

MN101C169 / 16A

Type			MN101C169 (under planning) / 16A
ROM (x8-bit)			24K/32K (External memory can be expanded)
RAM (x8-bit)			1536/1536 (External memory can be expanded)
Minimum Instruction Execution Time			0.25 μs (at 2.7 to 5.5V, 8MHz) 125 μs (at 2.0 to 5.5V, 32kHz)
Interrupts			• RESET • Watchdog • External 0 • External 1 • External 2 • External 3 • External 4 • Timer 2 • Timer 3 • Timer 4 • Timer 5 • Time Base • Serial 0 • Serial 1 • A/D Conversion finish
Timer Counter			Timer Counter 2 : 8-bit x 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 Timer Counter 3 : 8-bit x 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 Timer Counter 2, 3 can be cascade-connected. Timer Counter 4 : 16-bit x 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 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 Watchdog Timer Interrupt Source 1/65536, 1/262144, 1/1048576 of System Clock (Mask Option)
Serial Interface			Serial 0 : 8-bit x 1 (Synchronous Type/Simple UART[Half-duplex]) Clock Source 1/2, 1/4, 1/16 of System Clock, 1/2 of Timer Counter 3 Serial 1 : 8-bit x 1 (Synchronous Type) Clock Source 1/2, 1/8, 1/64 of System Clock, 1/2 of Timer Counter 3
I/O Pins	I/O	44	• Common use • Specified pull-up Resistor available • Input/Output selectable (bit unit) • Specified pull-down resistor partially selectable
	Input	13	• Common use • Specified pull-up Resistor available • Specified pull-down resistor partially selectable
A/D Inputs			10-bit x 8ch (with S/H)
LCD			• 52 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			QFP100-P-1818B, LQFP100-P-1414

Electrical Characteristics

Supply Current

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc = 8MHz, VDD = 5V		10	25	mA
	IDD2	fx = 32kHz, VDD = 3V		30	100	μA
Supply Current at HALT	IDD3	fx = 32kHz, VDD = 3V, Ta = 25°C			8	μA
	IDD4	fx = 32kHz, VDD = 3V, Ta = -40 to +85°C			24	μA
Supply Current at STOP	IDD5	VDD = 5V, Ta = 25°C			1	μA
		VDD = 5V, Ta = -40 to +85°C			20	μA

Support Tool

In-Circuit Emulator

PX-ICE101C / D + PX-PRB101C16-C / D

EPROM built-in Type

Type MN101CP03D [ES (Engineering Sample) available]

ROM (x 8-bit) 64K

RAM (x 8-bit) 2048

Minimum Instruction Execution Time 0.25μs (at 4.5 to 5.5V, 8MHz)

125μs (at 2.7 to 5.5V, 32kHz)

Package QFP100-P-1818B, LQFP100-P-1414

Pin Assignment

