AcPC8630A CompactPCI Carrier Cards for Industry Pack Modules

Two Industry Pack mezzanine module slots ◆ Non-Intelligent carrier card ◆ CompactPCI bus interface

Description
The AcPC8630A is a non-intelligent slave board that interfaces two IP modules to the CompactPCI® (cPCI) bus. All 100 I/O points are brought out the front connectors for easy cable access.

Key Features & Benefits
- Two industry-standard IP module slots
- Board resides in memory space
- Supports 8 and 32MHz operation
- Supports IP module I/O, ID, INT, and MEM spaces
- 100 I/O points with front access
- High-density front connectors
- Compatible with all CompactPCI CPUs
- Compatible with 32-bit and 64-bit CompactPCI® and PXI™ backplane
- Plug-and-play carrier configuration and interrupt support
- Two interrupt channels per IP module
- Front panel LEDs
- Supervisory circuit for reset generation
- Individually filtered and fused power to each IP
- Ruggedized with ESD strip and EMC front panel
- Easily integrate IPs with your software using RTOS VxWorks, Linux, or Win DLL for Windows® 2000/XP/Vista/7 32-bit systems.

- Easy access to I/O cables.
- Quick development of custom I/O boards.
- Flexibility to mix and match I/O functions as requirements change.
Industry Pack Carrier Cards

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Performance Specifications

■ General
Acromag’s carrier boards provide full data access to the IP module’s I/O, ID, interrupt and memory spaces. With full access to the IP module’s programmable registers, you can easily configure and control their operation from the CompactPCI bus.

Up to two interrupt requests are supported for each IP module. All board interrupts are mapped to PCI bus INTA# signal.

Individual passive filters on each IP power supply line provide optimum filtering and noise isolation between the IP modules and the carrier board.

■ IP Compliance (ANSI/VITA 4)
Meets IP specs per ANSI/VITA 4-1995 (8MHz and 32 MHz operation) and IP I/O mapping to the front panel.

Electrical/mechanical interface
Supports single or double size IP modules.
IP Module I/O space, ID space, INT, and MEM space supported.

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

CompactPCI bus Compliance
Meets PCI specification V2.1 and PICMG 2.0, R2.1.

Data transfer bus
Slave with 32-bit, 16-bit, and 8-bit data transfer operation. 32-bit read/write accesses are implemented as two 16-bit transfers to the IPs.

Interrupts
CompactPCI bus INTA# interrupt signal. Up to two requests sourced from each IP mapped to INTA#.
Interrupts come from IP modules via access to IP module INT space.

32-bit memory space
Upon power-up the system auto-configuration process (plug & play) maps the carrier’s base address (for a 1K byte block of memory) into the PCI bus 32-bit memory space.

Power Requirements
Power
+3.3V (±5%): 300mA maximum.
+5V (±5%): 30mA maximum.
±12V (±5%): 0mA (not used).
Plus IP module load.

MTBF
Contact factory

Environmental
Operating temperature
0 to 70°C (AcPC8630A model) or -40 to 85°C (AcPC8630AE model).
Storage temperature
-55 to 100°C.
Relative humidity
5 to 95% non-condensing.

Ordering Information

Carrier Cards
AcPC8630A
CompactPCI carrier. Holds two IP modules.
AcPC8630AE
Same as AcPC8630A with extended temperature range.

Accessories
5028-372
Cable, SCSI-2 to CHAMP connection
5028-378
Termination panel, SCSI-2 connector, 50 screw terminals
See www.acromag.com for more information.

Software Development Tools
IPSW-API-VXW
VxWorks® software support package
IPSW-API-WIN32
32-bit Windows® DDL driver and demo software
IPSW-API-WIN64
64-bit Windows® DDL driver and demo software
IPSW-API-LINUX
Linux™ support (website download only)
See www.acromag.com for more information.