

常州华龙电子有限公司

SPECIFICATION FOR APPROVAL

规格承认书

Customer 客户:	
Customer Part No. 客户型号:	
PART NO. 产品型号:	HMB-O40J40-CWH40
FUNCTION. 产品功能	MICROPHONE
SPEC. NO. 规格书号:	

Drawn by 制作	Checked by 审核	Approved by 批准	Customer approved 客户承认
Lily 2020-06-02	曹丽萍 2020-06-02	王台平 2020-06-02	

Our products meet the latest RoHS compliance
我司生产产品均符合欧盟 RoHS 最新要求



ISO 9001 Certified

总公司地址：台北市北投区中央南路 2 段 33 号 3 楼
大陆分公司地址：中国江苏省常州市新北区电子园新四路 36 号
一厂：江苏省常州市新北区电子园新四路 36 号
二厂：江苏省常州市溧阳市社渚经济开发区社农路 1 号
电话: +86-519-85106698 85111259 85110078
传真: +86-519-85101081 85107616
网址: www.dshualong.com

Approval 承認内容:

1. History change record 变更记录
2. Characteristics 技术参数
3. Typical Frequency Response Curve 频率曲线
4. Dimension 外观尺寸
5. Reliability Test 可靠性测试
6. Packing 包装

1. History change record

Change Items	Date	Note	Drawn by	Checked by
	2020-06-02	First Issue	Lily	王台平 2020-06-02

2. Characteristics

01	Electret Type	Back type
02	Sensitivity	$-40 \pm 3\text{dB}$ (0dB=1V/Pa,1KHz)
03	Output Impedance (Max)	2.2K Ω
04	Directivity	Omnidirectional
05	Frequency Range	70-20,000Hz
06	Max.Operation Voltage	10V
07	Standard Operation Voitage	2.0V
08	Current Consumption	Max.0.5mA
09	Sensitivity Reduction	Within -3dB 0dB=1V/Pa,1KHz $V_s=2.0$ to 1.5V
10	S/N Ratio	$\geq 58\text{dB}$
11	Operating Temperature	$-25 \sim +70^\circ\text{C}$
12	Storage Temperature	$-40 \sim +70^\circ\text{C}$

Standard Conditions:

Generally Temperature $15 \sim 35^\circ\text{C}$

Generally Humidity $45 \sim 85\%$

Generally Atmospheric Pressure $860 \sim 1060\text{hpa}$

Basic Test Conditions:

Temperature $20 \pm 2^\circ\text{C}$

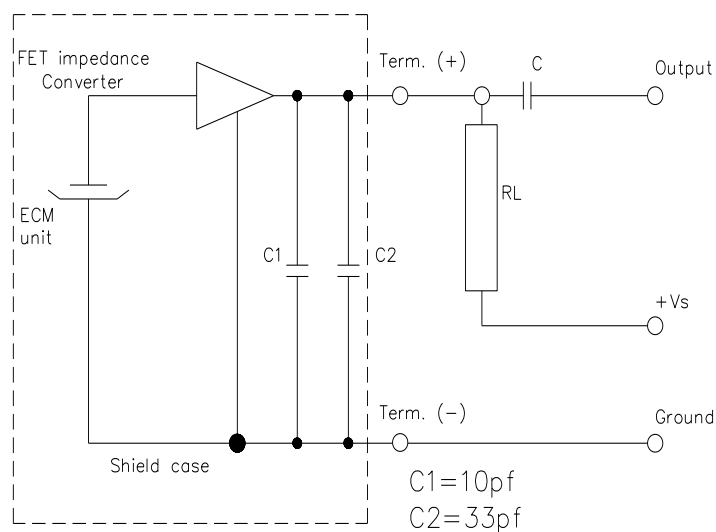
Humidity $60 \sim 70\%$

Generally Atmospheric Pressure $860 \sim 1060\text{hpa}$

Electrical Characteristics Test Condition:

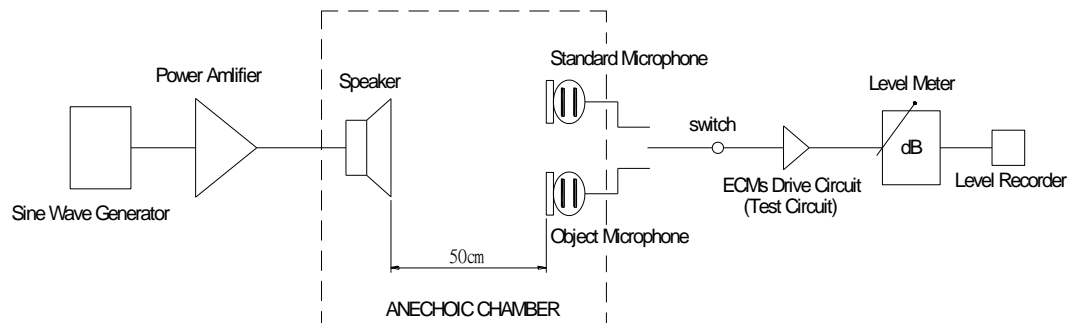
$V_s=2.0\text{V}$ $R_L=2.2\text{K}\Omega$ $T_e=20^\circ\text{C}$ R. H. =60%

Standard Test Circuit



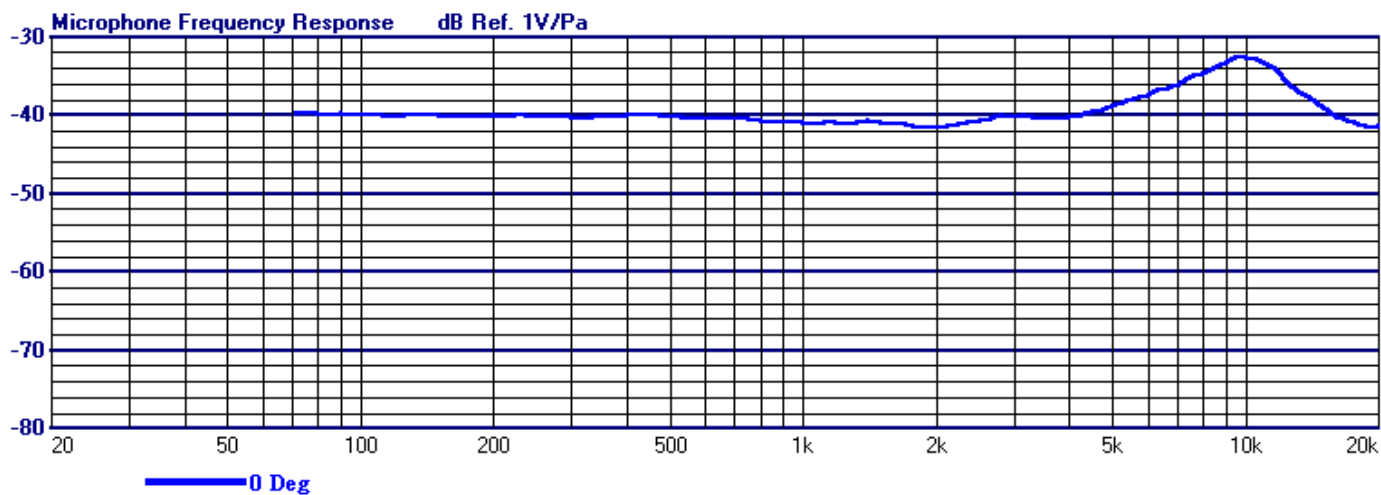
Standard Test Condition Of Microphone

MEASUREMENT OF SENSITIVITY

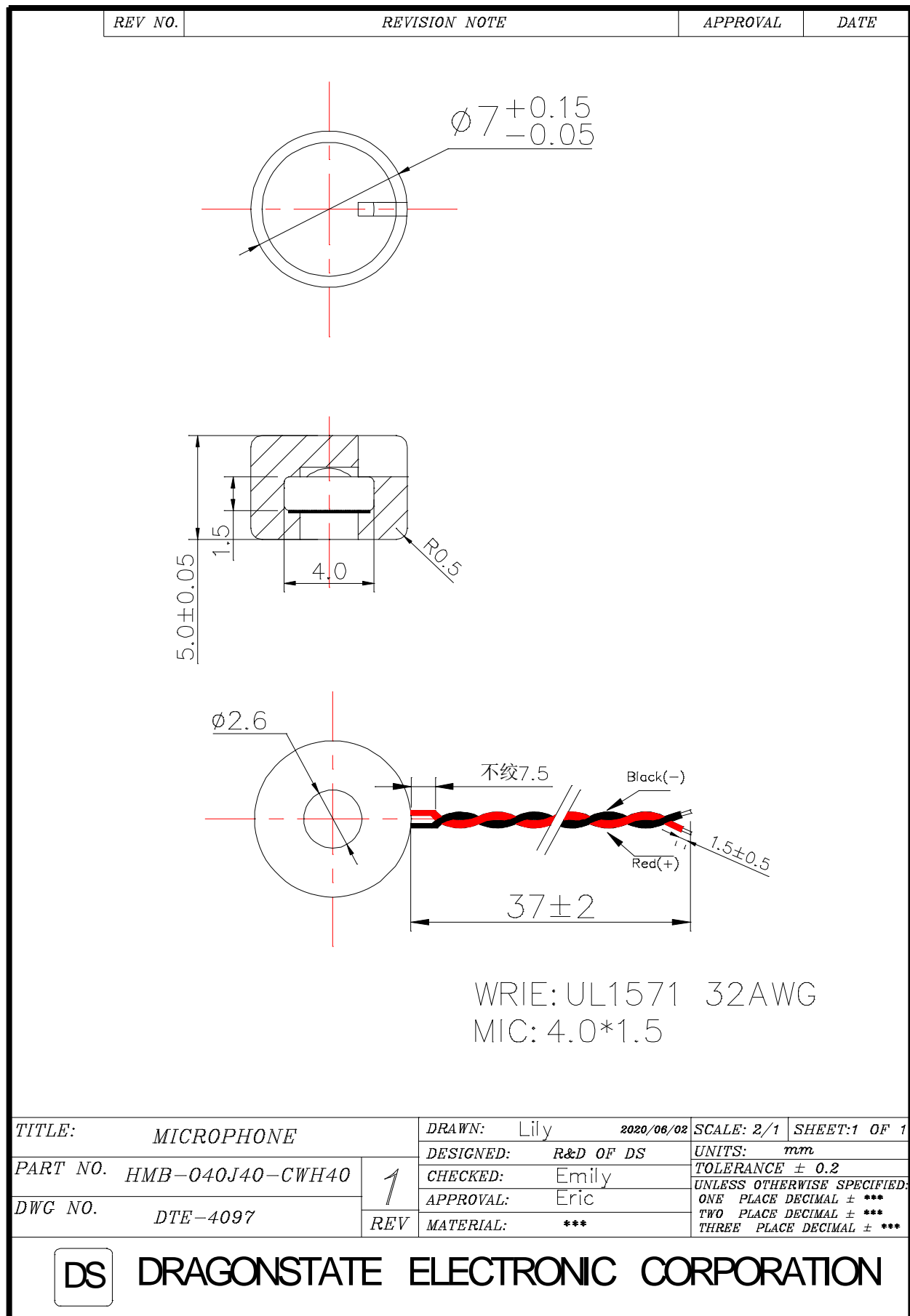


3. Frequency Response Curve

X : 1000 Hz
Y : -41.0 dBV/Pa
Y : -38.8 dBm/Pa
D : 0.0 dB




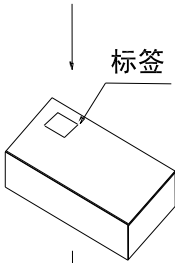
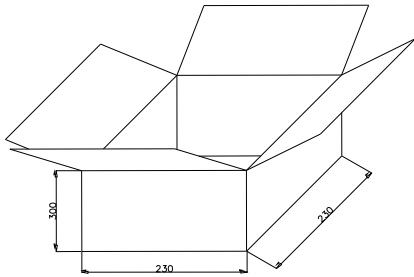
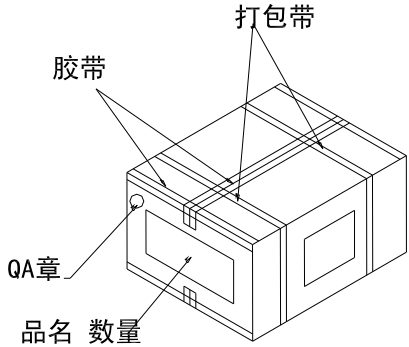
4. Dimension



5. Reliability test

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at 70°C for 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	After any tests , the sensitivity to be within $\pm 3\text{dB}$ of initial sensitivity after 3 hours of conditioning at 20 °C and shall keep their initial operation and appearance.
02	Low Temp. Test	After exposure at -25°C for 100 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
03	Temp.Cycle Test	After exposure at 70°C for 1 hour, at room temp. for 1 hour, at -25°C for 1 hour, at room temp. for 1 hour, at 10 cycles, and expose to room temp. for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
04	Humidity Test	After exposure at 40°C and 90 \pm 5% relative humidity for 240 hours, and expose to room temperature for 6 hours, sensitivity to be within $\pm 3\text{dB}$ from initial sensitivity.	
05	Vibration Test	The microphone unit must be subjected to each 30 minutes vibrations at three axes 3 mm dynamic rang. 1000cycles/minute.	
06	Drop test	The microphone unit without packaged must be subjected to each 3 drops at three axes from the height of 1 meter to 20mm thick hardwood.	
07	Pull Strength Test	The microphone assembly shall suffer no change from a pull strength of 0.5 kg for 3 seconds applied between the connector and the microphone.	Application of the “pin” type

6. Packing

REV NO.	REVISION NOTE	APPROVAL	DATE
	 <p style="margin-left: 400px;">Bag(100*100mm) 100pcs Material: Plastic</p>		
	 <p style="margin-left: 400px;">Middle(215*105*55mm) 800pcs(8*100pcs) Material: Paper</p>		
	 <p style="margin-left: 400px;">Outer Box(230*230*300mm) 8000pcs(10*800pcs) Material: Paper</p>		
			
<p>TITLE: 包装方式</p>		<p>DRAWN: Lily 2006/05/23</p> <p>DESIGNED: R & D of D.S.</p> <p>CHECKED: Emily</p> <p>APPROVAL: Eric</p> <p>MATERIAL: 纸类</p>	<p>SCALE: 1:10</p> <p>SHEET: 1 of 1</p> <p>UNITS: mm</p> <p>TOLERANCE ±5</p> <p>UNLESS OTHERWISE SPECIFIED:</p> <p>ONE PLACE DECIMAL ± ***</p> <p>TWO PLACE DECIMAL ± ***</p> <p>THREE PLACE DECIMAL ± ***</p>
<p>PART NO.</p>		<p>1</p>	
<p>DWG NO.</p>			
		REV	
<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px 5px; margin-right: 10px;">DS</div> <div> <p>DRAGONSTATE ELECTRONIC CORPORATION</p> </div> </div>			