

HD2WD Sensor

Very Wideband Frequency

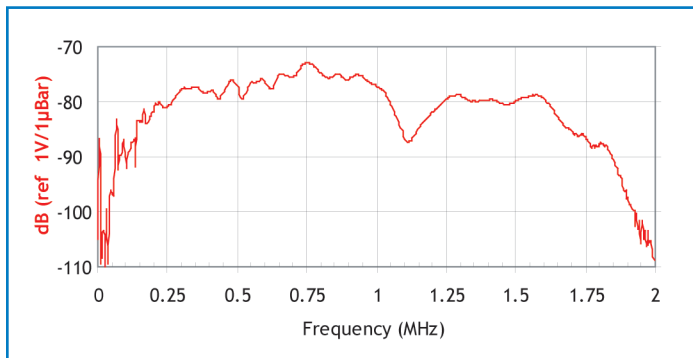
Miniature Acoustic Emission Sensor

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.



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

Operating Specifications

Dynamic

Peak Sensitivity, Ref V/ μ bar	-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 Preamp Cable	Integral 24"

Ordering Information and Accessories

HD2WD.....	HD2WD
Preamplifier.....	0/2/4, 2/4/6
Preamp to System Cable (specify length in meters)	1234 - X
Amplifier Subsystems.....	AE2A

Sensors include

NIST Calibration Certificate & Warranty



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