8/16/24-Port Gigabit 802.3bt PoE++ Managed Injector Hub



PLANET's newly-improved **UPOE Managed PoE++ Injector Hub series**, a high-density, rack-mountable managed and quick PoE++ solution, is designed to perfectly upgrade an existing network infrastructure to IEEE 802.3bt Power over Ethernet Plus Plus network system without replacing the existing Ethernet Switch. The UPOE Managed PoE++ Injector Hub series' management functions have been enhanced to include TLSv1.2 and TLSv1.3 protocols to improve **cybersecurity**, PLANET **NMS system**, PLANET **CloudViewer** app, PLANET **DDNS/Easy DDNS** service, and more.

A Perfect Managed PoE++ Injector Hub with Full Power Budget

The UPOE Managed PoE++ Injector Hub series, a high-density, rack-mountable managed IEEE 802.3bt PoE++ injector hub, features PLANET **intelligent PoE** functions through **web user interface** for remote management. It provides 8/16/24 10/100/1000BASE-T Ethernet ports featuring **802.3bt type-4 PoE++** injector with a total PoE budget of 400/600/800 watts. Each PoE port can deliver up to **95-watt** power over Cat.5/5e/6 Ethernet UTP cables which allow data and power to transmit simultaneously to a remote 802.3bt/at powered device (PD).

The UPOE Managed PoE++ Injector Hub series enables centralization of the power supply and optimizes the installation and power management of remote network devices, and provides a quick, safe and effective Power over Ethernet network solution for small businesses and enterprises.

Model	Per PoE Power Output	PoE Standard	Total PoE Budget
UPOE-800G	95 watts	IEEE 802.3bt PoE++ IEEE 802.3at PoE+	400 watts
UPOE-1600G			600 watts
UPOE-2400G			800 watts

802.3bt PoE++ 95-watt Power over 4-pair UTP Solution

As the UPOE Managed PoE++ Injector Hub series adopts the IEEE 802.bt PoE++ standard technology, it is capable to source up to **95 watts** of power by using all the four pairs of standard Cat5e/6 Ethernet cabling to deliver power and full-speed

Interface

- **16/32/48-port RJ45**
- 8/16/24-port 10/100/1000Mbps **"Data input"**
- 8/16/24-port 10/100/1000Mbps **"Data + Power output"**
- One 10/100/1000BASE-T management port

802.3bt Power over Ethernet

- Complies with IEEE 802.3bt Power over Ethernet Plus Plus
- Backward compatible with IEEE 802.3at Power over Ethernet Plus
- Up to 8/16/24 ports of IEEE 802.3at/IEEE 802.3bt PoE devices powered
- 8/16/24 PoE ports with built-in 802.3bt type-4 PoE 95W injector function
- All PoE ports support 802.3at end-span/mid-span PoE 36W injector function
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100 meters

PoE Management

- PoE admin-mode control
- PoE Consumption and allocation mode option
- Per port PoE function enable/disable
- Per port PoE Inline mode option (802.3BT(Factory default)/ End-span/Mid-span)
- Per port PD type option (Standard(Factory default)/Legacy/ Force)
- PoE port power feeding priority
- PD classification detection
- PoE schedule
- PD alive check

Security

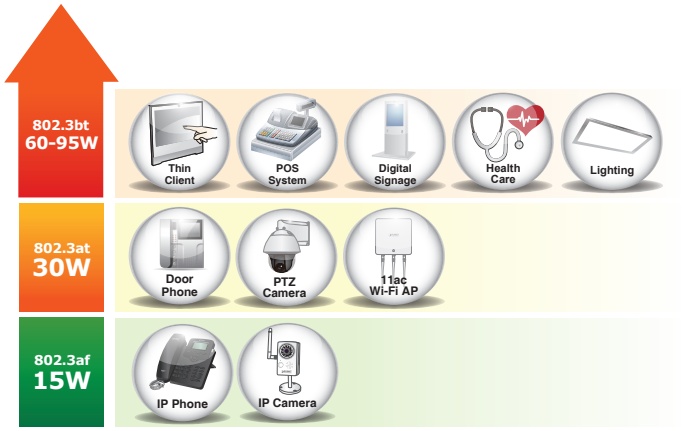
- SPI Firewall Protection
- MAC Filtering
- System CA Certificate for HTTPS

Management

- IPv4 and IPv6 dual stack management
- Web interface for remote management

data to each remote PoE compliant powered device (PD). Its power capability is three times more than that of the conventional 802.3at PoE+ and it is an ideal solution for those high power consuming network PDs, such as:

- PoE PTZ speed dome cameras
- Network devices
- Thin clients
- AIO (all-in-one) touch PCs, point of sale (POS) and information kiosks
- Remote digital signage displays
- PoE lightings



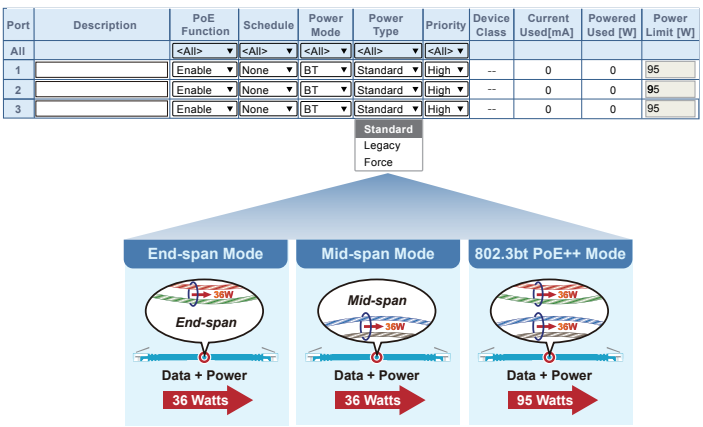
802.3bt PoE++ and Advanced PoE Power Output Mode Management

To meet the demand of various powered devices consuming stable PoE power, the UPOE Managed PoE++ Injector Hub series supports multi-PoE operation modes that include 95-watt 802.3bt type-4 PoE++ mode, and 4-pair legacy and force modes to solve the incompatibility of non-standard 4-pair PoE PDs in the field.

- **95W 802.3bt PoE++ Power Output Mode**
- **36W End-span 802.3at PoE+ Power Output Mode**
- **36W Mid-span 802.3at PoE+ Power Output Mode**

PoE Watts	PoE Operation Mode	Power Output Mode
95W	802.3bt PoE++	(Pins 1, 2, 3, 6 + Pins 4, 5, 7, 8)
36W	End-span 802.3at PoE	(Pins 1, 2, 3, 6)
36W	Mid-span 802.3at PoE	(Pins 4, 5, 7, 8)

Selectable End-span/Mid-span/802.3bt PoE++ Power Inline Mode



- PLANET DDNS and Easy DDNS
- Supports Network Time Protocol (NTP)
- System Maintenance
  - Firmware upload via HTTP
  - Configuration upload/download via HTTP
  - Reboot button for system reboot
  - Reset button for system reset to factory default
- PLANET Smart Discovery utility automatically finds PLANET devices on the network
- PLANET NMS system and CloudViewer for deployment management
- SNMP v1, v2c and v3 for system status monitoring
- SNMP trap for alarm notification of events
- System event log/remote syslog
- Scheduled System Power Rebooting
- Network Diagnostic
  - ICMPv6/ICMPv4 Remote Ping
  - Trace Route

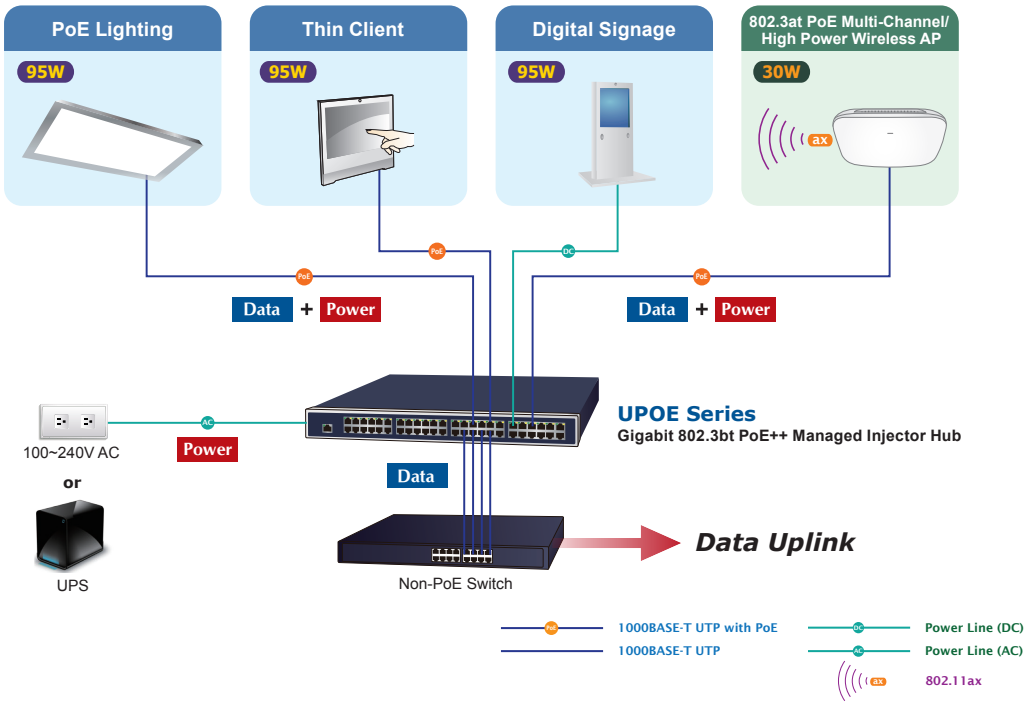
Hardware

- 19-inch rack mountable; 1U height
- Reset button for resetting to default setting and system reboot
- LED indicators for PoE ready and PoE activity
- LED indicators for power alert and fan alert
- LED indicators for PoE power usage status (watts) - UPOE-800G/UPOE-1600G only
- FCC Part 15 Class A, CE

Quick and Easy 802.3bt/at PoE Network Deployment

The UPOE Managed PoE++ Injector Hub series is installed between a regular Ethernet Switch and the PDs. There are totally 16/32/48 RJ45 STP ports on the front panel of the UPOE Managed PoE++ Injector Hub series, of which the 8/16/24 ports are on the lower stack functioned as **"Data input"** while the other 8/16/24 ports are on the upper stack functioned as **"PoE (Data and Power) output"**. Both power and data are transferred simultaneously over the UTP cables to PDs without affecting the existing network performance and functions.

With data and Power over Ethernet from one unit, the UPOE Managed PoE++ Injector Hub series can reduce power cable deployment and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place.



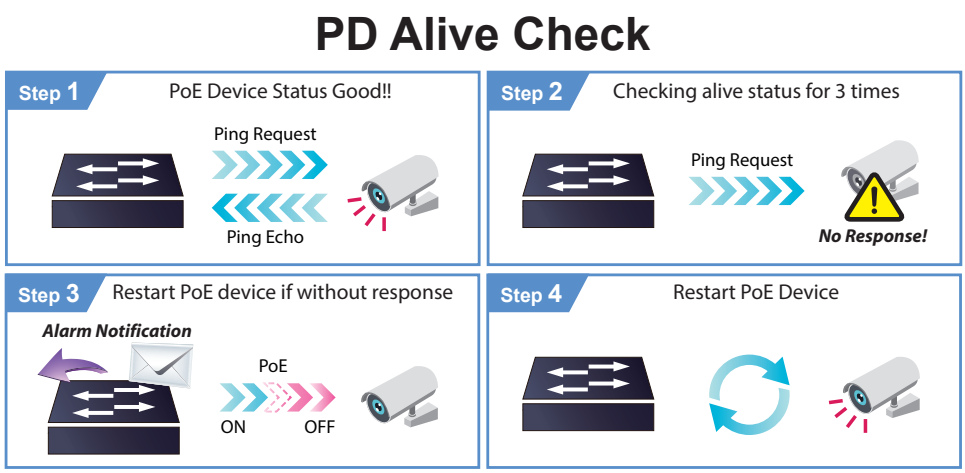
Built-in Unique PoE Functions for Powered Device Management

As it is the Managed PoE++ Injector Hub for surveillance, wireless and VoIP networks, the UPOE Managed PoE++ Injector Hub series features the following special PoE management functions:

- **PoE schedule**
- **PD alive check**
- **Scheduled power recycling**
- **PoE usage monitoring**

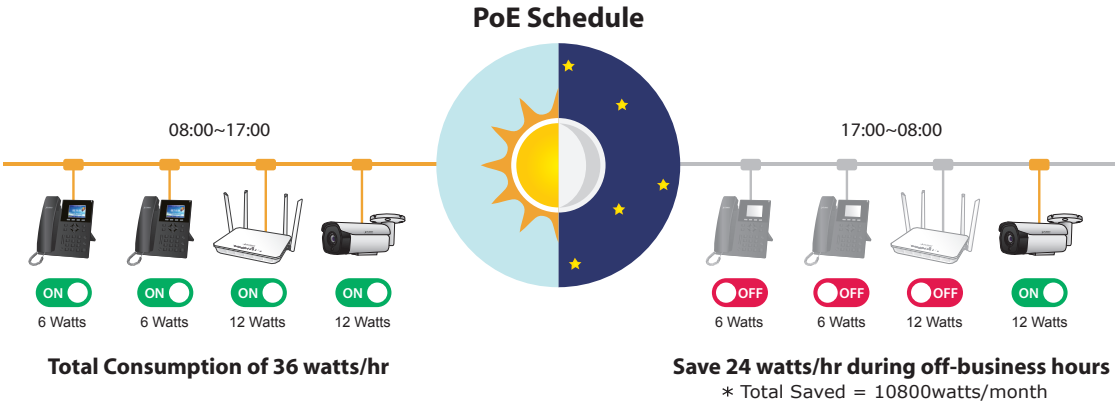
Intelligent Powered Device Alive Check

The UPOE Managed PoE++ Injector Hub series can be configured to monitor connected PD status in real time via ping action. Once the PD stops working and responding, the UPOE Managed PoE++ Injector Hub series will resume the PoE port power and bring the PD back to work. It will greatly enhance the network reliability through the PoE port resetting the PD's power source and reducing administrator management burden.



PoE Schedule for Energy Savings

Under the trend of energy savings worldwide and contributing to environmental protection on the Earth, the UPOE Managed PoE++ Injector Hub series can effectively control the power supply besides its capability of giving high watts power. The built-in “PoE schedule” function helps you to enable or disable PoE power feeding for each PoE port during specified time intervals and it is a powerful function to help SMBs or enterprises save power and money.



Scheduled Power Rebooting

The UPOE Managed PoE++ Injector Hub series can be scheduled to reboot at a specified time like every minute, every hour, every day to reduce the chance of PD device crash resulting from buffer overflow.

PoE Usage Monitoring

Via the power usage chart in the web management interface, the UPOE Managed PoE++ Injector Hub series enables the administrator to monitor the status of the power usage of the connected PDs in real time. Thus, it greatly enhances the management efficiency of the facilities.

High Power Budget for PoE Extension

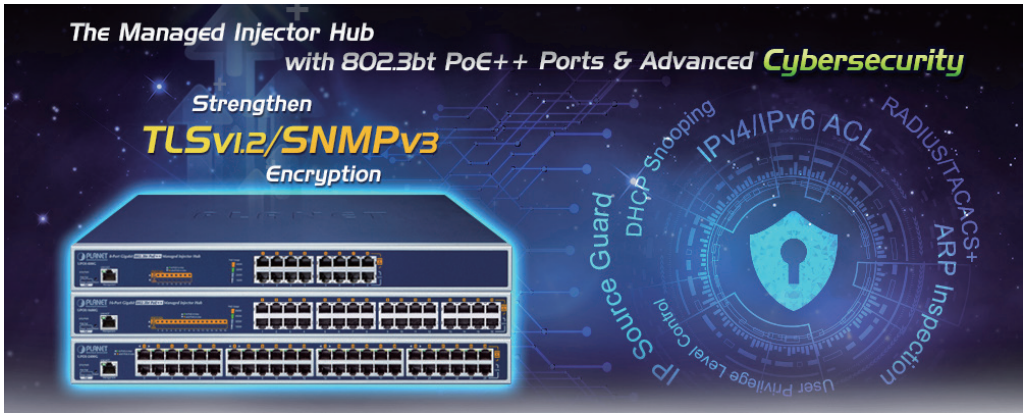
With up to 95-watt PoE output capability, the UPOE Managed PoE++ Injector Hub series can extend much longer distance by using PLANET PoE Extender for powering up the PoE PD which can be installed over more than 100 meters away. By daisy-chaining multiple PLANET 802.3bt PoE++ Extenders, it offers the great flexibility of doubling, tripling or quadrupling the distance of PoE network.

Smart Fan Design for Silent Operation

The UPOE Managed PoE++ Injector Hub series features a low noise design and an effective ventilation system. It supports the smart fan technology that automatically controls the speed of the built-in fan to reduce noise and maintain the temperature of the PoE injector hub for optimal power output capability, **with low speed and high speed smart fan status display on web interface**. The UPOE Managed PoE++ Injector Hub series is able to operate reliably, stably and quietly in any environment without affecting its performance.

Cybersecurity Network Solution to Minimize Security Risks

The cybersecurity feature included to protect the UPOE Managed PoE++ Injector Hub series management in a mission-critical network virtually needs no effort and cost to install. Both TLSv1.2 and TLSv1.3 protocols are utilized to provide strong protection against advanced threats. The network administrator can now construct highly-secure corporate networks with considerably less time and effort than before.



User-friendly Web Management Interface

To efficiently manage the PDs, the UPOE Managed PoE++ Injector Hub series provides simple **Web management interface** in which administrators can control the system and PoE functions for PDs. It can automatically detect the power status of each port and show messages on its Web management interface. These features also provide users with a cost-effective way to manage the device via Internet whenever they are at work or at home.

Remote Management Solution

PLANET's **Universal Network Management System** (UNI-NMS) and **CloudViewer app** support IT staff by remotely managing all network devices and monitoring PDs' operational statuses. Thus, they're designed for both the enterprises and industries where deployments of PDs can be as remote as possible, without having to go to the actual location once a bug or faulty condition is found. With the UNI-NMS or CloudViewer app, all kinds of businesses can now be speedily and efficiently managed from one platform.

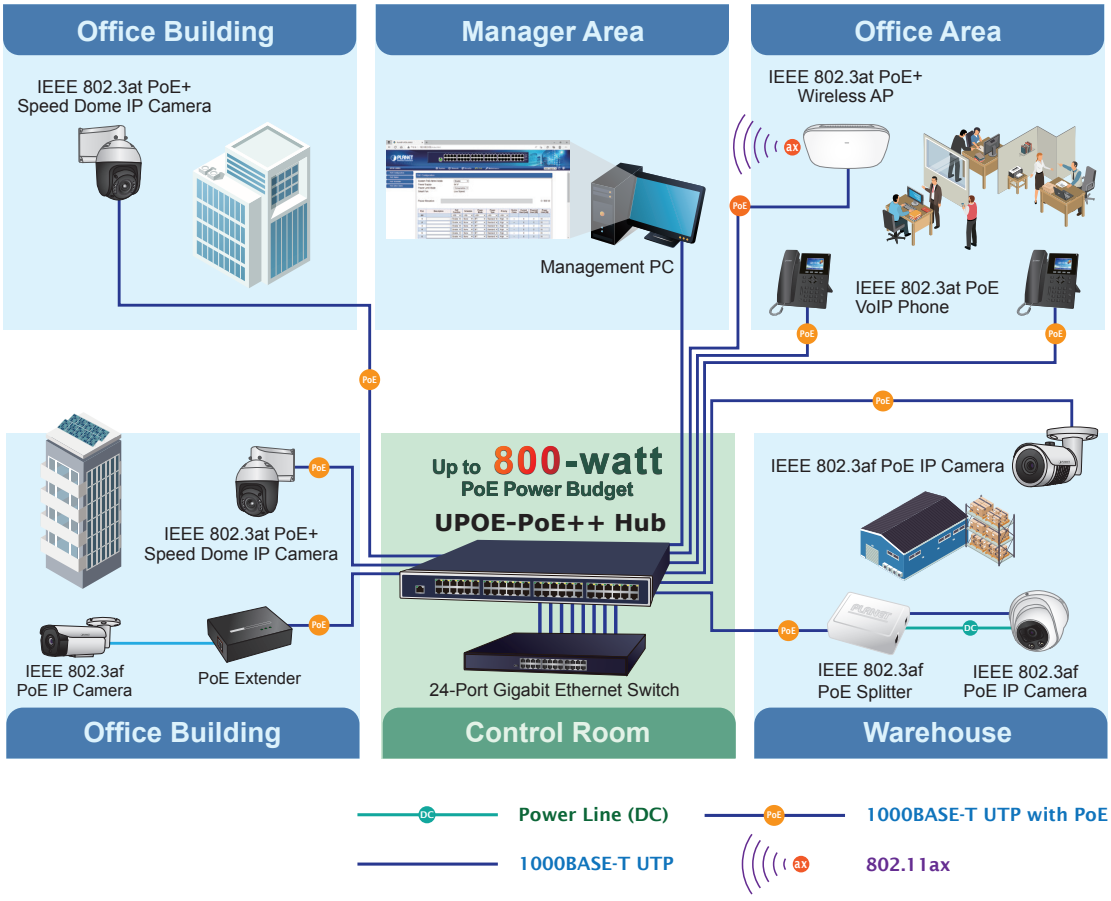


Applications

Gigabit PoE++ Network Deployment

The UPOE Managed PoE++ Injector Hub series provides the easiest way to power your Ethernet devices such as IP camera on the ceiling and the wireless access point installed on the top of the building. With 8/16/24 10/100/1000BASE-T Gigabit Ethernet ports, the UPOE Managed PoE++ Injector Hub series supports full 54V DC power for any remote IEEE 802.3at/IEEE 802.3bt powered device (PD).

To control the power system of your networking devices, the UPOE Managed PoE++ Injector Hub series can directly co-work with network devices such as PoE IP phone to build VoIP telephony network in the office. The UPOE Managed PoE++ Injector Hub series can be directly connected to any third-party IEEE 802.3bt and 802.3at PoE compliant devices installed within 100 meters. Furthermore, the UPOE Managed PoE++ Injector Hub series can extend much longer distance by using PLANET PoE Extender for powering up the PoE PD which can be installed over more than 100 meters away.



Specifications

Product		UPOE-800G	UPOE-1600G	UPOE-2400G
Hardware				
Interface	Management Port	1 x RJ45; 10/100/1000BASE-T, auto-negotiation, auto-MDI/MDIX		
	"Data" Input Ports	8 x RJ45	16 x RJ45	24 x RJ45
	"Data + Power" Output Ports	8 x RJ45	16 x RJ45	24 x RJ45
Data Rate		10/100/1000Mbps		
Power Requirements		100-240V AC, 50/60 Hz, 6.5A	100-240V AC, 50/60 Hz, 8A	100-240V AC, 50/60 Hz, 15A
Power Consumption		450 watts/1535 BTU	692 watts/2361 BTU	968 watts/3302 BTU
Ventilation		Smart Fan x 3		
Dimensions (W x D x H)		440 x 300 x 44.5mm		
Weight		4.1kg	4.8kg	5.4kg
Reset Button		< 5 sec: System reboot > 5 sec: Factory default		
LED		System: SYS PWR x 1 (**Green**) PoE Failure x 1 (**Red**) Fan Failure x 2 (**Red**) Management port x 1: LNK/ACT (**Green**), Per PoE Port: 802.3bt/UPoE PoE-in-use x 1 (**Green**) 802.3at/af PoE-in-use x1 (**Amber**)		
		PoE Power Usage LED x4 100W/200W/300W/400W:(Green)	PoE Power Usage LED x4 150W/300W/450W/600W:(Green)	-
Network Cable		10BASE-T: 4-pair UTP Cat5 up to 100m (328ft) 100BASE-TX: 4-pair UTP Cat5 up to 100m (328ft) 1000BASE-T: 4-pair UTP Cat5e/6 up to 100m (328ft) EIA/TIA- 568 100-ohm STP (100m)		
Power over Ethernet				
PoE Standard		802.3bt PoE++ PSE Backward compatible with IEEE 802.3at PoE PSE		
PoE Power Supply Mode		■ 802.3bt ■ End-span ■ Mid-span		
PoE Power Output		Per port 54V DC ■ 802.3bt mode: maximum 95 watts ■ End-span mode: maximum 36 watts ■ Mid-span mode: maximum 36 watts		
Power Pin Assignment		■ 802.3bt: 1/2(-), 3/6(+), 4/5(+), 7/8(-) ■ End-span: 1/2(-), 3/6(+) ■ Mid-span: 4/5(+), 7/8(-)		
PoE PD Type		■ Standard ■ Legacy ■ Force		
PoE Power Budget		400 watts	600 watts	800 watts
Number of 95W 802.3bt Type-4 PDs		4	6	8
Number of 60W 802.3bt Type-3 PDs		6	10	13
Number of 802.3at PDs		8	16	22
PoE Management		Power limit by consumption and classification PoE function enable/disable Per port PoE function enable/disable Per port PoE power schedule Power feeding priority PD alive check PD classification detection Current per port usage and status Total power consumption		
Security				
Firewall		SPI Firewall Protection		
Filtering		MAC Filtering		
Certificates		System CA Certificate for HTTPS		
Management Functions				
Management Interface		HTTP/HTTPs Web user interface		
Secure Management Interface		TLSv1.2, TLSv1.3		

Management Feature	IPv4 and IPv6 dual stack management Web interface for remote management PLANET DDNS and Easy DDNS Supports Network Time Protocol (NTP) System Maintenance ■ Firmware upload via HTTP ■ Configuration upload/download via HTTP ■ Reboot button for system reboot ■ Reset button for system reset to factory default PLANET Smart Discovery utility PLANET NMS system and CloudViewer for deployment management Scheduled System Power RebootingNetwork Diagnostic - ICMPv6/ICMPv4 Remote Ping - Trace Route
SNMP Management	SNMP v1, v2c and v3 for system status monitoring SNMP trap for alarm notification of events
Event Management	Local system event log Remote syslog
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt Power over Ethernet Plus Plus RFC 768: UDP RFC 791: IP RFC 2068 HTTP RFC 1157: SNMP v1 RFC 1902: SNMP v2c RFC 2273: SNMPv3 RFC 5424: Syslo
Standards Conformance	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 90% (non-condensing)
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 90% (non-condensing)

Ordering Information

UPOE-800G	8-Port Gigabit 802.3bt PoE++ Managed Injector Hub (400 watts)
UPOE-1600G	16-Port Gigabit 802.3bt PoE++ Managed Injector Hub (600 watts)
UPOE-2400G	24-Port Gigabit 802.3bt PoE++ Managed Injector Hub (800 watts)

Related Products

POE-E304	1-Port 802.3bt PoE++ to 4-Port 802.3af/at Gigabit PoE Extender
POE-171S	Single-Port 10/100/1000Mbps Ultra PoE Splitter (12V/19V/24V)
POE-172S	Single-Port 10/100/1000Mbps Ultra PoE Splitter (12V/19V/24V)
POE-173S	Single-Port 10/100/1000Mbps 802.3bt PoE++ Splitter

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