

MESSRS.**SPECIFICATION FOR APPROVAL****承 認 书**

Product	ELECTRET CONDENSER MICROPHONE
Part No.	HMB-O40J42-CWH78 (RoHS)
Customer Part No.	
Customer Approval	

Approved By	Checked By	Made By
王台平 JAN-04-2023	曹丽萍 JAN-04-2023	LILY JAN-04-2023

常 州 华 龙 电 子 有 限 公 司
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1. 变更记录 (History change record)

Change Items	Date	Note	Drawn by	Checked by
	2022-12-16	First Issue	Lily 2022-12-16	王台平 2022-12-16
更新连接器线序	2022-12-22	Second Issue	Lily 2022-12-22	王台平 2022-12-22
增加咪套	2023-01-04	Third Issue	Lily 2023-01-04	王台平 2023-01-04

2. 储藏与判断条件 (Storage And Judgement Conditions)

	Temperature Range(°C)	Rel. Humidity(%)	Static Pressure(kPa)
Judgement	22~24	63~73	86~106
Storage	-40~80		
Operating	-25~70		

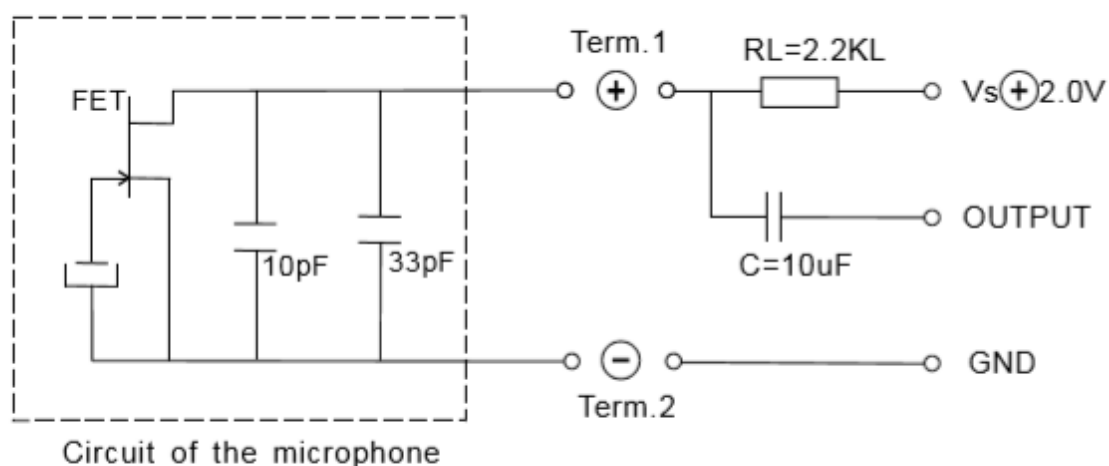
3. 规格 (Specifications)

Test conditions($V_S=2.0V$ $R_L=2.2k\Omega$ $Temp=20\pm2^\circ C$ $R.H=60\pm5\%$)

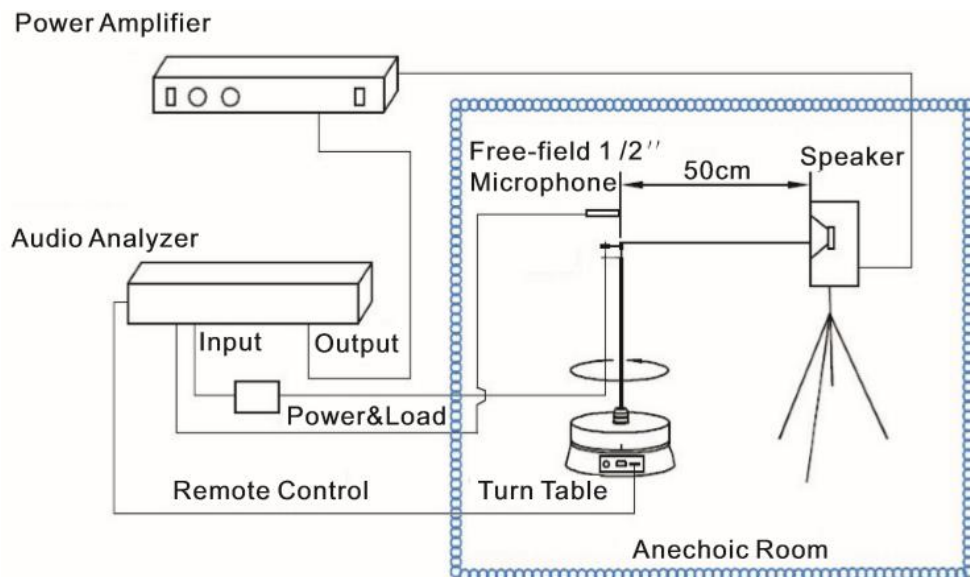
Item	Symbol	Test Conditions	Min	Standard	Max	Unit
灵敏度 Sensitivity	S	$f=1kHz, Pin=1Pa$	-45	-42	-39	dB (0dB=1V/Pa)
阻抗 Impedance	Z	$f=1kHz, Pin=1Pa$			2.2	k Ω
指向性 Directivity	Omni-directional					
消耗电流 Current Consumption	I				500	μA
工作电压 Operation Voltage Range	U		1.0	2.0	10	V
信噪比 S/N Ratio	S/N(A)	$f=1kHz, Pin=1Pa$ A Curve		56		dB
降压特性 Decreasing Voltage Characteristic	ΔS	$f=1kHz, Pin=1Pa$ $V_S=2.0-1.5V$			-3	dB
失真 Distortion	THD	$f=1kHz, Pin=1Pa$			1	%

4. 测试电路 (Standard Test Circuit)

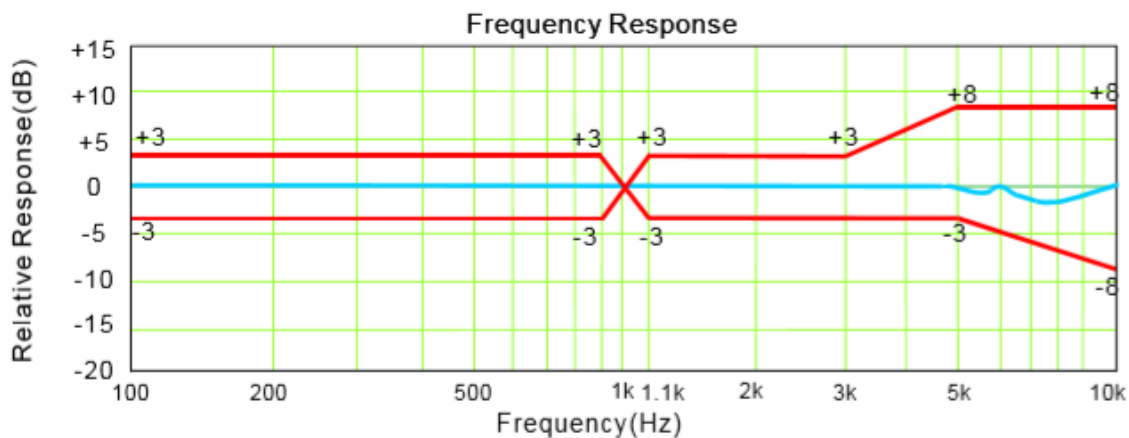
$V_S=2.0V$ $R_L=2.2k\Omega$ $Te=20^\circ C$ $R.H.=60\%$



5. 测试装备图 (Standard Test Fixture)

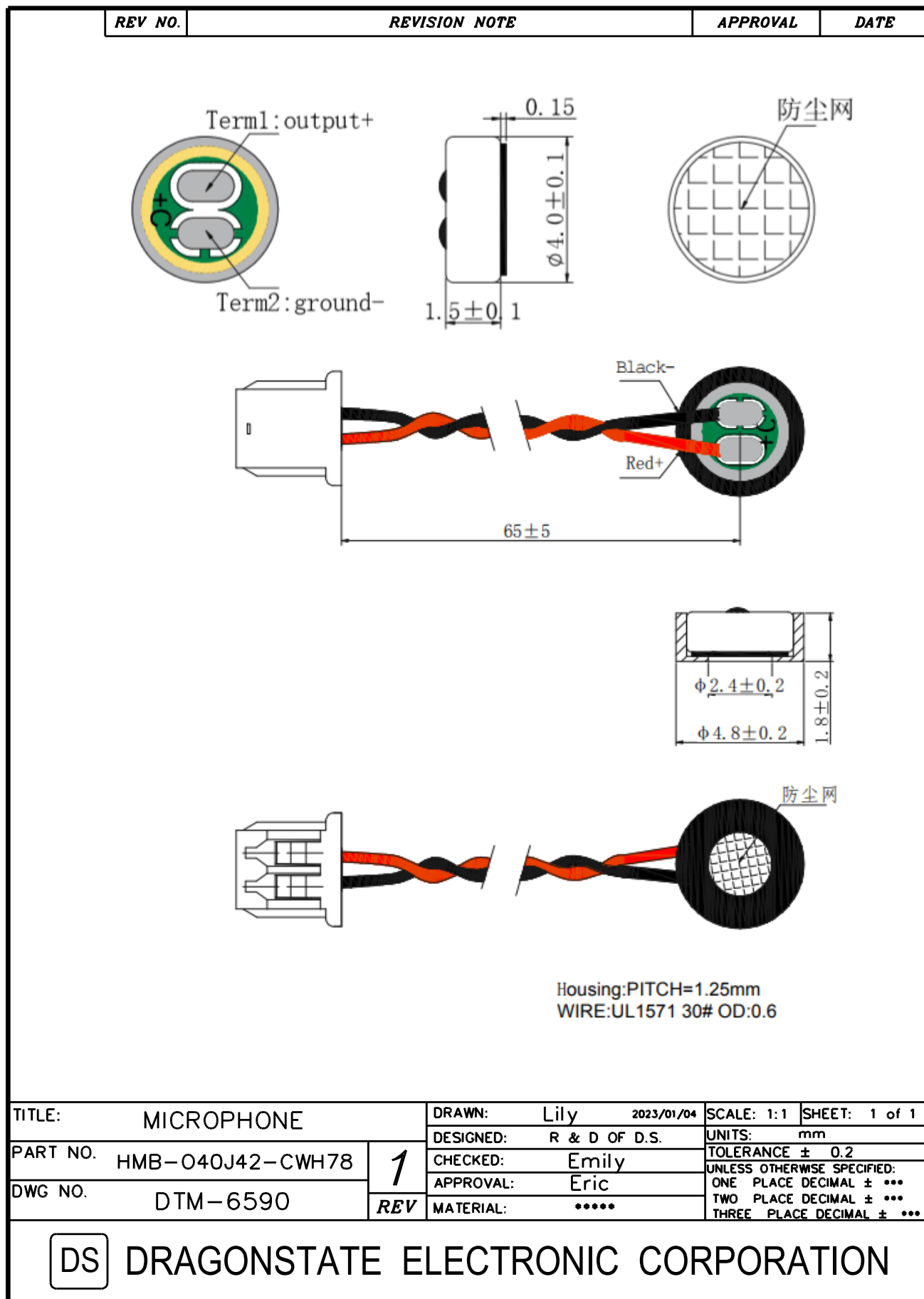


6 频响曲线 (Frequency Response Curve)



频率 (Hz)	100	900	1.0K	1.1K	3K	5K	10K
上限值 (dB)	+3	+3	0	+3	+3	+8	+8
下限值 (dB)	-3	-3	0	-3	-3	-3	-8

7,外观图 (Appearance Drawing)



8. 可靠性试验 (Reliability Test)

在下列试验完成后,在温度为 20℃,相对湿度为 65%的条件下恢复 3 小时后进行测试,灵敏度与初始灵敏度相差在±3dB 以内.

(All tests should be done after 3 hours of conditioning at 20℃, R.H65%, while the sensitivity is to be within ±3dB, from the initial sensitivity after the following experiments.)

8.1 高温试验 (HIGH TEMPERATURE TEST)

温度(High temperature):	+70℃
放置时间(Duration):	96hours

8.2 低温试验 (LOW TEMPERATURE TEST)

温度(Low temperature):	-25℃
放置时间(Duration):	96 hours

8.3 温度循环试验(如图 1) (TEMPERATURE CYCLE TEST)(See in Fig.1)

低温(Low temperature):	-25℃
高温(High temperature):	+70℃
转化时间(Changeover time):	10min
放置时间(Duration):	30min
次数(Cycle):	5

8.4 湿度 (STATIC HUMIDITY TEST)

温度(Temperature):	+40℃
相对湿度(Relative humidity):	90 ~ 95%
放置时间(Duration):	96 hours

8.5 振动试验 (VIBRATION TEST)

振幅(Amplitude):	1.52mm
持续时间(Duration):	1 分钟/面(minutes/plane)
频度范围(Freq.range):	10 ~ 55Hz
试验时间(Total time):	2 小时(hour)

8.6 跌落试验 (DROP TEST)

不带包装的跌落到 20mm 厚的地板上(Drop a unit unpacked onto a board of 20mm thick)

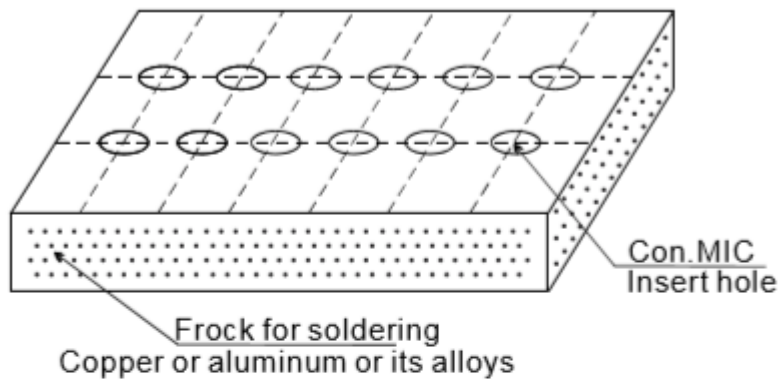
高度(Height):	1 m
次数(Cycle):	6 (1 each plane)

09. 焊接要求 (Regarding the Soldering operation)

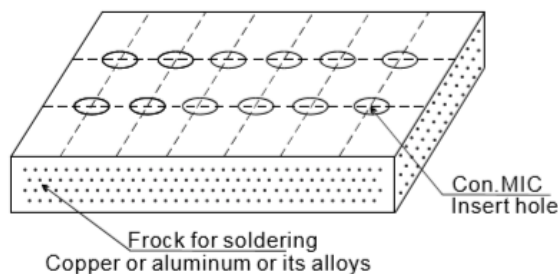
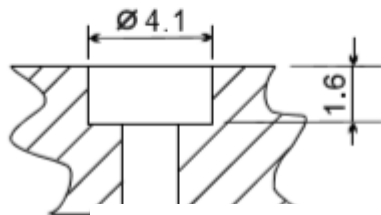
每个驻极体电容传声器在其麦克风上都有一个 FET,这种 FET 在过热和电流撞击时易损坏，所以对于焊接应遵

循以下操作：

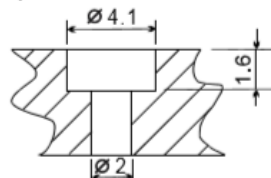
- 要求使用 25W-35W 烙铁，并保持 $350\pm 10^{\circ}\text{C}$ 的温度范围。
- 在每一个端的焊接应在 2 秒内完成，以防过热。



Shape of the individual hole



Shape of the individual hole



度)

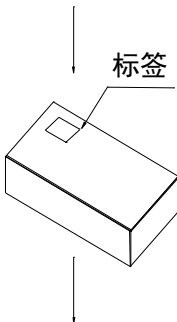
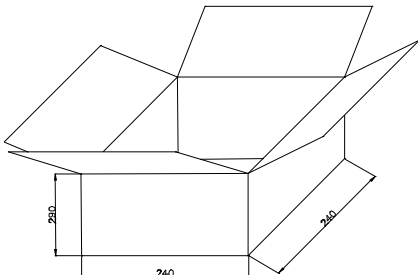
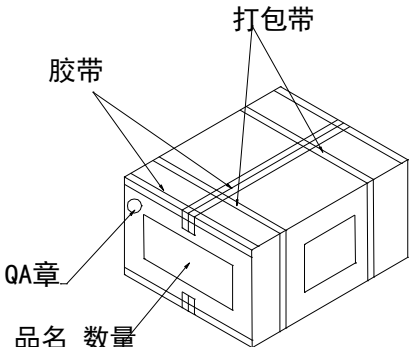
oper attention for the soldering work is

$^{\circ}\text{C}$ temperature range

as not to be overheated.

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10. 包装规格 (Packing Specifications)

REV NO.	REVISION NOTE	APPROVAL	DATE
	 Bag(138*112mm) 100pcs Material: Plastic		
	 标签 Middle(205*105*50mm) 1000pcs(10*100pcs) Material: Paper		
	 Outer Box(235*235*285mm) 10000pcs(10*1000pcs) Material: Paper		
	 打包带 胶带 QA章 品名 数量		
TITLE: 包装方式		DRAWN: Lily 2022/12/12 SCALE: 1:10 SHEET: 1 of 1	
PART NO.	1	DESIGNED: R & D of D.S. UNITS: mm	
		CHECKED: Emily TOLERANCE ±5	
DWG NO.		APPROVAL: Eric UNLESS OTHERWISE SPECIFIED: ONE PLACE DECIMAL ± *** TWO PLACE DECIMAL ± *** THREE PLACE DECIMAL ± ***	
	REV	MATERIAL: 纸类	
DS DRAGONSTATE ELECTRONIC CORPORATION			