



Premium 10G Aggregation Switch Secures Non-Stop Network Services

- 24 Dual-personality Gigabit Ports
- Two Built-in 12G Stacking Interfaces
- 1 Open Slot for Optional 2 10-Gigabit Uplink Module
- L3 Advanced Routing Protocols, OSPF, VRRP
- Multilayer-aware (L2/L3/L4) ACL for Security Protection and Traffic Optimization
- Port Security and Enhanced 802.1x Port Authentication
- Backup Power System Support



24-port Managed L3
Gigabit Switch with
10G Interfaces

XGS-4528F

Benefits

Unique 24 GbE Copper and Fiber connectivity in 1U-height Design

Unlike competitors' offering of individual models for GbE copper and fiber connectivity, the leading architecture employed by XGS-4528F delivers 24 1000Base-T copper interfaces along with standard RJ-45 connectors and 24 SFP slots in a 19" 1U enclosure. This unique benefit gives network designers the highest flexibility and cost saving in terms of equipment investment, network administration and system maintenance.

Built-in Stacking Ports Eliminate Hidden Network Expansion Cost

With two high-performance 12G stacking ports on the back panel, over 10 units of XGS-4528F can be easily hard-stacked in a ring architecture; this feature makes XGS-4528F highly scalable and eases the network expansion and administration. Moreover, as the stacking ports come with every XGS-4528F unit, customers have no need to spend extra for stacking modules and stacking cables.

True Wire-speed L3 Switching for High-Performance Networks

Each XGS-4528F provides 144 Gbps switching capacity for wire-speed performance delivered on all GbE copper/fiber ports within the stack, as well as stacking ports and optional 10G uplinks. In addition, advanced L3 switching, multicasting, resiliency including OSPF, DVMRP, VRRP also help delivering optimal performance to the entire network.

Specifications

Standard Compliance

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Ethernet
- IEEE 802.ab 1000BASE-T Ethernet
- 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

- 144 Gbps non-blocking switching fabric
- Switching Forwarding Rate 100 Mpps (1488000 pps/1000BASE-T, 148800 pps/100BASE-TX)
- Wire-speed performance

MAC and Packet Buffer

- 8K MAC entries
- 768KB Packet Buffer

Traffic Management and QoS

- Rate Limiting: Rule-based/Port-based bandwidth control, 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 for different traffic types
- WFR (Weighted Fair Queue)/WRR (Weighted Round Robin)/SPQ scheduling algorithm
- DSCP/DSCP to 802.1p priority mapping
- IGMP/IGMP snooping v1 v2 v3
- MVR
- Congestion control on all ports

IP Routing and Service Features

- 64 IP routing domains
- 2K IP address table
- Wire-speed IP forwarding
- RIP v1, v2
- Static Routing
- IGMP v1, v2, v3
- DHCP Server/Relay

Link Aggregation

- IEEE 802.3ad LACP link aggregation
- Static manually port trunking
- 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)
- BPS (Backup Power System)

User Security and Authentication

- IEEE 802.1Q tag-based and port-based VLAN
- Support GVRP, automatic VLAN member registration
- 256 static VLAN, up to 4K dynamic VLAN
- Full range 4K PVID support
- Port-base VLAN & VLAN isolation
- IP Classification VLAN
- Intrusion Lock
- MAC Freeze
- MAC filtering per port secures access to each port
- Port security
- Limited MAC number per port
- IP Source Guard
- Loop Guard
- RADIUS MAC login
- IP Filtering
- TCP/UDP Socket Filtering
- BPDU transparency
- 802.1x port-based authentication
- TACACS+

Network Administration Security

- User name/password required for Web/Telnet/ local console administrators
- Two-level security by specific SNMP read/write community
- Multiple login session
- Multiple access permission management
- SSH v1/v2
- SSL/TLS

Network Management

- ZyXEL iStacking™, up to 24 switches managed by single IP address
- Web-based management
- Telnet CLI
- SNMP v1, v2c, v3

- RS-232c Local console
- IP management: static IP or DHCP client
- RMON four RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events)
- Port mirroring: Source/Destination/Both 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 Specifications

- Support of auto-negotiation
- Support of auto MDI/MDI-X
- Console: D-Sub 9 pin Female (DCE)
- Management: 1 out-of-band management RJ-45 port
- Ports: 24 GbE dual-personality (RJ-45 or SFP slot) ports + 2 12G stacking ports + 1 uplink slot for 2 10G capacity

Physical Specifications

- Dimensions: 438 (W) x 310 (D) x 44.45 (H) mm
- Weight: 7 Kg



Power Requirements

- Input voltage of AC: 100-240 VAC, 50/60 Hz
- Max power rating of AC: 80 Watts

Environmental Specifications

- Operating temperature: 0°C ~ 45°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

For more product information, visit us on the web www.ZyXEL.com



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65-100-452801G

08/07