

MN102L490A

Type	MN102L490A (under development)		
ROM (x8-bit / x16-bit)	External		
RAM (x8-bit / x16-bit)	3K		
Minimum Instruction Execution Time	With Main Clock operated: 100ns (at 4.5 to 5.5V, 20MHz)		
Interrupts	• RESET • Watchdog • Timer Counter 0 to 5 • Timer Counter 6 to 7 • Timer Counter 6 to 7 Compare Capture A • Timer Counter 6 to 7 Compare Capture B • ATC Transfer finish • External 0 to 4 • Serial ch 0, 1 Transmission • Serial ch 0, 1 Reception • NMI Pin • A/D Conversion finish		
Timer Counter	Timer Counter 0 : 8-bit x 1 (Timer Output, Event Count) Clock Source 1/1, 1/128 of System Clock, 1/4 of Low Speed Clock, External Clock Interrupt Source Underflow of Timer Counter 0 Timer Counter 1 : 8-bit x 1 (Timer Output, Event Count, A/D Conversion Start up) Clock Source System Clock, 1/4 of Low Speed Clock, External Clock, Timer Counter 0 Output Interrupt Source .. Underflow of Timer Counter 1 Timer Counter 2 to 3 : 8-bit x 1 (Timer Output, Event Count, UART Baud Rate Generator) Clock Source . . . System Clock, External Clock, Timer Counter 0 Output, Timer Counter 1, 2 Output Interrupt Source Underflow of Timer Counter 2, 3 Timer Counter 4, 5 : 8-bit x 1 (Timer Output, Event Count) Clock Source 1/4 of Low Speed Clock, External Clock, Timer Counter 0 Output, Timer Counter 3, 4 Output Interrupt Source Underflow of Timer Counter 4, 5 Timer Counter 6, 7 : 16-bit x 1 (Timer Output, Event Count, Input Capture, Output Compare, PWM Output, 2-Phase Encoder Input) Clock Source . System Clock, External Clock, Timer Counter 4, 5 Output Interrupt Source Coincidence with Compare Capture A or at Capture, Coincidence with Compare Capture B or at Capture, Underflow of Timer Counter 6, 7 Connectable Timer Counter 0 to 5		
Serial Interface	Serial 0 : 7, 8-bit x 1 (Common use with UART, Transfer direction of MSB/LSB selectable) Clock Source 1/16 of Timer Counter 2, 1/16 of Timer Counter 3, External Clock, 1/2 of Timer Counter 2 Serial 1 : 7, 8-bit x 1 (Common use with UART, Transfer direction of MSB/LSB selectable) Clock Source 1/16 of Timer Counter 2, 1/16 of Timer Counter 3, External Clock, 1/2 of Timer Counter 3 UART x 2 (Common use with Serial 0, 1) I²C x 2 (Single master)		
I/O Pins	I/O	48	• Common use 8 (by 4-bit), 40 (by-bit)
A/D Inputs	8-bit x 8ch (with S/H)		
PWM	16-bit x 2ch		

Notes

- Burst ROM interface support, ATC (between serial 0ch and internal RAM) support
- Main pin inputs TTL level

Package

LQFP100-P-1414

Electrical Characteristics

A/D Characteristics (at VDD=5V)

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
A/D Conversion Relative Error		VDD=5V, VSS=0V			±3	LSB
					±4	
A/D Conversion Time			4	8		μs
Analog Input Voltage	VIA		VSS		VDD	V

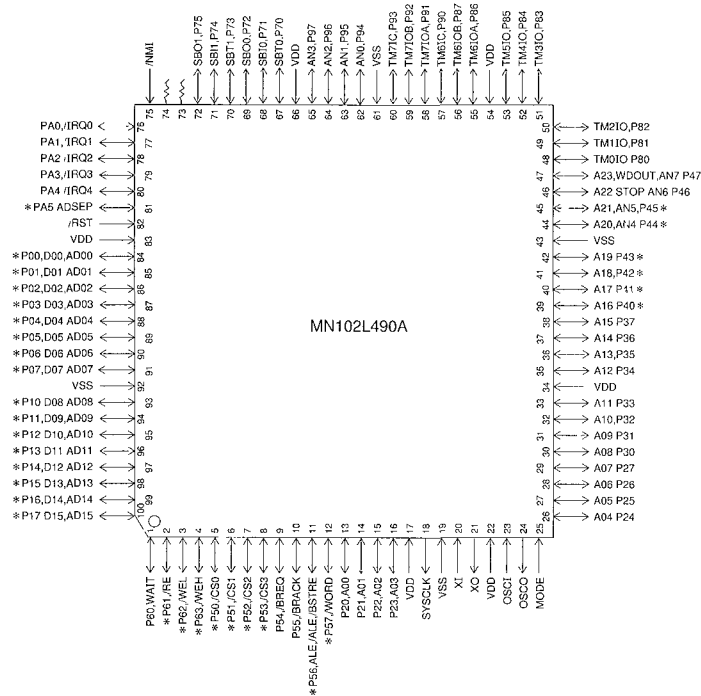
(Ta= 25°C, VDD=5.0V, VSS=0V)

Support Tool

In-Circuit Emulator

PX-ICE102L00 + PX-PRB102L49

Pin Assignment



LQFP100-P-1414

* Use of these ports are disabled