Industry Pack Carriers

Acromag ®
THE LEADER IN INDUSTRIAL I/O

NEW!

The APC8621A offers high channel density and modular flexibility in a half-length PCI carrier card.

APC8621A
PCI Bus Half-Length
IP Carrier Card

This board interfaces industry-standard Industrial I/O Pack (IP) modules to a PCI bus on a PC-based computer system. The half-length card is ideal for use in smaller PC chassis.

Three IP module slots give you the freedom to mix a variety of I/O functions (A/D, D/A, digital in, digital out, serial I/O, etc.) on a single board. Or, combine modules of the same type for dozens of channels on a single card. Either way, the APC8621A saves your precious card slots and reduces your costs.
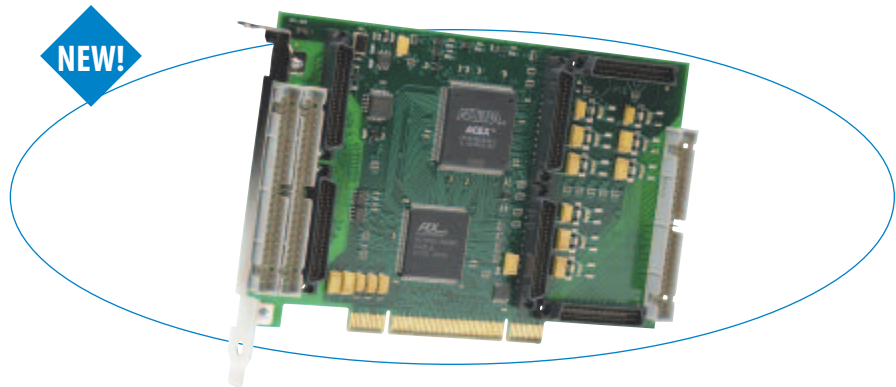
Select I/O modules from Acromag's offering of more than forty models or use any third-party IP mezzanine ANSI/VITA 4 modules.

Features

- Half-length card for smaller PC chassis
- Three industry-standard IP module slots
- Board resides in memory space
- Supports IP module I/O, ID, INT, and MEM spaces
- Plug-and-play carrier configuration and interrupt support
- Two interrupt channels per IP module
- Supervisory circuit reset generation
- Individually filtered and fused power

Benefits

- Quickly create custom I/O boards by mixing and matching I/O functions.
- Conveniently configure and control the I/O modules through software with full IP module register/data access.
- Easily integrate IPs with your software using RTOS VxWorks, QNX, Linux, or Win DLL for Windows® 95/98/2000/XP.

Specifications

IP Module Compliance (ANSI/VITA 4)

Meets or exceeds all written IP specifications per ANSI/VITA 4-1995 for 8MHz or 32MHz operation. Supports Type I and Type II ID space formats.

Electrical/mechanical interface: Supports three single-size IP modules (A-C), or one double and one single-size IP module. 32-bit IP modules are not supported.

IP module I/O space, ID space, INT, and MEM space supported.

IP module I/O space: 16 and 8-bit; supports 128 byte values per IP module.

IP module ID space: 16 and 8-bit; Supports Type I 32 bytes per IP (consecutive even byte addresses) and Type II 32 words per IP via D16 data transfers.

IP module memory space: 16 and 8-bit; supports up to 8M bytes of memory space per IP module.

Interrupts: Supports two interrupt requests per IP and interrupt acknowledge cycles via access to IP INT space.

PCI Bus Compliance

This device meets or exceeds all written PCI local bus specifications per rev. 2.2 dated December 1998.

System base address: This board operates in PCI memory space. It requires 1K of memory space for mapping the carrier controls, and IP module ID, INT, and I/O space. An optional 64MB of PCI memory space is required to use IP module memory space.

Data transfer bus: Slave with 32, 16, and 8-bit data transfer operation. 32-bit read or write accesses implemented as two 16-bit transfers to IP modules.

Interrupts (PCI bus INTA# interrupt signal): Up to two requests sourced from each IP mapped to INTA#. Interrupt vectors come from IP modules via access to IP module INT space.

Environmental

Operating temperature: 0 to 70°C (APC8621) or -40 to 85°C (APC8621E model).

Storage temperature: -55 to 100°C (all models).

Relative humidity: 5-95% non-condensing

Power: +3.3 Volts (±10%): 130mA, typical; 50mA max. +5 Volts (±5%): 30mA, typical; 50mA, max. ±12 Volts provided to each IP module.

MTBF: 413,003 hrs. at 25°C, MIL-HDBK-217F, notice 2

Physical

Physical configuration: PCI universal card (3.3V or 5V)
Length: 6.600 inches (167.64 mm)
Height: 4.200 inches (106.68 mm)
Board thickness: 0.062 inches (1.59 mm)
Maximum component height: 0.380 in. (9.65 mm)
Max. height under IP modules: 0.180 in. (4.57 mm).

Connectors:
A-C (carrier field I/O): 50-pin male header

Ordering Information

Industry Pack Carriers
APC8621A
Non-intelligent PCI bus carrier board.
Holds three IP modules.

APC8621AE
Same as APC8621A plus extended temperature range.

Software *(see software documentation for details)*
IPSW-API-VXW: VxWorks® software support package

IPSW-API-QNX: QNX® software support package

IPSW-API-WIN: Windows® DLL driver software support pkg.

IPSW-LINUX: Linux™ support (website download only)

Accessories *(see accessories documentation for details)*
5025-550: Cable, unshielded, 50-pin header both ends

5025-551: Same as 5025-550 except shielded

5025-552: Termination panel, 50-pin connector, 50 screw terminals

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