

Frequently Asked Questions

Title: Loopback for 1553Px Family Cards

Date: 13 May 2015

Card/Board/Module: all 1553Px cards modules

Operating System: all

Question:

How do I perform a loopback test (or self-test) on the 1553Px family card or module ?

Answer:

The 1553B card or module has two **cables** for each 1553B channel, one cable for **Bus A** and one cable for **Bus B**. Normal 1553B communication requires connecting all bus A cables to one 1553B bus, and all bus B cables to another 1553B bus.

A **1553B bus** can be a stub coupler with some number of stubs, and with a terminating resistor on the stubs at the ends of the bus.

Please see the FAQ document titled "**1553 Bus Connections diagram.pdf**" for a diagram with a number of 1553B devices connected to busses A & B.

Our demo_loopback program performs two kinds of loopback:

- **Internal loopback test:** checks connections internal to the card; does not require any external cable connections to perform the test
- **External loopback test:** checks connections external to the card; requires connecting the bus A and bus B cables to the same 1553B bus

Here is a diagram of the cable connections needed for the **External loopback test**.

