



D 107 Series

Dynamic Vocal Microphone for Professionals

User Guide



Specifications

Type

Dynamic microphone

Polar pattern

Uni-directional (Super-cardioid), rotationally symmetrical round microphone axis, while maintaining uniform frequency response (Figure 1)

Frequency response

50 to 16,000 Hz (Figure 2)

Sensitivity (at 1,000 Hz Open Circuit Voltage)

-54dBV/Pa (1.85mV/Pa) 3dB, 1Pa=94dB SPL

Rated impedance

250Ω

Polarity

Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3

Max. SPL (1 kΩ load)

160dB SPL (THD ≤ 1% 1kHz)

Connector

Three-pin professional audio connector (male XLR type)

Finish

Metal structure, strengthened steel grille head and scratch-resistant titanium coating for D107A, and textured black satin body for D107B

Environmental conditions

The D107 Series operates between -10 to +50 (14 to 122) with relative humidity between 0 to 95%.

Dimensions

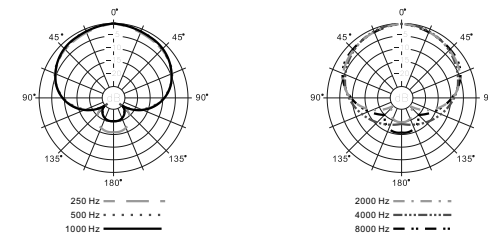
φ 42.3mm x 152mm (1.67in. x 6.00in.), Figure 3

Net weight

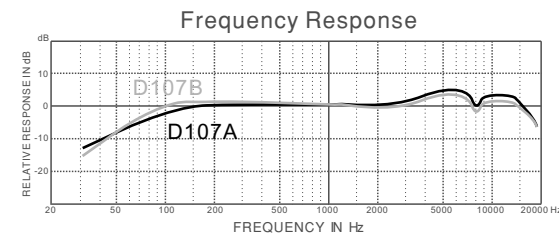
188.0 grams (6.6 oz)

RoHS

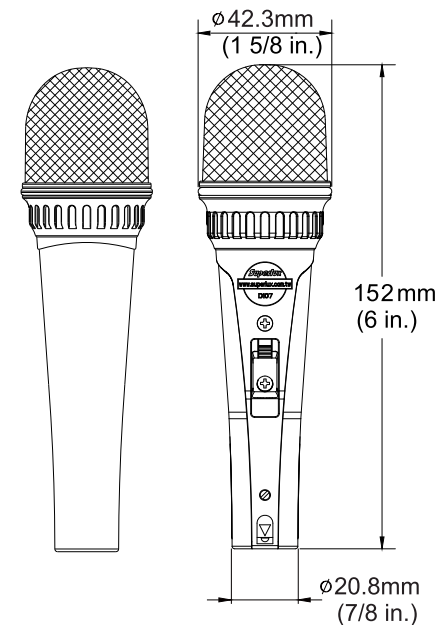
The D107 Series including the product and packages follow the instruction of EU 2002/95/EC and comply to RoHS.



TYPICAL POLAR PATTERN (Figure 1)



TYPICAL FREQUENCY RESPONSE (Figure 2)



Dimensions (Figure 3)

Description

Building on the success of Superlux D108 series vocal microphones, Superlux now presents the D107 series dynamic microphone which is a milestone in the world of professional vocal microphones, exhibiting exceptionally uniform frequency response not only on-axis, but also off-axis. And D107 series inherits the balanced tone and natural sound profiles and structure of D108 series. With its more compact and ergonomically-designed body and easy handling, the D107 series brings a new concept in professional vocal use.

D107 series comes with two versions, one is D107A designed for recording with tailored vocal response best for close miking, and the other is D107B best for live sound performance with a tailored bass punch response.

The modular design of the D107's capsule with its gold-plated connectors permits easy separation of the grille and capsule from the body of the microphone, facilitating maintenance.

The D107 has a super-cardioid pickup pattern which isolates the main sound source while minimizing background noise.

Constructed of durable metal with a strengthened mesh grille, foam filter and shock-mount system to cut down handling noise, the D107 is very sturdy, withstanding even the occasional dropping while still producing a sound quality that is unsurpassed. No matter whether indoor or outdoor, singing or speech, the D107's performance will satisfy the most demanding professionals.

Optimized pick up pattern

- D107A for Recording with tailored vocal response best for close miking
- D107B for performance with tailored enhanced bass punch

New concepts for professional vocal mic

- For the most demanding professionals
- New compact size combines minimization and optimization

Features

- Balanced tone and truly natural sound reproduction
- Ideal for professional vocal use with its brightened midrange, bass roll off and carefully crafted frequency response, providing excellent presence
- Super-cardioid capsule gives exceptionally high gain before feedback
- High sound pressure level capability
- High quality ON/OFF switch with locking plate
- Modular design capsule with gold coated connectors
- All-metal construction with strengthened steel grille head and scratch-resistant titanium coating for A version and textured black satin body for B version

Accessories

Supplied accessories

Microphone clip ----- HM38S
 Carrying pouch



HM38S
 Microphone clip Carrying pouch

Optional accessories

Foam windscreen, various color ----- S40
 Table stand ----- HM6
 Adjustable boom stand ----- MS131
 Instrument boom stand ----- MS104



S40 HM6
 Foam windscreen Table stand

MS131 MS104
 Adjustable boom stand Instrument boom stand

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



Dynamics

Durable and simple structure, operates in all kinds of environments. A good dynamic microphone is capable to operate at very high sound pressure level without distortion. Due to structure limit, dynamics cannot be built as small as condenser, but dynamics don't require power to operate.

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



Super Cardioid

Narrower than cardioid pattern. Suitable for multiple microphone setup. Least sensitive angle pointing toward side to rear where most stage monitors are located. Same proximity effect as cardioid microphone.

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.

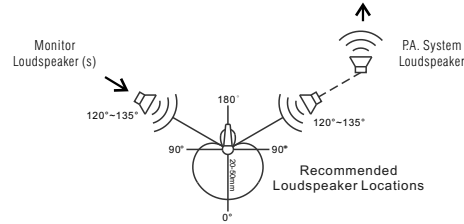
To reduce crosstalk between microphones, an 1:3 guide line shall be follow: The distance between microphone A to the sound source A is "1", the distance between any other microphone to the sound source A shall be more than 3 times.

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.



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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