



Digi Application Guide

Configuring XStream-PKG Serial RF Modems for Serial Bridging

1. Configure two XStream-PKG RF modems for serial bridging.

Objective: Configure two XStream-PKG Serial RF modems to build a serial bridge between two terminals or between a terminal and a device

1.1 Software Requirements

- XCTU
- PuTTY or any Terminal application

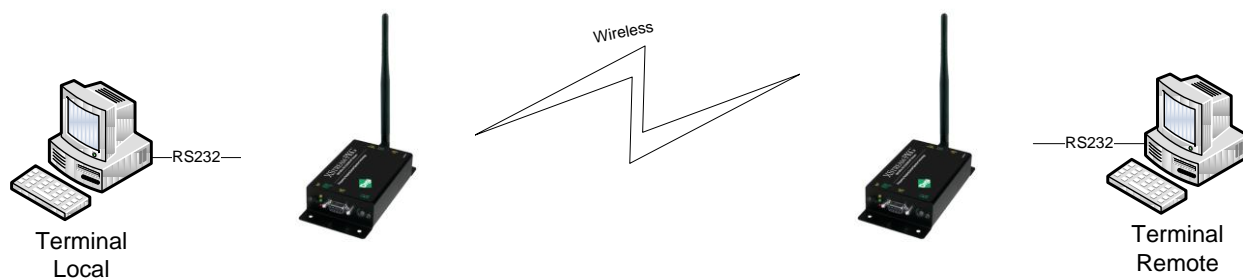
1.2 Hardware Requirements

- XStream-PKG RS-232/485 RF Modem x 2

2. Scenario

In our example, we will connect a terminal application running on a computer on each XStream modems and send data through the bridge.

3. Sample diagram.





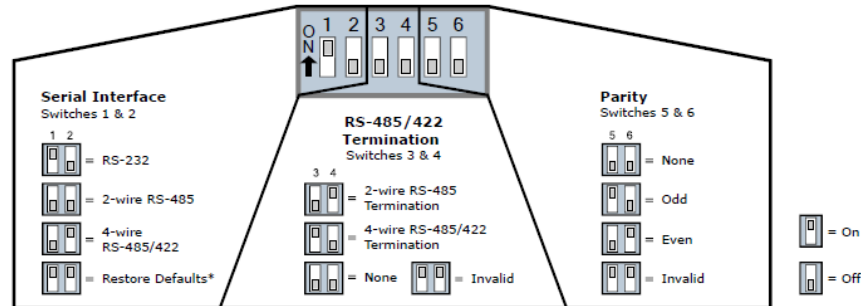
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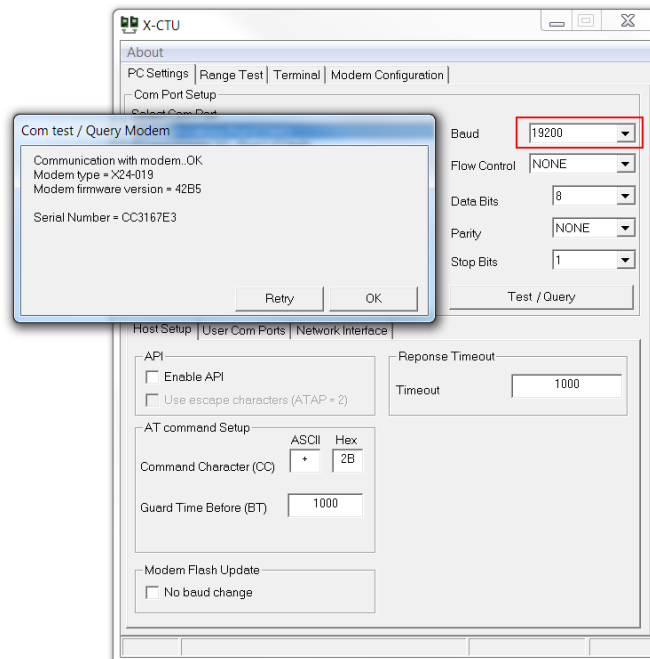
4. Step by step instructions

4.1 Configuring the Local XStream modem

- a) Proceed to a factory reset of the modem to restore default parameters:
 - a. Power ON the modem
 - b. Set switches 1 & 2 to their ON state (up)
 - c. Power OFF the modem for at least one second, then on again.
- b) Verify that the DIP switches settings are the following: 1 ON all OFF.



- c) Connect the XStream modem to the Local Terminal computer using a RS232 Straight Thru cable
- d) Open the XCTU application and select the COM port of your computer
- e) In our example we use the 19200 version of the XStream mode, so set the baud rate accordingly and click the “Test Query” button, a new window should appear :



- f) Communication with the modem is OK, click on the “**Modem Configuration**” tab



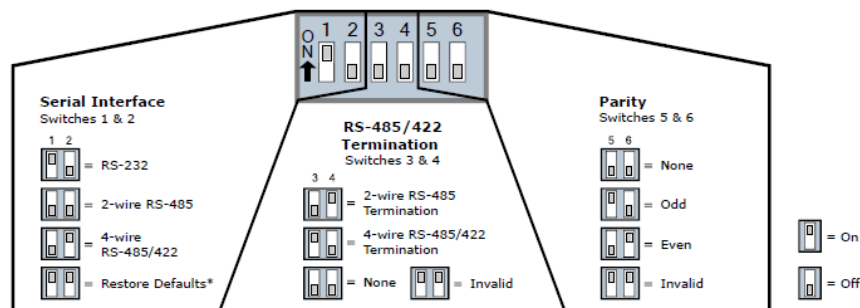
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- g) Scroll down to **Networking** Set the **HP** (Hoping Channel) value to “**1**” and **DT** (Destination Address) to “**10**”
- The Hoping Channel value is the channel on which the radio modem will communicate. These channels are not non-interfering. Both modems must be communicating on the same channel
 - The Destination Address is the address that identifies the destination of the RF packet. Only radio modems having matching addresses can communicate with each others.
- h) In the **Modem Parameter and Firmware** click the “**Write**” button

4.2 Configuring the Remote XStream modem

- a) Proceed to a factory reset of the modem to restore default parameters:
- Power ON the modem
 - Set switches 1 & 2 to their ON state (up)
 - Power OFF the modem for at least one second, then on again
- b) Verify that the DIP switches settings are the following : 1 ON all OFF

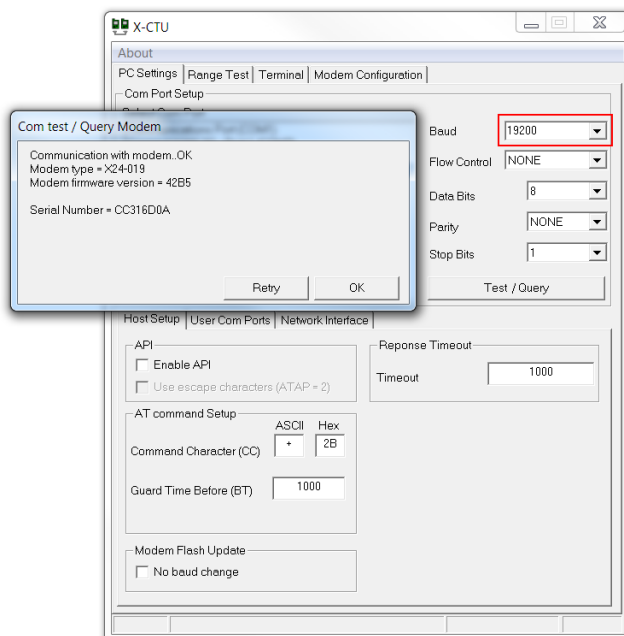


- c) Connect the XStream modem to the Local Terminal computer using a RS232 Straight Thru cable
- d) Open the XCTU application and select the COM port of your computer
- e) In our example we use the 19200 version of the XStream mode, so set the baud rate accordingly and click the “Test Query” button, a new window should appear :



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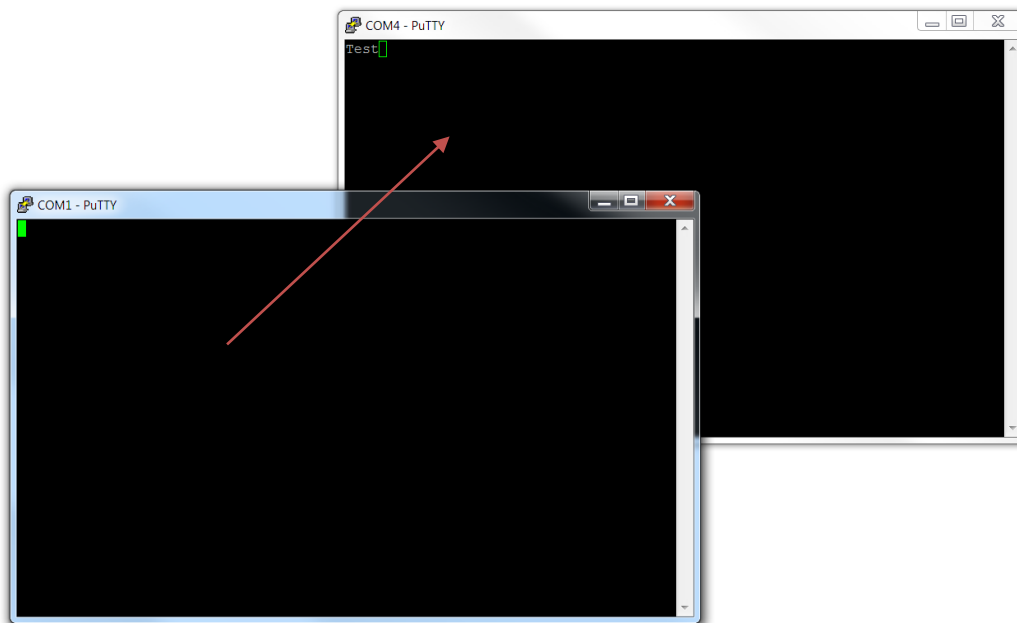
- f) Communication with the modem is OK, click on the “**Modem Configuration**” tab



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- g) Scroll down to Networking Set the **HP** (Hoping Channel) value to “1” and **DT** (Destination Address) to “10”
- The Hoping Channel value is the channel on which the radio modem will communicate. These channels are not non-interfering. Both modems must be communicating on the same channel
 - The Destination Address is the address that identifies the destination of the RF packet. Only radio modems having matching addresses can communicate with each others.
- h) In the Modem Parameter and Firmware click the “**Write**” button
- i) Close XCTU and open a terminal application such as PuTTY to the COM port where the modems are connected on each system



- j) In this test, data is sent from Local (COM1) to Remote (COM4)