



TITAN Mini-Recorder CAI16VR-x3

16 Channel Data Acquisition Recorder

Key Features:

- Stand-alone recording to SD memory card (up to 16 channels) with onboard controls for recording and calibration operations.
- High performance analog front-end with full Balance and Calibration loopback features
- 24 bit analog conversion
- ICP sensor support
- GPS recording supported
- Records directly to a PC via USB
- 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
- Configured with top-mounted BNC connectors (shown) or convenient DB9 connectivity on rear panel (permits device stacking for high density applications)



CAI16VR-23 shown

Applications:

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

Specifications:

<i>Number of Channels</i>	16 fault-tolerant channels
<i>Sample Rate</i>	High Speed Operation: up to 60,000 samples per second per channel Low Speed Operation: up to 1200 samples per second per channel
<i>Resolution</i>	Utilizes 24-bit A/D conversion; 16 bit exported
<i>Input Impedance</i>	40K (all modes)
<i>Programmable Gain</i>	From ± 1 to ± 8 ($\pm 8V$ Full scale input voltage maximum)
<i>Programmable Filter</i>	10 pole Linear Phase tracking filter (High Speed operation) 8 pole Butterworth filter (Low Speed operation)
<i>Supported Scan Rates</i>	High Speed: 2000, 4000, 10K, 11.025K, 16K, 20K, 22.05K, 25K, 30K, 40K, 44.1K, 48K, 50K, 60KHz Low Speed: 10, 20, 32, 40, 50, 64, 80, 100, 128, 200, 204.8, 300, 400, 409.6, 512, 600, 1024, 1200Hz
<i>Calibration Modes</i>	Voltage (VCal): Precision positive and negative calibration voltages provided
<i>Analog Sensor Support</i>	Tachometer/Totalizer: Frequencies up to 7KHz ICP Sensors: 2.5mA current @ 20V compliance
<i>GPS</i>	Optional on-board GPS support for the Garmin 18X-5Hz w/PPS or Mars Labs ACC10002 20Hz GPS
<i>PC Operation</i>	Remote recording and control via USB
<i>Stand-alone Operation</i>	Via on-board switches or Titan Remote Control (Mars Labs CBL-RMT)
<i>Recording Media</i>	Secure Digital (SD) memory card, 32GB (furnished)
<i>Power Requirements</i>	11-32 VDC 3 Watts (base unit, sensors not driven)
<i>Dimensions / Weight</i>	13.5 cm x 10.6 cm x 3.7 cm (L x W x H)
<i>Breakout Cables</i>	Included with CAI16VR-53



Alternate DB9 rear panel configuration permits device stacking (CAI16VR-53 shown)