



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



FEATURES

- User configurable sensor range: $\pm 30\text{ g}$, $\pm 60\text{ g}$, $\pm 120\text{ g}$, $\pm 240\text{ g}$, $\pm 480\text{ g}$
- Compliant with PSI5 Communication Protocol Version 1.3
 - Asynchronous operation: PSI5-A10P-250[228]/1L
 - Synchronous operation: PSI5-P10P-500/3L and others
 - Daisy-chain operation with bidirectional communication
- 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/BCI
- 4.5 V to 16.5 V operation
- Electronic serial number
- Qualified for automotive applications

APPLICATIONS

- Front impact crash sensing
- Side impact crash sensing
- Shock and vibration detection
- Pedestrian collision sensing

GENERAL DESCRIPTION

The [ADXL185B](#) z-axis sensor and the [ADXL189B](#) x-axis sensor are g range configurable, integrated single-axis satellite sensors, compliant with the PSI5 Version 1.3 specification. The [ADXL185B/ADXL189B](#) enable low cost solutions for front and side impact airbag satellite sensor applications. Acceleration data is sent to the control module via a digital 2-wire current loop interface bus.

The sensor g range is configurable to provide full-scale ranges from $\pm 30\text{ g}$ to $\pm 480\text{ g}$. The devices can also be configured to transmit data from multiple g ranges during predefined time slots, in accordance with the PSI5 specification. The devices transmit 10-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 [ADXL185B/ADXL189B](#) are available in a 16-lead, narrow-body SOIC package with an exposed pad. The [ADXL185B/ADXL189B](#) are specified to operate over the full automotive temperature range of -40°C to $+125^{\circ}\text{C}$.

FUNCTIONAL BLOCK DIAGRAM

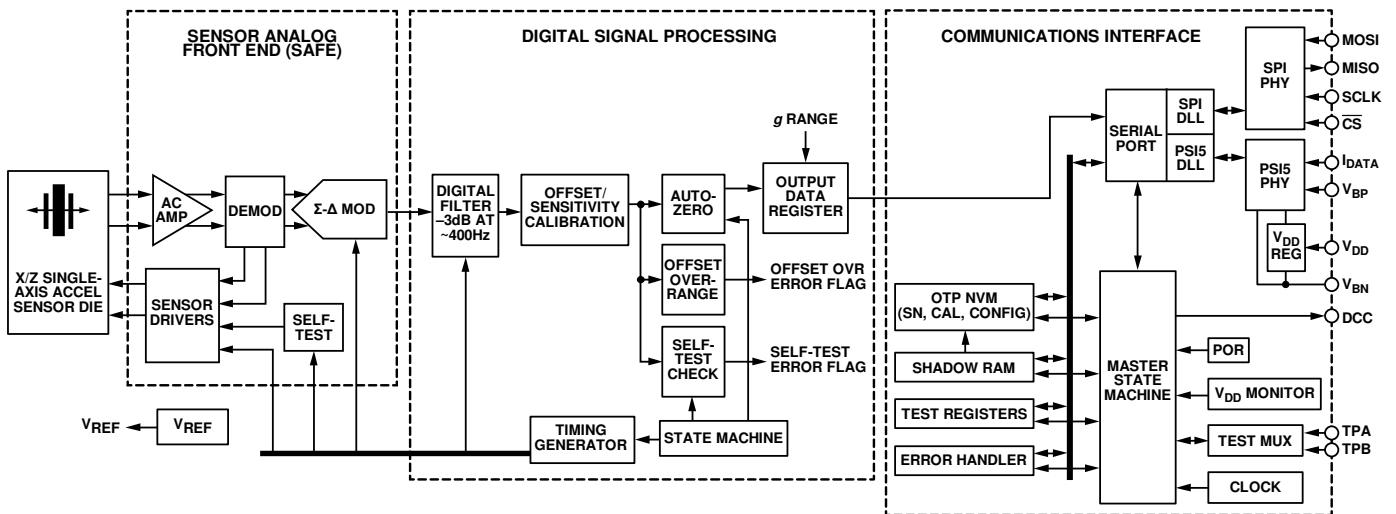


Figure 1.

For more information about the [ADXL185B/ADXL189B](#), please contact the Analog Devices, Inc., [Customer Interaction Center](#) at http://www.analog.com/en/content/technical_support_page/fca.html to connect with a technical support specialist.

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