

□ MN101C095 , MN101C097 , MN101C485 , MN101C487

Type		MN101C095 (under planning) , MN101C097 , MN101C485 , MN101C487	
ROM (×8-Bit)		8 K / 16 K / 8 K / 16 K (External memory can be expanded)	
RAM (×8-Bit)		512 / 512 / 512 / 512 (External memory can be expanded)	
Minimum Instruction Execution Time		0.10 μs (at 4.5 V to 5.5 V, 20 MHz) 0.25 μs (at 2.7 V to 5.5 V, 8 MHz) 125 μs (at 2.0 V to 5.5 V, 32 kHz)	
Interrupts		• RESET • Watchdog • External 0 • External 1 • External 2 • External 4 • Timer 2 • Timer 3 • Timer 4 • Timer 5 • Time Base • Serial 0 • A/D Conversion finish	
Timer Counter		<p>Timer Counter 2 : 8-Bit × 1 (Square-Wave/8-Bit PWM Output, Event Count, Synchronous Output Event) Clock Source 1/1, 1/4 of System Clock, 1/1 of XI Oscillation Clock, External Clock Input Interrupt Source Coincidence with Compare Register 2</p> <p>Timer Counter 3 : 8-Bit × 1 (Square-Wave Output, Event Count, Generation of Remote Control Carrier, Serial 0 Baud Rate Timer) Clock Source 1/4, 1/16 of System Clock, 1/1 of OSC Oscillation Clock, External Clock Input Interrupt Source Coincidence with Compare Register 3</p> <p>Timer Counter 2, 3 can be cascade-connected.</p> <p>Timer Counter 4 : 16-Bit × 1 (Square-Wave/16-Bit PWM Output, Event Count, Synchronous Output Event, Input Capture) Clock Source 1/4, 1/16 of System Clock, 1/1 of OSC Oscillation Clock, External Clock Input Interrupt Source Coincidence with Compare Register 4</p> <p>Time Base Timer (One-Minute Count Setting, Independently operable 8-Bit Timer Counter 5) Clock Source 1/4 of System Clock, 1/1, 1/8192 of OSC Oscillation Clock, 1/1, 1/8192 of XI Oscillation Clock Interrupt Source Coincidence with Compare Register 5, 1/8192 Prescaler Overflow</p> <p>Watchdog Timer Interrupt Source 1/65536, 1/262144, 1/1048576 of System Clock (ROM Option)</p>	
Serial Interface		<p>Serial 0 : 8-Bit × 1 (Synchronous Type/Simple UART[Half-Duplex]) Clock Source 1/2, 1/4, 1/16 of System Clock, 1/2 of Timer Counter 3</p>	
I/O Pins	I/O	36	• Common use • Specified pull-up Resistor available • Input/Output selectable (bit unit) • Specified pull-down resistor partially selectable
	Input	11	• Common use • Specified pull-up Resistor available • Specified pull-down resistor partially selectable
A/D Inputs		10-Bit × 8ch (with S/H)	
LCD		• 25 segment • 4 common • Static • 1/2, 1/3 or 1/4 duty	
Special Ports		Buzzer Output, Remote Control Carrier Signal Output, High-Current Drive Port	
Package		LQFP064-P-1414, TQFP064-P-1010	

Electrical Characteristics

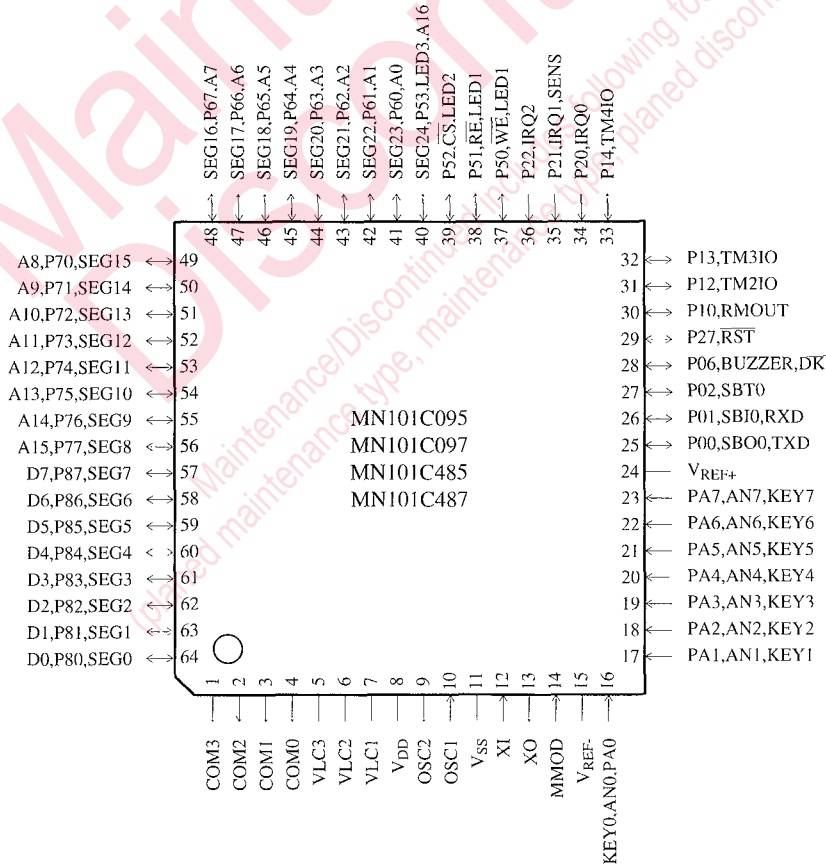
Supply Current

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc = 8 MHz, VDD = 5 V		10	25	mA
	IDD2	fx = 32 kHz, VDD = 3 V		15	100	μA
Supply Current at HALT	IDD3	fx = 32 kHz, VDD = 3 V, Ta = 25 °C			8	μA
	IDD4	fx = 32 kHz, VDD = 3 V, Ta = -40 °C to +85 °C			30	μA
Supply Current at STOP	IDD5	VDD = 5 V, Ta = 25 °C			1	μA
		VDD = 5 V, Ta = -40 °C to +85 °C			25	μA

Support Tool

In-Circuit Emulator	PX-ICE101C / D + PX-PRB101C09(2)-C / D
EPROM built-in Type	Type: MN101CP097 , MN101CP487 [ES (Engineering Sample) available]
	ROM (× 8-Bit): 16 K
	RAM (× 8-Bit): 512
	Minimum Instruction Execution Time: 0 10 μs (at 4 5 V to 5 5 V, 20 MHz)
	0 25 μs (at 2 7 V to 5 5 V, 8 MHz)
	Package: LQFP064-P-1414, TQFP064-P-1010

Pin Assignment



LQFP064-P-1414
 TQFP064-P-1010

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