

# M3 Tri-element Hanging Ceiling Microphone

## OVERVIEW

The M3 is an innovative, tri-element hanging microphone system designed for applications where aesthetics, sound quality, and ease of installation are critical. The M3 is an ideal audio capture solution for video conferencing, distance learning, courtroom activities, and surgical procedures. It can also be used for ambient room miking and surveillance.

The M3 incorporates three phase coherent hypercardioid capsules with tailored frequency responses optimized for speech intelligibility. This is accomplished by minimizing frequencies caused by noise, vibration, paper shuffling, keyboard strokes, fans, and heating/air conditioning. Low noise preamp circuitry is employed for highest possible signal to noise and studio quality sound. A high-quality silicone jacketed microphone cable ensures a balanced, shielded signal and a very clean look.

Electronics above the ceiling are housed within a plenum rated junction box and cable connections are made via an RJ45 connector embedded within a proprietary brass housing for an airtight seal.

The M3 connects to the input of a mixer or dsp console via a breakout cable (provided). The breakout cable consists of a female RJ45 connector that terminates in either three terminal blocks or XLR connectors (optional). A variety of optional shielded CAT7 cable lengths (from plenum rated junction box to break out cable) are available.

Installing the M3 requires drilling just one 5/8-inch hole in the ceiling, with no additional tools needed. The M3 mounting hardware easily adjusts the cable hanging height up to four feet from the ceiling surface without removing ceiling tiles. A wire safety cable provides additional seismic restraint.

## SUPPLIED ACCESSORIES

JBM3 - Plenum rated junction box  
ANCHRJB60V2 - Seismic/fire strain relief  
CBLM3TERM - Breakout cable consisting of RJ45 female to 3 terminal block connectors

## OPTIONAL ACCESSORIES

CBLM3BXLRL - Breakout cable consisting of RJ45 female to 3 XLR male connectors  
CBLM307 - CAT 7 Interface cable , 7 meters (23') RJ45 with Plenum cover , twisted shielded pairs  
CBLM310 - as above , 10 meters (33')  
CMBM315 - as above, 15 meters (49')  
CBLM320 - as above , 20 meters (66')  
CBLM325 - as above, 25 meters (82')  
CLBM30 - as above, 30 meters (98')  
PLENHSM3S - Brass Plenum bell housing

## MODELS

M3 - Microphone and cable in charcoal grey color  
M3W - Microphone and cable in white



## FEATURES

- 100% RF shielding and immunity
- Gold diaphragm condenser capsules with studio quality sound
- Low impedance design allows for extremely long cable runs (if required) without cross talk or interference
- Frequency and pattern tailored for voice clarity and rejection of extraneous noise
- Evenly dispersed sound with undetectable phase
- High-quality silicone jacketed microphone cable with adjustable length and position
- Plenum rated junction box with RJ45 connector
- All visible components of the microphone and cable are same color: charcoal or white
- TAA compliant
- Very high output, low self-noise
- Easy to install

## APPLICATIONS

- Zone Capture
- Video Conferencing
- Distance Learning
- Hospital and medical procedure
- Courtroom
- Ambient room miking

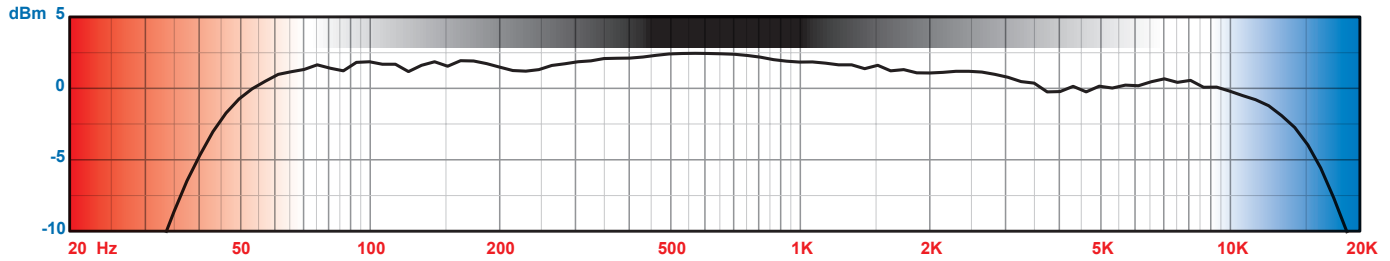
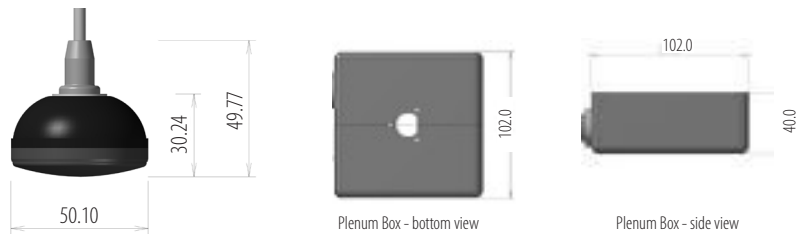
# M3

## SPECIFICATIONS

<b>Transducer Type</b>	Pre-Polarized Condenser
<b>Frequency Response</b>	30 Hz – 19 kHz
<b>Optimized Response</b>	70 Hz – 9 kHz (see chart)
<b>Polar Pattern</b>	Hypercardioid
<b>Output Impedance</b>	150 Ohms balanced
<b>Sensitivity</b>	34 mV / Pa @ 1k
<b>Off Axis Rejection</b>	1 capsule >23 dB at 180° relative to 0° 2 capsules >18 dB at 120° 3 capsules >9 dB at 60°
<b>Signal/Noise Ratio (A-weighted)</b>	72 dB
<b>Equivalent Noise Level (A-weighted)</b>	22 dB (A weighted)
<b>Maximum SPL @ .5% THD</b>	≥128 dB
<b>Dynamic Range</b>	106 dB
<b>Power Requirements</b>	18 – 52 Volts phantom
<b>Cable/Connector</b>	Terminal block or XLR
<b>Polarity</b>	Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3
<b>Weight</b>	95 grams (mic only) / 3.32 ounces
<b>Diameter</b>	50mm (2 inches)
<b>Length</b>	30mm (1.2 inches)

## ARCHITECTS AND ENGINEERS SPECIFICATION

The microphone shall be of the condenser type with three elements having a hypercardioid polar pattern. The microphone shall be protected from RF interference. The microphone shall have a fully integrated preamp circuitry housed within a plenum rated junction box. The microphone shall consist of three individual circuits each operating on 18-52 Volts DC and the nominal output impedance shall be equal to 150 Ohms at 1 kHz. The microphone shall have a sensitivity of 34 mV / Pa at 1 kHz and a maximum SPL level of ≥ 128 dB with THD of 0.5%. The microphone housing shall be machined out of brass with a steel mesh protective grill. The outer dimensions shall be 50mm in diameter by 30 mm in length. The microphone shall be the Audix M3.

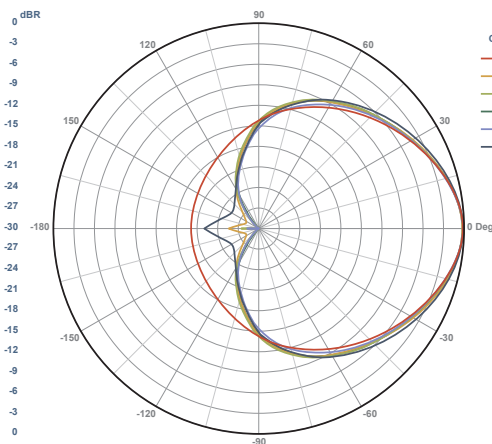


**Low Frequency Noise**  
Frequencies below 70Hz minimized in order to reduce boominess, hum, rumble, table noises, HVAC, ambient interference.

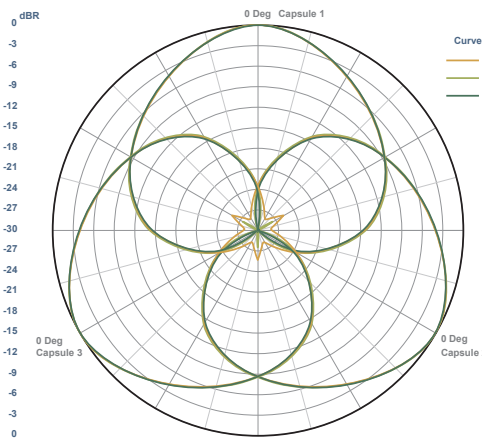
**High Frequency Noise**  
Frequencies above 9 KHz minimized in order to reduce unwanted noise from paper shuffling, keyboards, HVAC, fan noise, ambient interference.

**Ideal for Vocal Clarity and Voice Recognition**  
Frequencies between 200 Hz – 1kHz are optimized for speech.

M3 Polar x 1



M3 Polar x 3



# M3

\*\*\*All specifications subject to change without notice.

