



E 101
Guitar Microphone

User Guide



Specifications

Type

Back Electret Condenser

Element

Pressure gradient,
FET preamplifier

Polar pattern

Super Cardioid (figure 1)

Frequency response

40 to 18,000Hz (figure 2)

Sensitivity

(at 1,000 Hz Open Circuit Voltage)
-44dBV/Pa (6.3mV/Pa),
E101TQG uses 3V/2.2K Test,
E101DXLR uses PS418D test
1Pa=94dB SPL

Rated impedance

Phantom: 200Ω
Battery: 600Ω

Minimum load impedance

Phantom: 1,000Ω
Battery: 2,000Ω

Equivalent noise level
(A-weighted)

Less than 25dB (IEC/DIN 651)

Dynamic range at 1 kΩ Load

Phantom: 114 dB
Battery: 104 dB

Signal-to-noise ratio

(1 kHz at 1 Pa)
69 dB

Max. SPL (1 kΩ load)

Phantom: 139 dB
Battery: 129 dB
(THD ≤ 1% 1kHz)

Power supply

E101TQG: For wireless system
E101DXLR: Phantom 9 to 48VDC
Battery 1.5VDC (AA)

Current consumption

Phantom: 3.5 mA typical
Battery: 0.5 mA typical,
Battery Life 1200 hrs

Low frequency roll-off

80 Hz, 12dB/OCT

3 position Switch

The mid-on-flat response
1 end-roll-off 12dB/oct
Other end-off

Polarity

Pin 2 output positive voltage
(related to pin 3) when diaphragm
receives positive pressure.
(Diaphragm moving inward)

Environmental conditions

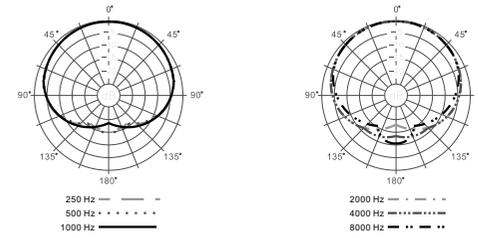
The E101 operates between
-10°C to +50°C (14°F to
122°F) with relative humidity
between 0 to 95%.

Dimensions

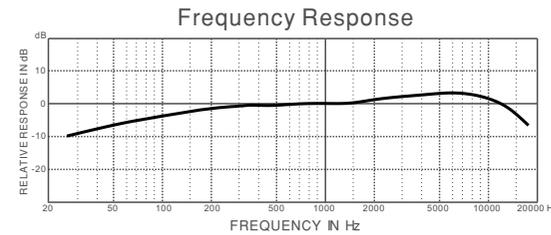
See figure 3

Weight

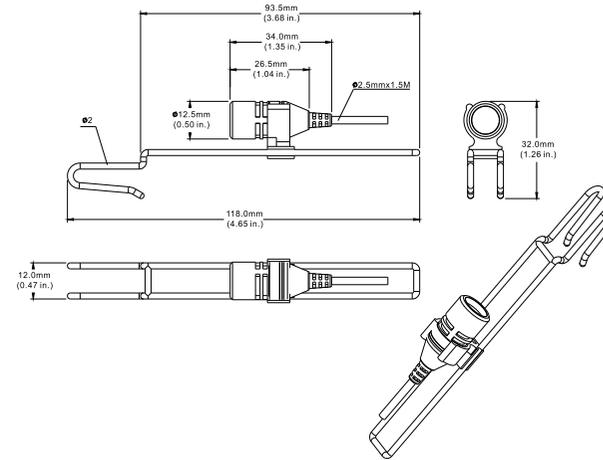
30g (1.05 oz.),
accessories excluded.



TYPICAL CARDIOID POLAR PATTERN (Figure 1)



TYPICAL FREQUENCY RESPONSE (Figure 2)



Mic head dimensions (guitar clip included)
(Figure 3)

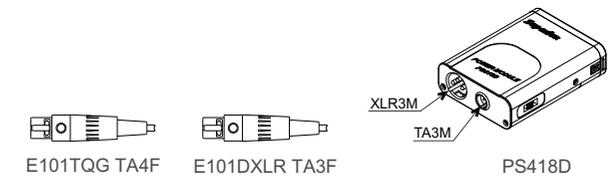
Description

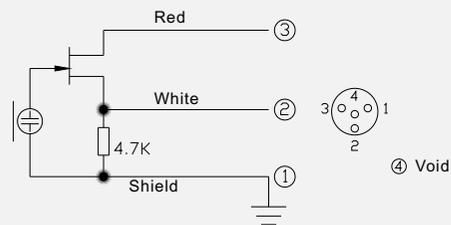
The E101 electret condenser microphone is designed for instrument and vocal pick-up. Matched with purpose design guitar clip to pick up acoustic guitar with natural sound texture.

Cardioid polar pattern to enhance on axis signal and reject sound from the rear side. Suitable for live sound applications. There are mounting accessories included so that the microphone can be mounted with various possibilities. Such as drums, winds, speech, or singing, the E101 could be used as an easy solution for the professional.

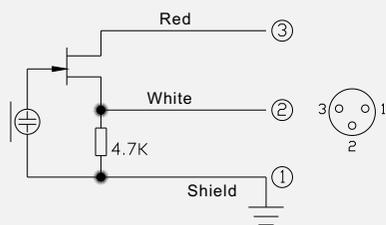
Features

- Wide and uniform frequency response.
- Cardioid polar pattern, high gain before feedback.
- Metal structure with black finish. 1.5M cable.
- The E101TQG matched with a TA4F plug for wireless system.
- The E101DXLR matched with a TA3F, adapts through PS418D for phantom or battery power operation.
- The E101 including the product and packages follow the instruction of EU 2002/95/EC and comply to RoHS.





E101TQG Wiring Diagram



E101DXLR Wiring Diagram

Supplied accessories

- Universal mounting clip
- Spring clip
- Flat surface mounting plate
- Tie clip,,
- Guitar clip ...
- S06 wind screen †



Knowing your microphone

Superlux provides variety selection of microphones for professionals and amateurs. To know your microphone is the first step to successful result.

Type of transducer



Condenser

Extremely light weight diaphragm, very sensitive to sound. Very small versions available for hiding applications. High performance condenser microphones are regarded as standard equipment of recording studios for extreme detail capturing. Operates with power, such as phantom or battery.

Powering microphone

Condenser microphones work with power. Professional standard is 48VDC phantom power. Some microphones work with lower voltage as low as 1.5VDC, such as battery power model. E101 work with 9 to 48VDC phantom only and 1.5VDC battery. Please make sure your sound system provide adequate power to the microphone.

About Frequency Response

Flat

Suitable for working at controlled environment, or for acoustic measurements. Although people pursuit flatness, but for none-professionals, it is a challenge to makes it works as expectation.

Popular curve response

Based on years of practical experience of pro users. There are curves to be build for various applications, so that it is very simple to use the microphone for the purpose. Limiting bandwidth, and emphasizing are typical skill.

Variable response

Incorporating switchable filters to eliminates interference, such as sub-sonic filter to cut air-conditioner and floor vibrations. And allows full flat when used in controlled environment.

Directivity

Select or set the directivity of your microphone for stereo recording, for various music instrument, vocal, speech, and environmental sound pick-up. Pair of spaced omni for A/B stereo, pair of near coincident cardioid for ORTF, and pair of coincident XY for Blumlein stereo.



Cardioid

Picks up most signal on axis. Rejects side and picks up least to the back. Suitable for live sound re-inforcement. Apparent proximity effect and most singer likes to take this bass boost advantages which is not good for speech.

Distance to source

Close miking or distant miking sound very differently. Vocal recording or live performance practice close miking mostly. Suitable proximity effect is one desired target, and lower feedback problem is another factor for live sound application.

While distant miking is common practice for recording, especially stereo pair recording with large group of performers, such as orchestra or choir.

Distant miking generally picks up less bass section with pressure gradient type of microphone (cardioid, figure-8, shotgun...) due to acoustic nature and lack of proximity effects.

Rich bass with distant miking can be recorded with pressure type of microphone (Omni), which performs the same frequency response with close or distant pick-up.

Mounting the microphone

Pressure gradient microphone is very sensitive to vibration. Suitable shock mount for high performance microphone is necessary for extreme low noise recording. Sturdy stand can set the microphone exactly at the sweet spot and keep it there. Choose heavy duty microphone stand for studio condenser microphone which weights much more than handle microphone.

Superlux provides wide range of microphone stands for various demands. Big Foot Willie is specially developed for large condenser microphones that able to support 2 large microphones with stereo bracket for single point stereo recording.

Extension foot on all the 'E' versions serve to mount heavy studio microphone in limit space live sound applications.

Maintainence

Condenser microphone shall be kept in low humidity environment for best sound performance. Store the condenser microphones in airconditioned room or dehumidifier to keep away form moisture. Clean air is another important factor. Keep away from smoking environment to avoid tar residuals.

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