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

❑ MN101CA2 Series

Type	MN101CA27	MN101CFA2D
Internal ROM type	Mask ROM	FLASH
ROM (byte)	16K	64K
RAM (byte)	0.5K	2K
Package (Lead-free)	LQFP064-P-1414	
Minimum Instruction Execution Time	0.25 µs (at 2.7 V to 3.6 V, 8 MHz) 0.50 µs (at 1.8 V to 3.6 V, 4 MHz) 62.5 µs (at 1.8 V to 3.6 V, 32 kHz)	

■ Interrupts

RESET. Watchdog. External 2. External 6. Timer 0. Timer 1. Timer 6. Time base

■ Timer Counter

8-bit timer × 2

Timer 0 .....Square-wave/8-bit PWM output. Simple pulse width measurement

Timer 1 .....Square-wave output

Timer 0, 1 can be cascade-connected

Time base timer: One-minute count setting

Watchdog timer × 1

Remote control carrier output

■ I/O Pins

I/O 16 : Common use. Specified pull-up resistor available. Input/output selectable (bit unit)

Input 9 : Common use. Specified pull-up resistor available

■ Display control function

LCD: 32 segments × 4 commons (1/3 or 1/4 duty)

■ Special Ports

Buzzer output. Remote control carrier output. High-current drive port

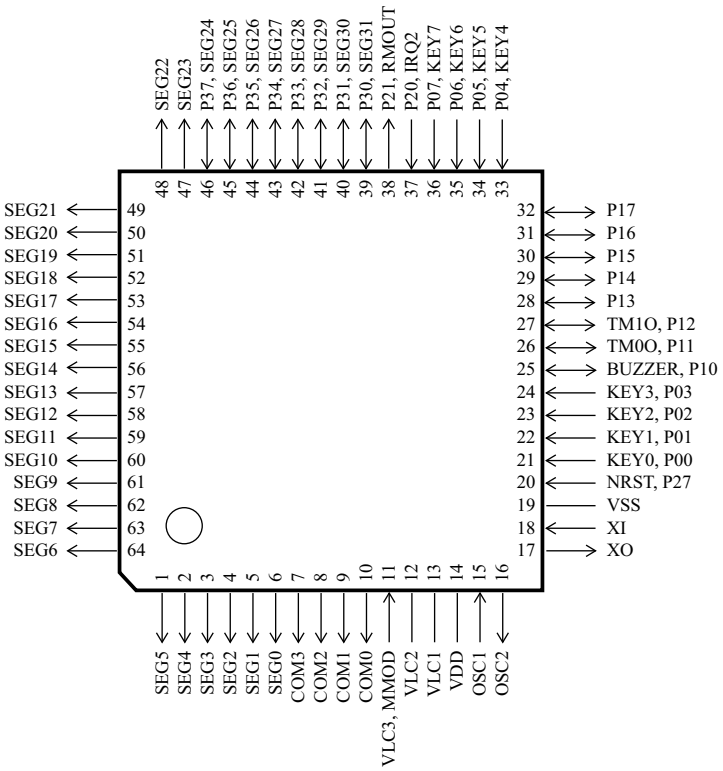
■ Electrical Charactreistics (Supply current)

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating supply current	IDD1	fosc = 8 MHz. VDD = 3 V		1.0	1.8	mA
	IDD2	fx = 32 kHz. VDD = 3 V		4.8	17	µA
Supply current at HALT	IDD3	fx = 32 kHz. VDD = 3 V. Ta = 25 °C		2.7	5	µA
	IDD4	fx = 32 kHz. VDD = 3 V. Ta = 70 °C			13	µA
Supply current at STOP	IDD5	VDD = 3 V. Ta = 25 °C			2	µA
		VDD = 3 V. Ta = 70 °C			8	µA

Note) Limit: Mask ROM version

■ Pin Assignment

LQFP064-P-1414



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

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(2) The technical information described in this book is intended only to show the main characteristics and application circuit examples of the products. No license is granted in and to any intellectual property right or other right owned by Panasonic Corporation, Nuvoton Technology Corporation Japan or any other company. Therefore, no responsibility is assumed by our company as to the infringement upon any such right owned by any other company which may arise as a result of the use of technical information de-scribed in this book.

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Please consult with our sales staff in advance for information on the following applications, moreover please exchange documents separately on terms of use etc.: Special applications (such as for in-vehicle equipment, airplanes, aerospace, automotive equipment, traffic signaling equipment, combustion equipment, medical equipment and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
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(6) Comply with the instructions for use in order to prevent breakdown and characteristics change due to external factors (ESD, EOS, thermal stress and mechanical stress) at the time of handling, mounting or at customer's process. We do not guarantee quality for disassembled products or the product re-mounted after removing from the mounting board.
When using products for which damp-proof packing is required, satisfy the conditions, such as shelf life and the elapsed time since first opening the packages.

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