



Low EMI, Isolated RS485 μ Module Transceiver Meets Stringent IEC 60601-1 Requirements

MILPITAS, CA – November 15, 2016 – Linear Technology Corporation introduces the [LTM2885](#), an isolated RS485 μ Module[®] transceiver for guarding against large ground-to-ground differentials. Many industrial, utility, medical, military, and intrinsic safety applications require isolation components with increased voltage and spatial separation for human safety. The LTM2885 provides 6500V_{RMS} reinforced isolation between the logic level interface and the transceiver bus pins, far surpassing the IEC 60747 basic and reinforced isolation standards. With creepage and clearance distances greater than 14mm and a distance through insulation (DTI) greater than 0.2mm, the LTM2885 exceeds many overvoltage category II and material group IIIA equipment requirements, including the provision of two means of patient protection (MOPP) for medical equipment per IEC 60601-1.

The LTM2885 provides an extensive feature set to support its robust isolation. A ± 15 kV ESD-protected RS485 transceiver operates at 20Mbps or low EMI 250kbps, with uninterrupted communication guaranteed for common mode transients up to 50kV/ μ s. An internal low EMI DC/DC converter powers the transceiver and provides an isolated 1W supply output for powering external support components. Integrated selectable termination allows cables to be properly terminated, with the flexibility to add or remove termination anywhere on the bus via software control. Operating from a 5V supply, the LTM2885 requires no additional external components, providing a self-contained μ Module solution for isolated RS485 serial data communications.

The LTM2885 is offered in commercial, industrial and automotive versions, supporting operating temperature ranges from 0°C to 70°C, –40°C to 85°C, and –40°C to 105°C, respectively. The LTM2885 is offered in a 22mm x 9mm x 5.16mm surface mount BGA package; all integrated circuits and passive components are housed in this Linear Technology, RoHS-compliant μ Module package. Pricing starts at \$11.98 each in 1,000-piece quantities. Please visit www.linear.com/product/LTM2885 for more product selection and information.

Photo Caption: 6500V_{RMS} Isolated RS485 Transceiver with Switchable Termination


Summary of Features: LTM2885

- Isolated RS485/RS422 Transceiver: 6500V_{RMS}
- Isolated DC Power: 5V at Up to 200mA
- Reinforced Insulation & Creepage > 14mm
- No External Components Required
- 20Mbps or Low EMI 250kbps Data Rate
- High ESD: ± 15 kV HBM on Transceiver Interface
- High Common Mode Transient Immunity: 50kV/ μ s
- Integrated Selectable 120 Ω Termination
- 1.62V to 5.5V Logic Supply Pin for Flexible Digital Interface
- General Purpose CMOS Isolated Channel
- 22mm x 9mm x 5.16mm Surface Mount 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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Press Contacts:

North America / Worldwide

John Hamburger, Director Marketing
Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233

UK & Nordic

Alan Timmins
a.timmins@ntlworld.com
Tel: +44-1-252-629937