

IBM Data/Fax Modems

- **Cost-effective solutions for data and fax transmissions**
- **Impressive performance**
- **Advanced solutions for international travel with PCMCIA cards**
- **Complete Internet solutions**



Don't wait around to receive your faxes and data. IBM's growing family of Data/Fax Modems can help you slash response times. These modems offer download speeds of up to 56 Kbps—a far cry from traditional 33.6 Kbps. Using V.42bis 4:1 data compression, our Data/Fax Modems offer throughput of up to 115.2 Kbps. That provides you ample bandwidth to support the large data files and fast response times needed for current interactive and multimedia applications. On most of our models, you pay no performance penalty for data compression—a CPU-intensive function—because this processing is carried out in your modem's hardware. V.42 MNP 2-4 error collection is also included.

Product Overview

External V.34 Data/Fax Modem

The External V.34 Data/Fax Modem is a powerful, high-function modem designed for commercial and server applications. It features data transmission speeds of up to 33.6 Kbps—the outer limit of analog technology—and fax speeds of up to 14.4 Kbps. And it has two-wire leased-line support and switched network backup for protection against connection failure. Flash memory makes it easy to update.



IBM 56K Modem Internet Kit

The IBM 56K Modem Internet Kit provides an Internet solution for Microsoft® Windows® 95 with fast download speeds. It includes a modem with full-duplex speakerphone, voice mail, and DSVD. The IBM 56K Modem Internet Kit also includes a powerful suite of communications and Internet tools as well as easy installation with Windows 95 Plug and Play.

56K PC Card Modem Kit

The 56K PC Card Modem Kit provides the complete IBM Internet solution with fast downloads—right out of the box. Offering x2 technology and including a number of popular communications software applications, the 56K PC Card Modem Kit allows you to build web pages, surf the Internet, and download at faster speeds. It also includes a handy XJACK connector that hooks your PC up to standard analog phone lines in your home, office or hotel room. You no longer have to carry an additional PC Card Modem cable when you're on the move!



56K PC Card Modem Cellular Capable

The 56K PC Card Modem Cellular Capable provides all of the features of the 56K PC Modem Card Kit and adds cellular capability, voice and caller ID. It offers cellular capability for wireless fax and data access and provides support for V80 video conferencing.

IBM International PC Card Modem with GSM Capability

The IBM International PC Card Modem provides you with the capability to send e-mail or faxes—or access networks or databases—while traveling with your IBM ThinkPad notebook computer or other notebook computer. It provides fast, efficient access with data transmission speeds up to 33.6 Kbps and download speeds up to 56 Kbps.

Included with the modem is point-and-click software that allows you to configure your notebook computer to connect to the Public Service Telephone Network (PSTN) signal in many countries without having to change to additional hardware.

In addition, the IBM International PC Card Modem offers GSM capability (GSM Upgrade Pack is required). This feature provides GSM (PC1900) cellular capability allowing you to send data or fax from country to country using the same modem.



IBM PCMCIA Data/Fax Modems

About the size of a credit card, IBM PCMCIA data/fax modems deliver all the function of external or internal modems in full-size expansion slots. For example, they provide auto-dialing and ring-detect in sleep mode, and allow you to send and receive faxes and e-mail. Error-control and data-compression functions are also included.



Two PCMCIA data/fax modems are available: PCMCIA 33.6-Kbps International Data/Fax Modem, which supports a wide variety of country PSTN formats, and PCMCIA 56/33.6 (V.34)-Kbps/14.4-Kbps Data/Fax Modem with Integrated Data Access Arrangement (DAA), which offers high transmission speed for domestic travel.

Data/Fax Modems Specifications

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Adapters

Modem Adapter Cards and Modems

	56K Internet Modem Kit (56K download)	ISA 56K/33.6 Kbps Plug and Play Data/Fax Modem	External V.34 Modem
Maximum data/fax speeds	33.6/14.4 Kbps	33.6/14.4 Kbps (56K download)	33.6 Kbps/14.4 Kbps
Synchronous communication	N/A	N/A	V.25bis SDLC/HDLC
Error control	V.42, MNP 2-4	V.42, MNP 2-4	V.42
Data compression	V.42bis, MNP 5	V.42bis, MNP 5	V.42bis, MNP 5
Maximum throughput	115.2 Kbps	115.2 Kbps	115.2 Kbps
Physical characteristics			
Width:	N/A	N/A	158 mm (6.2 in.)
Height:	N/A	N/A	36 mm (1.4 in.)
Depth:	N/A	N/A	229 mm (9 in.)
Protocol compatibility	x2 download; ITU-T: V.34+, V.34, V.32bis, V.32, V.23, V.22bis, V.22, V.21, V.8; Bell: 212A, 103; V.90 Capability ¹	x2 download; ITU-T: V.34+, V.34, V.32bis, V.32, V.23, V.22bis, V.22, V.21, V.8; Bell: 212A, 103, 101; V.90 Capability ¹	ITU-T: V.34, V.32bis, V.32, V.22bis, V.22, V.21 Bell; 212A, 103
Fax	ITU-T: V.17, V.29, V.27ter, V.21 Ch.2; EIA 578 (Class 1), EIA 592 (Class 2); Group 3 Fax	ITU-T: V.17, V.29, V.27ter, V.21 Ch.2; EIA 578 (Class 1), EIA 592 (Class 2); Group 3 Fax	ITU-T: V.17, V.29
Additional features	Windows 95 Plug and Play; DSVD (Digital Simultaneous Voice-over-Data); Caller ID; V.80 Video Conferencing Support	Windows 95 Plug and Play; Flash Memory	Caller ID Flash memory
Operating environment			
Temperature	10°–40°C (50°–104°F)	10°–40°C (50°–104°F)	0°–50°C (32°–120°F)
Relative humidity	8%–80%	8%–80%	20%–90%
Agency approvals	FCC Class B, parts 15 and 68; IC CS-03; UL 1950; CSA-C22.2 950	FCC Class B, parts 15 and 68; IC CS-03; UL 1950; CSA-C22.2 950	FCC Class B, parts 15 and DOC CS-03; UL 1950 2nd Edition; CSA-C22.2 950

	PCMCIA 33.6 Kbps International Data/ Fax Modem	56K PC Card Modem/Cellular Capable	56K PC Card Modem Kit
Maximum data/fax speeds	33.6 Kbps	33.6/14.4 Kbps (56K download)	33.6/14.4 Kbps (56K download)
Cellular Communication	MNP10	ETC	
Synchronous communication		N/A	N/A
Error control	MNP (4) 2-4, UTI-T V.42, MNP 10 Adverse channel enhancement	ITU-T.V.42, MNP 2-4	ITU-T.V.42, MNP 2-4
Data compression	MNP 5, ITU-TV, V.42bis	V.42bis, MNP 5	V.42bis, MNP 5
Maximum throughput		115.2 Kbps	115.2 Kbps
Physical characteristics (DxWxH)	N/A	N/A	N/A
Protocol compatibility	ITU-TV.34, V.FC, V.8, ITU-T:V.32bis	x2 download (53 Kbps); ITU-TV.34, V.34 Annex 12 (33.6 Kbps), V.34 (28.8 Kbps), V.32bis (14.4 Kbps), V.32 (9600 bps), V.23 (1200/75 bps), V.22bis (2400 bps), V.22 (1200 bps), V.21 (300 bps); Bell 212A (1200 bps), 103 (300 bps); V.90 Capability ¹	x2 download (53 Kbps); ITU-TV.34, V.34 Annex 12 (33.6 Kbps), V.34 (28.8 Kbps), V.32bis (14.4 Kbps), V.32 (9600 bps), V.23 (1200/75 bps), V.22bis (2400 bps), V.22 (1200 bps), V.21 (300 bps); Bell 212A (1200 bps), 103 (300 bps); V.90 Capability ¹
Fax	V.32, V.23, V.22bis, V.22, V.21, Bell 212A, 103	ITU-T; V.17 (14.4 Kbps), V.29 (9600/7200 bps), V.27ter (4800/2400 bps), V.21 Ch.2 (300 bps); Group 3, Class 1 and Class 2.0	ITU-T; V.17 (14.4 Kbps), V.29 (9600/7200 bps), V.27ter (4800/2400 bps), V.21 Ch.2 (300 bps); Group 3, Class 1 and Class 2.0
Additional features	Automatic Sleep Mode; Ring Wake-Up Power-Down Software-Enabled DAA 16550 UART Emulation	IBM Internet Connection offer Caller ID V.80 video conferencing Bonus software Digital Line Guard Firmware enhanceable Cellular Capability Power management XJACK connector Smart Battery Saver	IBM Internet Connection offer Bonus software Digital Line Guard Firmware enhanceable Power management XJACK connector Smart Battery Saver
Operating environment			
Temperature		0°–90°C (32°–194°F)	0°–70°C (32°–155°F)
Relative humidity		Up to 95% noncondensing	Up to 90% noncondensing
Agency approvals	FCC Class B	FCC Class B, parts 15 and 68; IC CS-03; UL 1950; CSA-C22.2 950	FCC Class B, parts 15 and 68; IC CS-03; UL 1950; CSA-C22.2 950

International PC Card Modem with GSM Capability	
Maximum data/fax speeds	33.6/14.4 Kbps (56K download)
Cellular Communication	Select Nokia, Panasonic, Alcatel, AEG, Hagenuk and NEC models
Synchronous communication	N/A
Error control	ITU-T V.42, MNP 2-4
Data compression	V.42bis, MNP 5
Maximum throughput	230.4 Kpbs
Physical characteristics (DxWxH)	N/A
Protocol compatibility	V.90 Capability ¹
PSTN	K56Flex (up to 56Kbps download); ITU-T V.34 Annex, V.32bis, V.32, V.23, V.22bis, V.22, V.21; Bell: 212A, 103
GSM (PCS 1900)	GSM Upgrade Pack required
ISDN	ISDN Upgrade Pack required
Fax	ITU-T V.17, V.29, V.27ter, V.21; Group 3, Class 1
Additional features	Firmware enhanceable; RJ-11 cable and country unique TeleAdapter (where applicable); Software CD: Data/Fax Application Software, IBM Internet Connection with Netscape Navigator 3.0
Operating environment	
Temperature	0°–45°C (32°–113°F)
Relative humidity	Up to 90% noncondensing
Agency approvals	FCC Class B, parts 15 and 68; IEC 950; CE Mark, UL, CUL (CSA/NRTL/C)

Key Customer Benefits

- Fast transmission speeds
- Simple installation
- Wide range of connectivity options

Supplementary Information

The following sales tools are available for the IBM Data/Fax modems:

Specification sheets:

- *Data/Fax Modems G221-4315*
 - *External V.34 Data/Fax Modem G221-6032*
 - *56K Modem Internet Kit G221-6070*
 - *IBM PCMCIA Data/Fax Modems G221-3998*
 - *PC Card Modems G221-6061*
 - *IBM International PC Card Modem (with GSM or GSM/ISDN Capability) G221-6130*
- Information on the ISDN Digital Modems is available at:
www.networking.ibm.com/netprod.html#modems.

¹For the latest V.90 code availability, visit our web site at www.pc.ibm.com/56kmodems.