

EM48N

■ Descriptions

The EM48N is a thermal print head with low print voltage(5V) for Receipt Printer, which applied new protective layer with high melting point and high durability, and applied advanced LSI/Assembly technology to achieved economic and compact design. It has 384 dots heater elements with 8 dots/mm by thick film process. It also includes drive Ics Which operate as 384 bits shift-registers, latches and switching transistors to drive heater elements.

■ Applications

- ECR / EFT – POS Printers
- Hand – hold Printers
- Mobile Printers

■ Characteristics

Item	Specification	Note
Effective print width	48 mm	
Number of heater elements	384 dots	
Heater resolution	8 dots/mm	203 dpi
Heater elements pitch	0.125 mm	
Heater resistance	$\bar{R} = 176 \Omega \pm 3\%$	
Logic power supply (VDD)	2.7 – 5.5 V	
Head print voltage	7.2 V	
Recommended Print Speed	25 – 100 mm/s	
Maximum Clock frequency	10 MHz	duty 50%
Platen diameter	MAXΦ8 mm	
Running Life	50 Km	Printing duty 12.5%
Life of durable pulses	1x10 ⁸ pulses	
Specification for Thermistor	R ₂₅ =30KΩ±5%,B=3,950K±3%	
Operating temperature/humidity	-5° C ~ +50° C / 10 ~ 90% RH	Non-condensing
Number of heating dots simultaneously ON	192 dots	

Technical drawing of a thermistor assembly, showing top, side, and detail views with dimensions and a parts list.

Top View Dimensions:

- Overall width: 59.1
- SBSTR WIDTH: 54
- PRINT WIDTH: 48
- Left margin: 5.55
- Top margin: 3.3±0.1
- Bottom margin: 6
- Bottom width: 31

Side View Dimensions:

- Overall height: 13.7
- Top section height: 4.0
- Bottom section height: 6

Detail View Dimensions:

- Overall width: 2.0
- Bottom margin: 0.3±0.05
- Feature: MAXØ8

Parts List:

ITEM	DESCRIPTION	MATERIAL	DEF
①	SUBSTRATE	CERAMIC	1
②	CIRCUIT BOARD	FR4	1
③	RESIN MOLD		○
④	ADHESIVE		1
⑤	FPC		1
⑥	THERMISTOR		1
⑦	HEAT SINK		1
⑧	UV MOLD		○

NOTE:

- COMPOSITION OF LOT No. 10 (201)
- THIS MODEL COMPLIES WITH THE

Bottom View:

- Part number: SHEC EM48N 1004 0111001
- Pin pitch: PITCH 1.0x29=29