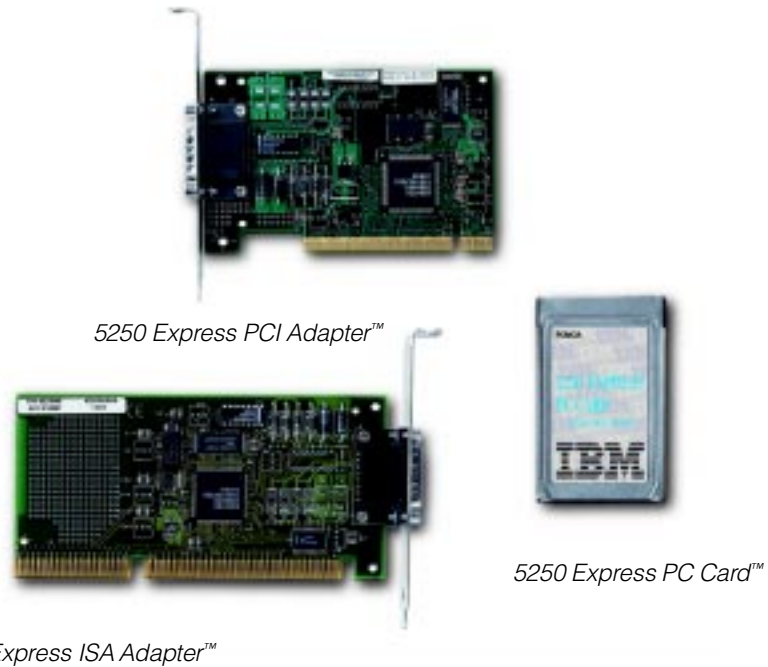




IBM 5250 Express Adapters

- **Ability to run TCP/IP applications over existing twinaxial cabling to your AS/400® host**
- **Member of a complete family of products designed to satisfy any PC-to-IBM midrange connectivity need**
- **Performance improvements to protect your investment while you build for the future**
- **5250 emulation on all popular PC architectures—ISA, PC Card and PCI**
- **New 5250 Express Data Stream feature for nearly 400% more media throughput than on other twinaxial devices**
- **Plug and Play support for easy installation and configuration**
- **Cabling options for a variety of system types**
- **5250 emulation programs for Windows, Windows 95, Windows NT, OS/2 and DOS**
- **Support available 24 hours a day, 7 days a week**



The 5250 Express Adapters are twinaxial, Plug and Play adapters. Providing 5250 emulation on all popular PC architectures—ISA, PC card and PCI—they enable systems to be attached to any IBM System/36™, System/38™ or AS/400 host supporting the twinaxial protocol. With these adapters' TCP/IP support, PCs can run TCP/IP applications over existing twinaxial cabling to an AS/400 host, without requiring a separate line. And faster than ever... by supporting the new 5250 Express Data Stream feature, throughput is increased by nearly 400%.

TCP/IP support for 5250 Express Adapters!

Get the most out of your AS/400 and twinaxial cabling investment! The 5250 Express Adapters now provide TCP/IP support for PCs attached to an AS/400 Twinaxial Workstation controller. Now PCs with a 5250 Express Adapter installed can surf the World Wide Web, share printers, share files and use workgroup applications such as Lotus Notes, without requiring a separate LAN connection.

A PC used to require a LAN connection to run these kinds of applications, but now customers with an IBM 5250 Express Adapter in a PC running Windows 95 or Windows NT can run applications new to twinaxial-attached PCs, such as surfing the web or sending e-mail with Lotus Notes over existing twinaxial or UTP cabling.

As of 13 March 1998, the IBM 5250 TCP/IP Transport Driver that enables TCP/IP over Twinaxial for the 5250 Express Adapters will be available from IBM on the Internet or IBM technical support at no extra charge. The 5250 Express Adapters also have many other unique features including throughput increased by nearly four times, which the TCP/IP over twinaxial capability fully utilizes.

5250 Express Adapters for every system

The new IBM 5250 Express Adapters enable PCs designed to today's most popular architecture standards—ISA, PC Card (PCMCIA) and PCI—to be attached to any IBM System/36, System/38 or AS/400 host supporting the twinaxial protocol. The adapters are attached to the host either locally to the host twinaxial workstation controller or remotely via a 5294, 5394 or 5494 Remote Control Unit.

Adapter cables are available to connect the adapters directly to today's most popular remote cabling systems—STP and UTP as well as traditional twinaxial cabling. Customers who currently use multiple cables

and baluns in series should benefit from these integrated cables, which bridge directly from the adapter to the host cabling system.

Increase speed with the 5250 Express Data Stream

While maintaining the compatibility and reliability of previous IBM 5250 emulation adapters, the 5250 Express series sets a new standard for speed with the 5250 Express Data Stream feature. This unique feature incorporates two separate modes: optimized mode and 2-Mbps mode.

Optimized mode reduces the number of bits required to transmit the same amount of data as the standard 5250 data stream. Using an emulation program such as the IBM 5250 Express Program Version 4.0 and an AS/400 system that supports this feature, users can nearly double media throughput.

If all devices on a twinaxial workstation controller port (up to seven per port) are 5250 Express Adapters running software that supports the 5250 Express Data Stream, then the 2-Mbps mode is operational and the line speed doubles from 1 Mbps to 2 Mbps.

The combination of both modes can result in media throughput that is nearly four times greater than that of other twinaxial devices. For more details on 5250 Express Adapter performance, refer to the IBM 5250 Emulation Family Home Page at www.networking.ibm.com/5250.

Simplify setup and maximize flexibility

All 5250 Express Adapters offer the convenience of Plug and Play for easier installation and automatic configuration. And they all provide seven display stations or six display stations and one printer station for System/3x and Advanced 36 users. Up to 28 stations are available for AS/400 users when they take advantage of the shared-addressing feature of the IBM 5250 Express Program.

Protect your investments in hardware, software and training

The 5250 Express Adapters are supported by a variety of IBM 5250 emulation programs for Windows®, Windows 95, Windows NT®, OS/2® and DOS. They are also supported by most of the compatible IBM terminal emulation programs available for previous IBM 5250 emulation adapters. So your company's investments in software and employee training can be reapplied when moving between desktop architectures or operating environments.

Like previous IBM 5250 emulation adapters, all models of the 5250 Express series have been thoroughly tested for compatibility in both IBM and non-IBM PCs. And all 5250 Express Adapters offer the assurance of a lifetime warranty.

5250 emulation program summary

5250 Express Program Version 4.0 for complete 5250 Express support

The new 5250 Express Program Version 4.0 allows you to take advantage of the new features available in the 5250 Express Adapters while maintaining compatibility with previous IBM 5250 emulation adapters. The new 5250 Express Program functions include:

- 5250 Express Data Stream
- Plug and Play
- Access to seven physical sessions (station addresses) without a router

And the 5250 Express Program supports all these new features on all three 5250 Express Adapters—ISA, PCI and PC Card.

The 5250 Express Program works under many PC operating systems including Windows 95, OS/2 and DOS. It provides reliable, fast 5250 emulation in DOS or an emulated DOS environment when non-graphical display and printer host access are required. The 5250 Express Program provides 5250 Express

Adapters and previous IBM 5250 emulation adapters with all the same function as the IBM Enhanced Link for DOS Version 3.0. The 5250 Express Program also has a very small memory requirement—as little as 45 KB.

5250 Emulation for Windows Version 1.1

The IBM 5250 Emulation for Windows Version 1.1, when used with the 5250 Express ISA Adapter or the 5250 Express PC Card, enables a personal computer running Microsoft Windows to attach to an IBM System/3x or AS/400 host. Two windowed 5250 emulation sessions (two displays or one display and one printer) can be run and displayed concurrently with other DOS and Windows applications in the Windows environment.

5250 for Windows Version 1.1:

- Offers 132-column support
- Provides native IBM 3812 printer emulation and 3812 standard character string (SCS) data stream support—text rotation, computer-output reduction, automatic page orientation, increased font selection and other advanced functions
- Provides bidirectional transfer of text and binary files between the personal computer and the host
- Provides recording and replaying of keystroke macros
- Supports DDE between host and PC applications
- Features Windows GUI capabilities such as sizable windows, scalable

fonts (including automatic font scaling) and mouse-driven hotspots

- Supports numerous IHV 5250 emulation adapters

Why twinaxial?

Many IBM midrange customers use the twinaxial protocol to connect their PCs to IBM System/3x and AS/400 hosts—even with the availability of LAN-based solutions. The primary reason for the popularity of twinaxial-based solutions is their relative ease to implement, install, operate and maintain, as well as their reliability. The IBM 5250 Emulation Family offers all of these advantages in addition to the key benefit of operating with both the AS/400 and the large installed base of IBM System/36 and System/38 hosts.

5250 Express Adapters Specifications

Physical specifications

Adapters	Width	Depth
ISA	76 mm (3 in.)	165 mm (6.5 in.)
PCI	76 mm (3 in.)	121 mm (4.75 in.)
PC Card	86 mm (3.38 in.)	54 mm (2.13 in.)

Operating environment

Adapters	Temperature on	Temperature off	Relative humidity on	Relative humidity off
ISA	10° to 35°C (50° to 95°F)	10° to 43° C (50° to 110°F)	8% to 85% (non-condensing)	5% to 85% (non-condensing)
PCI	10° to 35°C (50° to 95°F)	10° to 43° C (50° to 110°F)	8% to 85% (non-condensing)	5% to 85% (non-condensing)
PC Card	0° to 60°C (32° to 140°F)	0° to 70° C (30° to 158°F)	8% to 95% (non-condensing)	5% to 95% (non-condensing)

Power requirements

Adapters	Voltage	Nominal current	Maximum current
ISA	+5 V -5 V	750 mA 42 mA	1100 mA 65mA
PCI	+5 V -12V	750 mA 42mA	1100 mA 65 mA
PC Card	+5 V	850 mA	1200 mA

Certifications

FCC Class A
EEC EMC Directive (CE Mark)
VCCI Class 1 (0 dB)

Publications

5250 Express Hardware Manual — English, S88H-0277
 5250 Express Hardware Manual — Japanese, S88H-0282
 5250 Express Hardware Manual — Italian, S05J-3243
 5250 Express Hardware Manual — German, S05J-3244
 5250 Express Hardware Manual — Spanish, S05J-3246
 5250 Express Program Version 4.0 User's Guide, S88H-0191
 5250 Emulation for Windows V 1.1 User's Guide, G571-0390

Systems

ISA	Any PC that complies with IBM PC AT, ISA or EISA specifications
PCI	Any 33-MHz PCI expansion slot meeting PCI Specification 2.0 or higher
PC Card	Any PC Card Type II or III expansion slot meeting PC Card Standard — February 1995 or later

Software and operating systems

- IBM 5250 Express Adapters are compatible with the same 5250 terminal emulation programs and the same functions as the IBM emulation adapters they replace. The 5250 Express Adapters are supported by the following IBM 5250 terminal emulation programs in the stated operating system environments (except where noted):
 - IBM DOS 5.0 or higher
 - IBM 5250 Express Program V 4.0 or higher
 - IBM 5250 Enhanced Link V 3.0 or higher
 - IBM AS/400 Client Access V 3 R1 M1 level or higher
 - Microsoft Windows 95
 - IBM 5250 Emulation for Windows V 1.1¹
 - IBM Personal Communications AS/400 for Windows 95 V 4.1 and V 4.2 or higher
 - IBM AS/400 Client Access V 3 R1 M1, V 3 R1 M2 and V 3 R1 M3 levels or higher
 - Microsoft Windows 3.x
 - IBM 5250 Emulation for Windows V 1.1¹
 - IBM Personal Communications AS/400 for Windows V 4.1 and V 4.2 or higher
 - IBM AS/400 Client Access V 3 R1 M1 level or higher
 - Microsoft Windows NT
 - IBM Personal Communications AS/400 for Windows NT V 4.1 or higher
 - IBM AS/400 Client Access V 3 R1 M1, V 3 R1 M2 and V 3 R1 M3 levels or higher
 - IBM OS/2 Warp V 3 or higher
 - IBM Personal Communications AS/400 for OS/2 V 4.1 or higher¹
 - IBM AS/400 Client Access V 3 R1 M1 level or higher¹
 - IBM Communications Manager/2 V 1.1^{1,2}
 - IBM 5250 Emulation for Windows V 1.1¹

-Up to 2 sessions are supported in the WIN-OS/2 environment of OS/2.
 - To use TCP/IP over twinaxial, OS/400 V 4 R2 must be installed in the AS/400 host.
 - The PC must be running one of the following operating systems:
 - Microsoft Windows 95 V OSR2, or Service Pack 1 with the latest 'hot fixes' as detailed in the instructions provided.
 - Windows NT V 4.0 operating system.
 - 5250 Express Adapter functions include the 5250 Express Data Stream, Plug and Play and access to 7 physical sessions without requiring a router. Not all 5250 terminal emulation programs fully support the new Express functions at this time. For a current list of 5250 terminal emulation programs that support the 5250 Express functions, refer to the IBM 5250 Emulation Family Home Page at: www.networking.ibm.com/5250.
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Notes

¹The 5250 Express PCI Adapter is not supported for this operating system under this emulation program.

²IBM Communications Manager products support AS/400 attachment only. 5250 Emulation for Windows V 1.1, when running in the WIN-OS/2 environment of OS/2, supports AS/400 attachment only. Under native Windows, 5250 for Windows supports attachment to the IBM System/36, System/38 or AS/400 host.

Cables and connectors

An adapter cable is required to attach the adapter to the establishment host cabling system. One of the following cables is recommended:

- 5250 Emulation Integrated Cable Assembly for twinaxial cabling
 - 5250 Emulation Data Connector Cable for STP via an IBM Data Connector
 - 5250 Emulation UTP Balun for UTP via an industry-standard RJ-45 or RJ-11 jack
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Adapter, program and cable kits

	IBM 5250 Express ISA Adapter PN	IBM 5250 Express PCI Adapter PN	IBM 5250 Express PC Card PN
5250 Express Networking Kit	05J4590		
Adapter and adapter cable kits			
Adapter	88H0250	82H4708	88H0256
Adapter with Terminating Twinax Cable	82H4725	82H4719	88H0279
Adapter 10-Pack	82H4706	82H4723	88H0286
Adapter, program and cable kits			
Adapter with 5250 Express Program V 4.0 and Twinaxial Cable	88H0200		
Adapter with 5250 Emulation for Windows V 1.1 and Twinaxial Cable	82H4713		
5250 Emulation Programs			
5250 Express Program V 4.0	88H0190		
5250 Express Program V 4.0 Upgrade	88H0215		
5250 Emulation for Windows V 1.1	11H1303		
5250 Emulation for Windows V 1.1 Upgrade from V 1.0	11H1308		
5250 Emulation for Windows V 1.1 Upgrade from any IBM 5250 emulation program	11H1340		
Adapter Cables			
Twinaxial Cable	6403635		
Twinaxial Cable 10-pack	11H0752		
Data Connector Cable	60G1043		
UTP Balun (RJ-11 jack)	60G1042		
UTP Balun (RJ-45 jack)	31H5087		
Adapter Kits			
English	05J3153	05J3158	05J3163
Italian	05J3154	05J3159	05J3164
Spanish	05J3156	05J3161	05J3166
German	05J3157	05J3162	05J3167
Japanese	82H4707	82H4705	82H4711

Key Customer Benefits

- Enables TCP/IP applications like Web browsers and Lotus Notes over existing twinaxial
- 5250 Express Data Stream provides nearly four times more media throughput than for other twinaxial devices
- Plug and Play for fast and easy installation; automatic configuration
- Lower cost, additional flexibility with UTP and STP cables
- 5250 emulation programs for all popular operating systems

Supplementary Information

The following sales tools are available for the 5250 Express Adapters:

- Specification sheet:
IBM 5250 Emulation Family, G571-0262-14
- Information on the 5250 Express Adapters is available at:
www.networking.ibm.com/525xpres/525xcard.html