



APPROVAL SHEET

FOR

Mylar Speaker

深圳市銳創達電子有限公司

TAT ELECTRONICS CO. LTD.

CUSTOMER:

PART NUMBER: S40-0430

CUSTOMER PART NO.:

CUSTOMER	APPROVED	CHECKED
SIGNECTURE (Customer)	SIGNECTURE (Company)	

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		Des.	Chk.
<b>Model No.:</b>	<b>S40-0430</b>	Li YanFei	Jiang Yin
		3/25/2016	3/25/2016

## 1.SCOPE:

This specification covers our product of dynamic Speaker unit for mobile telephone use.

## 2.MECHANICAL LAYOUT & DIMENSIONS:

Shown in Fig.3

## 3.SIZE: 40\*16.5H

## 4.NET WEIGHT :

Approx.26±0.2g

## 5.SPEAKER ELECTRICAL AND ACOUSTICAL CHARACTERISTICS

### 5.1 SOUND PRESSURE LEVEL

88±3dB SPL @ 1.0,1.2,1.5,2.0KHz in average ( 0dB SPL=20 μ Pa )

Measuring condition: 0.1W(sine wave) 0.1M measured with baffler shown in Fig.2

### 5.2 IMPEDANCE: 4±15% Ω ( @ 2KHz 1V )

### 5.3 DC Resistance: 3.6±15% Ω

### 5.4 MEASURING DIAGRAM : Shown in Fig.1

### 5.5 FREQUENCY RESPONSE MASK & TYPICAL FREQUENCY RESPONSE CURVE:

Shown in Fig.2

### 5.6 RATED POWER: 2.0W. MAX POWER:3.0W.

### 5.7 RESONANCE FREQUENCY (Fo): 220±20% @1V.(without baffler)

### 5.8 DISTORTION : Less then 10 % at 1kHz 0.1W.

### 5.9 AUDIBLE NOISE: Must be free audible noise 100~4kHz, Input level up to 3.46Vrms.

### 5.10 FREQUENCY RANGE: Fo~ 20kHz resonant frequency down -10dB.

### 5.11 OPERATING TEMPERATURE:

-20°C to +70°C

### 5.12 STORAGE TEMPERATURE:

-30°C to +80°C

### 5.13 FRONT CLEARANCE:

keep clear of Speaker front by 0.0mm for undisturbed sound reproduction.:

-30°C to +80°C



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• **FREQUENCY MEASURING DIAGRAM ( SPEAKER MODE ) (Fig.1)**

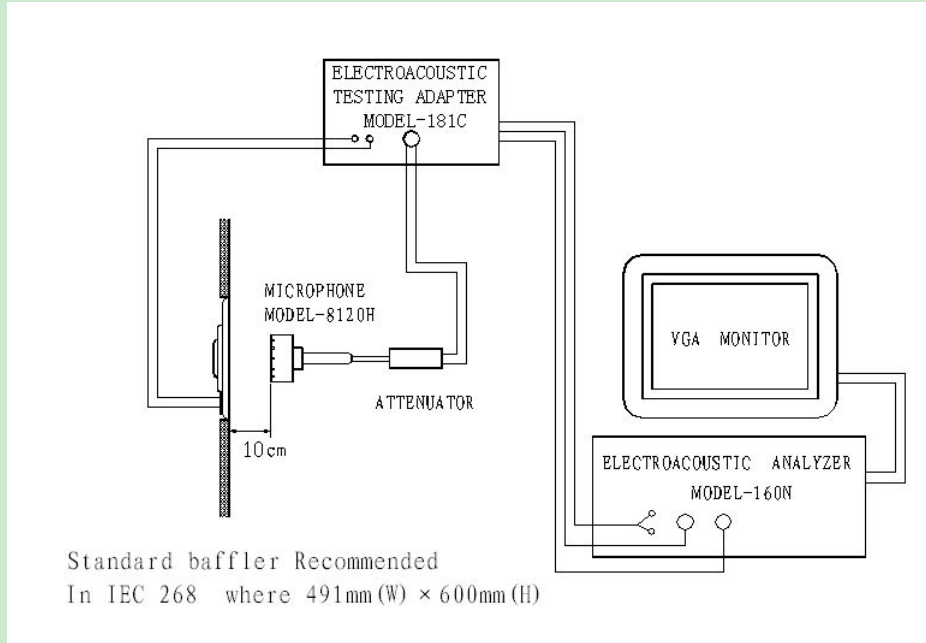


Fig.1 Illustration of measuring diagram (speaker mode)

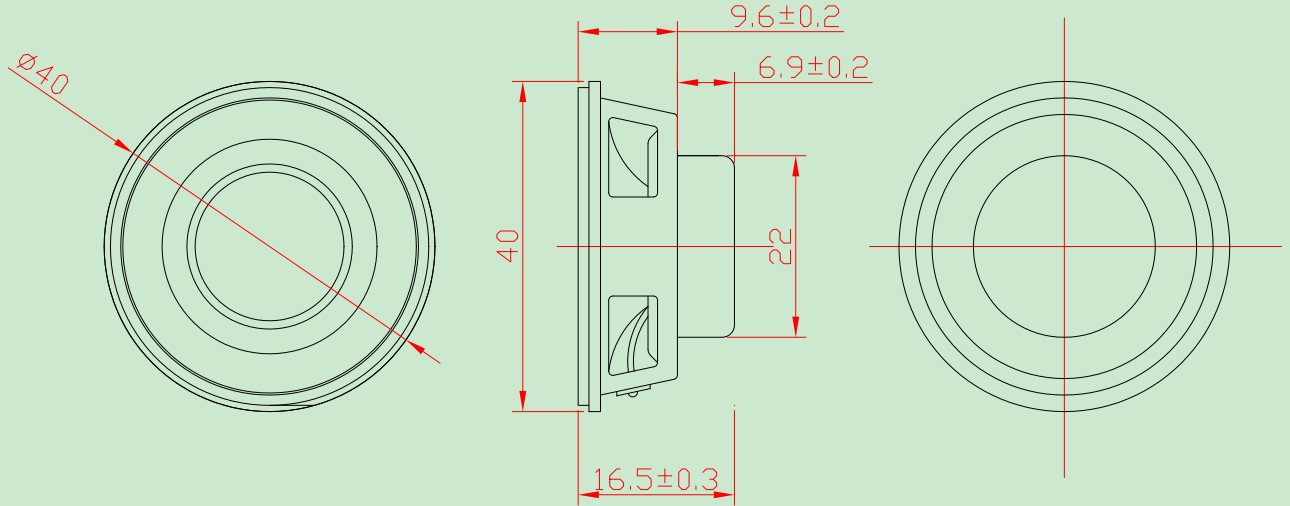
• **FREQUENCY RESPONSE MASK & TYPICAL FREQUENCY RESPONSE CURVE ( SPEAKER MODE ) (Fig.2)**



Fig.2 Frequency response mask & typical frequency response curve (speaker mode)



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**Fig.3**

<b>01.MATERIAL OF FRAME</b>	<b>MF</b>
<b>02.MATERIAL OF YOKE</b>	<b>SPCC Plated</b>
<b>03.MATERIAL OF POLE PIECE</b>	<b>SPCC</b>
<b>04.MATERIAL OF MAGNET</b>	<b>NdFeB Zn Plated</b>
<b>05.MATERIAL OF CAP</b>	<b>PAPER</b>
<b>06.MATERIAL OF DIAPHRAGM</b>	<b>PU+PAPER</b>
<b>07.MATERIAL OF COIL</b>	<b>COPPER WIRE (DS-UP)</b>
<b>08.MATERIAL OF WIRE</b>	<b>UL 1571 32# Red/Black</b>
<b>09.MATERIAL OF DUSTPROOF COTCH</b>	<b>NON-WOVEN</b>
<b>10.MATERIAL OF Mat edge</b>	<b>PAPER</b>



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## 6.RELIABILITY TESTS:

The sound pressure as specified shall neither deviate more than  $\pm 3\text{dB}$  from the initial value, nor any significant damage after any of following testing.

### 6.1 LOAD TEST:

White noise (EIA filter) for 96 hours @ 2.0W input power.

### 6.2 HUMIDITY TEST:

Temperature:  $+40 \pm 2^\circ\text{C}$

Relative Humidity: 90%~95%

Duration : 16 hours

### 6.3 HIGH TEMPERATURE TEST:

High Temperature:  $+70^\circ\text{C}$

Duration: 16 hours

### 6.4 LOW TEMPERATURE TEST:

Low Temperature:  $-30^\circ\text{C}$

Duration: 16 hours

### 6.5 DROP TEST:

Height: 1.5M

Cycle: 10 cycles(Onto the concrete board)

### 6.6 HEAT SHOCK TEST:

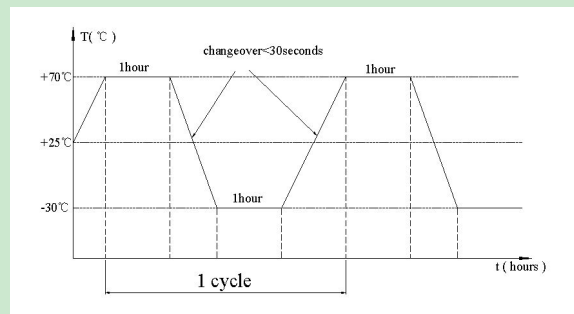
High temperature :  $+70^\circ\text{C}$

Low temperature :  $-30^\circ\text{C}$

Changeover time:  $<30\text{seconds}$

Duration : 1 hour

Cycle : 5



### 6.7 TEMPERATURE CYCLE TEST:

Temperature :  $-30^\circ\text{C}$   $+70^\circ\text{C}$

Duration : 45 minutes

Temperature gradient:  $1 \sim 3^\circ\text{C}/\text{minutes}$

Cycle: 5

