

SPECIFICATION

FOR APPRONAL

Customer : _____

Product Name : Microphone

Model Name : VS4013S42-SMD

Drawing No. : VS20231216007

Signature of Voice

Approved by	Checkde by	Issued by	Date



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1. Revision

Rev.No.	Date	Page	Description of Revision
1.0	2023/12/16		Preliminary

Specification for Microphone		Page	2/4
		Revision No.	1.0
Model No.:	VS4013S42-SMD	Drawing No.	VS20231216007

2. Scope

This specification applies electret condenser microphone.

3. General Characteristics

- 3.1 Out-Diameter : 4 mm
- 3.2 Height : 1.3 mm
- 3.3 Weight : 0.1 g
- 3.4 Operating Temperature : -30~+60°C without loss of function
- 3.5 Store Temperature : -40~+70°C without loss of function

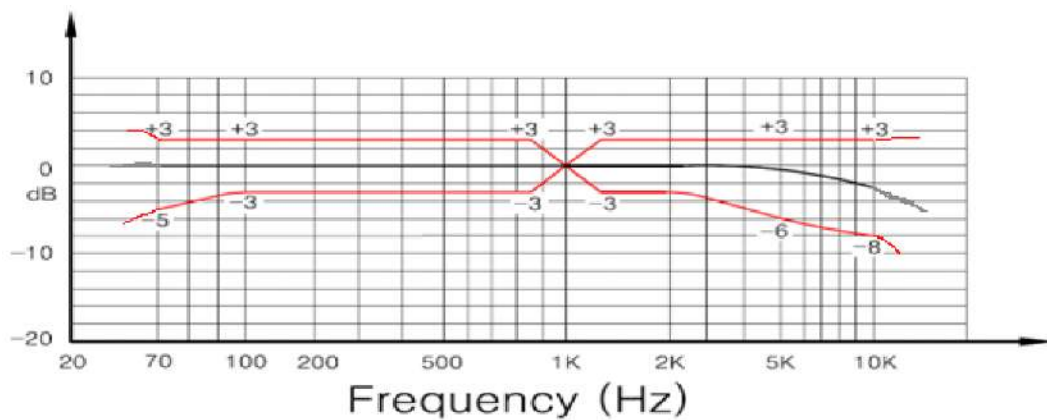
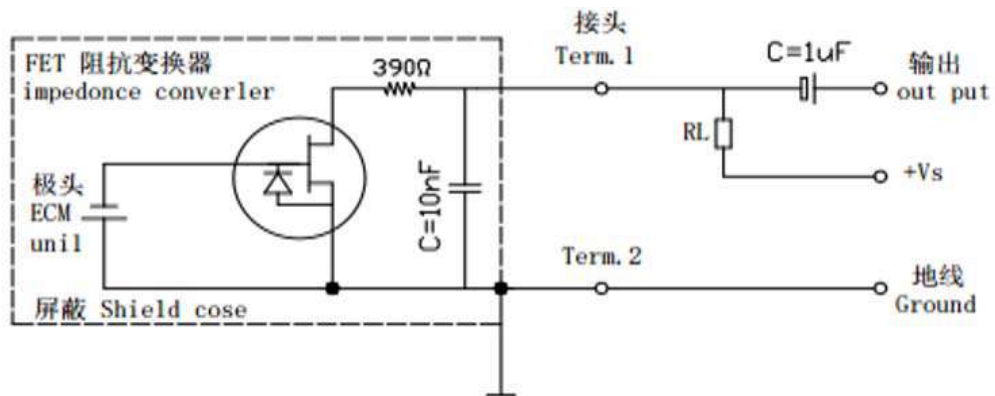
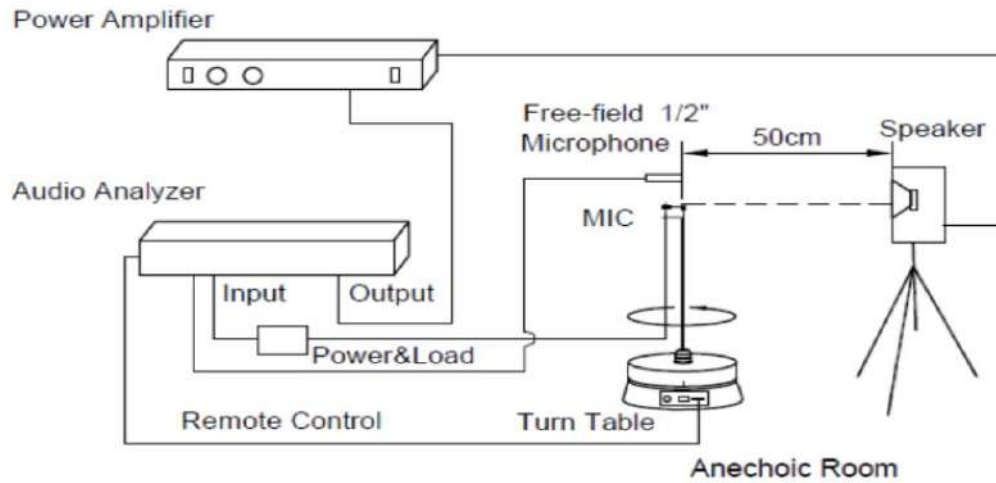
4. Electrical and Acoustic Characteristics.

Test condition :5 ~ 35 °C Temp., 35% ~85% RH,86~106 kPa 1kHz , RL=2.2KΩ

No	Items	Specification
1	Directivity	Omni-directional
2	Sensitivity (S)	-42dB±3dB (1KHZ, 0dB=1V/pa)
3	Power Supply Voltage(Vs)	2.0 V
4	Output impedance (RL)	2.2 KΩ
5	Operating Voltage	1.0-10 V
6	Sensitivity reduction within 1.5V	-3dB
7	Frequency	50-16,000Hz
8	Max. Current Consumption	0.4 mA
9	Min S/N ratio	58 dB
10	Material	AL
11	Environmental Regulations	RoHS

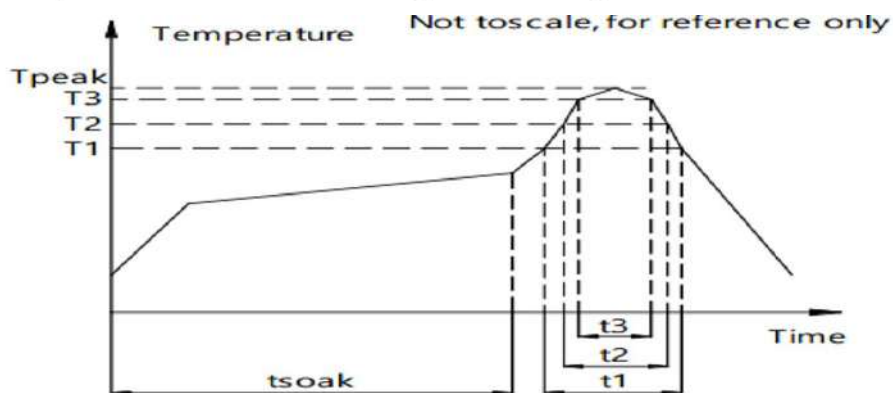
We use "Pascal (Pa)" indication of sensitivity as per the recommendation of I.E.C.(International Electro technical Commission).The Sensitivity of "Pa" will increase 20dB comparing with "ubar" indication.
Example: -60dB (0dB=1V/ubar) =-40dB (1V/Pa)

5. Measurement Method & Frequency Response curve



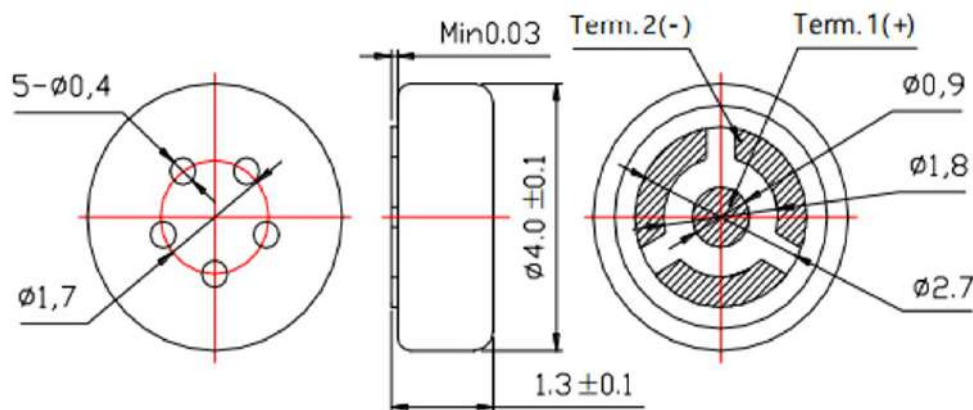
6. Dreflow process condition

Parameter	Reference	Specification
Average temperature gradient in preheating		2.5° C/s
Soak time	tsoak	2-3 minutes
Time above 217° C	t1	Max 60s
Time above 230° C	t2	Max 50s
Time above 250° C	t3	Max 10s
Peak temperature in reflow	Tpeak	255° C (-0/+5° C)
Temperature gradient in cooling		Max -5° C/s

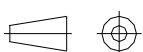


*After the initial reflow, the MIC shall be returned to ambient temperature if more reflow required. *Do not perform it more than twice.
 *After two SMT tests, the sensitivity of the MIC unit shall change less than ±2dB for initial value
 *The MIC should be exposed to room temperature for 3 hours and tested.

7. Dimensions



FIRST ANGLE PROJECTION



UNIT : mm

Tolerance : ±0.2