

MN101C08A / 08C

Type		MN101C08A (under development) / 08C	
ROM (x8-bit)		32K/48K (External memory can be expanded)	
RAM (x8-bit)		1024/1536 (External memory can be expanded)	
Minimum Instruction Execution Time		0.10μs (at 4.5 to 5.5V, 20MHz) 0.25μs (at 2.7 to 5.5V, 8MHz) 1.00μs (at 2.0 to 5.5V, 2MHz)* 125μs (at 2.0 to 5.5V, 32kHz)* * The lower limit for operation guarantee for EPROM built-in version is 2.7V.	
Interrupts		• RESET • Watchdog • External 0 • External 1 • External 2 • External 3 • External 4 • Timer 0 • Timer 1 • Timer 2 • Timer 3 • Timer 4 • Timer 5 • Time Base • Serial 0 • Serial 1 • Automatic Transfer finish • A/D Conversion finish	
Timer Counter		Timer Counter 0 : 8-bit x 1 (Square-wave/8-bit PWM Output, Event Count, Generation of Remote Control Carrier) Clock Source 1/1, 1/4 of System Clock, 1/1 of OSC Oscillation Clock, External Clock Input Interrupt Source Coincidence with Compare Register 0 Timer Counter 1 : 8-bit x 1 (Square-wave Output, Event Count, Synchronous Output Event) Clock Source 1/16, 1/64 of System Clock, 1/1 of XI Oscillation Clock, External Clock Input Interrupt Source . Coincidence with Compare Register 1 Timer Counter 0, 1 can be cascade-connected. 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 (ROM 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	55	• Common use • Specified pull-up Resistor available • Input/Output selectable (bit unit)
	Input	13	• Common use • Specified pull-up Resistor available

A/D Inputs	10-bit x 8ch (with S/H)
D/A Inputs	8-bit x 4ch
Special Ports	Buzzer Output, Remote Control Carrier Signal Output, High-current Drive Port
Package	QFP084-P-1818E, LQFP080-P-1414A (under development)
Electrical Characteristics	

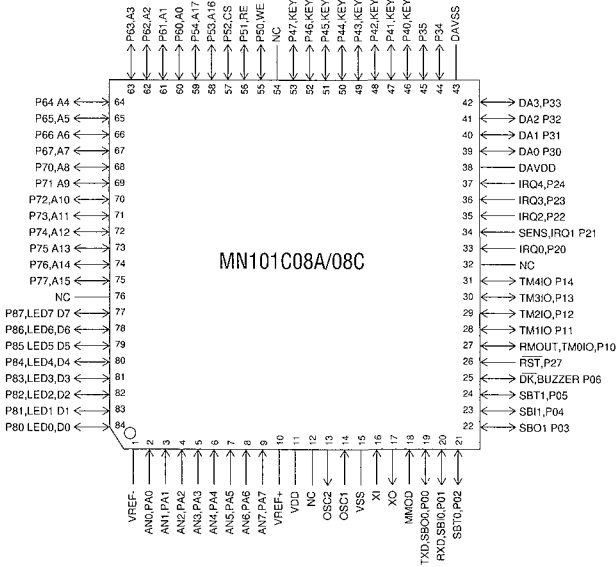
Supply Current

Parameter	Symbol	Condition	Limit			Unit
			max	typ	max	
Operating Supply Current	IDD1	fosc = 20MHz, VDD = 5V			60	mA
	IDD2	fx = 32kHz, VDD = 3V			100	μA
Supply Current at HALT	IDD3	fx = 32kHz, VDD = 3V, Ta = 25°C			8	μA
		fx = 32kHz, VDD = 3V, Ta = 85°C			20	μA
Supply Current at STOP	IDD4	VDD = 5V, Ta = 25°C			1	μA
		VDD = 5V, Ta = 85°C			30	μA

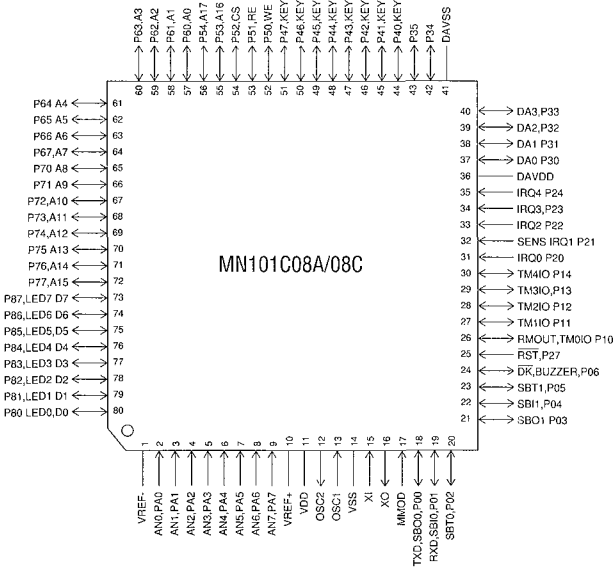
Support Tool

In-Circuit Emulator		PX-ICE101C / D + PX-PRB101C08-80LF14-C / D, PX-PRB101C08-84QF18-C / D	
EPROM built-in Type	Type	MN101CP08C [ES (Engineering Sample) available]	
	ROM (x 8-bit)	48K	
	RAM (x 8-bit)	1536	
	Minimum Instruction Execution Time	0 10μs (at 4.5 to 5.5V, 20MHz) 0 25μs (at 2 7 to 5 5V, 8MHz)	
	Package	QFP084-P-1818E, LQFP080-P-1414A (under development)	

Pin Assignment



QFP084-P-1818E



LQFP080-P-1414A (under development)