SPECIFICATION

SHEET FOR APPROVAL

(REVISION: 2025A Update:00)

PRODUCTS: DYNAMIC SPEAKER

MODEL NUMBER:FBS4020-2WF

CUSTOMER NUMBER:

INTERNAL DESCRIPTION:

Φ20.2*40.1 H8 8 OHM 2 W

ENGINEER	CHECKED	APPROVED

CUSTOMER APPROVED

SIGNATURE	IMPRINTMENT

NingBo FBELE Electronics Co.,Ltd

MODEL: *FBS4020-2WF*

1. SCOPE

This specification cover our product of speaker for use in your products.

2. MECHANICAL LAYOUT & DIMENSIONS

Shown in Fig.5

3. GENERAL REQUIREMENTS

3.1 WEIGHT: Approx gram

3.2 OPERATING TEMPERATURE RANGE: -25℃ to +65℃

3.3 STORAGE TEMPERATURE RANGE: -25℃ to +65℃

3.4 STANDARD CONDITIONS:

Temperature:	17～25℃
Relative Humidity:	45%～80%(RH)
Air Pressure:	860～1060hPa

3.5 JUDGEMENT CONDITIONS:

Temperature:	20±2℃
Relative Humidity:	60%～70%(RH)
Air Pressure:	860～1060hPa

4. SPEAKER MODE

4.1 SOUND PRESSURE LEVEL

95±3dB SPL At800,1000,1200,1500Hz in average (0dB SPL=20μPa)
Input voltage: 0.1W(Sine wave)0.1M Measured baffler recommended.

4.2 IMPEDANCE: 8±15% ohm(at 1000Hz 1.0V)

4.3 RESONANCE FREQUENCY:800±20%Hz at 1V. (No Baffler)

4.4 TOTAL HARMONIC DISTORTION: Less than 8% at 1KHz ,1.0m,1W

4.5 MEASURING CIRCUIT: Shown in Fig.1.

4.6 FREQUENCY RESPONSE CURVE: Shown in Fig.2.

4.7 RATED POWER: 2.0 W. **MAX POWER:** 2.5 W.

4.8 **PURE SOUND DETECTION:** Buzz,Rattle,etc Should not be audible at 4.0V sine wave from Fo Hz to 5K Hz.

4.9 **POLARITY:**When a positive DC current is applied to the terminal marked (+), diaphragm shall move forward.

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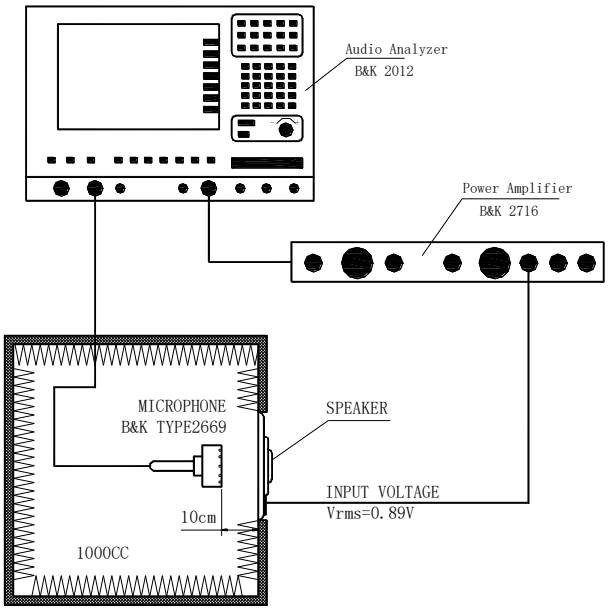
■ FREQUENCY MEASURING CIRCUIT (Fig.1)



■ FREQUENCY RESPONSE CURVE (Fig.2)

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5. RELIABILITY TESTS

①AFTER TEST

Sensitivity difference shall be within ±3dB after test (at800～1500KHz average value)，pure sound detection is normal when the sample is recovered 4 hours at house temperature

② HIGH TEMPERATURE TEST

High temperature: +55℃±2℃

Duration : 24 hours

③ LOW TEMPERATURE TEST

Low temperature : -25℃±2℃

Duration : 24 hours

	④ HUMIDITY TEST Temperature : +30℃±2℃ Relative humidity: 90～95% Duration : 24 hours
	⑤ TEMPERATURE CYCLE TEST (See in Fig.3) Temperature : -25℃ +55℃ Duration : 2 hours 2 hours Cycle : 6 cycle
	⑥ VIBRATION TEST Vibration : 10-55Hz/min Amplitude : 1.5mm Duration : 2 hours each axes
	⑦ DROP TEST(With handset or Approved equipment) See in Fig.4 Height : 1.5 m Cycle : 6 cycles onto the 5㎜ board
	⑧ LOAD TEST Subject samples to White Noise for 24 hours at 2.0 W input power.

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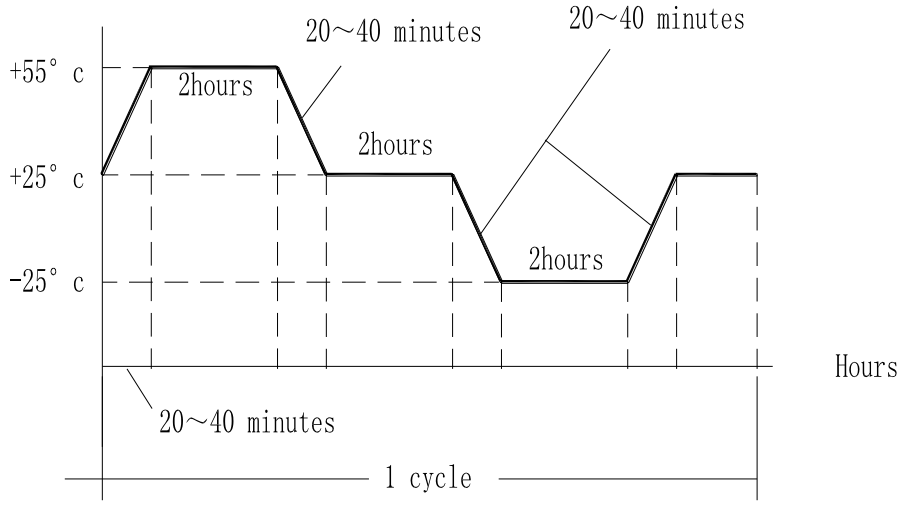
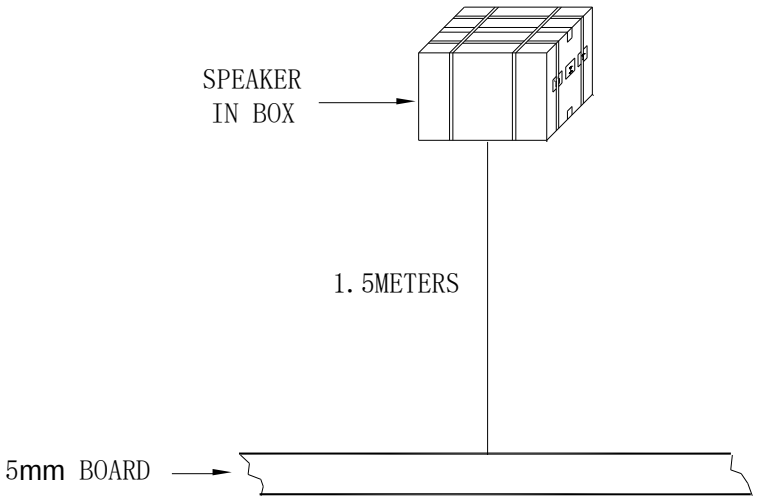
■ TEMP. CYCLE TEST (Fig.3)



■ DROP TEST (Fig.4)



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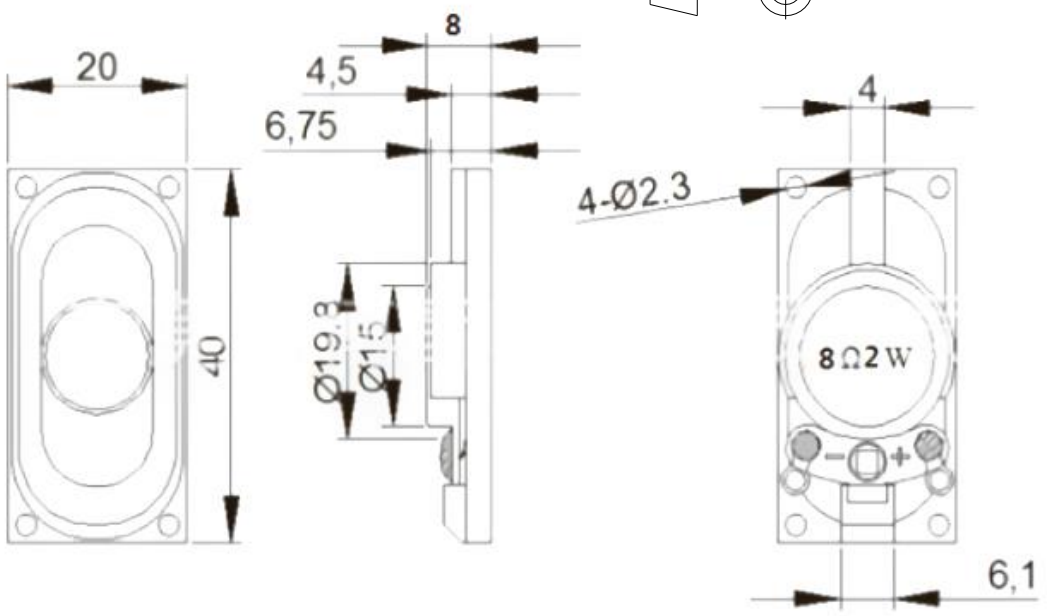
■ TEMP. CYCLE TEST (Fig.5)



View direction: