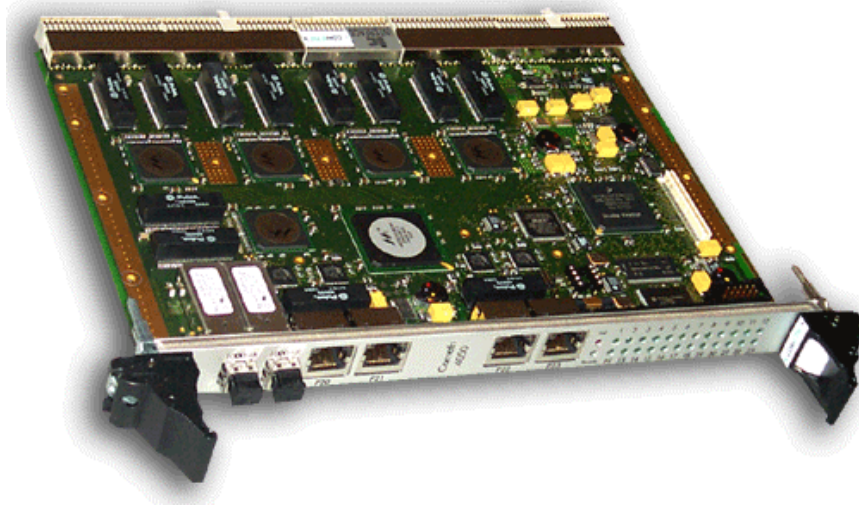


Models 6760 through 6765

Conduction Cooled Gigabit Ethernet Switch PICMG 2.16 or VITA 31.1



The 6760-6765 Series of switches are built on the latest generation of Gigabit switch engine technology managed by a PowerPC processor. The switch engine is based on a packet processor. The 6760-6765 Series supports full-wire speed L2 bridging with L2-L3 advanced traffic classification, filtering and prioritization providing traffic classification management needed for delay-sensitive or critical applications.

Key features of the 6760-6765 Series of Ethernet switches:

- Conduction cooled version
- 16 - 24 10/100/1000BT Ethernet Ports
- Switching capacity of 24M packets (16 ports) and 36M packets (24 ports)

Layer 2 switching capabilities:

- 8K MAC addresses
- Automatic or controlled learning and aging routing table
- Full-line rate switching engine
- Link aggregation / port trunking
- Port and MAC access control
- Flow control and back pressure
- Jumbo frame of up to 10KB
- Multicast rate limiting

VLAN services:

- 256 active VLANS
- Flexible VLAN assignment – 802.1Q tag based, port and protocol

Quality of Service engine:

- 4 priority queues per port
- Minimal bandwidth generation per traffic class

- Traffic class assignment according to 802.1P tag, MAC addresses, port, Diffserv CP assignment for VoIP applications

Security Features

- 802.1X Port authentication
- Multicast / broadcast packet rate limiting
- Virtual cable tester on line
- Internal ECC architecture
- Thermal monitoring

Flexible management tools:

- Web server or remote management
- MIB and RMON groups 1 to 4
- Enhanced port mirroring
- STP / RSTP algorithm for more reliable network communications
- Easy software updating via FTP download to local in flash memory
- Comprehensive power on built in test

Switching ports are compatible both with PICMG 2.16 or VITA 31.1 systems. Twenty GigE ports are routed through the backplane in compliance with PICMG 2.16. The remaining GigE ports are available on the front panel or out the rear panel via RTM. The front copper ports use RJ45 and the fiber ports (optional for two ports) use MTRJ or LC connectors. The Gigabit transceivers automatically senses the media with activity. Auto-crossover, auto-polarity, auto-negotiation and automatic MAC address management make the 6760-6765 Series true Plug&Play layer2 switches.

The Marvel Virtual Cable tester provides for remote identification of potential cable malfunctions such as excessive pair skew, cable opens and impedance mismatches.

Management Capabilities

The 6760-6765 Series full-managed version can be monitored from a browser, a remote application via UDP, a console or as an option SNMP. The whole system can be easily managed and handled. Additional functions on this full-managed version include:

- Configuration of all the PHY and switch parameters: port monitoring, static MAC address, QoS policy, Multicast and VLAN control, STP/RSTP protocols, MAC security
- Monitoring of all statistical counters and an extensive list of RMON counters in particular for SNMP.

6760-6763 Series can be used as an open switching platform to implement specific functions.

Flexible configurations

Variants from 16 to 24 ports are available for standard or rugged environments. The 6U form factor allows the 6760-6765 Series to be integrated in VME, cPCI or stand-alone applications. A 16 port version is available with conduction cooling.

Main features

Physical layer

16 or 24 auto-sensing 10/100/1000Mbs ports
Optional SX or LX Fiber interface with front MTRJ connectors 802.3u compliant.

Auto-Negotiation

Automatic MDI/MDIX crossover for all 3 operating speeds.

Automatic polarity correction. RS232 Console maintenance port (RJ45)

Online virtual cable tester.

Layer 2 MAC

802.1D-1998 Compliant 8000 MAC unicast address with automatic or controlled aging, learning mechanism, tag extraction and insertion

(802.1p), Jumbo frames up to 10KBytes

Back pressure for half-duplex, IEEE802.3x for full-duplex

Discard broadcasts above critical threshold

Link aggregation

Enhanced port mirroring

IGMP snooping

VLAN

802.1Q compliant : supports Layer 2 domain partitioning of up to 256 active VLANs.

VLAN is flexibly programmed to any value from 1 to 4094 Protocol based VLAN (802.1v) port, MAC or Subnet-based VLANs

Security

Port and MAC access control compliant with 802.1X authentication.

QoS

Layer 2 and 3 QoS

Four queues per port

Minimal and maximal bandwidth affectation per traffic class using weighted round robin and strict priority scheduling

Switch Management

Onboard firmware implemented with Power on Built-In Test (loop back mode used during diagnostics), maintenance functions and network (BootP/DHCP) updating functions.

Management software provides a wide range of configuration functions on any port: transmission speed/mode, VLAN, STP parameters, mirroring, etc.

Supervision functions collect real time switch status information.

MIB and RMON counters and private information are reachable from SNMP agent, web-browser via Ethernet.

This software application package, called **SWITCHWARE**, is run on a PowerPC PMC processor module running under LINUX.

Spanning Tree Algorithm

IEEE 802.1d provides redundant link support. Rapid STP capability for minimizing STP convergence.

Front panel LEDs
 Power supply and switch status
 Switched ports: activity & link
 VME

3.3VDC Power Supply only

Power supply

Ptyp=34W

Standard Conformance

Emissions EN55022 Class A

Immunity CEI 6000-4-2 (ESD), 6000-4-3

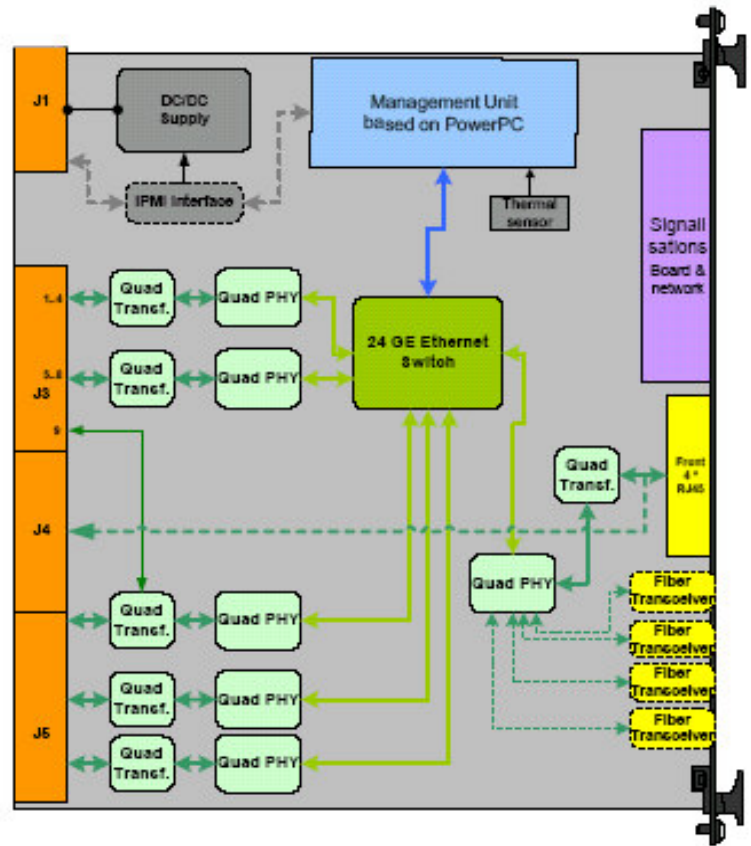
(Electric field), 6000-4-4 (Burst),

6000-4-5 (Surge),

Security EN60950

MTBF TBD

Environment TBD



Environment Specifications:

Please refer to ordering information below.

Ordering Information:

All Extended Grade, Rugged Grade and Conduction Cooled boards below are conformal coated

S= standard grade (0-+55C), X= ext grade (-20-+65C), R = rugged grade (-40 - +75C), cc = cond cooled

Model #	6U Full Gbs Ethernet switch - PICMG 2.16 - VITA 31.1 Rear & Front connections FM = Full Managed switch (FP) = Front Panel (R) = Rear Panel
6760-S	16 ports_FM : 4HP wide - 16*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM
6760-X	16 ports_FM : 4HP wide - 16*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM
6760-CC	16 ports_FM : 4HP wide - 16*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM
6761-S	24 ports_FM : 4HP wide - 20*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (R)
6761-X	24 ports_FM : 4HP wide - 20*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (R)
6762-S	24 ports_FM : 4HP wide - 20*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 2*GE SX (auto SX/TX) (FP) + 2*1000BT (FP)
6762-X	24 ports_FM : 4HP wide - 20*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*GE SX (auto SX/TX) (FP)

6763-S	24 ports_FM : 4HP wide - 20*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (FP)
6763-X	24 ports_FM : 4HP wide - 20*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (FP)
6764-S	12 ports_FM : 4HP wide - 8*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (FP)
6765-S	16 ports_FM : 4rHP wide - 12*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (FP)
6765-R	16 ports_FM : 4HP wide - 12*10/100/1000Mbs (R) to the backplane (PICMG/VITA) or through RTM - 4*1000BT (FP)

Rear Transition Modules

Model #	The Rear Transition Modules below are suitable for Series 6760-6762 standard cPCI & PICMG 2.16 switches
RTM6760-1-S	4 ports : 4*RJ45(10/100/1000Mbs) – 4HP- No EMI protection (J3,J4 & J5) For PICMG2.16
RTM6760-2-S	4 ports : 4*RJ45(10/100/1000Mbs) – 4HP - EMI protection (J3,J4 & J5) For PICMG2.16
RTM6760-3-S	24 ports : 24*RJ45(10/100/1000Mbs – 8HP - No EMI protection (J3,J4 & J5) For standard Cpci
RTM6760-4-S	24 ports : 24*RJ45(10/100/1000Mbs – 8HP - EMI protection (J3,J4 & J5) For standard cPCI
RTM6760-5-S	5 ports : 4+Pf RJ45(10/100/1000Mbs) - 4HP - No EMI protection (J3,J4 & J5) For standard cPCI
RTM6760-6-S	12 ports : 12*RJ45(10/100/1000Mbs - 8HP - No EMI protection (J3,J4 & J5) For standard cPCI

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