

MN1A7T0200

Type	MN1A7T0200
ROM (×8-Bit / ×16-Bit / ×32-Bit)	Max 16 M in total
RAM (×8-Bit / ×16-Bit / ×32-Bit)	External ROM and RAM
Minimum Instruction Execution Time	100 ns (at 2.3 V to 2.7 V, 20 MHz)
Interrupts	<ul style="list-style-type: none"> • RESET • IRQ0 to 5 • NMI • Timer 0 to 9 Underflow • Timer 8 to 9 Compare Capture A • Timer 8 to 9 Compare Capture B • Serial ch 0 to 2 Transmission • Serial ch 0 to 2 Reception • Serial ch 0 to 2 in Communication State • Serial ch 0 to 2 Modem Status • Serial ch 0 to 2 Character • Serial ch 3 to 4 Transmission • Serial ch 3 to 4 Reception • WDT • A/D Conversion finish
Timer Counter	<p>Timer Counter 0 : 16-Bit × 1 (Interval Timer, Event Count, Interrupt, A/D Conversion Trigger)</p> <p>Clock Source PS0 Underflow, PS1 Underflow, External Clock</p> <p>Interrupt Source Timer Counter 0 Underflow</p> <p>Timer Counter 1 to 6. 16-Bit × 1 (Interval Timer, Event Count, Timer Output, Interrupt)</p> <p>Clock Source PS0 Underflow, PS1 Underflow, External Clock</p> <p>Interrupt Source Timer Counter 1, 2, 3, 4, 5 or 6 Underflow</p> <p>Timer Counter 7. 16-Bit × 1 (Interval Timer, Event Count, Timer Output, Interrupt)</p> <p>Clock Source PS0 Underflow, PS1 Underflow, External Clock Input, Timer 6 Cascade Input</p> <p>Interrupt Source Timer Counter 7 Underflow</p> <p>* Timer Counter 6 or 7 can be Changed in Configuration into a 32-Bit Timer Counter</p> <p>Timer Counter 8. 16-Bit × 1 (Interval Timer, Event Count, Output Compare, PWM Output, One-Shot Output, Input Capture, Interrupt)</p> <p>Clock Source PS0 Underflow, PS1 Underflow and External Clock Input</p> <p>Interrupt Source Timer Counter 8 Underflow, Agreement with Compare Capture A (or Capture), Agreement with Compare Capture B (or Capture)</p> <p>Timer Counter 9. 16-Bit × 1 (Interval Timer, Event Count, Output Compare, PWM Output, One-Shot Output)</p> <p>Clock Source PS0 Underflow, PS1 Underflow, External Clock Input</p> <p>Interrupt Source Timer Counter 9 Underflow, Agreement with Compare Capture A (or Capture), Agreement with Compare Capture B (or Capture)</p> <p>Two pre-scaler counters</p>
Serial Interface	<p>Serial 0, 1, 2 (UART): 5-, 6-, 7-, 8-Bit × 3</p> <p>Clock Source Baud Rate Generator, IOCLKH, External Clock</p> <p>Serial 3, 4 (SSI): 4- to 16-Bit × 2</p> <p>Clock Source IOCLKH, External Clock</p>
I/O Pins I/O	40 • Common use 40
A/D	10-Bit × 8ch
PWM	16-Bit × 2ch
ICR	16-Bit × 2ch
OCR	16-Bit × 2ch
Package	FLGA152-C-1111

Electrical Characteristics

A/D Characteristic

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Resolution					10	Bits
A/D Conversion Absolute Precision		VREFH = 3.0 V VREFL = 0.0 V A/D Conversion Clock = 6 MHz			±5	LSB
A/D Conversion Relative Precision					±5	LSB
A/D conversion time			2.0		24	μs

(Ta = 25 °C, AVDD = 3.0 V, AVSS = 0.0 V)

Support Tool

In-Circuit Emulator

Multi-ICE (ARM product), Partner ET-II (KMC product) (applicable to 16- or 8-Bit pass mode),
Advice (YDC product) (applicable to 16- or 8-Bit pass mode)

Pin Assignment

Perspective view

