



ADXRS910

GENERAL DESCRIPTION

The ADXRS910 is a high performance in-plane gyroscope, designed for automotive rollover detection applications. The ADXRS910 also has an internal temperature sensor that is used to compensate offset and sensitivity performance, providing excellent stability over the -40°C to $+105^{\circ}\text{C}$ temperature range.

The gyroscope provides a full-scale range of $\pm 300^\circ/\text{sec}$ with a sensitivity of 80 LSB/ $^\circ/\text{sec}$. Its resonating disk sensor structure enables angular rate measurement around an in-plane axis. The -3 dB filter corner frequency can be selected to be 27.6 Hz, 51.3 Hz, 109 Hz, or 196.8 Hz. The sensor data output from the device is a 16-bit, two's complement word contained in a 32-bit SPI transaction. SPI communications are compatible up to 10 MHz.

The ADXRS910 is available in a 16-lead inverted SOIC package. The ADXRS910 is specified to operate at 3.3 V and 5 V, with less than 20 mA of current consumption. Its specifications are valid over the -40°C to $+105^{\circ}\text{C}$ temperature range.

Rollover detection

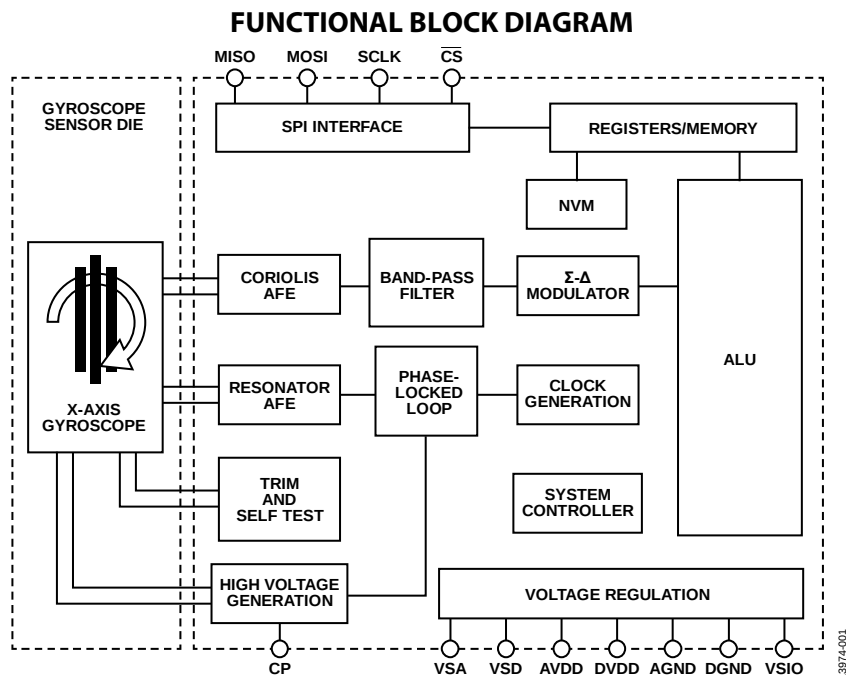


Figure 1.

For more information about the ADXRS910, contact the Analog Devices, Inc., Customer Interaction Center at www.analog.com/technical_support to connect with a technical support specialist.

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One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106, U.S.A.
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