

- Full-duplex operation up to 28,800 bps
- Supports DTE speeds up to 115,200 bps
- Operates over dial and leased lines (2-wire)
- Synchronous/asynchronous operation
- Automatic fallback/fall forward
- Industry standard AT command set
- ITU-T V.42/V.42bis and MNP Class 4 and 5 error correction and data compression
- Flash memory
- Storage for 8 phone numbers
- Group 3 Class 1 fax capability

# V.34 for Dial-Up and Leased Line Applications

Racal Data Group has long been a world leader in data communications technology. Now Racal offers the first in a new generation of modems for business and professional use: the **DataMate™ V.34**. This easy-to-use tabletop V.34 modem gives you connections up to 28,800 bits per second (bps) over 2-wire dial *and* leased lines. With the DataMate V.34, you can access network and on-line services from your small office or home office.

The DataMate V.34 modem also comes standard with automatic dialing and answering, and automatic recovery from failed leased lines (without termination of the dial connection). In addition, V.42 error correction ensures that your data arrives at its destination error-free. Group 3 fax capability lets you send and receive faxes directly from your workstation.

## Easy Downloading of New Features

The DataMate V.34 modem uses Flash memory to store the program code. This way it can be reprogrammed with new instructions for new functionality. This means upgrading the modem is as easy as a phone call, giving you quick, cost-effective upgrades even at remote locations.

#### AT Command Autodialing

When the AT command set (Hayes®) autodialer is selected, the DataMate V.34 modem is compatible with the Hayes "AT" standard, allowing it to interface with computers running communications software based on the Hayes "AT" command set.

#### **Asymmetric Full Duplex Operation**

Without asymmetric operation, impairments on the line in one direction slow communications both ways. Asymmetric operation lets data flow independently, letting you better utilize the available bandwidth.

#### Auto-Recovery for Dial and Leased Lines

The DataMate V.34 modem provides an Auto-Recovery feature that operates in both dial and leased line applications. If the line is disconnected in dial line applications, the modem automatically re-dials the call to restore communication. This feature emulates the reliability of a leased line connection.

If the leased line deteriorates, the modem automatically places a dial line call to restore communication. It then periodically monitors the condition of the leased lines without interrupting the data flow. Communications are automatically switched back when they are restored.

## Multistandard and Worldwide Compatibility

The DataMate V.34 offers worldwide and multistandard high-speed compatibility, based on its compliance with the V.32, V.32bis, and V.34 recommendations. In addition, its compliance with a wide array of lower-speed standards lets your system migrate cost-effectively to the higher speeds.

## V.42bis and MNP Class 5 Data Compression

For maximum data throughput on an asynchronous transmission link, the DataMate V.34 modem offers both V.42bis and MNP Class 5 data compression. With data compression, your DTEs can transmit at their maximum speeds, allowing you to significantly reduce line costs.

#### Fax Capability Up to 14,400 bps

You can send and receive faxes from your computer, which means no more waiting at the fax machine. Our 14,400 bps send and receive facsimile feature complies with Group 3, Class 1 standards.

## **Easy Switching Between Talk and Data Mode**

It's easy to share the same phone line with the DataMate V.34. To switch from voice to data transmission, just push a button on the front panel and the modem takes over.

# **Racal Data Group**

	Technical S	pecifications
Line Requirements	Operates full-duplex over 2-wire dial lines or full-duplex over 2-wire unconditioned leased lines	
Line Speeds	Synchronous	28,800, 26,400, 24,000, 21,600, 19,200, 16,800, 14,400, 12,000, 9600, 7200, 4800, 2400, and 1200 bps
	Asynchronous	28,800, 26,400, 24,000, 21,600, 19,200, 16,800, 14,400, 12,000, 9600, 7200, 4800, 2400, 1200, and 300 bps; 9, 10, or 11 bit code
DTE Speeds	Selectable from 300 to 115,200 bps	
Modulation Technique	Quadrature Amplitude Modulation (QAM) at 28,800, 26,400, 24,000, 21,600, 19,200, 16,800, 14,400, 12,000, 9600, 7200, 4800, and 2400 bps (multi-dimensional trellis coded) (V.34 and V.FC)	
	QAM at 14,400, 12,000, 9600, 7200, and 4800 bps (trellis coded at 14,400 and 12,000 bps; trellis coded or non-coded at 9600 and 7200; and non-coded at 4800 bps) (V.32bis)	
	QAM at 2400 bps; bandsplit, full-duplex (V.22bis)	
	DPSK at 1200 bps; bandsplit, full-duplex (Bell 212A, V.22)	
	FSK at 300 bps; bandsplit, full duplex (V.21, Bell 103)	
Standards Supported	V.54, V.42, V.42bis, V.34, V.FC, V.32bis, V.32, V.22bis, V.22, V.21, Bell 212A, and Bell 103	
Fax Standards Supported	V.33, V.29, V.17, and V.21 Channel 2	
<b>Channel Separation</b>	Echo cancellation in V.34 and V.32/V.32bis	
Digital Interface	EIA RS-232E, ITU-T V.24/V.28	
Dial Line Interface	Dial-up RJ-45 or RJ-11 modular connector with A/A1 Control	
Leased Line Interface	RJ-45 modular connector	
Transmit Level	Permissive: -10 dBm; Programmable: 0 to -15 dBm; Leased line: 0 to -15 dBm	
Power Requirements	Domestic: 104 to 132 VAC, 60 Hz ±5%	
	International: 178 to 264 VAC, 50 Hz ±5%	
Operating Temperature	32° to 104° F (0° to 40° C) ambient	
Storage Temperature	-4° to 158° F (-20° to 70° C)	
Relative Humidity	5 to 95%, non-condensing	
Physical Specifications	Height	1.5" (3.81 cm)
	Width	5.75" (14.6 cm)
	Depth	10.25" (26.0 cm)
	Weight	1.5 lbs (0.68 kgms)
Compliance/Approvals	U. S./Canada	FCC Parts 15A and 68, CSA, CDOC, and UL approved
	International	Approved or pending: U. K., Germany, France, Holland, Belgium, S. America, Singapore, Japan, Taiwan, Indonesia, Australia, New Zealand, and others
	Our policy of continuous development may cause the information and specifications contained herein to change without notice.	

Our policy of continuous development may cause the information and specifications contained herein to change without notice.

Racal, Racal-Datacom, and DataMate are trademarks of Racal Electronics Plc. Hayes is a registered trademark of Hayes Microcomputer Products, Inc. All other logos and product names are trademarks or registered trademarks of their respective companies.

©1996 Racal-Datacom, Inc. All rights reserved. Printed in U.S.A.

# **Racal Data Group**

Internet: http://www.racal.com/rdg USA: 954-846-4811 or 1-800-RACAL-55 Canada: 905-602-7755 United Kingdom: 44-1256-763911 Germany: 49-6102-2020 Singapore/SE Asia: 65-779-2200

France: 33-1-4933-5800 Italy: 39-331-426-111 Netherlands: 31-15-269-8282 Hong Kong: 852-2541-2668

China: 86-10-6500-7460 Belgium: 32-2-725-3450 Australia: 61-2-9936-7000 Japan: 81-3-5322-2965



