PART NUMBER: CMC-5044PF-A **DESCRIPTION:** electret condenser microphone

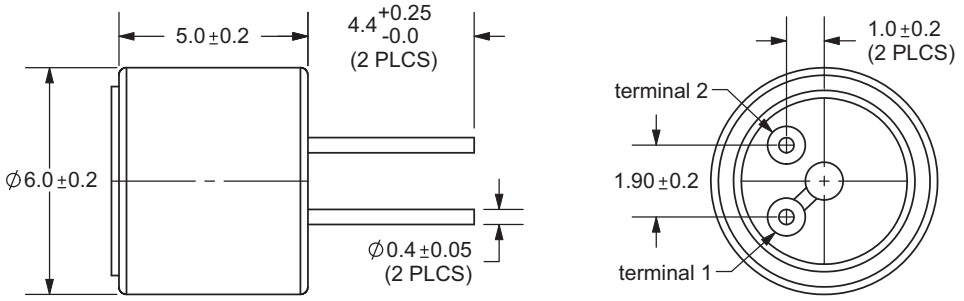
SPECIFICATIONS

directivity	omnidirectional	
sensitivity (S)	-44 ±3 dB	f = 1KHz, 1Pa 0dB = 1V/Pa
sensitivity reduction (ΔS-Vs)	-3 dB	f = 1KHz, 1Pa Vs = 2 ~ 1.5 V dc
operating voltage	2 V dc (standard), 10 V dc (max.)	
output impedance (Zout)	2.2 KΩ	f = 1KHz, 1Pa
operating frequency (f)	100 ~ 20,000 Hz	
current consumption (I_{DSS})	0.5 mA max.	Vs = 2 V dc RL = 2.2KΩ
signal to noise ratio (S/N)	56 dBA	f = 1KHz, 1Pa A-weighted
operating temperature	-20 ~ +70° C	
storage temperature	-20 ~ +70° C	
dimensions	ø6 x 5 mm	
weight	0.30 g max.	
material	Al	
terminal	pin type (Au plating, hand soldering only)	
RoHS	yes	

note: We use the “Pascal (Pa)” indication of sensitivity as per the recomendation of I.E.C. (International Electrotechnical Commission). The sensitivity of “Pa” will increase 20dB compared to the “ubar” indication. Example: -60dB (0dB = 1V/ubar) = -40dB (1V/Pa)

APPEARANCE DRAWING

tolerances not shown: ±0.3mm



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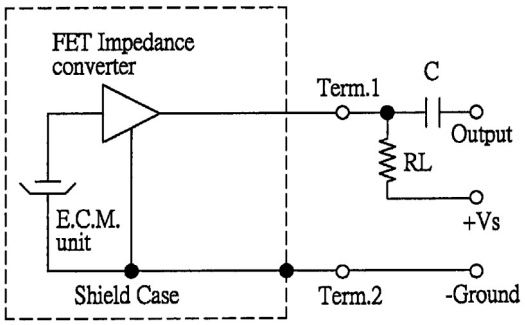
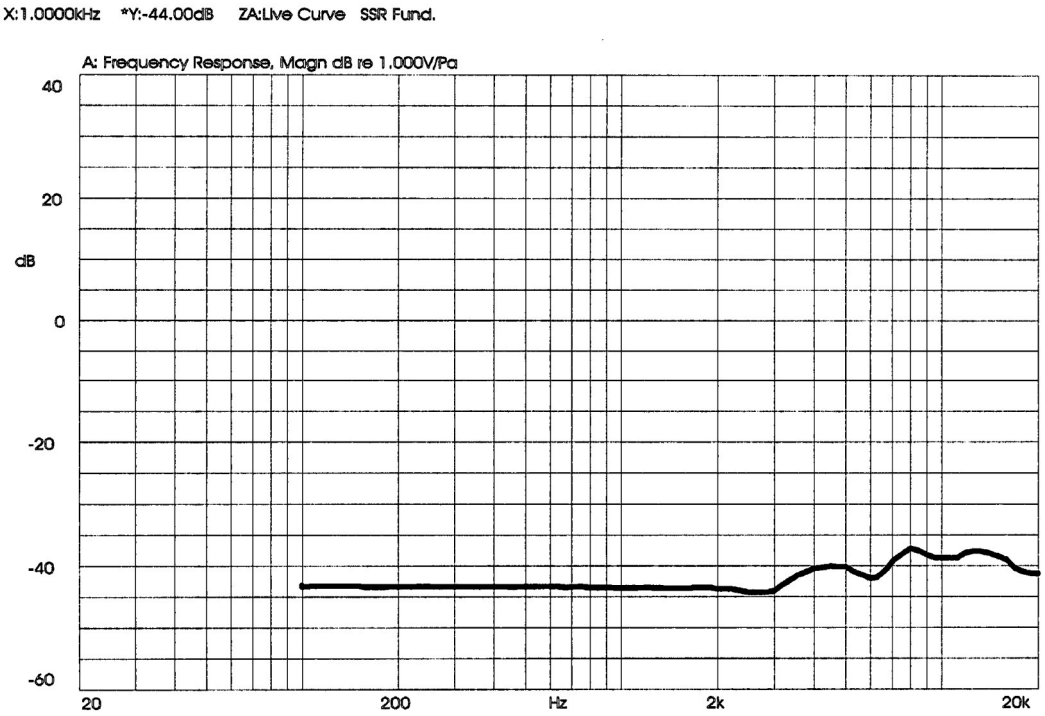
MEASUREMENT CIRCUIT



Schematic Diagram

RL=2.2KΩ

FREQUENCY RESPONSE CURVE



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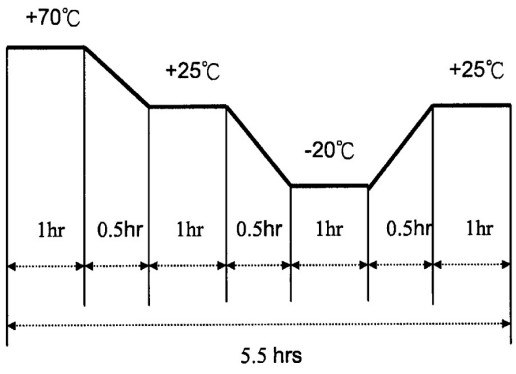
MECHANICAL CHARACTERISTICS

item	test condition	evaluation standard
soldering heat resistance	Soldering iron of 270 ±5°C should be placed on the terminal for 2 ±0.5 seconds.	No interference in operation.
PCB wire pull strength	The pull force will be applied to double lead wire: Horizontal 4.9N (0.5kg) for 30 seconds	No damage or cutting off.
vibration	The part will be measured after applying a vibration amplitude of 1.5 mm with 10 to 55 Hz band of vibration frequency to each of the 3 perpendicular directions for 2 hours.	After any tests, the sensitivity should be within ±3dB compared to the initial measurement.
drop test	The part will be dropped from a height of 1 m onto a 20 mm thick wooden board 3 times in 3 axes (X, Y, Z) for a total of 9 drops.	

ENVIRONMENT TEST

item	test condition	evaluation standard
high temp. test	After being placed in a chamber at +70°C for 72 hours.	The part will be measured after being placed at +25°C for 6 hours. After any tests, the sensitivity should be within ±3dB compared to the initial measurement.
low temp. test	After being placed in a chamber at -20°C for 72 hours.	
humidity test	After being placed in a chamber at +40°C and 90±5% relative humidity for 240 hours.	
temp. cycle test	The part shall be subjected to 10 cycles. One cycle will consist of:  	

TEST CONDITIONS

standard test condition	a) temperature: +5 ~ +35°C	b) humidity: 45 - 85%	c) pressure: 860-1060 mbar
judgement test condition	a) temperature: +25 ±2°C	b) humidity: 60 - 70%	c) pressure: 860-1060 mbar

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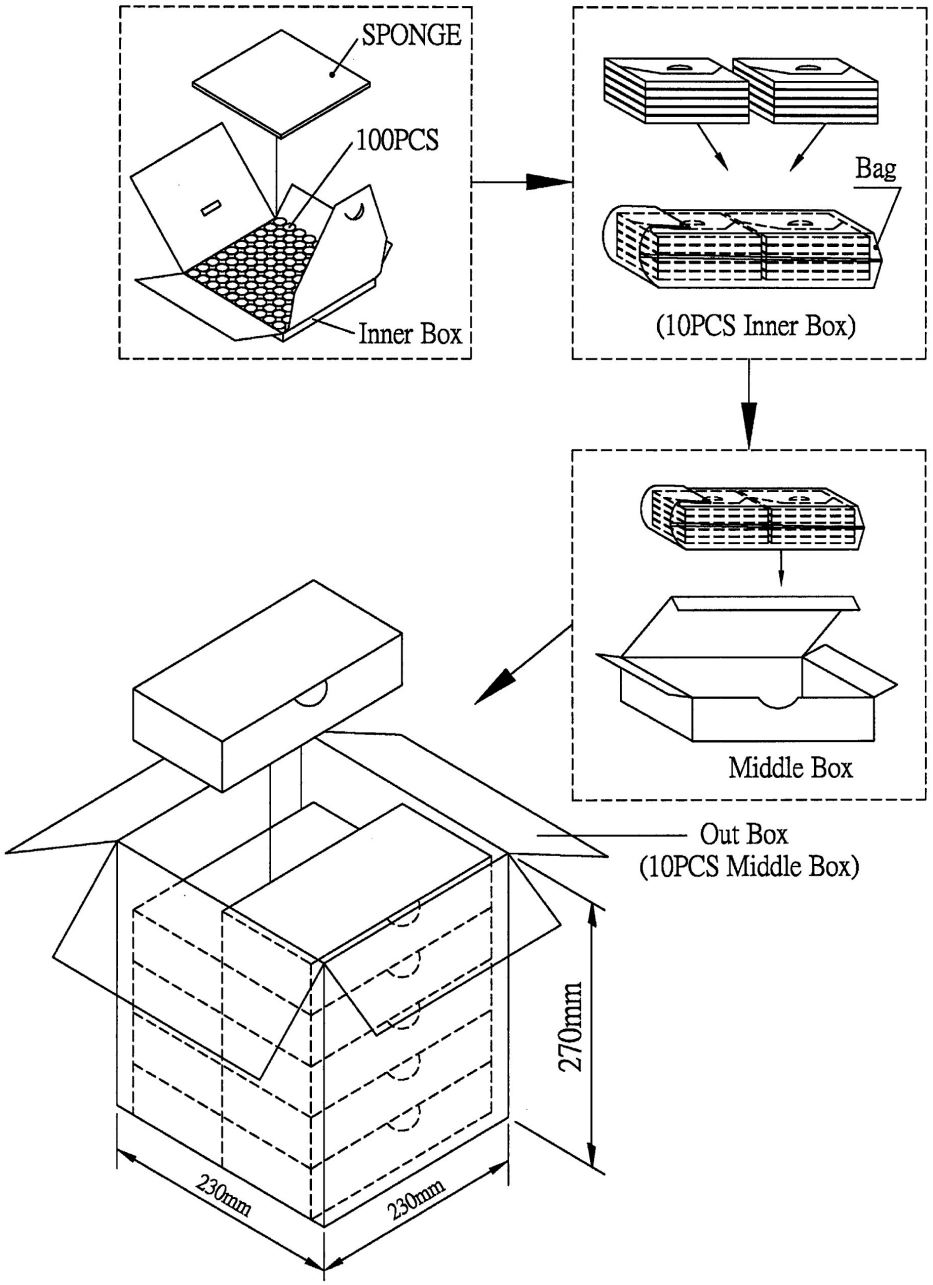
PACKAGING



Inner Box	85mmx85mmx8mm	1x100PCS=100PCS
Middle Box	205mmx106mmx52mm	100PCSx10=1,000PCS
Out Box	230mmx230mmx270mm	1,000PCSx10=10,000PCS