☐ MN101E02H

Туре	MN101E02H	MN101EF02K
Internal ROM type	Mask ROM	FLASH
ROM (byte)	160K	
RAM (byte)	16K	
Package (Lead-free)	QFP084-P-1818E	QFP084-P-1818E (ES (Engineering Sample) available)
Minimum Instruction Execution Time	100 ns (at 3.135 V to 3.465 V, normal-mode)	100 ns

■ Interrupts

External (5 lines)

 $\begin{array}{l} \text{Internal (15 lines): Timer} \times 4, \text{A/D} \times 1, \text{RESET} \times 1, \text{OSD} \times 1, \text{Serial} \times 2, \text{Teletext decoder} \times 2, \text{I}^2\text{C} \times 1, \text{Caption} \times 1, \text{Remote control} \times 1, \\ \text{HSYNC} \times 1, \text{VSYNC} \times 1 \end{array}$

■ Timer Counter

8-bit timer \times 4

Watchdog timer: Time-out period is selectable.

■ Serial interface

 $I^2C\times 1$: for multimaster mode, bus line (output) has 2 systems Sync serial / UART \times 1

■ Caption / Teletext Decoder

• Built-in sync separator × 1

■ I/O Pins

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I/O	35	Common use

■ A/D converter

10-bit \times 8-ch. (with S/H)

■ PWM

8-bit \times 4-ch., 14-bit \times 1-ch.

■ Special Ports

Remote control reception

■ CRTC

1-layer display (graphics, characters, splits)

■ Notes

Remote control input discriminant circuit built-in, build-in NTSC/PAL (BGHIDK, M, N)/SECAM/NTSC443 video signal processing circuit, built-in 3-line comb filter (NTSC), built-in adaptive 2-line comb filter (PAL), built-in teletext decoder

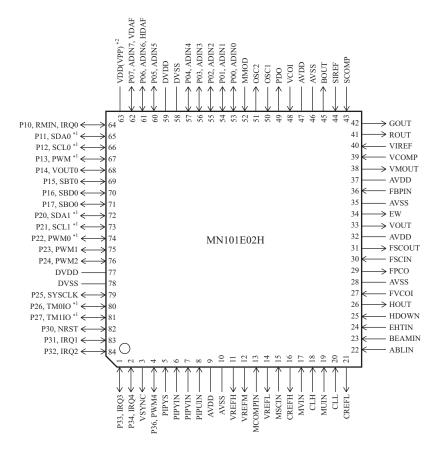
■ Development tools

In-circuit Emulator

PX-PAC101E02-4W9J

Panasonic MAD00040EEM

■ Pin Assignment



QFP084-P-1818E

Note) *1:5 V dielectric N-ch. open drain output pin *2: Mask ROM = VDD, Flash memory built-in type = VPP

MAD00040EEM Panasonic

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