

October 10, 2013

Main Specifications of the RX110 Group of MCUs

(Note) The XX differs depending on the package.

Upper: Ta = -40 to +85C, Lower: Ta = -40 to +105C

Group		RX110					
Part number (Note)		R5F51105A Dxx	R5F51104A Dxx	R5F51103A Dxx	R5F51101A Dxx	R5F5110JA Dxx	R5F5110HA Dxx
		R5F51105A Gxx	R5F51104A Gxx	R5F51103A Gxx	R5F51101A Gxx	R5F5110JA Gxx	R5F5110HA Gxx
Built-in memory	Flash ROM	128 KB	96 KB	64 KB	32 KB	16 KB	8 KB
	RAM	16 KB		10 KB		8 KB	
Operating voltage		1.8 to 3.6V					
Maximum operating frequency		32 MHz					
Operating temperature		-40 to +85C or -40 to +105C					
CPU core		32-bit RX CPU <ul style="list-style-type: none"> • 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) 					
Built-in peripheral	Transfer functions	<ul style="list-style-type: none"> • Data transfer controller (DTCa) 					

functions	Timers	<ul style="list-style-type: none"> • Multi-function timer pulse unit 2: 16 bits x 4 channels (MTU2a) • Compare match timer (CMT): 16 bits x 2 channels x 1 unit • Realtime clock (RTCb): Except 36-pin
	Communication functions	<ul style="list-style-type: none"> • Serial communications interface (SC1e): Over 48-pin: 3 channels; Under 36-pin: 1 channel • Serial communications interface (SC1f): 1 channel • I²C bus interface (RIIC): 1 channel • Serial peripheral interface (RSPI): 1 channel
	Analog functions	<ul style="list-style-type: none"> • 12-bit A/D converter (S12ADb):64-pin: 14 channels; 48-pin: 10 channels; 36-pin: 7 channels
	Safety functions	<ul style="list-style-type: none"> • Clock Frequency Accuracy Measurement Circuit (CAC) • Data Operation Circuit (DOC) • 14 bits Independent watchdog timer (IWDTa) • CRC Calculator (CRC)
	Clock Generation Circuit	<ul style="list-style-type: none"> • Main clock oscillator • Sub-clock oscillator • Low-speed on-chip oscillator (LOCO) • High-speed on-chip oscillator (HOCO) • Dedicated on-chip oscillator for the IWDT
	Other functions	<ul style="list-style-type: none"> • Multi-function Pin Controller (MPC) • Power-on Reset Circuit (POR) • Voltage Detection Circuit (LVD)
On-chip debugging system	Yes	
Low power	3 modes	

consumption functions	<ul style="list-style-type: none"> • Sleep mode • Deep sleep mode • Software standby mode
Package	PWLG0036KA-A (36-pin WFLGA, 4 × 4mm, 0.5mm pitch) PLQP0048KB-A (48-pin LFQFP, 7 × 7mm, 0.5mm pitch) PLQP0064KB-A (64-pin LFQFP, 10 × 10mm, 0.5mm pitch) PLQP0064GA-A (64-pin LQFP, 14 × 14mm, 0.8mm pitch) PWQN0040KC-A (40-pin HWQFN , 6 × 6mm, 0.5mm pitch) PWQN0048KB-A (48-pin HWQFN , 7 × 7mm, 0.5mm pitch) PWLG0064KA-A (64-pin WFLGA , 5 × 5mm, 0.5mm pitch)

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