

# MN102H85K

Type	MN102H85K
ROM (×16-bit)	256 K
RAM (×16-bit)	8 K
Package (Conventional Package)	SDIP064-P-0750C *Lead-free (SDIP064-P-0750)
Minimum Instruction Execution Time	83 ns (at 3.0 V to 3.6 V, 12 MHz)
Interrupts	External (6 lines) Internal (30 lines) : Timer × 11, A/D × 1, Undefined command × 1, RESET × 1, OSD × 2, Serial × 4, I <sup>2</sup> C × 1, Caption × 4, Remote control × 1, Address coincidence × 4
Timer Counter	8-bit timer × 4 16-bit timer × 2 Watchdog timer: 17-bit × 1
Serial Interface	I <sup>2</sup> C × 1: for multimaster mode, bus line (output) has 2 systems Sync serial / I <sup>2</sup> C (master) / UART × 2
Caption	• Built-in sync separator × 2
I/O Pins	I/O 50 • Common use
A/D Inputs	8-bit × 12-ch. (with S/H)
D/A Outputs	4-bit × 4-ch. (analog R, G, B, YM output)
PWM	8-bit × 7-ch.
Special Ports	Remote control reception
CRTC	3-layer display (graphics, characters, splits)
Notes	Remote control input discriminant circuit built-in

## Electrical Characteristics

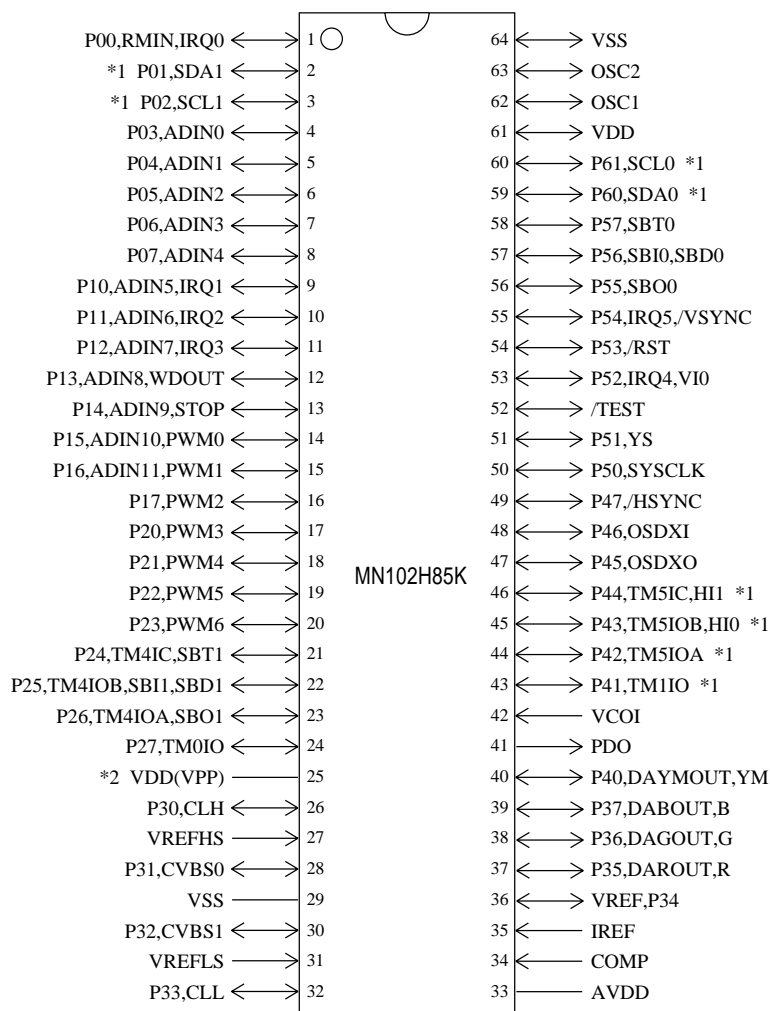
### D/A characteristics

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
D/A full-scale output current	IFS	RL = 200 Ω, VREF = 1.2 V, RIREF = 1.2 kΩ	4.5	5.0	5.5	mA
D/A output voltage setting range	VO	RL = 200 Ω, VREF = 1.2 V, RIREF = 1.2 kΩ	0.9		1.1	V
D/A non-linear error	NLE	RL = 200 Ω, VREF = 1.2 V, RIREF = 1.2 kΩ			± 0.5	LSB
D/A differential non-linear error	DNLE	RL = 200 Ω, VREF = 1.2 V, RIREF = 1.2 kΩ			± 0.5	LSB
D/A channel interval error	IFS	VREF = 1.2 V, RIREF = 1.2 kΩ, Error from 4-channel average IFS			± 5	%

(Ta = 25°C, VDD = AVDD = 3.3 V, VSS = 0 V, fosc = 4 MHz)

## Pin Assignment

( ) : Conventional Package



SDIP064-P-0750C \*Lead-free  
(SDIP064-P-0750)

\*1: 5 V dielectric Nch open drain output pin

\*2 : MN102H85K (VDD), MN102HF85K (VPP)

## Support Tool

In-circuit Emulator	PX-ICE102H85-SDIP064-P-0750	
Flash Memory Built-in Type	Type	MN102HF85K
	ROM (× 16-bit)	256 K
	RAM (× 16-bit)	8 K
	Minimum instruction execution time	83 ns (at 3.0 V to 3.6 V, 12 MHz)
	Package	SDIP064-P-0750C *Lead-free
	(Conventional Package)	(SDIP064-P-0750)

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