CxP0816 CompactPCI® Development Platform



Cost effective and reliable

Teknor's CxP0816 is an ideal development platform for applied computing applications addressing data/telecommunications, industrial automation (control/monitoring), as well as medical, scientific, imaging, and military/aerospace markets.

The CxP0816 is an 8U 19-inch CompactPCI full rear I/O capable development platform. Feature rich, the CxP0816 is one of the most flexible and reliable development platforms with its choice of four passive backplanes, five power supply options, hot-swappable fan tray and quality-renown system and peripheral processors made by Teknor.

This represents an ideal solution for OEMs and Systems Integrators seeking development platforms to shorten their time-to-market.

The selection of backplanes includes standard (PICMG 2.1 compliant) 8 and 16-slot, supporting Level 2 full hot-swap functionality as well as telephony (PICMG 2.5 compliant) 8 and 16-slot backplanes integrating the H.110 bus and supporting Level 3 high-availability hot-swap functionality.

Power supply options include a low cost 300W ATX, 350W AC or DC in single or redundant configuration. The front loaded 2U fan tray is hot-swappable and features a cooling capacity of over 300CFM.

The CxP0816 supports all Teknor 6U CompactPCI® PICMG-compliant system and peripheral processors, including the award-winning TEK-CPCI-1003 with Pentium® II processor - Low Power, the cPCI-MXS with integrated high availability controller, and all future Teknor 6U CompactPCI system and peripheral processors releases.

The CxP0816 supports up to fifteen (15) processor boards, one center-mounted system processor and up to fourteen (14) peripheral processors in a single 8U 19-inch chassis.

Teknor's CxP0816 CompactPCI development platform is highly flexible, reliable and rugged - making it the ideal solution for the OEM's product development environment.

Features include:

- **Four backplane options, 8 or 16 CPCI slots**
- **PICMG 2.1 and 2.5 compliant (H.110)**
- **Hot-swappable fan tray**
- **Five power supply options including AC or DC**
- **Supports any CompactPCI system and peripheral processors with corresponding rear transition I/O board**
- **DVD-ROM with/without hard disk storage module (Teknor's cSM line)**

CxP0816 - Technical Specifications

Physical

- **Dimensions:** 14"(8U)h x 19"w x 11.7"d
  355 mm x 483 mm x 297 mm
- **Construction:** Heavy-gauge steel
- **Finish:** Zinc-plated with white powder coat
- **Weight:** Approximately 40 lbs (18 kg)
- **Rear I/O:** Supports 80 mm rear I/O compliant with IEEE 1101.11

Backplanes

- PICMG 2.0 R2.1 CompactPCI compliant
- PICMG 2.1 CompactPCI hot-swap compliant
- Telephony backplane compliant to PICMG 2.5 CompactPCI Computer

Telephony specification

- All backplane support rear I/O
- Supports 32- and 64-bit PCI architectures
- One 6U x 8 HP system CPU slot and optional one or two 6U x 4 HP storage module
- Standard 8- and 16-slot; Telephony 8- and 16-slot

Data Storage

- Optional front plugable storage module (cSM line), 6U x 4HP form factor
- EIDE (ATAPI) Slim-Line DVD-ROM drive with/without 2.5 EIDE hard drive

Power Supply Subsystem

- Single or dual (n+1 redundant) configurations or optional 300W ATX power supply

Output Current:

	Single 350W AC/DC	Dual 350W AC/DC	ATX 300W
AC			
+3.3V	25A	50A	14A
+5V	40A	80A	25A
+12V	9A	18A	12A
-12V	2A	4A	0.5A

AC Input: Single input feed
90 to 264 VAC @ 47-63 Hz

DC Input: Single input feed
-48 VDC

Accessibility

- **Front:** Power supplies, fans, storage module, CPU and I/O boards
- **Rear:** Transition I/O board and power input
- **I/O:** Front and/or rear capable depending on board selection

Thermal Management

- Hot-swappable fan tray with lock sensor and LED's for monitoring
- Bottom-to-top, front-to-top, positive pressure, forced air cooling using three 12 VDC brushless, ball-bearing fans
- >300 CFM capacity
- 400 lfm per slot
- Removable, washable, foam filter (30ppi filtration)

Environmental

	Operating	Storage and Transit
Temp.*:	0° to 50°C 32° to 122°F	-40° to +70°C -40° to 158°F
Humidity:	5% to 95% @ 40°C/104°F non-condensing	0% to 95% @ 40°C/104°F non-condensing
Altitude:	3,048 m/10,000 feet	15,240 m/50,000 feet
Shock:	5G max at 11 msec duration, 3-axis	
Vibration:	1.5G max, 53 to 500Hz, 3-axis	

Acoustic Noise: 55 dB at 1m in front of system at full load
Continuous operation above 40°C requires the use of a redundant power supply

Reliability

- MTBF: >100,000
- 2 year limited warranty

Designed to meet or exceed:

Safety: UL 1950; cUL; TUV-GS Mark/EN60950 CSA C22.2 No 950

EMI/EMC: FCC 47 CFR Part 15, level B, CISPR22 Class B;
CE Mark to EN 55022/EN 50082 IEC 1000-4-2, 3, 4
Harmonics and flicker to IEC 1000-3-2, 3

Features	CxP0816 - Development Platform			
Backplane	cBP-08R	cBP-16R	cTBP-08R	cTBP-16R
Number of peripheral Slots	7	14	7	14
Number and Size of System Slot	One 8HP (dual slot), located right of peripheral slots	One 8HP (dual slot), located in center of peripheral slots	One 8HP (dual slot), located right of peripheral slots	One 8HP (dual slot), located in center of peripheral slots
Storage	Two cSM-DVD storage modules: DVD with optional HD	One cSM-DVD storage modules: DVD with optional HD	Two cSM-DVD storage modules: DVD with optional HD	One cSM-DVD storage modules: DVD with optional HD
Dimensions	Height: 14 in. / 355.00 mm Width: 19 in. / 482.60 mm Depth: 11.1 in. / 282.00	Height: 14 in. / 355.00 mm Width: 19 in. / 482.60 mm Depth: 11.1 in. / 282.00	Height: 14 in. / 355.00 mm Width: 19 in. / 482.60 mm Depth: 11.1 in. / 282.00	Height: 14 in. / 355.00 mm Width: 19 in. / 482.60 mm Depth: 11.1 in. / 282.00
Power Supply	ATX 300W, 350W hot-swappable front-loaded 6U, or two 350W hot-swappable front-loaded 6U	350W hot-swappable front-loaded 6U, or two 350W hot-swappable front-loaded 6U	ATX 300W, 350W hot-swappable f ront-loaded 6U, or two 350W hot-swappable front-loaded 6U	350W hot-swappable front-loaded 6U, or two 350W hot-swappable front-loaded 6U
Input Voltage	90-265 VAC / 43-63Hz	90-265 VAC / 43-63Hz	90-265 VAC / 43-63Hz or -48 VDC	90-265 VAC / 43-63Hz or -48 VDC
Rear I/O	P3-P5 on all slots, 80 mm rear I/O	P3-P5 on all slots, 80 mm rear I/O	P3-P5 on all slots, 80 mm rear I/O	P3-P5 on all slots, 80 mm rear I/O
Electrical / Mechanical Characteristics	Compliant to PICMG 2.0 Rev 2.1, PICMG 2.1	Compliant to PICMG 2.0 Rev 2.1, PICMG 2.1	Compliant to PICMG 2.0 Rev 2.1, PICMG 2.1, PICMG 2,5	Compliant to PICMG 2.0 Rev 2.1, PICMG 2.1, PICMG 2,5
MTBF reliability (MIL-HDBK-217F)	> 100,000 hours			
Operating Temperature	0° to 62° C / 32° to 144° F			
Storage Temperature	-40° to 70° C / -40° to 158° F			
Humidity	5% to 95%, RH 40° C / 104° F			
Shock and Vibration	IEC 68-2-27 / IEC 68-2-6			
Supply Voltage	+5V, +3.3V, +12V, -12V Current capacity dependant on power supply selected			
Safety Agency Approvals (pending)	Designed to meet or exceed: UL 1950, CSA C22.2 No 950; EN 60950; IEC950			
EMI/EMC (pending)	Designed to meet or exceed: FCC 47 CFR Part 15/CISPR22, CE Mark to EN55022/EN50082			

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Intel® Applied Computing Platform Provider

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Teknor Applicom helps customers speed to market with applied computing solutions featuring single board computers and integrated systems specifically designed for Industrial Automation, Internet, Telecommunications, Mobile Computing and all types of high-speed, high-availability applications.

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