V.23 Quickstart Guide

This guide is designed to get you started with the Scenix V.23 modem.

These materials are included with the modem kit:

- 9V or greater power supply, with a current capability of 300mA or greater.
- 9-pin to 9-pin serial cable
- V.23 modem
- Modem Schematics
- CD-R with electronic versions of the V.23 modem documentation, the schematics in ORCAD and PROTEL format, netlists, bills of material, source code, etc… The CD-R also contains a trial version of Protel '99, if you cannot open ORCAD or PROTEL files.
- Quickstart guide

HOW TO RUN THE MODEM:

This initial version of V.23 can only originate calls. The reason is that, in V.23, the originating modem transmits at 75bps and receives at 1200bps. Only the 75bps transmission and 1200bps reception are built into the software of this modem, although all of the hardware to answer for V.23 is built in.

STEPS:

1. Connect the Scenix modem to a telephone line
2. Connect a modem with a V.23 fallback mode to another telephone line. Some modern modems do not support a V.23 fallback mode. Others do, but it may need to be enabled through the modem's AT-command set. Some modems will auto-detect V.23 without any initialization.
3. Connect the Scenix modem to a com port of a computer with the 9-pin serial cable. Com1 or Com2 will do. Open a terminal program such as Hyperterminal. Set the terminal program to these communications settings:
   - 1200bps
   - No Parity
   - 1 Stop Bit
   - Hardware flow control
4. Connect the answering modem to another com port of the same computer or to another computer. Open another Hyperterminal window and connect it to the com port of this modem.
5. Plug the 9V power supply into the modem and into an outlet
6. A prompt should appear on the screen, with the modem software version, etc. If the prompt does not appear, double check your terminal settings. Check that one of the LED's on the V.23 modem is flashing constantly. If not, check power, and ensure that the jumpers are set-up for running from a crystal (see the schematics)
7. Now you are ready to run the modem. These commands can be used:
   - Dial: "ATDTxxxxxxxxx…"
   - Switch from data mode to command mode: "+++"
   - Switch from command mode to data mode: "ATO"
   - Hang up: "ATH"
   - Initialize: "ATZ"
   - Hybrid Optimization "ATY"
8. To connect the two modems, set up the other modem to answer when it detects a ring
   - Type "ats0=1" and press enter. "OK" should appear on the screen.
9. On the terminal window connected to the Scenix modem, type "ATDT" followed by the number of the other modem and press <enter>. This will cause the Scenix modem to call the other modem. Placing a comma in the dial string will cause the modem to pause for 2 seconds between digits. (e.g. ATDT9,14083278888 will dial an outside line and pause before dialing the rest of the string.)
10. If everything works, a "CONNECT 1200" or "CONNECT 1275" message should appear on the terminal screens for both modems. Now, anything typed in the Scenix modem's terminal window should appear in the answering modem's terminal window and vice-versa.