

# APPROVAL SHEET



## FHD ELECTRONICS CORPORATION

CUSTOMER NAME : \_\_\_\_\_

COMMODITY : Piezo Transducer

FHD PART NO. : T16840-P4000B-L

CUSTOMER PART NO. : \_\_\_\_\_

Approved by	Y. J.	Prepared by	HY Shen
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Customer Approval			
Approved		Rejected	

8104 Lynores Way, Plano, TX 75025

Tel: [469-409-2828](tel:469-409-2828) Cell: [408-693-5952](tel:408-693-5952)

Email: [sales@fhdmfg.com](mailto:sales@fhdmfg.com) Website: [www.fhdmfg.com](http://www.fhdmfg.com)



# FHD ELECTRONICS CORPORATION

## REVISIONS

PRODUCT PART NO. : T16840-P4000B-L

DATE	REVISER	REV.	DESCRIPTION	REMARK
2019/10/21	HY SHEN	1	Initial edition	

## 1. Technical Parameter

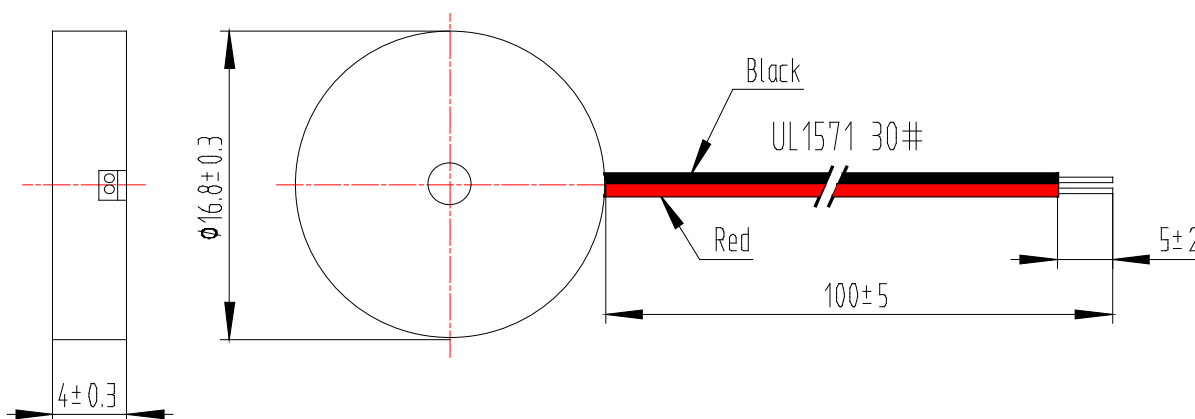


### Measuring condition

Part shall be measured under a condition (Temperature: 5~35°C, Humidity: 45%~85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3°C, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	<b>Resonant Frequency</b>	4000Hz ± 500Hz
2	<b>Operating Voltage</b>	1~30Vp-p
3	<b>Rated Current</b>	Max.3mA ,at 4KHz 50% duty Square Wave 9Vp-p
4	<b>Sound Output at 10cm</b>	Min. 80dB,at 4KHz 50% duty Square Wave 9Vp-p
5	<b>Capacitance</b>	15 ± 30% nF at 120Hz
6	<b>Operating Temperature</b>	-20°C ~ +60°C
7	<b>Store Temperature</b>	-30°C ~ +70°C
8	<b>Net Weight</b>	Approx 1.0g
9	<b>RoHS</b>	Yes

## 2. Dimensions

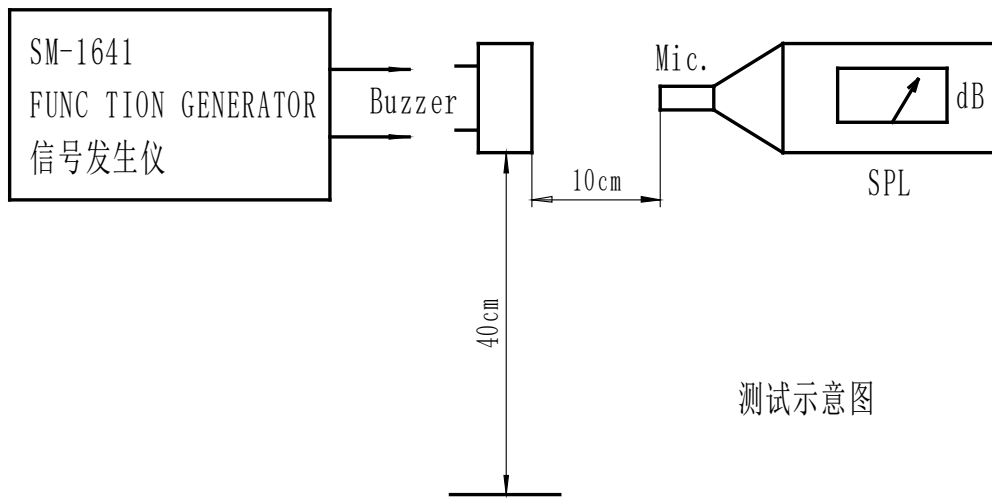


\*Unit: mm; Tolerance:  $\pm 0.5$ mm Except Specified

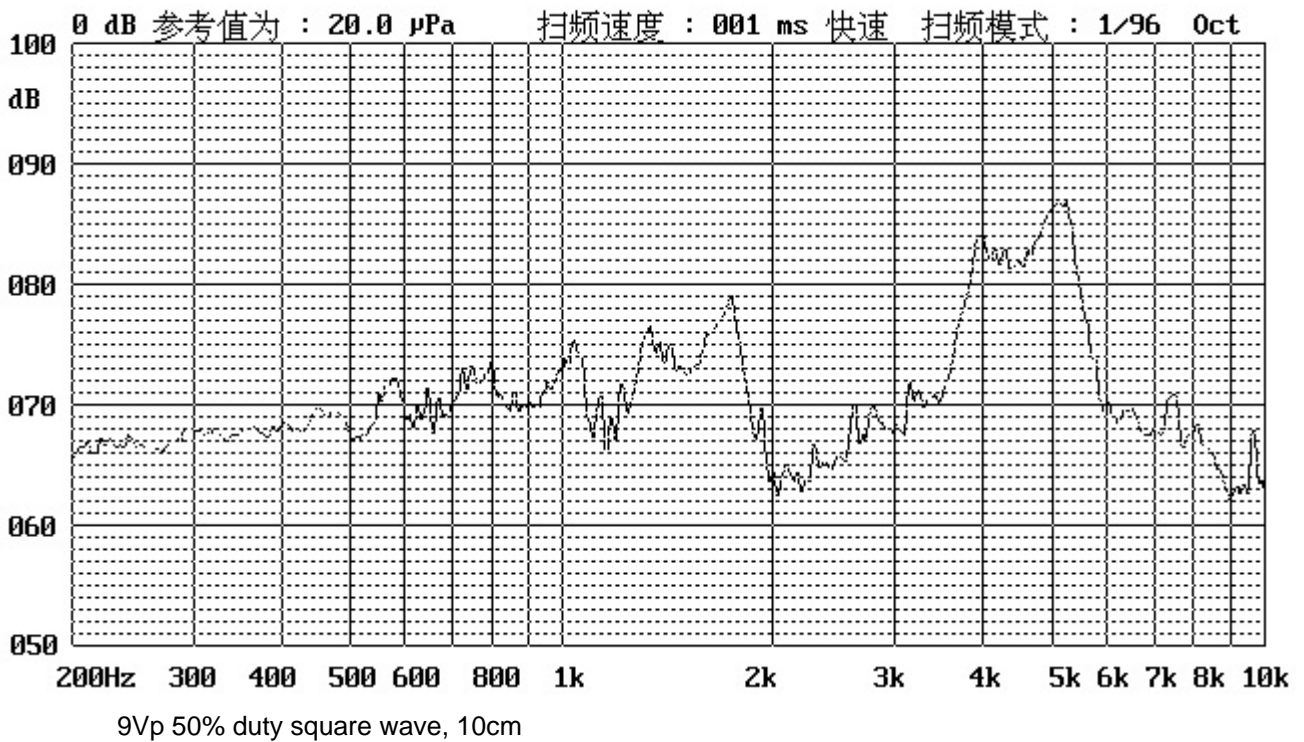
\*Housing material: black Noryl

### 3. Electrical And Acoustical Measuring Condition

#### Recommended Setting



### 4. Frequency Response



## 5. Reliability Test

After any following tests the part shall meet specifications without any degradation in appearance and performance except SPL. SPL shall not deviate more than -5 dB from the initial value

### 5.1. Ordinary Temperature Life Test

The part shall be subjected to 96 hours at  $25\pm 10^{\circ}\text{C}$ . Input rated voltage, resonant frequency, 1/2 duty Square wave.

### 5.2. High Temperature Test

The part shall be capable of withstanding a storage temperature of  $+70^{\circ}\text{C}$  for 96 hours.

### 5.3. Low Temperature Test

The part shall be capable of withstanding a storage temperature of  $-20^{\circ}\text{C}$  for 96 hours.

### 5.4. Humidity Test

Temperature:  $+40^{\circ}\text{C} \pm 3^{\circ}\text{C}$  Relative Humidity: 90% ~ 95% Duration: 48 hours and expose to room temperature for 6 hours

### 5.5. Temperature Shock Test

Temperature:  $70^{\circ}\text{C} / 1\text{hour} \rightarrow 25^{\circ}\text{C} / 3\text{hours} \rightarrow -20^{\circ}\text{C} / 1\text{hour} \rightarrow 25^{\circ}\text{C} / 3\text{hours}$  (1 cycle)

Total cycle: 10 cycles

### 5.6. Drop Test

Standard Packaging From 75 cm (Drop on hard wood or board of 5cm thick, three sides, six plain.)

### 5.7. Vibration Test

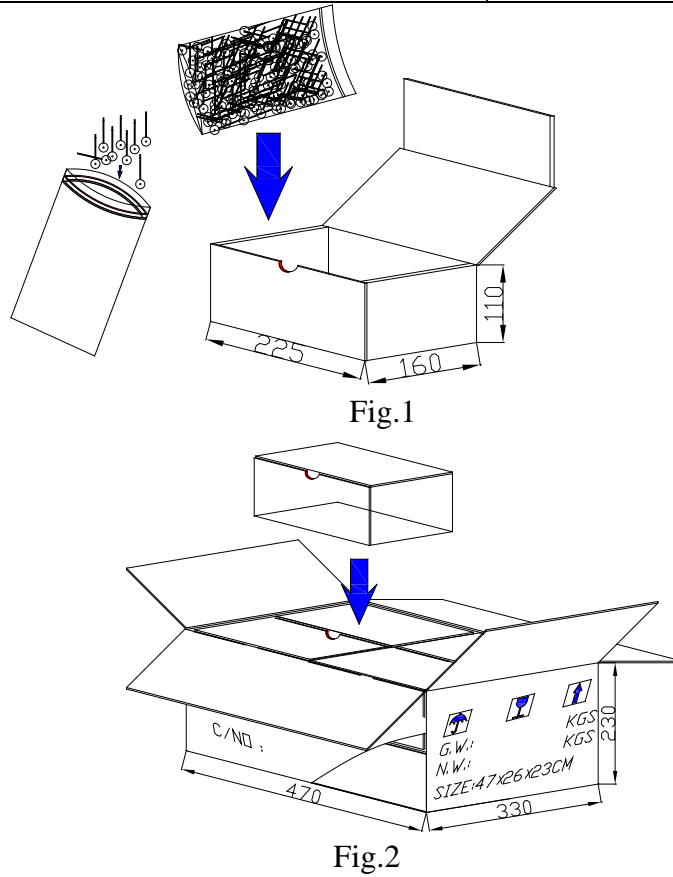
Vibration: 1000 cycles / min. Amplitude: 1.5mm, Duration: 1 hour in each 3 axes

#### Note:

As this product is not protected from foreign material entering, please make sure that any foreign materials (e.g. magnetic powder, washing solvent, flux, corrosive gas) do not enter this product in your production processes. The functional degradation (e.g. SPL down) may occur if foreign materials enter it.

## 6. . Packing Information

包装要求	PE 袋料号：F6-603，200pcs/袋； 内盒料号：F6-051，5袋/盒；1000pcs/盒 外箱料号：F6-007；外箱尺寸 40*39*25.cm 8个内盒/箱；8000pcs/箱	
唛头要求	内盒： 按订单要求	外箱： 按订单要求



	包装名称	包装数量(pcs)	包装尺寸 (mm)	图解
1	PE 袋	200	190*130	Fig.1
2	内盒	1000	225*160*110	Fig.1
3	外箱	8000	400*395*240	Fig.2