

FEATURES

- ±120 g full-scale range**
- 12-bit resolution at 62.5 mg/LSB**
- 512 kHz data interpolation rate**
- Sensor frequency response down to dc**
- On-demand electromechanical self-test**
- Fully differential circuitry for high resistance to EMI/RFI**
- Independent x- and y-axis sense structures for robust FMEA performance**
- Independent x- and y-axis arming thresholds**
- Low noise: 1 LSB rms typical**
- Qualified for automotive applications**
- Temperature range: -40°C to +105°C**
- 3.3 V and 5 V operation**

APPLICATIONS

- Impact sensing**
- Shock detection**

GENERAL DESCRIPTION

The **ADXL288** is a dual-axis accelerometer with signal-conditioned outputs available via a 16-bit SPI interface. Identical, independent X and Y sense structures are implemented to create a high performance, high integrity acceleration sensing system.

The X and Y acceleration channels have a nominal full-scale range of ±120 g and a bandwidth of 408 Hz. The acceleration data is provided as a 12-bit, two's complement word with a resolution of 62.5 mg/LSB.

The **ADXL288** is available in a 16-lead, narrow-body SOIC package with an exposed pad. The **ADXL288** can operate at 3.3 V and 5 V and is specified for operation from -40°C to +105°C.

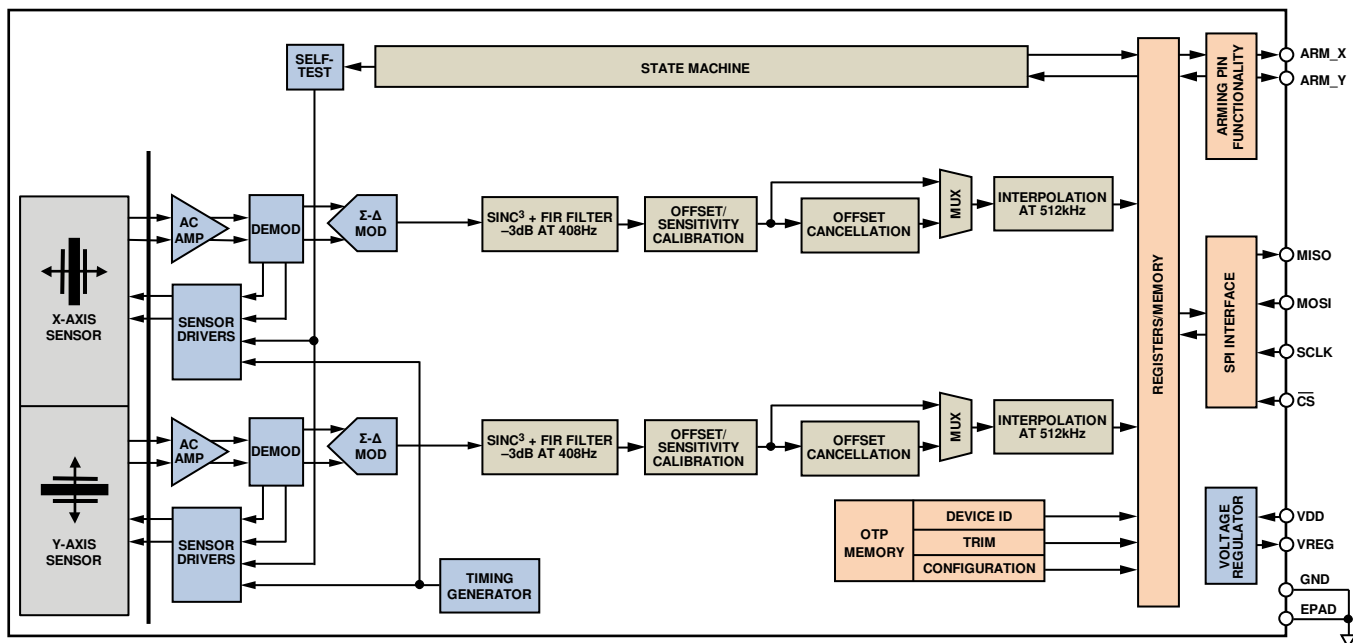
FUNCTIONAL BLOCK DIAGRAM


Figure 1.

For more information about the **ADXL288**, please contact the Analog Devices, Inc., [Customer Interaction Center](http://www.analog.com/en/content/technical_support_page/fca.html) at http://www.analog.com/en/content/technical_support_page/fca.html to connect with a technical support specialist.

Rev. Sp0

[Document Feedback](#)

Information furnished by Analog Devices is believed to be accurate and reliable. However, no responsibility is assumed by Analog Devices for its use, nor for any infringements of patents or other rights of third parties that may result from its use. Specifications subject to change without notice. No license is granted by implication or otherwise under any patent or patent rights of Analog Devices. Trademarks and registered trademarks are the property of their respective owners.

One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106, U.S.A.
Tel: 781.329.4700 ©2013 Analog Devices, Inc. All rights reserved.
www.analog.com

NOTES