Data Sheet

MI2010

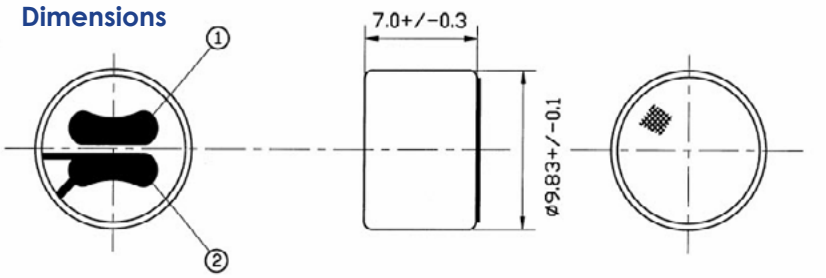
Click to View Price

10mm 60dB Omni-Directional FET Electret Mic – 120mm Leads

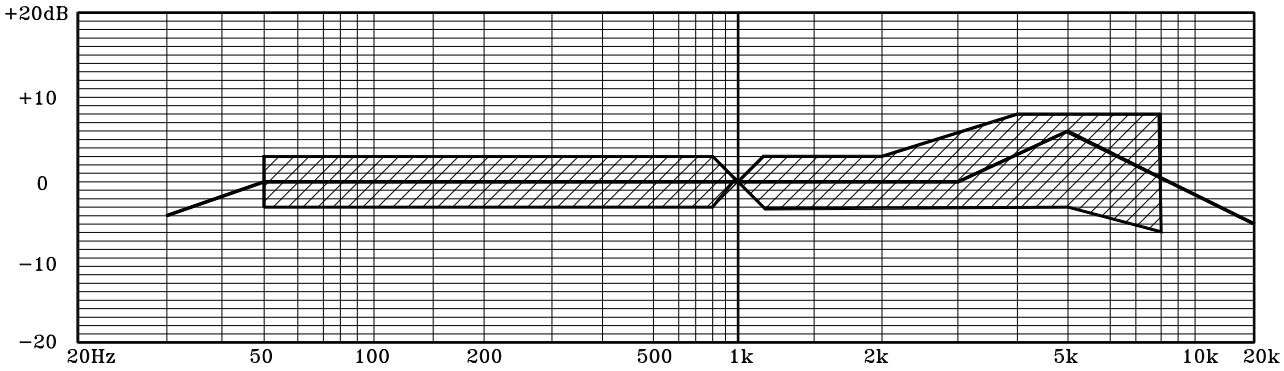
- **40dB or higher signal-to-noise ratio**
- **Frequency response between 50Hz and 13kHz**
- **Applications include microphones, cassette tape records, sound-controlled toys, intercoms, sound-controlled switches, telephone sets etc.**

This FET mic insert is great for hobbyist projects or as a replacement for repair purposes. It measures 10mm in diameter and has -60dBm sensitivity with a frequency response between 50Hz and 13kHz.

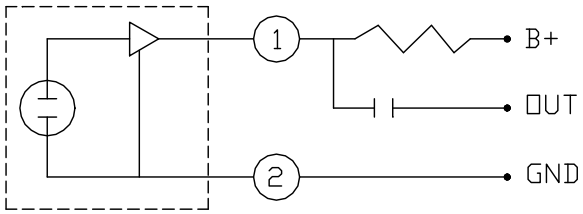
Dimensions



Typical Frequency Reponse Curve



Circuit Diagram



Reliability Test

Vibration Test	To be no interference in operation after vibration 12Hz to 50Hz for 1 minute full amplitude, for 1.5 hours at 3 axes.
Drop Test	To be no interference in operation after dropped to concrete floor each one time from 1 meter height at 3 directons in state of packing.
Temperature Test	A) after exposure at 55° for 1 hour, sensitivity to be within ±3db from initial. B) after exposure at -10° for 1 hour, sensitivity to be within ±3db from initial. (Measurements to be done after 2 hours of conditioning at 25°c.)
Humidity Test	After exposure at 40°c and 95% rh for 48 hours, sensitivity to be within ±3db from initial. (After 1 hour of conditioning at 25°c.)
Temperature Cycle Test	After exposure at -10°C for 1hour, at 25°c for 1 hour, at 50°C for 1 hour, at 25°C for 2 hours, 4 cycles, sensitivity to be within ±3db. (After 2 hours of conditioning at 25°C)

Specifications

Impedance	1kOhm, ±30%
Standard Voltage	4.5V
Operating Voltage Range	1.5V–10V
Current Drain (max.)	0.25mA
S/N Ratio	40dB or more
Max. Input Sound Pressure	120dB SPL
Diameter	10mm
Frequency Response	50Hz–13kHz
Sensitivity	-60dBm ±3dB
Polar Pattern	Omni-directional

Regarding the Soldering Operation

Each condenser microphone contains a FET within its case. Generally, over-heating or over-charge of voltage is an easy way to destroy semiconductors.

1. Use a 30W (or less) soldering iron and maintain 230°~260°C in operation.
2. Soldering should be accomplished within two seconds at each terminal so as to avoid overheating.
3. Do not make a cavity on the surface of the lead on the pattern plate. (A cavity may change the characteristics of the condenser microphone.)