

MN150837

Type		MN150837	
ROM (x8-bit)		8K	
RAM (x4-bit)		512	
Minimum Instruction Execution Time		With Main Clock operated	0.95µs at 1/4 frequency dividing (at 2.7 to 5.5V, 4.19MHz) 1.91µs at 1/8 frequency dividing (at 1.8 to 5.5V, 4.19MHz)
		With Sub-clock operated	122µs (at 1.8 to 5.5V, 32.768KHz)
Interrupts		• RESET • External / Timer 2 • External • Timer • Serial	
Timer Counter		Timer Counter 1 : 8-bit x 1 (Event Count)	
		Clock Source 1/2, 1/8, 1/32, 1/128 of System Clock	
		Timer Counter 2 : 8-bit x 1 (Timer Output, Event Count)	
		Clock Source 1/2 of System Clock, 1/2 ¹⁴ of OSC Oscillation Clock, 1/1, 1/2 ⁶ of XI Oscillation Clock	
		Connectable Timer Counter 1/2	
Serial Interface		Serial : 8-bit x 1	
		Clock Source System Clock, $\overline{\text{SBT}}$ Pin Input	
I/O Pins	I/O	20	• Common use . 3 • Input/output selectable . 20 (P2 by-bit P3, 4, 8, 9 by-port) • Specified pull-up Resistor available 20 (Software Programmable)
	Input	5	• Common use 2 • Specified pull-up Resistor available 4 (Software Programmable)
	Output	8	• Nch Open-drain 8
Package		QFP044-P-1010	
Electrical Characteristics			

Supply Current

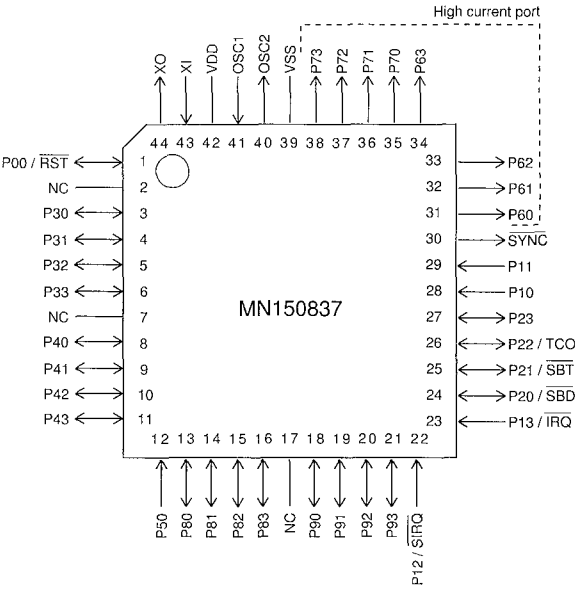
Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD2	1/8fosc, 4.00MHz			5.0	mA
	IDD3	1/4fosc, 4.00MHz			9.0	mA
	IDD4	1/4fx, 32.7kHz			0.5	mA
Supply Current at STOP	IDD6	XI=open, VDD=5V			10.0	µA
	IDD7	XI=32.7kHz, VDD=3V			10.0	µA
Supply Current at HALT	IDD5	fosc=4.0MHz			1.2	mA

(Ta= -40 to +85°C, VDD=5.0V, VSS=0V)

Support Tool

In-Circuit Emulator	PX-ICE1500 + PX-PRB151637	
EPROM built-in Type	Type	MN15P1631
	ROM (x 8-bit)	16K
	RAM (x 4-bit)	512
	Minimum Instruction Execution Time	1 0μs at 1/4 frequency dividing (at 4 5 to 5 5V, 4MHz) 1 91μs at 1/8 frequency dividing (at 2 35 to 5.5V, 4 19MHz)
	Package	QFP044-P-1010

Pin Assignment



QFP044-P-1010

NC Nothing connected with pin