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Incredibly Rugged RS485 Transceiver Meets IEC Level 4 ESD Standard

MILPITAS, CA & NORWOOD, MA – June 28, 2017 – Analog Devices, Inc., which recently acquired Linear Technology Corporation, announces the [LTC2862A](#), an enhanced version of the widely accepted LTC2862 $\pm 60\text{V}$ tolerant RS485/RS422 transceiver that released several years ago. Both of these half-duplex transceivers eliminate field failures without the need of costly external protection devices by protecting practical RS485 systems from installation cross-wiring faults, ground voltage faults or lightning induced surge voltages, which can cause overvoltage conditions that exceed the absolute maximum ratings of typical transceivers. Both devices operate from supply voltages of 3V to 5.5V while maintaining compliance with the TIA/EIA-485-A standard. However, the LTC2862A boosts its predecessor's ESD protection and noise immunity with higher specifications including unprecedented $\pm 40\text{kV}$ HBM and IEC Level 4 ESD ratings, resulting in greater robustness and signal integrity.

The LTC2862A provides valuable protection and reliability for a wide range of RS485/RS422 applications, including industrial control, instrumentation networks and automotive electronics. Whether a circuit is transmitting, receiving, in standby or powered off, the LTC2862A tolerates any voltage within $\pm 60\text{V}$ without damage. An extended $\pm 25\text{V}$ input common mode range increases the reliability of operation and extends functionality to environments with high common mode voltages. Fully symmetric receiver thresholds ensure good duty cycle symmetry at low signal levels, and additional filtering prevents errors from high frequency noise, providing optimal full failsafe operation. Markedly improved ESD protection allows the LTC2862A to withstand $\pm 40\text{kV}$ HBM (IEC-61000-4-2 ESD Level 4: $\pm 8\text{kV}$) on the transceiver pins without latchup or damage; all other pins are protected to $\pm 15\text{kV}$ HBM. The LTC2862A also guards against electrical fast transients (EFTs) with IEC 61000-4 EFT Level 4: $\pm 5\text{kV}$ protection.

The LTC2862A is offered in two data rate options: the fast 20Mbps LTC2862A-1 and the low EMI 250kbps LTC2862A-2. Both devices are offered in commercial, industrial, automotive, and military temperature grades, and available in SO-8 and 3mm x 3mm DFN-8 packages. Pricing starts at \$2.35 each in 1,000-piece quantities. For more information, visit www.linear.com/product/LTC2862A.

Photo Caption: ±40kV ESD Protected RS485 Transceiver**Summary of Features: LTC2862A**


- Protected from Overvoltage Line Faults to ±60V
- 3V to 5.5V Supply Voltage
- 20Mbps or Low EMI 250kbps Data Rate
- ±40kV HBM ESD Interface Pins, ±15kV Other Pins
- IEC Level 4 ESD & EFT on Interface Pins
- Enhanced Receiver & Failsafe Noise Immunity
- Extended Common Mode Range: ±25V
- Guaranteed Failsafe Receiver Operation
- MP-Grade Option Available (–55°C to 125°C)
- Industry Standard Pinouts

Pricing shown is for budgetary use only and may differ due to local duties, taxes, fees and exchange rates.

Analog Devices just got more Powerful. On March 10, Analog Devices acquired Linear Technology, creating the premier high-performance analog company. More info at <http://lt.linear.com/07c>

About Analog Devices

Analog Devices (NASDAQ: ADI) is the leading global high-performance analog technology company dedicated to solving the toughest engineering challenges. We enable our customers to interpret the world around us by intelligently bridging the physical and digital with unmatched technologies that sense, measure, power, connect and interpret. Visit <http://www.analog.com>

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