



## 16-Port Gigabit Ethernet PoE+ Web-Managed Switch with 2 SFP Ports

IEEE 802.3at/af Power over Ethernet (PoE+/PoE) Compliant, 374 W, Endsban, 19" Rackmount

Part No.: **561198**

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You asked for more power. We listened.

The Intellinet Network Solutions 16-Port Gigabit Ethernet PoE+ Web-Managed Switch with 2 SFP Ports (561198) is designed to pass both data and electrical power to a number of PoE-compatible devices via standard Cat5e or Cat6 network cables. Equipped with sixteen Gigabit Ethernet ports, all of which support 802.3at/af Power over Ethernet (PoE/PoE+), this switch can power Wireless LAN access points and bridges, VoIP (Voice over Internet Protocol) telephones, IP surveillance cameras and more while delivering network speeds of up to 1,000 Mbps.

### Power over Ethernet 802.3at

The Intellinet Network Solutions 16-Port Gigabit Ethernet PoE+ Web-Managed Switch with 2 SFP Ports supports the IEEE 802.3at protocol and is designed to inject up to 30 watts of power per port\*. IEEE802.3af or IEEE802.3at compliant devices attached to the switch require no additional power, thus eliminating the time and expense of electrical rewiring and minimizing the unsightly clutter caused by power supplies and adapters in awkward places such as ceilings and walls. Any mix of PoE and non-PoE devices is supported, and thanks to its short circuit, overload and high-voltage protection function, your equipment is well-protected. For devices that are not 802.3at/af compliant (legacy wireless access points or network cameras), we suggest use of an Intellinet Network Solutions PoE/PoE+ Splitter.

### Sophisticated PoE Management Features

The Intellinet Network Solutions 16-Port Gigabit Ethernet PoE+ Web-Managed Switch provides detailed, real-time information about the connected PoE devices, how much power they draw and how much power is still available. The delay-time-per-port feature reduces the power hike that usually happens at system start, and the PoE priority feature

(low, medium, high) allows you to define mission-critical ports that will continue to receive power even if the switch's power budget limit has been exceeded. Furthermore, you can define the maximum available power per port, turn PoE on and off per port and monitor the current power draw of all connected PoE devices. Finally, the Intellinet Network Solutions switch can send SNMP-traps messages to alert the administrator that the total power draw on the switch exceeds the user-defined threshold value. The Powered Device Monitor (Intellinet Network Solutions PDM) feature keeps an eye on connected PoE devices and restarts them in case they stop responding. What's more, you can also program the Intellinet Network Solutions PoE switch to restart connected PoE devices based upon a schedule, ensuring that the PoE devices remain stable and operational.

### Eliminate Bottlenecks with Gigabit Speeds

Equipped with 16 auto-sensing 10/100/1000 Mbps RJ45 Gigabit Ethernet ports, the 16-Port PoE Web-Managed Gigabit Switch (561198) offers plenty of performance for your computers, servers and other networking devices. In addition, two small form-factor pluggable GBIC module slots (SFP) provide fiber connectivity for greater distances.

### Full Layer 2+ Management Features

The switch includes full Layer 2+ Management features. The software set includes up to 4k 802.1Q VLAN and advanced protocol VLAN, and private VLAN. There are eight physical Quality of Service queues, Multicast filtering, Rapid Spanning Tree Protocol to avoid network loop, Multiple Spanning Tree Protocol (MSTP) to integrate VLAN and spanning tree, LACP, port mirroring and advanced network security features.

### Advanced Security

The Intellinet Network Solutions 16-Port PoE+ Web-Managed Gigabit Switch (561198) supports advanced security features. For secure switch management, HTTPS and SSH are provided. In addition, the login password and configuration packets are secured. Port binding allows a specific MAC address to be bound to a port, and then only that MAC has the privilege to access the network. Thanks to 802.1X port based access control, every user needs to be authorized first when they want to access the network. The Layer 2+ access control list (ACL) allows the user to define the access privilege based on IP or port number.

\* Total PoE budget for this switch is 374 watts. Per-port average power distribution is 23

watts; maximum per-port power usage cannot exceed 30 watts.

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Part No.: **561198**

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## Features:

- Provides power and data connection for up to 16 PoE network devices
- Save installation cost by delivering data and power over existing network cables
- 10/100/1000 auto-sensing ports automatically detect optimal network speeds
- Two small form-factor pluggable GBIC module slots (SFP)
- IEEE 802.3at/af-compliant RJ45 PoE/PoE+ output ports
- Power output up to 30 watts per port\*
- PoE power budget of 374 watts
- 36 Gbps switch fabric
- Supports IEEE 802.3at and IEEE 802.3af-compliant PoE devices (wireless access points, VoIP phones, IP cameras, etc.)
- Supports IEEE 802.3at/af detection and short circuit, overload and high-voltage protection
- All RJ45 ports with Auto-MDIX and NWay auto-negotiation support
- Complies with the IEEE 802.3az (Energy Efficient Ethernet EEE) specification
- PoE management functions include PoE port settings, priority, power-on delay, scheduled PoE device restart and PoE device monitoring
- The Powered Device Monitor feature (PDM) restarts any connected PoE device that fails to respond or send out network traffic
- SNMP Management and Remote Monitoring (RMON)
- SNMP V1, V2C, V3 with RMON groups 1, 2, 3 & 9
- IPv4/v6 dual protocol
- Supports VLAN (tag-based and port-based)
- Provides IEEE 802.1x port-based security
- Supports link aggregation (trunking)
- Supports bandwidth control per port
- Supports port mirroring
- Supports two types of QoS: port-based and DSCP
- Broadcast storm control with multicast packet rate settings
- 512 kBytes buffer memory
- Supports 8k MAC address entries
- Supports jumbo frames up to 9 kBytes
- Supports Rapid Spanning Tree/Spanning Tree protocol
- Store and forward switching architecture
- Full/half duplex operation
- IEEE 802.3x flow control for full duplex
- Configuration via Web browser, Telnet or SSH
- Remote Reboot/restart
- LEDs for power, link/activity and PoE
- Two high-volume cooling fans ensure perfect ventilation

- Three-Year Warranty

## Specifications:

### Standards

- IEEE 802.1d (Spanning Tree Protocol)
- IEEE 802.1p (Traffic Prioritization)
- IEEE 802.1q (VLAN Tagging)
- IEEE 802.1w (Rapid Spanning Tree Protocol)
- IEEE 802.3ad (Link Aggregation)
- IEEE 802.3 (10Base-T Ethernet)
- IEEE 802.3ab (Twisted Pair Gigabit Ethernet)
- IEEE 802.3ad (Link Aggregation Control Protocol LACP)
- IEEE 802.3az (Energy Efficient Ethernet EEE)
- IEEE 802.3af (Power over Ethernet 802.3at Type 1)
- IEEE 802.3at (Power over Ethernet 802.3at Type 2)
- IEEE 802.3u (100Base-TX Fast Ethernet)
- IEEE 802.3x (flow control, for full duplex mode)

### General

- Media support:
  - 10Base-T Cat3, 4, 5 UTP/STP RJ45
  - 100Base-TX Cat5 UTP/STP RJ45
  - 1000Base-T Cat5e UTP/STP RJ45
- Packet filter/forwarding rate:
  - 1,488,000 pps (1000 Mbps)
  - 148,800 pps (100 Mbps)
  - 14,880 pps (10 Mbps)
- MAC address table: 8k
- Buffer memory: 512 kBytes
- Backplane speed / switch fabric: 36 Gbps
- Switch architecture: store and forward
- Configuration options:
  - Port link speed: 10 Mbps, 100 Mbps, 1000 Mbps or auto-negotiation
  - PoE on/off per port
  - PoE maximum power per port
  - PoE mode per port
  - PoE port priority
  - PoE device monitor
  - Flow control on/off per port
  - VLAN
  - Rate limiting (ingress rate and egress rate)
  - Port Mirroring
  - Port Isolation
  - Port Aggregation/LACP: 8 groups
  - Broadcast Storm configuration with broadcast rate, multicast rate, and flooded unicast rate

- Quality of Service (QoS): port-based or DSCP
- Link Layer Discovery Protocol (LLDP) - Station and Media Access Control Connectivity Discovery
- Integrated ICMP Ping client sends ping requests to other network nodes
- SNMPv1/v2c/v3 (Simple Network Management Protocol)
- RMON (1,2,3 & 9 groups)
- LAN settings (IP address, Gateway, etc.)
- SSHv2
- TACAS+
- Cooling
- Number of fans: 2
- Noise level: <= 45 db/A
- Air flow: 7.44 CFM
- Certifications: FCC Class A, CE

#### LEDs

- PoE
- Power
- Link/activity

#### Power

- Input: 100 – 240 VAC, 50 – 60 Hz
- Power consumption: 410 watts (maximum)

#### Environmental

- Metal housing
- Dimensions: 440 (W) x 208 (L) x 44 (H) [mm] (17.32 (W) x 8.19 (L) x 1.73 (H) [in])
- Weight: 2.5 kg (5.5 lbs.)
- Operating temperature: 0 – 40°C (32 – 104°F)
- Operating humidity: 10 – 90% RH, non-condensing
- Storage temperature: -20 – 90°C (-4 – 194°F)

#### Package Contents

- 16-Port Gigabit Ethernet PoE+ Web-Managed Switch with 2 SFP Ports
- Quick Installation Guide
- Power cable
- User manual
- 19" rackmount brackets

