



New Product Announcement

Now at Mouser: Infineon's TLE5501 XENSIV TMR Sensor Offers Highest Auto Safety Level ASIL D on Single Chip

April 8, 2019 – [Mouser Electronics](#), Inc., the authorized global distributor with the newest semiconductors and electronic components, is now stocking the [TLE5501](#) XENSIV™ magnetic sensors from [Infineon Technologies](#). Infineon's first magnetic sensors based on tunnel magneto resistance (TMR) technology, the TLE5501 sensors are ideal for automotive brushless DC (BLDC) [motor](#) commutation in devices such as wipers, pumps, and actuators, as well as for steering angle [sensing](#) and integration in electric motors.

The [Infineon TLE5501](#) XENSIV magnetic sensors, available from Mouser Electronics, are AEC-Q100-qualified for a broad range of [automotive](#) applications. The E0001 version is pin-to-pin compatible with the [Infineon TLE5009](#) angle sensor, while the E0002 is compliant with ISO 26262 standards for increased functional safety. The E0002 device is also the first to achieve the highest automotive functional safety grade for angle sensors, ASIL D, with just a single sensor chip.

The TLE5501 devices offer direct microcontroller connection through powerful output signals of up to 0.37 volts per volt (V/V). The devices' high output voltage allow them to be used without an additional internal amplifier, providing a [low-power](#), low-cost solution when connected directly to the microcontroller. The sensors feature a supply current of approximately 2 mA and a magnetic field range of 20 mT to 100 mT.

The devices also feature a discrete bridge with differential sine and cosine output. While both sensors offer a typical angle error of only one degree over the entire temperature and lifetime profile, the E0002 device offers higher diagnostic coverage and redundant external angle calculation through the use of decoupled bridges.

The TLE5501 XENSIV magnetic position sensors are ideal for automotive safety applications but can also be used in [industrial](#) applications including [robotics](#), gimbals and automation.

To learn more, visit www.mouser.com/infineon-tle5501-e0001-e0002-xensiv-sensors.

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About Mouser Electronics

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About Infineon Technologies

Infineon Technologies is a leading global designer, manufacturer and supplier of a broad range of semiconductors used in various microelectronic applications. Infineon's product portfolio consists of logic products, including digital, mixed-signal, and analog integrated circuits, as well as discrete semiconductor products.

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Further information, contact:
Kevin Hess, Mouser Electronics
Senior Vice President of Marketing
(817) 804-3833
Kevin.Hess@mouser.com

For press inquiries, contact:
Kelly DeGarmo, Mouser Electronics
Manager, Corporate Communications and Media Relations
(817) 804-7764
Kelly.DeGarmo@mouser.com