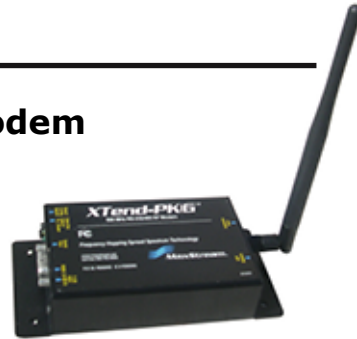


Quick Start Guide

XTend-PKG-R™ RS-232/485 RF Modem

Introduction
Range Test Setup
Range Test Procedure
Optional Configurations



Create a Long Range Wireless Link In Minutes.

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MD0019

WARNING: When operating with 1 Watt power output, transmitting in close proximity of other RF modems can damage modem front-ends. Observe a minimum separation distance of 2' (0.6 m) between RF modems.

Introduction

This Quick Start Guide provides OEMs and integrators with an introduction to some of the RF modem's most important features. This guide provides step-by-step instruction on how to setup a wireless link and test the modem's ability to transport data over varying ranges and conditions.

Range Test Setup

Requirements for Range Test

- 2 XTend RF Modems
- Accessories (Loopback adapter, RS-232 cable, 2 RPSMA antennas, 2 power supplies)
- 1 PC (Windows 98 SE, 2000 or XP) loaded with X-CTU Software

Install X-CTU Software:

Double-click "setup_X-CTU.exe" file and follow prompts of the installation screens. This file is located on the MaxStream CD and also on the following web page: www.maxstream.net/helpdesk/download.php

The X-CTU software interface is divided into the four following tabs:

- PC Settings - Setup PC serial com ports to interface with the RF modem
- Range Test - Test RF modem's range under varying conditions
- Terminal - Read/Set RF modem parameters and monitor data communications
- Modem Configuration - Read/Set RF modem parameters

Hardware Setup

XTend RF Modems will be referred to as "Radio1" and "Radio2".

1. Set both Radio DIP Switches to RS-232, point-to-point modes. [Switches 1 and 5 are ON (up), and the remaining 4 switches are OFF (down)].
2. Connect the included RS-232 cable to the female DB-9 connector of Radio1 and the male DB-9 connector of the PC.
3. Attach the serial loopback adapter to the female DB-9 connector of Radio2. (The serial loopback adapter configures Radio2 to function as a repeater by looping data back into the module for retransmission. [Figure 1])
4. Attach RPSMA antennas to each RF modem.
5. Power Radio1 & Radio2 through their respective power connectors.

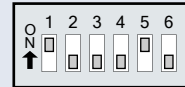
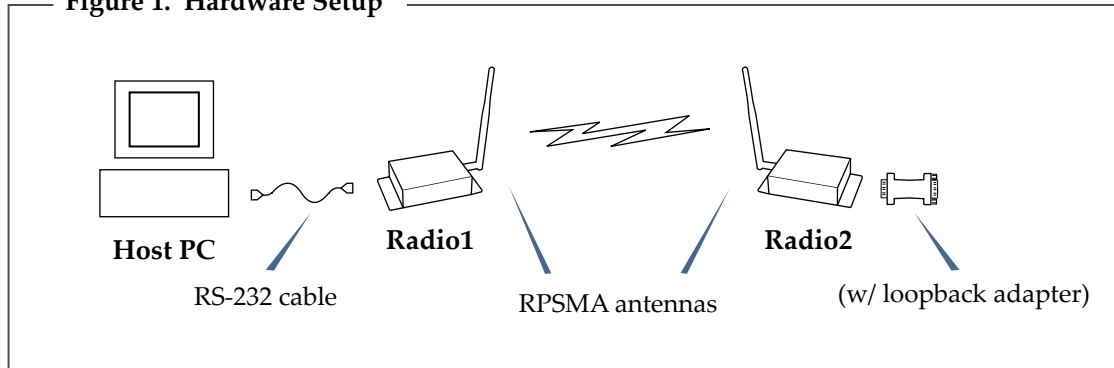


Figure 1. Hardware Setup



Range Test Procedure

Use the "PC Settings" and "Range Test" tabs of the X-CTU Software to:

- Setup a PC Serial Com Port for communications with the XTend RF Modem [step 2 of "Range Test"].
- Determine RF modem's range [steps 1-8 of "Range Test"].

Range Test

1. Launch the X-CTU Software: (*Start --> Programs --> MaxStream --> X-CTU*)
- ② Under the "PC Settings" tab [Figure 2], select the PC serial com port from the dropdown list that will be used to connect to Radio1.
- ③ Select the baud rate that matches the I/O interface rate (serial data rate) of Radio1. Use default values for remaining fields [Figure 2].
4. Select the "Range Test" tab [Figure 3].
- ⑤ (Optional) Check the box in the "RSSI" section to enable its display.
- ⑥ ("Loopback" option is automatically selected.)
- ⑦ Click the "Start" button to begin the range test.
8. Move Radio2 (with loopback adapter) away from Radio1 to determine the maximum range of the wireless link.

Figure 2. PC Settings tab

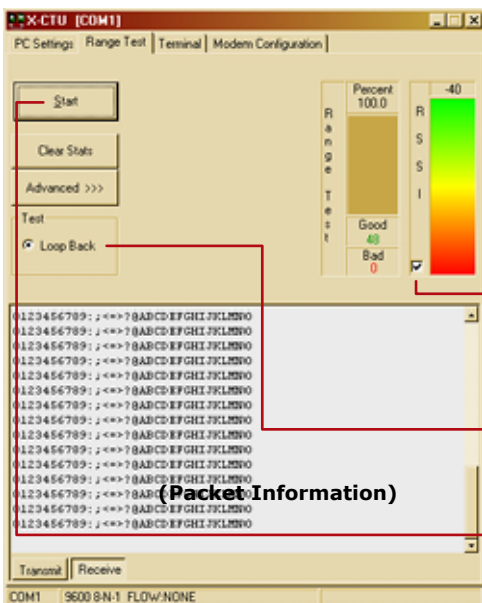
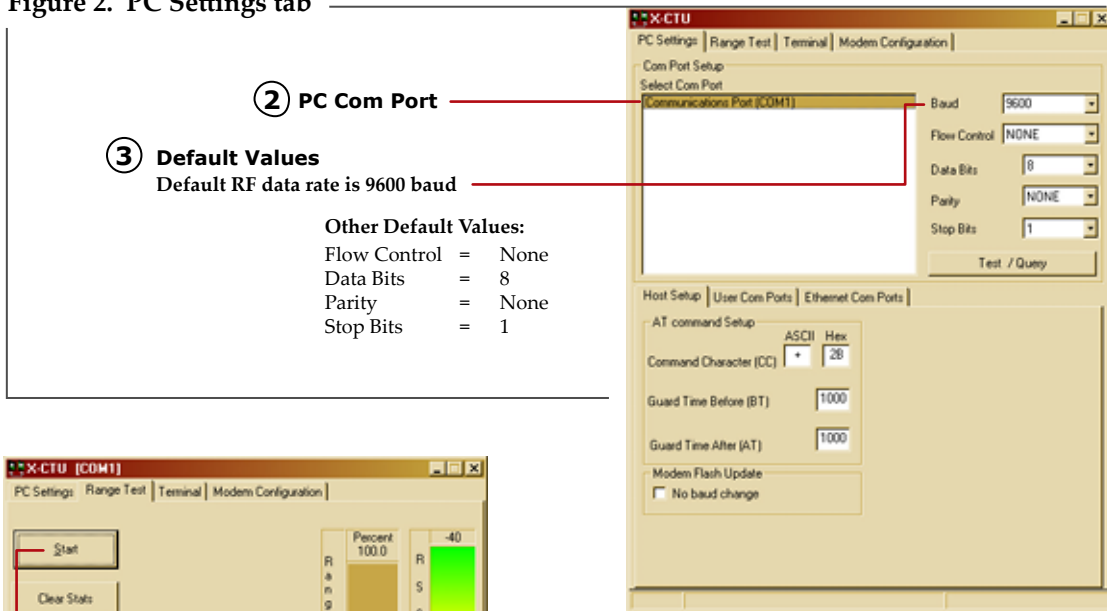


Figure 3 Range Test tab

Optional Configurations

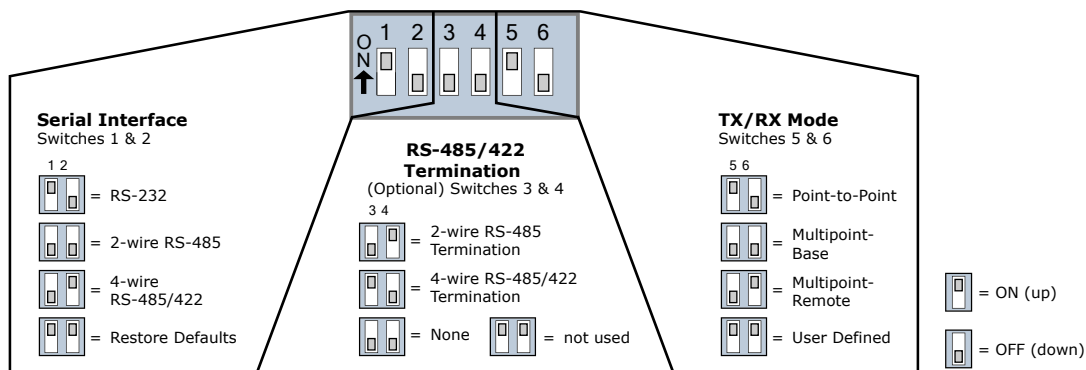
Out-of-box, the XTend-PKG-R RF Modem is configured to provide immediate wireless links between devices. The modem's default configuration supports a wide range of RF communications.

If the RF Modem must be configured to support specific needs of a data system, several programming options are available.

Using the MaxStream RF Modem DIP Switch

The DIP switch allows users to configure the following RF modem settings.

Figure 4. DIP Switch Settings (Settings applied only when powering on)



Restoring Modem Defaults

If the XTend Modem is not responding or cannot enter into Command Mode, try restoring the modem to its original default parameter values.

To Restore Defaults (DIP Switch Method):

1. Set switches 1 & 2 of the DIP Switch to their ON (up) positions and the remaining four switches to their OFF (down) positions.
2. Turn off, then on again, the power supplying the RF modem.

Other Configuration Options

Using the DIP Switch to configure the modem is one of several ways to configure modem parameters. Other programming options are available such as using the X-CTU Software "Terminal" and "Modem Configuration" tabs. Binary programming is also supported.

Refer to the XTend-PKG-R RF Modem product manual for more information about the available configuration options.

Contact MaxStream (Office hours are 8am – 5pm U.S. Mountain Standard Time)

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