



SP26LV431-432: FAQ

Sipex Part: SP26LV431-432

Date: Mar7-07

Question:

Assuming you short only one pin of a differential pair output to Ground, can you do it indefinitely?

Answer:

The problem is when the driver outputs a signal, the grounded output sees the short to ground and tries to drive this low impedance. The driver will go into current limiting mode. The output can be shorted indefinitely due to this protection. The other output will most likely react in an erratic fashion.

Question:

I'm looking for an RS485 driver with the following requirements:

- >=30Mbps
- Full Duplex
- Dual or Quad package
- Cheap = less than a few dollars.
- 3.3V

I don't know if these requirements contradict or are realistic. Any ideas?

Answer:

Sipex offers RS-422 devices that can run at the speed required.

<http://www.sipex.com/productDetails.aspx?part=SP26LV431>

<http://www.sipex.com/productDetails.aspx?part=SP26LV432>

They are available in quad but packaged as separate drivers and receivers. The RS-422 differs electrically from RS-485 in the specified common mode input range of the receivers. +/-7V vs. +12/-7V (RS-485). If your system is expected to be less than +/-7V, then the RS-422 parts will work fine. The highest speed RS-485 devices we have are 20Mbps data rate.

Question:

I'm looking for a circuit example for a single-ended input supplied to the SP26LV432. Our source must be AC-coupled, and then terminated into 75 ohms at the receiver. Can you please let us know what you recommend?

Answer:

The SP26LV432 is a quad differential RS-422 Receiver. This part is used in a RS-422 system and its inputs are connected to a single RS-422 driver with differential outputs. These receivers are not used as a single ended input. The receiver input has a sensitivity of 200mV at A and B inputs.

Perhaps a single ended protocol such as RS-232 would be more suitable for your application. If you would like to discuss your application in more detail you may contact Sipexsupport@sipex.com