❑ MN101C35D

Type	MN101C35D
ROM (×8-bit)	64 K
RAM (×8-bit)	2 K
Package	LQFP100-P-1414 *Pb free, QFP100-P-1818B *Pb free
Minimum Instruction Execution Time	0.238 µs (at 2.7 V to 5.5 V, 8.4 MHz) 122 µs (at 2.2 V to 5.5 V, 32.768 kHz)
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 • Serial 2 • Automatic transfer finish • A/D conversion finish • Key scan
Timer Counter	Timer counter 0 : 8-bit × 1 (square-wave/8-bit PWM output, event count, generation of remote control carrier) Clock source ····· 1/1, 1/4 of system clock frequency; 1/1 of OSC oscillation clock frequency; external clock input Interrupt source ····· coincidence with compare register 0 Timer counter 1 : 8-bit × 1 (square-wave output, event count, synchronous output event) Clock source ····· 1/16, 1/64 of system clock frequency; 1/1 of XI oscillation clock frequency; external clock input Interrupt source ····· coincidence with compare register 1 Timer counter 0, 1 can be cascade-connected. 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 frequency; 1/1 of XI oscillation clock frequency; external clock input Interrupt source ····· coincidence with compare register 2 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 frequency; 1/1 of OSC oscillation clock frequency; external clock input Interrupt source ····· coincidence with compare register 3 Timer counter 2, 3 can be cascade-connected. 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 frequency; 1/1 of OSC oscillation clock frequency; 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 frequency; 1/1, 1/8192 of OSC oscillation clock frequency; 1/1, 1/8192 of XI oscillation clock frequency Interrupt source ····· coincidence with compare register 5; 1/8192 prescaler overflow Watchdog timer Interrupt source ····· 1/2097152 of system clock frequency
Serial Interface	Serial 0 : synchronous type/simple UART (half-duplex) × 1 Clock source ····· 1/2, 1/4, 1/16 of system clock frequency; 1/2 of timer counter 3 frequency Serial 1 : synchronous type × 1 Clock source ····· 1/2, 1/8, 1/64 of system clock frequency; 1/2 of timer counter 3 frequency Serial 2 : synchronous type/simple I^2C × 1 Clock source ····· 1/1, 1/2, 1/4 of system clock frequency; 1/2 of timer counter 0 frequency

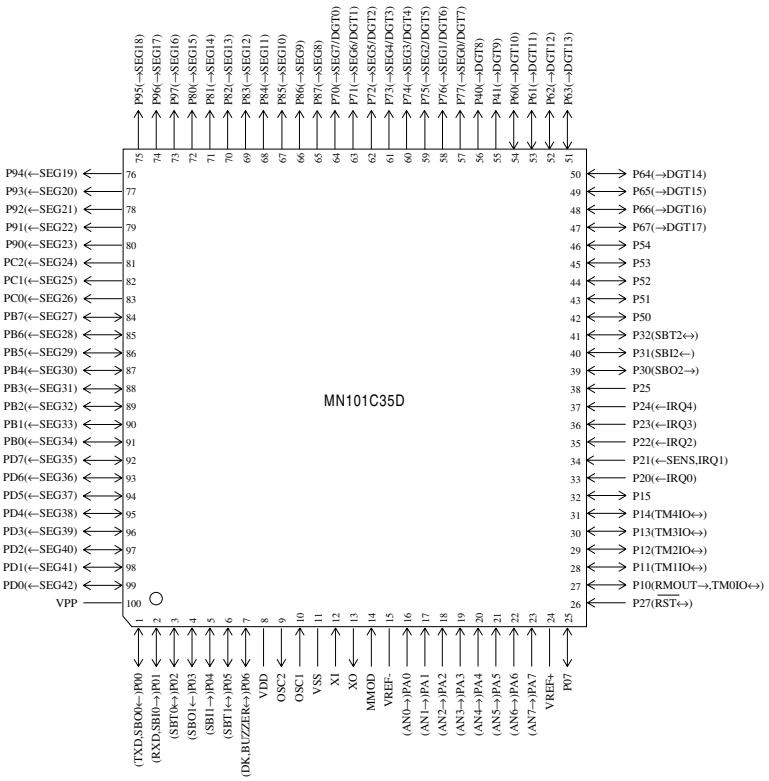
I/O Pins	**I/O**	36	• Common use : 28 • Specified pull-up resistor available • Input/output selectable (bit unit)
	High Voltage	53	• Output: 29 • I/O: 24 • P-ch open drain (breakdown voltage −30V): FL drive: 53 • Specified pull-down resistor mask option: 35
A/D Inputs		8-bit × 8-ch. (with S/H)	
FL		(35 to 43) segments × (18 to 10) digits	
Special Ports		Buzzer Output, remote control carrier signal output	

Electrical Characteristics

Supply current

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating supply current	IDD1	fosc = 8.4 MHz, VDD = 5 V			25	mA
	IDD2	fx = 32.768 kHz, VDD = 3 V			120	µA
Supply current at HALT	IDD3	fx = 32.768 kHz, VDD = 3 V			10	µA
Supply current at STOP	IDD4	VDD = 3 V			10	µA

Pin Assignment



LQFP100-P-1414 *Pb free

QFP100-P-1818B *Pb free

See the next page for support tool.

Support Tool

In-circuit Emulator

PX-ICE101C / D + PX-PRB101C23-LQFP100-P-1414
PX-ICE101C / D + PX-PRB101C23-QFP100-P-1818B

EPROM Built-in Type

Type	MN101CP35D
ROM (× 8-bit)	64 K
RAM (× 8-bit)	2 K
Minimum instruction execution time	0.238 µs (at 2.7 V to 5.5 V, 8.4 MHz)
	122 µs (at 2.7 V to 5.5 V, 32.768 kHz)
Package	QFP100-P-1818B *Pb free
	LQFP100-P-1414 *Pb free [ES (Engineering Sample) available]

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