



# TITAN Mini-Recorder

ADF16HR-03

16 Channel Data Acquisition Recorder

## Key Features:

- Stand-alone recording to SD memory card for up to 16 channels
- Records directly to a PC via USB
- High performance analog front-end with full Balance and Calibration loopback features
- Onboard controls for in-the-field recording and calibration operations.
- Compact size, light weight and low power consumption make the device suitable for in-vehicle applications
- Interfaces with other Titan products to provide up to 384 analog channels, plus digital channels
- GPS and Digital Sensor recording supported
- Analog Sensor inputs via DB-37 connection



## Applications:

- Durability & Fatigue
- Noise & Vibration Analysis
- Vehicle Dynamics
- Ride Quality Assessment
- Acoustics
- Shock

## Specifications:

<i>Number of Channels</i>	16 fault-tolerant channels on a single DB37F connector
<i>Sample Rate</i>	High Speed Operation — up to 10,000 samples per second per channel Low Speed Operation — up to 1200 samples per second per channel
<i>Programmable Gain</i>	From $\pm 1/16$ to $\pm 512$ ; $\pm 32V$ Full scale input voltage max.
<i>Programmable Filter</i>	10 pole Linear phase tracking filter for scan rates up to 10K samples/second 8 pole Butterworth for scan rates up to 1200 samples per second
<i>Calibration Modes</i>	Resistive (RCal): $\pm 100K$ Ohms per channel (shunt calibration) Voltage (VCal): Precision positive and negative calibration voltages provided
<i>Excitation</i>	Fixed 2.048 Volts
<i>Analog Sensor Support</i>	Full Bridge resistive type - strain gauges, load cells, accelerometers, etc. Voltage Input — up to $\pm 32$ Volts Tachometer / Totalizer (frequencies up to 7KHz) Thermocouples J, K, & T
<i>Digital Sensor Support</i> (via Titan Digital Pod)	SAE J1939, ISO 15765, 3DM-GX3 IMU, and multiple Wheel Force Transducer (WFT) protocols, including Kistler and Michigan Scientific
<i>GPS</i>	Optional GPS support for the Garmin 18X-5Hz; PPS support
<i>PC Operation</i>	Remote recording and control via USB
<i>Stand-alone operation</i>	Via on-board switches
<i>Recording Media</i>	Secure Digital (SD) memory card, 2GB (furnished), up to 16GB supported
<i>Power Requirements</i>	11-32 VDC
<i>Dimensions</i>	12 cm x 10.6 cm x 3 cm (L x W x H)