Dial-up Landline (Analog) Modem Summary

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Phone modems come in an almost infinite range of models, configurations and prices. Generally, you will want to choose a modem that can handle high speed data transfer and that uses standard communication protocols and baud rates. If no AC power is available, remote site configuration will be less complicated and less expensive if the phone modem chosen can be powered with 12V DC power rather than requiring an AC inverter. Consider using DC (battery) power backup regardless.

Suggested Minimum Requirements

- 12 VDC power (if being used without AC power)
- V.32, V.32bis communication protocols
- V.42, MNP error correction/data compression
- RTS/CTS hardware flow control
- High Speed baud rates (115.2 kbps)
- Support industry-standard AT command set
- Compatible with CCITT and Bell standards
- Compatible with RS-232 Control Signals

US Robotics Courier V.Everything



The Courier can connect at speeds up to 56 kbps on analog phone lines using x2 technology. It also provides full support for V.34+, V.34 standard, V.Fast Class, V.32 terbo and many other modulation schemes spanning the range of speeds between 300 bps to 56kbps. The Courier monitors line conditions and features carrier loss redial, remote configuration, error controls, data compression, and testing.

- How to configure a Courier V.Everything 33.6 modem for various data transfer modes via a

Linux box

- USRobotics Courier V.Everything--Trimble R7 configuration example with comments
- Receiver--Phone Modem--Phone Modem--CPU Configuration
- Non-specific Courier Register Settings (Trimble 4000SSE/SSi, AOA TurboRogue ANR-8000)
- 3Com Courier V.Everything modem manual
- UNAVCO USRobotics Courier V.Everything documentation form

Telebit Worldblazer (T3SA) [historical]

The Telebit T3SA modem supports full asynchronous and synchronous compatibility with dial-up V.32 and V.32bis modems. The modem features error control, data compression, remote management, and diagnostics. It provides reliable and error free connectivity at speeds from 300 to 23,000 bits per second (bps). The modem also supports TurboPEP and is compatible with CCITT and Bell standard modems. However, the Telebit company has merged with ITK and no longer produces this model.

NOTE: The UNAVCO Boulder Facility is not using any DTE or DCE hardware flow control at DTE speeds of 9600 bps or lower. Trimble recommends using hardware flow control for DTE speed greater than 9600 bps. Modulation speed is negotiated between two modems up to the maximum allowable speed, in this case V.32 9600 bps (register S50). We are using V.42 error control protocol with MNP fallback allowed. Data compression is disabled in both directions when downloading Trimble receivers as Trimble is using their own data compression. The same register configuration is saved in both profile A and B to ensure that the proper configuration is recalled when the modem is reset or power cycled. (See registers S254, S255, and the &W command). CTS is always on if hardware flow control is disabled (&R3). If RTS/CTS hardware flow control is used CTS is used to control the flow of data from the DTE. This is consistent with the Trimble receiver hardware flow control. Echo is turned off (E0) on the remote modem to avoid sending data back to the receiver that can be interpreted in such a way as to cause the receiver to freeze up.

Troubleshooting tips: The inactivity timer (register S41) is set to 6 minutes, i.e. if the modem does not receive data from the local DTE or the remote modem within this time it disconnects the call. If repeated calls are being made care should be taken to allow the modem to disconnect the previous call and reset itself before another attempt is made. Or a separate command should be sent to the local modem to bring the DTR line low if the originating software program does not perform this automatically. This is especially important when downloading receivers using an automated script to perform the actual downloads. Consult the Telebit Modem Reference Manual for details. Preliminary tests have been conducted with US Robotics Sportster 28.8k fax modems and results will be added when the tests are finished.

- Configuration Examples
- Receiver--Radio Modem--Radio Modem--Phone Modem--Phone Modem Configuration
- Receiver--Phone Modem--Phone Modem--CPU Configuration
- Suggested Register Settings Using a Direct Connection

- Quick Reference Card

Send questions or comments to Support (support

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