

SPECIFICATION FOR APPROVAL

产品规格承认书

JC-SPKD28-MF01-8R1W-WP

Ø28×5.5 mm Round Dynamic Speaker / Ø28×5.5 mm 圆形动圈扬声器

Item 项目	Information 信息
Customer 客户	
Customer P/N 客户料号	
Supplier 供应商	常州市嘉传电子有限公司 Changzhou Jiachuan Electronics Co., Ltd.
Jiachuan P/N 嘉传型号	JC-SPKD28-MF01-8R1W-WP
Description 产品名称	Ø28×5.5 mm 圆形动圈扬声器 / Round Dynamic Speaker
Main Specification 主要规格	Ø28×5.5 mm / 8Ω±15% / Rated 1.0W / Max. 1.5W / SPL 91±3dB / IP45
Issue Date 发行日期	2026-10-01
Revision 版本	A0

Approval / 签核

Prepared 制作	Checked 审核	Approved 批准	Company Seal 公司印章
李明珠	王敏娜	黄继桥	

Customer Confirmation / 客户确认

Customer Approval 客户承认	Date 日期

产品规格内容 (SPECIFICATION)

Model No.	JC-SPKD28-MF01-8R1W-WP	Date	2026-10-01	Page No.	2 / 5
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1. 使用范围 / Scope

本规格书适用于 Ø28×5.5 mm 圆形动圈扬声器。 / This specification applies to the Ø28×5.5 mm round dynamic speaker.

2. 基本参数 / General Information

Item / 项目	Specification / 规格
Type / 类型	Ø28×5.5 mm Round Dynamic Speaker / 圆形动圈扬声器
Diaphragm / 振膜	PET
Frame / 框架	SPCC
Magnet / 磁铁	NdFeB, Ø12.5×1.5t mm
Voice Coil Diameter / 音圈直径	Ø13.28 mm
Weight / 重量	12 g
Waterproof Grade / 防水等级	IP45
Operating Temperature / 工作温度	-20°C to +60°C
Storage Temperature / 储存温度	-30°C to +60°C

3. 电气与声学性能 / Electrical & Acoustic Specifications

Item / 项目	Specification / 规格	Condition / 条件
Rated Impedance / 额定阻抗	8Ω ±15%	2 kHz / 1 V
Rated Power / 额定功率	1.0 W	—
Maximum Power / 最大功率	1.5 W	—
Resonance Frequency (F0) / 最低共振频率	700 Hz ±20%	1 V
Output S.P.L. / 输出声压	91 ±3 dB	AVG 0.8/1.0/1.2/1.5 kHz; 0.1 W / 0.1 m; IEC baffle
Frequency Range / 有效频宽	F0 to 20 kHz	—
THD / 总谐波失真	≤10%	1 kHz, 1.0 W
Operation Test / 工作试验	Must be normal	Sine wave and program source, 1.0 W
Buzz & Rattle / 异常音	No audible buzz or rattle	2.83 V sine wave, F0 to 5 kHz
Polarity / 极性	Diaphragm moves forward	Positive DC to terminal marked + or red
Appearance / 外观	No harmful damage, crack, rust or distortion	Visual inspection

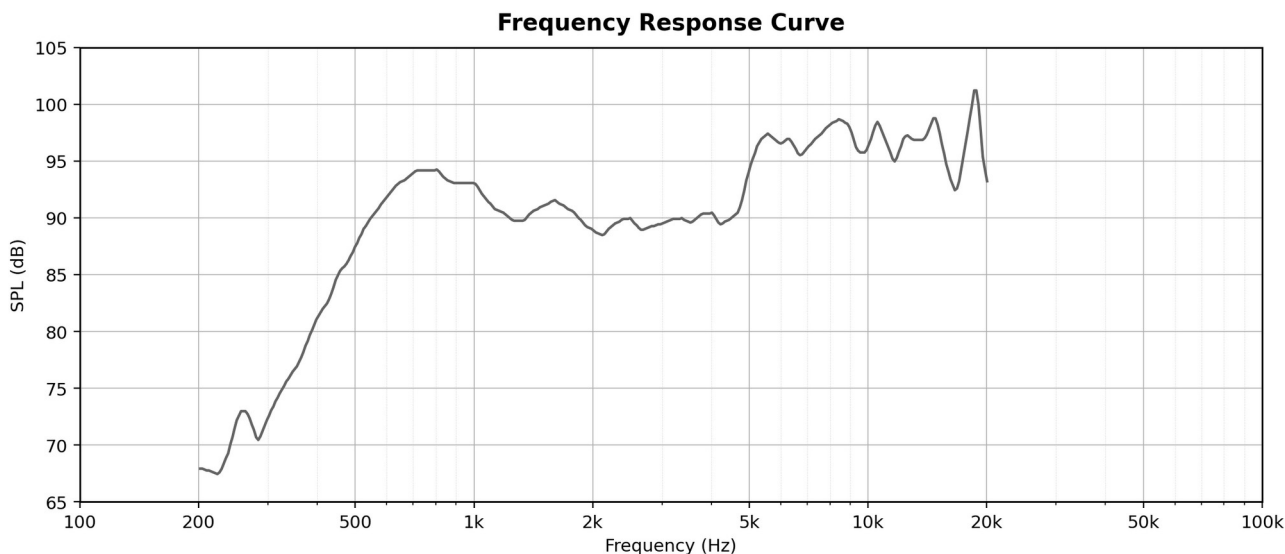
4. 环境与可靠性试验 / Environmental & Reliability Tests

Item / 项目	Test Condition / 试验条件	Acceptance / 判定
High Temperature Test / 高温试验	+60°C ±3°C, 96 h; then 3 h at room temperature	After test, SPL change within ±3 dB
Low Temperature Test / 低温试验	-30°C ±3°C, 96 h; then 3 h at room temperature	After test, SPL change within ±3 dB
Humidity Test / 恒温恒湿试验	+40°C ±3°C, RH 95%, 96 h; then 3 h at room temperature	After test, SPL change within ±3 dB
Thermal Cycle Test / 温度循环	-30°C ±3°C ↔ +60°C ±3°C; 1 h/cycle each; 5 cycles	After test, SPL change within ±3 dB
Vibration Test / 振动试验	10-55-10 Hz sine sweep, 15 min, 5G; X/Y/Z, 2 h each, total 6 h	After test, SPL change within ±3 dB
Drop Test / 跌落试验	Free drop from 100 cm onto 20 mm board; X/Y/Z, 1 time each, total 6 times	After test, SPL change within ±3 dB
Load Test / 负荷试验	Rated power white noise, 96 h	After test, SPL change within ±3 dB
Maximum Power Test / 最大功率试验	Maximum power: 1 min ON / 2 min OFF, 10 cycles	After test, SPL change within ±3 dB
Terminal Strength / 端子强度	1 kg load for 15 s	No damage or rejection
Waterproof Grade / 防水等级	IP45	IP45

Pass criterion / 判定标准：除另有说明外，上述试验后 S.P.L. 变化应在 ±3 dB 以内。 / Unless otherwise specified, S.P.L. change after the tests shall be within ±3 dB.

5. 频率响应曲线 / Frequency Response Curve

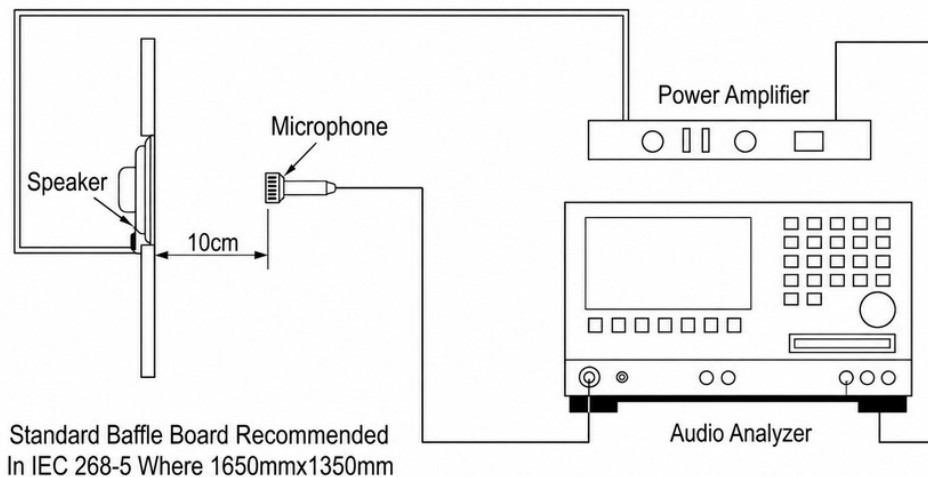
Curve Test Condition / 曲线测试条件：Input 0.1 W (0.89 V), Mode TSR, Potentiometer Range 50 dB, Sweep Time 0.5 s.



Note / 说明：曲线依据当前源规格书中的原始曲线高保真整理，仅做清晰化与版式统一，不改变原曲线关键峰谷和走势。

6. 测量方式 / Measurement Method

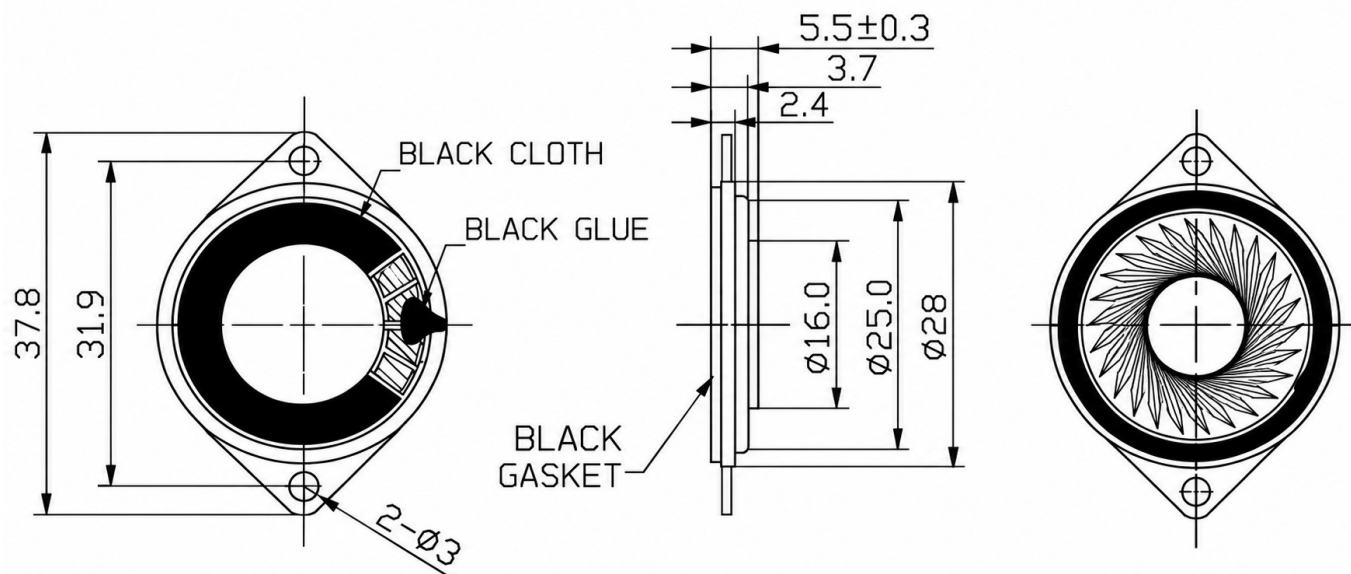
Standard test condition of speaker



Item / 项目	Curve Test Condition / 曲线测试条件
Standard Temperature / 标准温度	15°C to 35°C
Standard Relative Humidity / 标准相对湿度	45% to 85% RH
Atmospheric Pressure / 大气压	860 to 1060 mbar
Judgement Temperature / 判定温度	20°C $\pm$ 3°C
Judgement Relative Humidity / 判定相对湿度	60% to 70% RH
Input Power / 输入功率	0.1 W (0.89 V)
Mode / 模式	TSR
Potentiometer Range / 电位器范围	50 dB
Sweep Time / 扫描时间	0.5 s

7. 外形尺寸图 / Product Outside View

Unit: mm. Unless otherwise specified, tolerance: ± 0.3 mm. / 单位: mm, 未注公差: ± 0.3 mm。



Key dimensions / 关键尺寸: overall 37.8 mm; mounting span 31.6 mm; 2-Ø3 mounting holes; body Ø28 mm; diaphragm / front section Ø25.0 mm; rear Ø16.0 mm; overall thickness 5.5 ± 0.3 mm; sub-dimensions 3.7 mm and 2.4 mm.

8. 材料 / Materials

No.	Part / 部件	Qty.	Material / 材料
1	Frame / 框架	1	SPCC
2	Diaphragm / 振膜	1	PET
3	Voice Coil / 音圈	1	Self-bonding wire
4	Plate / 华司	1	SPCC
5	Magnet / 磁铁	1	NdFeB
6	PCB / 线路板	1	FR4
7	Front Gasket / 前垫圈	1	Black Gasket

Material requirement / 材料要求: The material must meet GU-001. / 材料须符合 GU-001.

9. 包装方式 / Packing

Packing / 包装	按客户要求包装 / Packaging according to customer requirements.
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