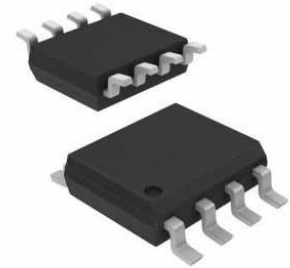


Single Transmitter/Receiver RS-422/RS-485 8-Pin SOIC N T/R



Images are for reference only

[Inquiry](#)

Manufacturer: [Analog Devices, Inc](#)

Package/Case: SOP8

Product Type: Drivers

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The LT1785/LT1791 are half-duplex and full-duplex differential bus transceivers for RS485 and RS422 applications which feature on-chip protection from overvoltage faults on the data transmission lines. Receiver input and driver output pins can withstand voltage faults up to $\pm 60V$ with respect to ground with no damage to the device. Faults may occur while the transceiver is active, shut down or powered off.

Data rates to 250kbaud on networks of up to 128 nodes are supported. Controlled slew rates on the driver outputs control EMI emissions and improve data transmission integrity on improperly terminated lines. Drivers are specified to operate with inexpensive cables as low as 72Ω characteristic impedance.

The LT1785A/LT1791A devices have “fail-safe” receiver inputs to guarantee a receiver output high for shorted, open or inactive data lines. On-chip ESD protection eliminates need for external protection devices.

The LT1785/LT1785A are available in 8-lead DIP and SO packages and the LT1791/LT1791A in 14-lead DIP and SO packages.

Key Features

Protected from Overvoltage Line Faults to $\pm 60V$

Pin Compatible with LTC485 and LTC491

High Input Impedance Supports Up to 128 Nodes

No Damage or Latchup to ESD

IEC-1000-4-2 Level 4: $\pm 15kV$ Air Discharge

IEC-1000-4-2 Level 2: $\pm 4kV$ Contact Discharge

Controlled Slew Rates for EMI Emissions Control

Guaranteed High Receiver Output State for Floating, Shorted or Inactive Inputs (LT1785A/LT1791A)

Outputs Assume a High Impedance When Off or Powered Down

Drives Low Cost, Low Impedance Cables

Short-Circuit Protection on All Outputs

Thermal Shutdown Protection

Guaranteed Operation to $125^{\circ}C$

AEC-Q100 Qualified for Automotive Applications (LT1785#W)

Application

Industrial Control Data Networks

CAN Bus Applications

HVAC Controls

Recommended For You

LTM2884IY#PBF

Analog Devices, Inc
BGA44

LT1785CS8#PBF

Analog Devices, Inc
SOP8

LTM2886CY-51#PBF

Analog Devices, Inc
BGA

LTC1344AIG

Analog Devices, Inc
SSOP24

LTC1955EUH

Analog Devices, Inc
QFN

LTC4307IDD-1#PBF

Analog Devices, Inc
DFN-8

LTM2894IY#PBF

Analog Devices, Inc
BGA

LTC4301LCMS8#PBF

Analog Devices, Inc
MSOP-8

LT1137ACSW#PBF

Analog Devices, Inc
SOP28

LTM2884CY#PBF

Analog Devices, Inc
BGA44

LTC490CN8#PBF

Analog Devices, Inc
DIP8

LTM2882CY-3#PBF

Analog Devices, Inc
BGA

LTC4311ISC6#TRMPBF

Analog Devices, Inc

AN

LTC4300A-1CMS8#PBF

Analog Devices, Inc

MSOP8

LTC1334CSW#PBF

Analog Devices, Inc

SOP-28