



Elektrotechnik Karl-Heinz Mauz GmbH

LSF-S1609B-IPX7 (Artikel-Nr. 106127)

EKULIT

ELECTRICAL AND ACOUSTICAL SPECIFICATION

	Item	Specifications
1-1	Dimension	9×16×3.0t
1-2	Rated Input Power	0.7W
1-3	Max Input Power	1.0W
1-4	Rated Impedance	8±15% Ω /2.0KHz/2.37Vrms
1-5	Resonance Frequency(f0)	850±20% Hz while testing in 1cc box at 2.37Vrms
1-6	Sound Pressure Level	91 ±3 dB SPL /2.37Vrms/10cm at (AVG 0.8,1.0,1.5 2.0) KHz, in 1cc box
1-7	Frequency Range	foHZ ~10KHz
1-8	Total Harmonic Distortion	20%MAX. at 800~1000Hz, 2.37Vrms/10cm in 1cc box 15% MAX. at 1001~10KHz, 2.37Vrms/10cm in 1cc box As shown in fig(5)
1-9	Polarity	When a positive DC Current is applied to the voice coil terminal marked +or red ,the diaphragm shall move forward
1-10	Operation Test	Must be normal at sine wave and program source 0.7W.
1-11	Buzz, Rattle, etc.	Must be free audible noise (buzzes and rattles)(300Hz ~ 3.4KHz frequency range ,input level up to 2.37Vrms, while testing in 1cc box.)
1-12	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.
1-13	Storage temperature	-40℃~+85℃
1-14	Operation temperature	-20℃~+70℃

Adresse: **Felix-Wankel-Str. 35 • 73760 Ostfildern/Nellingen**

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Fax: **+49-711/3414024**

E-mail: **info@ekulit.de** Web site: www.EKULIT.de



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2. ENVIRONMENTAL TEST

Item	Specifications
2-1 High temp. Test	Temperature: +85°C ± 3°C Duration: 96 hours
2-2 Low temp. Test	Temperature: -40°C ± 3°C Duration: 96 hours
2-3 Humidity test	Temperature: +40 °C ± 3 °C Relative Humidity: 90%~95%RH Duration: 96 hours (recovery 6 hours)
2-4 Thermal cycle test.	Temperature: -40°C ± 3°C ↔ +85°C ± 3°C Cycle: 12 cycles Duration: 2 hour 2 hour (recovery 2 hours) (30minutes) (5minutes) 1 cycle (5minutes)
2-5 Vibration	Frequency: 10~55~10Hz Oct/min Amplitude: 1.5mm Duration: 2H 2 hours in each 3axes
2-6 Drop test	Height: 1.5m Cycle: 6 cycles (be mounted in a 100g fixture, drop samples 1.5m 2 drops on side(2*6), , 2 drops on each corner(2*4). Total 20 drops total 18 times
2-7 Load test	Input power: 0.7W, Pink noise 96 hours in 1cc box.25°C.
2-8 Waterproof grade	IPX-7 Test condition :Depth of water:1Meters ,Time of duration:30mins
2-9 Air Leak Test Conditions	Air pressure 10KPa, Back side pressure 1.0Kg , Continuous time 7 seconds .Less than 1 SCCM
After these test , the change of S.P.L shall be within ±3 dB .	

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3. MEASURING METHOD (SPEAKER MODE)

3-1. Test Condition

STANDARD

Temperature : 15 ~ 35°C

Relative humidity : 45% ~ 85%,

Atmospheric pressure: 860mbar to 1060mbar.

JUDGEMENT

Temperature : 20 ± 3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

3-2. Standard Test Fixture

1. Input Power : 2.37Vrms

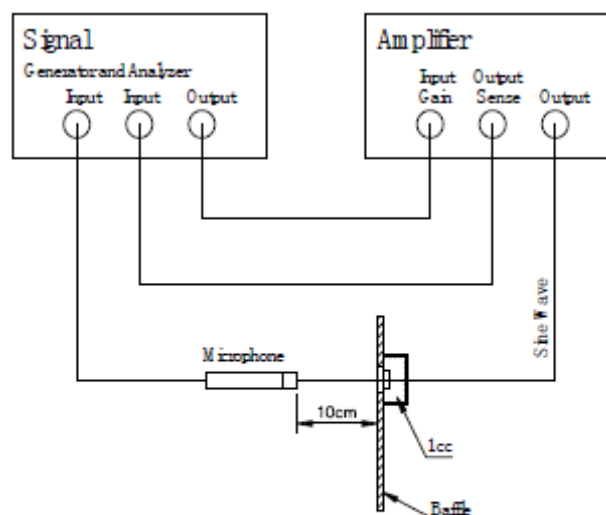
2. Zero Level : -dB

3. Mode : TSR

4. potential meter Range : 50dB

5. Sweep Time : 0.5sec

Speaker Measurement Circuit



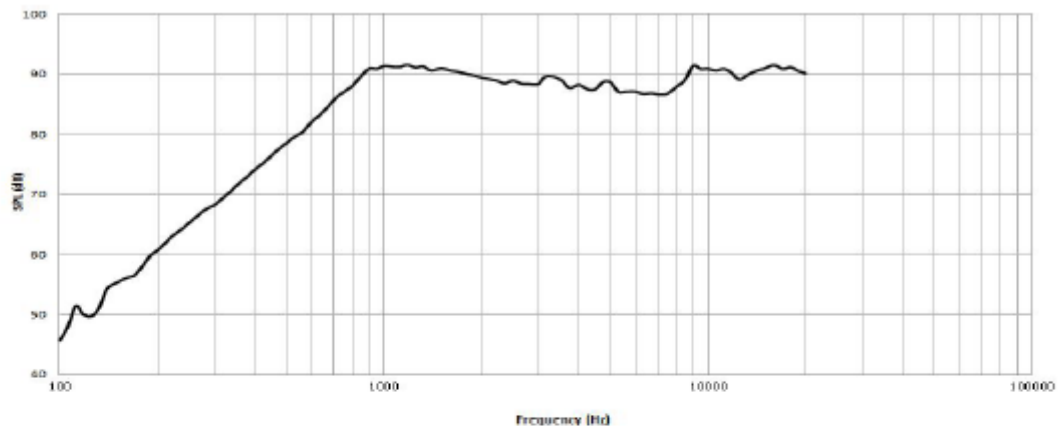
(fig. 1)

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4. FREQUENCY RESPONSE CURVE(fig.2)

测试条件: 2.37Vrms/10cm



5. SPEAKER DISTORTION CURVE(fig.3)

测试条件: 2.37Vrms/10cm





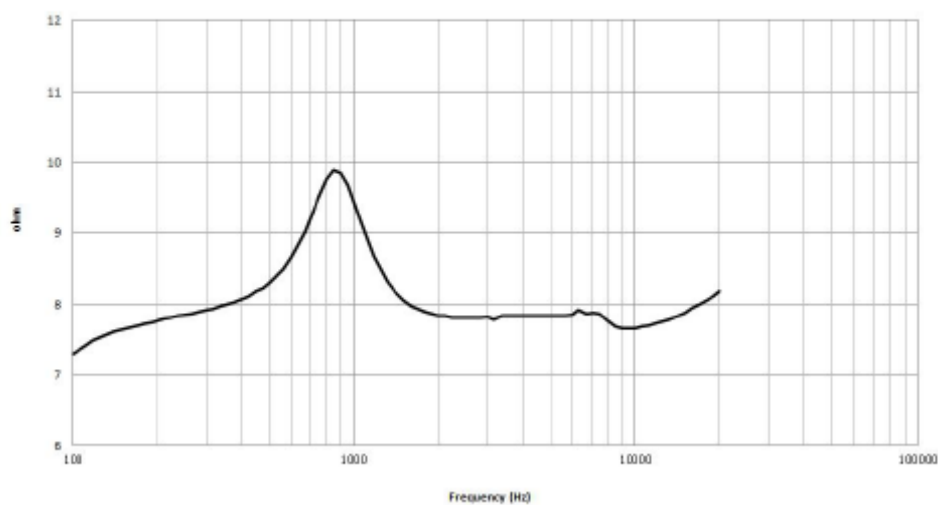
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6. IMPEDANCE RESPONSE CURVE (fig.4)

测试条件: 2.37Vrms/10cm



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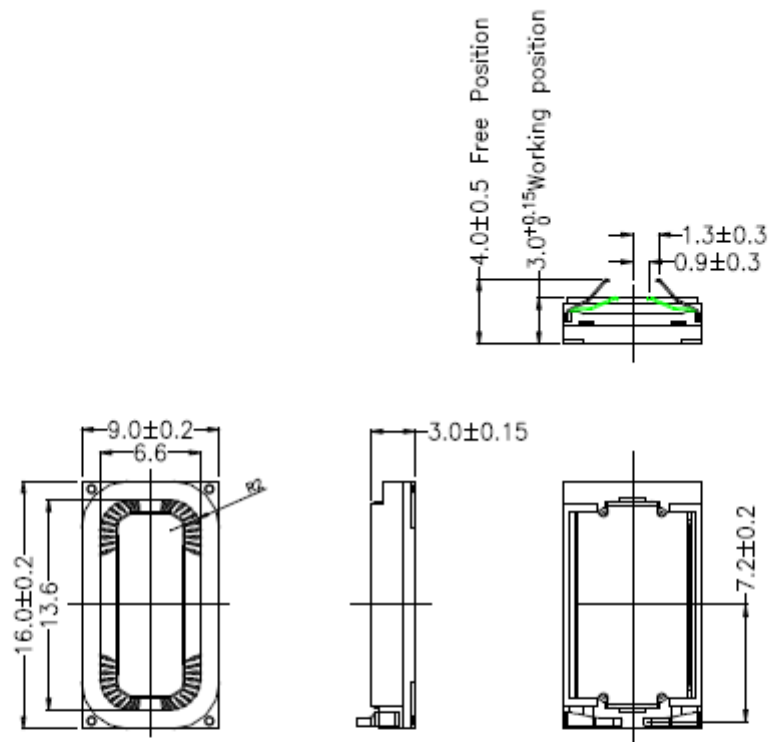
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7.DIMENSIONS(fig.5)



Unless otherwise specified, tolerance: ± 0.2 (unit:mm)

8	SPRING TERMINAL	2	SUS with gold-plating	GU-001
7	Front Cover	1	PPA	GU-001
6	Magnet	3	NdFeB	GU-001
5	Plate	3	SPCC	GU-001
4	Voice coil	1	COPPER WIRE	GU-001
3	Diaphragm	1	PEEK	GU-001
2.	Yoke	1	SPCC	GU-001
1	Frame	1	PPA	GU-001
PART NO.	PART NAME	Q'TY	MATERIAL	REMARK

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8.PACKING(fig.6)

