Selection Guide

3U CompactPCI CPU Modules







Model Name		cPCI-3915	cPCI-3840	cPCI-3700A
CPU and Core Logic	CPU Support	Pentium® M/Celeron® M	Pentium® M/Celeron® M	FCPGA PIII/Celeron®
	CPU Speed	2.26GHz Pentium® M 1.5GHz Celeron® M	1.1-1.8GHz Pentium® M 600MHz Celeron® M	850MHz
	Chipset	Intel® 915GM GMCH	855GME / 6300ESB	440BX
	CPU FSB (MHz)	400/533	400	100
Form Factor & Bus	PICMG Spec.	2.0 (R3.0), 2.1 (R2.0)	2.0 (R3.0), 2.1 (R2.0)	2.0 (R2.1), 2.1 (R1.0)
	Form Factor	3U	3U	3U
	Slot Width	1 or 2	2	2 or 3
	Host/Peripheral	Host	Host	Host
	PCI Bandwidth (max.)	32-bit/33MHz	32-bit/33MHz	32-bit/33MHz
Memory	DIMM Slots	SO-DIMM x 1	SO-DIMM x 2	SO-DIMM x 1
	Max Memory	1GB	2GB	256MB
	ECC Capability	Yes	Yes	None
Display	VGA Chipset	Intel® 915GM	855GME	AGP 2X (SMI-721)
	LCD Interfaces	CRT on Front; DVI, LVDS on RTM	DVI on RTM	TFT on RTM
Ethernet	Gigabit Ethernet	Yes x 2 (Marvell 88E8052)	1F + 1R (82546GB)	--
	10/100 Fast Ethernet	--	--	1 (82559)
Storage	IDE HDD	Yes	Yes	Yes
	CompactFlash	1	1	None
	Serial ATA	2 (1F+1R)	1	--
	Floppy	--	--	Built-in on 3 slot ver.
I / O	Parallel	None	None	1
	Keyboard/Mouse	1 PS/2 connector	--	2 PS/2 connectors
	Serial	2 (1F+1R) or 2F	2 (1F+1R)	2 (1F+1R)
	USB	3 USB 2.0 (2F+1R)	4 USB 2.0 (2F + 1R + 1 on board)	2 USB 1.1
	Audio	--	Line Out, Mic-in	--
Other	Support HS Perip	Yes	Yes	Yes
	Self Hot Swappable	--	No	Yes
	Features	--	Dual Display Support LVDS on RTM	--
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cPCI-3915

3U CompactPCI Intel® Pentium® M / Celeron® M Processor SBC with Dual GbE on PCI-Express



Features

- *Low power consumption Intel® Pentium® M processor with 2MB L2 cache, up to 2.26GHz*
- *Single SODIMM socket DDR2 400/533 MHz, up to 1GB*
- *Dual Gigabit Ethernet ports on PCI-Express bus*
- *Multiple storage interfaces: Serial ATA , IDE, CompactFlash*
- *Supports high resolution, dual channel, multiple display interfaces: CRT (up to 2048 x 1536), DVI (up to 600MB/s), and LVDS (1 x 18 bpp)*
- *Up to 3 USB 2.0 ports, 2 on the front panel, and the other 1 on the rear panel*

Ordering Information

cPCI-3915A	1-slot 3U Pentium M SBC with dual GbE, single USB, and CRT output
cPCI-3915B	2-slot 3U Pentium M SBC with dual GbE, dual USB, dual COM, and CRT output
cPCI-R3915	Rear Transition module for cPCI-3915

Rear I/O Transition Modules

	cPCI-3915		cPCI-R3915	
	Faceplate	On-board	Faceplate	On-board
CRT	Y (DB-15)	--	--	--
DVI	--	--	Y (DVI-I)	--
LVDS	--	--	--	Y
LAN	Y (RJ-45) x 2	--	--	--
USB	Y x 2	--	Y x 1	--
PS2	Y (Combo)	--	--	--
COM	Y (DB-9) x 2	--	Y (DB-9)	--
SATA	--	Y	--	Y
PATA	--	Y (44-pin)	--	--
CF	--	Y	--	--
Reset	Y	--	--	--
LEDs	Y	--	--	--

Specifications

CPU / Chipset / RAM

CPU	Intel® Pentium® M processor up to 2MB L2 Cache
	Intel® Celeron® M processor up to 1MB L2 Cache
FSB	400/533MHz
Chipset	Intel 915GM (Grantsdale-GM) GMCH with ICH6
RAM	Support single un-buffered, non-ECC, DDR2 SODIMM, 400/533MHz
	Maximum 1GB System Memory

Bus

Standards	PICMG 2.0 R3.0, 2.1 R2.0
CompactPCI Bus	32-bit/33 MHz PCI bus

BIOS

Chip	Award 4Mb flash memory
Features	Intel PXE pre-boot on Ethernet
	Serial Console

I/O Interfaces

Display	Intel® 915GM Integrated Graphics
Ethernet	Dual Marvell 88E8052 Gigabit Ethernet Controllers based on PCI-Express x1 bus
IDE	Ultra ATA 100/66/33, primary IDE 44-pin and CompactFlash slot
USB	Three USB 2.0 ports, two on the front panel, and the other one on the rear panel
Serial Port	Two DB-9 connectors on the front panel
Serial ATA	Two onboard SATA connectors, one is on the front board and the other is on the RTM
KB/MS	One PS2 KB/MS Combo Port
Front Panel I/Os	COM x 2, LAN x 2, DB-15, USB x 2, PS2 KB/MS (Combo)
CF	One on-board CompactFlash Socket
Backplane I/Os	USB, COM2, DVI

Mechanical and Environmental

Form Factor	3U CompactPCI
Dimensions	100mm x 160mm (L x W), 1 or 2 slots width
Operating Temp.	0 to 60˚C
Storage Temp.	-20 to 80˚C
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operation: 1.88G rms, 5-500Hz, each axis
	Operation: 0.5G rms, 5-500Hz, each axis
Certificate or Test	CE, FCC Class A

Other Features

Operating System Compatibility	Windows 2000/XP, Red Hat Linux

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cPCI-3840 Series

3U CompactPCI Intel® Pentium® M Processor Module



Features

- *Low power consumption Intel® Pentium® M Processor with 1MB L2 cache*
- *Up to 2GB PC2700 DDR-SDRAM*
- *Dual Gigabit Ethernet ports, USB 2.0*
- *Multiple storage interfaces: IDE, CompactFlash, Serial ATA*
- *Multiple display interfaces: CRT and DVI on RTM*
- *AC97 audio line out and microphone input*

Ordering Information

cPCI-3840/P16/M512/H40G	3U cPCI Pentium M 1.6GHz CPU module with 512MB DDR RAM and 40GB HDD
cPCI-3840/P16/M1G/H40G	3U cPCI Pentium M 1.6GHz CPU module with 1GB DDR RAM and 40GB HDD
cPCI-R3840	Rear Transition Module for cPCI-3840

Note 1: Contact us for more CPU, memory and HDD options.

Rear I/O Transition Modules

Model Number	Faceplate I/O
cPCI-R3840	LAN x 1, USB 2.0 x 1, DVI x 1, DB-9 COM2 x 1

Specifications

CPU / Chipset / RAM

CPU	Intel Pentium M processor 1.8GHz with 2MB L2 cache
	Low Voltage Intel Pentium M processor 1.1GHz or 1.6GHz with 1MB L2 cache
	Intel Celeron M processor 1.3GHz with 512KB L2 cache
	Ultra Low Voltage Intel Celeron M Processor 600MHz with 512MB L2 cache
FSB	400MHz
Chipset	Intel 855GME with 6300ESB I/O Controller Hub
RAM	Two 200-pin SODIMM sockets for PC2700 DDR-SDRAM. Up to 2GB

Bus

Standards	PICMG 2.0 R3.0, PICMG 2.1 R2.0
CompactPCI Bus	32-bit/33MHz PCI bus

I/O Interfaces

Display	Intel® 855GME Integrated Graphics with 32MB UMA
	DB15 VGA interface on front panel
	DVI on the cPCI-R3840 RTM
Ethernet	Intel® 82546EB Dual Ports Gigabit Ethernet Controller
	One GbE port is on front panel
	Second GbE port is on J2 for rear I/O
IDE	Ultra ATA100/66/33, primary IDE 44-pin IDE connector and CompactFlash socket
Serial ATA	One onboard S-ATA 150 connector
USB	Four USB 2.0 ports: Two USB 2.0 ports on front panel, one on-board
	One USB 2.0 port on J2 for rear I/O
Serial COM	RS-232 DB-9 connector (COM1) on front panel
	RS-232 DB-9 connector (COM2) on J2 for rear I/O
Audio	Line out and Microphone input audio jacks

Other Features

Watchdog Timer	2 stages, SMI/SCI before RESET
LED	Four LEDs: Power, IDE, Hot-swap/GP LED, and WDT/GP LED
Hardware Monitoring	CPU temperature monitoring, over-temperature throttling, +5V, +3.3V, +12V, Vcore voltages monitoring
Operating System Compatibility	Windows 2000/XP, Red Hat Linux

Mechanical and Environmental

Form Factor	3U CompactPCI
Dimensions	100mm x 160mm (L x W), dual-slot width
Operating Temp.	0 to 55˚C (internal chassis temp, external air flow required)
Storage Temp.	-20 to 80˚C
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operation: 1.88Grms, 5-500Hz, each axis
	Operation: 0.5Grms, 5-500Hz, each axis
Measured Power Consumption	24W (5V@ 3.16A, 3.3V@ 2.4A) (1.6GHz Pentium M CPU, 512MB RAM, 40GB HDD)
Compliance	CE, FCC Class A

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cPCI-3700A Series

3U CompactPCI Intel® Pentium® III and Celeron® Processor Module with VGA, LCD, Ethernet



cPCI-3700A　　cPCI-3700A-2S

The cPCI-3700A is an all-in-one high performance, general purpose 3U CompactPCI system host CPU module. It is the ideal choice on which to base a computing platform or an embedded controller for military, HMI, traffic control, and mission critical industrial automation applications.

Features

- ***Supports up to 850MHz Intel® Pentium® III processor with FC-PGA packaking***
- ***One 144-pin SO-DIMM socket supports up to 256MB RAM with optional ECC support***
- ***Built-in housing for 2.5" ATA-HDD or Flash Drive***
- ***Two front panel USB ports, two serial ports, one parallel port***
- ***AGP 2x VGA/LCD display output by SMI SM721 controller with 8MB VRAM***
- ***On-board 10/100Mps Ethernet port by Intel 82559 controller***
- ***Supports Intel pre-boot execution environment (PXE) for remote boot***
- ***3 or 2 slots width configurations are available for customized applications***

Ordering Information

cPCI-3700A/P850/M256/H40G	3-slot version, Pentium III/850, 256MB RAM, 40GB HDD, Slim FDD, cPCI-R3700A
cPCI-3700A-2S/P850/M256/H40G	2-slot version, Pentium III/850, 256MB RAM, 40GB HDD, cPCI-R3700A
cPCI-R3700A	Rear Transition module for cPCI-3700A

Note: 2 slot version is shipped without FDD.

Specifications

CPU / Chipset / RAM

CPU	Socket 370 based Intel® Pentium® III processor with FC-PGA packaging (up to 850MHz) with 256K on-die L2 cache or Intel® Celeron® processor (up to 733MHz) with 128K on-die L2 cache
FSB	100MHz
Chipset	Intel 440BX
RAM	One 144-pin SO-DIMM socket, up to 256MB SDRAM

Bus

Standards	PICMG 2.0 R3.0, PICMG 2.1 Hot Swap R2.0
CompactPCI Bus	32-bit/33MHz, supports 7 bus-mastering devices

BIOS

Chip	Award 2Mb flash memory
Features	Supports Intel PXE pre-boot on Ethernet

I/O Interfaces

Display	SMI-721 AGP-2X VGA/LCD with 8MB VRAM
Ethernet	Single 10/100Mbps Ethernet by Intel 82559, RJ-45 connector
IDE	UDMA-33, dual channels, 44-pin connector, built-in 2.5" ATA HDD housing
Floppy	Built-in slim type floppy module (3-slot version only)
USB	USB 1.1, dual ports on front panel
Front Panel I/Os	PS2 KB, PS2 MS, VGA, LAN, USB x 2, LPT (mini port), COM1 (RS-232)
Backplane I/Os (rear I/O)	COM2 (J2: RS-232/422/485), LCD (18/24-bit TFT)

Other Features

Hardware Monitoring	Monitors CPU temperature, fan speed, system temperature, Vcore and DC voltages
Watchdog Timer	1-255 sec or 1-255 min software programmable, generates system reset
Operating System Compatibility	Windows 2000/XP, Red Hat Linux

Mechanical and Environmental

Form Factor	3U CompactPCI
Dimensions	100mm x 160mm (L x W), 2 or 3 slots width
Operating Temp.	0 to 60˚C (internal chassis temp, external air-flow required)
Storage Temp.	-20 to 80˚C
Shock	15G peak-to-peak, 11ms duration, non-operation
Vibration	Non-operation: 1.88Grms, 5-500Hz, each axis
	Operation: 0.5Grms, 5-500Hz, each axis
Measured Power Consumption	5.7A @ +5V, 3.6A @ +3.3V, 150mA @ +12V, installed with Pentium III 850MHz CPU and 256MB RAM, without HDD
Compliance	CE, FCC Class A, HALT

Accessories

Flash Storage	Flash2000 2.5" flash drive support, DOC up to 144MB supported
RTM	cPCI-R3700A

Rear I/O Transition Modules

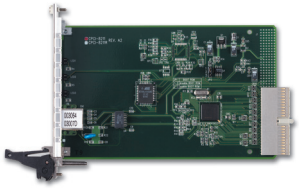
Model Number	Board Depth	Panel with Extractor	Faceplate I/O	On-Board I/O
cPCI-R3700A	50mm	Yes	COM2 (DB-9)	LCD, COM2

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3U PXI/CompactPCI Peripheral Cards

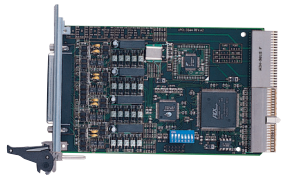
cPCI-8211/cPCI-8211R
3U CompactPCI/PXI Fast Ethernet Cards

- PICMG 2.0 32-bit/33MHz CompactPCI specifications
- Intel 82559 Ethernet Controller
- Supports 10/100 Base-TX Ethernet Standard
- Compliant with IEEE802.3u Ethernet Specifications
- cPCI-8211 is PXI compatable.
- cPCI-8211R a 50mm RTM with J2 and rear I/O



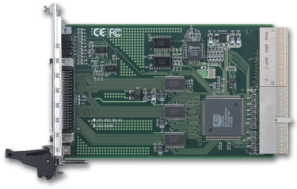
cPCI-3544
4-Port RS-422/485 Isolated Serial Communications Card

- PICMG 2.0 Rev 2.1
- Plug-and-play, IRQ & I/O address automatically assigned by PCI BOS
- Four asynchronized communications ports with intelligent buffer
- Four RS-422/485 ports
- 2500V_{RMS} isolation voltage
- Supports multiple OS
- Surge protectors
- Rugged DB37 connector
- Only supports CompactPCI interface 5V V(I/O)



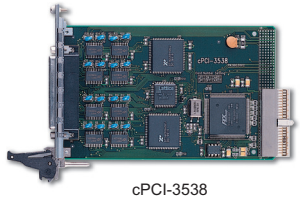
cPCI-8212/cPCI-8212R
3U CompactPCI/PXI Ultra-2-wide SCSI Cards

- PICMG 2.0 32-bit/33MHz CompactPCI specifications
- LSI/Symbios 53C895 controller
- Single channel Ultra-2-Wide SCSI with LVD, HD-68
- Up to 80MB/Sec burst transfer rate
- cPCI-8212 is PXI compatible.
- cPCI-8212R a 50mm RTM with J2 and rear I/O



cPCI-3534/cPCI-3538
4-Port/8-Port Asynchronous Serial Communications Cards

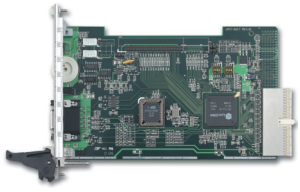
- PICMG 2.0 Rev 2.1
- 4/8 asynchronized communications ports with intelligent buffer
- Three/Eight RS-232 ports and one isolated RS-422/485 port with 2500Vrms isolation voltage
- Surge protector in TXD/RXD signal line
- Supports up to 2 cards per system
- Rugged DB-37 connector for cPCI-3534
  Rugged DB-62 connector for cPCI-3538
- Rear I/O available on cPCI-3534R/cPCI-3538R



cPCI-3538

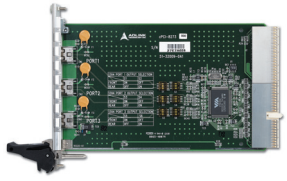
cPCI-8217/cPCI-8217R
3U CompactPCI/PXI VGA/LCD Interface Cards

- PICMG 2.0 32-bit/33MHz CompactPCI specifications
- SMI-721 graphic controller with 8M built-in VRAM
- Max. 1280 x 1024, 24-bit true color
- On-board 44-pin LCD interface, LCD brightness adjustable
- cPCI-8217 is PXI compatible
- cPCI-8217R a 50mm RTM with J2 and rear I/O



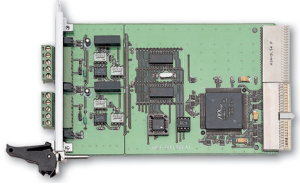
cPCI-8273
3U CompactPCI 3-port IEEE-1394 Card

- PICMG 2.0 32-bit/33MHz CompactPCI specifications
- VIA VT6306 IEEE-1394a controller
- Provides 3 ports, up to 400Mbps for each port
- Supports OHCI compliant programming interface
- Rear I/O version available upon request



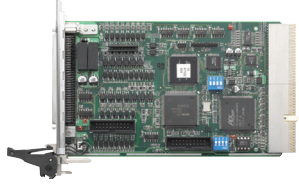
cPCI-7841
Dual-port Isolated CAN Interface Card

- PICMG 2.0 Rev 2.1
- Dual independent CAN network operation
- Up to 1Mbps programmable transfer rate
- 16MHz CAN controller frequency
- 2500V_{RMS} optical isolation
- Direct memory mapping to the CAN controllers
- Powerful master interface for CAN bus protocols
- Rear I/O available on cPCI-7841R



PXI-8164
Advanced 4-axis Stepping & Servo Motion Control Card

- 32-bit PCI bus, plug & play
- Pulse output rate up to 6.55MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2-4 axes linear interpolation/2 axes circular interpolation
- Multi-axis continuous interpolation
- Change position or speed on-the-fly
- Hardware position compare and trigger with auto-loading FIFO
- High speed position latch function
- Trapezoidal and S-curve velocity profiles
- Simultaneously start/stop on multiple axes



cPCI-RTV22
3U CompactPCI 4-CH Real-time Video Capture Card

- Four color video digitizers operating in parallel
- Up to 120fps in 64-bit, 66MHz CompactPCI bus
- Color PAL / NTSC, monochrome CCIR/ EIA camera support
- On-board TTL I/O lines
- Protection circuit for security issue
- User Friendly ViewCreator utility
- Channel status report LEDs

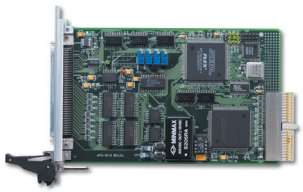


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3U PXI/CompactPCI Data Acquisition Cards

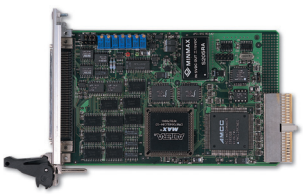
cPCI-9116
64-CH 16-Bit 250kS/s Multi-Function Module

- PICMG 2.0 Rev 2.1
- 16-bit A/D and sampling rate up to 250kS/s
- 64-CH single-ended or 32-CH differential input
- On-board 1k-sample A/D FIFO
- Programmable gains of x1, x2, x4, x8
- 512-configuration channel-gain queue
- Bus-mastering DMA for analog inputs
- Rear I/O available on cPCI-9116R



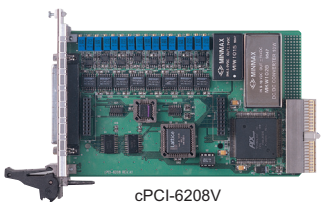
cPCI-9112
16-CH 12-Bit 110kS/s Multi-Function DAQ Module

- PICMG 2.0 Rev 2.1
- 12-bit A/D and sampling rate up to 110kS/s
- 16-CH single-ended or 8-CH differential inputs
- On-board 1k-sample A/D FIFO
- Bipolar or unipolar analog input ranges
- Programmable gains of x0.5, x1, x2, x4, x8
- 16-CH TTL DI and 16-CH TTL DO
- 2-CH 12-bit multiplying analog outputs
- Rear I/O available on cPCI-9112R



cPCI-6208V/6208A/6216V
8-CH 16-Bit Analog Output Modules

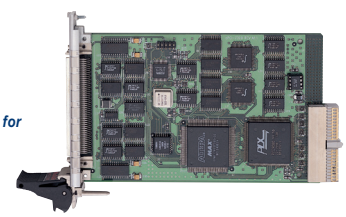
- PICMG 2.0 Rev 2.1
- 16-bit D/A resolution
- 16-CH voltage on 6216V
- 8-CH voltage outputs on 6208A and 6208V
- 8-CH current outputs on 6208A
- Bipolar analog output range
- 4-CH TTL DI and 4-CH TTL DO
- Rear I/O available



cPCI-6208V

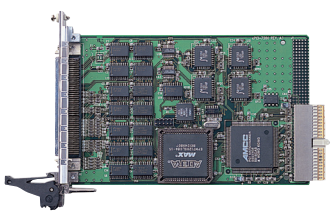
cPCI-7300
80MB/s High Speed 32-CH DIO Module

- PICMG 2.0 Rev 2.1
- Multiple I/O port configurations: 16-CH DI & 16-CH DO, 32-CH DI, or 32-CH DO
- Up to 80MB/s transfer rate
- Scatter-gather DMA
- On-board 32k words FIFO
- On-board programmable timer pacer clock for clocked DIO
- Supports handshaking DIO transfer mode



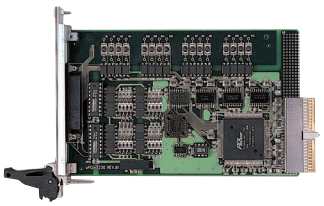
cPCI-7200
12MB/s High Speed 32-CH DIO Module

- PICMG 2.0 Rev 2.1
- 32-CH TTL DI and 32-CH TTL DO
- Up to 12MB/s transfer rate
- Bus-mastering DMA data transfer
- On-board programmable timer pacer clock
- Supports handshaking DIO transfer mode



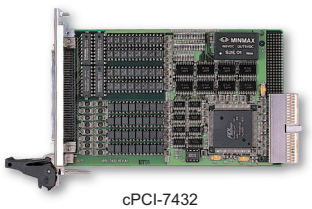
cPCI-7230
16-CH Isolated DIO Module

- PICMG 2.0 Rev 2.1
- 16-CH Isolated DI, 16-CH Isolated DO
- 5000V_{RMS} optical isolation
- Sink current up to 500mA on each isolated output
- Isolated input voltage up to 24V
- Two external interrupt sources



cPCI-7432/7433/7434
64-CH Isolated DIO Modules

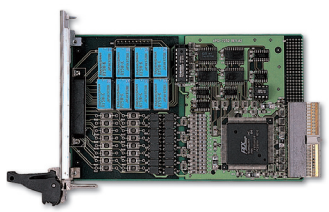
- PICMG 2.0 Rev 2.1
- 32-CH isolated DI & 32-CH isolated DO on cPCI-7432
- 64-CH isolated DI on cPCI-7433
- 64-CH isolated DO on cPCI-7434
- 5000V_{RMS}
- Sink current up to 500mA on each isolated output
- Rear I/O available on cPCI-7432R, 7433R, 7434R



cPCI-7432

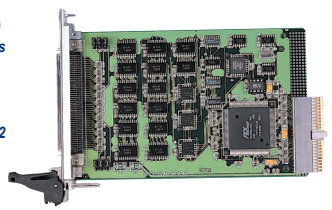
cPCI-7252
8-CH Relay Outputs & 16-CH Isolated DI Module

- PICMG 2.0 Rev 2.1
- 8-CH SPDT relays
- Nonlatching relays
- On-board relay driving circuits
- Relay output status read back
- 16-CH isolated DI
- On-board low-pass filtering for DI
- Two external interrupt sources



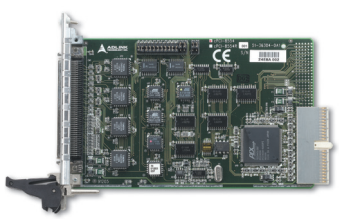
cPCI-7248
48-CH Opto-22 Compatible DIO Module

- PICMG 2.0 Rev 2.1
- 48-CH digital TTL/DTL input/output
- Emulates 4/2/1 industry standard 8255 PPI (mode 0)
- Direct interface with OPTO-22 compatible I/O modules
- Output port status read back
- On board 8254 timer/counter chip
- Programmable interrupt source
- Provides 12V and 5V power supply to OPTO-22 connectors



cPCI-8554
12-CH 16-Bit Timer/Counter & DIO Module

- PICMG 2.0 Rev 3.0
- Four 82C54 programmable timer/counter chips
- Up to 12-CH 16-bit timer/counter
- 1-CH 32-bit cascaded timer based on 8 MHz clock source
- Four programmable clock sources for each timer/counter
- Programmable de-bounce filters for external clock & external interrupt inputs



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