



Vx Aviation
TRX-232A

Multi-Channel RS-232 Buffer

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Multi-Channel RS-232C Buffer
VX-10003

AIN(5) → AOUT(1,2,3,4) & AY(6)
Signal GND (14-23)
PWR-1&2(12,13), PGND-1&2(24,25)

Installation Guide

Ver. A1

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TRX-232A Multi-Channel RS232C Buffer



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Description

The TRX-232A device provides a pair of one-input to four-output RS-232 buffers. It is also configurable as a one-input to eight-output buffer. In dual four-channel mode, the RS-232 signals received on either of the primary inputs are buffered and split into four independent output channels each. In single eight-channel mode, the input signal is buffered and split into 8 outputs by using an external connection to parallel the drivers.

Dual power and ground connections are provided to provide power fault tolerance. The power connections are diode isolated so that a fault in one power feed does not affect the other. If redundancy is not required, simply use one of the power/ground pairs. For fault tolerant applications, connect one power/ground pair to the primary bus and the second power/ground pair to the essential bus. This allows continued operation even if there is a main bus fault.

The entire TRX-232A device is packaged in a 25-pin D-subminiature connector shell, thus minimizing size and weight and simplifying installation. Each input and output is provided a ground signal, thus simplifying the connection of shielded wire, if desired.

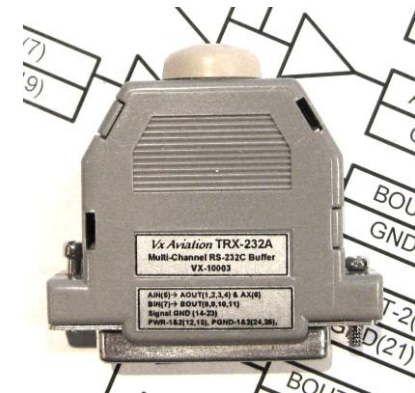
Applications

The TRX-232A is useful in applications that require a single RS-232 instrument output to be connected to several other instruments. For example, GPS navigation systems often require GPS position data to be connected to several instruments, often located at the end of long cables. The TRX-232A provides the signal boost and electrical isolation necessary to ensure reliable communications.

Often, portable GPS devices are used as a navigation source. Many of these devices do not provide a proper RS-232C compliant signal. These signals, while appropriate for short distances and one or two loads, need to be buffered for reliable operation in more complex systems. The TRX-232A device provides the proper electrical level conversion and buffering necessary in these applications.

Technical Summary

- ❑ Dual, one-input to four-output RS-232 buffers
- ❑ Compliant with TIA-232-F standards
- ❑ Configurable as a single one-input to eight-output RS-232 buffer
- ❑ Paired grounds for every RS-232C input and output simplifies connection of shielded wire
- ❑ 14 or 28 volt power supply with redundant power and ground connections
- ❑ Compact and light weight packaging



**TRX-232A Device in Compact,
Lightweight Package**

NOT FOR USE IN CERTIFIED AIRCRAFT



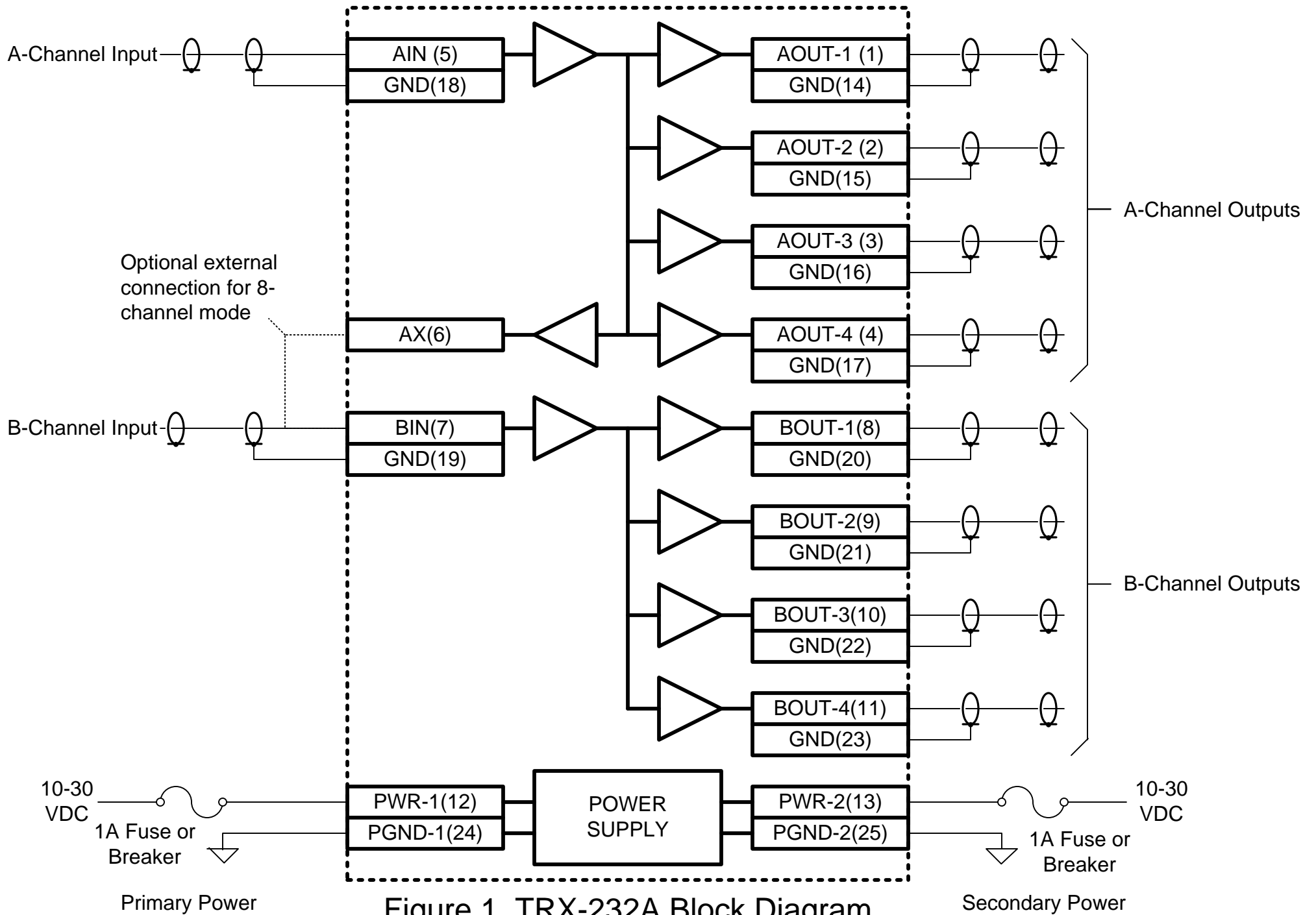


Figure 1. TRX-232A Block Diagram

