

TM58 SERIES

VOCAL MICROPHONE
USER GUIDE



Superlux®

Specifications

Type

Dynamic microphone

Polar pattern

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

Frequency response

50 to 18,000 Hz (Figure 2)

Sensitivity (at 1,000 Hz Open Circuit Voltage)

-53±2 dB , 1Pa=94dB SPL

Rated impedance

500Ω

Max. SPL (1 kΩ load)

155 dB SPL (THD ≤ 1% 1kHz)

Connector

Integral 3 pin male XLR type

Finish

Metal structure, grey, enamel -painted , matte finished

Environmental conditions

The TM58 Series operates between -10 to +50
(14 to 122) with relative humidity between 0 to 95%.

Dimensions

Φ51.0mm x 163.0mm (2.00 in. x 6.41in.) , (Figure 3)

Net weight

320 g

RoHS

The TM58 Series including the product and packages follow the instruction of EU 2002/95/EC and comply to RoHS.

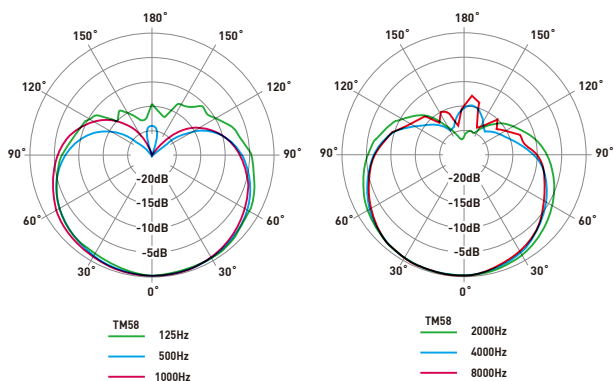


Figure 1

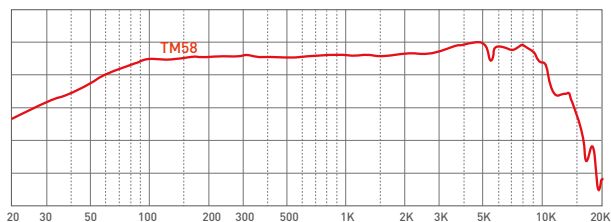


Figure 2

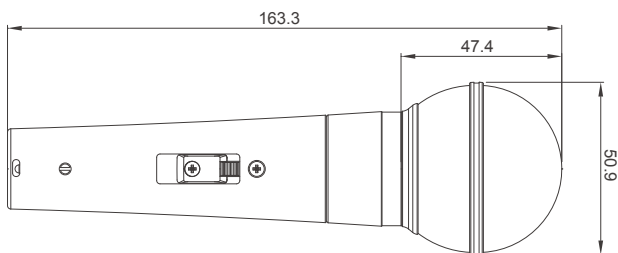


Figure 3

Description

TM58 series cardioid dynamic microphones are able to deliver authentic sound without any unnecessary sound coloration which are designed for speech and performance.

Equipped with tailored diaphragm and precise directivity, TM58 series give full and powerful sound. The higher SPL and high-grade transient response of TM58 series compared with other microphones will make the stage performance strong and the penetrating.

TM58 is the correct choice for the perfectionists no matter outdoors or indoors, speech or performance.

Features

- Balanced and clear true sound
- Frequency response is good for intelligent recognition and the mid- high frequency band is bright, the low frequency band is solid powerful
- High SPL capacity
- On/off switch with locking function
- Newly-designed capsule shock mount

Accessories

Supplied Accessories

Microphone clip - **HM9A**

YA3 adaptor



Optional Accessories

Foam windscreen, various color **S40**

Table stand **HM6**

Table stand **DS01**

Microphone stand **MS131**



S40



HM6



DS01



MS131

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



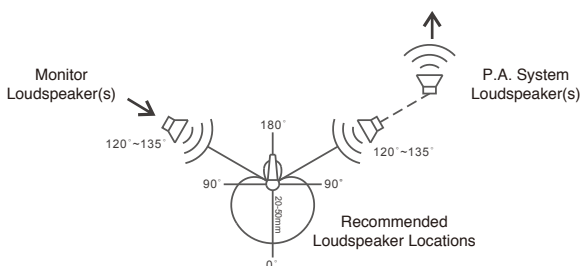
Cardioid

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



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

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.