

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:	HDM-6050F351-002
FUNCTION. 产品功能	MICROPHONE
SPEC. NO. 规格书号:	DSM103-2017

Drawn by 制作	Checked by 审核	Approved by 批准	Customer approved 客户承认
Lily 2017-12-14	曹丽萍 2017-12-14	王台平 2017-12-14	

Our products meet the latest RoHS compliance

我司生产产品均符合欧盟 RoHS 最新要求



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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

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Approval 承認內容:

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 包裝

2. History change record

Change Items	Date	Note	Drawn by	Checked by
	2017-12-14	First Issue	Lily	王台平 2017-12-14

2. Characteristics

Standard Conditions:

Generally Temperature 15~35°C

Generally Humidity 45~85%

01	Electret Type	Foil type
02	Sensitivity	-35 ± 1dB (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 Vs=2.0 to 1.5V
10	S/N Ratio	≥ 58dB
11	Operating Temperature	-25~+70°C
12	Storage Temperature	-40~+70°C

Generally Atmospheric Pressure 860~1060hpa

Basic Test Conditions:

Temperature 20±2°C

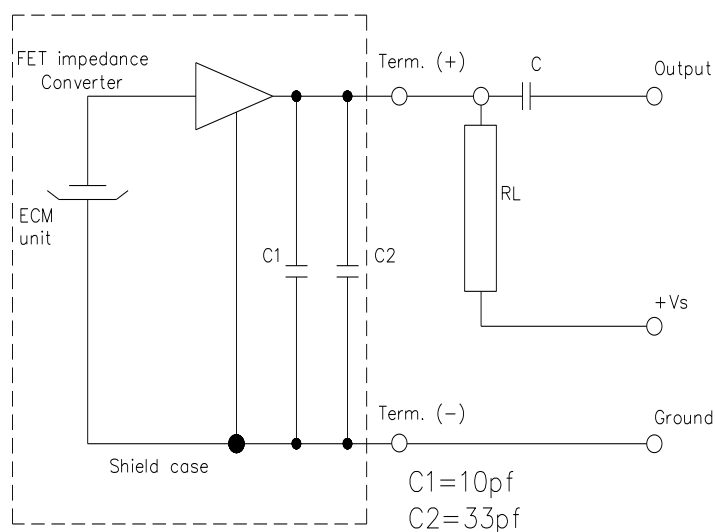
Humidity 60~70%

Generally Atmospheric Pressure 860~1060hpa

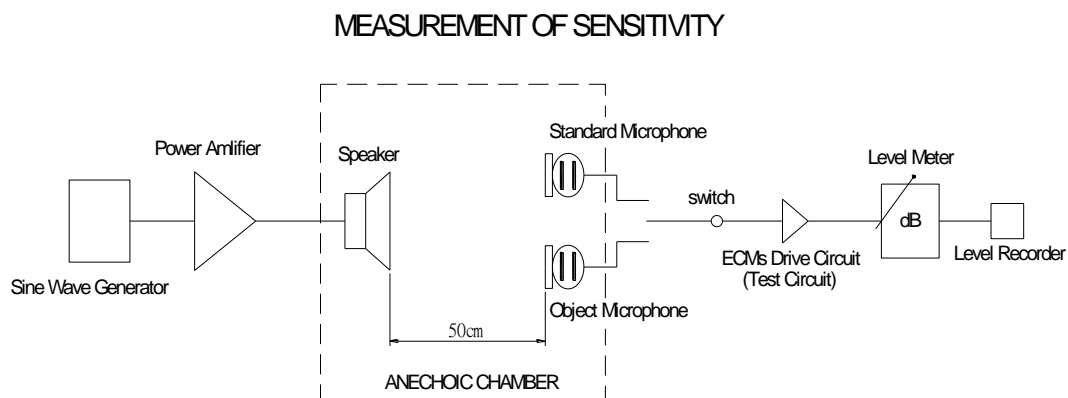
Electrical Characteristics Test Condition:

Vs=2.0V RL=2.2K Ω Te=20°C R. H. =60%

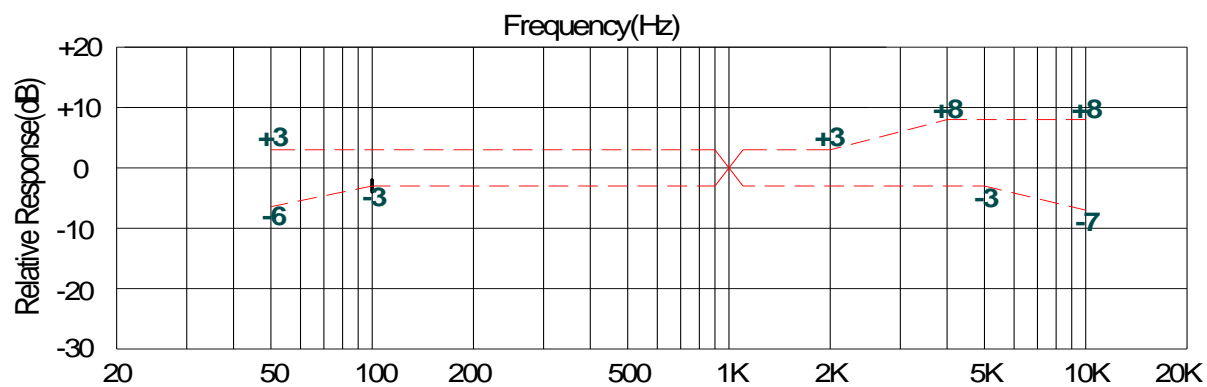
Standard Test Circuit



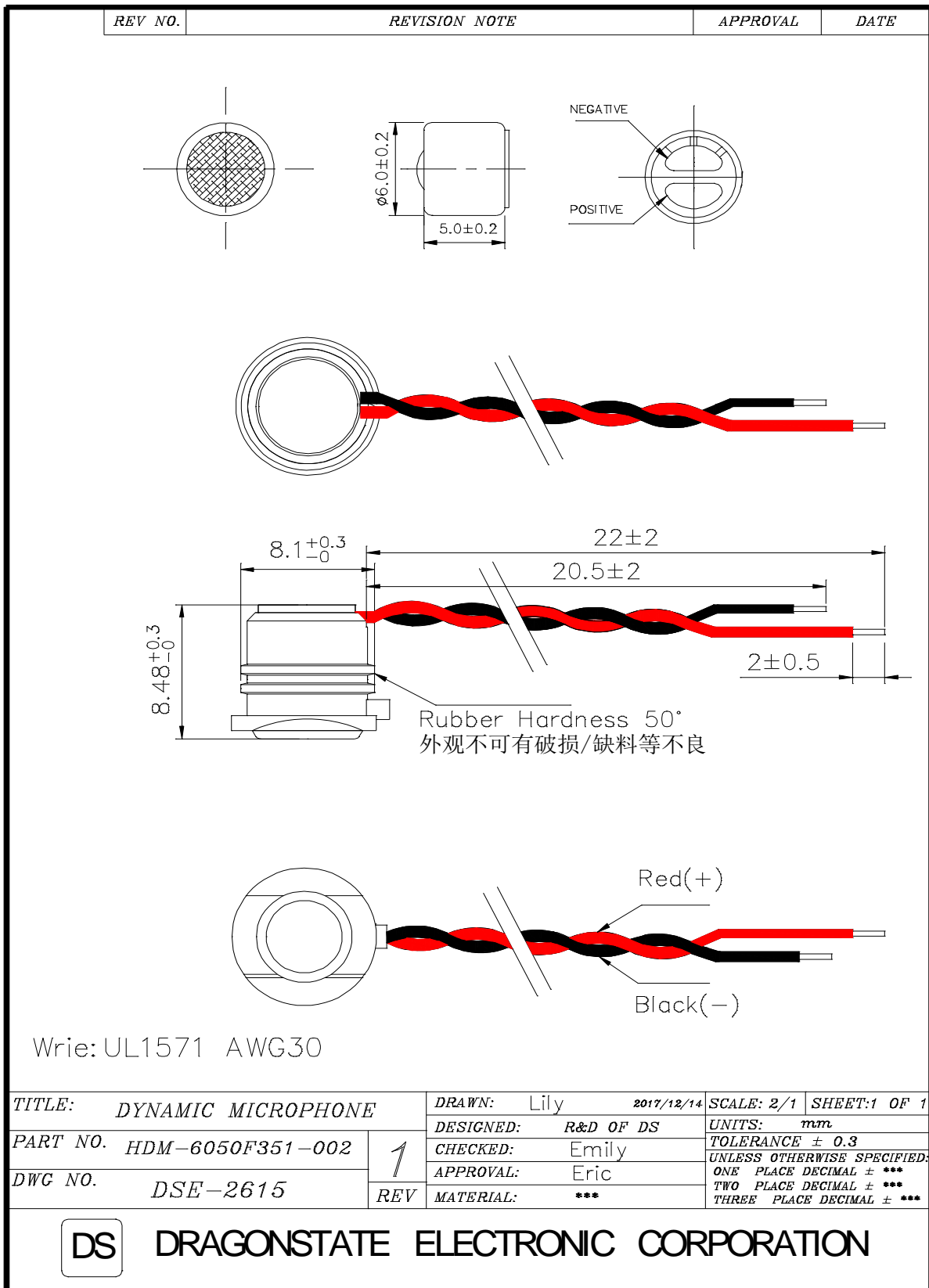
Standard Test Condition Of Microphone



3. Frequency Response Tolerance Window



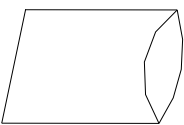
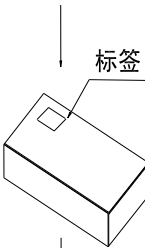
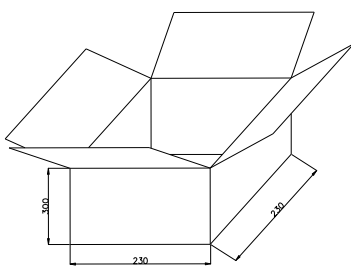
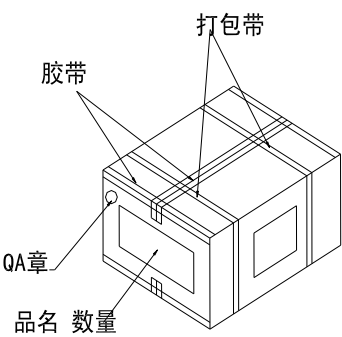
4. Dimension



5. Reliability tests

Item		Test Conditions	Evaluation Standard
01	High Temp. Test	After exposure at 70℃ 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℃ and shall keep their initial operation and appearance.
02	Low Temp. Test	After exposure at -25℃ 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℃ for 1 hour, at room temp. for 1 hour, at -25℃ 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℃ 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>Bag(100*100mm) 100pcs Material: Plastic</p>		
	 <p>标签 Middle(215*105*55mm) 1000pcs(10*100pcs) Material: Paper</p>		
	 <p>Outer Box(230*230*300mm) 10000pcs(10*1000pcs) Material: Paper</p>		
	 <p>打包带 胶带 QA章 品名 数量</p>		
TITLE: 包装方式		DRAWN: Lily	2014/07/07
<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">1</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">REV</div> </div>		SCALE: 1:10	SHEET: 1 of 1
		DESIGNED: R & D of D.S.	UNITS: mm
		CHECKED: Emily	TOLERANCE ±5
		APPROVAL: Eric	UNLESS OTHERWISE SPECIFIED:
PART NO.		ONE PLACE DECIMAL ± ***	
DWG NO.		TWO PLACE DECIMAL ± ***	
		THREE PLACE DECIMAL ± ***	
<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 5px; margin-right: 10px;">DS</div> <div>DRAGONSTATE ELECTRONIC CORPORATION</div> </div>			