

Fireproof Ceiling Speaker

High Temperature: 120°C

SM – 5004/V04

UL94V-0

Description:

Extremely sensitive to sound and music, SM-5004/V04 provides high sensitivity and high performance output units to integrate with any audio system. The loudspeaker will reproduce the professional and the smoothest music at any time. All units within the range are fully fireproof to be used in environments with high temperature. The most attractive feature, however, lies with its thinness –

a mounting depth less than two inches will allow it to be installed into any place and any surface panel. As classic round style loudspeaker, it can blend into any environment both indoor and outdoor to bring you the most comfortable music zone. Fireproof feature gives the units the best chance to stand against 120°C high temperature.

SM-5004/V04 provides a great freedom to clients for integration with any audio system. PA audio system, home audio system, car audio system and any other type of audio system in areas with high temperature will be inspired by this series. Applications include gas station, kitchen, restaurant, food preparation area, chemical laboratories and other similar environments. Completely fireproof, waterproof, resistant to UV radiation, acid, alkali, chlorine and other chemicals are exactly the qualities needed for operating in difficult and challenging environments.



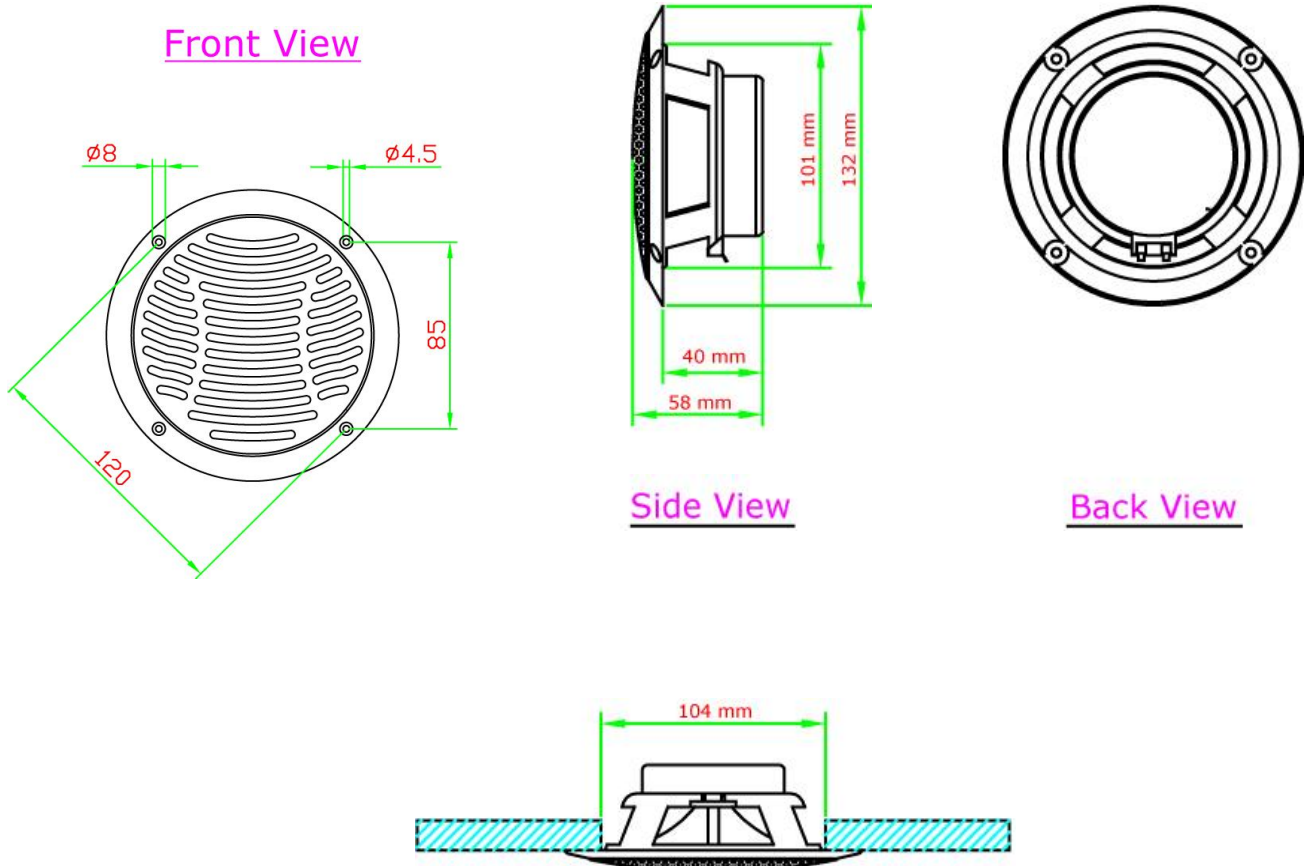
<i>Specification</i>	
Model	SM – 5004/V04
Loudspeaker size	4" round type
Loudspeaker type	Fixed cone full range
Power handling RMS	20 W / 40 W
Average Sensitivity 1W/1m	85 ± 2 dB
Maximum SPL 1W	99 ± 2 dB / 20W
Frequency response	270 Hz ~ 18 kHz
Impedance	4 ohms
Operating temperature	-20°C ~ 120°C
Exterior diameter	132 mm
Mounting depth	40 mm
Weight	285 g

<i>Features</i>	
Loudspeaker type	Full range (UL94V-0)
Cone type	Fiber glass fixed cone (UL94V-0)
Mounting type	Surface mounting
Fitting	Screw
Mechanism	
Colour	White / black
Cable type	Corrosion proof silicon coated terminal wire
Qualification	IP65 Rating UV Resistant RoHS conform (2002/95/EC) UL 94V-0 compliant

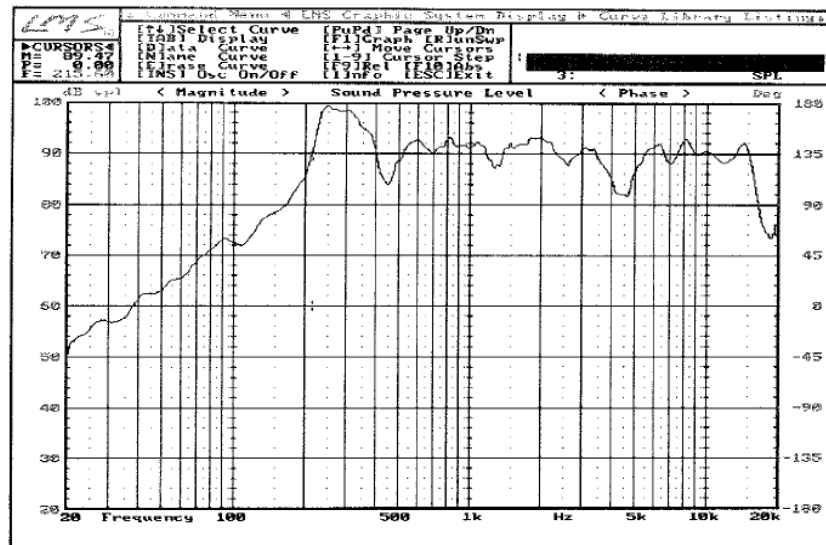


SM – 5004/V04

Dimensional Diagram :



Characteristic diagrams :



SCIENTIFIC DESIGN SOFTWARE
Driver Parameters From Measurement Data

Date: 11-17-2008
Data for driver:

Entered Data as Follows:

Entered driver DC resistance (Re)	4.20 ohms	
Entered driver resonance frequency (Fs)	270.06 hertz	
Entered driver maximum impedance at Fs	11.02 ohms	
Entered driver F1 frequency	247.41 hertz at	6.80 ohms
Entered driver F2 frequency	298.50 hertz at	6.80 ohms
Calculated Square root of F1*F2	271.80 hertz	
Calculated error factor	0.60 percent	
Compliance calculated by ADDED MASS method		
Entered added mass	10.00 grams	
Entered driver new resonance frequency	140.88 hertz	
Entered driver piston diameter	87.00 mm	
Entered driver magnet gap depth	4.00 mm	
Entered driver voice coil length	4.30 mm	

Calculated Thiele/Small Parameters:

Free Air Resonance (Fs)=SQR(F1*F2)	271.80 hertz
Qts	3.2843
Qes	5.3069
Qms	8.62
Equivalent acoustic compliance (Vas)	0.46 liters
Piston area (Sd)	0.0059 square meters
DC resistance (Re)	4.20 ohms
Volume displacement (Vd)	5.94 ccm
Linear displacement (Xmax)	1.00 mm
Power handling (Pe)	TO BE ENTERED
Coil Inductance (Le)	TO BE ENTERED
Reference Efficiency (Ref Eff)	0.17 percent
Efficiency Bandwidth Product (EBP)	51.22 hertz

Other Calculated Data:

Moving Mass of Diaphragm only (Mmd)	3.41 grams
Moving Mass of Diaphragm & Air Load (Mms)	3.67 grams
Mass of Air load on diaphragm (Ma)	0.26 grams
Compliance (Cms)	0.00009 m/N
BL product (BL)	2.23 N/A
Sensitivity (SPL 1w/1m)	84.26 dB

END OF REPORT

