

MN101C29D / CF29D

Type		MN101C29D (under development) / CF29D	
ROM (×8-Bit)		64 K / 64 K (built-in flash EEPROM)	
RAM (×8-Bit)		1 536 / 1 536	
Minimum Instruction Execution Time		0.10 μs (at 4.5 V to 5.5 V, 20 MHz)	
Interrupts		<ul style="list-style-type: none"> • 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		<p>Timer Counter 2 : 8-Bit × 1 (Square-Wave Output[Timer Pulse Output], PWM Output, Event Count, Timer Synchronous Output, Simple Pulse Width Measurement Function)</p> <p>Clock Source . 1/2, 1/4 of System Clock, 1/1, 1/4, 1/16, 1/32, 1/64 of OSC Oscillation Clock, 1/1 of XI Oscillation Clock, External Clock Input</p> <p>Timer Counter 3 : 8-Bit × 1 (Square-Wave Output[Timer Pulse Output], Event Count, Remote Control Carrier Output)</p> <p>Clock Source 1/2, 1/8 of System Clock, 1/1, 1/4, 1/16, 1/64, 1/128 of OSC Oscillation Clock, 1/1 of XI Oscillation Clock, External Clock Input</p> <p>Timer Counter 2, 3 can be cascade-connected.</p> <p>Time Base Timer</p> <p>Clock Source 1/1, 1/2⁷, 1/2⁸, 1/2⁹, 1/2¹⁰, 1/2¹³, 1/2¹⁵ of OSC Oscillation Clock, 1/1, 1/2⁷, 1/2⁸, 1/2⁹, 1/2¹⁰, 1/2¹³, 1/2¹⁵ of XI Oscillation Clock</p> <p>Timer Counter 6 : 8-Bit × 1 Freerun Timer</p> <p>Clock Source 1/1 of System Clock, 1/1, 1/2⁷, 1/2¹³ of OSC Oscillation Clock, 1/1, 1/2⁷, 1/2¹³ of XI Oscillation Clock</p> <p>Timer Counter 8 : 16-Bit × 1</p> <p>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)</p> <p>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</p> <p>Watchdog Timer</p> <p>Interrupt Source .. Runaway Detection Frequency Selection from 1/2¹⁵, 1/2¹⁸ and 1/2²⁰ of System Clock</p>	
Serial Interface		<p>Serial 2 : 8-Bit × 1 (synchronous)</p> <p>Synchronization method (MSB or LSB first selectable, 1 to 8 bits arbitrary transmission)</p> <p>Transfer Clock Source . 1/2, 1/4 of System Clock, 1/2, 1/4, 1/16, 1/32 of OSC Oscillation Clock, 1/1, 1/3 of Timer Counter 2 and 3</p>	
Multiplication/Division functions		<p>Signed/unsigned 16-Bit × 16-Bit Arithmetic Operation (Execution in 15 Cycles)</p> <p>Unsigned 32-Bit ÷ 16-Bit Arithmetic Operation (Execution in 17 Cycles)</p>	
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
Package	LQFP080-P-1414A, LQFP064-P-1414 (under planning)
Electrical Characteristics	

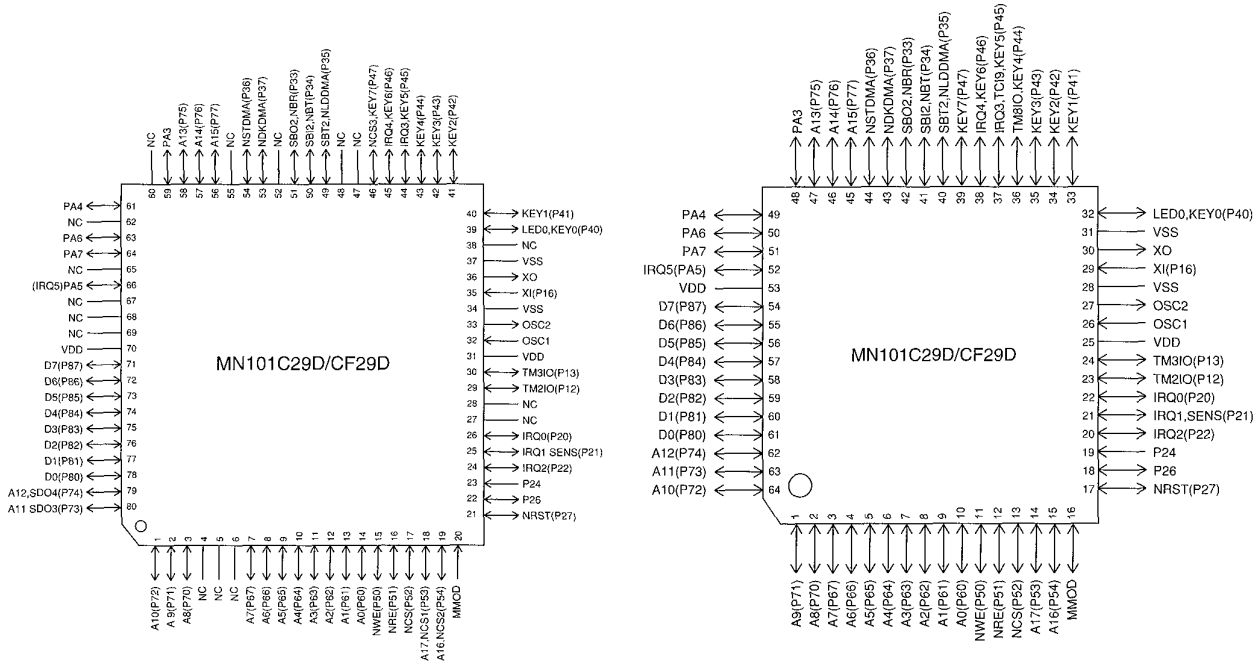
Supply Current

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

Support Tool

In-Circuit Emulator	PX-ICE101C / D + PX-PRB101C29-C / D
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Pin Assignment



LQFP080-P-1414A

LQFP064-P-1414 (under planning)