</b>	RX63T
<b>CPU core</b>	RX CPU
	General registers: 32-bit × 16
	Multiplier: 32-bit multiplier
	Divider: Yes
	Multiply-accumulator: Yes (two types: memory-to-memory operations and register-to-register operations)
<b>Maximum operating frequency</b>	100 MHz
<b>Power supply voltage</b>	64-pin and under: 2.7 to 3.6 V
	100-pin and over: 2.7 to 3.6 V, 4.0 to 5.5 V
<b>Floating-point operation unit</b>	Single-precision floating-point operation unit
	(Supports add /subtract /compare /multiply /divide and other instructions)
<b>Flash ROM (for program storage)</b>	Max. 512 KB
<b>Flash ROM (for data storage)</b>	Max. 32 KB
<b>RAM</b>	Max. 48 KB
<b>On-chip peripheral functions</b>	Digital Power management Controller (DPC) (Note 1)
	DMA controller (DMACA) × 4 channels
	Data transfer controller (DTC) × 1 channel
	Multifunction pin controller (MPC) × 1 channel
	Multifunction timer pulse unit (MTU3) × 8 channels
	Port output enable (POE3)

Item	Specification
	General PWM timer (GPT) with PWM delay generation function (Note 2): 112-pin and over: 8 channels; 100-pin: 7 channels; 64-pin and under: 4 channels
	Compare match timer (CMT) × 4 channels
	Watchdog timer (WDT)
	Independent watchdog timer (IWDT)
	Serial communications interface (SCIc): 112-pin and over: 4 channels; 100-pin: 3 channels; 64-pin and under: 2 channels
	Serial communications interface (SCId) × 1 channel
	I2C bus interface (RIIC): 120-pin and over: 2 channels; 112-pin and under: 1 channel
	Serial peripheral interface (RSPI): 100-pin and over: 2 channels; 64-pin and under: 1 channel
	A/D converter (12-bit) (S12ADB): 64-pin and over: 8 channels; 48-pin: 6 channels
	A/D converter (10-bit) (ADA): 144-pin: 20 channels; 120-pin and under: 12 channels
	D/A converter (10-bit) (DAa): 100-pin and over: 2 channels
	CAN module (CAN): 100-pin and over: 1 channel
	USB 2.0 function module (USBa): 120-pin and over: 1 channel
	Clock frequency accuracy measurement circuit (CAC)
	CRC calculator (CRC)
	Data operation circuit (DOC)
	Register write protection function
	Option setting memory area
	Power-on reset (POR) / Voltage detection circuit (LVD)

Item	Specification
<b>On-chip debugging function</b>	Yes (with trace function)
<b>Low power consumption modes</b>	4 modes
	Sleep mode
	All-module clock stop mode
	Software standby mode
	Deep software standby mode
<b>Packages</b>	PLQP0048KB-A (48-pin LFQFP, 7 × 7 mm, 0.5 mm pitch)
	PLQP0064KB-A (64-pin LFQFP, 10 × 10 mm, 0.5 mm pitch)
	PLQP0100KB-A (100-pin LFQFP, 14 × 14 mm, 0.5 mm pitch)
	PLQP0112JA-A (112-pin LQFP, 20 × 20 mm, 0.65 mm pitch)
	PLQP0120KA-A (120-pin LFQFP, 16 × 16 mm, 0.5 mm pitch)
	PLQP0144KA-A (144-pin LFQFP, 20 × 20 mm, 0.5 mm pitch)

(Note 1) Only for 100-pin, 112-pin, 120-pin and 144-pin.

(Note 2) PWM delay generation function is only for 100-pin, 112-pin, 120-pin and 144-pin.

(Remarks)

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