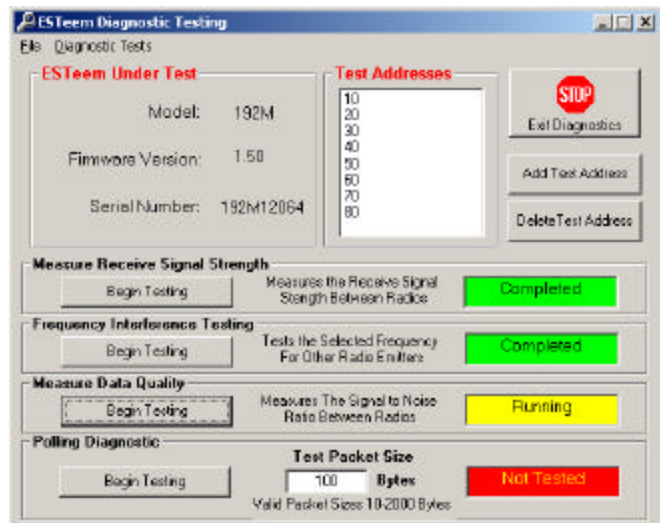


ESTeem Utility for Windows®

The ESTeem Utility Program is Windows compatible software for the programming and diagnostics of ESTeem Models 192S, 192C, 192F, 192M and 192V. Both the first time or experienced ESTeem user will find the ESTeem Utility a vital component in radio system setup.

Features

- Basic Interactive Programming – An overview of the ESTeem Radio Modem and a walk through of commands necessary for radio communications such as setting the frequency, squelch and modem address.
- Advanced Application Programming – An interactive program to configure the ESTeem for *YOUR* application. Each application is unique and the ESTeem Utility will calculate the command list necessary to program the modem for your particular needs.
- Diagnostic Programs – The ESTeem Utility provides four diagnostic tools to troubleshoot any problems in your ESTeem network.
 - Measuring Receive Signal Strength – The program will measure the receive signal strength from all remote sites and display their values for analysis
 - Interference Testing – This program will put the ESTeem in a “listen-only” mode and display any radio activity on the frequency selected. This test is useful for selecting a frequency that is not being used in the surrounding area.
 - Measuring Data Quality – This program will analyze the quality of the received radio signal as compared to the surrounding noise (signal-to-noise). **Note:** *This feature is not available on the 192S product.*
 - Polling Diagnostic – This program will allow you to test data transfer between the radio modems before connecting any other hardware and provide you time/date information on number of transmission/retries and the radio link status.



Notes on Testing Bit Error Rate (BER) – Direct measurement of the BER is not achievable in the ESTeem because it does not pass RF packets if the 32-bit CRC checksum for whole data packet is not correct. The entire packet would be indicated as bad. It is suggested that you may be able to extrapolate the BER from one of the following tests:

1. *Use BER test equipment in a frame mode on both ends with ESTeems in global transparent mode.*
 2. *Use the ESTeem Utility's Polling Diagnostic to record retries and figure out the frame rate from that data.*
 3. *Use the ESTeem utility Polling Diagnostic for the test data and make a program for the receiving end to indicate if they missed a packet.*
- Direct Terminal Emulation – For advanced programming of the ESTeem's command line interface and updating advanced configuration such as the RF output power and updating the Flash operating system.