1G/10G Enterprise-Class Ethernet Switch

LY4

Product Highlight

Performance
- 16K MAC Address Table
- 1.5M Packet Buffer
- 9K Jumbo Frame

Layer 2 features
- 802.1Q/4094 active VLANs
- 802.1D/.1s/.1w
- LACP up to 8 ports per trunk

Security
- Port Security
- L2/L3/L4 ACL
- 802.1x Port-Based/MAC-Based

QoS
- 8 queues per port
- IEEE 802.1p QoS
- DSCP QoS
- TCP/UDP QoS

Management
- CLI/Web/SNMP/-Telnet
- sFlow
- IPv6

Layer 3 features
- Static route
- RIP v1/v2

Overview

The Xenya LY4 family is the new generation of layer 2 and layer 4 Ethernet standalone switches that provide the following configuration:
- 48 10/100/1000Base-T downlink plus 2 1/10GBase-X SFP+ uplink ports
- 48 10/100/1000Base-T downlink plus 4 100/1000 SFP uplink ports
- 48 10/100/1000Base-T downlink ports

Ideal for branch office access network design, the Xenya LY4 integrates advanced management and security functions for today's requirements.

Extensive Layer 2 Features

Equipped with the full Layer 2 features like Spanning Tree, Link Aggregation Control Protocol (LACP), IGMP Snooping and Port Mirroring, the Xenya LY4 provides loop-free environment, flexible throughput adjusting, best control of multicast traffic and network monitoring. Supported with 802.1Q up to 4094 active VLANs in the Xenya LY4, it secures broadcast domain as well as resource access in between each VLAN.

Enhanced Security

The port security of the Xenya LY4 restricts access switch with the proper MAC address. The Layer-2, -3, and -4 access control list feature provides advanced traffic filtering based on the source and destination MAC addresses, IP addresses, or TCP/UDP ports. 802.1x Port-Based and MAC-Based access control makes sure only authorized user before granted access. The storm control for unknown unicast, unknown multicast and broadcast packets render the network unable to transport normal traffic.

QoS, Bandwidth Control

The QoS technique specifies a priority tag for QoS disciplines to different traffic. When a switch receives the fame, it prioritizes the stream, puts into the proper queues, and forwards the packets. The Xenya LY4 supports 802.1p, DSCP, IP Precedence and TCP/UDP port number, and gives the optimal performance for real-time applications like voice and video. The 802.1Q QoS assignment can automatically inserts a tag and processes the best effort performance for the streaming.

Simplified Management

With the USB port design, the Xenya LY4 is able to automatically process the firmware upgrading procedures as soon as the USB flash is mounted. The Xenya series can be managed through industry-standard command-line interface (CLI) which reduces the training and operating costs. A user friendly Web GUI via a standard Web browser to manage. The LY4 also supports Simple Network Management Protocol (SNMP) both from standard MIB and private MIB for network administrator to easily configure, monitor, and manage remotely. sFlow provides quantifiable accuracy for network administrator to analyzes on network traffic. With the evolution from IPv4 to IPv6, the Xenya LY4 is an IPv6 integrated management device.

Data Center application

The Xenya LY4 is a high port density unit that is useful as a management device in data center server rack. LY4 can support front to back or back to front airflow for different circumstance of data center. Also, for different power requirement, LY4 can support AC and DC power.

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XENYA

LY4 specifications

Physical ports

- 48 10Base-T/100Base-TX/1000Base-T & 2 1/10G SFP+ ports (**XS50HVx**)
- 48 10Base-T/100Base-TX/1000Base-T & 4 10Base-T/100Base-TX/1000Base-T ports (**XS52GVx**)
- 48 10Base-T/100Base-TX/1000Base-T ports (**XS48GUS**)
- 1 RJ-45 out-of-band management port (10/100/1000)
- 1 RJ-45 console port
- 1 USB port

Performance

- Switching capacity: 136Gbps (XS50HVx); 104Gbps (XS52GVx); 96Gbps (XS48GUS)
- Forwarding rate: 101.2Mpps (XS50HVx); 77.4Mbps (XS52GVx); 71.4Mbps (XS48GUS)
- Memory: 512MB
- Flash: 32MB
- MAC: 16K
- Packet buffer: 1.5MB
- Jumbo frame: 9K

L2 features

- Auto-negotiation for ports speed and duplex
- Flow control: IEEE 802.3x/back pressure
- Switching mode: store-and-forward
- Spanning Tree Protocol:
  - 802.1D, 802.1w, and 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)
  - GVRP/GMR
  - 802.1v protocol VLAN
  - Voice VLAN
  - MAC-based VLAN
  - IP-subnet VLAN
  - QinQ
- VTP v1/v2
- Private VLAN
- 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)

QoS

- Queues per port: 8 queues
- QoS queue management using Weighted Round
- Robin (WRR), Strict Priority (SP) and hybrid (WRR+SP)
- COS: 802.1p, IP Precedence, and DSCP
- DiffServ
- Port rate limit

Security

- Static and dynamic port security (MAC-based)
- 802.1x: port-based, MAC-based, auto VLAN assignment, QoS assignment, guest VLAN, unauthenticated VLAN
- 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
- HTTP/HTTPS
- Software download/upload: TFTP/Xmodem/FTP
- Configuration download/upload: TFTP/Xmodem/FTP
- Dual image supported
- SNMP v1/v2c/v3
- RMON 1, 2, 3 and 9
- BOOTP: client/relay
- DHCP: client/relay/option 82 relay
- Event/error log: local flash and remote server via system log (RFC3164)
- DNS: client/relay
- SNTP
- LLDP (802.1ab, Link Layer Discovery Protocol)
- CDP (Cisco Discovery Protocol) version 2
- Port mirroring: one to one and many to one
- sFlow v5
- IPv6 management:
  - 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 SNTP
  - IPv6 TFTP

Layer 3 features

- CIDR
- ARP (static: 16 & dynamic 240)
- Static route
- Unicast Routing: RIP v1/v2

Mechanical

- Dimension (HxWxD): 43.2x440x292.1 mm
- Weight in Net: 4kg (XS50HVx); 4.1kg (XS52GVx); 3.96kg (XS48GUS)

Environmental specifications

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

Safety

- UL 60950-1, 2nd edition
- CSA C22.2 No. 60950-1-07, 2nd edition

EMC

- FCC CFR47, Part 15 B, Class A
- ICES-003: Class A

Environmental

- Reduction of Hazardous Substances (RoHS) 6

Order information

- LY4A (F-to-B; AC)
- LY4A (B-to-F; AC)
- LY4A (F-to-B; DC)
- LY4A (B-to-F; DC)
- LY4B (F-to-B; AC)
- LY4B (B-to-F; AC)
- LY4B (F-to-B; DC)
- LY4B (B-to-F; DC)
- LY4C (F-to-B; AC)