



±15kV ESD-Protected, 460kbps, 1μA, RS-232-Compatible Transceivers in μMAX

General Description

The MAX3311E/MAX3313E are low-power, 5V EIA/TIA-232-compatible transceivers. All transmitter outputs and receiver inputs are protected to ±15kV using the Human Body Model, making these devices ideal for applications where more robust transceivers are required.

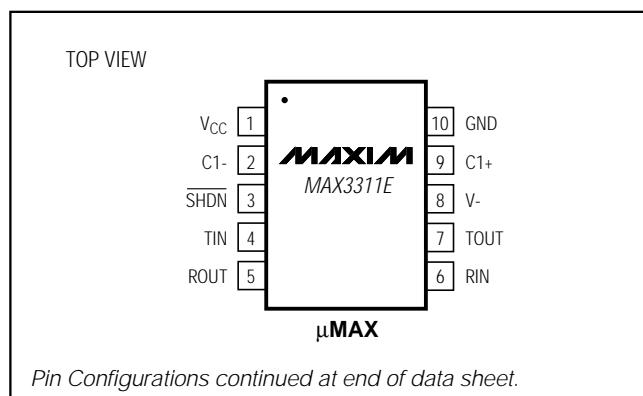
Both devices have one transmitter and one receiver. The transmitters have a proprietary low-dropout transmitter output stage enabling RS-232-compatible operation from a +5V supply with a single inverting charge pump. These transceivers require only three 0.1μF capacitors and will run at data rates up to 460kbps while maintaining RS-232-compatible output levels.

The MAX3311E features a 1μA shutdown mode. In shutdown the device turns off the charge pump, pulls V₋ to ground, and the transmitter output is disabled. The MAX3313E features an INVALID output that asserts high when an active RS-232 cable signal is connected, signaling to the host that a peripheral is connected to the communication port.

Applications

Digital Cameras
PDAs
GPS
POS
Telecommunications
Handy Terminals
Set-Top Boxes

Pin Configurations



Features

- ♦ ESD Protection for RS-232-Compatible I/O Pins ±15kV—Human Body Model
- ♦ 1μA Low-Power Shutdown (MAX3311E)
- ♦ INVALID Output (MAX3313E)
- ♦ Receiver Active in Shutdown (MAX3311E)
- ♦ Single Transceiver (1Tx/1Rx) in 10-Pin μMAX Package

Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE
MAX3311ECUB	0°C to +70°C	10 μMAX
MAX3311EEUB	-40°C to +85°C	10 μMAX
MAX3313ECUB	0°C to +70°C	10 μMAX
MAX3313EEUB	-40°C to +85°C	10 μMAX

Typical Operating Circuit

