FEATURES
User configurable sensor range: ±1.6 g, ±16 g
PSI5 Communication Protocol Version 2.1 compliant
Asynchronous operation: PSI5-A10P-250(228)/1L
Synchronous operation: PSI5-P10P-500/3L and others
Daisy-chain operation with bidirectional communication
Backward compliant with PSI5 Version 1.3
Selectable 16- or 10-bit sensor data
0.25 μs data interpolation routine
User selectable, continuous auto-zero operation
Electromechanical sensor self test
High resistance to EMI/RFI
4.5 V to 16.5 V operation
Electronic serial number
Qualified for automotive applications

APPLICATIONS
Active/adaptive suspension
Engine vibration support

GENERAL DESCRIPTION
The ADXL716 is a g range configurable single-axis integrated satellite sensor, compliant to the Peripheral Sensor Interface 5 (PSI5) Version 2.1 specification. The ADXL716 (x-axis) enables low cost solutions for active suspension satellite sensor applications. Acceleration data is sent to the control module via a digital 2-wire current loop interface bus.

The device utilizes an error correcting code (ECC) protected one-time programmable (OTP) memory. The g range of the sensor is configurable to provide full-scale acceleration measurement of ±1.6 g or ±16 g. Additionally, the device can be configured to transmit data from multiple g ranges during predefined time slots, in accordance with the PSI5 specification. The device transmits 10-bit or 16-bit acceleration data to the control module, and can be configured to include either a 1-bit parity check, or a 3-bit cyclic redundancy check (CRC). Each device has a unique electronic serial number.

The ADXL716 is available in a 12-lead, 4 mm × 4 mm LFCSP package. The ADXL716 is specified to operate over the full automotive temperature range, from −40°C to +125°C.

For more information about the ADXL716, contact the Analog Devices, Inc., Customer Interaction Center at http://www.analog.com/technical_support to connect with a technical support specialist.