

MN187818 , MN1871618

Type		MN187818 , MN1871618	
ROM (×8-Bit)		8 K / 16 K	
RAM (×8-Bit)		1 536 / 768	
Minimum Instruction Execution Time		With Main Clock operated	1/8 dividing 1.0 μs (at 3.3 V to 5.5 V, 8 MHz)
		With Sub-Clock operated	122 μs (at 2.2 V to 5.5 V, 32.768 kHz)
Interrupts		• RESET • External 0 • External 1 • Timer 0 • Timer 1 • Timer 2 stop • Timer 3 • Serial 0 • Serial 1 • Key Scan • Timer 2	
Timer Counter		Timer Counter 0 : 8-Bit × 1 (Timer Output, Event Count, Pulse Width Measurement)	
		Clock Source	1/1, 1/4, 1/16, 1/64 of External Clock Input, 1/1, 1/4, 1/16, 1/64 of System Clock,
			1/1, 1/4, 1/16, 1/64 of XI Oscillation Clock
		Interrupt Source	Overflow of Timer Counter 0
		Timer Counter 1 : 16-Bit × 1 (Event Count, Pulse Width Measurement)	
		Clock Source	External Clock Input, System Clock, OSC Oscillation Clock
		Interrupt Source	Pulse Width Measurement finished or Overflow of Timer Counter 1
		Timer Counter 2 : 16-Bit × 1 (Input Capture, Synchronous Serial Clock Generator, Pulse Width Measurement)	
		Clock Source	1/1 to 1/16 of External Clock Input, 1/1 to 1/16 of OSC Oscillation Clock,
			1/1 to 1/16 of System Clock
		Interrupt Source	Overflow of Timer Counter 2, Pulse Width Measurement finish
		Timer Counter 3 : 8-Bit × 1 (Clock function, Time Base)	
		Clock Source	1/4096 of System Clock, 1/128 of XI Oscillation Clock
		Interrupt Source	1/1, 1/2, 1/4, 1/8 of Timer Counter 3
		Watchdog	
Serial Interface		Serial 0 : 8-Bit × 1 (Synchronous Type) (Transmission/Reception of variable bit length, Transfer direction of MSB/LSB selectable, Clock Polarity selectable, Start Condition function)	
		Clock Source	1/1, 1/8, 1/16 of System Clock, 1/2 of Timer Counter 2, SBT0 Pin Input, P20 Pin Input
		Serial 1 : 8-Bit × 1 (Synchronous Type) (Transmission/Reception of variable bit length, MSB/LSB selectable, Start Condition function)	
		Clock Source	1/1, 1/8, 1/16 of System Clock, 1/2 of Timer Counter 2, SBT1 Pin Input
		Connectable Serial 0 + Serial 1	
I/O Pins	I/O	54	• Common use 11 • Specified pull-up Resistor available 17 (Software Programmable)
	Input	2	• Common use
	Output	3	—
Special Ports		Buzzer Output, Remote Control Transmission/Reception	
Notes		Carrier Generator Circuit for Remote Controller built-in, Remote Controller Reception Amp built-in, Learning function of Remote Control	
Package		QFP064-P-1414	

Electrical Characteristics

Supply Current

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc = 8 MHz			20	mA
	IDD2	fosc = 32 kHz, VDD = 3 V			200	μA
Supply Current at STOP	IDD3	VDD = 3 V			10	μA
	IDD4	VDD = 2 V			3	μA

(Ta = -20 °C to +70 °C, VDD = 5.0 V, VSS = 0 V)

Support Tool

In-Circuit Emulator	PX-ICE1870 / 80 + PX-PRB1873218
Piggyback	Use EP187818 (EP1873218) as piggy in QFP064-P-1818 package
Pin Assignment	



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