

# **MN103SE5 Series**

Type	MN103SFE5P
Internal ROM type	FLASH
ROM (byte)	624K
RAM (byte)	32K
Package (Lead-free)	LQFP048-P2-0707A
Minimum Instruction Execution Time	20.9 ns (at 3.0 V to 3.6 V, 48 MHz)

## **■ Interrupts**

RESET, IRQ × 3, Timer × 12, I<sup>2</sup>C × 7, SIF × 8, DMA × 12, Stream DMA × 1, WDT, System error, USB × 2, I2S × 1

## **■ Timer Counter**

8-bit timer × 6

Reload-down count. Cascade connection possible (usable as a 16-bit to 32-bit timer)

16-bit timer × 2

Up-down count. Input capture. PWM output. Compare/capture register 2 channels

Watchdog timer × 1

## **■ Serial interface**

Multi-master I<sup>2</sup>C × 2

UART/Synchronous interface selective × 4

## **■ Audio Output Interface**

I2S interface × 1

## **■ DMA controller**

Number of channels: 4 channels

Unit of transfer: 8/16/32 bits

Maximum transfer cycles: 65535

Starting factor: External interrupt. Timer. Serial transmission/reception. I<sup>2</sup>C transmission/reception. Software. USB transmission/reception end. I2S empty

Transfer method: 2-bus cycle transfer

Addressing modes: Fixed. Increment. Decrement

Transfer mode: Word transfer. Burst transfer. Intermittent transfer

## **■ Stream DMA controller**

Number of channels: 1 channels

Unit of transfer: 8/32 bits

Maximum transfer cycles: 65535

Transfer source: Interface RAM

Transfer destination: Serial I/F. Audio output interface

## **■ USB HOST Controller**

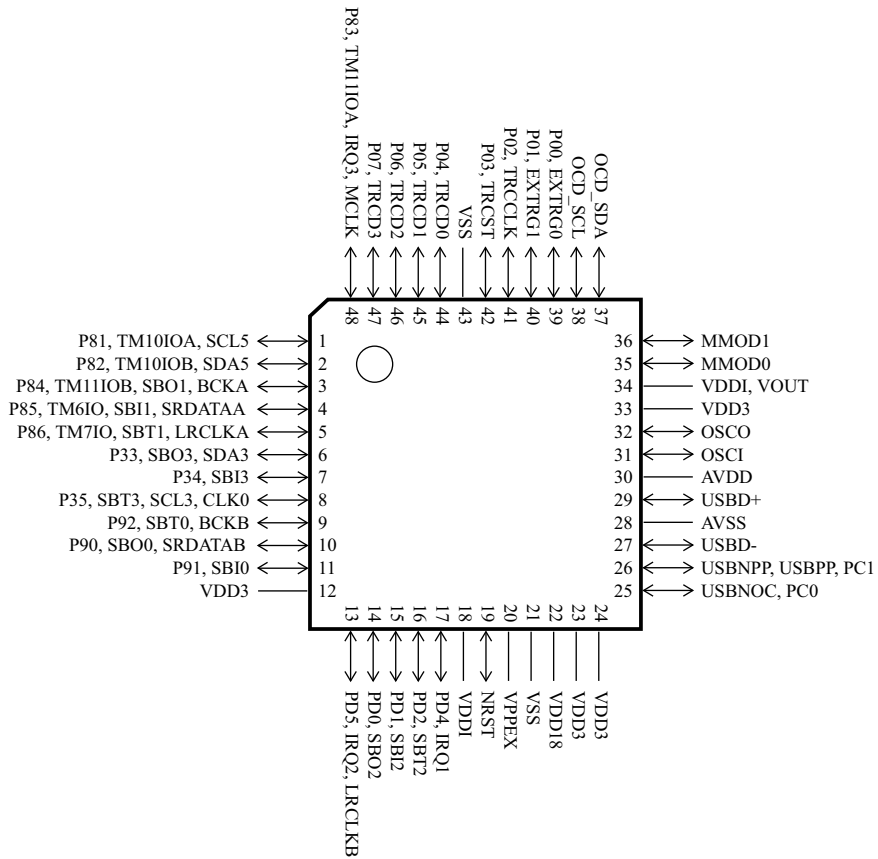
Conforms to USB 2.0: Full-speed (12 Mbps) supported

OHCI R1.0a standard conforming. External power supply control function. USB transceiver built-in

## **■ I/O Pins**

I/O                      27 : (3 V I/O) Common use

■ Pin Assignment  
LQFP048-P2-0707A



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