

**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, twos 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.

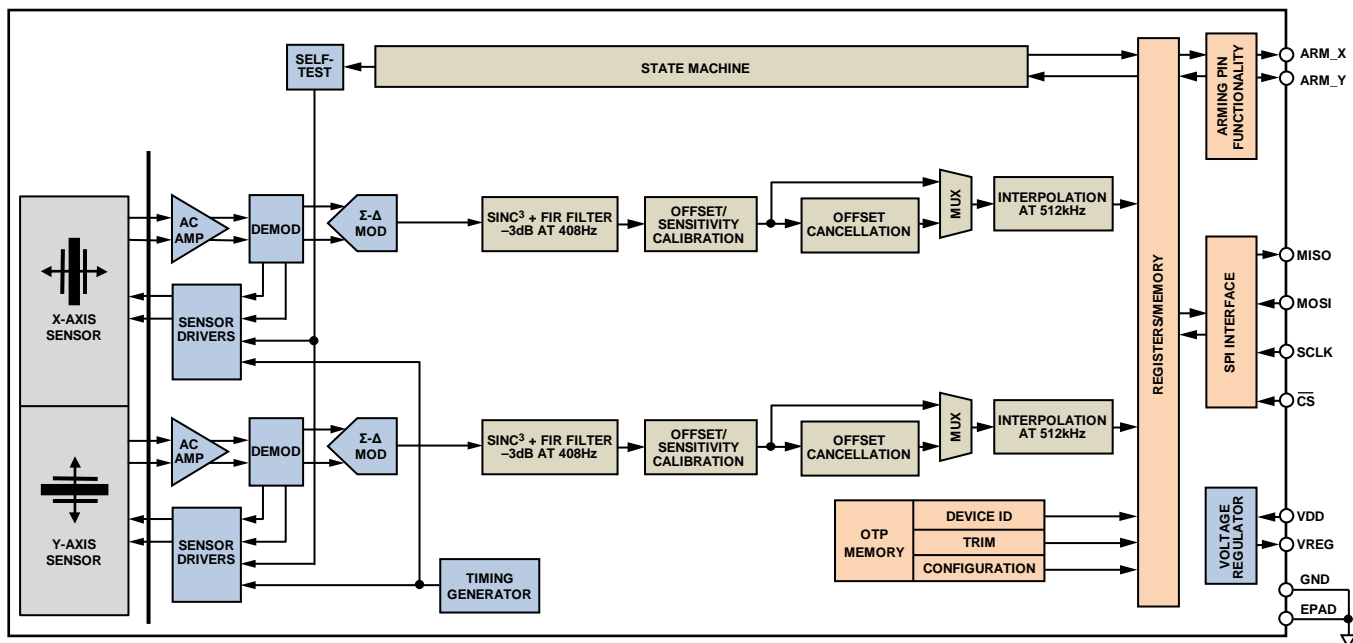
**FUNCTIONAL BLOCK DIAGRAM**


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](http://www.analog.com/en/content/technical_support_page/fca.html) to connect with a technical support specialist.

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**NOTES**