

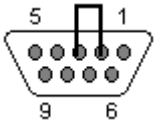
PI7C9X7958 / PI7C9X7954 / PI7C9X7952 PCIe® UART I/O Bridge Quick Start Guide – How to Do a Loopback Test

Introduction

A loopback test allows the user to send and receive data from the same serial port to verify that the port is operational. To perform this test, you need to modify your null-modem serial cable temporarily so that the transmitter and receive pins are connected. If you do not have a null-modem cable, or if you do not know which serial cable to purchase for your serial card, see the Serial Cables section below. Follow the steps below to modify the appropriate cable.

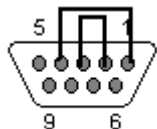
RS232-DB9 Connect (RS232 Mode)

The DB-9 connector is a 9-pin connector, as shown below. You need to insert one end of the cable into your serial port and use the other free end to make the loopback connection. The figure below shows the female DB-9 connector with **pin# 2** and **pin# 3** shorted. You can also use a simple paper clip to short the two connections by inserting the clip into each hole in the female connector, as shown below:



RS485-DB9 Connect (RS485 4W Mode)

The DB-9 connector is a 9-pin connector, as shown below. You need to insert one end of the cable into your serial port and use the other free end to make the loopback connection. The figure below shows the female DB-9 connector with **pin# 2** and **pin# 3 / pin #1** and **pin# 4** shorted. You can also use a simple paper clip to short the two connections by inserting the clip into each hole in the female connector, as shown below:



After you modify the null-modem cable as directed in the sections above, you can perform the loopback test.

1. Insert the cable

Insert the unmodified end of the cable into the serial port you want to test. The other cable end should have the RX/TX pins shorted using a paper clip or a piece of wire.

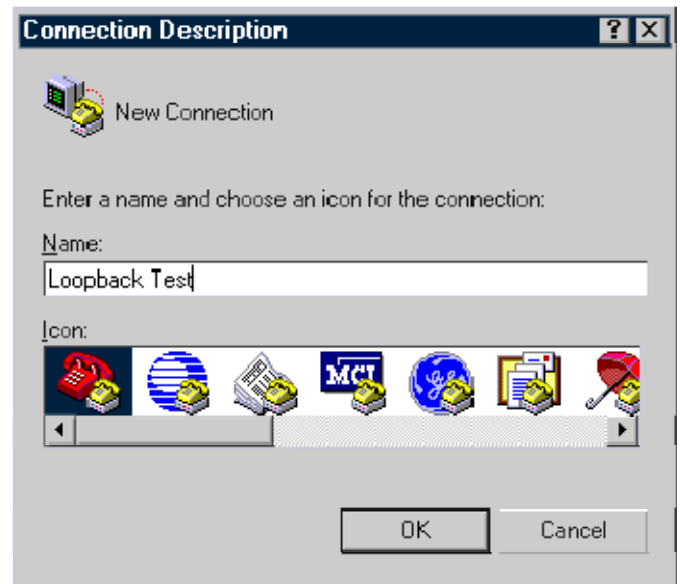
2. Launch HyperTerminal

Launch HyperTerminal by selecting **Start»Programs»Accessories»Communications»HyperTerminal**.

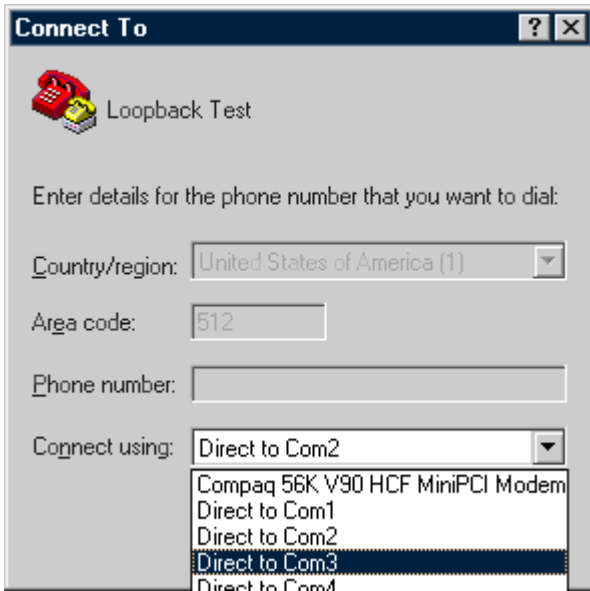


3. Create a Session

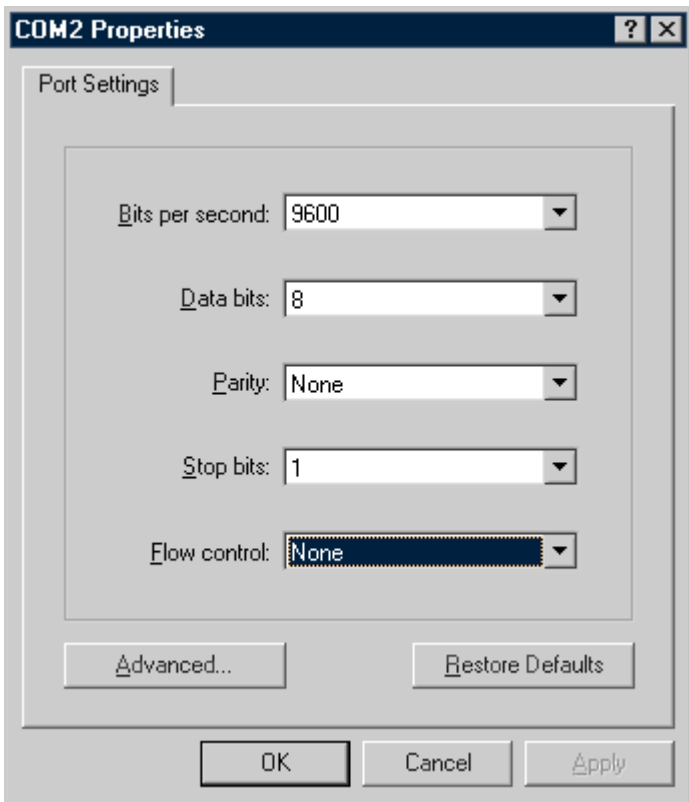
Create a session by giving it a name and press **OK**. The example below shows the name **Loopback Test**.



Select the COM port from the drop-down list and press **OK**.



Select the serial properties shown below and press **OK**.



You will see the terminal window as shown below. If your serial port is working and the loopback cable is properly connected, the text you type appears in the window. If you remove the cable and type text, it should *not* appear in this window. If this test behaves differently than described here, see the troubleshooting advice at the end of this section.

If the loopback test is successful, it indicates that your serial port is functional and you can send and receive data through that port.

