

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:	116-0671-001-G
PART NO. 产品型号:	HDM-4015B372-001
FUNCTION. 产品功能	MICROPHONE
SPEC. NO. 规格书号:	DSM074-2020

Drawn by 制作	Checked by 审核	Approved by 批准	Customer approved 客户承认
Lily 2020-06-17	曹丽萍 2020-06-17	王台平 2020-06-17	

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

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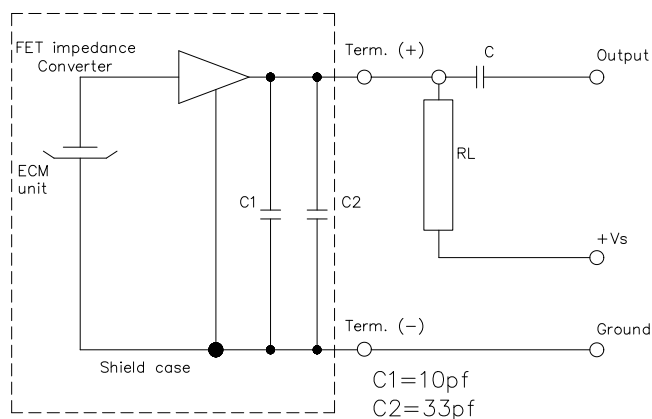
Approval 承認內容:

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

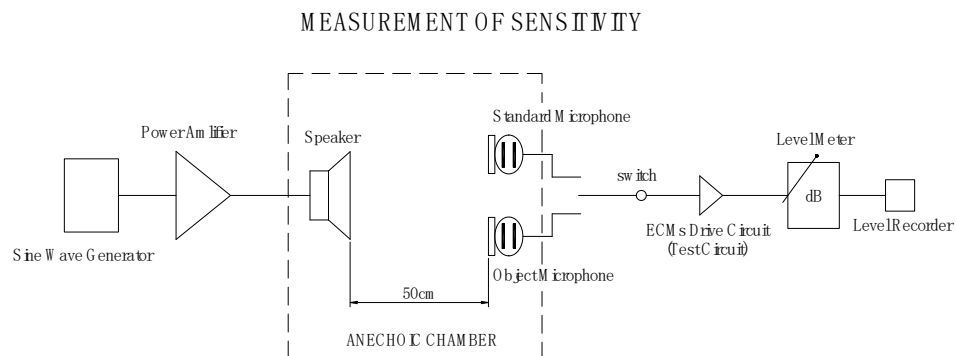
1. History Change Record

Change Items	Date	Note	Drawn by	Checked by
	2020-06-17	First Issue	Lily	王台平 2020-06-17

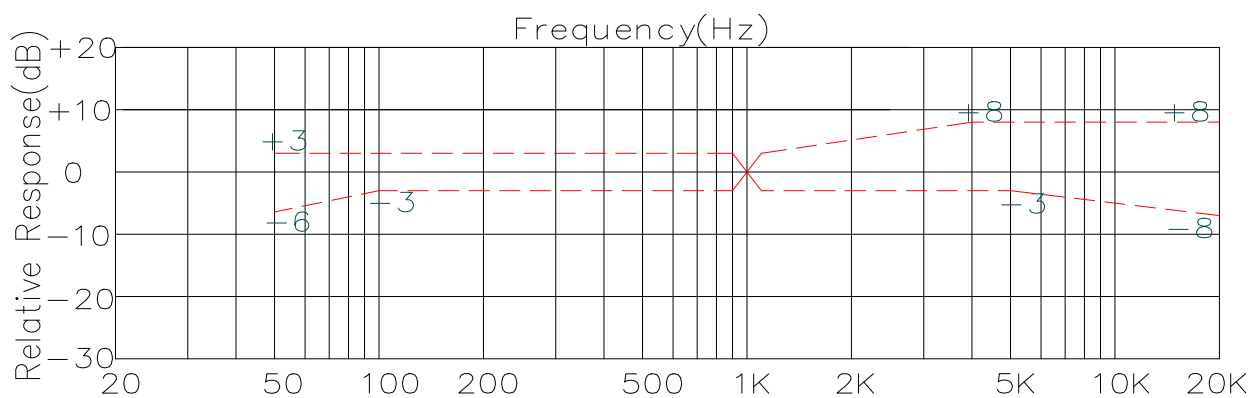
Item	Symbol	Test Conditions	Min	Standard	Max	Unit
灵敏度 Sensitivity	S	f=1kHz,Pin=1Pa	-39	-37	-35	dB (0dB=1V/Pa)
阻抗 Impedance	Z	f=1kHz,Pin=1Pa			2.2	k Ω
指向性 Directivity	Omni-directional					
消耗电流 Current Consumption	I				500	μ A
工作电压 Operation Voltage Range	U		1.0	2.0	10	V
信噪比 S/N Ratio	S/N(A)	f=1kHz,Pin=1Pa A Curve	58			dB
降压特性 Decreasing Voltage Characteristic	Δ S	f=1kHz,Pin=1Pa VS=2.0-1.5V			-3	dB
最大输入声压级 Max.Input Sound Level	MISPL	f=1kHz Distortion<1%			110	dB



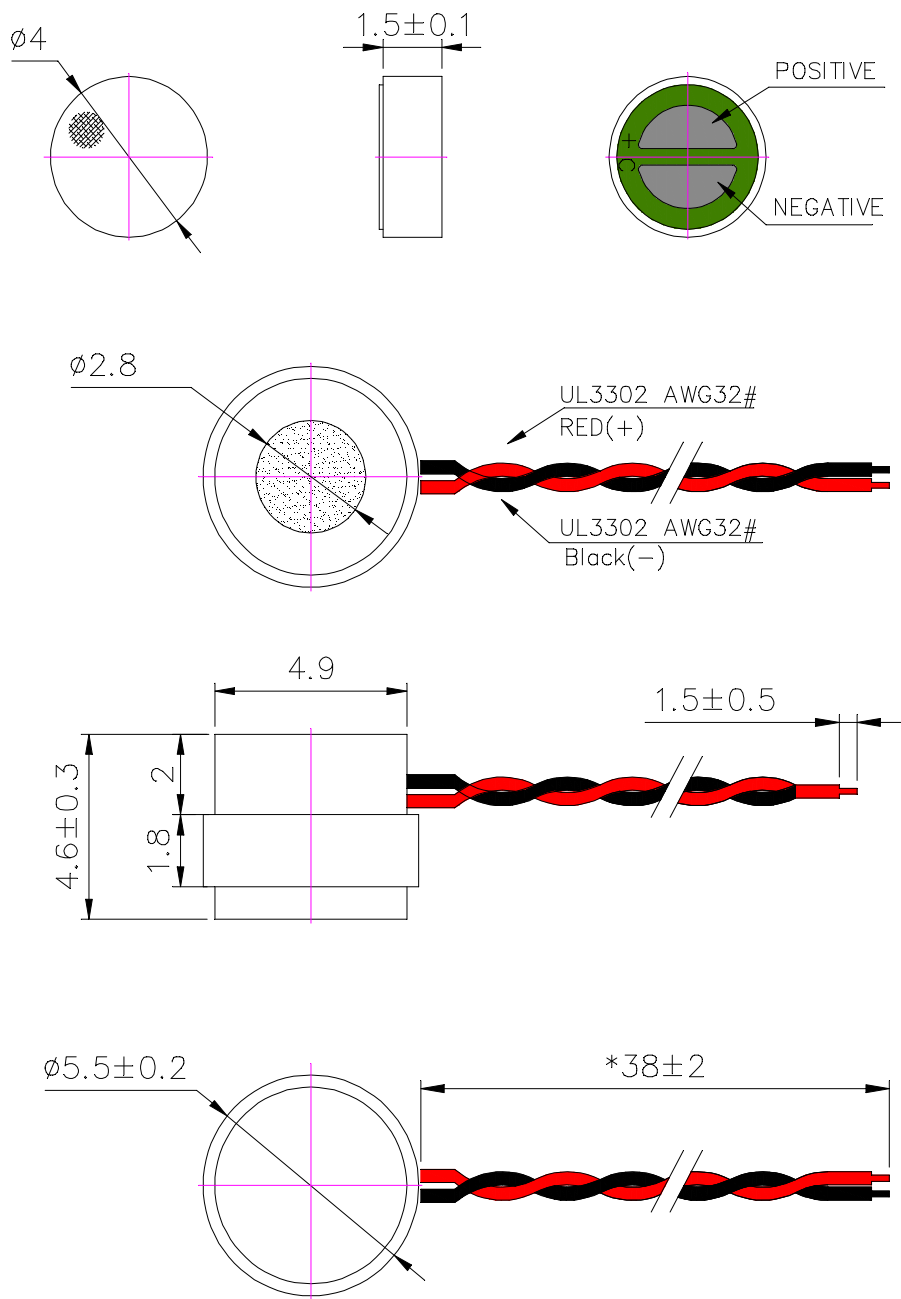
Standard Test Condition Of Microphone



3. Frequency Response Tolerance Window



4. Dimension



TITLE: MICROPHONE		DRAWN: Lily	2020-06-17	SCALE: 5:1	SHEET: 1 of 1
PART NO. HDM-4015B372-001		DESIGNED: R & D OF D.S.		UNITS: mm	
DWG NO. DTM-4206		CHECKED: Emily		TOLERANCE ± 0.2	
		APPROVAL: Eric		UNLESS OTHERWISE SPECIFIED:	
		MATERIAL: *****		ONE PLACE DECIMAL $\pm$ ***	
				TWO PLACE DECIMAL $\pm$ ***	
				THREE PLACE DECIMAL $\pm$ ***	

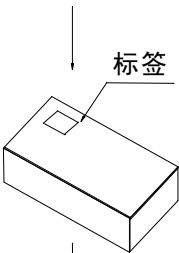
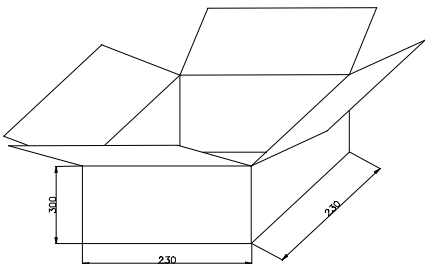
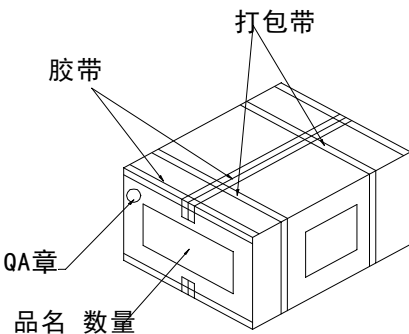


Changzhou Dragon State Electronic Co., Ltd

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 -30 °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
 Bag(100*100mm) 100pcs Material: Plastic  标签 Middle(215*105*55mm) 1000pcs(10*100pcs) Material: Paper  Outer Box(230*230*300mm) 10000pcs(10*1000pcs) Material: Paper  打包带 胶带 QA章 品名 数量			
TITLE: 包装方式		DRAWN: Lily 2006/05/23 SIZE: 1:10 SHEET: 1 of 1	
PART NO.		DESIGNED: R & D of D.S. UNITS: mm	
DWG NO.		TOLERANCE ±5	
1		CHECKED: Emily	
REV		APPROVAL: Eric	
MATERIAL: 纸类		UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
DS Changzhou Dragon State Electronic Co., Ltd			