

# APPROVAL SHEET



## FHD ELECTRONICS CORPORATION

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

COMMODITY :           Mylar Speaker          

FHD PART NO. :           MS16R036-8T05A-L50          

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



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

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# FHD ELECTRONICS CORPORATION

## REVISIONS

**PRODUCT PART NO. : MS16R036-8T05A-L50**

DATE	REVISER	REV.	DESCRIPTION	REMARK
2023/7/27	HY SHEN	1	Initial edition	

**A. PART NO.: MS16R036-8T05A-L50****B. SPECIFICATION**

Test condition: Temperature: 15~35℃ Related Humidity:25~75% (GB/T9396-1966)

No.	Item	Specification	Condition
1	Dimension	Dia. 16 x H4.7mm	Including double-side adhesive
2	Weight	grams	
3	Rated Impedance	8Ω ± 20%	At 1000Hz
4	Resonant Frequency	1000Hz ± 20%	At 1Vrms without baffle
5	Output Sound Pressure Level S.P.L.	88 ± 3db	0.1M / 0.1W At 0.8, 1, 1.5, 2.0KHz 0dB SPL=20uPa
6	Frequency Range	F0---10000Hz	
7	Distortion	10% Maximum	At 1.0KHz
8	Magnet	NdFeB	
9	Power Rating	Normal: 0.5 Watts Maximum: 0.8 Watts	Sine Wave
10	Operating Temp.	- 20 ~ + 60℃	
11	Storage Temp.	- 30 ~ + 70℃	
12	Audible Noise	The input power shall be set at rated noise power (0.5W). Using an audio oscillator sweep from F0 to 10000HZ in free air. There shall be no buzzes and rattles and nor spurious noises.	Sine Wave
13	Polarity	When a positive D.C current is applied to the voice coil terminal marked (+). The diaphragm shall move forward.	
14	RoHS	The Speaker is RoHS compliant.	
15	Ingress Protection Rating	IP50	

**C. ENVIRONMENTAL TEST**

No.	Item	Condition	Evaluation standard
1	High Temperature	After being placed in a chamber at +70℃±5℃ for 96 hours	Being placed for 6 hours at room temperature, speaker shall be

2023 年 7 月 27 日

2	Low Temperature	After being placed in a chamber at $-30^{\circ}\text{C}\pm 5^{\circ}\text{C}$ for 96 hours.	measured. SPL should not deviate by $\pm 3$ db, and resonant frequency should not deviate by $\pm 80$ Hz, compare with pre-test measurement.
3	Humidity Test	After being placed in a chamber at $+40\pm 5^{\circ}\text{C}$ and 90~95%(RH) Relative Humidity for 96 hours.	
4.	Temperature Cycle Test	Temperature: $-30^{\circ}\text{C} \longleftrightarrow +70^{\circ}\text{C}$ Duration: 2hrs 2hrs Cycle: 5 cycles	

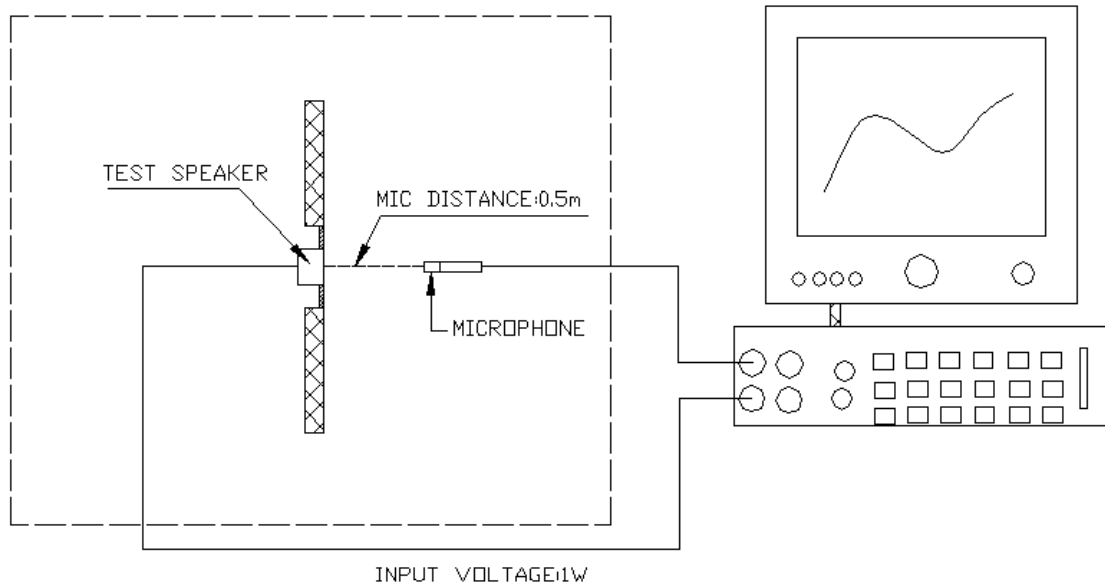
## D. MECHANICAL AND VIBRATION TEST

No.	Item	Test condition	Evaluation standard
1	Drop Test	Drop from 1.0m height onto concrete floor 6 times	SPL shall not deviate by $\pm 3$ db from pre-test measurement.
2	Vibration Test	Vibration: 10Hz~55Hz Amplitude: 1.5mm or acceleration : 50m/s <sup>2</sup> Duration : 2h per axis=10cycles ; 3 axis	

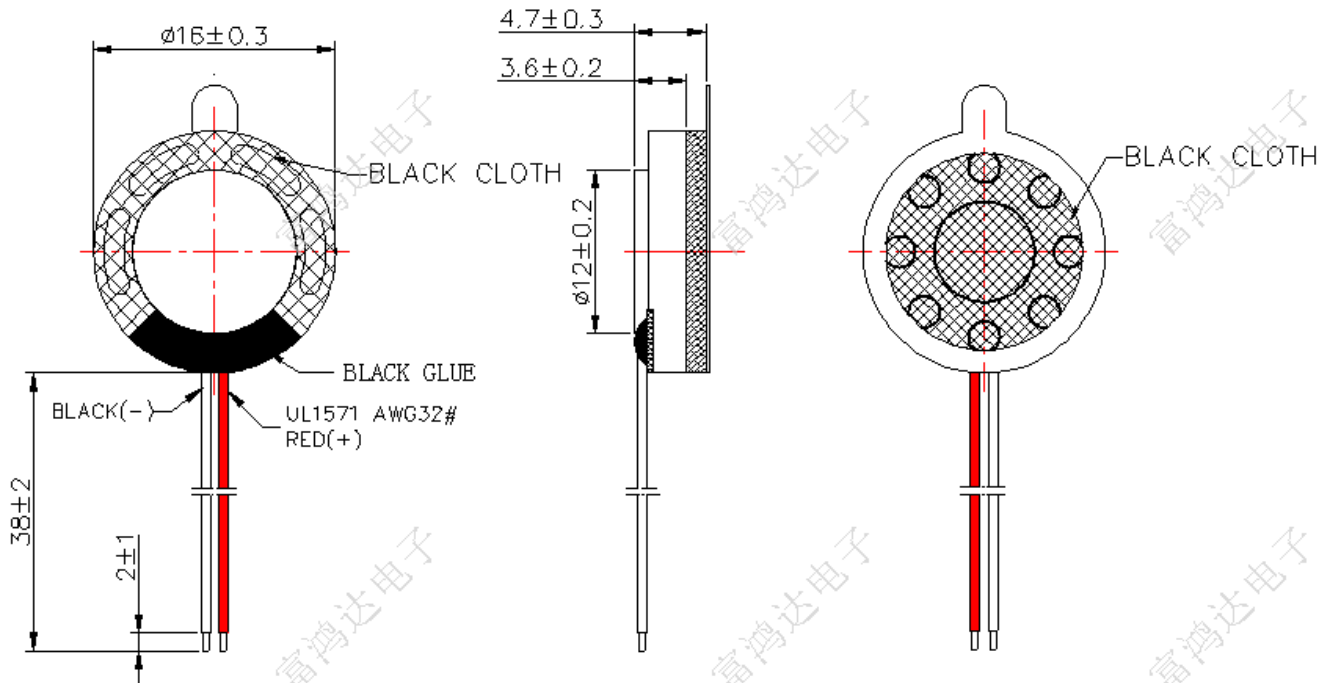
## E. RELIABILITY TEST

No.	Item	Test conditions	Evaluation standard
1	Load Test	0.5W White noise is applied for 96hours	Speaker should not fail after apply 20 ~ 20K Hz White noise rated power input (RMS), 100 hours. After test, SPL shall not deviate by $\pm 3$ db from pre-test measurement,

## F. MEASUREMENT CIRCUIT

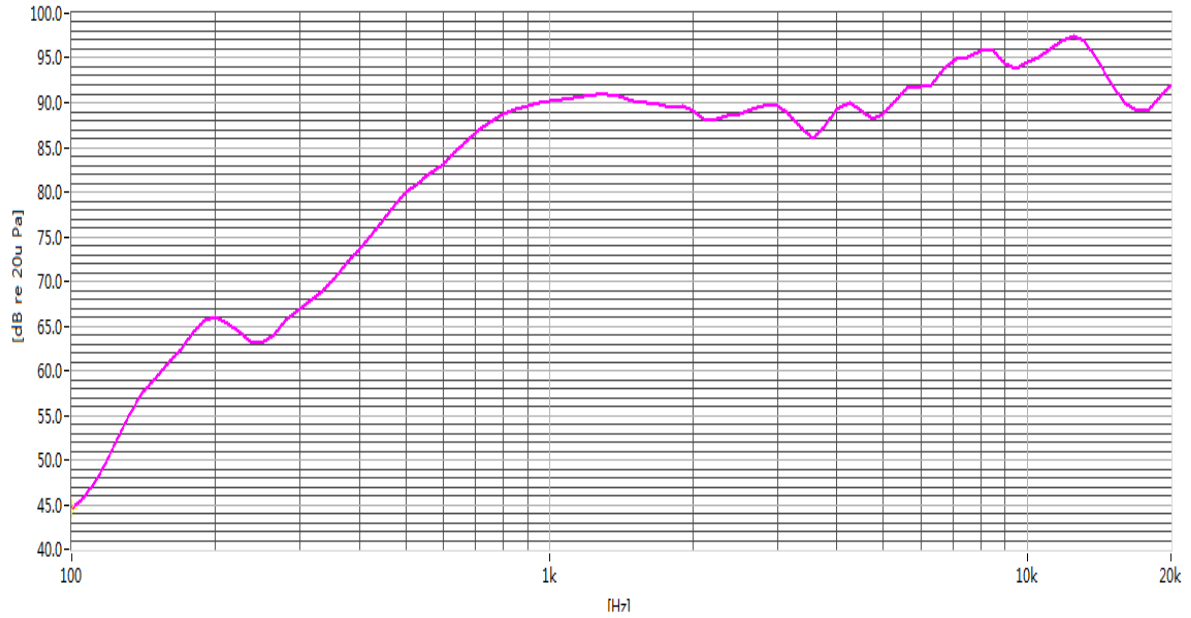


## G. DRAWING \*Unit: mm; Tolerance: ±0.5mm Except Specific



## H. SOUND PRESSURE CURVE

频响曲线



## I. PACKING INFORMATION (TBD)