


The **LT[®]1237** RS232 Driver/Receiver has been improved to meet $\pm 15\text{kV}$ ESD levels per the IEC 1000-4-2 test method. The key specifications remain unchanged, including the data rate capability of 120kbaud for $C_L = 2500\text{pF}$ and 250kbaud for $C_L = 1000\text{pF}$. The following changes are being made to the **LT1237** data sheet.

 LTC and LT are registered trademarks of Linear Technology Corporation.

FEATURES

- ESD Protection Over $\pm 15\text{kV}$

DESCRIPTION

New ESD structures on the chip allow the LT1237 to survive multiple $\pm 15\text{kV}$ strikes, eliminating the need for costly TransZorbs[®] on the RS232 line pins.

TransZorb is a registered trademark of General Instruments, GSI.

PIN FUNCTIONS

DRIVER OUT: The driver outputs are protected against ESD to $\pm 15\text{kV}$ for human body discharges, $\pm 8\text{kV}$ for IEC 1000-4-2 contact mode discharges and $\pm 15\text{kV}$ for IEC 1000-4-2 air gap discharges.

RX IN: The receiver inputs are protected against ESD to $\pm 15\text{kV}$ for human body discharges, $\pm 8\text{kV}$ for IEC 1000-4-2 contact mode discharges and $\pm 15\text{kV}$ for IEC 1000-4-2 air gap discharges.

ESD PROTECTION

The RS232 line inputs of the LT1237 have on-chip protection from ESD transients up to $\pm 15\text{kV}$ for human body discharges, $\pm 8\text{kV}$ for IEC 1000-4-2 contact mode discharges and $\pm 15\text{kV}$ for IEC 1000-4-2 air gap discharges. The protection structures act to divert the static discharge safely to system ground. In order for the ESD protection to function effectively, the power supply and ground pins of the LT1237 must be connected to ground through low impedances. The power supply decoupling capacitors and charge pump storage capacitors provide this low impedance in normal applications of the circuit. The only constraint is that low ESR capacitors must be used for bypassing and charge storage. ESD testing must be done with pins V_{CC} , V^+ , V^- and GND shorted to ground or connected with low ESR capacitors.

ELECTRICAL CHARACTERISTICS

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
ON/OFF Pin Thresholds	Input Low Level (Drivers Enabled)	0.8	1.2	2.4	V
	Input High Level (Drivers Disabled)		1.6		V

The ● denotes specifications which apply over the operating temperature range $0^\circ\text{C} \leq T_A \leq 70^\circ\text{C}$.

SPECIFICATION NOTICE

DELETIONS

- Delete the LT1237CJ, LT1237IN, LT1237IJ from ORDER NUMBER section.
- Delete all references to the LT1237 for the industrial temperature range.
- Delete all reference to the “J” package.

For further information regarding this specification notice contact:

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