

1784-PKTx Communication Cards Combine DH+, DH-485 and RIO with PCI Performance



(Catalog Numbers - 1784-PKTX, -PKTXD, -PKTS)

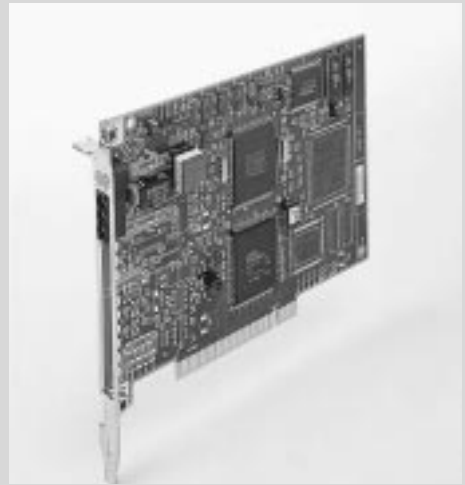
Product Profile



The 1784-PKTX Card 40029



The 1784-PKTXD Card 40028



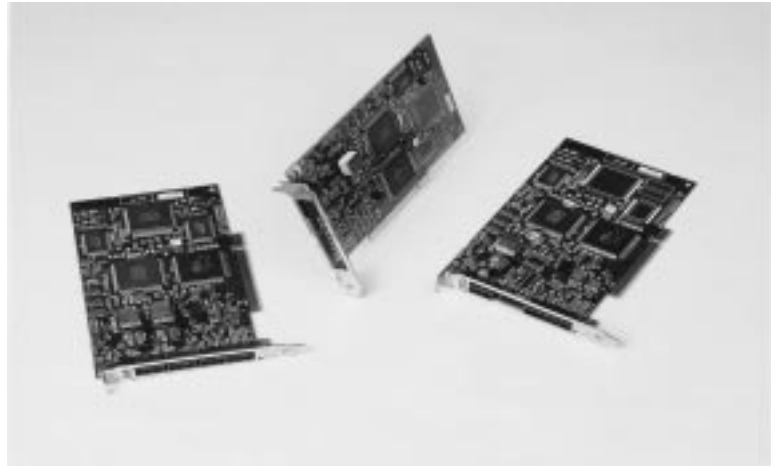
The 1784-PKTS Card 40030

Use PCI technology to interface your PC or PC-based controller to Data Highway Plus™, Data Highway 485 or remote I/O networks with Allen-Bradley's 1784-PKTx family. This family of PCI interface cards leverages PCI and plug and play technology. All three cards allow for the automation of base memory addresses and interrupt requests.

Hardware/Software Compatibility

The PKTx family functions well with evolving hardware and software platforms. Using Rockwell Software's RSLinx software, these cards operate within the Windows™ 95 and Windows NT platforms. Using the 6001-RIO RIO Toolkit and the 1784-PKTS, you can develop a remote I/O scanner driver. If you are using MS-DOS, Windows 3.x, or another operating system, you can design drivers for DH+™ or DH485 applications using 1784-DP5 specifications.

The PKTx Family



The 1784-PKTx Family

40027

Catalog Number	Description
1784-PKTS	Single channel card supporting RIO scanner only
1784-PKTX	Single channel card supporting DH+, RIO scanner, and DH-485
1784-PKTXD	Dual channel card supporting DH+, RIO Scanner, and DH-485 on first channel, and DH+ and RIO scanner on the second channel

PKTx Family Benefits

Stock Fewer Parts

The PKTx family of interfaces helps reduce the quantity and variety of PC interfaces you'll need to support your Allen-Bradley control system. A single product can now support three A-B networks—Data Highway Plus, Data Highway 485 and remote I/O. This gives you flexibility in stocking fewer parts.

The 1784-PKTS - Scanner-Only Interface

Features/Benefits

- developed for applications using a personal computer for monitoring Allen-Bradley I/O modules
- intended for use where PC-based control systems are needed

The 1784-PKTX - Selective Single Channel

Features/Benefits

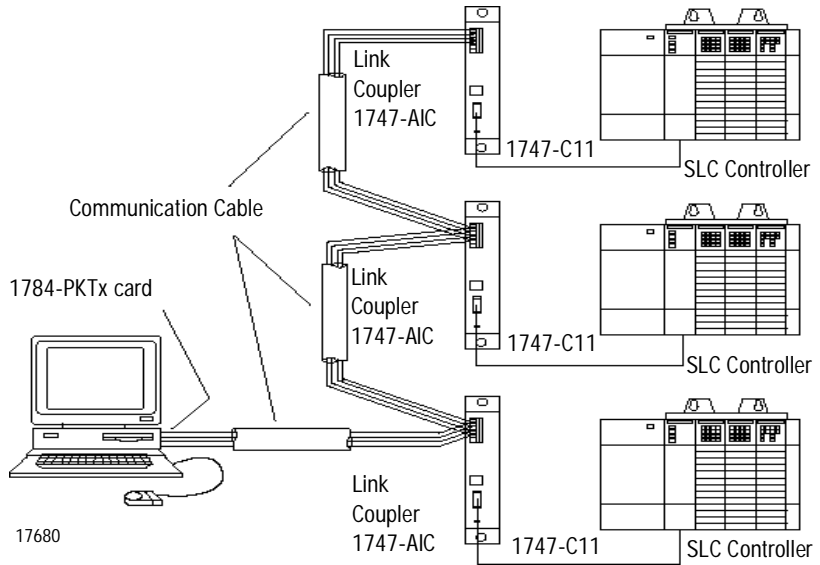
- provides a single channel for selective support of DH+, DH-485, or remote I/O
- two physical communication ports associated with a single protocol channel provide connections to networks
- can be configured to support a Man/Machine Interface (MMI) operating on either DH+ or DH-485 networks, or as a scanner module on the remote I/O network

The 1784-PKTXD - Dual Channels

Features/Benefits

- divided into two channels which allows a personal computer to function as though two individual interface cards were installed and operating on its backplane
- each channel can support unique A-B communication protocols, which can operate simultaneously and independently
- single physical port associated with CH1 can be configured to support DH+, DH-485 and/or remote I/O networks
- single physical port associated with CH2 can be used to support an additional DH+ or remote I/O connection
- network interface diagnostics are provided by on-board LEDs located on the outside of the module.
- works with applications where programmable controllers must communicate with a MMI
- capable of configuring the one channel for DH+ and the second channel for DH-485 which allows Windows 95-based personal computers to run RSLinx software
- data can be collected from programmable controllers and networks simultaneously

Figure 1 Communicating to multiple SLC programmable controllers via the DH-485 network with a 1785-PKTxD card



Connecting Personal Computers to A-B Networks

Custom Cables

Allen-Bradley offers a variety of cable assemblies that simplify connecting your personal computer to A-B networks and processors. Keeping an assortment on hand will allow you to take full advantage of the flexibility of the 1784-PKTx family of interface cards.

For connections to:	Use this cable:	
remote I/O	1770-CD ^{①③}	Belden #9463
DH+	1770-CD ^{①③}	Belden #9463
DH-485	Belden #3106A ^{①②}	
Classic programmable controllers	1784-CP12	3-pin Phoenix connector to a 9-pin D-shell
Enhanced programmable controllers	1784-CP13	3-pin Phoenix connector to an 8-pin DIN
SLC 5/04 processors (direct DH+ connection)	1784-CP13 (DH+)	3-pin Phoenix connector to an 8-pin DIN
SLC family processors (direct DH-485 connection)	1784-CP14 (DH-485)	or 6-pin Phoenix to an RJ-45

^①Cables used for construction of custom cables

^②Mating Connector: A-B PN 941999-06 or Phoenix Order No. 1849406

^③Mating Connector: A-B PN 941999-03 or Phoenix Order No. 1849396

Developers Kit

For third parties developing applications for MS-DOS and Windows 3.x, or other operating systems, A-B provides development software and documentation which includes DH+ and DH-485 binary and loader files.

A developer's kit (catalog number DP-5), which includes a diskette and documentation, is available for developing remote I/O scanner interface drivers. In addition to binary and loader files, the documentation provides examples of C code applications.

Diagnostic Software

A diagnostic software program is included with the 1784-PKTX, -PKTXD, -PKTS cards. The program performs a variety of tests on the card, the host PC and the dual-port memory interfaces.

Software Compatibility

RSLinx is PKTx-compatible and will operate on DH+ and/or DH-485 networks. Refer to Rockwell Software Inc.'s "Software Connection" for the latest list of compatible software products and connectivity supported.

Specifications

Functional Specifications

1784-PKTx	CH 1A (3-pin Phoenix) runs DH+ or remote I/O CH 1C (6-pin Phoenix) runs DH-485
1784-PKTXD	CH 1A (3-pin Phoenix) runs DH+ or remote I/O CH 1C (6-pin Phoenix) runs DH-485 Ch2 (3-pin Phoenix) runs DH+ or remote I/O
1784-PKTS	CH 1A (3-pin Phoenix) runs remote I/O
Maximum line lengths and communication rates	DH+: 10,000 ft. (3048 m) @ 57.6K bit/s 5,000 ft. (1,524 m) @ 115.2K bits/s 2,500 ft. (762 m) @ 230.4K bits/s DH-485: 4,000 ft. (1219 m) @ 1200, 2400, 4800, 9600 or 19,200 bits/s remote I/O: 2,500 ft. (762 m) @ 230.4K bit/s 5,000 ft. (1524 m) @ 115.2K bit/s 10,000 ft. (3048 m) @ 57.6K bit/s
Bus communications	Local PCI
LEDs	1 diagnostic/status LED per channel
Wiring category	2 ¹
Number of modules per system	4 maximum (specified by jumper on card)

¹ Refer to publication 1770-4.1, Industrial Automation Wiring and Grounding Guidelines for Noise Immunity.

System Requirements

Operating system	Windows 95 and Windows NT For other operating systems, you have to create your own driver.
Driver development for remote I/O	6001-RIO, contains binary files and example C code for remote I/O communication
Driver development for DH+ or DH-485	Use the RSLinx PKT _x driver. 1784-DP4, contains binary files and example C code for DH+ or DH-485 communication.

Environmental Specifications

Operational slot temperature	0 to 60°C (32 to 140°F)
Non-operational slot temperature	-40 to 85°C (-40 to 185°F)
Relative humidity	5- 95% without condensation
Vibration	10 - 60 Hz, constant 0.012 in displacement 60 - 150 Hz, constant 2.0 G acceleration
Operational shock	30 G peak for 11 ± 1 ms
Non-operational shock	50 G peak for 11 ± 1 ms
Power dissipation (for the PKTXD)	800ma @ 5Vdc 4.0W

For More Information

For more information on the PKT_x family of PC interfaces or any of our products and services, contact your local Allen-Bradley sales office or appointed distributor, or write: Allen-Bradley Company Inc., Promotional Programs, 1 Allen-Bradley Drive, Cleveland, Ohio 44124.

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