

2.7V-5V Powered, $\pm 15\text{kV}$ HBM ESD-Protected, 12Mbps RS-485/RS-422 Transceivers

Datasheet_V1.2
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1 Features

- Support 2.7V-5V power supply
- Guaranteed 12Mbps data rate
- Low-current shutdown mode
- -7V to +12V common-mode input voltage range
- Half-duplex, allowing up to 256 transceivers to be connected to the bus
- Driver short-circuit overcurrent protection
- RS-485 I/O pin ESD protection : $\pm 15\text{kV}$ HBM
- Package Information:

PART NUMBER	PACKAGE	BODY SIZE (mm ²)
GXA3485D	DFN-8	3.00 × 3.00
GXA3485Z	SOP-8	3.90 × 4.90

2 Applications

- Industrial control
- Communications
- Local area network
- Transceivers for applications sensitive to electromagnetic interference
- Encoder interface

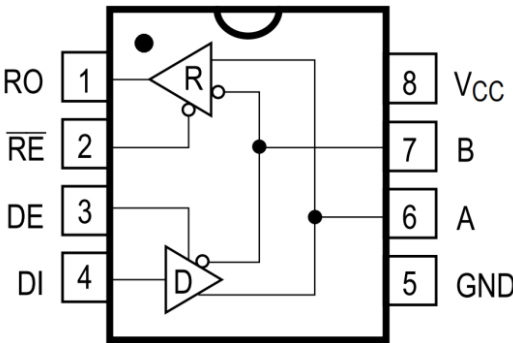
3 Description

The GXA3485 is a low power transceiver for $\pm 15\text{kV}$ electrostatic discharge (ESD) protection for RS-485 and RS-422 communications, supporting a voltage range of 2.7V-5V. Each device contains a driver and a receiver. Transfer rates up to 12Mbps.

Drivers are short-circuit current limited. The receiver input has a fail-safe feature that guarantees a logic-high output if both inputs are open circuit.

The GXA3485 supports SOP-8, MSOP-8, and DFN-8 packages. The GXA3485 is designed for half-duplex communication with 1/8 unit load, allowing up to 256 GXA3485 transceivers to be connected to the same bus. Data transmission up to 12Mbps can be achieved.

Figure 1 The Block Diagram of GXA3485



10 Ordering Information

Order Number	Chip Model	Package	SPQ	Note
GXA3485Z-EC-T&R	GXA3485Z	SOP-8	Undetermined	Sample
GXA3485Z-EE-T&R	GXA3485Z	SOP-8	Undetermined	Sample