

Notification about the transfer of the semiconductor business

The semiconductor business of Panasonic Corporation was transferred on September 1, 2020 to Nuvoton Technology Corporation (hereinafter referred to as "Nuvoton"). Accordingly, Panasonic Semiconductor Solutions Co., Ltd. became under the umbrella of the Nuvoton Group, with the new name of Nuvoton Technology Corporation Japan (hereinafter referred to as "NTCJ").

In accordance with this transfer, semiconductor products will be handled as NTCJ-made products after September 1, 2020. However, such products will be continuously sold through Panasonic Corporation.

Publisher of this Document is NTCJ.

If you would find description "Panasonic" or "Panasonic semiconductor solutions", please replace it with NTCJ.

※ Except below description page

"Request for your special attention and precautions in using the technical information and semiconductors described in this book"

Nuvoton Technology Corporation Japan

□ MN101E49 Series

Type	MN101E49K	MN101EF49N
Internal ROM type	Mask ROM	FLASH
ROM (byte)	256K	512K
RAM (byte)	12K	30K
Package (Lead-free)	LQFP100-P-1414	
Minimum Instruction Execution Time	79.4 ns (at 2.7 V to 3.6 V, 12.58 MHz)	

■ Interrupts

RESET. Watchdog. External 0 to 5. Timer 0 to 3. Timer 6. Timer 7 (2 systems). Timer A to E. Time base. Serial 0 (2 systems). Serial 1 (2 systems). Serial 2. Serial 3 (2 systems). Serial 4 (2 systems). Automatic transfer finish (2 systems). A/D conversion finish. Key interrupt. IEBus*

* IEBus is a trademark of NEC Electronics Corporation.

■ Timer Counter

8-bit timer × 10

Timer 0Square-wave/8-bit PWM output. Event count. Pulse width measurement. Real time output control

Timer 1Square-wave output. Event count. Synchronous output event

Timer 2Square-wave/8-bit PWM output. Event count. Synchronous output event. Pulse width measurement. Real time output control. Serial baud rate timer

Timer 3Square-wave output. Event count. Serial baud rate timer

Timer 68-bit freerun timer. Time base timer

Timer A, B, C, D, E

Timer 0, 1 can be cascade-connected

Timer 0, 1, 2 can be cascade-connected

Timer 2, 3 can be cascade-connected

Timer 0, 1, 2, 3 can be cascade-connected

16-bit timer × 1

Timer 7Square-wave/16-bit PWM output (cycle/duty continuous variable). Event count. Synchronous output event. Pulse width measurement. Input capture

Time base timer: One-minute count setting

Watchdog timer × 1

■ Serial interface

Synchronous type/UART (full-duplex) × 3: Serial 0, 1, 4

Synchronous type/Single-master I²C × 1: Serial 2

Synchronous type/I²C × 1: Serial 3

■ IEBus Interface

Number of channels: 1 channels

Communication mode: Selectable from mode 1 or mode 2

Driver and receiver: External

■ DMA controller

Number of channels: 2 channels

Maximum transfer cycles: 255

Starting factor: External request. Various types of interrupt. Software

Transfer mode: 1-byte transfer. Word transfer. Burst transfer

■ I/O Pins

I/O 22 : (5 V I/F port) Common use. Specified pull-up resistor available. Input/output selectable (bit unit)

62 : (3 V I/F port) Common use. Specified pull-up resistor available. Input/output selectable (bit unit)

1 : (3 V I/F port) Common use

■ A/D converter

10-bit × 8 channels (with S/H)

■ Special Ports

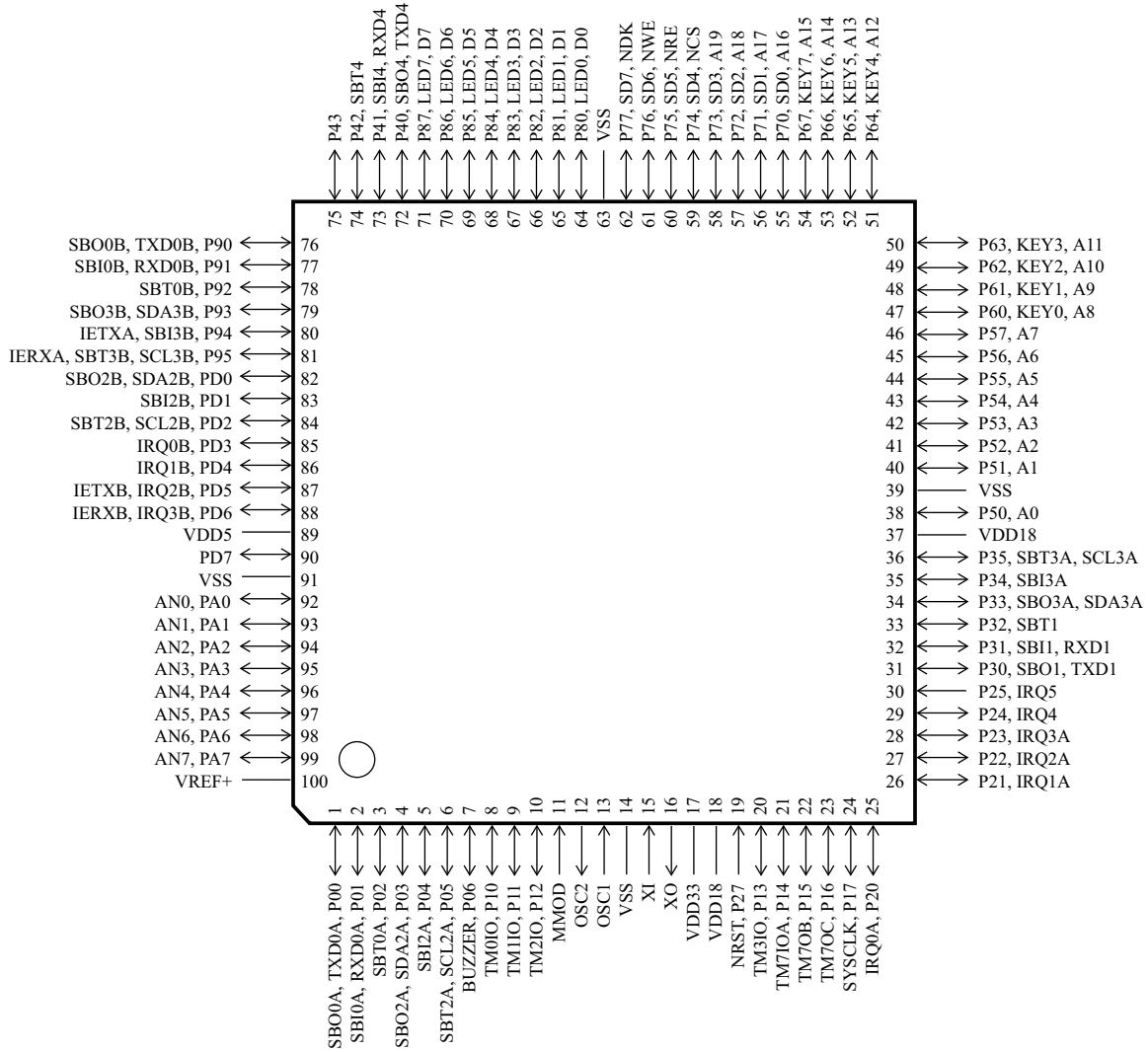
Buzzer output. High-current drive port

■ ROM Correction

Correcting address designation: Up to 7 addresses possible

■ Pin Assignment

LQFP100-P-1414



Note) Pin 1 to Pin 75: VDD33 = 2.7 V to 3.6 V
 Pin 76 to Pin 100: VDD5 = VDD33 to 5.5 V

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