❑ MN103SC6 Series

Type	MN103SFC6K
Internal ROM type	FLASH
ROM (byte)	256K
RAM (byte)	40K
Package (Lead-free)	QFP100-P-1818B
Minimum Instruction Execution Time	14.3 ns (3.0 V to 5.5 V) * at internal oscillation used. When instruction RAM executed

■ Interrupts

9 external interrupts

45 internal interrupts: Watchdog timer. Timer. Serial I/F. PWM. A/D conversion finish. System error

■ Timer Counter

8-bit timer × 12

Timer 0 to 7, 14 to 17 Interval timer. Event count. Cascading connectable

16-bit timer × 6

Timer 8 to 10 .....Interval timer. Event count. PWM output. Double buffer

Timer 11 .....Interval timer. Event count. PWM output (6 pins simultaneous output are available). Double buffer

Timer 12, 13 .....Interval timer. Double buffer. Start synchronized with 3-phase PWM are available

Watchdog timer × 1

■ Serial interface

UART (full duplex) /Synchronous interfaces selective × 3

Serial 0, 1.....7-bit, 8-bit transmission

Serial 2.....1-bit to 8-bit transmission (synchronous). 2 and 3 channel type selectable (synchronous)

Single-master I^2C/Synchronous interface selective × 1

Serial 3.....1-bit to 8-bit transmission (synchronous). 2 and 3 channel type selectable (synchronous)

■ I/O Pins

I/O 81 : Exclusive × 2. Common use × 79

■ A/D converter

10-bit × 3 unit. 20 channels

Simultaneous conversion of 3 series are available

Minimum conversion time: 1.0 µs

Conversion start synchronized with 3-phase PWM or timer 12, 13 are available

■ Motor Control PWM

16-bit 3-phase PWM × 2

Minimum resolution: 28.6 ns

Triangular waveform or jigsaw waveform. Dead time setup. Double buffer. Output polar switching is available. PWM output pin protect function

■ Extended Calculation

Multiply and accumulate arithmetic. Multiplication. Saturated arithmetic

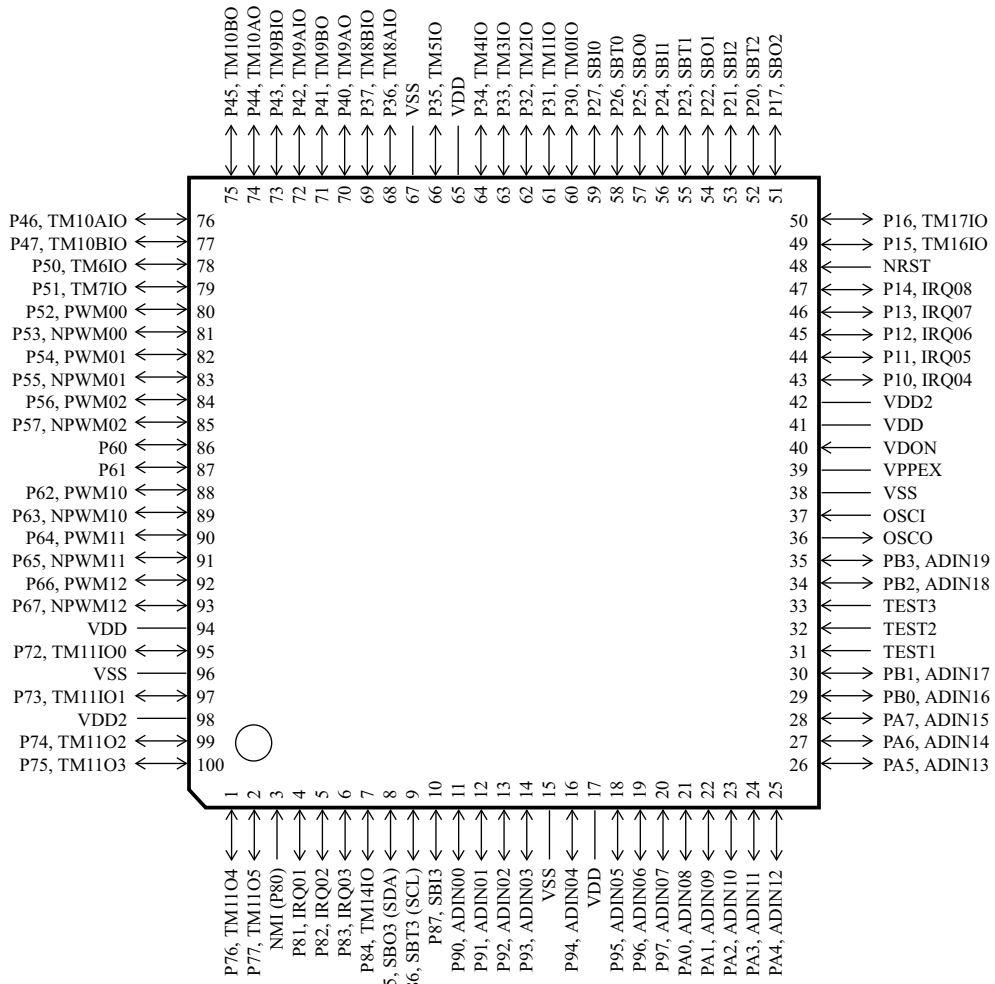
■ Notes

5 V single power supply (internal regulator)

The power-supply voltage detection can be reset

■ Pin Assignment

QFP100-P-1818B



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