

ES4710BD Chassis Core Routing Switch



Product Overview

The Edge-Core ES4710BD is a high performance, 10-slot, Layer 3 chassis switch. It has 2 slots for management modules and 8 slots for network interface modules.

With redundant power supply, fans, and management modules, the Edge-Core ES4710BD ensures continuous operation and is a fully redundant system. Moreover, all parts are hot swappable. They can be added or exchanged without interrupting the whole system.

The ES4710BD is ideal for the core layer of campuses, enterprise networks and the aggregation layer of IP metropolitan networks.

Ethernet Switch

Key Features and Benefits

Performance and Scalability

The ES4710BD support up to 16 10G ports and 96 Gigabit ports, providing flexibility and high port density.

10G modules support 1 or 2 ports for downlink to Gigabit L3 distribution layer switches or L2 Gigabit switches, aggregating them to the core layer, and preventing uplink port bottlenecks in Gigabit switches. Furthermore, the optional 10Gigabit Ethernet XENPAK transceivers can be chosen for different distance fiber uplinks.

The backplane capacity of the ES4710BD is 480Gbps, with 320Gbps switching capacity and 238 Mpps forwarding rate, enabling forwarding of Layer 2, 3 and 4 packets at line speed.

Backup Master ensures the availability of a master controller for network control at any time.

Every module is hot swappable, ensuring continued operation of the system while adding or removing a module.

Intensive protocol is included for MPLS, MPLS-VPN, MPLS-TE and IPv6 policy routing, ensuring future investment protection.

Firmware & configuration are automatically upgraded from master to slave units for management simplicity.

Continuous Availability

IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base, providing Layer 2 load sharing on redundant links.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and providing load balancing and fault tolerance for uplink connections.

IGMP snooping prevents flooding of IP multicast traffic, and limits bandwidth intensive video traffic to only the subscribers.

L3 Features

The ES4710BD delivers high-performance, hardware based IP routing.

RIP and OSPF provides dynamic routing by exchanging routing information with other Layer 3 switches or routers.

DVMRP, PIM-DM Multicast Routing Protocols send IP multicast traffic from one subnet to another.

VRRP prevents your system from failing by dynamically backing up multiple L3 switches for routing.

Comprehensive QoS

8 egress queues per port enable differentiated management of up to 8 traffic types.

Traffic is prioritized according to 802.1p, DSCP, IP precedence and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video.

Bidirectional rate-limiting, per port or traffic class, preserves network bandwidth and allows full control of network resources.

Enhanced Security

IEEE 802.1X port-based access control ensures all users are authorized before being granted access to the network.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on L2/L3/L4 headers.

SSL, Web Management Encryption, RADIUS and TACACS+ protect data communication and ensure data privacy.

Simple Management

Industry standard Command Line Interface (CLI) via console port or Telnet can be used for switch management.

Embedded user friendly web interface helps users quickly and simply configure switches.

Supports four groups of RMON.

Backup and restore Firmware and configuration files via TFTP.

ES4710BD Product Specification

Features

Physical Ports

10 open slots
1 AC power supply provided, 2 open slot for power supply available
Max. number of 10 Gigabit ports: 16
Max. number of Gigabit ports: 96

Security

Supports IEEE 802.1X port-based access control
RADIUS authentication
Access Control List
SSH (v1.5/v2.0)
SSL

Performance

Backplane Capacity: 480Gbps
Switching Capacity: 320Gbps
Forwarding Rate: 238Mpps
MAC Address Table Size: 16K
VLAN Number: 4K
IP Routing Table: 64K

Management

Switch Management:
■ CLI via console port or Telnet
■ WEB management
■ SNMP v1, v2c, v3
Firmware & Configuration:
■ Dual firmware images
■ Firmware upgrade via TFTP server
■ Multiple configuration files
■ Configuration file upload/download via TFTP server
Supports RMON (groups 1, 2, 3 and 9)
Supports BOOTP, DHCP for IP address assignment
Supports SNTp
Event/Error Log/Syslog
EC View is a powerful network management software that maximizes the managed capabilities of Edge-Core devices:
■ Topology Management
■ Performance Management
■ Configuration Management
■ Event Management
■ SNMP Management

L2 Features

Auto-negotiation for port speed and duplex mode
Flow Control:
■ Provides IEEE 802.3x for full duplex mode
■ Back-Pressure flow control for half duplex mode
Spanning Tree Protocol:
■ IEEE 802.1D Spanning Tree Protocol (STP)
■ IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
■ IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
VLANs:
■ Supports 255 IEEE 802.1Q VLANs
■ Port-based VLANs
■ Private VLAN
■ GVRP
Link Aggregation:
■ Static Trunk
■ IEEE 802.3ad Link Aggregation Control Protocol
■ Load Balancing for both Unicast and Multicast
■ Trunk groups: 6, Trunk links: 2-8
IGMP Snooping:
■ IGMP v1 and v2 snooping
■ IGMP Query

Mechanical

Dimensions (H x W x D) : 797 x 436 x 478 mm (19RU)
AC Power Input:
■ 90 ~ 264VAC, 50 ~ 60Hz
■ Built-in Universal Power Supplies
■ Power Consumption: 700W (max)

L3 Features

4K IP Address entries
256 static routes
ARP
Multi-netting, Super-netting (CIDR)
RIPv1, RIPv2
OSPF
DVMRP, PIM-DM, PIM-SM
VRRP
DHCP/BootP relay, DHCP server
DNS proxy

Safety

CSA/NRTL (UL60950, CSA 22.2.No 60950-00)
TUV/GS (EN60950)
CB

Electromagnetic Compatibility

CE Mark
FCC Class A
VCCI Class A

QoS Features

Priority Queues: 8 hardware queues per port
Traffic classification based on IEEE 802.1p CoS, IP Precedence, DSCP,
TCP/UDP port number, Access Control List
Supports Marking and Re-marking
Supports WRR, SWRR and Strict scheduling
Supports MPLS
Bandwidth Control:
■ Egress rate limiting, Ingress rate limiting

Environmental Specifications

Temperature:
■ IEC 68-2-14
■ 0°C to 50°C (Standard Operating)
■ -40°C to 70°C (Non-Operating)
Humidity: 10% to 90% (Non-condensing)
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
Drop: IEC 68-2-32

Warranty

Limited lifetime warranty

Ordering Information

Optional Accessories

EM4710BD-AC
EM4710BD-Agent
EM4700BD-12GT-RJ45
EM4700BD-12GX-SFP
EM4700BD-2XG-Xenpak

ECview

Product Description

220V AC Power Supply
Layer 3 management module
12 10/100/1000Base-Tx ports module (RJ-45 interface)
12 10/100/1000Base-X ports module (SFP interface)
2 10G module (XENPAK interface)

SNMP Network Management Software



Powered by Accton

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