Ultra-Low EMI, Smallest Package Isolated RS-485 Transceiver

Manufacturers	Renesas Technology Corp
Package/Case	
Product Type	Interface ICs
RoHS	
Lifecycle	
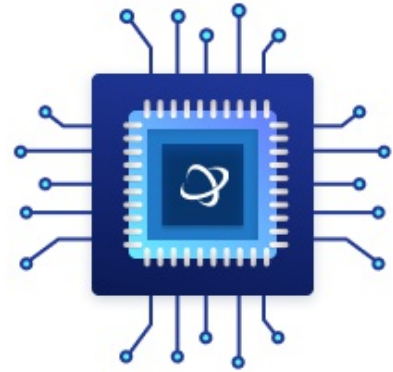
Images are for reference only

Please submit RFQ for ISL32704EIBZ or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFQ

General Description

The ISL32704E is a galvanically isolated, differential bus transceiver designed for bidirectional data transmission and meeting the RS-485 and RS-422 standards for balanced communication. Each of the bus terminals, A and B, is protected against ±15kV ESD strikes without latch-up.The device uses Giant Magnetoresistance (GMR) as isolation technology. A unique ceramic/polymer composite barrier provides excellent isolation and virtually unlimited barrier life.The part is available in a 16 Ld QSOP package offering unprecedented miniaturization, and in a 16 Ld wide-body SOIC package providing true 8 millimeter creepage distance. The ISL32704E delivers a minimum differential output voltage of 1.5V into a 54Ω differential load for excellent data integrity over long cable lengths.The device is compatible with 3V and 5V input supplies, allowing interface to standard microcontrollers without additional level shifting.Current limiting and thermal shutdown features protect against output short circuits and bus contention that may cause excessive power dissipation. Receiver inputs feature a "fail-safe if open" design, ensuring a logic high R-output if A/B are floating.

Features

4Mbps data rate

2.5kV$_{RMS}$ isolation per UL 1577

600V$_{RMS}$ working voltage per VDE 0884

3V to 5V power supplies

Single unit load receiver input

Driver drives up to 150 unit loads

50kV/µs (typical), 30kV/µs (minimum) common-mode transient immunity

44000 years barrier life

15kV ESD bus-pin protection

Thermal shutdown protection

-40 °C to +85 °C temperature range

Meets or exceeds ANSI RS-485

16 Ld QSOP and 0.3" true 8mm 16 Ld SOIC packages

UL 1577 recognized

VDE V0884-10 certified

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