# Mini 1511.2

## Loudspeaker and sound capsule





Data sheet
Last updated: 09/2026

## Importer

| | |
|---|---|
| Name and address | Tams Elektronik GmbH<br>Fuhrberger Str. 4 \| 30625 Hannover \| Germany |
| Importer's item no. | 70-03035-01 |
| Package contents | 1 loudspeaker, 1 sound capsule |

## Technical Specifications

| | |
|---|---|
| Net dimensions | 15 x 11 x 3 mm (± 0.2 mm) |
| Dimensions with sound capsule | 15 x 11 x 6,5 mm (± 0.2 mm) |
| Rated power handling | 0.7 W |
| Maximum power handling | 1.0 W |
| Rated impedance | 7.2 ohms (± 10%) |
| Frequency response (-10 dB) | 450–20,000°Hz |
| Average sound pressure level | 81 ± 3 dB (1°W/1°m) |
| Resonance frequency fs | 800 Hz (± 20%) |
| Length of connection cable | --- |
| Net weight | 1.7 g |
| Weight including sound capsule | 2.0 g |
| Sound capsule material | PLA (polylactide) |

## Manufacturer of the loudspeaker

| | |
|---|---|
| Name and address | Shenzhen Kaiboer Electronic Technology Co., Limited \| China |
| Manufacturer's designation | 1511 Speaker |
| Manufacturer's item no. | KBE151108S3.3HT |

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# SPECIFICATION

## SHEET FOR APPROVAL

Customer：

Nomenclature： **1511 SPEAKER**

Item No.：

Your Part No.：

Our Part No.： **KBE151108S3.3HT**

Version： **V1.0**

Date： **2019.09.10**

| CUSTOMER<br>客户 | APPROVER<br>审批 | CHECKER<br>制作 |
|---|---|---|
| | | |

KAIBOER


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| KAIBOER 深圳市凯博尔电子科技有限公司 | SPECIFICATIONS | | ITEM NO. | 1/7 |
|---|---|---|---|---|
| | MODEL NO. | KBE151108S3.3HT | SPEC. No | 19091001 |

| | | |
|---|---|---|
| 1 | 产品概要/PRODUCT OUTLINE | |
| | 1-1 适用范围/SCOPE | This specification is applied to mobile telephone |
| | 1-2 尺寸/DIMENSIONS | As shown in fig (3) |
| | 1-3 大小/SIZE | （L）15.0×（W）11.0×（H）3.0(±0.2 mm) |
| | 1-4 重量/NET WEIGHT | APPROX. 1.75g |
| | 1-5 线圈/lCOIL | 超高张力线 |
| | | |
| 2 | 标准试验状态<br>Standard Test Condition | 一般规格试验状态（特殊要求除外）<br>常温 15～35℃，常湿 45%～85%，气压 860～1060hPa<br>但判定上有疑问时，试验状态为：<br>温度 20±2℃，相对湿度 60%～70%，气压 860～1060hPa |
| | | The test conditions unless otherwise specified should be<br>Normal temperature 15 to 35℃,Normal humidity 45 to 85%<br>And normal atmospheric pressure 860 to 1060hPa<br>However,if there arises a doubt in judgement,the test conditions shall be as follows:<br>Temperature 20±2℃<br>Humidity 60%～70%<br>Atmosphere 860～1060hPa |

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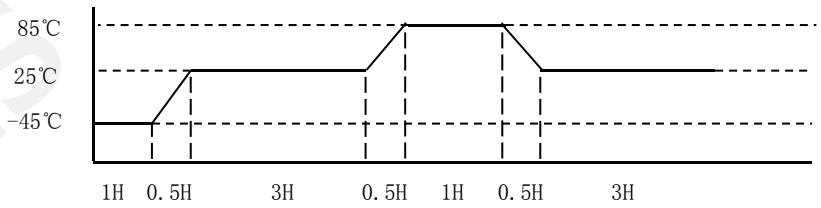
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|---|---|---|---|---|
| | MODEL NO. | KBE151108S3.3HT | SPEC. No | 19091001 |

| | | |
|---|---|---|
| 3 | 电气规格/ELECTRICAL SPECIFICATIONS | |
| | 3-1 输出音压位准 SOUND PRESSURE LEVEL | 81±3dB SPL /2.0Vrms/10cm at （ AVG 0.8,1.0,1.5 2.0）KHz in 1cc box |
| | 3-2 阻抗 IMPEDANCE | DCR: 7.2±10% Ω /ACR: 8±15% Ω /2.0KHz/2.0Vrms |
| | 3-3 频宽回应 FREQUENCY RESPONSE | As shown in fig(2) |
| | 3-4 额定输入功率 Rate Input Power | 0.7W In 1cc Box |
| | 3-5 最大输入功率 Max Input Power | 1.0W In 1cc Box For 1 Minute |
| | 3-6 异常音测试 Buzzes & Rattles | Must be free audible noise （In 1cc Box） (From 300 Hz to 3.4KHz frequency range,Input:2.37V) |
| | 3-7 最低共振频率 LOWEST RESONANCE FREQUENCY | 800±20% Hz in free air at 1.0Vrms/10cm. 1100±20% Hz while testing in 1cc box at 2.0Vrms/10cm |
| | 3-8 有效频宽 FREQUENCY RANGE | F0～20KHz |
| | 3-9 失真 TOTAL HARMONIC DISTORTION | 15%MAX. at 800~1200Hz, 2.0rms/10cm 10% MAX. at 1201~5KHz, 2.0rms/10cm |
| | 3-10 工作温度 OPERATING TEMPERATURE | -30℃ to +70℃ |
| | 3-11 贮存温度 STORE TEMPERATURE | -30℃ to +85℃ |

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| | | |
|---|---|---|
| 4 | 信赖性试验/RELIABLE TEST | |
| | 4-1 概述<br>GENERAL | After any following tests the response at 1 K Hz shall not deviate more than 3 dB from the initial value |
| | 4-2 负载试验<br>LOAD TEST | 输入电压 / Input Power : 2.37V<br>输入信号 / Input Signal : white noise (In 1cc Box)<br>时 间 / Duration : 96 hours<br>试验后放置时间 / Duration of Recovery : 4hrs of conditions at 20℃ |
| | 4-3 湿度试验<br>HUMIDITY TEST | 温 度 / Temperature : +40℃±3℃<br>相对湿度 / Relative Humidity : 90%~95% R.H.<br>时 间 / Duration : 96 hours<br>试验后放置时间 / Duration of Recovery : 4hrs of conditions at 20℃ |
| | 4-4 低温试验<br>LOW TEMPERATURE TEST | 温 度 / Temperature : -30℃±3℃<br>时 间 / Duration : 96 hours<br>试验后放置时间 / Duration of Recovery : 4hrs of conditions at 20℃ |
| | 4-5 高温试验<br>HIGH TEMPERATURE TEST | 温 度 / Temperature : +85℃±3℃<br>时 间 / Duration : 96 hours<br>试验后放置时间 / Duration of Recovery : 4hrs of conditions at 20℃ |
| | 4-6 温度循环试验<br>TEMPERATURE CYCLES TEST | TEMPERTURE:<br><br><br>循环次数 / Cycles : 10 Cycles<br>试验后放置时间 / Duration of Recovery : 4hrs of conditions at 20℃ |
| | 4-7 落地试验<br>TEST DROP TEST | 落下方向 / Direction : 1 corner,3 sides,6 faces<br>落下回数 / Times : Once in each directions<br>高 度 / Height : From 0.7m(on the concrete)<br>试验后放置时间 / Duration of Recovery : 4hours of conditions at 20℃<br>依包装实体一角三棱六面作自由落体试验后,实体外观需正常 |
| | 4-8 振动试验<br>VIBRATION TEST | 振 动 / Vibration : 10-55Hz (In 1cc Box)<br>振 幅 / Amplitude : 1.5mm<br>时 间 / Times : 1 hour in each of 3axes<br>试验后放置时间 / Duration of Recovery : 4hrs of conditions at 20℃ |

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ELECTRICAL AND ACOUSTICAL MEASURING CONDITION (fig.1)

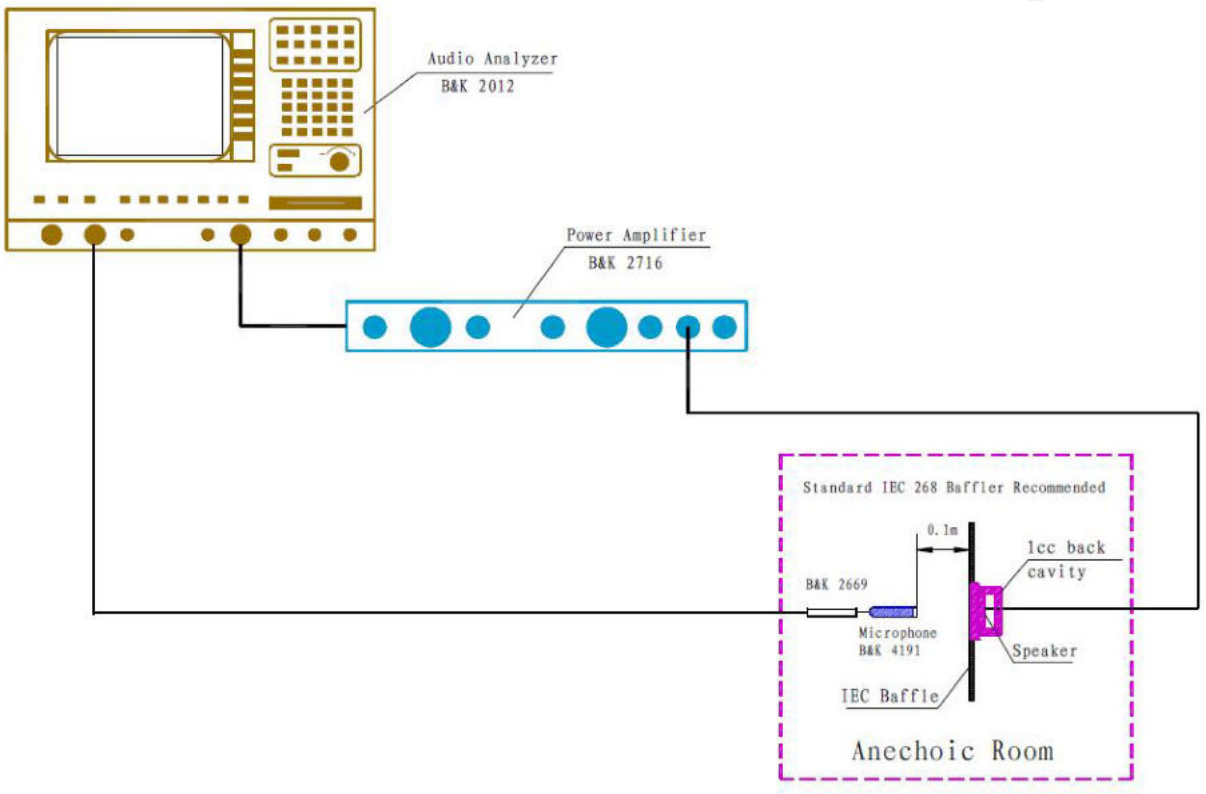



*Fig.1 Illustration of measuring diagr.am (speaker mode)*

Efficiency

Source Impedance Zs=0 Ohms

Open-Circuit Level 0.1W/10cm

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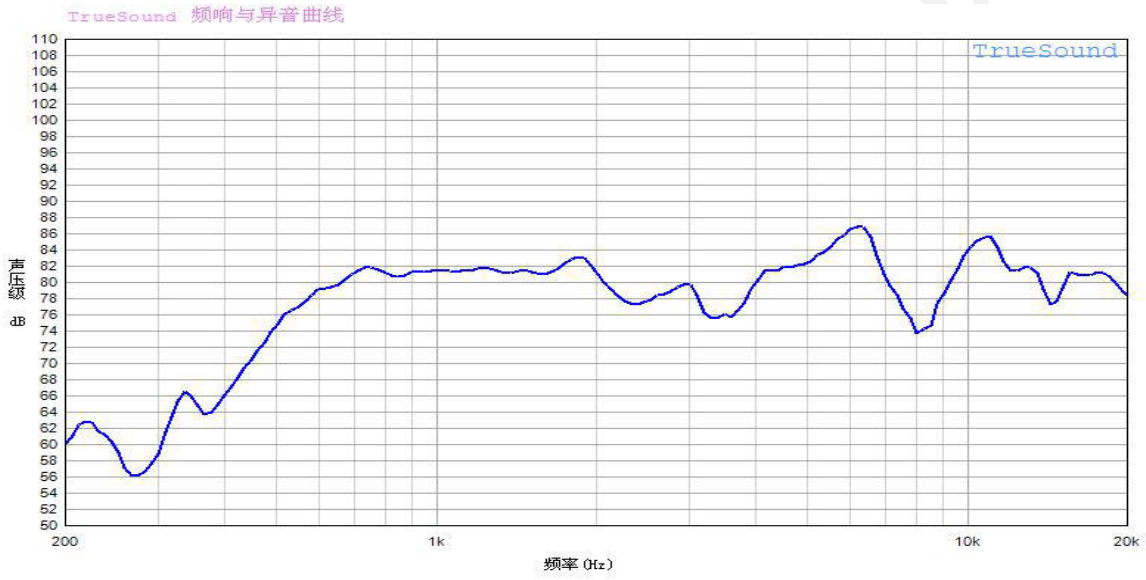
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|---|---|---|---|---|
| | MODEL NO. | KBE151108S3.3HT | SPEC. No | 19091001 |

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FREQUENCY RESPONSE （fig.2）

MYLAR SPEAKER

EFFICIENCY 81±3dB (0dB=20.0μPa)at S.P.L
测试条件:2.37Vrms/10cm in 1cc BOX

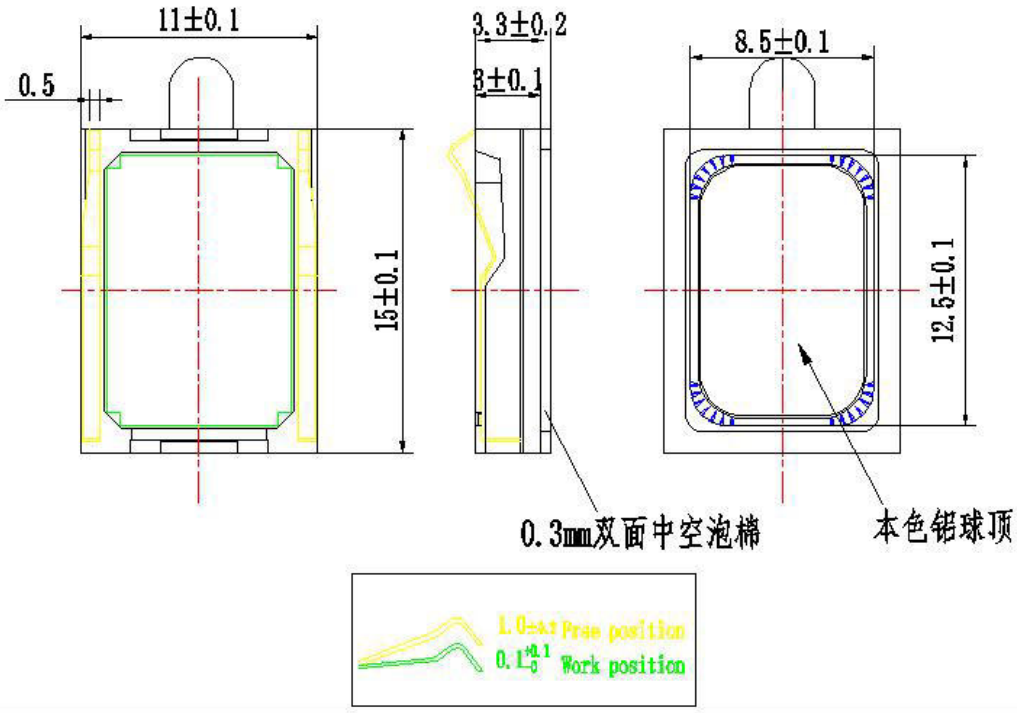



Efficiency
Source Impedance Zs=0 Ohms

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|---|---|---|
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DIMENSIONS（fig.3）







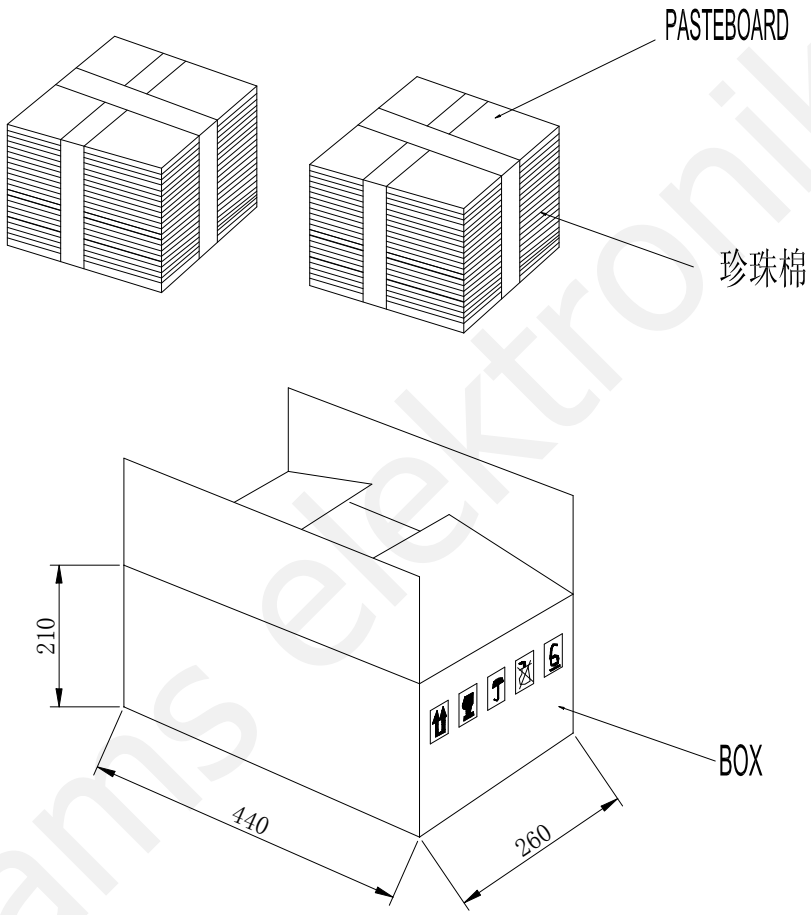
## *Bill of Material*

| ITEM | DESCRIPTIONS | REMARK | QTY | REMARK |
|---|---|---|---|---|
| 8 | Cover | PC | 1 | ROHS |
| 7 | Polarity Plate | Fe | 1 | ROHS |
| 6 | Magnet | Nd-Fe-B | 1 | ROHS |
| 5 | PIN | Cu+Au | 1 | ROHS |
| 4 | Voice coil | CU | 1 | ROHS |
| 3 | Yoke | Fe | 1 | ROHS |
| 2 | Cone | peek | 1 | ROHS |
| 1 | Frame | PBT | 1 | ROHS |

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|---|---|---|---|---|
| | MODEL NO. | KBE151108S3.3HT | SPEC. No | 19091001 |

PRODUCT PACKAGE（fig.4）




UNIT:MM

NOTES:

1. 100 PCS PER TRAY PE PAN.
2. 2000 PCS PER CARTONS.
3. 2 CARTONS PER BOX.
4. 2000 PCS PER BOX.

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