

Product Specifications

24-Port 100/1000 Managed Layer 2+ SFP Switch Plus 4 10GbE SFP+ Ports



KEY FEATURES

- Dual speed SFP+ ports for 10 Gigabit Ethernet or Gigabit Ethernet fiber connectivity
- Dual speed SFP ports for fast Ethernet or Gigabit Ethernet fiber connectivity
- IEEE 802.3az Energy Efficient Ethernet standard supported
- IPv6 and s-Flow support
- Dual power capability supports simultaneous AC/DC switch powering
- IEEE 802.1AB Link Layer Discovery Protocol and Media Endpoint Discovery standard supported
- Supports RSTP/MSTP/STP for Ethernet redundancy
- Supports port-based VLAN and IEEE 802.1Q VLAN Tagging and GVRP
- IEEE 802.3ad Link Aggregation Control Protocol standard supported
- IP multicast filtering through IGMP snooping V1, V2 & V3
- IEEE 802.1p QoS with eight priority queues
- IPv6 and IPv4 static routing supported
- Bandwidth rate control via port-policer
- RS-232 console, Telnet, SNMP v1, v2c & v3, RMON, SSL/SSH, HTTP (web browser), and TFTP Management
- Supports command line interface in RS-232 console
- IEEE 802.1x Port-Based Network Access Control with RADIUS supported
- Per-port programmable MAC address locking
- Static secure MAC addresses supported
- Port mirroring, both inbound and outbound
- Supports Network Time Protocol (NTP)

The Signamax 24-port Managed Layer 2+ SFP Ethernet Switch provides non-blocking performance for 24 100/1000Base SFP port connections, 4 of which are shared as Dual Media 10/100/1000BaseT/TX ports, plus 4-1000Base/10GB SFP+ only ports, for a total of 28 ports. The 24 SFP slots use auto-detected SFP modules for fiber optic switch interconnection at extended distances. Both ring and star Gigabit backbone network architectures are possible with full automatic failover.

The included SNMP management package is complete and comprehensive with real time updating. It communicates with network management systems such as HP OpenView™ via SNMP for enterprise-wide status display, statistical monitoring, and switch control. Enhanced Layer 2+ features, make the Signamax 24-port Managed SFP Switch an excellent foundation for establishing or adding to a fiber-based enterprise network.

ORDERING INFORMATION

PART NO.	DESCRIPTION
065-7890FSFPDP	24-Port 100/1000Base SFP Managed Layer 2+ Switch with 4-10/100/1000BaseT/TX Dual Media Ports plus 4 1000Base/10GbE SFP+ only Ports
SFP modules sold separately. Visit our website for the complete selection	

SPECIFICATIONS

Applicable Standards

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3ab 1000BaseT
IEEE 802.3z 1000BaseSX/LX
IEEE 802.3ae 10GbE over fiber
IEEE 802.1p Priority (Quality of Service [QoS])
IEEE 802.1s Multiple Spanning Tree Protocol
IEEE 802.1w Rapid Spanning Tree Protocol
IEEE 802.1D Spanning Tree Protocol compatible
IEEE 802.1Q Tagged VLAN with GVRP
IEEE 802.3x Flow Control
IEEE 802.1x Access Control
IEEE 802.1AB LLDP /LLDP-MED
IEEE 802.3ad LACP

Ports

24 - 100/1000Base SFP ports with 4 Dual Media ports supporting RJ-45 10/100/1000BaseT/TX ports, plus 4 - 1000Base/10GbE ports with SFP+ only ports. Multicast/Broadcast/Unknown-Unicast Storm suppression enabled.

LED Status Indicators

Per Switch: Power
Per Port: Copper: Status (Link/Activity), 10/100/1000M
SFP Port: Status (Link/Activity/SPD), 100/1000M
SFP+ Port: Status (Link/Activity/SPD), 1000M/10GbE

Performance

Latency: <4.5 μ s (LIFO).
Throughput, per switch: 95.232 Mpps
Switch Fabric Speed: 128 Gbps (non-blocking, wire speed performance)
MAC Address Capacity: 32K
Jumbo Frame Support: up to 10056 bytes frame size
Port Mirroring: Inbound and Outbound, assignable to any port

Network Security

Secure Socket Layer / Secure Shell (SSL/SSH)
IEEE 802.1x access control with RADIUS and TACACS+ Management Access Policy Control (ACL):
Supports up to 512 entries. Drop or rate limitation based on:
• Source and destination MAC, VLAN ID or IP address, protocol, port,
• Differentiated services code point (DSCP) / IP precedence
• TCP/ UDP source and destination ports
• 802.1p priority
• Ethernet type
• Internet Control Message Protocol (ICMP) packets
• TCP flag

Internetworking Protocols Supported

Link Layer Discovery Protocol and Media Endpoint Discovery:
IEEE 802.1AB
Link Aggregation Control Protocol Trunking: IEEE 802.3ad; 26 trunking groups; up to 4 ports for each group.
GARP VLAN Registration Protocol / Generic Attribute Registration Protocol:
IEEE 802.1Q with GVRP/ GARP
Multicasting: Supports IP Multicast Filtering via IGMP Snooping V1, V2 & V3
Spanning Tree Protocol / Rapid Spanning Tree /Multiple Spanning Tree Protocol: IEEE 802.1d/1w/1s
Static Routing: IPv4 and IPv6 Unicast Static Routing

VLAN Capabilities

Port-based VLAN
IEEE 802.1Q Tag-based VLAN; up to 4,096 active VLANs possible
Q-in-Q VLAN supported, to efficiently enable Subscriber Aggregation
Private VLAN Edge; Voice VLAN

QoS Capabilities

Supports Layer 4 TCP/UDP port and ToS classification
Supports 802.1p QoS with eight hardware queues
Supports Strict Priority and Weighted Round Robin (WRR)
Supports priority in a Q-in-Q tag for Bandwidth Control
Classification:
•Port based
•802.1p VLAN priority based
•IPv4/IPv6 precedence / DSCP based
•Differentiated Services (DiffServ)
•Classification and re-marking ACLs
Supports bandwidth rating per port
•Ingress policer
•Egress shaping and rate control

Management

Access Methods: Console port access via RS-232C/RJ-45 local console serial port (cable included with switch), SSH/SSL, Telnet, SNMP, or HTTP.

Software Upgrade Capability: Via HTTP, TFTP in-band, Console out-of-band

SNMP v1, v2c, and v3 Network Management

RFC 1213 MIB (MIB-II)

RFC 1757 RMON MIB

RFC 1493 Bridge MIB

RFC 1643 Ethernet MIB

Enterprise MIB

Other Management:

- HTTP/HTTPS; SSH
- DHCP Client/ DHCPv6 Client
- Cable Diagnostics
- Ping
- Syslog
- Telnet Client
- IPv6 Management

Electrical Characteristics

AC Input Range: 100 - 240 V AC, 50/60 Hz internal universal power supply

DC Input: 24 - 72 V DC

Environmental Requirements

Operating Temperature: 32°F to 104°F (0°C to 40°C)

Storage Temperature: -4°F to 158°F (-20°C to 70°C)

Operating Humidity: 10 to 90% (non-condensing)

Altitude: 10,000 feet or less (3,000 meters or less)

Physical Characteristics

Dimensions: 17.4" W x 8.1" D x 1.73" H (442 mm x 211 mm x 44 mm)

Housing: Metal case. 19 in rack mounting hardware included.

Weight: 6.8 lbs (3.1 kg)

Certifications

CE

EMI: FCC; EN 55022 (CISPR 22 Class A); EN 61000-3;

EMS: EN 61000-4-2/3/4/5/6/8/11; EN 55024

Warranty

Five Years (Including power supply)