

IPnexus® CPC6620 PRODUCT SHEET

24 1Gb & Two 10Gb CompactPCI® Ethernet Switch

FEATURES

24 10/100/1000 Base-T + Two 10 Gb CX-4 Ethernet Ports

Wire-Speed, Non-Blocking IPv4/IPv6 Switching and Routing

96 Gbps Switching Speed

Support for both 2.16 Fabric and Non-2.16 Modes

Front or Rear Panel Uplinks

Real-Time Continuous Integrity Checks for Non-Stop Networking

Rapid Spanning Tree, Link Aggregation, VRRP, and Jumbo Frame Support

Advanced Fast Filter Processor for Wire Speed Layer 2-7 Packet Classification and Filtering

LUA Script Language



Part of our IPnexus® portfolio of products, the CPC6620 is the most advanced PICMG® 2.16 embedded Ethernet switch on the market. Featuring support for IPv6 routing and 10 Gb switch ports, it is the latest addition to PT's line of award-winning switches. It also continues the long tradition of offering high availability, fault-tolerant solutions to the telecom, aerospace and defense, and commercial markets. It is the ideal interconnect and uplink for today's network-centric, packet-based embedded systems. While overall switch throughput is approximately twice that of prior generation gigabit switches, users retain the inherent robustness, reliability, and hot-swap capabilities of the 2.16 standard invented by PT.

The CPC6620 features the bandwidth needed for demanding applications as well as the resilience required in high availability applications such as airborne or ship-borne communications systems, media and signaling gateways, IP media equipment, telecom switching/routing infrastructure, and SS7 network elements. To ensure system reliability, the CPC6620 can be configured to monitor network status and to continuously check its own health through real-time integrity tests. In the event of system or network failure, data can be automatically re-routed to an alternate path.

The CPC6620 has been designed specifically to make system integration and maintenance easier, while maximizing network performance and flexibility. Its potent scripting language simplifies and automates installation and update functions. With dual switches in place, the alternate unit can obtain all of its operational and configuration information from the other switch or from an external manager, making change-out of failed modules as simple as replacing the failed board. The new unit then "clones" its setup from the configuration stored on the surviving switch.

The CPC6620 features an 800 MHz processor, ECC-protected memory, an optional CompactFlash® site, front panel SFP connector options for optical uplinks, and a large number of management, rear panel I/O, and uplink choices. Each port can sustain full wire-speed, non-blocking data flows on all ports with its 96 Gbps switching fabric, which eliminates congestion in even the busiest environments.

This leading-edge product protects investments for the long term with easy FTP/TFTP updates to platform flash memory. System software is available through downloads from PT's web site (www.pt.com), greatly simplifying or eliminating the need for dedicated, on-site network administration.



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ORDERING INFORMATION

PT-CPC6620-12163

24 port 1 Gb TX (rear) + two 10 Gb CX-4

PT-CPC6621-12164

20 port 1 Gb TX (rear) + four port 1 Gb TX (front panel) + two 10 Gb CX-4

PT-CPC6622-12165

20 port 1 Gb TX (rear) + four SFP 1 Gb (front panel) + two 10 Gb CX-4 (does not include SFP modules)

PT-RTM6600-11899

5 Port 10/100/1000 RTM

PT-RTM6600-11900

10 Port 10/100/1000 TX RTM

PT-RTM6600-11898

24 Port 10/100/1000 TX RTM, Dual Slot (non-2.16)

PT-IPv6RTU-12334

IPv6 Router Software and Right to Use License

PT-SSWMANP-11818

Annual Ethernet Switch Software Maintenance Package

PT-ACC6622-12266

10/100/1000 Base-T SFP Transceiver

PT-ACC6622-12267

1000 Base-X Multimode SFPOptical Transceiver (850 nm) LC Connector

PT-ACC6622-12268

1000 Base-X Single Mode Optical SFP Transceiver (1300 nm) LC Connector

For more information visit www.pt.com or call your local representative.

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CPC6620 supports the following specifications:

- 24 10/100/1000 Base-T ports + two 10 Gb CX-4 ports
- PICMG® 2.16 compliant
- Wire speed Layer 2/Layer 3 IPv4/IPv6 routing
- Online, real-time integrity tests for non-stop networking
- Single, non-blocking 96 Gbps switching fabric
- Store and forward frame processing
- Front or rear panel uplinks
- Advanced fast filter processor for wire speed Layer 2-7 packet classification and filtering
- Auto configuration replication
- Full duplex 802.3x flow control
- 16K MAC addresses
- 8K IPv4 / 4K IPv6 Layer 3 IP addresses
- Managed learning of attached devices on a per-port basis for advanced security
- Tagged packet (802.3ac) and jumbo packet (9 kB) support
- Support for IEEE 802.1p class of service with eight priority queues for traffic class management
- IEEE 802.1Q VLAN support (16 VLANs)
- 802.3-2000 link aggregation, up to 128 trunk groups, eight ports per group
- Broadcast storm detection and suppression
- Multi-port mirroring
- Front panel, non-switched 10/100 Ethernet port for out-of-band management
- Front and rear panel console port (RS-232)
- TFTP/FTP-based firmware upgrade and configuration upload/download
- TFTP/FTP client/server
- BootP/DHCP client/server with support for port-based leasing
- 800 MHz CPU with both L1 and L2 cache
- 26 MB flash file system that enables other systems to load specific configuration information on a slot-by-slot basis
- Optional CompactFlash® slot for preloaded configuration information
- DHCP/BootP relay
- Partner switch configuration replication, cloning, and version matching
- Power-on or manager (CLI or SNMP) invoked diagnostics
- ASCII extraction of current configuration
- LED indicators of link, activity, speed, system status, system fault, and hot-swap

Protocols Supported

- RIP versions 1 and 2
- 802.1D Spanning Tree/Rapid Spanning Tree

Technical Specifications

MTBF

- 105,532 hours per Bellcore TRT SY-332 Method 1

Management

- CLI via RS-232 and out-of-band Ethernet management port
- Scripting language for value-added applications
- Telnet
- SSH v2
- SNMP v1, v2c, v3 – RFC 1157
- MIBs
 - MIBII – RFC 1213, MIBII bridge – RFC 4188
 - TRMON MIB – RFC 2819 groups 1-3 and 9
 - EtherLike MIB – RFC 3635
 - VRRP MIB RFC 2787
 - IEEE 802.1q MIB – RFC 2674
 - IEEE 802.3AD link aggregation MIB
 - PT enterprise MIB

Agency Certifications (Pending)

- FCC Class A
- CE
- UL 60950/EN 60950
- ETSI EN 300 386
- Designed to meet NEBS requirements Level 3
- RoHS and WEEE Compliant

Power

- 54 W maximum; 37 W typical

Dimensions

- Single width CompactPCI® form factor, 6U x 160 mm (6.3 in.)
- Weight: 548 gm (1 lb, 3.3 oz)

Environmental

- Operating: 0o to 50°C (32° to 122°F)
- Non-operating: -40° to 80°C (-40° to 176°F)
- Humidity: 5 to 90% RH non-condensing

Physical Interfaces - Front Panel

- Connectors for: switch console port, switch out-of-band management
- Switch LEDs: system health, power, fault, hot-swap, link/activity and speed per 1 Gb port, link/activity per 10 Gb port
- System reset: One recessed micro-switch
- Four optional RJ-45 or SFP sockets

Optional Rear Transition Modules

- Connectors for: console port, out-of-band management port
- Up to ten 10/100/1000 TX RJ-45 uplinks in a single slot