

BETA 87A SUPERCARDIOID CONDENSER MICROPHONE



OVERVIEW

The Shure Model BETA 87A is a premium quality supercardioid hand-held electret condenser vocal microphone with exceptionally smooth frequency response and high sound pressure level (SPL) capability. Used for professional sound reinforcement, broadcasting, and studio recording applications, the BETA 87A combines superb performance with the ruggedness needed for touring and field production.

The BETA 87A features a controlled low-frequency roll-off

that compensates for proximity effect and prevents the “boomy” sound often associated with close pick-up. The characteristic Shure presence rise brightens the upper midrange. The tight supercardioid pattern, with null points at approximately 125°, provides maximum isolation from other vocalists or instruments while offering minimal off-axis coloration. The BETA 87A operates on phantom power.

FEATURES

- Smooth frequency response with gradual presence rise
- Highly consistent supercardioid polar pattern provides superior gain-before-feedback
- Electronic low-frequency roll-off compensates for proximity effect
- Wide dynamic range (117 dB) and low distortion characteristics
- Very low susceptibility to RFI and electromagnetic hum
- Advanced cartridge shock-mount system absorbs mechanical shocks and reduces handling noise
- Built-in pop filter reduces undesirable wind and breath sounds
- Reliability for years of trouble-free performance

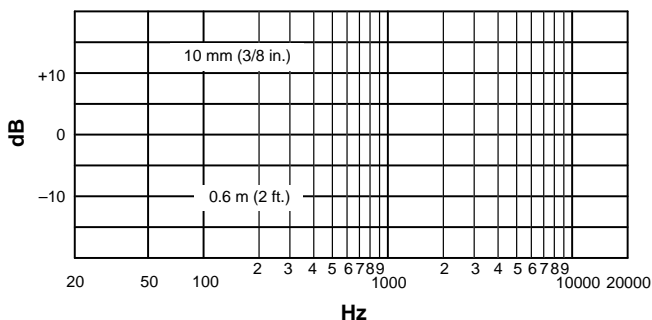
SPECIFICATIONS

Cartridge Type

Condenser (electret bias)

Frequency Response

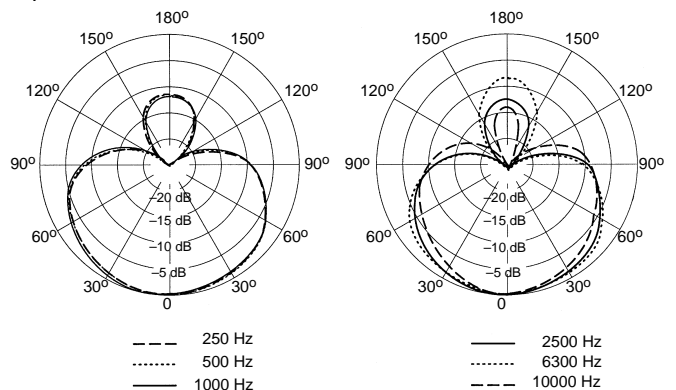
50 to 20,000 Hz



TYPICAL FREQUENCY RESPONSE

Polar Pattern

Supercardioid



TYPICAL POLAR PATTERN

Output Impedance

Rated at 150 ohms (100 ohms actual $\pm 20\%$)
 Recommended minimum load impedance: 800 ohms

Sensitivity (at 1,000 Hz)

Open Circuit Voltage -52.5 dBV/Pa (2 mV)
 (1 Pa = 94 dB SPL)

Clipping Level (at 1,000 Hz)

1000 ohm Load -6 dBV (0.5 V)

Maximum SPL (at 1,000 Hz)

140.5 dB (0.25% THD, 1000 ohm load)

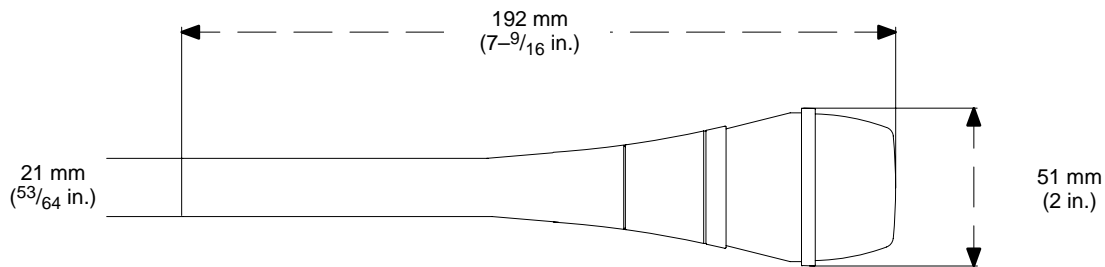
Self-Noise (equivalent sound pressure level; measured with true rms voltmeter)

23.5 dB typical, A-weighted
 25.5 dB typical, weighted per DIN 45 405

Dynamic Range

117 dB (maximum SPL to A-weighted noise level)

Dimensions



DIMENSIONS

Signal-to-Noise Ratio

70.5 dB at 94 dB SPL (IEC 651)*

Polarity

Positive pressure on diaphragm produces positive voltage on pin 2 relative to pin 3

Power

Phantom Supply Requirement 11 to 52 Vdc, positive
 at both pins 2 and 3
 Current Drain 1.0 to 1.2 mA

Connector

Three-pin (XLR) professional audio

Case

Aluminum construction with blue metallic finish, and hardened steel grille with nickel satin chrome plating

Net Weight

207 grams (7.6 oz)

FURNISHED ACCESSORIES

Swivel Adapter A25D

Carrying/Storage Bag 26A13

REPLACEMENT PARTS

Grille RK312

Replacement Amplifier Assembly 90KF2600

Cartridge R193

OPTIONAL ACCESSORIES

Phantom Power Supply PS1A

Windscreen A85WS

Isolation Mount A53M, A53HM

Cable (7.6 m—25 ft) C25F