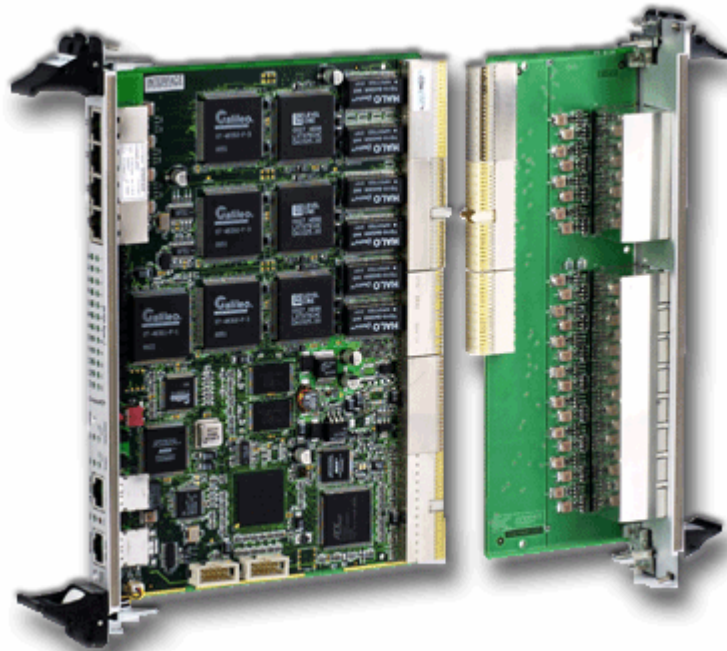


Models 6736 through 6738

6U cPCI 10/100TX and 1 Gbps Ethernet Switches, PICMG 2.16 Managed Switches, Linux Open Platform



The 6736-6738 Series of switches are highly integrated layer 2 Ethernet switches that provide up to 24 10/100TX and 1 Gbps Ethernet ports. Switches occupy 1 or 2 slots depending on models selected and are compatible both with PICMG 2.16 for Packet Switching Backplane (PSB) or rear I/O transition interface boards. There are also versions available with front panel port implementation.

Key features of the 6736-6738 Series of Ethernet switches:

- Supports CX, SX, LX and fiber optic interfaces
- High speed non-blocking layer 2 switch with store and forward switching
- Auto negotiation fast Ethernet ports for speed and duplex mode selection
- 8000 MAC address entries with automatic learning and aging
- Packet loss prevention with back pressure or IEEE802.3x flow control
- QoS layer 2 and 3 (DiffServ)
- Supports VLANs based on ports and / or MAC addresses to simplify network management
- Port trunking up to 800 Mbs of aggregate bandwidth
- Provides flexible management:
 - SNMP, Web Browser
 - Local and PCI data structures (MIB and private functions)
 - Thermal monitoring
- Open platform based on PowerPC and Linux

On the 24 port cPCI-PSB switch version, 20 are routed through rear I/O in compliance with PICMG 2.16. The remaining 4 are available on the RJ45 front panel or via J5 on the rear I/O transition board interface.

The optical Ethernet 1000Mbps is connected to the front panel via a duplex SC connector. Transceiver selection determines a CX, SX or LX interface.

Switch management is carried out by a RISC 32 bit-PowerPC, 16 MB-SDRAM memory, 4 MB Flash EPROM memory, 10/100TX independent Ethernet controller and an asynchronous serial link.

Suited for Telecom & Industrial Environment

Vertical and low-power design increases system density, lowers cost, and provides for optimal airflow. This switch can operate with all existing Ethernet, Fast Ethernet and Gigabit Ethernet equipment and cabling, thereby protecting your network investment.

Flexible System Management

The entire system is easily managed and monitored via SNMP protocol from a host using network management software or a common browser interface. Switches are also manageable through PCI data structure. Comprehensive indicators are provided to assist in troubleshooting. Port mirroring is also provided to give the user a non-intrusive view of the traffic crossing any port. With these powerful features, the user can monitor its network status at a glance. No expert is needed to install this system, thus saving the user time and money on training and maintenance.

The switches with LINUX implemented on the CPU board, provide solid performance on a versatile open platform ready to develop custom applications.

Functional Specifications:

Physical features

Base unit up to 24*auto-sensing 10/100Mbps ports or up to 16*auto-sensing 10/100Mbps ports and one 1000 Mbs port VCSEL (850nm) or FP laser (1300nm) model:

- 850 nm (SC) > 220m with MMF 62.5/125µm or 500m with MMF 50/125µm
- 1300nm (SC) > 550m with MMF 62,5 or 50/125µm and 10 Km with SMF 9/125µm

One out-of-band Ethernet port (network management) Front RJ45 connector

One RS232 Console management port, front RJ45 connector

Front panel LEDs

- Power supply and CPU Status
- Out-of-Band Ethernet Port : activity/link
- Switched ports : activity/link

Rear Transition boards rout the following ports to the rear panel :

6736-1-RTM (1 slot) 8/12*auto-sensing 10/100base-TX ports RJ45 connectors for UTP/STP (10BT/185m, 100TX/100m)

6736-2-RTM (2 slots) 16/24*auto-sensing 10/100base-TX ports RJ45 connectors for UTP/STP (10BT/185m, 100TX/100m)

PCI Compatible Rev 2.2 32bits -33Mhz

Power supply 18W of +5VDC and 3.3VDC max. power

Filtering/Forwarding Rate Full line speed

Switching Method Store-and-Forward with low last-bit-in to first-bit-out delay

MAC level 8000 MAC unicast address with automatic aging, self-learning mechanism, Tag extraction and insertion (802.1p), lockedport mode

Queue Buffer Two levels of priority queuing and 160 packet buffers for the eight transmission link

Flow Control Back pressure for half duplex, IEEE802.3x for full duplex

Broadcast Suppression Discards broadcasts above a critical threshold

Network Management

System configuration Auto-negotiation supported on 10BASE-T/100BASE-TX ports; Web browser or console interface can enable/disable any port, or set transmission speed/mode, supervision management software provides a wide range of SNMP functions

Management Agent MIBII counters and private information are reachable from SNMP agent, HTTP web-browser interpreter or PCI data structure. SNMP and HTTP management through out-of-band Ethernet port, Telnet or Local console configuration mode.

RMON TBD

Spanning Tree Algorithm IEEE 802.1d provides redundant link support and Fast port capabilities.

VLANs Up to 4000 Virtual LANs full compliant with 802.1Q standard and per-VLAN forwarding databases

QoS Layer2—Tagged frames according to 802.1p (Tagged or untagged frames supported on each port)
Layer3—Tag based priority Mapping IPv4 Type-Of-Service (TOS) bits to internal priority queue. Support for the emerging DiffServ Standard

Port trunking One channel with a maximum of 8*10/100 ports. Support - 802.3ad compliant

Port Mirroring Allows the administrator to mirror traffic from a port to an external network analyser for in-depth traffic analysis

Standard Conformance

- Emissions EN55022 Class A
- Immunity CEI 50082-1
- Security EN60950
- Temperature -5°C to 60°C (Operating). Extended temperature range on request
- Standards IEEE802.3 (Ethernet), IEEE 802.3u (Fast Ethernet), IEEE802.3z (1 Gbs)
- IEEE 802.3x (full-duplex flow control)
- IEEE 802.3ad Port Trunking
- IEEE 802.1p (tagged frames)
- IEEE801.1Q (VLAN)

Order 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

6736-1-RTM	Rear I/O interface - 8/12*RJ45 - 4HP	0 to +65°C
6736-2-RTM	Rear I/O interface - 16/24*RJ45 - 8HP	0 to +65°C
6736-S	8 ports_FM : 8*10/100TX PICMG 2.16 compliant or rear connection through rear transition module	0 to +65°C
6737-S	16 ports_FM : 16*10/100TX PICMG 2.16 compliant or rear connection through rear transition module	0 to +65°C
6738-S	24 ports_FM : 24*10/100TX PICMG 2.16 compliant or rear connection through rear transition module (4 of them can be routed by configuration on front panel)	0 to +65°C

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