ZyXEL



Integrates Resiliency for Advanced Management of Converged Networks

Benefits

Unbeatable Performance and Scalability

Implement campus and building backbone networks supporting thousands of users

Superior System Performance

Non-blocking 384 Gbps switching capacity

Scale Port Density

- 192 Gigabit Ports per system
- High flexibility—mixed GbE copper, fiber and PoE types

Scalable Protocols

Advance OSPF scales to support larger network

High Availability & Resiliency

Less-downtime to maximize productivity

Fault-free with Automatic Recovery

- OSPF ensures rapid determination of best routes (convergence), avoid routing loops
- Rapid Spanning Tree provides Layer 2 resilience and prevent loops
- VRRP ensures hosts (PCs) have uninterrupted service from default gateway

Full Redundancy

- Dual, Load-sharing Switch Fabrics
- Power Supplies (1+1)

Full Hot-swap Capability

■ Fabric, Modules, Power, Fans

Secured Connectivity

Security from the Core to the Edge

- 4-tier security (L1~L4)
- Sophisticated Layer 2 to Layer 4 ACL (Access Control List), making security policy to be applied at LAN easily.
- 802.1x network login, unified authentication platform over wired and wireless network



- Non-Blocking 384G switching performance
- Dual active-active switching fabrics
- Hot swappable I/O modules
- Built-in OSPF, VRRP
- Up to 192 Full powered GbE PoE ports
- 16K layer 2 MAC addresses table
- 8K IP address table
- 64K routing path
- Support 2MB packet buffer



Modular Switch

MS-7206

Guarantees quality of service for different applications

- Bandwidth Guarantee with WFQ
- Policy-based QoS for different applications
- Intelligent L2-L4 ACL for traffic classification
- Fast IP multicast to the edge (DVMRP L3+ multicasting, IGMP...)
- 8 priority queues per port

Low Total Cost of Ownership

No Hidden Extra Cost

■ Easy to order Starter Kits include shelf, power supply, switch fabric, fan,48G module OSPF, VRRP

Future-Proof Architecture

Hardware architecture preserved bandwidth for the growth of tomorrow Up-to-date designs (Gigabit, PoE, 10G Ethernet)

Low Switching Cost

- Advance & completed interoperability features
- Cisco like CLI, low switching cost

Investment Protection

Supports Voice / Data multi-service network

Specifications

System Compliance

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Ethernet
- IEEE 802.ab 1000BASE-T Ethernet
- IEEE 802.3z
- IEEE 802.3x Flow control
- IEEE 802.1D Spanning tree protocol
- IEEE 802.1w Rapid Spanning tree protocol
- IEEE 802.1s Multiple Spanning tree protocol
- IEEE 802.1p Class of service, priority protocols
- IEEE 802.1Q VLAN tagging
- IEEE 802.1x Port Authentication
- IEEE 802.3ad LACP aggregation

Performance

- Max. 384 Gbps non-blocking switching fabric
- Switching Forwarding Rate 286 Mpps (1488000 pps/1000BASE-T/1000BASE-X, 148800 pps/100BASE-TX)

Traffic Management and QoS

- Rule/port-based Rate Limiting, 64 kbps granularity
- Dual-Rate-Three-Color
- CIR/PIR for bandwidth control
- Port-based egress traffic shaping
- Broadcast Storm Control
- IEEE 802.1p with 8 priority queues per port

- SPQ/WRR/WFQ scheduling algorithm
- DSCP
- DSCP to 802.1p priority mapping
- IGMP/IGMP snooping v1, v2 & v3
- MVR

IP Routing

- 64 IP routing domains
- 8 K IP address table
- Wire-speed IP forwarding
- RIP v1, v2
- Static Routing
- OSPF v2

Link Aggregation

- IEEE 802.3ad LACP link aggregation
- Up to 6 aggregation groups, 8 ports/per group randomly selected

Resilient Network

- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)

Security

- Intrusion Lock
- MAC Freeze

- MAC filtering
- Port Security
- Limited MAC number per port
- 802.1x port-based authentication
- SSH v1/v2
- SSL

Network Management

- ZyXEL iStacking™, up to 24 switches managed by single IP address
- Web-based management
- Telnet CLI
- SNMP v1, v2c
- RS-232c Local console
- static IP or DHCP client
- RMON four RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events)
- Port mirroring

Intelligent ACL (L2/L3/L4 Access List Control)

- Based on MAC address
- Based on VLAN
- Based on IP address
- Based on Protocol type
- Based on TCP/UDP type
- Based on DSCP

Hardware Specification

- · Support of auto-negotiation
- Support of auto MDI/MDI-X

Component List

- System: MS-7206
- Switch Fabric: MM-7201
- IO Module:
- MI-7248 (48 1000T)
- MI-7248PWR (48 1000T PoE)
- MI-7248TF (24 1000T + 24 SFP)
- MI-7308 (8 XFP)
- · Accessory:
- MP-7201 (600 W Power supply module)
- MP-7202 (750 W external power box for PoE)
- MF-7201 (Fan Module)

A Quick Look at MS-7206



- Dual Redundancy Power Supplies
- 2 Removable FAN
- Up to 4 external PoE power units to supply MI-7248PWR
- 4 Dual Switch Fabrics & Mgmt. slot
- 5 Four I/O Modules

MM-7201

- 192 Gbps switch fabric
- · Load sharing and non-blocking performance
- · CLI, SNMP, RMON
- Out-of-band management
- One 10/100BASE-TX management port
- Two series port: RS-232 console & Alarm console
- · System status LEDs



MI-7248

- 48-port Gigabit copper I/O module
- L2/L3/L4 local switching support
- · High density Gigabit copper aggregation



MI-7248PWR

- 48-port Gigabit copper with PoE I/O module
- L2/L3/L4 local switching support
- High density PoE aggregation at full power



MI-7248TF

- 48-port Gigabit I/O module
- 24-port 1000BASE-T + 24 SFP slots
- L2/L3/L4 local switching support
- 24 SFP slots for fiber connectivity
- High flexible design for high density environment



MP-7201

- 600 W PSU for MS-7206 system
- · Dual active/active load sharing design



MP-7202

- 750 W external PSU to provide full 48-port PoE power for a MI-7248PWR
- Isolated PoE & System power to increase system stability



Power Requirements

- Input voltage of AC: 100-240 VAC, 50/60 Hz
- Max power rating of AC: 600 Watt

Physical Specifications

- Dimensions: 435 (W) x 315.5 (D) x 447.2 (H) mm
- Weight: 15.5 Kg

Environmental Specifications

- Operating temperature: $0^{\circ}\text{C} \sim 45^{\circ}\text{C}$
- Storage temperature: 25° C ~ 70° C
- Operating humidity: 10% ~ 90%, (non-condensing)

Certification

- UL 60950-1
- CSA 60950-1
- EN 60950-1
- IEC 60950-1



