Specification of Microphone

LinkMems P/N: LO6027YD332E8N35-L20B

Designed by	Checked by	Approved by
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Customer Approval

Approved by:_____

Contents

Electret Condenser Microphone

1. Introduction

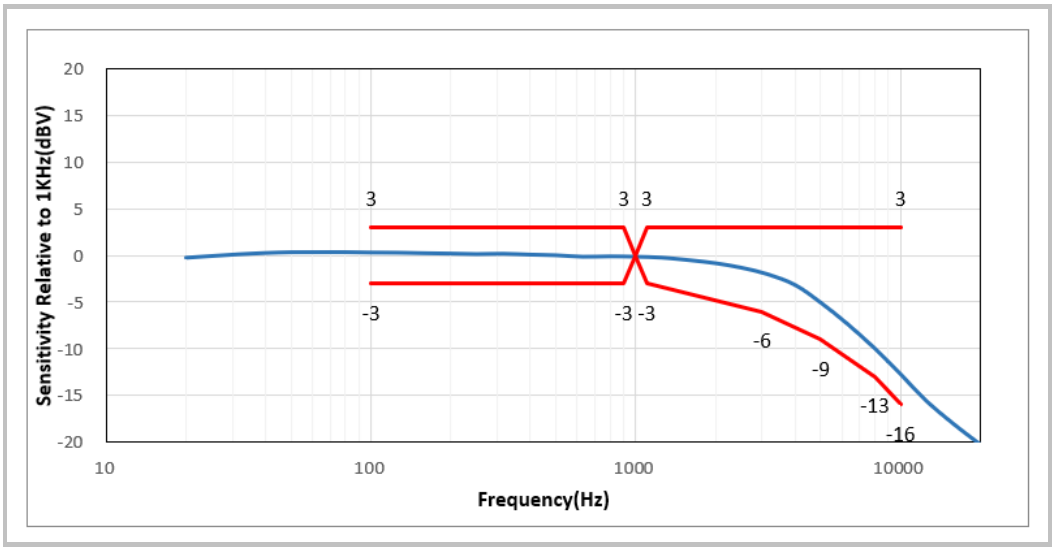
This document is the technical specification of electret condenser (ECM) Omni-Directional Microphone.

2. Electrical Characteristics

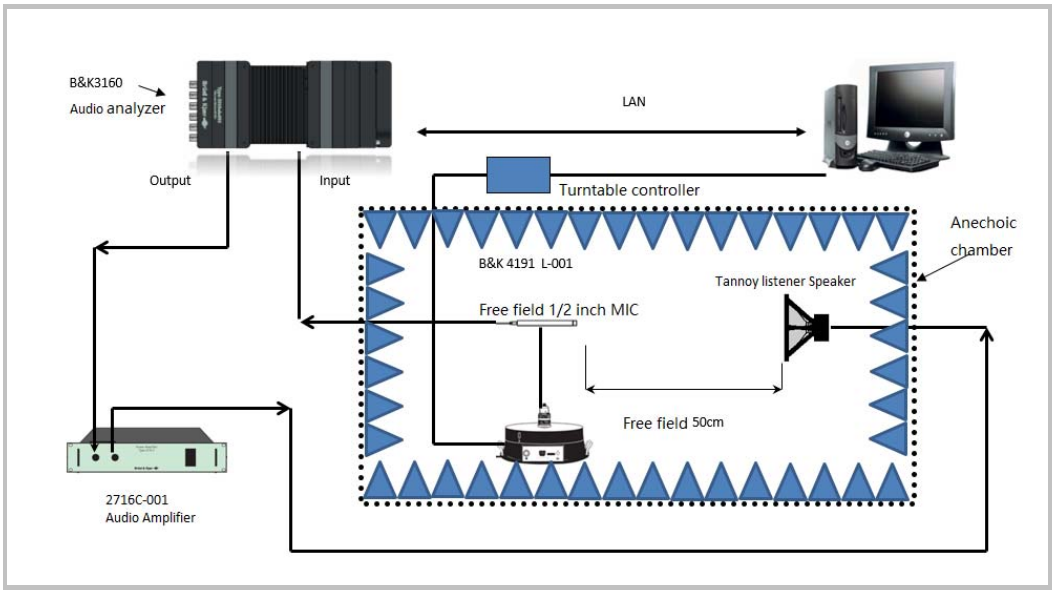
Test Condition: V_{DD}=2.0V, RL=2.2 kΩ, 23±2℃, 55±20%R.H., unless otherwise specified.

Specification	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Directivity			Omni-directional			
Sensitivity Range	S	94dBSPL @1kHz	-35	-33	-31	dB
Output Impedance	Z_{out}	94dBSPL @1kHz			2.2	kΩ
Current Consumption	I	V_S =2.0V RL=2.2 kΩ			450	μA
S/N Ratio	SNR	94dBSPL @1kHz A-Weighted		70		dB(A)
Operating Voltage	V_s		1.0	2.0	10.0	V
Sensitivity vs. Voltage	△S	94dBSPL @1kHz V_S=2.0V to 1.5V			-3	dB
Total Harmonic Distortion	THD	115dBSPL@1kHz		3		%

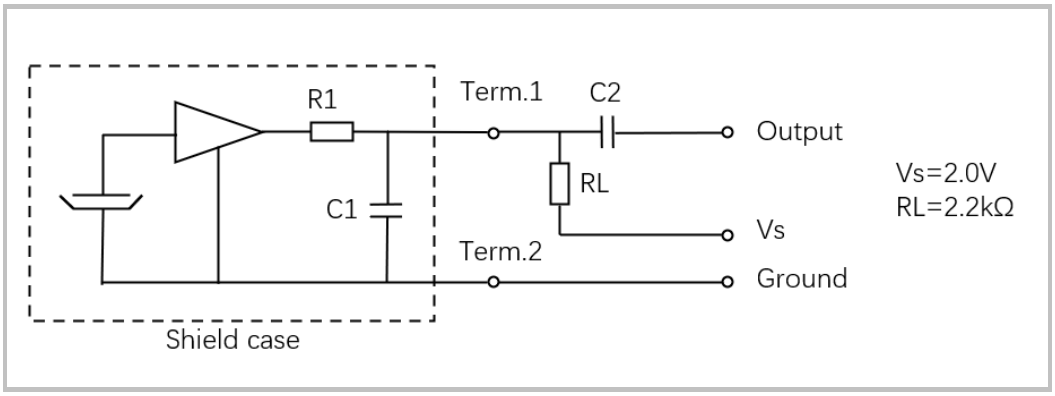
3. Frequency Response Curve



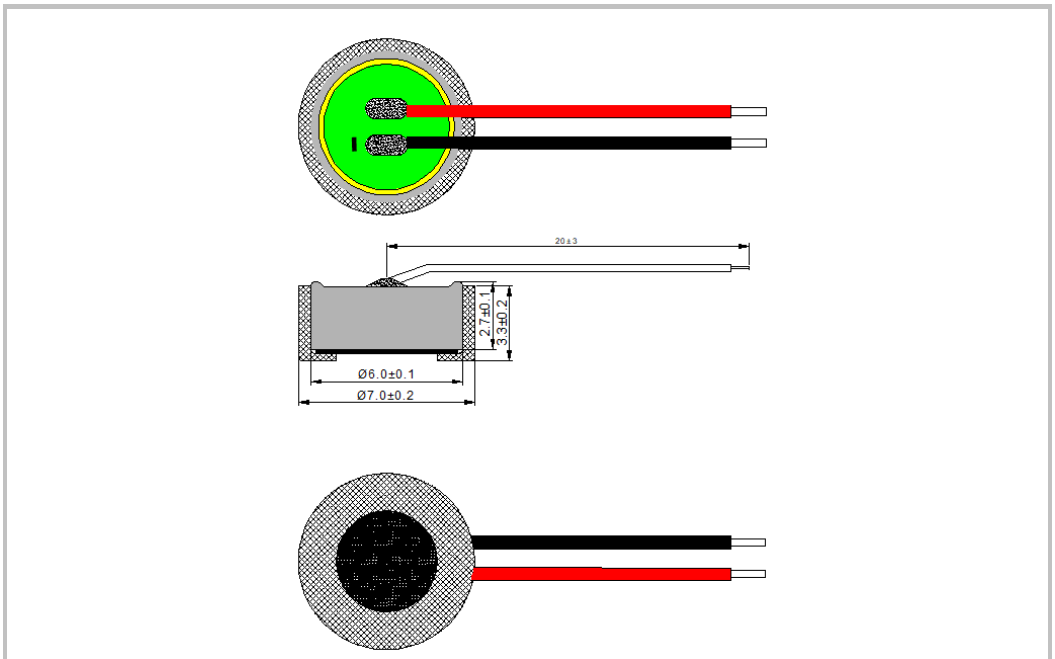
4. Test Setup (Sensitivity Test in Anechoic Room)



5. Measurement Circuit



6. Mechanical Characteristics



Notes:
All dimensions are in millimeter (mm).

7. Special Cautions

7.1 Environmental Condition

7.1.1 Storage Condition:-40℃～+80℃.

7.1.2 Operating Condition:-30℃～+70℃.

7.1.3 Arbitration Condition:20±1℃, R.H.63~67%, Air pressure:86~106Kpa.

7.2 Storage Condition

7.2.1 Keep ECM in warehouse with humidity less than 75%R.H. and without sudden temperature change, acid air, any other harmful air or strong magnetic field.

7.2.2 Please protect products against moist, shock, sunburn and pressure.

7.2.3 MSL Please take proper measures against ESD in the process. Please use the shipment package for long-term storage.

8. Packaging Information

TBD

9. Reliability Test

The samples should be placed in the room with 20±2℃, 65±5%R.H. for 3 hours at least before final measurement, unless otherwise specified.

Item	Detail	Standard
High temperature Test	After exposure at +80°C for 200 hours.	±3 dB
Low temperature Test	After exposure at -30°C for 200 hours.	±3 dB
Humidity & Heat Test	After exposure at +40°C and 93% relative humidity for 200 hours.	±3 dB
Thermal Shock	After exposure at -25°C for 30 minutes, at 20°C for 10 minutes, at+70°c for 30 minutes, at 20°C for 10 minutes,32 cycles.	±3 dB
Vibration Test	To be no interference in operation after vibrations, 10-55Hz for 2 hours at three axises with 2mm-high amplitude	±3 dB
Drop Test	The microphone without packaged must be subjected to each 3 drops from the height of 100cm to 1cm thick ceramic tile.	±3 dB
Soldering Heat Shock	After soldering heat shock temperature 300±5℃ for 3±1 seconds.	±3 dB

Specification Revisions

Revision	Description	Approved	Date
1.0	New Version Released	Kevin	05/01/2026