

MN187818 / 1618

Type		MN187818 / 1618	
ROM (x8-bit)		8K / 16K	
RAM (x8-bit)		1536 / 768	
Minimum Instruction Execution Time		With Main Clock operated With Sub-clock operated	1/8 dividing 1.0μs (at 3.3 to 5.5V, 8MHz) 122μs (at 2.2 to 5.5V, 32.768kHz)
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 x 1 (Timer Output, Event Count, Pulse Width Measurement) Clock Source1/1, 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 SourceOverflow of Timer Counter 0 Timer Counter 1 : 16-bit x 1 (Event Count, Pulse Width Measurement) Clock SourceExternal Clock Input, System Clock, OSC Oscillation Clock Interrupt SourcePulse Width Measurement finished or Overflow of Timer Counter 1 Timer Counter 2 : 16-bit x 1 (Input Capture, Synchronous Serial Clock Generator, Pulse Width Measurement) Clock Source1/1 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 SourceOverflow of Timer Counter 2, Pulse Width Measurement finish Timer Counter 3 : 8-bit x 1 (Clock function, Time Base) Clock Source1/4096 of System Clock, 1/128 of XI Oscillation Clock Interrupt Source1/1, 1/2, 1/4, 1/8 of Timer Counter 3 Watchdog	
Serial Interface		Serial 0 : 8-bit x 1 (Synchronous Type) (Transmission/Reception of variable bit length, Transfer direction of MSB/LSB selectable, Clock Polarity selectable, Start Condition function) Clock Source1/1, 1/8, 1/16 of System Clock, 1/2 of Timer Counter 2, SBT0 Pin Input, P20 Pin Input Serial 1 : 8-bit x 1 (Synchronous Type) (Transmission/Reception of variable bit length, MSB/LSB selectable, Start Condition function) Clock Source1/1, 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=8MHz			20	mA
	IDD2	fosc=32kHz, VDD=3V			200	μA
Supply Current at STOP	IDD3	VDD=3V			10	μA
	IDD4	VDD=2V			3	

(Ta= -20 to +70°C, VDD=5.0V, VSS=0V)

Support Tool

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

