



R102

R102 MKII

R102
Classical Ribbon Microphone

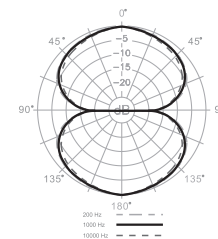
R102MKII
Classical Ribbon Microphone with Extended HF

User Guide

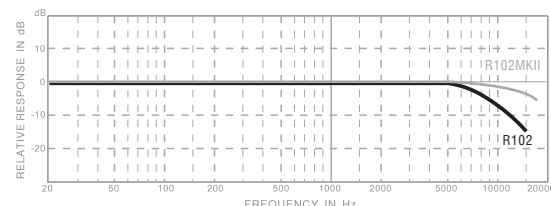


Specifications

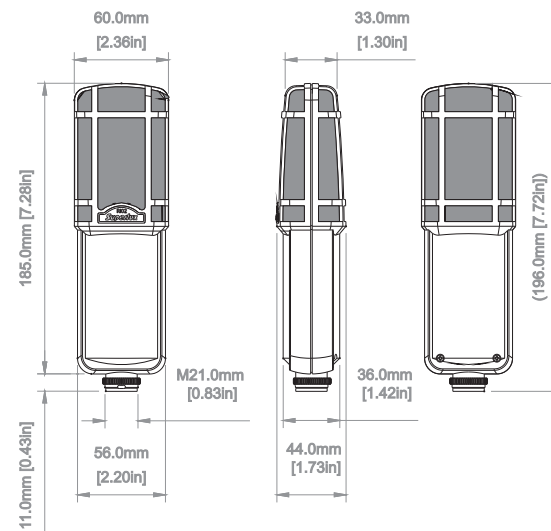
Model No. R102 with black grille R102 MKII with golden grille	Dynamic Range (1 kΩ load) 120dB
Type Ribbon microphone	Power Supply 48V phantom power
Acoustic Theory Pressure gradient	Current Consumption 4mA
Polar Pattern Figure 8 (Figure 1)	Polarity Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3.
Frequency Response (Figure2) R102: 25~15,000 Hz R102 MKII: 20~18,000 Hz	Connector 3 pin XLR- male
Sensitivity (1.000Hz open circuit voltage) -40dBV/Pa (10 mV/Pa) 1Pa=94dB SPL	Finish R102 with black grille R102 MKII with golden grille
Rated Impedance 250Ω	Environmental Conditions The R102 Series microphones operate between -10°C~50°C (14°F~122°F) with relative humidity between 0 to 95%.
Minimum Load Impedance 1000Ω	Dimensions WxHxD: 60mm(2.36in.) x 196mm (7.71in.) x 44mm(1.73 in.) (Figure3)
Equivalent Noise Level (A weighted) 18 dB	Net Weight R102/R102 MKII : 500g(17.6oz.)
Max. Sound Pressure Level (1kΩ load) 138dB SPL (THD ≤ 0.5% 1kHz)	RoHs The R102 series, including the product and packaging, follows the instructions of the EU2002/95/EC and complies with RoHS requirements.



R102/R102MKII
Polar Pattern, Figure1



Frequency Response, Figure2



Dimensions, Figure3

Description

The R102 series is an active aluminum ribbon microphone designed for the recording studio. It features the high sensitivity of a condenser microphone, yet exhibits the smoother frequency response and excellent transient response of a ribbon microphone. The speed response of a ribbon mic is optimal among all types of microphones.

There two models from R102 series, one is R102 with black grille and the other is R102 MKII with golden grille:

R102 is classical standard ribbon microphone
R102MKII is a ribbon microphone with extended high frequency to studio condenser grade, but keep the same excellent transient response of ribbon microphone. Classical ribbon microphones will exhibit a roll off in high-frequency response, but R102MKII is a breakthrough ribbon microphone can maintain high frequency response up to 18 kHz. For people who love ribbon style but expect extended HF, R102MKII is the choice.

Features

- +48V Phantom powered
- Wide and extended frequency response
- High sensitivity, wide dynamic range, low distortion and decreased noise
- Stable performance, unaffected by the surrounding temperature and humidity
- Figure 8 polar pattern with identical sensitivity at the front and back
- Low output impedance
- Modular capsule design

Applications

- Miking of sound sources, both distant and close range
- Live broadcasting
- Miking of electric or acoustic guitars
- Reinforcement and recording of vocals, brass instruments, tom-tom and kick drums, percussion instruments, stringed instruments and acoustic piano

Furnished Items

Included Items

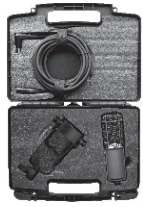
- R102
- 6M two-core shield cable
 - U bracket
 - A4 plastic carrying case



6M two-core shield cable



U bracket



A4 plastic carrying case

R102MK I I

- 6M two-core shield cable
- HM31 shock mount
- HM63 Metal grille pop filter
- U Bracket
- Carrying pouch
- AL3 aluminum carrying case



6M two-core shield cable



HM31 shock mount



HM63 Metal grille pop filter



U bracket



Carrying pouch



AL3 aluminum carrying case

Related Items

- MS158: Big Foot Willie boom stand
- PS2A phantom power supply
- HM48B table arm
- HM58B table arm



PS2A phantom power supply



HM48B table arm



HM58B table arm

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

Active aluminum ribbon microphone consists of two parts: an electro-magnetic transducer and an impedance converting circuit. The electro-magnetic transducer applies a unique magnetic circuit field with a strong Nd magnet. The aluminum alloy ribbon, with a thickness of only 2.5 microns, is suspended between two poles and vibrates in synchrony with the incoming acoustical energy (sound waves). Due to the extremely low mass of the ribbon, the transducer of this microphone boasts a premium transient response in converting acoustic energy into electronic signals. Whether at low / high frequencies or low / high sound pressure levels, the R102 series delivers a precise reproduction of the original sound.

Powering microphone

R102 series ribbon microphones work with power, so we call it active ribbon microphone. Professional standard is 48VDC phantom power. R102 series work with 48VDC phantom only. Please make sure your sound system provide appropriate power to the microphone.

About Frequency Response

Flat

Microphones with flat response are suitable for working at controlled environment, or for acoustic measurements. Although people expect 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.

Directivity

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

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Figure 8, bi-directional

Equal sensitive to both ends, and rejects the sides. It' s good to noisy environment to reject distant noise and low frequency and also a good choice for stereo recordings, such as Blumlein. And this is typical pressure gradient characteristic.

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.

Maintenance

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

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