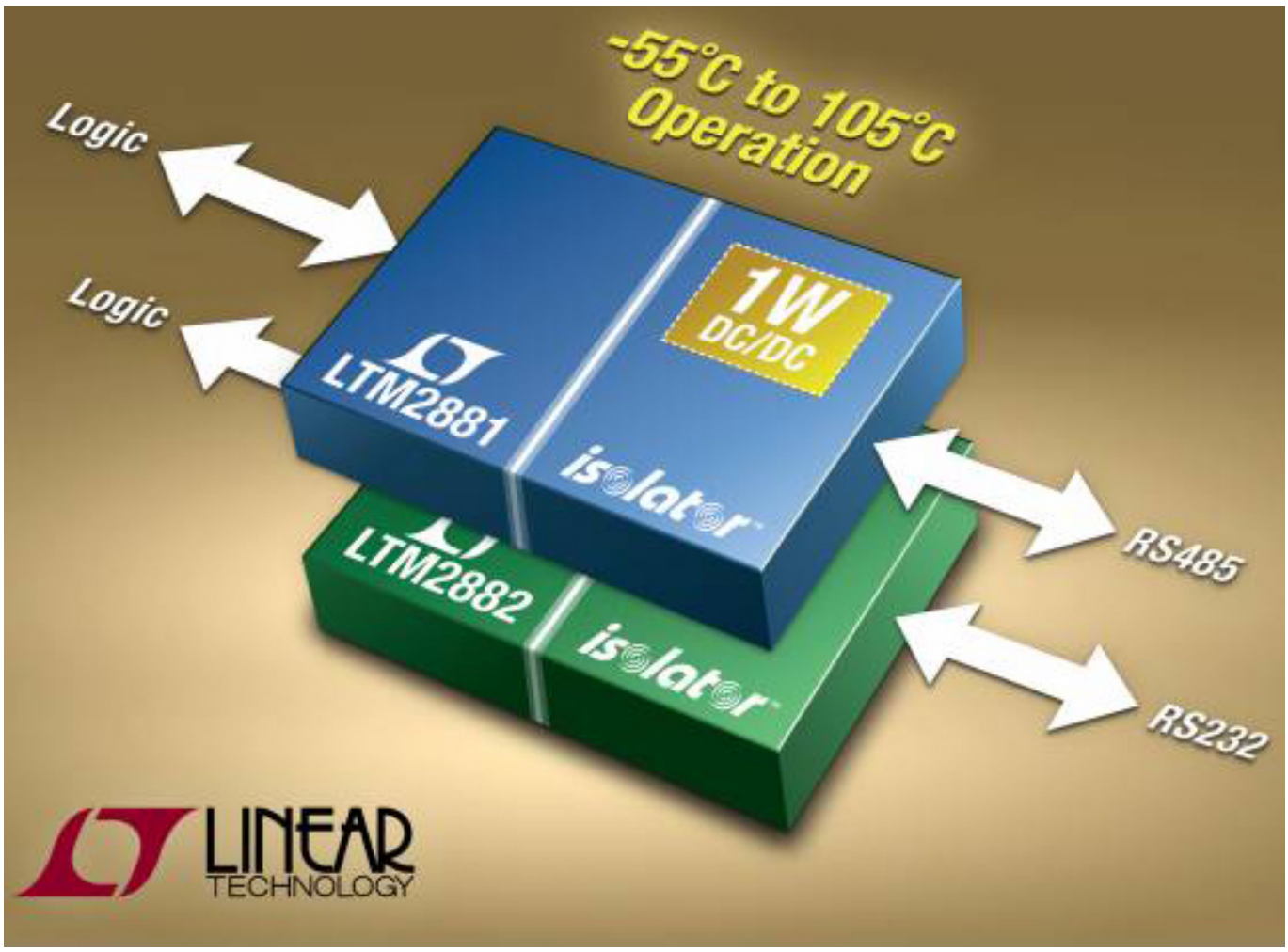
µModule transceivers specified for -55°C to 105°C for military & automotive applications

Linear Technology Corporation introduces automotive (H-grade) and high reliability military (MP-grade) versions of the LTM2881 and LTM2882, isolated µModule transceivers which guard against large ground-to-ground differentials and common-mode transients in RS485 and RS232 networks. The LTM2881 single RS485 and LTM2882 dual RS232 transceivers break ground loops by isolating the logic level interface and line transceiver using internal inductive signal isolation. This allows for a much larger common- mode voltage range plus superior common mode rejection >30kV/us. A low EMI, 1W DC/DC converter generates the power supplies for driving RS485 or RS232 levels and provides an additional isolated 5V supply output for powering any supporting external components. With 2,500VRMS of galvanic isolation, onboard secondary power, and fully compliant transmitters and receivers, the LTM2881 and LTM2882 require no external components, providing complete, compact µModule solutions for isolated serial data communications. The H- and MP-grade versions are guaranteed over operating ambient temperatures from -40°C to 105°C and -55°C to 105°C, respectively. More on Linear Technology's military grade flow is available at www.linear.com/docs/Quality/mpgrade.pdf [1].



Two versions of the LTM2881 and LTM2882 are available to support 3.3V and 5V input supply voltages. Both devices are offered in low profile 11.25mm x 15mm surface mount LGA (H-grade only) and BGA packages. All integrated circuits and passive components are housed in this Linear Technology, RoHS-compliant µModule package. The 1000-piece price starts at $11.97 each for the H-grade devices and $21.13 each for the MP-grade. Visit www.linear.com/isolators [2] for product selection information.

Summary of Features: LTM2881 & LTM2882

• 2500VRMS UL Recognized Isolation (File #E15178)
• One RS485 (LTM2881) or Two RS232 (LTM2882) Transceivers
• Integrated DC Power: 5V at Up to 200mA
• No External Components Required
• Up to 20Mbps (LTM2881) or 1Mbps (LTM2882) Data Rate
• High ESD: ±15kV HBM (LTM2881) or
±10kV HBM (LTM2882) on Transceiver Interface
• High Common-Mode Transient Immunity: 30kV/us
• Integrated Selectable 120Ohm Termination (LTM2881)
• 3.3V or 5V Nominal Supply Voltage Options
• Common-Mode Working Voltage:
560VPEAK
• Small Footprint, Low Profile

(11.25mm x 15mm) Surface Mount
LGA & BGA Packages

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http://www.ecnmag.com/products/2012/03/%C2%B5module-transceivers-specified-55%C2%B0c-105%C2%B0c-military-automotive-applications

Links:
[1] http://www.linear.com/docs/Quality/mpgrade.pdf
[2] http://www.linear.com/isolators