KEEN SIDE
electronics

Microphones (Terminal type):

2-3	HMO1001A-60
4-5	KSE-MIC2718-38C
6-7	HMO0603B-60
8-9	HMO0603A-60
10-11	HMO1003A-60
12-13	KSECM-60-64dB
14-15	KSECM-60-56dB

Microphones (Pin type, pin / terminal type):

16-17	KSEM-6027P-42dB
18-19	KSEM-6027P-38dB
20-21	KSE09767CD-48dB
22-23	KSE09767CD-56dB

1. Product type: Microphone (Terminal type)

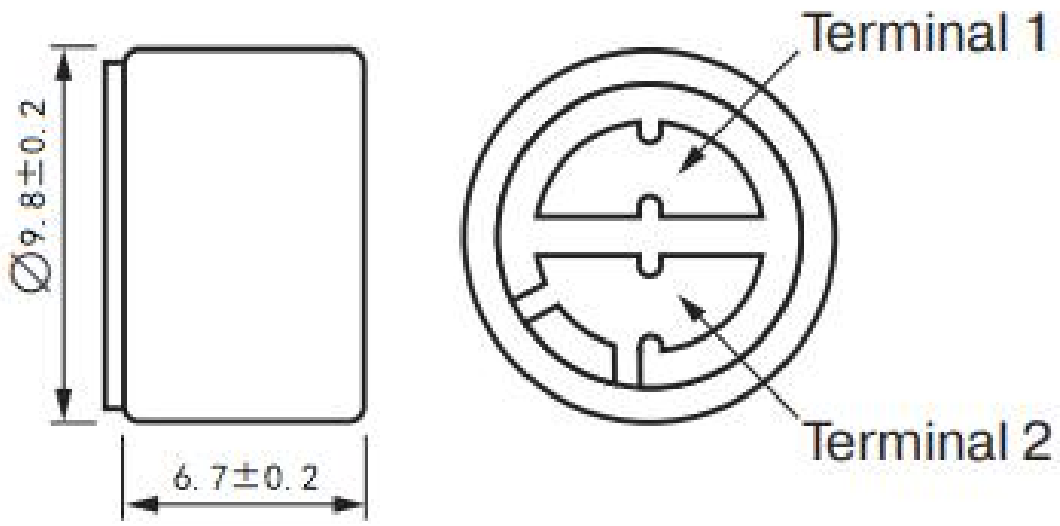
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-60±3dB@1KHz 0dB=1V/μbar
2	Standard operating voltage	1.5V
3	Bias resistor	RL=2.2 KΩ@1KHz 1μbar
4	Directivity	Omnidirectional
5	Frequency	50~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC1.0 - 10V
8	Decreasing Voltage Characteristic	Max. -3dB Pin=1 Pa , f=1kHz Vs=4.5~3.0V
9	S/N Ratio	Min. 58dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-30℃~+70℃
11	Operation condition	-20℃~+60℃

3.Dimensions Unit: mm



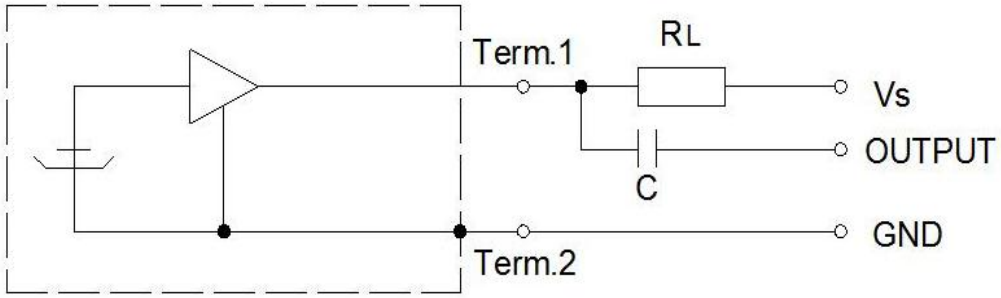
Housing Material:AL

4.Electrical And Acoustical Measuring Condition

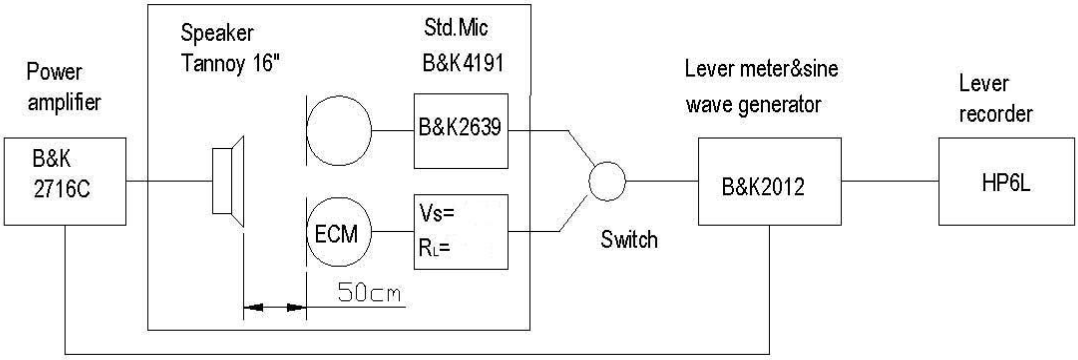
4.1 Microphone Circuit Diagram:

Measurement Circuit

Vs:Source Voltage1.5V RL:Load Resistance2.2KΩ

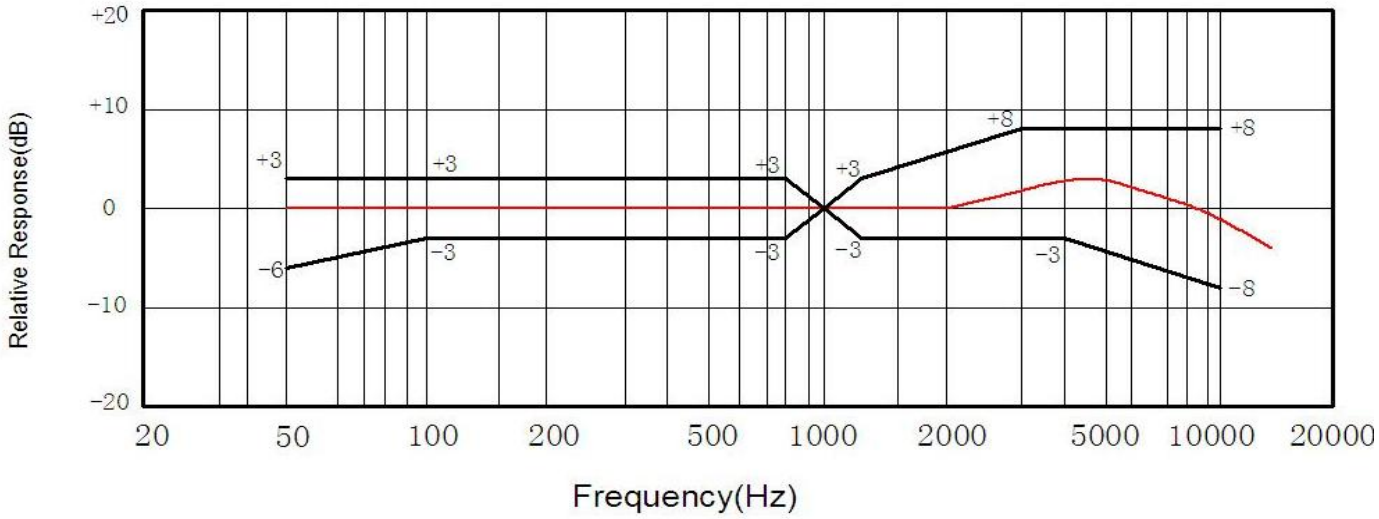


4.2 Measurement system



Far Field Test Position

5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (Terminal type)

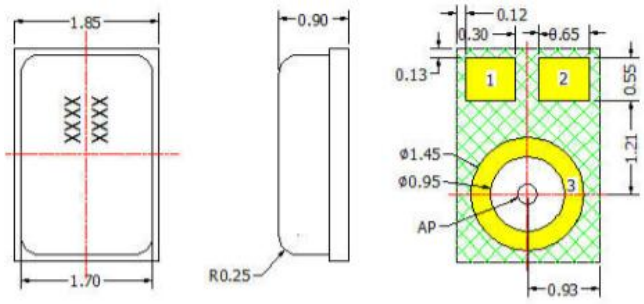
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-38±1dB@1KHz 0dB=1V/Pa
2	Standard operating voltage	2V
3	Bias resistor	RL=0.25 KΩ@1KHz 1Pa
4	Directivity	Omnidirectional
5	Frequency	20~10000HZ
6	Current Consumption	Max. 200uA
7	Operation Voltage Range	DC1.6 - 3.6V
8	Decreasing Voltage Characteristic	Max. 0.5dB Pin=1 Pa , f=1kHz Vs=3.6~1.6V
9	S/N Ratio	Min. 63dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-25℃~+70℃
11	Operation condition	-25℃~+60℃

3.Dimensions Unit: mm



Top View Side View Bottom View

Mark	Description
XXXX XXXX	Date Code

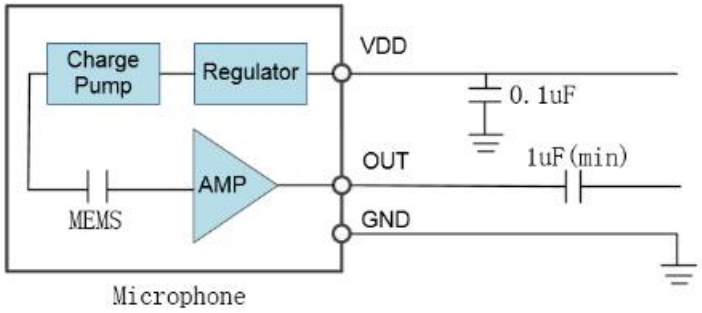
Item	Dimension	Tolerance(±)	Units
Length	2.75	0.1	mm
Width	1.85	0.1	mm
Height	0.9	0.1	mm
Acoustic Port	Ø0.25	0.05	mm

Pin #	Definition	Type	Description
1	V_{DD}	Power	Power Supply
2	Output	Signal	Output Signal
3	GND	Ground	Ground

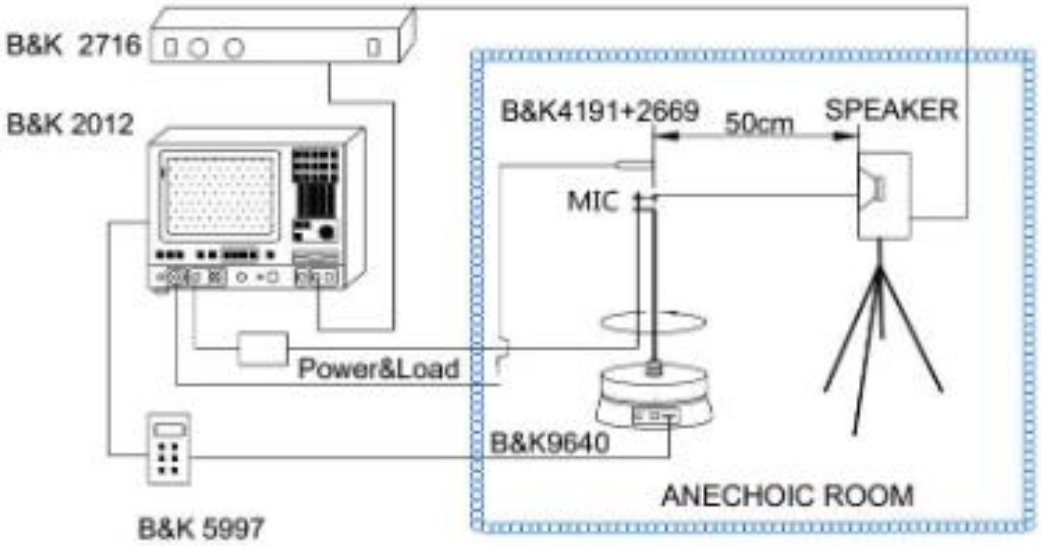
Housing Material:AL

4.Electrical And Acoustical Measuring Condition

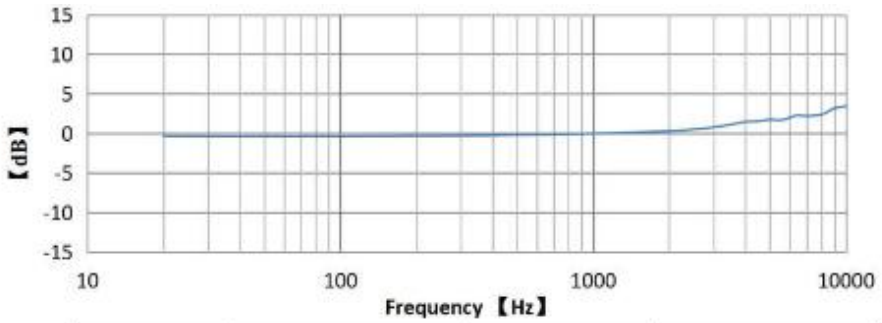
4.1 Microphone Circuit Diagram:



4.2 Measurement system



5.Typical Frequency Response Curve



Frequency (Hz)	LSL	USL	Unit
20	-1	1	dB
100	-1	1	dB
900	-1	1	dB
1000	0	0	dB
1100	-1	1	dB
8000	-1	4	dB
10000	0	9	dB

1. Product type: Microphone (Terminal type)

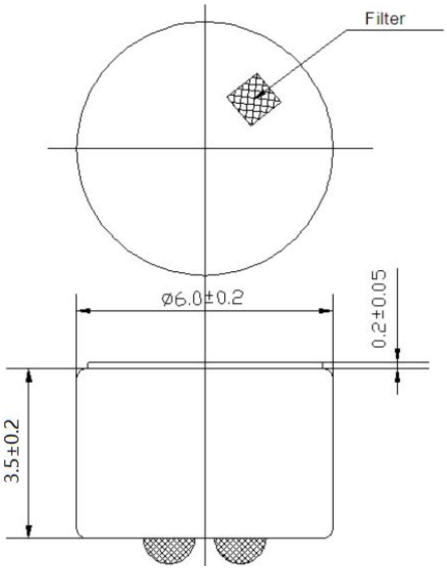
2.Technical Parameter

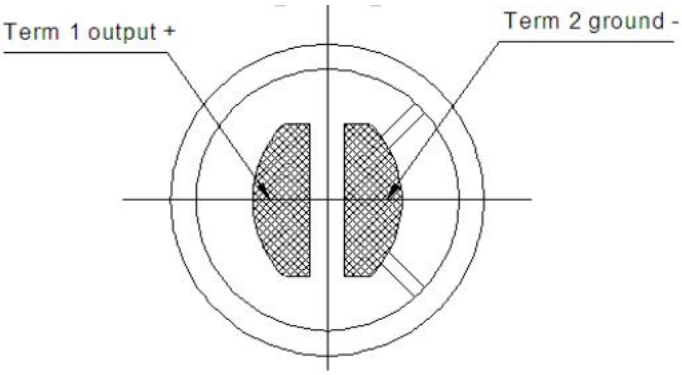
Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-40±3dB@1KHz 0dB=1V/Pa
2	Standard operating voltage	3V
3	Bias resistor	RL=2.2 KΩ@1KHz 1Pa
4	Directivity	Omnidirectional
5	Frequency	50~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC3.0 - 10V
8	Decreasing Voltage Characteristic	Max.- 3dB Pin=1 Pa , f=1kHz Vs=4.5-3.0V
9	S/N Ratio	Min. 58dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-40℃~+80℃
11	Operation condition	-30℃~+70℃

3.Dimensions Unit: mm

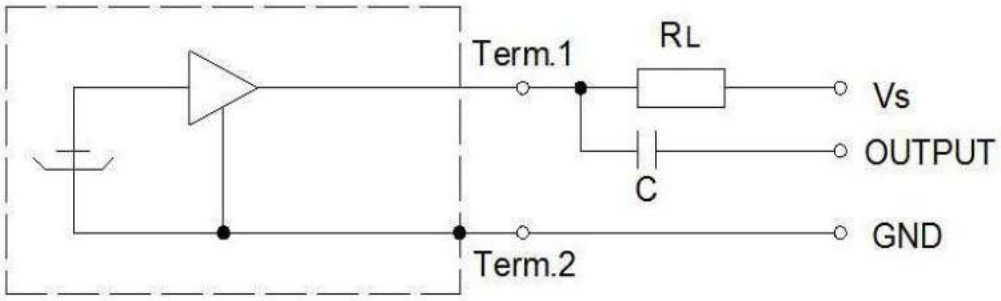




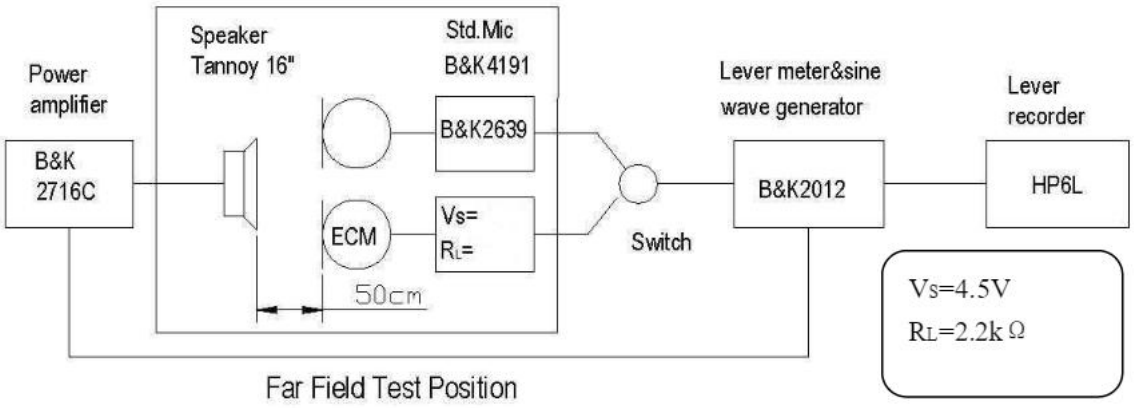
4.Electrical And Acoustical Measuring Condition

4.1 Microphone Circuit Diagram:

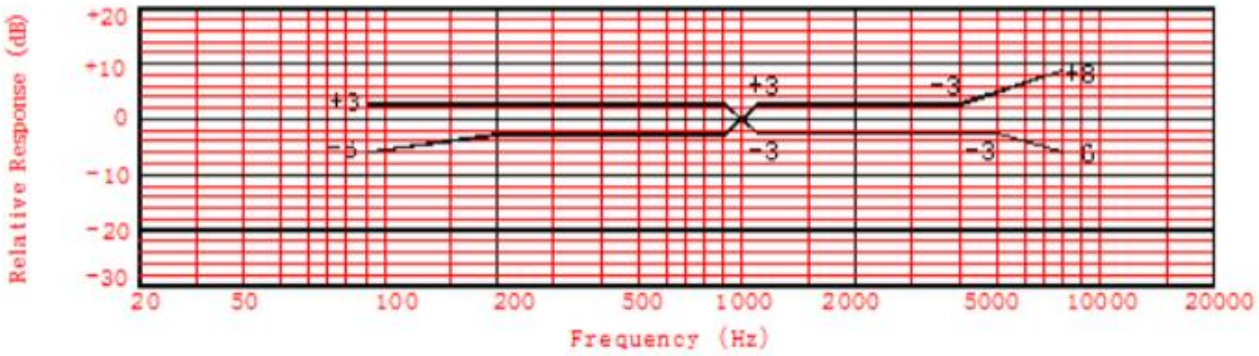
Vs:Source Voltage 3V RL:Load Resistance 2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (terminal type)

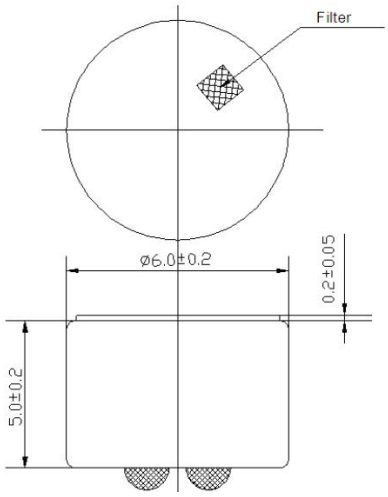
2.Technical Parameter

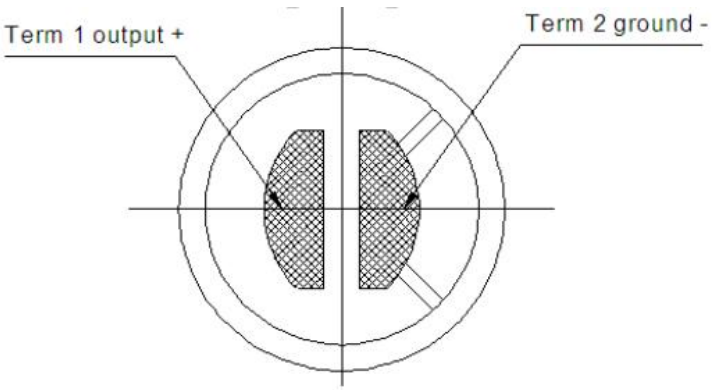
Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-40±3dB@1KHz 0dB=1V/Pa
2	Standard operating voltage	3V
3	Bias resistor	RL=2.2 KΩ@1KHz 1Pa
4	Directivity	Omnidirectional
5	Frequency	50~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range 操作电压	DC3.0 - 10V
8	Decreasing Voltage Characteristic	Max.- 3dB Pin=1 Pa , f=1kHz Vs=4.5-3.0V
9	S/N Ratio	Min. 58dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-40℃~+80℃
11	Operation condition	-30℃~+70℃

3.Dimensions Unit: mm

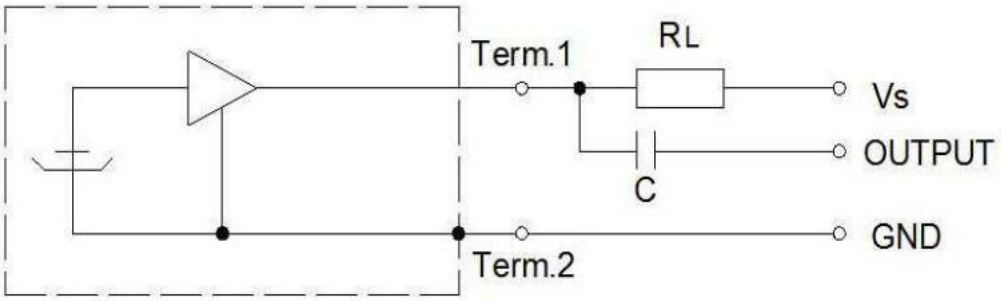




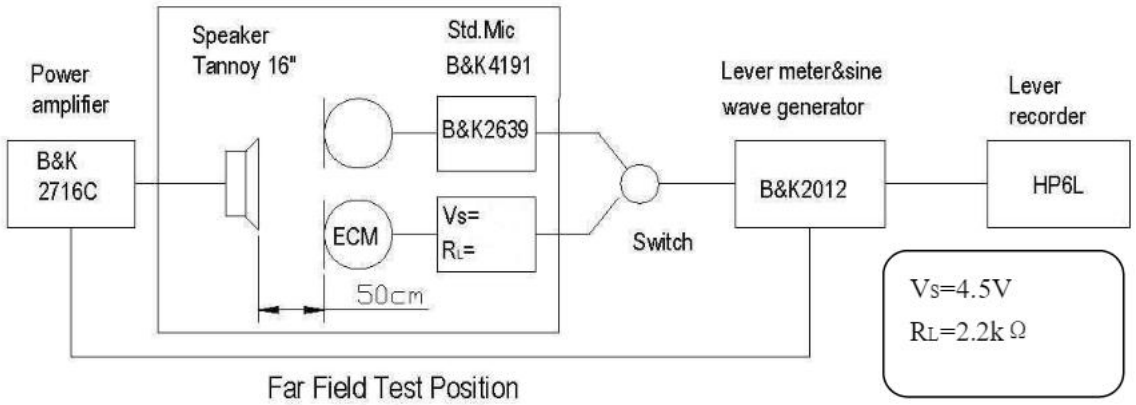
4.Electrical And Acoustical Measuring Condition

4.1 Microphone Circuit Diagram:

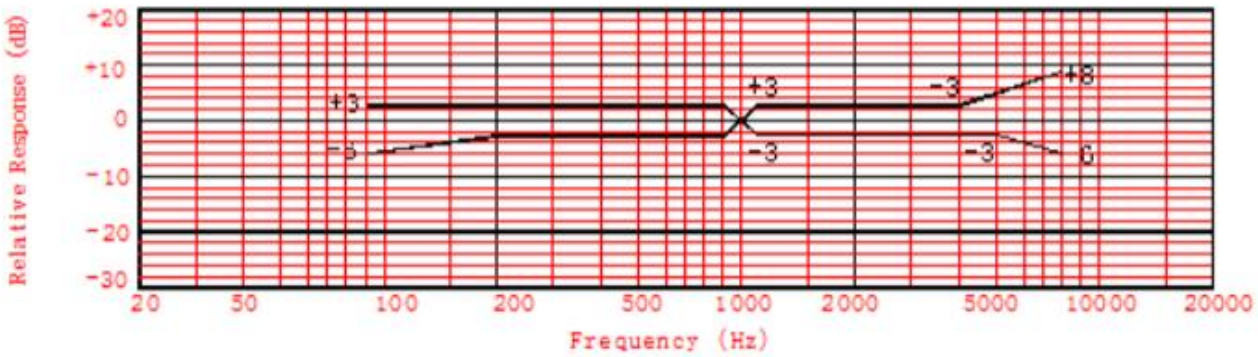
Vs:Source Voltage 3V RL:Load Resistance 2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (terminal type)

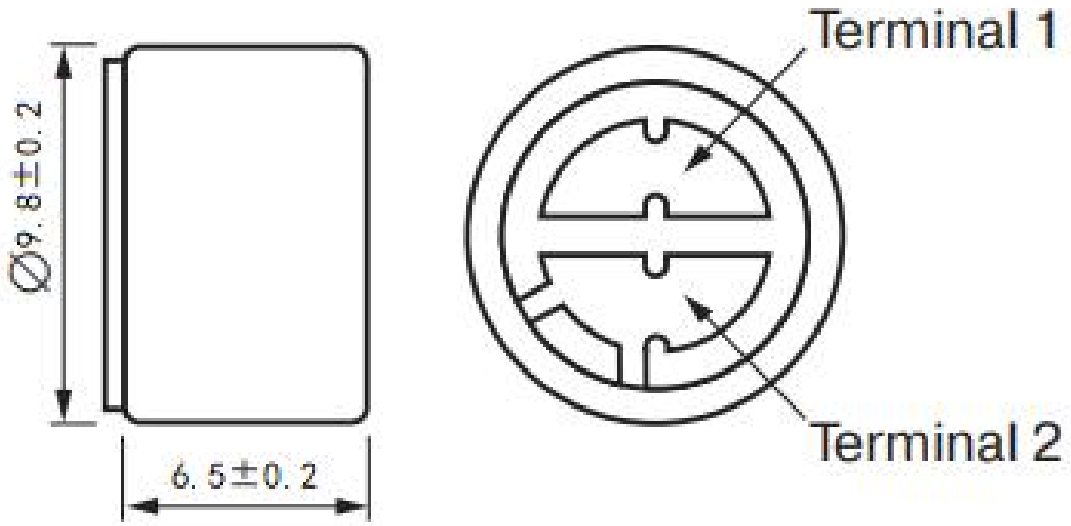
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-45±3dB@1KHz 0dB=1V/μbar
2	Standard operating voltage	3V
3	Bias resistor	RL=2.2 KΩ@1KHz 1μbar
4	Directivity	Omnidirectional
5	Frequency	50~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC3.0 - 10V
8	Decreasing Voltage Characteristic	Max. -3dB Pin=1 Pa , f=1kHz Vs=4.5~3.0V
9	S/N Ratio	Min. 60dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-30℃~+70℃
11	Operation condition	-20℃~+60℃

3.Dimensions Unit: mm

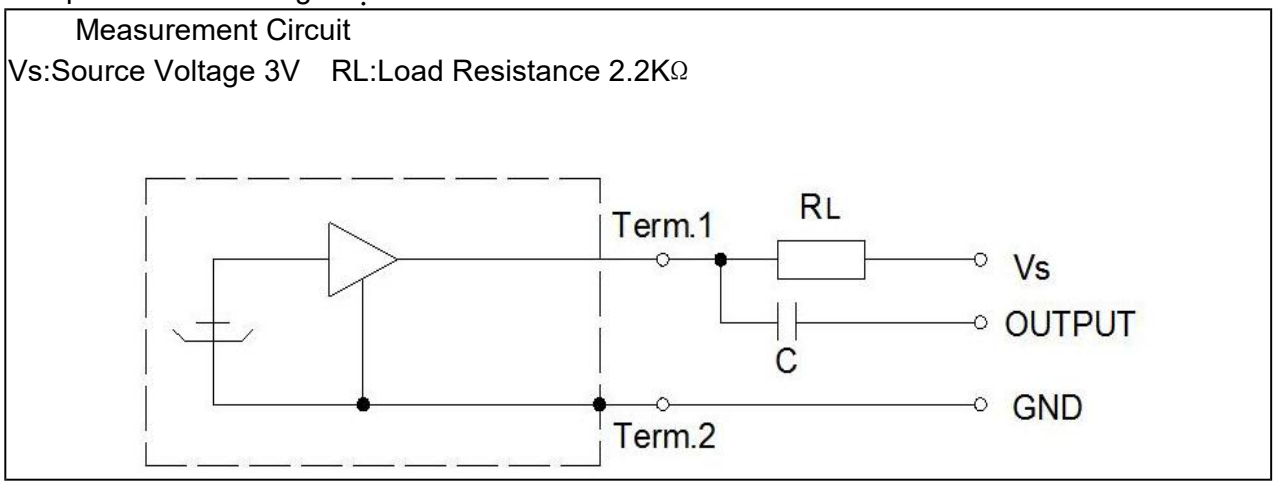


Housing Material:AL

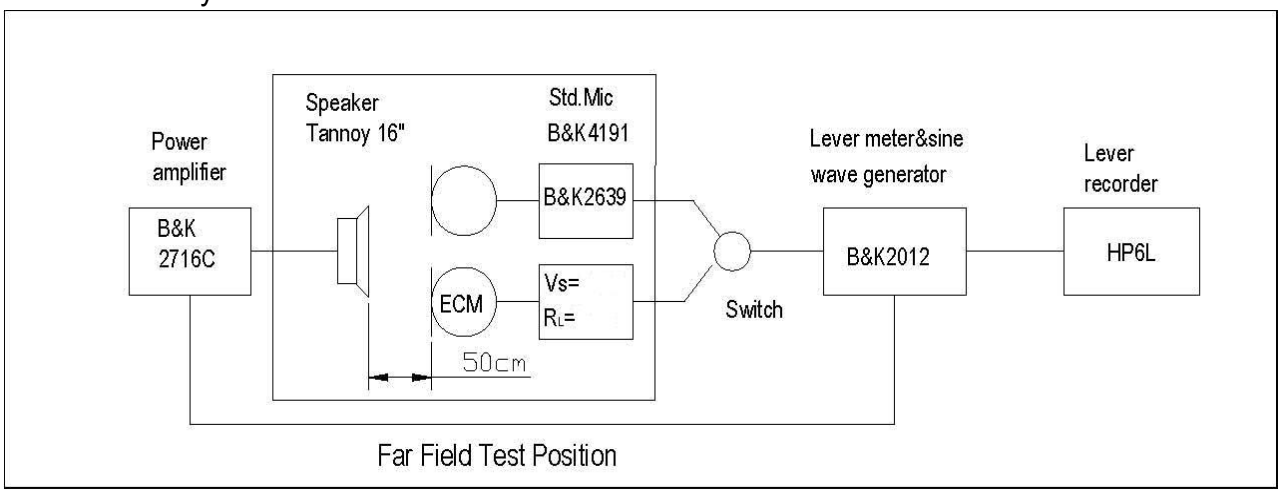
4.Electrical And Acoustical Measuring Condition

4.1 Microphone Circuit Diagram:

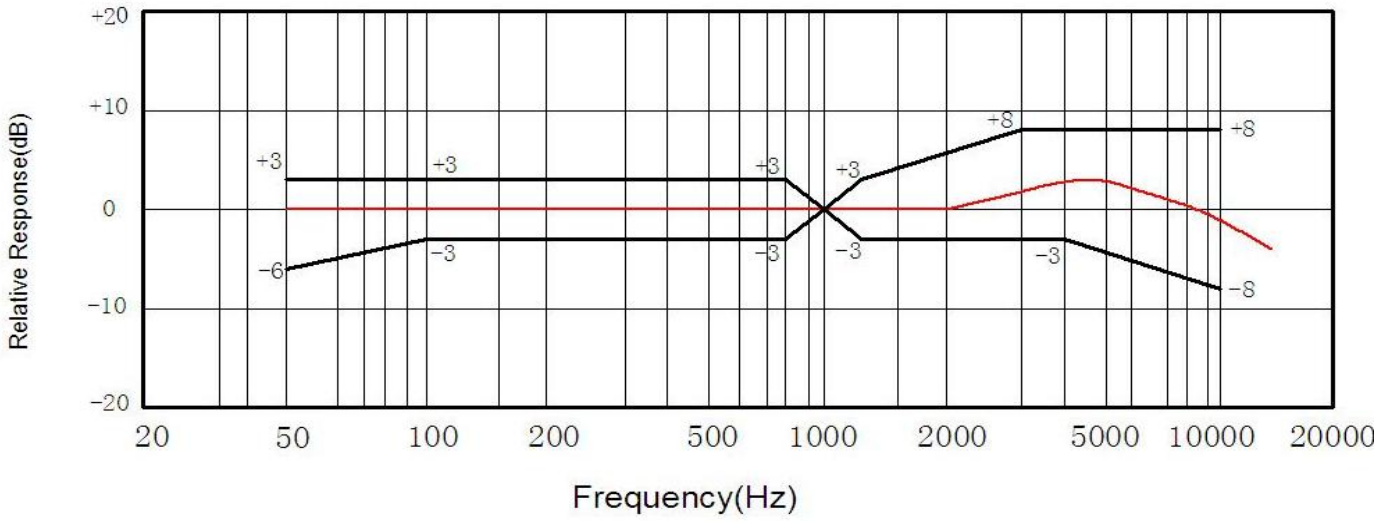
Measurement Circuit
Vs:Source Voltage 3V RL:Load Resistance 2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (terminal type)

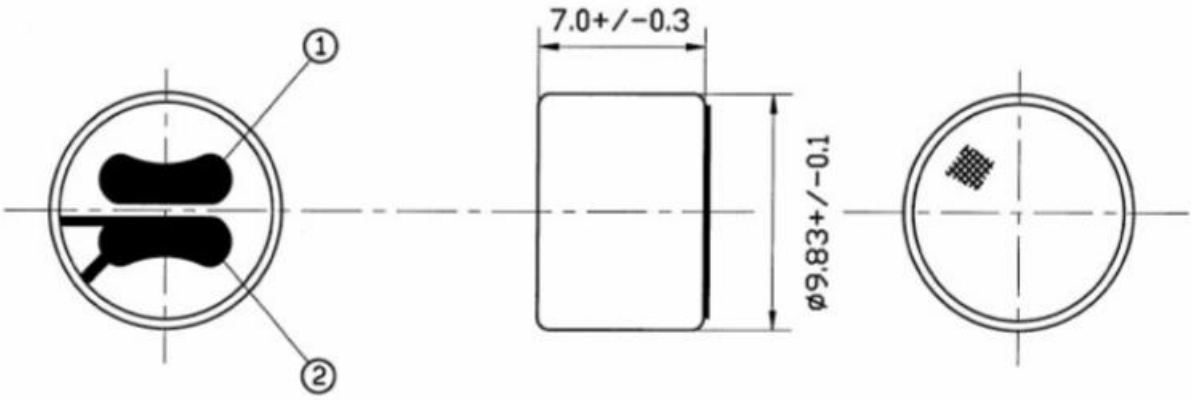
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-64±3dB@1KHz 0dB=1V/μbar
2	Standard operating voltage	4.5V
3	Bias resistor	RL=1KΩ@1KHz 1μbar
4	Directivity	Omnidirectional
5	Frequency	50~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC1.5 - 10V
8	Decreasing Voltage Characteristic	Max. -3dB Pin=1 Pa , f=1kHz Vs=4.5~3.0V
9	S/N Ratio	Min. 40dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-30℃~+70℃
11	Operation condition	-20℃~+60℃

3.Dimensions Unit: mm



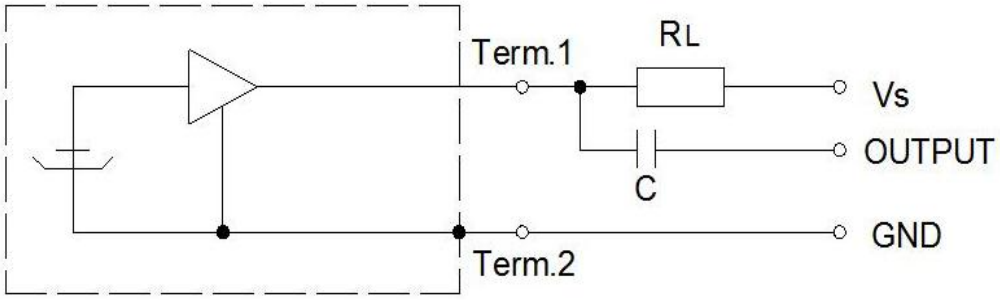
Housing Material:AL

4.Electrical And Acoustical Measuring Condition

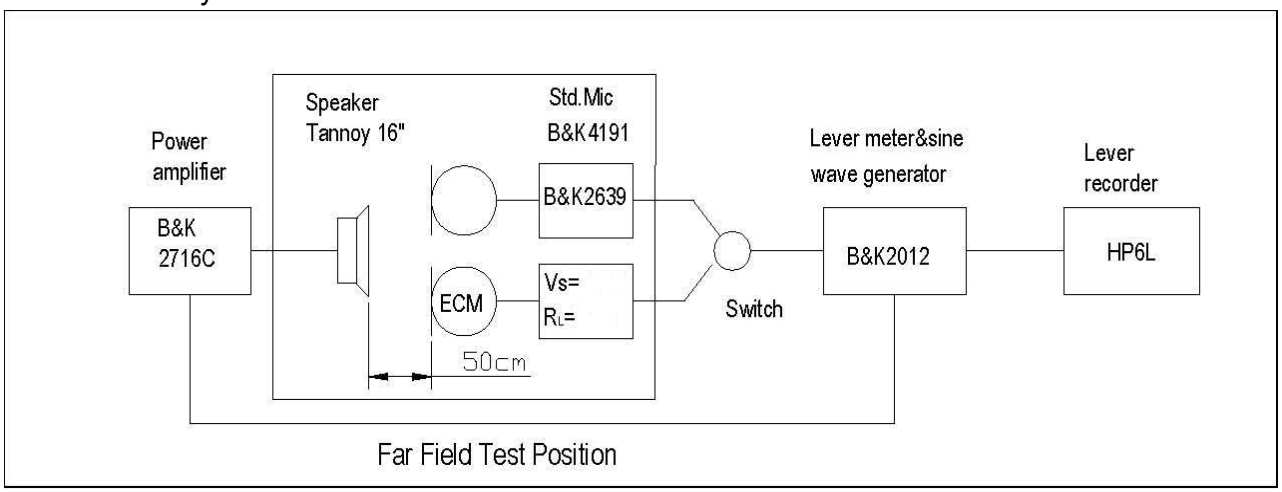
4.1 Microphone Circuit Diagram:

Measurement Circuit

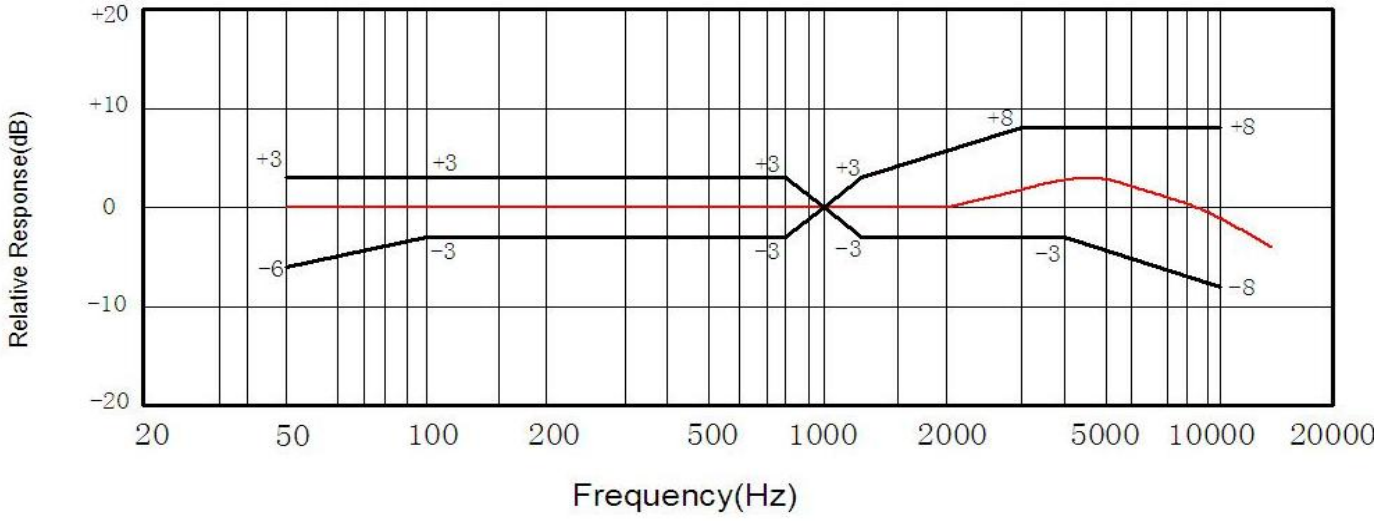
Vs:Source Voltage 4.5V RL:Load Resistance 1KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (terminal type)

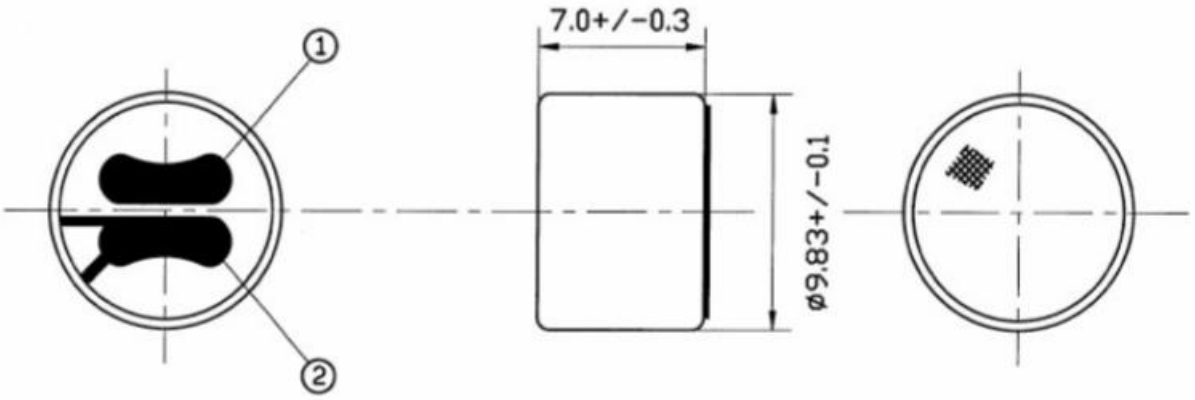
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-56±3dB@1KHz 0dB=1V/μbar
2	Standard operating voltage	4.5V
3	Bias resistor	RL=1KΩ@1KHz 1μbar
4	Directivity	Omnidirectional
5	Frequency	50~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC1.5 - 10V
8	Decreasing Voltage Characteristic	Max. -3dB Pin=1 Pa , f=1kHz Vs=4.5~3.0V
9	S/N Ratio	Min. 40dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-30℃~+70℃
11	Operation condition	-20℃~+60℃

3.Dimensions Unit: mm



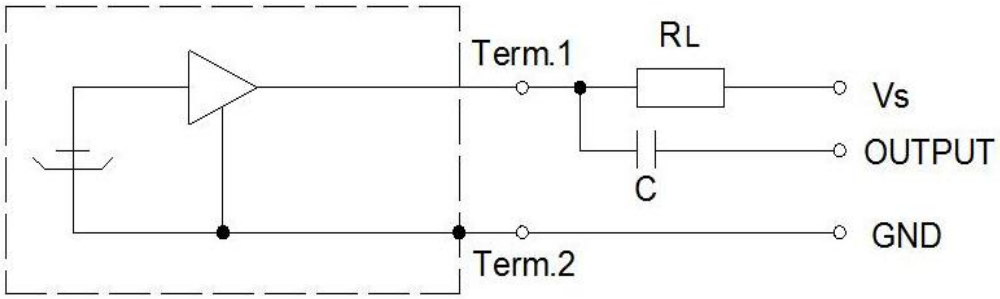
Housing Material:AL

4.Electrical And Acoustical Measuring Condition

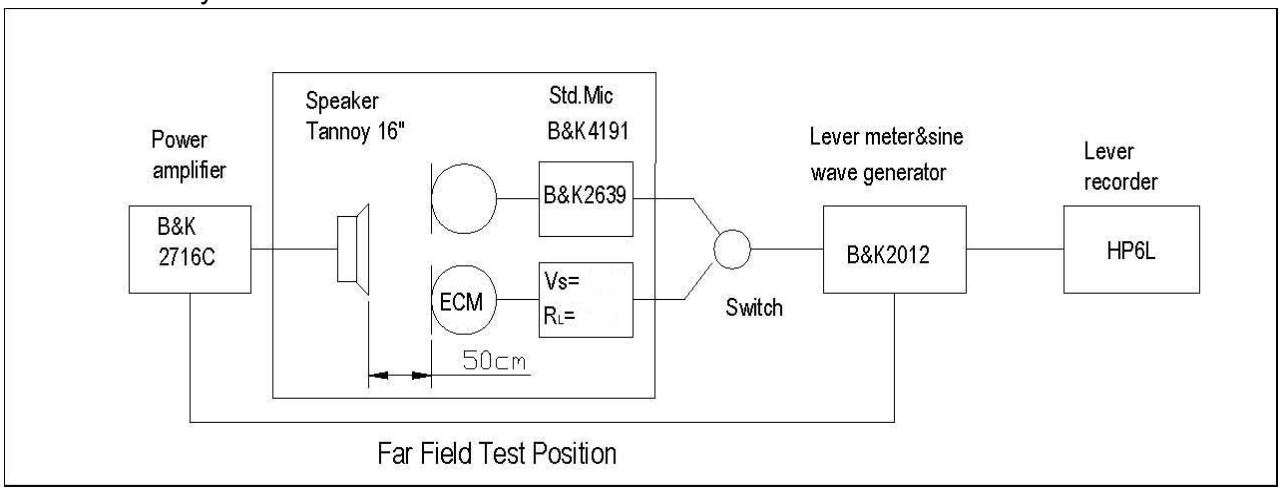
4.1 Microphone Circuit Diagram:

Measurement Circuit

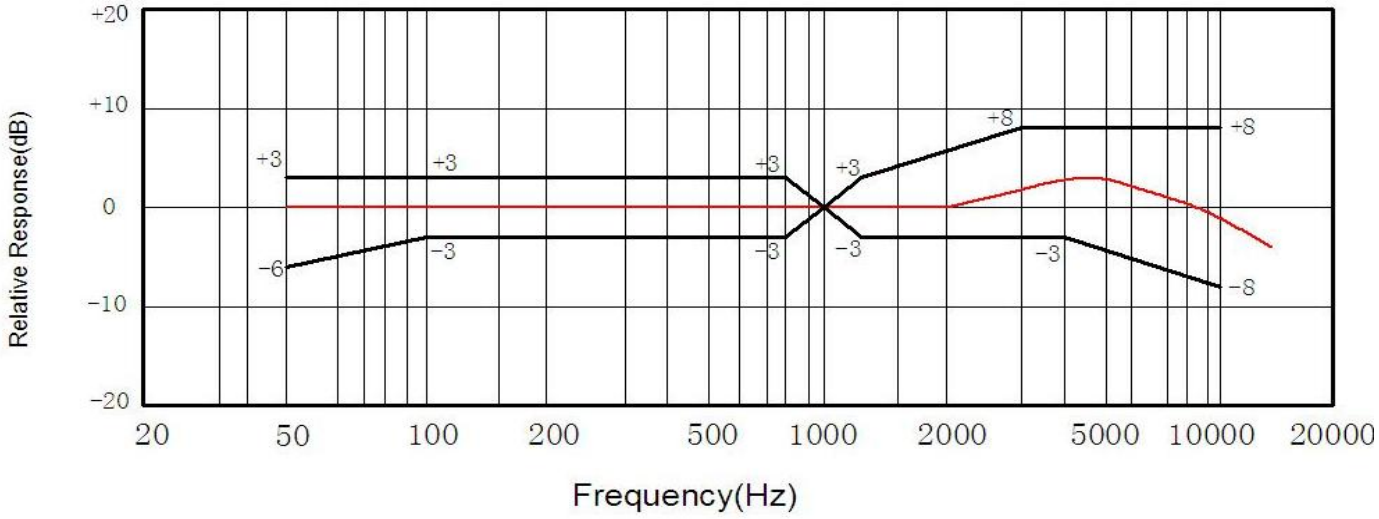
Vs:Source Voltage 4.5V RL:Load Resistance 1KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (pin type, pin / terminal type)

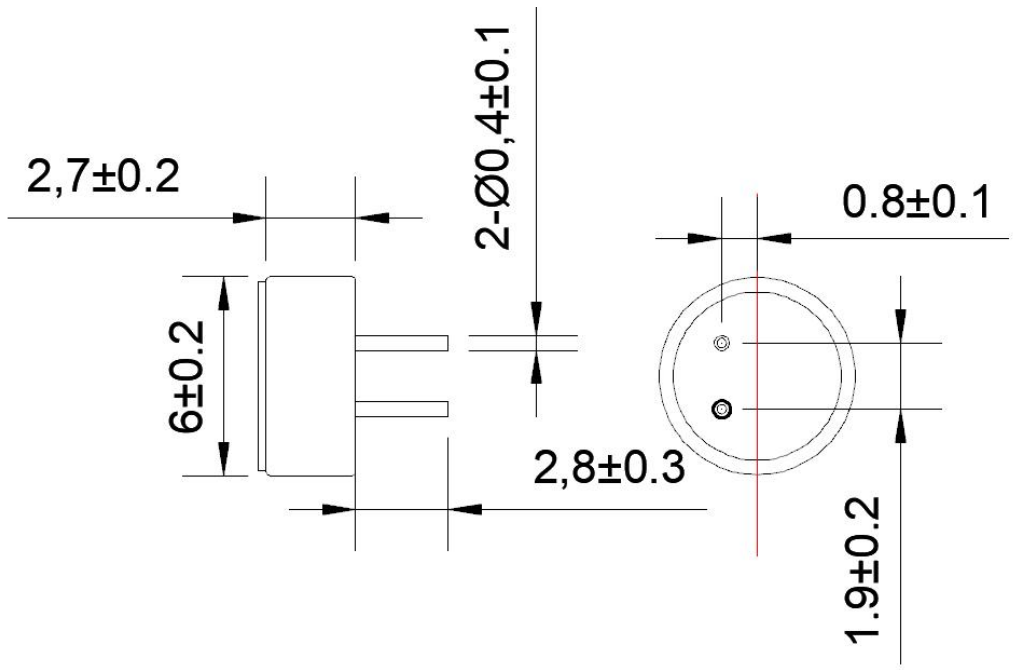
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-42±3dB@1KHz 0dB=1V/Pa
2	Standard operating voltage	4.5V
3	Bias resistor	RL=2.2 KΩ@1KHz 1Pa
4	Directivity	Omnidirectional
5	Frequency	20~16000HZ
6	Current Consumption	Max. 300uA
7	Operation Voltage Range	DC1.0 - 10V
8	Decreasing Voltage Characteristic	Max. 3dB Pin=1 Pa , f=1kHz Vs=2.0~1.5V
9	S/N Ratio	Min. 40dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-25℃~+70℃
11	Operation condition	-25℃~+60℃

3.Dimensions Unit: mm

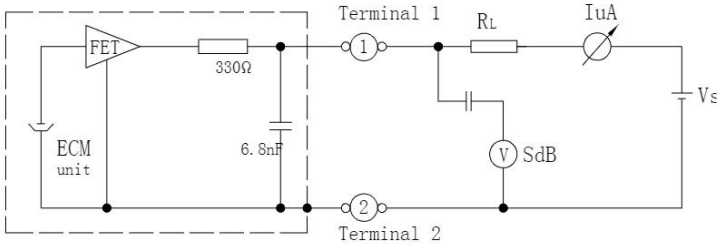


Housing Material:AL

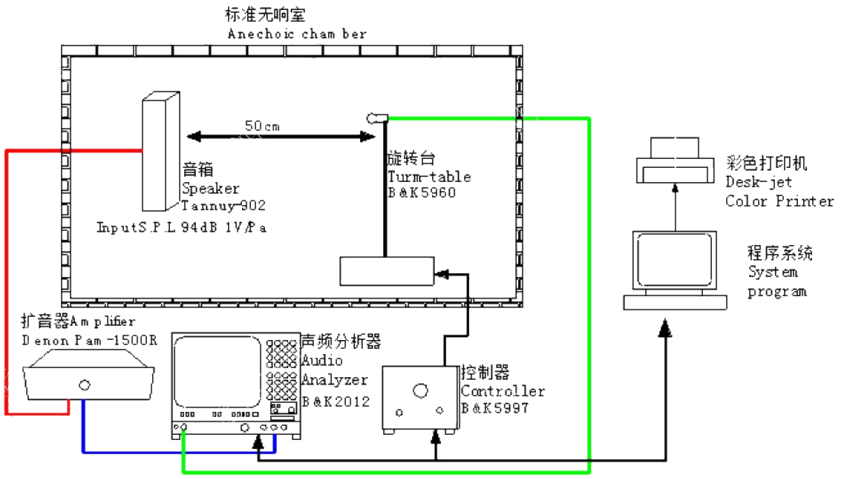
4.Electrical And Acoustical Measuring Condition

4.1 Microphone Circuit Diagram:

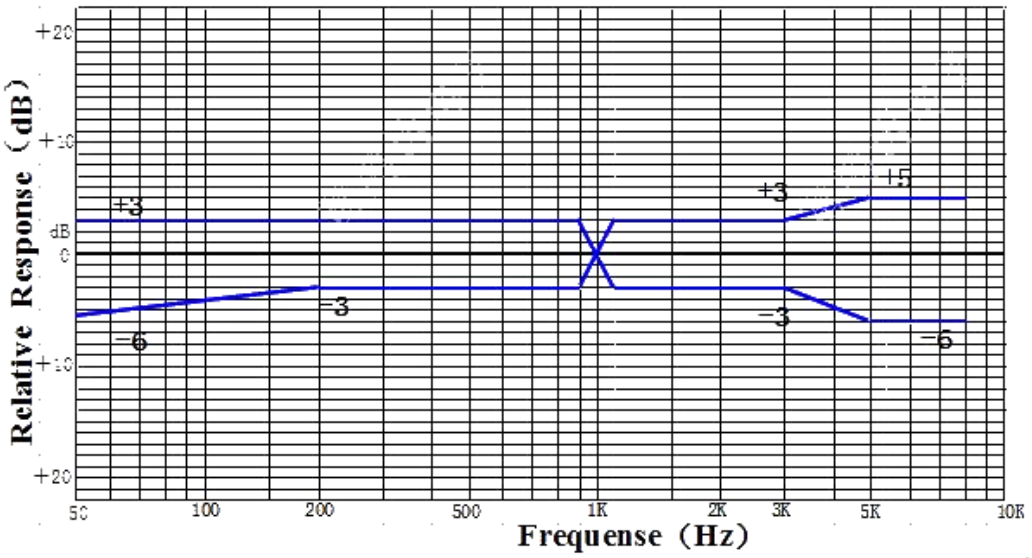
Vs:Source Voltage 3V RL:Load Resistance 2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (pin type, pin / terminal type)

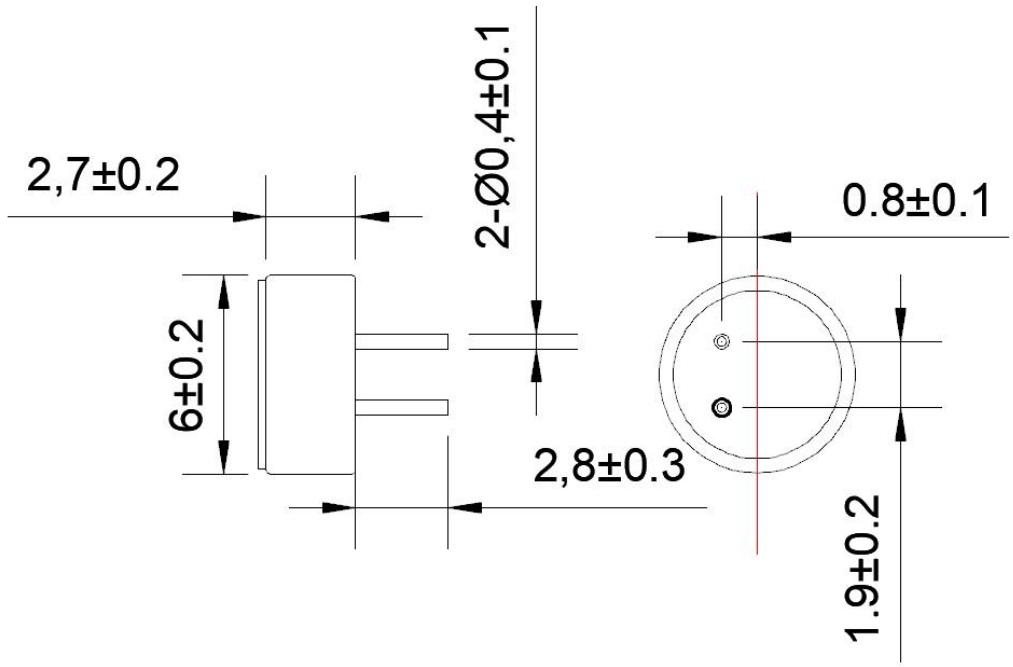
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-38±3dB@1KHz 0dB=1V/Pa
2	Standard operating voltage	4.5V
3	Bias resistor	RL=2.2 KΩ@1KHz 1Pa
4	Directivity	Omnidirectional
5	Frequency	20~16000HZ
6	Current Consumption	Max. 300uA
7	Operation Voltage Range	DC1.0 - 10V
8	Decreasing Voltage Characteristic	Max. 3dB Pin=1 Pa , f=1kHz Vs=2.0~1.5V
9	S/N Ratio	Min. 40dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-25℃~+70℃
11	Operation condition	-25℃~+60℃

3.Dimensions Unit: mm

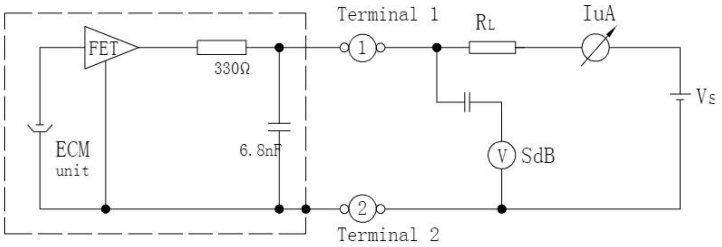


Housing Material:AL

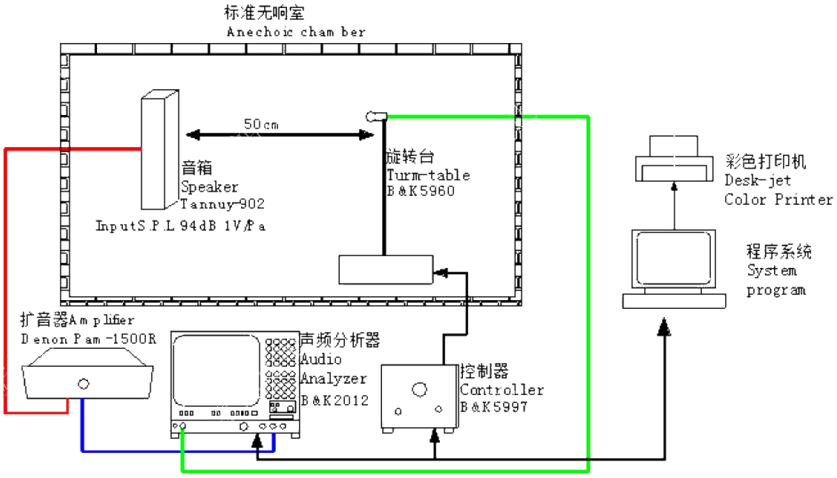
4.Electrical And Acoustical Measuring Condition

4.1 Microphone Circuit Diagram:

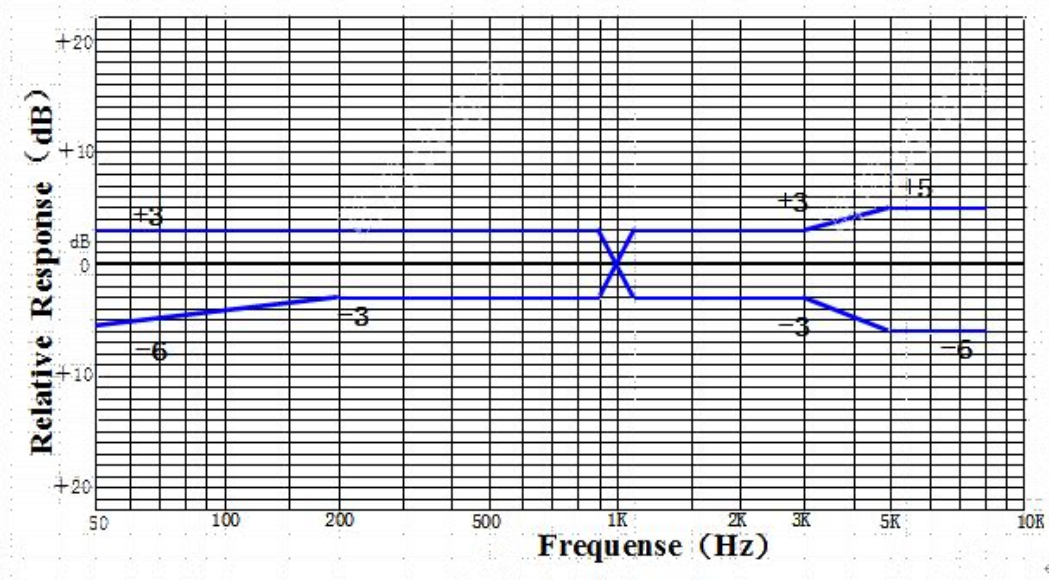
Vs:Source Voltage 3V RL:Load Resistance 2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (pin type, pin / terminal type)

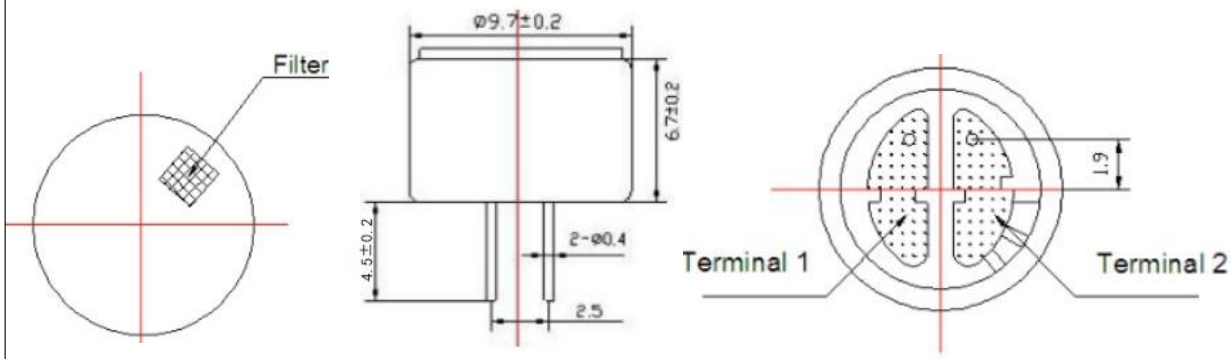
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-48±3dB@1KHz 0dB=1V/μbar
2	Standard operating voltage	4.5V
3	Bias resistor	RL=2.2 KΩ@1KHz 1μbar
4	Directivity	Omnidirectional
5	Frequency	20~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC1.5 - 10V
8	Decreasing Voltage Characteristic	Max. -3dB Pin=1 Pa , f=1kHz Vs=4.5~3.0V
9	S/N Ratio	Min. 58dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-30℃~+70℃
11	Operation condition	-20℃~+60℃

3.Dimensions Unit: mm



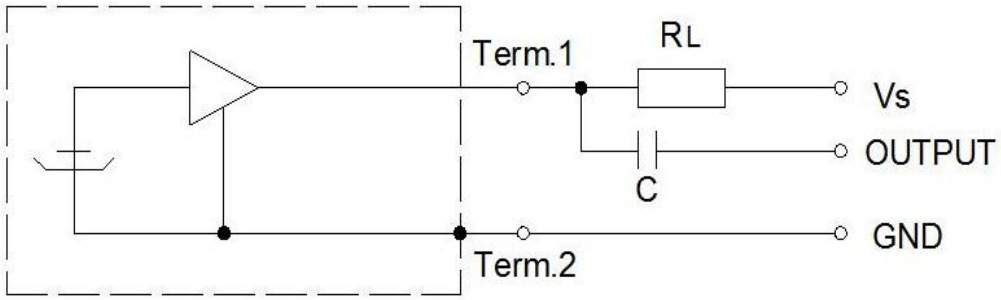
Housing Material:AL

4.Electrical And Acoustical Measuring Condition

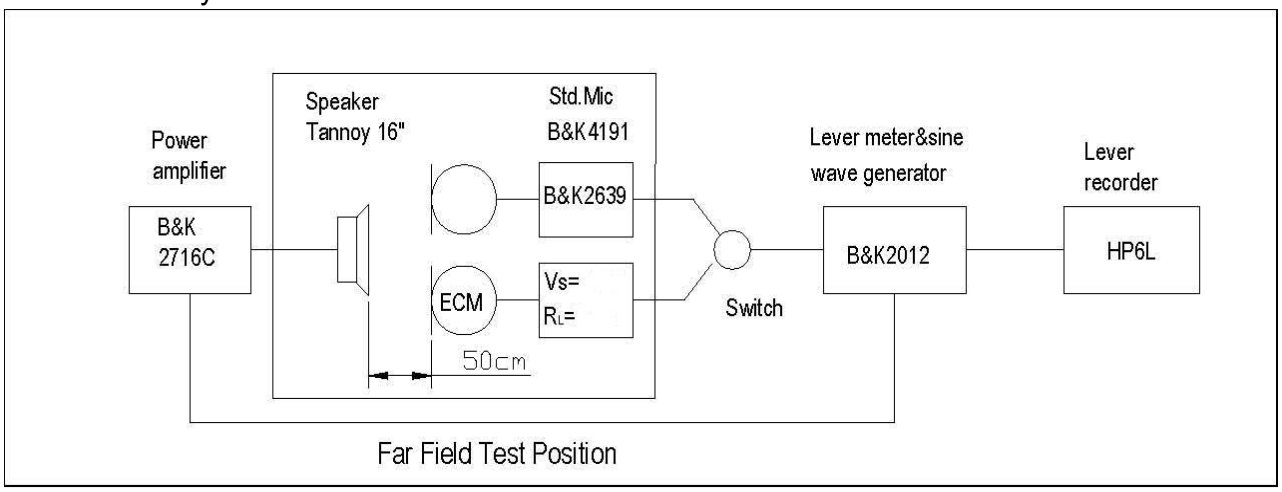
4.1 Microphone Circuit Diagram:

Measurement Circuit

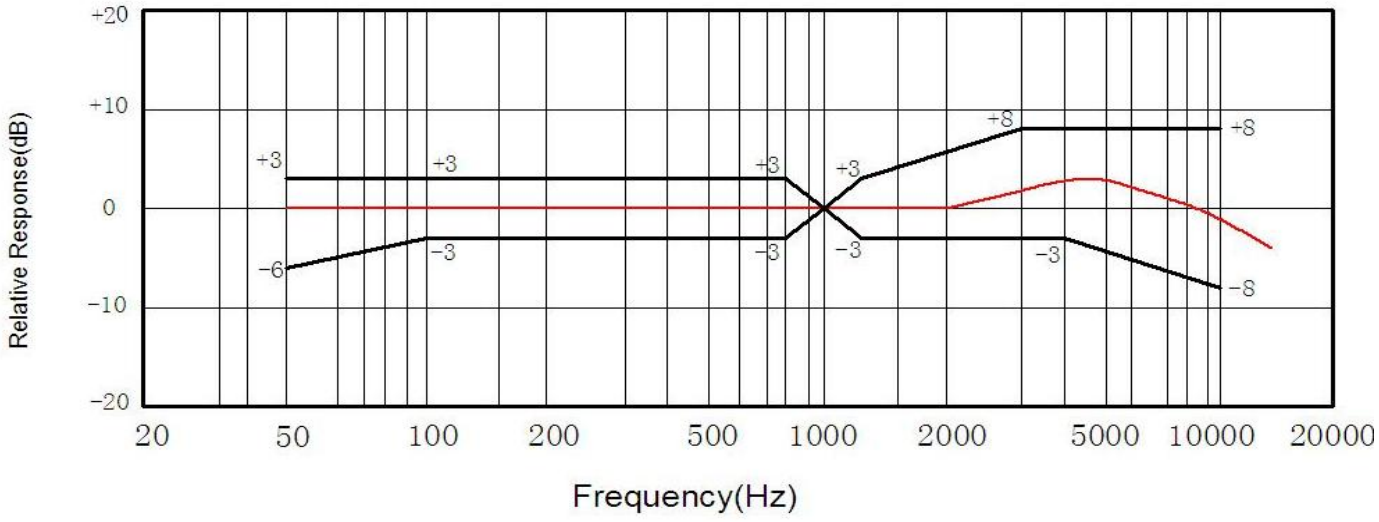
Vs:Source Voltage4.5V RL:Load Resistance2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm



1. Product type: Microphone (pin type, pin / terminal type)

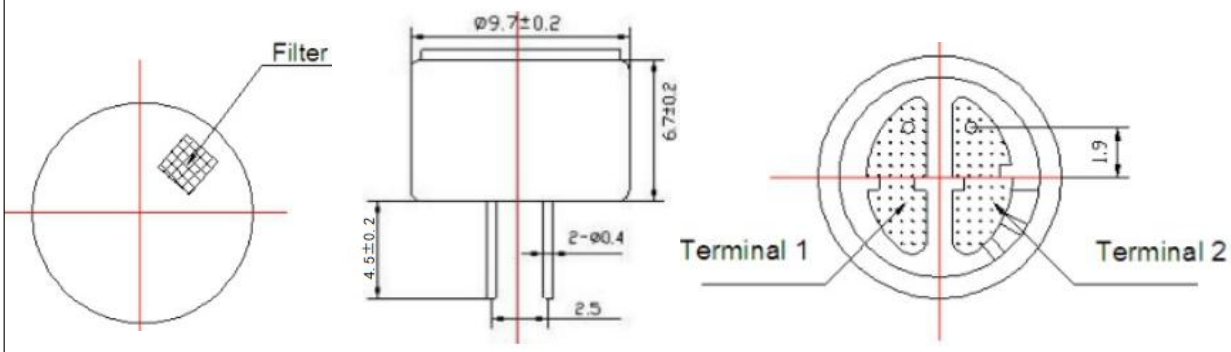
2.Technical Parameter

Measuring condition

Part shall be measured under a condition (Temperature: 5 ~ 35℃, Humidity: 45% ~ 85%R.H., Atmospheric pressure: 860 ~ 1060hPa) unless the standard condition (Temperature: 25±3℃, Humidity: 60±10%R.H. Atmospheric pressure: 860 ~ 1060hPa) is regulated to measure.

1	Sensitivity	-56±3dB@1KHz 0dB=1V/μbar
2	Standard operating voltage	4.5V
3	Bias resistor	RL=2.2 KΩ@1KHz 1μbar
4	Directivity	Omnidirectional
5	Frequency	20~16000HZ
6	Current Consumption	Max. 500uA
7	Operation Voltage Range	DC1.5 - 10V
8	Decreasing Voltage Characteristic	Max. -3dB Pin=1 Pa , f=1kHz Vs=4.5~3.0V
9	S/N Ratio	Min. 58dB Pin=1 Pa , f=1kHz(A Curve)
10	Storage condition	-30℃~+70℃
11	Operation condition	-20℃~+60℃

3.Dimensions Unit: mm



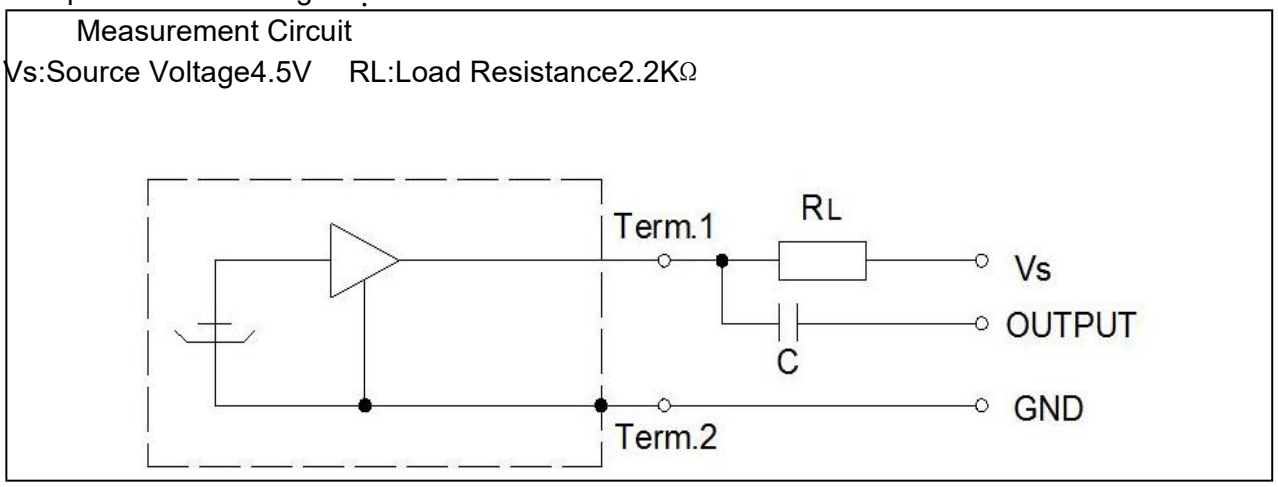
Housing Material:AL

4.Electrical And Acoustical Measuring Condition

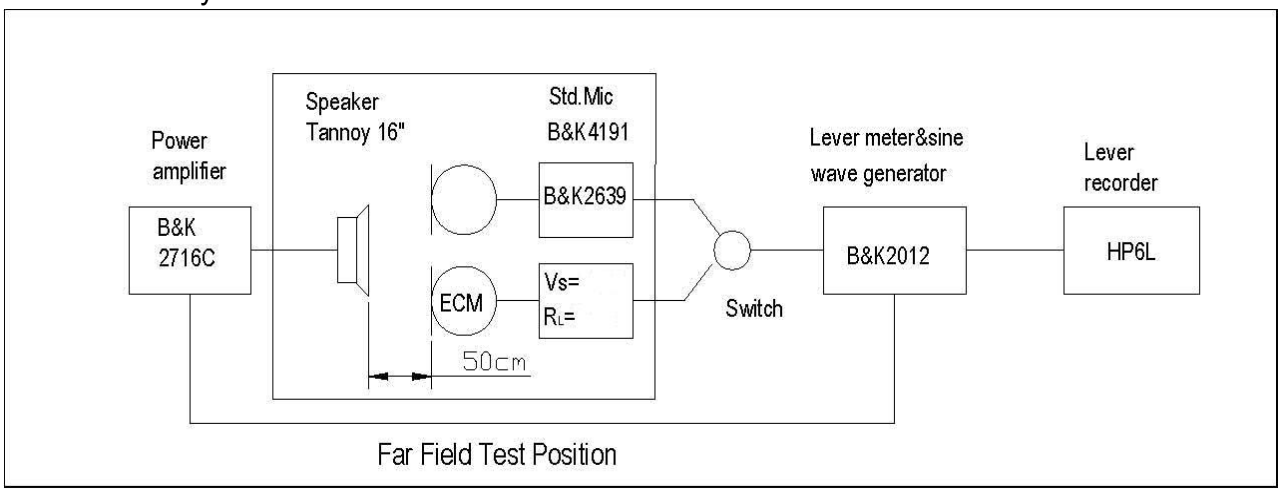
4.1 Microphone Circuit Diagram:

Measurement Circuit

Vs:Source Voltage4.5V RL:Load Resistance2.2KΩ



4.2 Measurement system



5.Typical Frequency Response Curve L=50cm