



Robust 4Mbps CAN FD μ Module Isolator with Power Improves System Reliability

MILPITAS, CA – September 13, 2016 – Linear Technology Corporation introduces the [LTM2889](#), a fully ISO 11898-2 compliant CAN (controller area network) μ Module[®] (micromodule) transceiver and isolator that guards against large ground-to-ground differentials and common mode transients in 3.3V or 5V applications. In practical CAN systems, ground potentials vary widely from node to node, often exceeding the tolerable range, which can result in an interruption of communications or destruction of a transceiver. The LTM2889 separates grounds by isolating the CAN transceiver using internal inductive isolation. It implements multiple levels of protection to significantly improve system reliability, including 2,500V_{RMS} of galvanic isolation, ± 60 V bus voltage fault tolerance, greater than 30kV/ μ s common mode transient immunity, and ± 25 kV HBM ESD protection. The LTM2889 requires no external components, ensuring a complete and robust μ Module solution for isolated serial data communications.

The LTM2889 features an integrated, low EMI, DC/DC converter that powers the isolated transceiver and provides up to 0.75W of isolated power for CAN node components. In addition to the many built-in protection mechanisms, the device features an extended ± 36 V common mode range to enable operation in electrically noisy environments and in the presence of ground loops. The LTM2889 operates at data rates between 22kbps and 4Mbps, with an adjustable slew rate to reduce EMI at lower data rates. A shutdown mode brings all of the LTM2889's outputs to high impedance and reduces power consumption to less than 1 μ A.

The LTM2889 is offered in commercial, industrial and automotive temperature grades and is available in a low profile 15mm x 11.25mm x 3.42mm surface mount BGA package. All integrated circuits and passive components are housed in this Linear Technology, RoHS-compliant μ Module package. Pricing starts at \$9.96 each in 1,000 piece quantities. The LTM2889 joins a family of μ Module isolators that includes isolated RS485, RS232, USB, SPI, I²C and GPIO. Please visit www.linear.com/isolator for more product selection and information.

Photo Caption: 2.5kV Isolated CAN Transceiver with Power


Summary of Features: LTM2889

- Isolated 4Mbps CAN FD Transceiver
- 2500V_{RMS} for 1 Minute per UL1577
- Isolated DC Power: 5V (Adjustable to 3.3V)
- Up to 150mA Available Isolated Power Output
- 3.3V or 5V Input Supply Voltage Options
- High Bus Fault Voltage Tolerance: $\pm 60V$
- Low Power Off Mode: $<1\mu A$ Typical
- High Common Mode Transient Immunity: $>30kV/\mu s$
- High ESD: $\pm 25kV$ CANH, CANL to GND2 & V_{CC2} ; $\pm 10kV$ Across Isolation Barrier
- Low Profile BGA Package

The USA list pricing shown is for budgetary use only. International prices may differ due to local duties, taxes, fees and exchange rates.

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for over three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, μ Module[®] subsystems, and wireless sensor network products. For more information, visit www.linear.com

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