Superlux®
JUST PLAY IT

S125

1/2" Condenser Microphone

User Guide

GOANG-FANN CO., LTD.

2007, SUPERLUX Inc.
LB100S12501EN (Rev. 1)

Specifications

Type
1/2" true condenser

Element
Pressure gradient

Polar pattern
Unidirectional (Cardioid), rotationally symmetrical about microphone axis, uniform with frequency. (Figure 1)

Frequency response
20 to 20,000 Hz (Figure 2)

Sensitivity
(at 1,000 Hz Open Circuit Voltage)
-45dBV/Pa (5.6mV/Pa) 3dB
1Pa=94dB SPL

Rated impedance
50Ω

Minimum load impedance
1,000Ω

Equivalent noise level
(A-weighted)
18dB (IEC/DIN 651)

Max. SPL (1 kΩ load)
148dB SPL (THD≦1% 1kHz)

Dynamic range (1 kΩ Load)
130dB

Signal-to-noise ratio
76 dB

Power supply
48V 4V Phantom

Current consumption
3.5mA

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

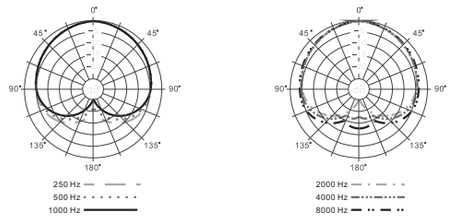
Connector
Integral 3 pin male XLR type

Finish
Charcoal gray paint

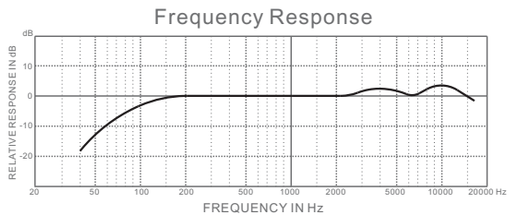
Environmental conditions
The S125 operates between -10℃ to +50℃(14℉ to 122℉) with relative humidity between 0 to 95%.

Dimensions
Φ48.0mm(1.90in.) X 177.0mm (6.70in.) (Figure 3)

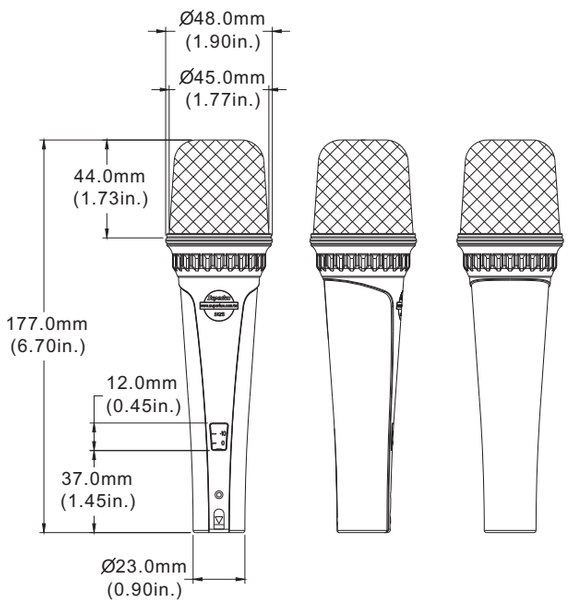
Net weight
350g (12.35oz.)



TYPICAL POLAR PATTERN (Figure 1)



TYPICAL FREQUENCY RESPONSE (Figure2)



Dimensions (Figure 3)

Description

The S125 true condenser vocal microphone brings studio grade, precision 1/2" condenser capsule to the live stage for the demanding professionals. Successful artist, celebrities sing with true condenser in the recording studios, and sing with dynamic mics on the live stages. One of the consideration is durability. The studio condenser cannot withstand the mechanical challenges as those dynamics which can easily handle.

Now this is no more a consideration for those who want a studio grade true condenser microphone when Superlux S125 is ready for all challenges.

Superlux S125's wide and flat frequency response is the same as studio condenser, because it is a studio grade microphone as well. It provides very fine detail resolution, that brings out every details the artist performed. With switchable -10dB pad, the S125 can also handle high SPL sound sources. Switchable 3rd order low cut filter cut out those un-wanted stage noises for clean sound even in noisy environment.

The triple layers wind screen drop down blowing noises to the minimum when S125 facing up-close settings.

Not only a professional choice for vocal miking, S125 is also a professional choice for instrument miking from strings, winds, to percussions.

Gold plated contacts between capsule and electronics provides stable performance, yet the convenience the disassemble the capsule without a tool. Die-cast casing and steel strengthen processed grill wind screen results sturdy structure, and extreme low handling noise. All these efforts built up this perfect (almost) microphone for all performing art professionals.

Features

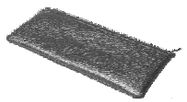
- Wide and flat frequency response.
- -10dB pad switch.
- 3rd 150Hz low cut filter, switchable.

- Rubber cover preventing accidental setting change.
- Shock proof capsule, very low handling noise.
- Conductive shielding, low noise and RF interference immunities.
- Sturdy zinc alloy shaft and steel strengthen grill windscreen.

Supplied accessories

HM38 Microphone clip
Mic pouch soft leather

HM38
Microphone clip



Mic pouch soft leather

Related accessories

Foam windscreen, various color ---------- S40
Power supply ---------- PS2A
Table stand ---------- HM6
Instrument boom stand ---------- MS104

S40
Foam windscreen

PS2A
Power supply

HM6
Table stand

MS104
Instrument
boom stand

Knowing your microphone

Superlux provides variety selection of microphones for professionals and amatures. 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. S125 work with 48VDC phantom only. Please make sure your sound system provide adaquate power to the microphone.

About Frequency Response

Flat

Suitable for working at controlled environment, or for acoustic measurements. Although people persuit 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 emphasing are typical skill.

Variable response

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

Directivity

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

Using a handheld microphone

For best signal to noise ratio, distance from the handheld microphone to the sound source shall be as short as possible.

For higher gain before feedback and lowest background noise, the microphone shall be pointed directly to the sound source. (refer to the illustration below) The sensitivity of a super cardioid microphone is highest on axis and lowest at 120 to 135 degrees.

To avoid interference between multiple microphones, each sound source shall be picked-up by one microphone, use as less microphones as possible in one space, or turn-on as less microphones as possible at the same time.

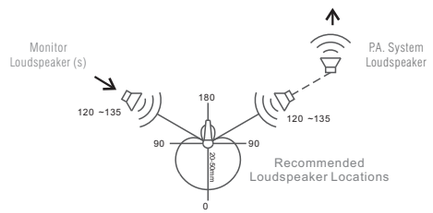
To reduce crosstalk between microphones, an 1:3 guide line shall be follow: The distance between microphone A to the sound source A is "1", the distance between any other microphone to the sound source A shall be more than 3 times.

When the (super) cardioid microphone get closer to the sound source, the low frequency response is boosted, as so call "proximity effect". Experience singer takes advantages of the proximity effect to improve the richness of his/her voice or to increase the bass of the instrument as if an extremely high quality equalizer is used. Same idea to reduce the bass by increase the distance to reduce the bass when needed.

Reflecting surface affect sound as well. Beware of these surfaces such as wall, table, or floor. Place the microphone away from the hard surfaces or directly contact these surfaces to form a pressure zone microphone.

When using the microphone outdoor or in windy environment, additional foam wind screen helps to reduce wind noise.

Keep grill pop screen clean to avoid degrading the sound quality. Do not expose the microphone at high humidity/temperature environment to avoid damage.



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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