

ZX4500P with OpenArchitect Switch Management



specifications at-a-glance

Features and implementations of IEEE & RFC specifications available in OpenArchitect 2.2 on the ZX4500P

PICMG 2.16

6U PICMG 2.16 CPSB Fabric Board
Operates in fabric and node slots
Supports Standard and Extended CPSB Chassis

General

6U PICMG 2.0 CompactPCI compliant
Twenty-four 10/100 Mbps Fast Ethernet ports
Two 1000 Mbps Gigabit Ethernet ports
Layer 2 Switching
Layer 3 IP Routing
Layer 2-7 Packet Classification/Filtering
6.6 Million Packets/sec (line-rate)
Stackable to 720 Fast Ethernet and 30 Gigabit ports
Auto MDI-X
Motorola MPC8240 PowerPC processor w/603e
PCI-PCI bridge to host
HotSwap
Geographical Location Reporting
Default initialization scripts for L2/L3 operation
PICMG 2.9 IPMI

Host Memory	64MB SDRAM
Packet Buffer	32MB SDRAM
Storage	32MB Flash ROM
Boot	512KB Flash ROM

Protocols and Standards

General

TCP (RFC 793)
IP (RFC 791)
UDP (RFC 768)
ARP (RFC 826)
RARP (RFC 903)
ICMP (RFC 792)
ICMP Router Discovery (RFC1256)
Router Requirements (RFC1812)

Network Services

FTP (RFC 959)
TFTP (RFC 783)
DHCP Server
DHCP Client
DHCP Relay
NFS Client
Network Time Protocol-NTP
Network Address Translation-NAT (RFC1631)*
Additional protocols on request

VRRP (Virtual Router Redundancy Protocol)

VRRP (RFC 2338)

RIP (Routing Information Protocol)

RIPv1 (RFC1058)
RIPv2 (RFC1388)

* Implemented on the CPU

Ordering information

SKU Description

ZX4500P 6U CarrierClass CompactPCI / PICMG 2.16 10/100/1000 Ethernet Switch with OpenArchitect Switch Manager

ZXR7B04 4 Egress 10/100 Fast Ethernet ports, Single Wide, Rear Transition Board for ZX4500P

ZXR7B24 24 Egress 10/100 Fast Ethernet ports, Double Wide, Rear Transition Board for ZX4500P (For use in node-slot only)

OSPF(Open Shortest Path First):

OSPF v2 (RFC1583)
OSPF-BGP Interaction - (RFC1403)

BGP (Border Gateway Protocol):

EGP (RFC 904)
BGP-3 (RFC1267)
Default Route Advertisement (RFC1397)
BGP Route Reflection (RFC1966)
BGP-OSPF Interaction (RFC1403)

IP Multicast

IGMP Snooping
IGMPv2 (RFC2236)*
DVMRP (IETF draft)*

Class of Service

IEEE 802.1p Class of Service (COS)
-4 service queues on switch fabric
-scheduling options
TOS - Type of Service (RFC1349)
Architecture for Differentiated Services (RFC2475)
DS Field (RFC2475)

Filtering

Packet Header Filtering
Powerful Rules Tool - iptables

IEEE Compliance

IEEE 802.1d Spanning Tree
IEEE 802.1p Traffic Class/Multicast
IEEE 802.1Q VLAN
IEEE 802.1x Flow Control
IEEE 802.3z Gigabit Ethernet
IEEE 802.3u MIIM Interface

PICMG Compliance

PICMG 2.0 CompactPCI
PICMG 2.1 Full HotSwap support
PICMG 2.16 Packet Switched Backplane
PICMG 2.9 IPMI Controller

Management

SNMP (Simple Network Management Protocol)

SNMPv1 (RFC 1157)
SNMPv2 (RFC 1907)
SNMPv3 (RFC 2271)
MIB II (RFC1213)
MIB II Interface updates (RFC2863)
Defining Traps for SNMP (RFC1215)
RIPv2 MIB (RFC1724)

Management (continued)

OSPFv2 MIB (RFC1850)
BGPv3 MIB (RFC1269)
SMUX MIB (RFC1227)
VLAN Extensions MIB (RFC2674)
Bridge MIB (RFC1493)
VRRP MIB (RFC2787)
Remote Network Monitoring MIB (RFC2819)
IPv4 Multicast Routing MIB (RFC2932)
IP Forwarding Table MIB (RFC2096)
Textual Conventions for SMIPv2 (RFC2579)
Ethernet-Like MIB (RFC2665)
Differentiated Service MIB (IETF Draft)
COPS (Common Open Policy Service)
COPS (RFC 2748)
COPS Policy Provisioning COPS-PR (RFC3084)
WEB
Web Server: HTTP/1.1 (RFC2616)
Management Interface (HTML and CGI source)
Command Line Interface
Telnet

Physical and Environmental

ZX4500P Dimensions: 160mm x 233.5mm (6U)
Power Consumption: 22W maximum
Humidity: maximum 90% non-condensing

The ZX4500P has not yet completed Regulatory and Safety testing. ZX4500P was engineered to pass the following Regulatory and Safety specifications.

Regulatory

EMC/EMI
AS/NZS 3548 1997, Class A
CNS 13438 1997 (EN55022/CISPR22), Class A
EN55022: 1998, Class AEN55024: 1998
FCC CFR 47, Part 15 Subpart B - 1998, Class A
ICES-003 Issue 3, Class A
VCCI (ANSI C63.4-1992/CISPR22-1997), Class A

Safety

CAN/CSA 22.2 No. 950-95
IEC 950 (1991) Second Edition with Amdts. No. 1 (1992), No. 2 (1993), No. 3 (1995) and No. 4 (1996)
IEC 60950 (1991) Second Edition with Amdts. No.1 (1992), No. 2 (1993), No. 3 (1995) and No. 4 (1996)
EN60950 (1992) with Amdts. 1, 2, 3, 4 and 11 including National Differences EN45001
UL1950, 3rd Edition (1995)



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