

## APC8621 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 APC8621 saves your precious card slots and reduces your costs.

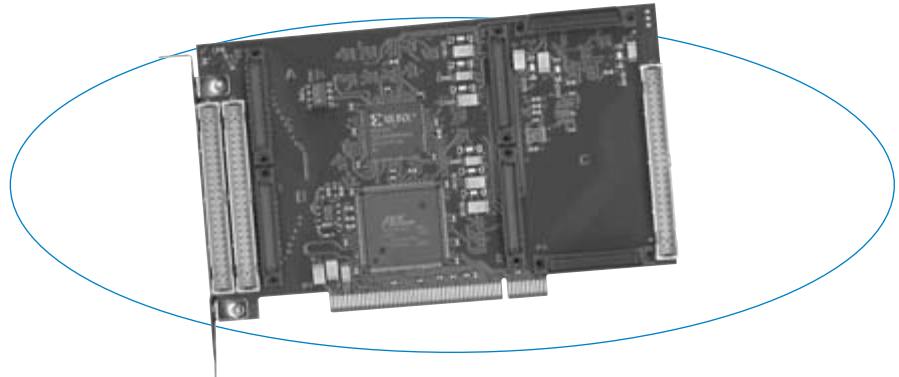
Select I/O modules from Acromag's offering of more than forty models or use any third-party IP mezzanine ANSI/VITA 4 modules.

### 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 and INT 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 OLE controls for Windows® 95/98/NT® and its object-oriented programming interface to numerous function routines.



The APC8621 offers high channel density and modular flexibility in a half-length PCI carrier card.

### Specifications

#### IP Module Compliance (ANSI/VITA 4)

Meets or exceeds all written IP specifications per ANSI/VITA 4-1995 for 8MHz operation, only.

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, and INT 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: Not supported.

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. 2.1 dated June 1995.

System base address: This board operates in memory space. It consumes 1K of memory space which includes mapping for the IP modules.

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: +5 Volts (±5%): 110mA, typical; 150mA, max.  
±12 Volts to each IP module.

MTBF: Consult factory.

#### Physical

Physical configuration: PCI 5V Card  
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

##### APC8621

Non-intelligent PCI bus carrier board.  
Holds three IP modules.

##### APC8621E

Same as APC8621 plus extended temperature range.

#### Software (see Page 81)

**IPSW-API-VXW:** VxWorks™ software support package

**IPSW-API-QNX:** QNX™ software support package

**IPSW-ATX-PCI:** ActiveX™/OLE Controls 2.0 software package

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

#### Accessories (see Page 87)

**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