



D 10A

Dynamic Microphone

User Guide

Specifications

Type

Dynamic microphone

Polar pattern

Omni-directional, rotationally symmetrical about microphone axis, uniform with frequency. (Figure 1)

Frequency response

85 to 12,500 Hz (Figure 2)

Sensitivity (at 1,000 Hz Open Circuit Voltage)

-55dBV/Pa (1.78mV/Pa) ± 3 dB, 1Pa=94dB SPL

Rated impedance

200 Ω

Connector

Integral 3.5mm stereo plug wired as mono

Finish

Black paint body and silver housing

Environmental conditions

The D10A operates between -10°C to +50°C(14°F to 122°F) with relative humidity between 0 to 95%.

Dimensions

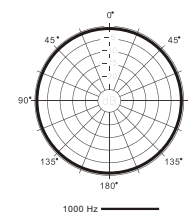
$\phi 36.0$ mm x 167.0mm (1.42in. x 6.57in.), Figure 3

Net weight

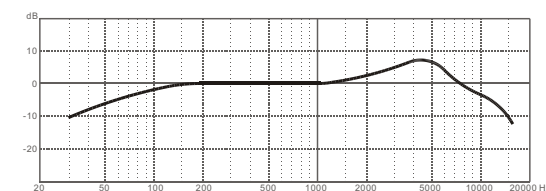
80.0 grams (2.82 oz)

RoHS

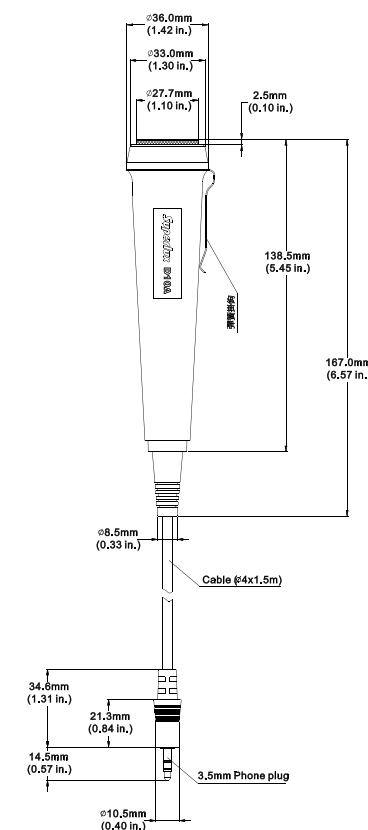
The D10A including the product and packages follow the instruction of EU 2002/95/EC and comply to RoHS.



TYPICAL POLAR PATTERN (Figure 1)



TYPICAL FREQUENCY RESPONSE (Figure2)



Dimensions (Figure3)

Description

The D10A is an omni dynamic microphone with no proximity effect and with minimum handling noise.

This light weight microphone provides very good handling comfort, and it is integrated with 1.5 meter stretch prevention cable. 3.5 mm stereo plug wired as mono output. A belt clip provided for easy attachment to thin fabrics, belts, or other film matters. An excellent choice for amateur home recordings, small scale gathering, on-line meetings, and daily living applications. Also a great match to Superlux MA500 personal voice enhancer and Superlux MA818 portable mini-PA.

Features

Omni dynamic, no proximity effect, low handling noise.

3.5mm stereo plug, mono output.

Modern coating processed, anti scratch.

Light weight, low profile with spring belt clip.

Optional DS106 table stand for on-line communication tool.

Related accessories

Microphone stand ----- DS106



Knowing your microphone

Superlux provides variety selection of microphones for professionals and amatures. Toknow 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 tooperate at very high sound pressure level without distortion. Due to structure limit, dynamics cannot be built as small as condenser, but dynamics doesn require power to operate.

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 emphasizing 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



Omni

Equal sensitivity to all direction, so that the microphone doesnt need to pointing toward the sound source. Low handling and wind noise. Welcome by news gathering, and music recording applications.

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, suchas 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.

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.

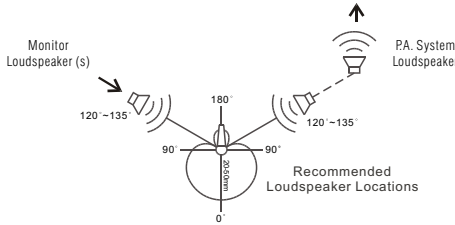
To reduce crosstalk between microphones, an 1:3 guide line shall be follow: The distance between microphone A to the sound source A is "1", the distance between any other microphoneto the sound source A shall be more than 3 times.

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 from moisture. Clean air is another important factor. Keep away from smoking environment to avoid tar residuals.

Superlux®

marketing and sales

Superlux, Taiwan

+886-2-26931323

sales@superlux.com.tw

manufacturing & logistics.

Superlux Enterprise

Development(Shanghai)Co., Ltd.

superlux.tw