



# Industrial 56K Dial-Up Modem

## Description

The Industrial 56K Dial-Up Modem provides fully-integrated data communications over Wide-Area Networks (WANs) using dial-up phone lines and the Internet.

The Industrial 56K Modem fully complies with Part 68 of the Federal Communications Commission (FCC) rules.

The Industrial 56K Dial-Up Modem is enclosed in a rugged metal housing. A terminal block connector provides power connection from a 24 VDC or 24 VAC source. Power can come from the supplied power puck or cabinet 24 VDC. A 9-pin serial connector and standard RJ11 phone jack provide the connections to the phone network from the controlling equipment.

Four red LED indicators show the status of communications (RD, TD, DCD, and DTR) and the power status of the modem.

## Benefits

- Complete modem solution
- 56Kbps performance
- Full-featured datacom operation
- Serial interface
- Low-power consumption
- Small footprint
- Micro-controller technology for reliable long-life performance
- Shelf-mountable

## Features

- Modem downloads at V.90/K56flex speeds from a digital V.90 or K56flex server
- Modem uploads at 33.6 Kbps (enhanced V.34)
- Standard RS-232 serial interface supporting DTE transfer speeds to 230.4 Kbps
- Supports V.42 error correction with V.42bis or MNP Class 5 data compression
- Supports industry-standard AT-style commands
- Remote configuration, diagnostic tests, distinctive ring, 3-number storage for automatic dialing, and flash memory for firmware updates

### Data Rates: Client-to-Server

Data communications support V.90 or K56flex for download speeds to 56 Kbps when connected to a fully digital V.90 or 56Kflex server, and upload speeds up to 33.6 Kbps via enhanced V.34. Negotiates an enhanced V.34 (33.6 K), V.32bis (14.4 K), V.32 (9600), V.22bis (2400), or slower speed connection with non-V.90 modems

### Data Rates: Client-to-Client

33,600, 31,200, 28,800, 26,400, 24,000, 21,600, 19,200, 16,800, 14,400, 12,000, 9600, 7200, 4800, 2400, 1200, 0-300 bps

### Data Format

Serial, binary, asynchronous

### Error Correction

ITU-T V.42 (LAP-M or MNP3-4)

### Data Compression

ITU-T V.42bis (4:1 throughput), MNP 5 (2:1 throughput)

### Speed Conversion

Serial port data rates adjustable to 300, 1200, 2400, 4800, 9600, 19,200, 38,400, 57,600, 115,200, and 230,400 bps

### Command Buffer

40 characters

### Intelligent Features

Fully AT command compatible; auto-dial, redial, repeat dial; pulse or tone dial; dial pauses; auto answer; adaptive line probing; automatic symbol and carrier frequency during startup, retrain, and rate renegotiation; DTMF detection; call status display, auto-parity and data rate selections; keyboard-controlled modem options; non-volatile memory; on-screen displays for modem option parameters; command lines of up to 40 characters each; help menus; remote configuration; DTR dialing

### Data Modulation

FSK at 300 bps, PSK at 1200 bps, QAM at 2400, 4800, and 9600 bps (non-trellis), QAM with trellis-coded modulation (TCM) at 9,600, 12,000, 14,400, 16,800, 19,200, 21,600, 24,000, 26,400, 28,800, 31,200, 33,600, and 56,000 bps

### Flow Control

XON/XOFF (software), RTS/CTS (hardware)

### Transmit Level

-11 dBm (dial-up)

### Receiver Sensitivity

-43 dBm under worst-case conditions

### AGC Dynamic Range

43 dB

### Diagnostics

Local analog loop, local digital loop, remote digital loop

### Interface

Serial interface for EIA RS-232C/ITU-T V.24/V.28

Female 9-pin metal shell D subminiature connector with female jack screws

### Power

20 to 28 VAC/DC, not exceeding 5 W (power puck provided)

### Dimensions

1.6 in. H x 4.2 in. W x 6 in. D (41 mm H x 107 mm W x 152.4 mm D)

### Weight

1.0 lb (0.45 kg)

### Environmental

-29.2°F to 165.2°F (-34°C to 74°C)

0 to 95% relative humidity (non-condensing over the entire temperature range)

### Approvals

FCC Part 68 approved

Industry Canada CSOs

Approvals provided in controlled configurations and must be reevaluated in end user configurations

### Warranty

Two-year warranty

### Product Support

Product support and training available by a team of factory-trained technical support specialists

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