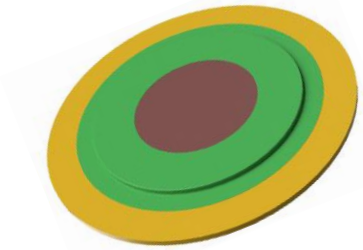
PUIaudio



Data Sheet HD-PAB1501

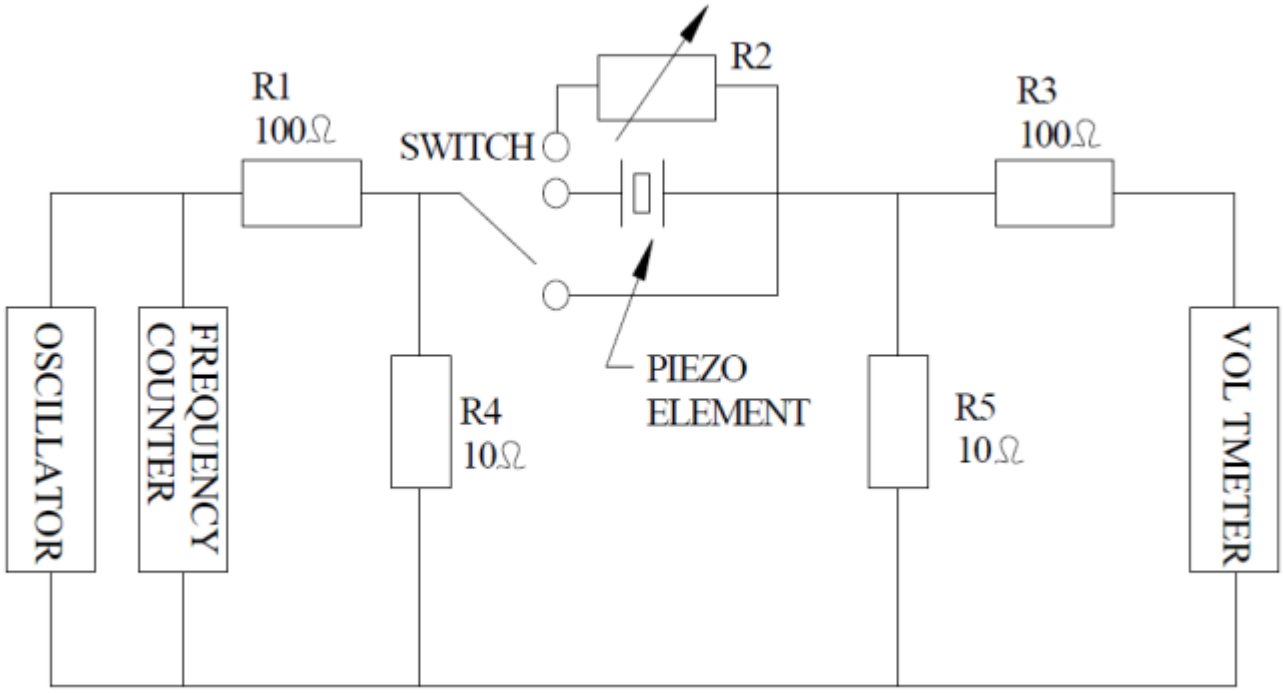
Features:

- Disc shaped thin profile
- Fast response
- Strong Haptic feedback

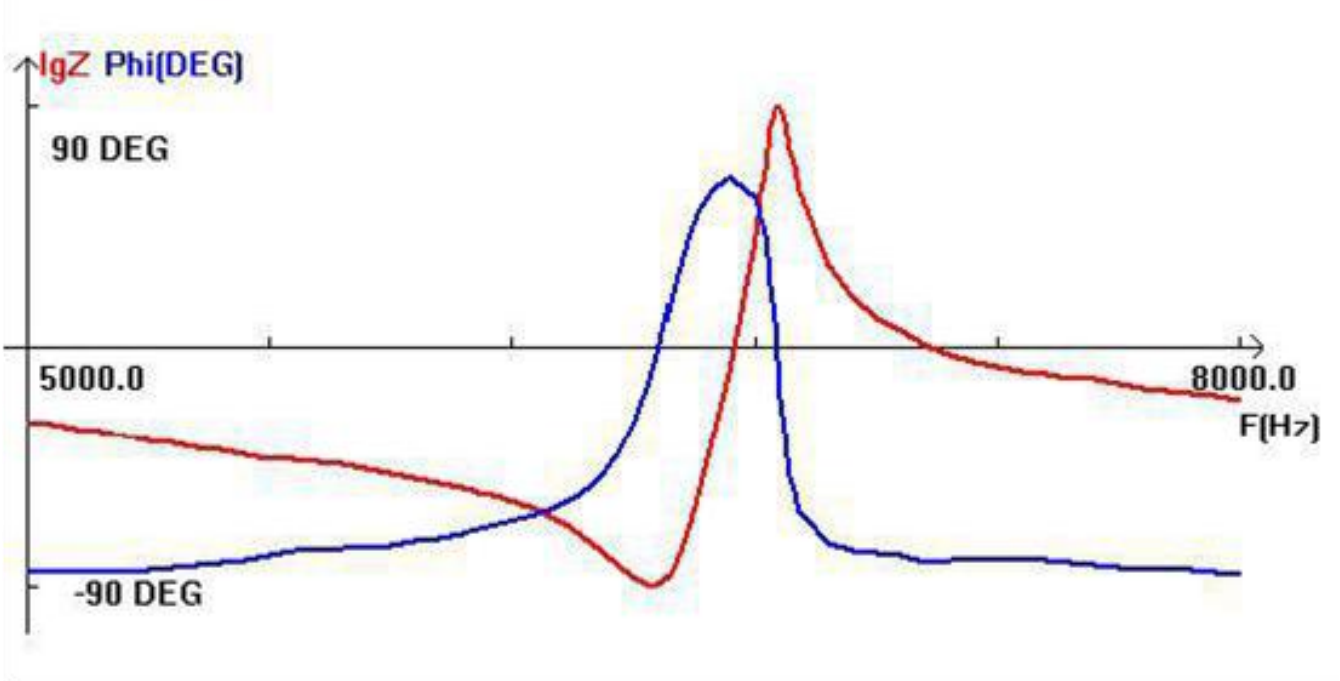
Specifications

Parameters	Values	Units
Maximum Input Voltage	30	V_{P-P}
Free Vibration Displacement (Vpp -100 to 200 bias voltage, 125Hz sine wave single pulse)	≥50	µm
Resonant Frequency	6.5 ± 1	kHz
Static Capacitance (1kHz/1V)	5.2 ~ 8.06	nF
Resonant Impedance	≤ 1000	Ω
Minimum Insulation Resistance (50v)	100	MΩ
Capacitance	5.2 ~ 8.06	nF (@ 1V, 1KHz, 25°C)
Weight	0.225	grams
Ceramic Material	PZT-5	-
Metal Plate Material	Brass	-
Acceptable Soldering Methods	Hand Solder, Low Melting Solder	-
Storage Temperature	-40 to 85	°C
Operating Temperature	-40 to 85	°C
Environmental Compliances	ROHS/REACH	Ex. 7c-1

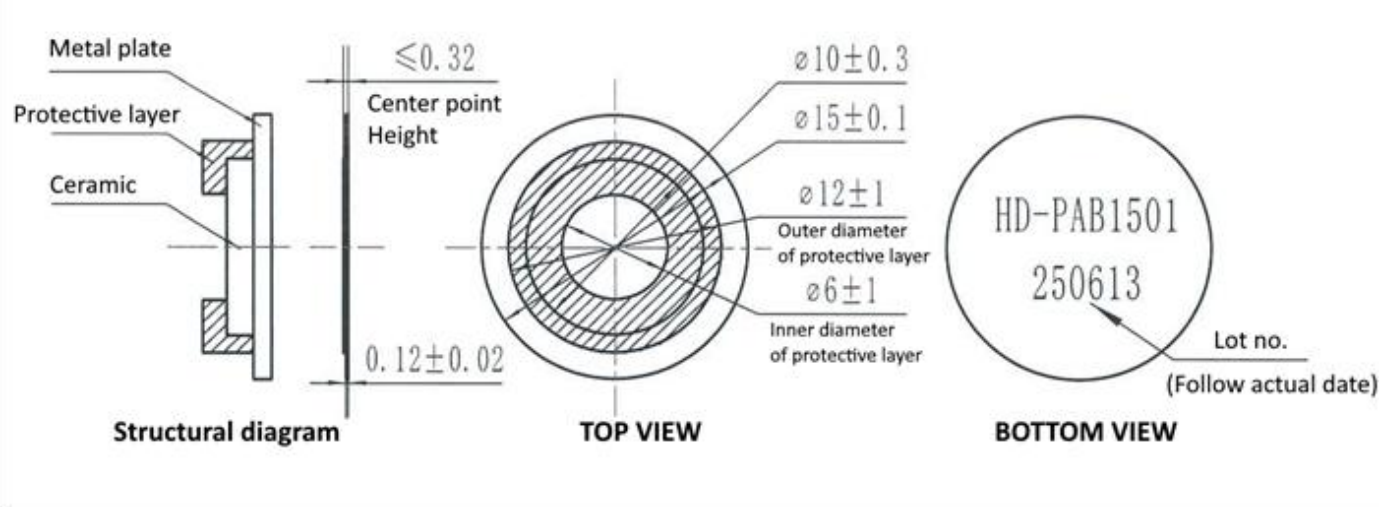
Measurement Procedure



Typical Frequency Response Curve



Dimensions PZT Ceramic (+), Brass Substrate (-)



Precautions

Operation:

1) Piezoelectric components may generate an impulse voltage when subjected to mechanical or thermal shock.
2) During the installation of piezoelectric components, the use of sulfur or sulfide should be avoided as much as possible, which may cause product failure due to corrosion of the surface of the ceramic.
3) During the use of piezoelectric components, it is necessary to avoid loading a DC bias voltage exceeding 0.3v (the loading direction should be consistent with the polarization direction, and the time should not exceed 168h) to avoid failure.
4) It is recommended to close the piezoelectric components through CRC to protect the sensor during use.
5) Piezoelectric components are not moisture absorbing components, and the humidity sensitivity level is Level 1.
6) Pb in piezoelectric ceramics is exempt from RoHS within clause 7(c) - 1.
7) Piezoelectric components cannot be repaired during post processing.

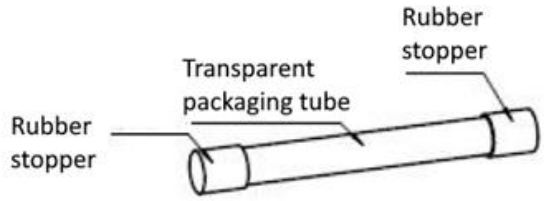
Storage:

1) Piezoelectric components should be avoided from being used or stored in corrosive gases such as chlorine, sulfur, acid, and alkaline gases. When storing at room temperature and normal humidity, try to avoid direct sunlight and sudden changes in temperature and humidity, which may cause sensor failure.
2) The storage of piezoelectric components should be avoided as much as possible under conditions of severe dust and high humidity.
3) The recommended storage temperature for the piezoelectric components is 25±5℃, humidity is 25-65%RH.
4) It is recommended to use the piezoelectric components within 7 days after opening the package. If they are not used up, it is necessary to replace the desiccant in the packaging tray and vacuumize the packaging.

Transportation:

1) During transportation, piezoelectric components should be protected from sunlight and damp environments.
2) Avoid strong impact and vibration on the product during transportation.

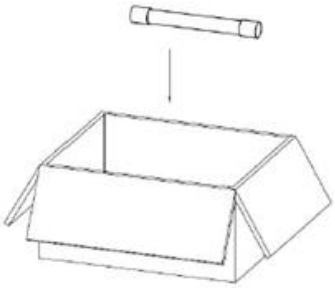
Packaging



1. Packing in the tube

Arrange neatly place in the same direction inside the packaging tube, wrap both ends with rubber stoppers, and fill the remaining part with EPE, 500pcs/tube.

2. Packing in the box



Put the packaging tube into the packaging box, with EPE placed on the bottom and interlayer, totaling 3 layers. 7 tubes/layer in the bottom two layers , and the top layer is 6 tubes/layer, totaling 20 tubes/layer.

- 500pcs/Tube
- 10,000pcs/Box

Specifications Revisions

Revision	Description	Date	Approved
A	RELEASED FROM ENGINEERING	04/30/2023	-
B	REVISED VOLTAGE, CAPACITANCE, FREQUENCY, IMPEDANCE, DIMENSIONS	12/11/2023	-
C	Revised Input voltage and Capacitance, Add Free Vibration Displacement, Static Capacitance, Response Curve, Packaging Details, etc.	06/23/2025	ML

Note:

1. Unless otherwise specified:
   A. All dimensions are in millimeters.
   B. Default tolerances are ±0.5mm and angles are ±3°.
2. Specifications subject to change or withdrawal without notice.
3. Environmental Compliances: RoHS/REACH Exempt 7c-1