

## New Product Announcement

# TI TDC1000 Integrated Analog Front-End for Ultrasonic Measurements Now at Mouser

April 7, 2015 – [Mouser Electronics](http://www.mouser.com), Inc., the global authorized distributor with the newest semiconductors and electronic components, is now stocking the [TDC1000 Integrated Analog Front-End \(AFE\)](#) from [Texas Instruments](#). Primarily used for the driving and sensing of ultrasonic transducers to perform accurate Time-of-Flight (TOF) measurements, the TDC1000 integrated AFE is designed for a variety of sensing measurements, including fluid level measurements, fluid identification or concentration, flow measurements, and proximity/distance sensing. The TDC1000 offers the perfect balance of programmability and flexibility to accommodate a wide-range of applications and end equipment.

The [Texas Instruments TDC1000 Integrated Analog Front-End \(AFE\)](#), available from Mouser Electronics, has a measurement range of up to 8ms, and can be configured for use with a wide-range of transducer frequencies (31.25 kHz to 4 MHz) and Q-factors. The transmitter supports flexible settings for driving single or dual-transducers, and the receiver provides configurable blocks with a wide range of settings for signal conditioning in various applications. The receive signal chain consists of an LNA (Low Noise Amplifier), a PGA (Programmable Gain Amplifier), and two auto-zeroed comparators for echo qualification and STOP pulse generation. Other features of the receiver channels include automatic channel swapping for differential Time-of-Flight (TOF) measurement and a programmable Low Power Mode for long TOF measurements. Similarly, the programmability of the receive path allows ultrasonic waves to be detected over a wider range of distances/tank sizes and through various mediums.

TI's TDC1000 Integrated Analog Front-End (AFE) is accessible by a serial peripheral interface (SPI) and can be configured for applications such as flow/concentration measurement, container level measurement, proximity detection, distance measurement, as well as other applications in the [automotive](#), [industrial](#), [medical](#), and consumer markets where a precision measurement of Time-of-Flight (TOF) is required.

To learn more, visit <http://www.mouser.com/new/Texas-Instruments/ti-tdc1000-afe/>.

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### **About Mouser Electronics**

Mouser Electronics, a subsidiary of TTI, Inc., is part of Warren Buffett's Berkshire Hathaway family of companies. Mouser is an award-winning, authorized semiconductor and electronic component distributor, focused on the rapid introduction of new products and technologies to electronic design engineers and buyers. Mouser.com features more than 4 million products online from more than 500 manufacturers. Mouser publishes multiple catalogs per year providing designers with up-to-date data on the components now available for the next generation of electronic devices. Mouser ships globally to over 400,000 customers in 170 countries from its 492,000 sq. ft. state-of-the-art facility south of Dallas, Texas. For more information, visit <http://www.mouser.com>.

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