

Quad, ±16.5kV ESD Protected, 3.0V to 5.5V, Low Power, RS-422 Transmitters;  
 Temperature Range: Full-Range Ind; Package: 16-TSSOP

Manufacturers	<a href="#">Renesas Technology Corp</a>
Package/Case	TSOP-3.9-16P
Product Type	Interface ICs
RoHS	
Lifecycle	



Images are for reference only

Please submit RFQ for ISL32172EFVZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The ISL32172E, ISL32272E, ISL32174E, and ISL32179E are ±16.5kV IEC61000-4-2 ESD protected, 3.0V to 5.5V powered, QUAD transmitters for balanced communication using the RS-422 standard. These drivers have very low output leakage currents ( $\pm 10\mu\text{A}$ ), so they present a low load to the RS-422 bus.

The driver (Tx) outputs are tri-statable and incorporate a hot plug feature to keep them disabled during power-up and power-down. The ISL32172E and ISL32272E have a common EN/EN, the ISL32174E has a two channel EN12/EN34, and the ISL32179E has a versatile combination of individual and group channel enables (see Table 1).

Only the ISL32179E driver can be slew-rate limited, and only at the data rate of 0.46Mbps. Drivers on the other versions are not limited, so they can achieve 10Mbps or 32Mbps data rates. All versions are offered in industrial and extended industrial (-40°C to +125°C) temperature ranges.

The ISL32179E's QFN package has a 50% smaller footprint compared to the TSSOP. The ISL32179E also features a logic supply pin (VL) that sets the switching points of the enable and DI inputs to be compatible with a lower supply voltage in mixed voltage systems. Two speed select pins allow the ISL32179E to be configured for 460kbps, 10Mbps, or 32Mbps data rates. Individual channel and group enable pins increase the ISL32179E's flexibility.

## Features

IEC61000 ESD protection on RS-422 outputs:  $\pm 16.5\text{kV}$

Class 3 ESD level on all other pins: 12kV HBM

High machine model ESD level on all pins: 700V

Wide supply range: 3.0V to 5.5V

Specified for +125°C operation

Available in industry standard pinouts (ISL32172E, ISL32272E, ISL32174E) or in a space saving QFN (ISL32179E) with added features

Logic supply pin ( $V_L$ ) eases operation in mixed supply systems (ISL32179E only)

User-selectable data rate (ISL32179E only)

Hot plug Tx outputs remain tri-stated during power-up and power-down

Low Tx leakage allows > 256 devices on the bus

High data rates: up to 32Mbps

Low quiescent supply current: 0.8mA (maximum)

Low shutdown supply current: 60 $\mu\text{A}$

Current limiting and thermal shutdown for driver overload protection

Tri-statable Tx outputs

5V tolerant logic inputs when  $V_{CC} \leq 5\text{V}$

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



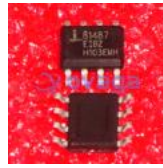
### [ISL83078EIBZA](#)

Renesas Technology Corp  
SOIC-8



[ISL83072EIBZA](#)

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TSSOP-24