Q: How to make a loop-back test on a RS-485 port of VXC Card ?

A:

No, you cannot make a loop-back test on one RS-485 port.

In RS-232, the TX signal is used for output while the RX signal is used for input. Users can short the TX and RX signals to make a loop-back test.

In RS-485, it is a differential signal through the Data+ and Data- wires. When the difference in voltage between Data+ and Data-, Vab, is great than 200mV, the RS-485 receiver then generates logic "1". When the Vab is less than -200mV, the RS-485 receiver then generates logic "0".

Thus, if user shorts the Data+ and Data- wires together, the Vab is then becomes 0V and the RS-485 receiver generates nothing. Actually, the RS-485 bus doesn't work when the Data+ and Data- wires are shorted.

An alternate method is using two RS-485 ports, which shorts the two Data+ signals of ports, and shorts the two Data- signals of ports. User can then sends and receives data from one to another port for testing.

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