

SHURE®

LEGENDARY
PERFORMANCE™

Wired Microphones

BETA 27

BETA 27

Supercardioid Condenser Microphone

Microphone électrostatique supercardioïde

Supernieren-Kondensatormikrofon

Microfono supercardioide a condensatore

Micrófono de condensador de supercardioide

スーパーカーディオイドコンデンサ型マイクロホン



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CE

N108

GENERAL DESCRIPTION

The Shure® Beta 27 is a studio-grade, side-address condenser microphone for professional sound reinforcement. Its flat frequency response, low self noise, and superior construction quality provide unerring precision in demanding performance and recording environments. A tight supercardioid pattern ensures high gain-before-feedback, maximum isolation from other sound sources, and consistent off-axis rejection.

FEATURES

- Supercardioid polar pattern targets intended sound source with minimized bleed from off axis sound sources
- 1 inch, externally biased, ultra-thin, 2.5 µm, 24 Karat gold-layered, low mass, Mylar® diaphragm provides superior transient response
- Class A, discrete, transformerless preamplifier for transparency, extremely fast transient response, no crossover distortion, and minimal harmonic and intermodulation distortions
- Premium electronic components and gold-plated internal and external connectors
- Subsonic filter eliminates rumble from mechanical vibration below 17 Hz
- Switchable 15 dB pad for handling extremely high sound pressure levels (SPLs)
- 3-position low-frequency filter switch reduces unwanted background noise or counteracts proximity effect
- Integrated three-stage “pop” protection grille reduces plosives and other breath noise
- Internal shock mount reduces handling and stand noise

PERFORMANCE CHARACTERISTICS

- Low self-noise
- Consistent, highly directional polar response
- Exceptional low-frequency reproduction
- Extremely high SPL handling
- High output level
- Extended frequency response
- No crossover distortion

Applications

- Electric guitar and bass amplifiers
- Brass and woodwind instruments
- Orchestras, choirs, and wind ensembles
- Overhead miking of drums and percussion instruments
- Close-miking of acoustic instruments such as piano, guitar, violins, drums, and percussion
- Low-frequency instruments such as double bass and kick drum
- Vocals and speech

Note: Sound quality is strongly affected by microphone location and room acoustics. To achieve the best overall sound for a particular application, it may be necessary to experiment with microphone placement and room treatments.

Stand Adapter

Thread the supplied stand adapter onto a floor or boom stand, then thread the microphone onto the adapter.

NOTE: When in quiet recording environments, use of an isolating shock mount can reduce low-frequency mechanical vibrations transmitted through the stand. Visit www.shure.com for more information.

Positioning the Microphone

The front of the microphone is marked by the Shure logo. Position this side toward the sound source.

Selecting Low-Frequency Response

A three-position switch on the back of the microphone lets you adjust the low-frequency response. Use the low-frequency filter to reduce wind noise, room noise, or proximity effect.

- **Flat response.** Provides the most natural sound in most applications.
- ↙ **Low frequency cutoff.** Provides an 18 dB-per-octave cutoff at 80 Hz. Helps eliminate floor rumble and low-frequency room noise from heating and air conditioning systems. This setting may also be used to compensate for proximity effect or to reduce low frequencies that make an instrument sound dull or muddy.
- ↘ **Low frequency rolloff.** Provides a 6 dB-per-octave rolloff filter at 115 Hz. Use this to compensate for proximity effect or to reduce low frequencies that could make an instrument sound dull or muddy.

Setting Attenuation

The attenuation switch lets you reduce the signal level without altering the frequency response. This can prevent extremely loud sounds from overloading the microphone.

0 dB For “quiet” to “normal” sound levels.

-15 dB For use with extremely loud sound sources such as drums, horns, or loud guitar cabinets.

Integral Pop Filter

The microphone grille consists of 3 separate mesh layers that act as an integral pop filter. This helps reduce wind and breath noise. Depending on the performer, an external pop-protection screen or windscreens may be necessary when close-miking vocalists.

Load Impedance

Maximum SPL capability, output clipping level, and dynamic range vary with the input load impedance of the preamplifier to which you connect the microphone. Shure recommends a minimum input load impedance of 1000 Ω. Most modern microphone preamplifiers meet this requirement. Higher impedance results in better performance for these specifications.

Power Requirements

This microphone requires phantom power and performs best with a 48 Vdc supply (IEC-268-15/DIN 45 596). However, it will operate with slightly decreased headroom and sensitivity with supplies as low as 11 Vdc.

Most modern mixers provide phantom power. You must use a **balanced** microphone cable: XLR-to-XLR or XLR-to-TRS.

SPECIFICATIONS

Type	Condenser (externally biased)
Frequency Response	20 to 20,000Hz
Polar Pattern	Supercardioid
Output Impedance	160 Ω
Sensitivity (at 1 kHz, open circuit voltage)	-37 dBV/Pa (14.1 mV) 1 Pascal=94 dB SPL
Maximum SPL (1 kHz at 1% THD)	1000 Ω load: 134 dB (148 dB, Pad on) 2500 Ω load: 140 dB (154 dB, Pad on) THD of microphone preamplifier when applied input signal is equivalent to cartridge output at specified SPL
Signal-to-Noise Ratio (referenced at 94 dB SPL at 1 kHz)	86 dB S/N ratio is difference between 94 dB SPL and equivalent SPL of self noise, A-weighted
Dynamic Range (at 1 kHz)	1000 Ω load: 126 dB 2500 Ω load: 132 dB
Common Mode Rejection (10 Hz to 100 kHz)	> 50 dB
Clipping Level (20Hz-20 kHz at 1% THD)	1000 Ω load: 2.0 dBV 2500 Ω load: 8.5 dBV
Self Noise (typical, equivalent SPL, A-weighted)	8.5 dB
Polarity	Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3
Weight	Net: 428 g (15 oz.) With Stand Mount: 537 g (18.9 oz.)
Switch	Attenuator: 0, -15 dB Low Frequency Response: flat; -6 dB/octave below 115 Hz; -18 dB/octave below 80 Hz
Connector	Three-pin professional audio (XLR), male
Power Requirements	11 to 52 Vdc phantom, 6 mA

ACCESSORIES AND PARTS

Furnished Accessories

ShureLock™ Black Swivel Adapter	A32M
Padded, Zippered Carrying Bag	A27ZB

Optional Accessories

Windscreen	A32WS
Popper Stopper™	PS-6
ShureLock™ Rubber Isolated Shock Mount	A27SM

CERTIFICATION

Eligible to bear CE Marking. Conforms to European EMC Directive 2004/108/EC. Meets Harmonized Standards EN55103-1:1996 and EN55103-2:1996, for residential (E1) and light industrial (E2) environments.

The Declaration of Conformity can be obtained from:

Authorized European representative:

Shure Europe GmbH

Headquarters Europe, Middle East & Africa

Department: EMEA Approval

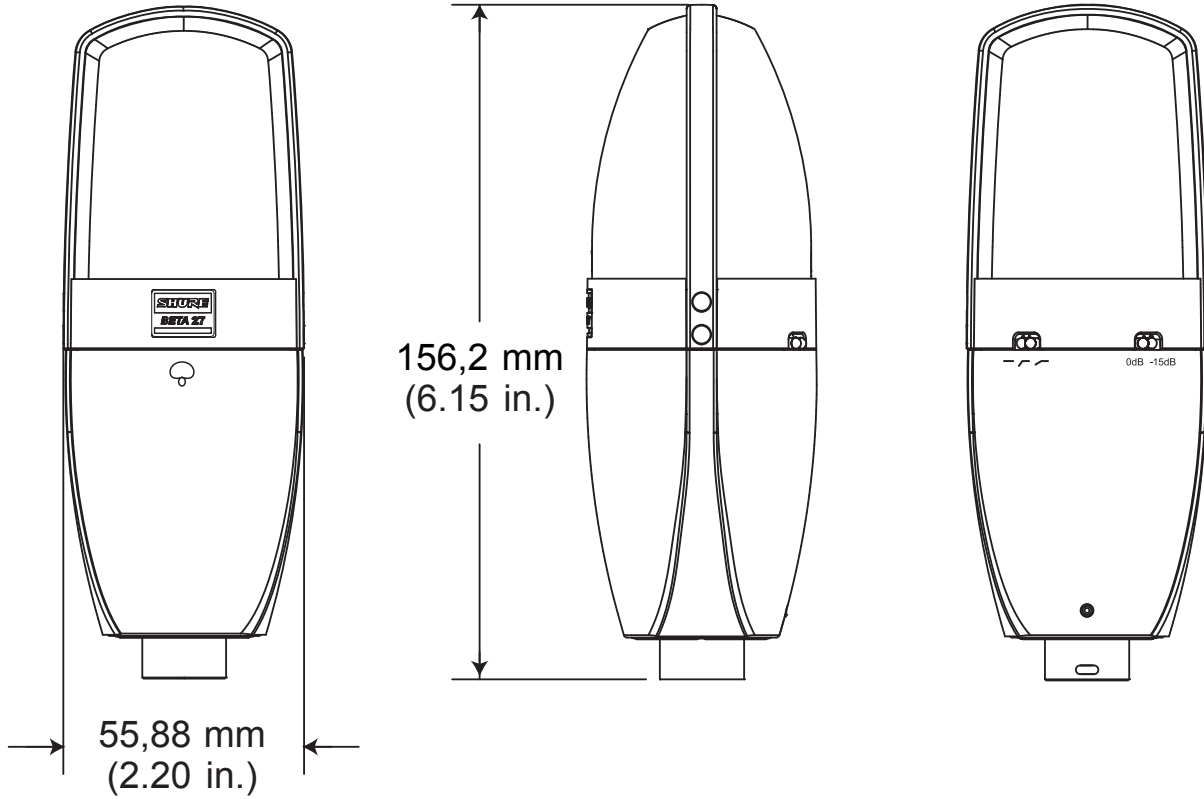
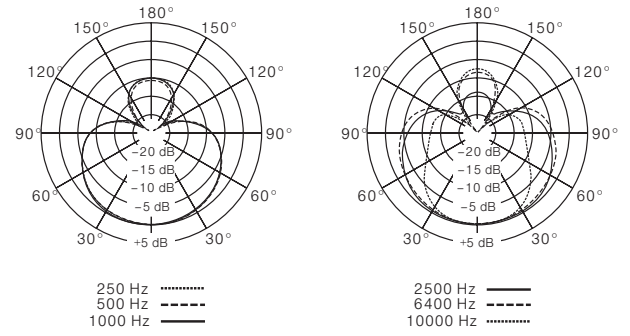
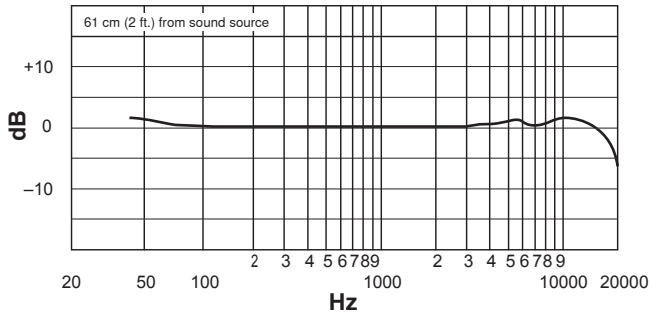
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