

MN101C29D

Type	MN101C29D
ROM (×8-bit)	64 K
RAM (×8-bit)	1.5 K
Package	LQFP080-P-1414A *Lead-free
Minimum Instruction Execution Time	0.10 μs (at 4.5 V to 5.5 V, 20 MHz)
Interrupts	• RESET • Watchdog • External 0 • External 1 • External 2 • External 3 • External 4 • External 5 • Timer 2 • Timer 3 • Timer 6 • Time base • Timer 8 (2 systems) • Serial 2 • Key interrupts (8 lines)
Timer Counter	Timer counter 2 : 8-bit × 1 (square-wave output[timer pulse output], PWM output, event count, timer synchronous output, simple pulse width measurement function) Clock source 1/2, 1/4 of system clock frequency; 1/1, 1/4, 1/16, 1/32, 1/64 of OSC oscillation clock frequency; 1/1 of XI oscillation clock frequency; external clock input Timer counter 3 : 8-bit × 1 (square-wave output[timer pulse output], event count, remote control carrier output) Clock source 1/2, 1/8 of system clock frequency; 1/1, 1/4, 1/16, 1/64, 1/128 of OSC oscillation clock frequency; 1/1 of XI oscillation clock frequency; external clock input Timer counter 2, 3 can be cascade-connected. Time base timer Clock source 1/1, 1/2⁷, 1/2⁸, 1/2⁹, 1/2¹⁰, 1/2¹³, 1/2¹⁵ of OSC oscillation clock frequency; 1/1, 1/2⁷, 1/2⁸, 1/2⁹, 1/2¹⁰, 1/2¹³, 1/2¹⁵ of XI oscillation clock frequency Timer counter 6 : 8-bit freerun timer Clock source 1/1 of system clock frequency; 1/1, 1/2⁷, 1/2¹³ of OSC oscillation clock frequency; 1/1, 1/2⁷, 1/2¹³ of XI oscillation clock frequency Timer counter 8 : 16-bit × 1 Clock source either of system clock, OSC oscillation clock, external clock 1 or external clock 2 divided into 1/1, 1/2, 1/4 and 1/16 (hardware configuration) double buffer type compare register × 2 input capture register × 1 (timer functions) square-wave output (timer pulse output), PWM output (duty continuously variable), event count, simple pulse width measurement function and input capture function Watchdog timer Interrupt source runaway detection frequency selection from 1/2¹⁶, 1/2¹⁸ and 1/2²⁰ of system clock
Serial Interface	Serial 2 : synchronous type × 1 Synchronous type (MSB or LSB first selectable, 1 to 8 bits arbitrary transmission) Transfer clock source 1/2, 1/4 of system clock frequency; 1/2, 1/4, 1/16, 1/32 of OSC oscillation clock frequency; timer counter 2, 3 output; 1/3 of frequency of the above clocks
Multiplication / Division functions	Signed/unsigned: 16-bit × 16-bit arithmetic operation (execution in 15 cycles) Unsigned: 32-bit ÷ 16-bit arithmetic operation (execution in 17 cycles)

I/O Pins	I/O	53	• Common use: 48 • Specified pull-up resistor available • Input/output selectable (bit unit)
	Input	2	• Common use: 1

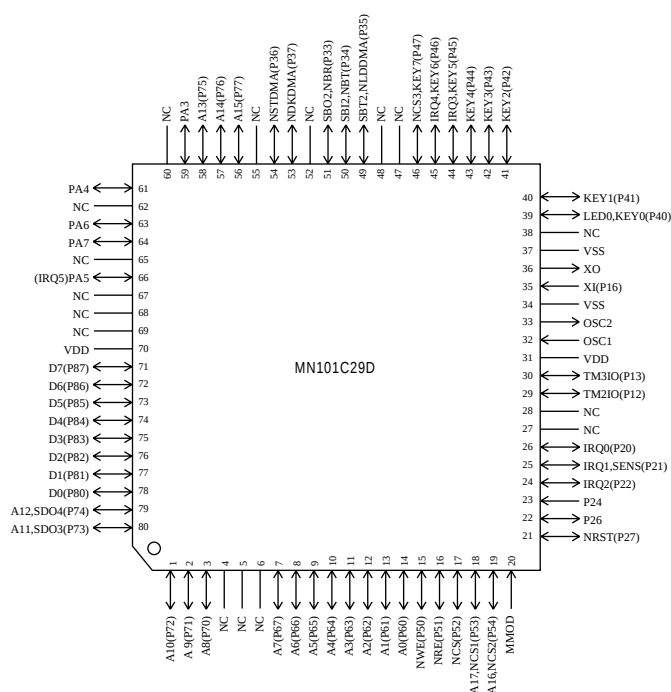
Special Ports	High-current drive port × 1
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Electrical Characteristics

Supply current

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating supply current	IDD1	fosc = 20 MHz, VDD = 5 V			60	mA
Supply current at STOP	IDD2	VDD = 5 V			10	μA

Pin Assignment



LQFP080-P-1414A *Lead-free

Support Tool

In-circuit Emulator	PX-ICE101C / D + PX-PRB101C29-LQFP080-P-1414A (under planning)	
Flash Memory Built-in Type	Type	MN101CF29D
	ROM (× 8-bit)	64 K
	RAM (× 8-bit)	1.5 K
	Minimum instruction execution time	0.10 μs (at 4.5 V to 5.5 V, 20 MHz)
	Package	LQFP080-P-1414A *Lead-free

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