



## Product Highlight

### Performance

- 48 1/10GbE dual speed SFP+ ports in 1 RU
- 960 gigabit per second
- 714 million packets per second

### Robust hardware

- Redundant and hot-swappable power supply
- Out-of-band management port
- 3+1 fans

### Layer 3 features

- RIP v1/v2
- OSPF/ECMP
- IGMP v1/v2/v3
- PIM-DM/SM

### IPv6 support

- RIPng
- SPFv3
- MLD v1/v2
- PIM-DM6/SM6

### Data Center application

- FIP snooping
- CN (802.1Qau)
- ETS (802.1Qaz)
- PFC (802.1Qbb)

# A powerful Top-of-Rack Switch for Data Center and Cloud Computing LB8

## Overview

The Xenya LB8 is a high performance and low latency layer 2/3/4 Ethernet switch with 48 1/10GBase-X SFP+ ports in a compact rack unit size.

## Simplicity

The Xenya LB8 can be managed through industry standard command-line Interface (CLI) which reduces the training and operating costs. A user friendly Web GUI is provided via a standard Web browser to manage. The LB8 also supports Simple Network Management Protocol (SNMP) both from standard MIB and private MIB for network administrator to easily configure, monitor, and manage remotely. With the evolution from IPv4 to IPv6, The LB8 is a IPv6 integrated management device.

## High Availability

The Xenya LB8 is designed for high availability from both hardware and software perspective. The key features include:

- 1+1 hot-swappable power supplies
- Out-of-band management supported
- 802.1D, 802.1w, and 802.1s supported
- Up to 8 ports per link aggregation group (LACP) and - up to 64 groups
- Up to 32 paths ECMP routing for load balancing and redundancy
- Virtual Router Redundancy Protocol supported

## High-Performance L2/L3 access deployments

With the compact 1U form factor, high density 48 1G/10G SFP+ ports, front to back and/or back to front airflow design, the Xenya LB8 is ideal for top-of-rack deployments in high-performance, highly demanding data centers. The 960Gbps switching capacity and 714Mpps forwarding rate and low power consumption ensure LB8 to be a powerful solution to aggregate high-performance servers in the data center.

## Advanced IPv4 and IPv6 routing

The Xenya LB8 is a fully layer 2 and layer 3 routing switch that supports advanced IPv4 and IPv6 routing features such as RIP v1/v2, OSPF/ECMP, RIPng and OSPFv3. The multicast routing features for IGMP v1/v2/v3, DVMRP, PIM-DM/SM, MLD v1/v2 and PIM-DM6/SM6 are all supported in the LB8.

## Datacenter application

The Xenya LB8 is an IEEE DCB-based switch delivering a high-performance solution to integrate server edge access. The key features include:

- Congestion Notification (CN, 802.1Qau)
- Enhanced Transmission Selection (ETS, 802.1Qaz)
- Priority-based Flow Control (PFC, 802.1Qbb)
- FCoE Initiation Protocol (FIP) snooping

## LB8 specifications

### Physical ports

- 48 1/10GBase-X SFP+ ports
- 1 RJ-45 out-of-band management port (10/100/1000)
- 1 RJ-45 console port

### Performance

- Switching capacity: 960Gbps
- Forwarding rate: 714Mpps
- Latency: 8 microseconds
- Memory: 512MB
- Flash: 64MB
- MAC: 128K
- Packet buffer: 9MB
- Jumbo frame: 9K

### L2 features

- Auto-negotiation for port speed and duplex
- Flow control: IEEE 802.3x
- Switching mode: store-and forward
- Spanning Tree Protocol:
  - 802.1D, 802.1w, & 802.1s
  - Spanning Tree Fast Forwarding
  - Edge port
  - Loop guard
  - BPDU filter/guard
  - Auto Edge
  - TCN guard, Root guard
- VLANs
  - IEEE 802.1Q tagged based
  - Port-based (up to 4k VLANs; 3965 user configurable VLANs)
  - Private VLAN
  - GVRP/GMRP
  - 802.1v protocol VLAN
  - Voice VLAN
  - MAC-based VLAN
  - IP-subnet VLAN
  - QinQ
- VTP v1/v2
- Storm control
  - Broadcast
  - Unknown multicast
  - Unknown unicast
- IGMP snooping
  - IGMP snooping v1/v2/v3
  - IGMP v1/v2 querier
  - IGMP immediate leave
- Link Aggregation
  - 802.3ad with LACP
  - Cisco EtherChannel Like
  - Unicast/Multicast traffic balance over trunking port (dst-ip, dst-mac, src-dst-ip,src-dst-mac, src-ip, src-mac)
- Link state
- Port backup

### QoS

- Priority queues: 8 queues
- Scheduling for priority queue: WRR, Strict and hybrid (WRR+Strict)
- COS: 802.1p, IP Precedence, & DSCP
- DiffServ
- Port rate limit

### Security

- 802.1x: port-based, MAC-based, auto

VLAN assignment, guest VLAN, unauthenticated VLAN

- Static and dynamic port security (MAC-based)
  - ACL: L2/L3/L4
  - IPv6 ACL: L3/L4
  - RADIUS: authentication and accounting (up to 32 servers)
  - TACACS+: authentication (up to 5 servers)
  - HTTPS (AES 128-cbc, 3ES-cbc, Blowfish-cbc)
  - SSH v1.5/v2.0 (AES 128-cbc, 3ES-cbc, Blowfish-cbc)
  - User name and password: local authentication and remote authentication via RADIUS/TACACS+
  - Denial of Service control
  - Management IP filtering (SNMP/Web/Telnet/SSH)
- MAC filtering
- IP Source Guard
- Dynamic ARP inspection (DAI)
- DHCP snooping

### Management

- Industrial command-line interface
- CLI filtering
- Telnet/SSH
- Software download/upload: TFTP/Xmodem/FTP
- Configuration download/upload: TFTP/Xmodem/FTP
- Dual image backup supported
- SNMP v1/v2c/v3
- RMON 1, 2, 3 & 9
- BOOTP: client/relay
- DHCP: client/relay/option 82
- Event/error log: local flash and remote server via system log (RFC3164)
- DNS: client/relay
- NTP/SNTP v4&v6
- LLDP (802.1ab, Link Layer Discovery Protocol)
- CDP (Cisco Discovery Protocol) version 2
- Port mirroring: one to one & many to one
- sFlow (RFC 3176)
- IPv6 management:
  - IPv4/IPv6 Dual Stack
  - ICMPv6
  - ICMPv6 redirect
  - IPv6 Path MTU Discovery
  - IPv6 Neighbor Discovery
  - stateless auto-configuration
  - manual configuration
  - DHCPv6 (client)
  - SNMP/HTTP/SSH/Telnet over IPv6
  - IPv6 DNS resolver
  - IPv6 RADIUS/TACACS+ support
  - IPv6 Syslog support
  - IPv6 TFTP
  - IPv6 Ping

### Layer 3 features

- CIDR
- ARP (static: 128 and dynamic 3968)
- Proxy ARP
- Local proxy ARP
- IRDP
- Static route
- Unicast Routing: RIP v1/v2, OSPF
- ECMP
- Multicast Routing: IGMP v1/v2/v3, DVMRP, PIM-DM/SM
- VRRP

### IPv6 Layer 3 features

- Static route
- Unicast Routing: RIPng & OSPFv3
- Multicast Routing: MLD v1/v2, PIM-DM6/-SM6
- DHCPv6: relay & server

### Data Center features

- FIP snooping
- Congestion Notification
- Enhanced Transmission Selection
- Priority-based Flow Control

### Mechanical

- Dimension (HxWxD): 42.8x435x393.7 mm
- Weight: 7.4kg(NET)

### Environmental specifications

- Operating temperature: 0~45°C
- Operating humidity: 90% maximum relative humidity

### Electrical

- Power consumption:
  - Minimal power consumption: 135W
  - Maximum power consumption: 201W

### Safety

- UL 60950-1 (2nd Ed.)
- CSA C22.2 60950-1-07 (2nd Ed.)
- IEC 60950-1 (2005)
- EN 60950-1 (2006)

### EMC

- FCC 47CFR, Part 15 Class A
- CES-003 Class A
- EN 55022 Class A
- CISPR 22 Class A
- EN 55024
- EN 61000-3-2
- EN 61000-3-3
- EN 300 386

### Environmental

- Reduction of Hazardous Substances (RoHS) 6

### Order information

- LB8 (Front to Back)
- LB8 (Back to Front)

### Warranty

- Limited lifetime warranty