**HD2WD Sensor**

*Very Wideband Frequency Miniature Acoustic Emission Sensor*

**Description and Features**

The HD2WD miniature sensor has a very wideband and flat frequency response over the range of 250 - 1600 kHz. Its small size makes the sensor an ideal candidate for computer hard disk examination and other applications requiring a small, wideband AE sensor response. A small diameter, integral coax cable exits from the side of the sensor with a BNC connector on the end.

**Applications**

Wideband sensors are typically used in research applications or other applications where a high fidelity AE response is required. In research applications, wideband AE sensors are useful where frequency analysis of the AE signal is needed and in helping determine the predominant frequency band of AE sources for noise discrimination and selection of a suitable lower cost, general purpose AE sensor. Due to its extremely small size, this sensor is ideal for applications such as hard disk monitoring, where small size and low mass sensors are required.

**Operating Specifications**

**Dynamic**

- Peak Sensitivity, Ref V/μbar ...................-70 dB
- Operating Frequency Range ............ 330-1850 KHz
- Resonant Frequency ...................... N/A
- Directionality.................. N/A

**Environmental**

- Temperature Range ...................... -65 to 125°C
- Shock Limit .................. 500 g
- Completely enclosed crystal for RFI/EMI immunity

**Physical**

- Dimensions .................. 0.175” w x .14” h x .44” l
  
  (4.44 x 3.55 x 11.17 mm)
- Weight ... 2.5 grams (5.5 grams with cable & connector)
- Case Material .................. Aluminum Alloy
- Face Material .................. Aluminum Alloy
- Connector ........... Integral cable with BNC Connector
- Connector Locations .......... Integral Side Cable
- Seal .................. Epoxy
- Sensor to Preamplifier Cable ........ Integral 24”

**Ordering Information and Accessories**

- HD2WD ........................................ HD2WD
- Preamplifier .................. 0/2/4, 2/4/6
- Preamplifier to System Cable (specify length in meters) ..... 1234 - X
- Amplifier Subsystems .................. AEZA

**Sensors include**

- NIST Calibration Certificate & Warranty

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*Frequency response of the HD2WD. Calibration based on ASTM E976.*