# Industry Pack Carriers

Acromag
THE LEADER IN INDUSTRIAL I/O

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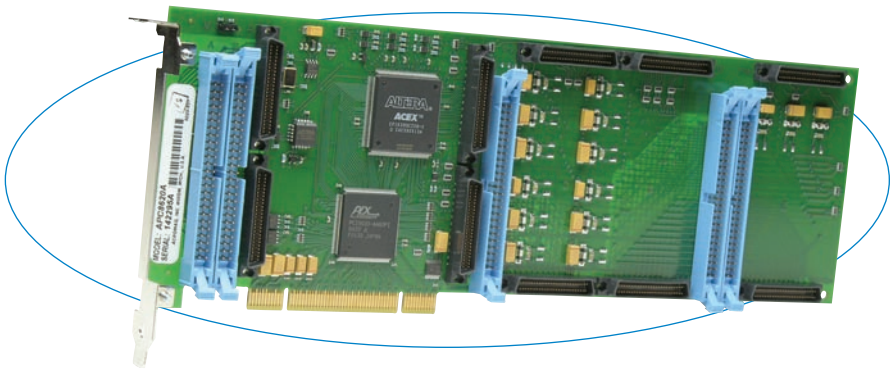
## APC8620A PCI Bus IP Carrier Card



The APC8620A carrier card holds up to five plug-in I/O modules for extremely high channel density.

This board interfaces industry-standard Industrial I/O Pack (IP) modules to a PCI bus on a PC-based computer system.

Five 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 hundreds of channels on a single card. Either way, the APC8620A 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

- Five 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® 2000/XP/Vista/7 32-bit systems.

## 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 five single-size IP modules (A-E), or two double-size and one single-size IP module.

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.

Storage temperature: -55 to 100°C.

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: 12.283 inches. (312.0 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-E (carrier field I/O): 50-pin male header.

## Ordering Information

### Industry Pack Carriers

APC8620A
Non-intelligent PCI bus carrier board.
Holds five IP modules.

### Software

IPSW-API-VXW: VxWorks® software support package

IPSW-API-WIN32: 32-bit Windows® DLL driver software support pkg.

IPSW-API-WIN64: 64-bit Windows® DLL driver software support pkg.

IPSW-API-LNX: Linux™ support (website download only)

### Accessories

5025-550: Cable, unshielded, 50-pin header both ends

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