

■ MN150414 / 0814 / 1614

Type		MN150414 / 0814 / 1614	
ROM (×8-Bit)		4 K / 8 K / 8 K (Table ROM 8 K)	
RAM (×4-Bit)		256 / 320 / 320	
Number of Instructions		103	
Minimum Instruction Execution Time		1.818 μs at 1/8 frequency dividing (at 1.8 V to 3.6 V, 4.4 MHz) 3.636 μs at 1/16 frequency dividing (at 1.8 V to 3.6 V, 4.4 MHz) 7.273 μs at 1/32 frequency dividing (at 1.8 V to 3.6 V, 4.4 MHz)	
Interrupts		<ul style="list-style-type: none"> • RESET • External (Key Interrupt is available) • Timer • Serial 	
Timer Counter		Timer Counter 1 : 8-Bit × 1 Clock Source . . . 1/2, 1/8, 1/32, 1/128 of System Clock, Remote Control Carrier Output Interrupt Source .. Overflow of Timer Counter 1 Timer Counter 2 : 8-Bit × 1 Clock Source . . . 1/1, 1/16, 1/32, 1/64 of OSC Oscillation Clock 1/1, 1/16, 1/32, 1/64 of TCI2 Pin Input, Remote Control Carrier Output Interrupt Source .Overflow of Timer Counter 2 Watchdog Timer <input type="checkbox"/> Connectable Timer Counter 1 + Timer Counter 2	
Serial Interface		Serial : 8-Bit × 1 (Synchronous Type) Clock Source . . . System Clock, $\overline{\text{SBT}}$ Pin Input	
I/O Pins	I/O	12 (13)	<ul style="list-style-type: none"> • Common use 1 • Specified pull-up Resistor available 13 (Software Programmable) (WDT Output by $\overline{\text{RST}}$ Pin Output)
	Input	9	<ul style="list-style-type: none"> • Common use 5 • Specified pull-up Resistor available . 9 (Software Programmable)
	Output	1	<ul style="list-style-type: none"> • Common use 1
Special Ports		Remote Control Transmission	
Notes		Carrier Generator Circuit for Remote Controller built-in and Auto Reset Circuit built-in	
Package		SOP028-P-0375	

■ Electrical Characteristics

Supply Current

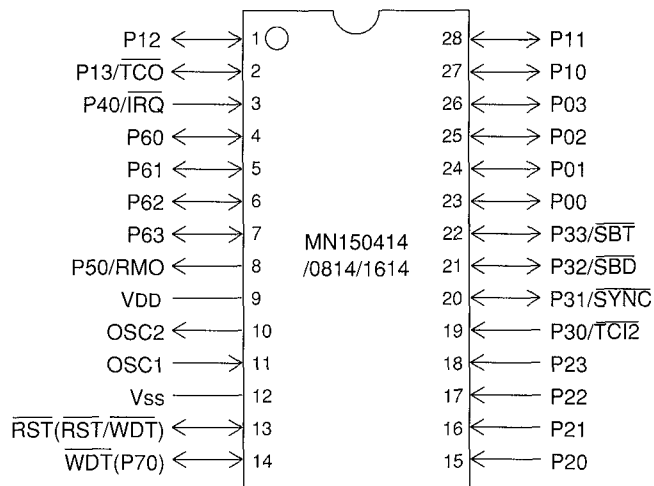
Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc = 4 MHz, 1/8 dividing		1.0	3.0	mA
Supply Current at STOP	IDD3	Auto Reset Circuit built-in		1.0	5	μA
Supply Current at HALT	IDD2	fosc = 4 MHz, 1/8 dividing		0.6	1.2	mA

(Ta = -20 °C to +85 °C, VDD = 3 V, VSS = 0 V)

Support Tool

In-Circuit Emulator	PX-ICE1500 + PX-PRB150414 / 0814 / 1614
EPROM built-in Type	Type MN15P1614 [ES (Engineering Sample) available]
	ROM (× 8-Bit) 8 K (Table ROM 8 K)
	RAM (× 4-Bit) 320
	Minimum Instruction Execution Time 1 818 μs (at 2 35 V to 3 6 V, 4 4 MHz)
	Package SOP028-P-0375

Pin Assignment



SOP028-P-0375