

2500V_{RMS} Isolated RS485+RS232 Transceiver with Power

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The LTM2887-3S μ module[®] isolator provides isolated signaling and power to the LTC2873 for a complete, 3.3V robust, galvanically isolated dual-protocol transceiver. RS232 (transmit and receive) or RS485 (half-duplex) can be selected for transmission on a single pair of wires using the 485/232 control. Mode-specific termination is automatically selected by connecting the LTC2873 $\overline{\text{TE485}}$ pin as shown. Alternately, $\overline{\text{TE485}}$ can be tied high to the LTC2873 VL pin if RS485 termination is not desired.

The VCC2 output of the LTM2887-3S provides an isolated 5V supply that is used to power the LTC2873. In this application VCC2 is connected to a digital return channel on the LTM2887-3S with output on PWR_MON for a convenient way to determine when VCC2 is up. The LTM2887-5S can be used in place of the LTM2887-3S if a 5V input supply is required.

This robust solution provides protection from ESD to +/-26kV on the bus pins and +/-10kV across the isolation barrier (human body model), both unpowered and powered.

