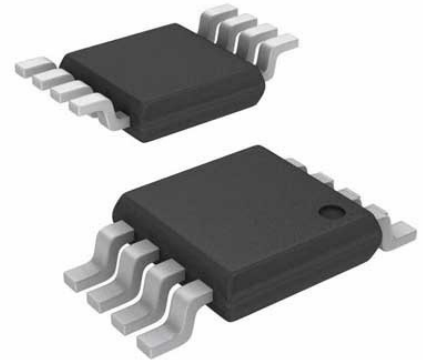


±15kV ESD Protected, +125°C, 40Mbps, 3.3V, Full Fail-Safe, RS-485/RS-422 Transceivers; Temperature Range: -40°C to 85°C; Package: 8-MSOP



Images are for reference only

Manufacturers	Renesas Technology Corp
Package/Case	MSOP8
Product Type	Interface ICs
RoHS	Rohs
Lifecycle	

Please submit RFQ for ISL3179EIUZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ISL3179E and ISL3180E are high ESD protected, 3.3V powered, single transceivers that meet both the RS-485 and RS-422 standards for balanced communication. Each device has low bus currents (+220µA/-150µA), so they present a “1/5 unit load” to the RS-485 bus. This allows up to 160 transceivers on the network without violating the RS-485 specification’s 32 unit load maximum, and without using repeaters. Receiver (Rx) inputs feature a “full fail-safe” design, which ensures a logic high Rx output if Rx inputs are floating, shorted, or terminated but undriven. The ISL3180E is configured for full duplex applications. The ISL3179E half duplex version multiplexes the Rx inputs and Tx outputs to allow a transceiver with an output disable function in 8 Ld packages. Hot plug circuitry ensures that the Tx and Rx outputs remain in a high impedance state while the power supply stabilizes.

Features

High ESD protection on RS-485 I/O pins

ISL3179E: $\pm 16.5\text{kV}$ IEC61000

ISL3180E: $\pm 12\text{kV}$ HBM

Class 3 HBM level on all other pins (ISL3179E): $>9\text{kV}$

Specified for $+125^{\circ}\text{C}$ operation

High data rates: up to 40Mbps

5V tolerant logic inputs

1/5 unit load allows up to 160 devices on the bus

Full fail-safe (open, shorted, terminated/undriven) receiver

Hot plug - Tx and Rx outputs remain three-state during power-up

Low quiescent current: 4mA (max)

Low current shutdown mode: $1\mu\text{A}$ (max)

-7V to +12V common-mode input voltage range

Three-state Rx and Tx outputs

16/16.5ns (max) Tx/Rx propagation delays; 1.5ns (max) skew

Operates from a single +3.3V supply (10% tolerance)

Current limiting and thermal shutdown for driver overload protection

Pb-free (RoHS compliant)

Related Products



[ISL83491IBZ](#)

Renesas Technology Corp
SOIC-14



[ISL3170EIUZ](#)

Renesas Technology Corp
MSOP-10



[ISL99227FRZ-T](#)

Renesas Technology Corp
32-PowerWFQFN



[ISL83078EIBZA](#)

Renesas Technology Corp
SOIC-8



[ISL83072EIBZA](#)

Renesas Technology Corp
SOIC-8



[ISL81487EIBZ](#)

Renesas Technology Corp
SOP-8



[IS82C55AZ](#)

Renesas Technology Corp
PLCC-44



[ISL83387EIVZ](#)

Renesas Technology Corp
TSSOP-24