SIGNAMAX CONNECTIVITY SYSTEMS

Network Connectivity Systems

12-Port 10/100/1000 Stackable Managed PoE Switch + 2 SFP Dual Media Ports

Signamax Connectivity Systems' SNMP-managed Power over Ethernet (PoE) 10/100/1000 switch provides the capability to remotely power wireless access points, VoIP telephones, Powered Device (PD) media converters, and other devices that meet the IEEE 802.1af PoE standard. This switch provides non-blocking performance for 12 SNMP-managed 10/100/1000BaseT/TX PoE-equipped ports, two of which are 10/100/1000BaseT/TX Dual Media Gigabit Ethernet ports. The 065-7820POE switch shares the same SNMP management package as its 065-7820 counterpart. Both ring and star Gigabit backbone network architectures are possible with full automatic failover AND PoE extension to every workstation. Enhanced Layer 3 look-ahead routing features and IEEE 802.1p Quality of Service / 802.1Q Tagged VLAN / IP Type of Service support makes the Signamax 065-7820POE Power over Ethernet switch the cost-effective and feature-rich choice for a managed convergent voice and data Enterprise network.

KEY FEATURES

- PoE, To Save Power Infrastructure Costs
- 2 Dual Media Ports for Flexible Fiber Connection
- QoS Supports Layer 4 Classification
- Port Mirroring for Enhanced Network Monitoring
- 802.3ad Port Trunking for Bandwidth Aggregation
- Q-in-Q VLAN for Performance & Security
- 802.1x Access Control Improves Network Security
- 802.1D Compatible & 802.1w Rapid Spanning Tree
- Broadcast/Multicast Storm Control Broadcast/ Multicast Storm Control

ORDERING INFORMATION

Part Number	Description
065-7820POE	12-Port 10/100/1000 Managed PoE Switch + 2 SFP Dual Media Ports
065-79SXMG	1000BaseSX SFP Module – MM/LC, 2 km
065-79LXMG	1000BaseLX SFP Module – SM/LC, 10 km
065-79LXEDMG	1000BaseLX SFP Module – SM/LC, 20 km

SPECIFICATIONS

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SPECIFICATIONS

- **APPLICABLE STANDARDS**
  - IEEE 802.3 10BaseT
  - IEEE 802.3u 100BaseTX
  - IEEE 802.3ab 1000BaseT
  - IEEE 802.3z 1000BaseSX/LX
  - IEEE 802.3af Power over Ethernet (PoE)
  - IEEE 802.1p Priority (Quality of Service [QoS])
  - IEEE 802.1D/802.1w/802.1s Spanning Tree & Rapid Spanning Tree Protocols
  - IEEE 802.1Q Tagged VLAN with "Q-in-Q" support
  - IEEE 802.3x Flow Control
  - IEEE 802.3ad Link Aggregation
  - IEEE 802.1x Access Control

- **PORTS**
  - **12** - RJ-45 10/100/1000 PoE-equipped ports; ports 11 & 12 are Dual Media Gigabit Ethernet ports (RJ-45 10/100/1000 ports with corresponding Small Form-factor Pluggable [SFP] auto-detecting ports)
  - Broadcast/Multicast Storm Suppression enabled.

- **Optional Interfaces:**
  - **065-79SXMG:** 1000SX SFP fiber optic module with LC multi-mode fiber connectors.
  - **Maximum distance:** 220 meters with 62.5/125 micron fiber cabling or 550 meters with 50/125 micron fiber cabling
  - **065-79LXMG:** 1000LX SFP fiber optic module with LC singlemode fiber connectors.
  - **Maximum distance:** 10 km with 9/125 micron fiber
  - **065-79LXMGED:** 1000LX SFP with fiber optic module with LC singlemode fiber connectors.
  - **Maximum distance:** 20 km with 9/125 micron fiber

- **LED STATUS INDICATORS**
  - **Per Switch:** Power, CPU
  - **Per Port:** Link/Activity (separate for SFPs), 10/100/1000 speed for RJ-45 ports, PoE-PSE Active, PoE failure

- **PERFORMANCE**
  - **Latency:** <4.5 µs (LIFO).
  - **Throughput:** 1.48810 million pps (64-byte packets)
  - **Switch Fabric Speed:** 24.0 Gbps (non-blocking, wire speed performance)
  - **MAC Address Capacity:** 8 K MAC addresses
  - **Frame Buffer:** 208 KB, on-chip
  - **Jumbo Frame Support:** up to 9 Kbytes frame size
  - **Port Mirroring:** Inbound and Outbound, assignable to any port

- **NETWORK SECURITY**
  - IEEE 802.1x access control with RADIUS authentication
  - Management Access Policy Control (ACL)

- **INTERNETWORKING PROTOCOLS SUPPORTED**
  - **LACP (Link Aggregate Control Protocol):**
  - IEEE 802.1ad Port Trunking with 6 trunking groups; up to 6 ports for each group
  - **GVRP/GARP (GARP VLAN Registration Protocol / Generic Attribute Registration Protocol):**
  - IEEE 802.1Q with GVRP/ GARP
  - **Multicasting:**
  - Supports IGMP snooping including active and passive mode
  - IEEE 802.1Q with GVRP/ GARP
  - **STP/RSTP (Spanning Tree Protocol / Rapid Spanning Tree Protocol):**
  - IEEE 802.1d/1w/1s STP

- **MANAGEMENT**
  - **Access Methods:** Console port access via RS-232C DB-9 local console serial port, Telnet remote access, SNMP agent, and Web browser.
  - **Software Upgrade Capability:** Via Kermit/TFTP
  - **VSM (Virtual Stacking Management)**
  - Up to 16 switches can be managed via a single IP address. Can be a mix of Signamax 065-7840, 065-7726S, 065-7726SPOE, and/or 065-7820POE switches within the 16 switch Virtual Stack.

- **MANAGEMENT**
  - Virtual stacking via switch uplink channels; no extra proprietary stacking hardware required
  - Distributed stacking; no physical central wiring closet is needed
  - **SNMP v1, v2c Network Management**
  - **RFC 1213 MIB (MIB-II)**
  - Interface MIB
  - Address Translation MIB
  - IP MIB
  - ICMP MIB
  - TCP MIB
  - UDP MIB
  - SNMP MIB
  - **RFC 1757 RMON MIB**
  - Statistics Group 1
  - History Group 2
  - Alarm Group 3
  - Event Group 9
  - **RFC 1493 Bridge MIB**
  - **RFC 1643 Ethernet MIB**
  - **Enterprise MIB**

- **VLAN CAPABILITIES**
  - Port-based VLAN
  - IEEE 802.1Q Tag-based VLAN; up to 256 active VLANs possible
  - Q-in-Q VLAN supported, to efficiently enable Subscriber Aggregation

- **QoS CAPABILITIES**
  - Supports Layer 4 TCP/UDP port and ToS classification
  - Supports 802.1p QoS with two level priority queue
  - Supports priority in a Q-in-Q tag for Bandwidth Control
  - Supports bandwidth rating per port
  - Ingress and egress rate limits: 1000 Mbps in 1 Mbps increments

- **POWER OVER ETHERNET (PoE) CAPABILITIES**
  - 12 IEEE 802.3af PoE Power Source Equipment (PSE) ports
  - Endpoint with 48 Volt DC power through RJ-45 pins 1, 2, 3, and 6
  - PoE-PSE activity LED indicator
  - 185 watts of total power (up to 15.4 watts delivered to each of 12 ports)
  - Auto-detects powered devices and consumption levels
  - Supports per port power consumption monitoring
  - Supports intelligent PoE features:
  - Powered Device (PD) on/off
  - PD detection
  - power level
  - PD status
  - power feeding priority
  - Provides circuit protection, for preventing power interference between ports
  - Supports per port PoE State setting
  - Supports per port power priority setting

- **PHYSICAL CHARACTERISTICS**
  - **Dimensions:** 17.4"W x 8.3"D x 1.73"H
  - *(442mm x 210mm x 44 mm)*
  - Standard 19-in rack mounting (hardware included)
  - **Weight:** 6.3 lbs (2.9 kg)

- **ELECTRICAL CHARACTERISTICS**
  - Maximum Wattage: Maximum 185 Watts (with 12 x 15.4 Watt PoE devices connected)
  - AC Input: 100 ~ 240 VAC, 50 ~ 60 Hz internal universal power supply

- **OPERATING ENVIRONMENT**
  - Temperature: 32°F to 122°F (0°C to 50° C)
  - Relative Humidity: 5 to 90%, non-condensing

- **SAFETY**
  - FCC Part 15 Class A & CE Mark Approval

- **WARRANTY**
  - Five years, including power supply

- Optional SFP Gigabit Ethernet Modules Sold Separately

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