*Fast emulation adapters for every system*

# IBM 5250 Express ISA Adapter

***Highlights***

- ***Performance improvements that protect your investment while you build for the future***
- ***Twinaxial attachment of PCs with PC AT®, ISA or EISA buses to IBM System/3x and AS/400® hosts***
- ***New 5250 Express Data Stream feature for nearly four times more media throughput than other twinaxial devices***
- ***Seven display sessions or six display sessions and one printer session when attached to System/3x or AS/400 host***
- ***Supported on both IBM and non-IBM systems***
- ***Supported by IBM's most popular 5250 emulation programs***
- ***Plug and Play for easy installation***
- ***Cabling options for a variety of system types***
- ***Support available 24 hours a day, 7 days a week***

The new IBM 5250 Express ISA Adapter™ provides attachment of PC AT, ISA and EISA bus PCs to IBM System/36™, System/38™ and AS/400 hosts using the popular twinaxial protocol. While maintaining the function and compatibility of its predecessor, the Enhanced 5250 Display Station Emulation Adapter, the 5250 Express ISA Adapter offers significant improvements in performance, ease of installation and the number of physical sessions supported without a router.

Easy to configure and cost-effective, the 5250 Express ISA Adapter prepares you for the future of twinaxial while protecting your network investment.

**Reduce system delays with the 5250 Express Data Stream**

One way that all 5250 Express adapters help you build for the future is by supporting the new 5250 Express Data Stream. This feature supports two separate modes of operation to increase performance: 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 a supported 5250 emulation program such as the new IBM 5250 Express Program Version 4.0 and an AS/400 system that supports this feature, users can nearly double media throughput.

If all the devices on a twinaxial workstation controller port (up to seven devices per port) are 5250 Express adapters running software that supports the 5250 Express Data Stream, then the 2-Mbps mode becomes operational and the line speed doubles from 1 Mbps to 2 Mbps. Systems such as the IBM AS/400 Advanced Entry 9401 Model 150 support both the optimized and 2-Mbps modes.

The combination of both modes can result in media throughput nearly four times greater than that of other twinaxial devices. For more details on 5250 Express ISA Adapter performance, refer to the IBM 5250 Emulation Family Home Page on the Internet at URL: http://www.networking.ibm.com/525/525home.html.

**Protect your investment**

The 5250 Express ISA Adapter provides a competitively priced host attachment platform that supports PC AT, ISA and EISA buses. The adapter is designed to operate and has been tested in personal computers such as the IBM PC 300™ and PC 700™ Series systems and selected systems from vendors like Packard Bell, Dell, Compaq, Gateway 2000 and Hewlett-Packard. And all 5250 Express adapters carry a lifetime warranty.

| *Features* | *Benefits* |
|---|---|
| **5250 Express Data Stream** | Can provide nearly 4 times more media throughput than other twinaxial devices |
| **Up to 7 physical links to the host** | Provides maximum flexibility without a router |
| **Emulation programs for most popular operating environments** | Ease of use, investment protection |
| **PC AT, ISA and EISA compliant** | Compatible with existing systems |
| **Plug and Play capability** | Fast and easy installation, automatic configuration |
| **Available UTP and STP adapter cables** | Connect to today's most popular cabling systems |
| **Limited lifetime warranty** | High reliability, low cost of ownership |

The 5250 display station emulation function is provided when the adapter is used with a compatible 5250 emulation program. Compatible emulation programs are available for popular operating environments such as Windows® 3.x, Windows 95, Windows NT®, OS/2® and DOS.

This adapter is also supported by most of the compatible IBM terminal emulation programs available for previous IBM 5250 emulation adapters. In addition to protecting your hardware and software investments, such compatibility ensures that your investment in employee training can be directly applied for use with the newest member of the IBM 5250 Emulation Family.

## Simplify setup and maximize flexibility

The 5250 Express ISA Adapter minimizes setup problems by offering Plug and Play capability when installed in a PC that supports Plug and Play BIOS Specification, Version 1.0a or higher. Plug and Play is supported by 5250 emulation programs such as the IBM 5250 Express Program so you don't have to configure memory and I/O addresses at installation.

AS/400 Advanced 36® and System/3x users who don't have access to a multisession router can still have the benefit of seven physical links (station addresses) to the host. These can be configured as seven display sessions or six display sessions and one printer session. AS/400 users can take advantage of the shared-addressing feature available with the 5250 Express Program to configure up to 28 sessions.

Attachment to the host is made via a supported host cabling system either locally to the host twinaxial workstation controller or remotely via a 5294, 5394 or 5494 Remote Control Unit. Adapter cables are available which connect the adapter directly to today's most popular cabling systems—STP and UTP as well as traditional twinaxial cabling.

## Go with the proven technology leader

Several design improvements and implementation of the latest manufacturing processes have allowed this adapter to remain very cost-competitive. The most recent design features a new ASIC designed by IBM Charlotte in cooperation with AS/400 developers in Rochester, MN. The result is a potential boost in performance that is available only through technology developed by IBM.

The success of the IBM 5250 Emulation Family in the marketplace reaffirms IBM's lead position as a market-driven designer and manufacturer of advanced technology components. The adapter was designed and manufactured by IBM Networking Hardware Division, Complementary Products, located in Charlotte, NC.

## For more information

To find out more about the IBM 5250 Express ISA Adapter and other high-performance IBM communications and networking products, contact your IBM representative or call IBM Direct at 1 800 IBM-CALL (1 800 426-2255). You can also access the IBM 5250 Emulation Family Home Page at URL: http://www.networking.ibm.com/525/525home.html.

Copies of this and other related product specification sheets can be obtained from the IBM FAX Information Service by dialing 1 800 IBM-4-FAX (1 800 426-4239) in the U.S. or Canada or by dialing (415) 855-4329 outside the U.S. and Canada and requesting any of the following document numbers:

5209: *IBM 5250 Express ISA Adapter*

5574: *IBM 5250 Express PCI Adapter*

5210: *IBM 5250 Express PC Card*

1943: *IBM 5250 Emulation Family*

***IBM 5250 Express ISA Adapter at a glance***

| | |
|---|---|
| **Part numbers** | *Adapter and adapter cable kits*<br>5250 Express ISA Adapter: 88H0250<br>Adapter with Terminating Twinax Cable: 82H4725<br>Adapter 10-pack: 82H4706<br>*5250 Emulation Program*<br>*5250 Express Program V* 4.0: 88H0190<br>5250 Express Program V 4.0 Upgrade: 88H0215<br>5250 Emulation for Windows V 1.1: 11H1303<br>5250 Emulation for Windows V 1.1 Upgrade from V 1.0: 11H1308<br>5250 Emulation for Windows V 1.1 Upgrade from any IBM 5250 emulation program: 11H1340<br>Personal Communications AS/400 for OS/2 Twinax Entry Level V 4.1: 51H5900<br>Personal Communications AS/400 for OS/2 Twinax Entry Level V 4.1 Upgrade: 51H5909 |
| **Adapter, program and cable kits** | Adapter with 5250 Express Program V 4.0 and Twinax Cable: 88H0200<br>Adapter with 5250 Emulation for Windows V 1.1 and Twinax Cable: 82H4713 |
| **Adapter cables** | Twinax Cable: 6403635<br>Twinax Cable 10-pack: 11H0752<br>Data Connector Cable: 60G1043<br>UTP Balun (RJ-11 jack): 60G1042<br>UTP Balun (RJ-45 jack): 31H5087 |
| **Physical specifications** | Width: 76 mm (3 in.)<br>Depth: 165 mm (6.5 in.) |
| **Operating environment** | *Temperature*<br>On: 10° to 35°C (50° to 95°F)<br>Off: 10° to 43°C (50° to 110°F)<br>*Relative humidity*<br>On: 8% to 85% (non-condensing)<br>Off: 5% to 85% (non-condensing) |

| **Power requirements** | *Voltage* | *Nominal Current* | *Maximum Current* |
|---|---|---|---|
| | 5 V | 750 mA | 1100 mA |
| | -5 V | 42 mA | 65 mA |

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| **Certifications** | This adapter meets FCC Class A, EEC EMC Directive (CE Mark) and VCCI Class 1 (0 dB) operating criteria when connected by an IBM-supported adapter cable. |
| **Publications** | 5250 Express Hardware Manual: S88H-0277<br>5250 Express Program Version 4.0 User's Guide: S88H-0191<br>5250 Emulation for Windows V 1.1 User's Guide: G571-0390<br>Personal Communications AS/400 for OS/2 Twinax Entry Level V 4.1 User's Guide: G571-0439 |
| **Limited warranty** | Lifetime* |
| ***Note** | The limited lifetime warranty is not transferable by the end-user customer. For information regarding the terms and conditions of IBM's limited warranty, please call 1 800 772-2227. Copies of IBM's statement of limited warranty are available upon request. |

***Installation information***

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|---|---|
| **Systems** | Operates in any computer that complies with PC AT, ISA or EISA specifications |
| **Software and operating systems** | • The IBM 5250 Express ISA Adapter is compatible with the same 5250 terminal emulation programs and the same functions as the IBM Enhanced 5250 Display Station Emulation Adapter it replaces. Compatible IBM 5250 emulation programs and their operating system environments include:<br>*IBM DOS 5.0 or higher*<br>IBM 5250 Express Program V 4.0 or higher<br>IBM 5250 Enhanced Link V 3.0 or higher<br>IBM AS/400 Client Access™ V3 R1 M1 level or higher<br>*Microsoft® Windows 95*<br>IBM 5250 Emulation for Windows V 1.1<br>IBM Personal Communications AS/400 for Windows 95 V 4.1 or higher<br>IBM AS/400 Client Access V3 R1 M1 and V3 R1 M2 levels or higher<br>*Microsoft Windows 3.x*<br>IBM 5250 Emulation for Windows V 1.1<br>IBM Personal Communications AS/400 for Windows V 4.1 or higher<br>IBM AS/400 Client Access V3 R1 M1 level or higher<br>*Microsoft Windows NT*<br>- IBM Personal Communications AS/400 for Windows NT V 4.1 or higher<br>- IBM AS/400 Client Access V3 R1 M1 and V3 R1 M2 levels or higher<br>*IBM OS/2 Warp V3 or higher*<br>- IBM Personal Communications AS/400 for OS/2 Twinax Entry Level V 4.1 or higher<br>- IBM Personal Communications AS/400 for OS/2 V 4.1 or higher<br>- IBM AS/400 Client Access V3 R1 M1 level or higher<br>- IBM Communications Manager/2 V 1.1*<br>- IBM 5250 Emulation for Windows V 1.1<br>- Up to 2 sessions are supported in the WIN-OS/2 environment of OS/2*<br>• 5250 Express 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 URL: http://www.networking.ibm.com/525/525home.html. |
| **Cables and connectors** | An adapter cable is required to attach the adapter to the establishment host cabling system. One of the following available cables is recommended:<br>• 5250 Emulation Integrated Cable Assembly for twinaxial cabling<br>• 5250 Emulation Data Connector Cable for STP via an IBM Data Connector<br>• 5250 Emulation UTP Balun for UTP via an industry-standard RJ-45 or RJ-11 jack |
| ***Note** | IBM 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. |

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