❑ 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	• 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** Connectable Timer Counter 1 + Timer Counter 2
Serial Interface	**Serial : 8-Bit × 1** (Synchronous Type) Clock Source . System Clock, $\overline{SBT}$ Pin Input

I/O Pins			
	I/O	**12 (13)**	• Common use 1 • Specified pull-up Resistor available 13 (Software Programmable) (WDT Output by $\overline{RST}$ Pin Output)
	Input	**9**	• Common use 5 • Specified pull-up Resistor available . 9 (Software Programmable)
	Output	**1**	• 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

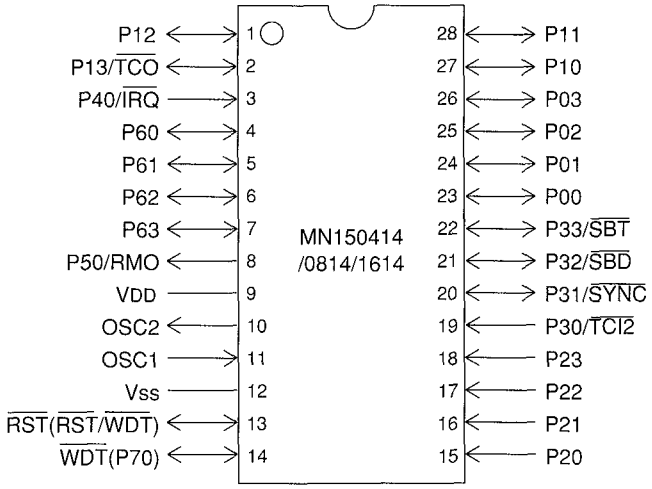
Parameter	Symbol	Condition	Limit min	Limit typ	Limit max	Unit
Operating Supply Current	IDD1	fosc = 4 MHz, 1/8 dividing		1 0	3 0	mA
Supply Current at STOP	IDD3	Auto Reset Circuit built-in		1 0	5	µA
Supply Current at HALT	IDD2	fosc = 4 MHz, 1/8 dividing		0 6	1 2	mA

(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