Separate Sheet

Product Specifications of the RX130 Group

(Note1) The xx differs depending on the package.
(Note2) R5F51305ADxx and R5F51305Agxx are only 100pin package

Group name		RX130			
Part No.*1		R5F51308ADxx *3	R5F51307ADxx *3	R5F51306ADxx *3	R5F51305ADxx *2*3
		R5F51308AGxx *4	R5F51307AGxx *4	R5F51306AGxx *4	R5F51305AGxx *2*4
Internal memory	Flash ROM	512 KB	384 KB	256 KB	128 KB
	RAM	48 KB	48 KB	32 KB	16 KB
	E2 data flash	8 KB			
Power supply voltage		1.8 - 5.5 V			
Maximum operating frequency		32 MHz			
Operating temperature		-40 - +85 ºC*3 or -40 - +105 ºC*4			
CPU core		RX CPU • General purpose: Sixteen 32-bit registers • Control : Eight 32-bit registers • Accumulator: 64-bit registers • Multiplier: 32-bit multiplier • Divider: Yes • Multiply-accumulator: Yes (two types: memory-to-memory operations and register-to-register operations) • Basic instructions: 73 Variable-length instruction format • DSP instructions: 23			
On-chip peripheral functions	Transfer functions	• Data transfer controller (DTCa)			
	Timers	• Multi-function timer pulse unit 2: 16 bits × 6 channels (MTU2a) • Port output enable 2 (POE2a) • Compare match timer (CMT): 16 bits × 2 channels × 1 units • Independent watchdog timer (IWDTa): 14 bit × 1 channel • Real-time clock (RTCc) : 1 channel • Low Power Timer (LPT) : 16 bit × 1 channel • 8-bit timer (TMR) : (8 bit × 2 channels) × 2 units			

	Communication functions	• Serial communications interface (SCIg) : 100-pin [6 channels], Below 80-pin [3 channels], • Serial communications interface (SCIh) : 1 channels • I2C bus interface (RIICa) : 1 channels • Serial peripheral interface (RSPIa) : 1 channels • Remote Control Signal Receiver (REMC) : 2 channels
	Cap touch functions	• 100-pin / 80-pin [36 channels], 64-pin [32 channels], 48-pin [24 channels], Self-capacitance and mutual capacitance are supported.
	Analog functions	• 12-bit A/D converter (S12ADE) : 100-pin [24 channels],80-pin [17 channels], 64-pin [14 channels], 48-pin [10 channels] • D/A converter (DAa): 80-pin [2 channels], 64-pin [2 channels]、48-pin [N/A] • Comparator B(CMPBa) : 2 channels
	Safety functions	• Clock frequency accuracy measurement circuit (CAC) • Data operation circuit (DOC) • 14-bit Independent watchdog timer (IWDTa) • Detection of 12-bit A/D converter analog input disconnection • CRC calculator (CRC)
	Clock generation circuit	• Main clock oscillator • Sub-clock oscillator • Low-speed on-chip oscillator (LOCO) • High-speed on-chip oscillator (HOCO) • IWDT-dedicated on-chip oscillator • PLL frequency synthesizer
	Others	• Event Link Controller (ELC) • Multi-function Pin Controller (MPC) • Power-on Reset Circuit (POR) • Voltage Detection Circuit (LVDAb) • Temperature Sensor (TEMPSA) • Unique ID
On-chip debugging function	Yes (with trace function)	
Low power consumption modes	3 modes • Sleep mode • Deep sleep mode • Software standby mode	
Packages	100-pin LFQFP (PLQP0100KB-B) 14 × 14 mm, 0.5 mm pitch 80-pin LFQFP(PLQP0080KB-B)12 × 12 mm, 0.5 mm pitch 64-pin LFQFP(PLQP0064KB-C)10 × 10 mm, 0.5 mm pitch 64-pin LQFP(PLQP0064GA-A)14 × 14 mm, 0.8mm pitch 48-pin LFQFP(PLQP0048KB-B)7 × 7 mm, 0.5 mm pitch 48-pin HWQFN(PWQN0048KB-A)7 × 7 mm, 0.5 mm pitch	

###

(Remarks) All names of products or services mentioned in this press release are trademarks or registered trademarks of their respective owners.