

February 26, 2014

Product Specifications of the RX64M Group of MCUs

Item		RX64M Group			
P/N (xxx: options, Package code)		R5F564MLxxx	R5F564MJxxx	R5F564MGxxx	R5F564MFxxx
Memory	Code flash	4 MB	3 MB	2.5 MB	2 MB
	Data flash	64 KB			
	RAM	<ul style="list-style-type: none"> • SRAM: 512 KB • ECCRAM: 32 KB • Standby RAM: 8 KB 			
CPU core		CPU RXv2 <ul style="list-style-type: none"> • General registers: 32-bit x 16 • Multiplier: 32-bit multiplier • Divider: Yes • Multiply-accumulator: Yes (two types: memory-to-memory operations and register-to-register operations) 			
Floating-point processing unit		Single-precision floating-point processing unit (Supports add/subtract/compare/multiply/divide and other instructions)			
Maximum operating frequency/ Power supply voltage		120 MHz / 2.7 to 3.6 V			
	Main	8 to 24 MHz			

Clock functions	clock	
	Sub clock	32.768 KHz
	On-chip oscillator	<ul style="list-style-type: none"> • IWDT: 120 KHz • LOCO: 240 KHz • HOCO: 16/18/20 MHz selectable
On-chip peripheral functions		<ul style="list-style-type: none"> • External Bus • DMAC: 8 channels • Data Transfer Controller (DTC) • General purpose 16-bit timer • 16-bit multifunction timer pulse unit • Programmable pulse generator • 8-bit timer: 4 channels • Compare match timer • Real time clock (RTC) • Watchdog timer • Independent watchdog timer • Serial Communication interface: 9 channels • Serial Communication interface with FIFO: 4 channels • Serial peripheral interface • Quad serial peripheral interface • Serial sound interface • I2C bus interface • Ethernet controller with IEEE1588 • USB Full Speed • CAN: 3 channels • Parallel data capture unit (PDC) • 12-bit A/D converter: 8 + 21 channels • 12-bit D/A converter: 2 channels • Temperature sensor • CRC calculator • Power-on reset circuit (POR) • Voltage detection circuit(LVD) <p><Options></p>

	<ul style="list-style-type: none"> • SD Host Interface • Encryption (AES, DES, SHA, true random number generator (RNG))
Operating temperature	-40 to +85°C
Packages	<ul style="list-style-type: none"> • 177-pin TFLGA (PTLG0177KA-A) • 176-pin LFBGA (PLBG0176GA-A) • 176-pin LQFP (PLQP0176KB-A) • 145-pin TFLGA (PTLG0145KA-A) • 144-pin LQFP (PLQP0144KA-A) • 100-pin TFLGA (PTLG0100JA-A) • 100-pin LQFP (PLQP0100KB-A)

(Remarks)

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