

# 24-Port Gigabit IEEE 802.3at Power over Ethernet Injector Hub



### High Power PoE for Public Service PoE Applications

The PLANET HPOE-2400G, the next generation 24-Port **Gigabit** IEEE 802.3at High Power PoE Web Management injector Hub, features both **IEEE 802.3af** and **High Power IEEE 802.3at** Power over Ethernet (PoE) that combines up to **30 Watts** power output and data per port over one CAT 5E/6 Ethernet cable. It is designed specifically to satisfy the growing demand of higher power consuming network PD (powered devices) such as **PTZ** (Pan, Tilt & Zoom) / **Speed Dome network cameras**, multi-channel (802.11a/b/g/n) wireless LAN access points and other network devices by providing double amount of PoE power than conventional 802.3af PoE PSE.

### IEEE 802.3at PoE Pre-Standard Compliant

Till today, the IEEE 802.3af Power over Ethernet Standard has become popular yet the PoE demand still grows for increasing network-powered applications. With many critical applications increases, the demand of higher power appears. Hence, the IEEE 802.3at Power over Ethernet pre-standard is defined to allow delivery of maximum up to 30 Watts input power to per PoE device. The IEEE 802.3at PoE pre-standard is an ideal solution to fulfill the high power requirements directly via the RJ-45 Port interface. Compliant with IEEE 802.3at, the HPOE-2400G possesses stronger power capability than the existing 802.3af PoE PSE.

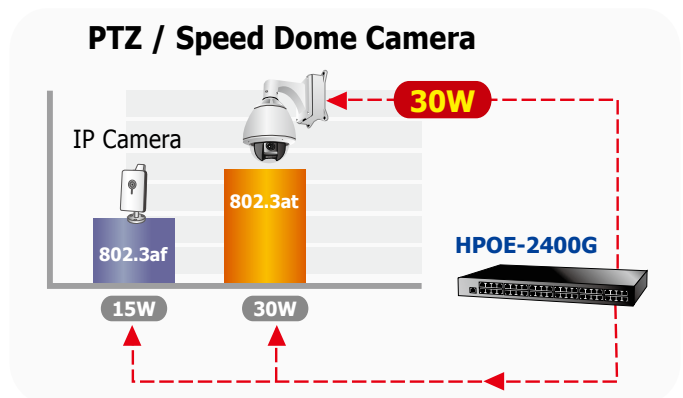


Figure: IEEE 802.3af and IEEE 802.3at PoE Power Compare

### PoE Schedule for Energy Saving

Under the trend of energy saving worldwide and contribute to environment protection on the earth, the HPOE-2400G can effectively control the power supply besides its capability of giving high watts power. The "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 SMB or Enterprise save power and money.

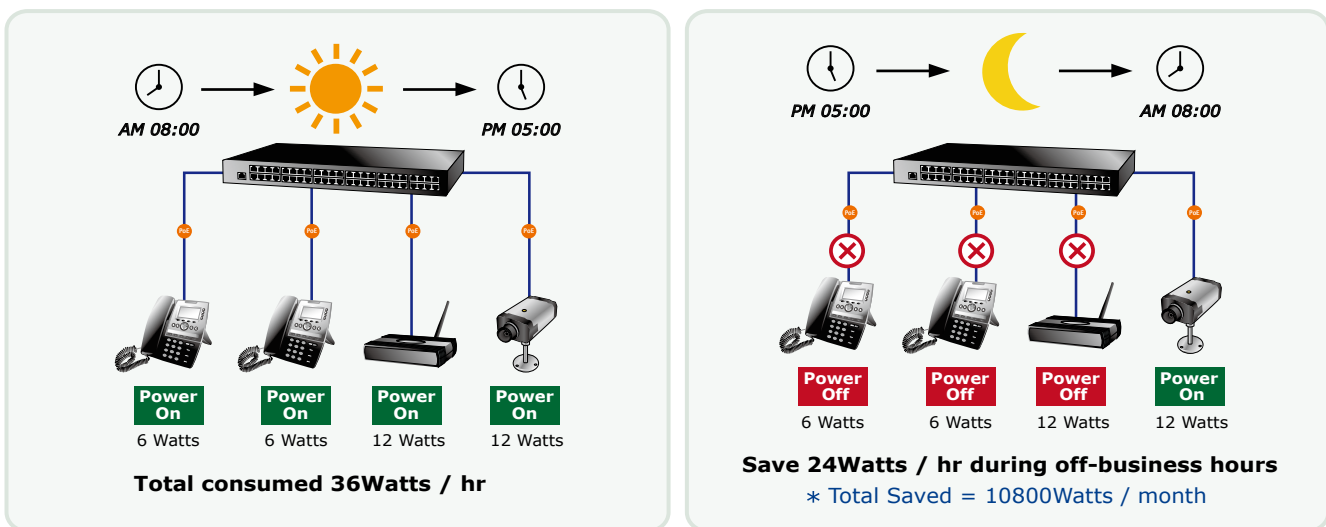


Figure: HPOE-2400G PoE Power Schedule

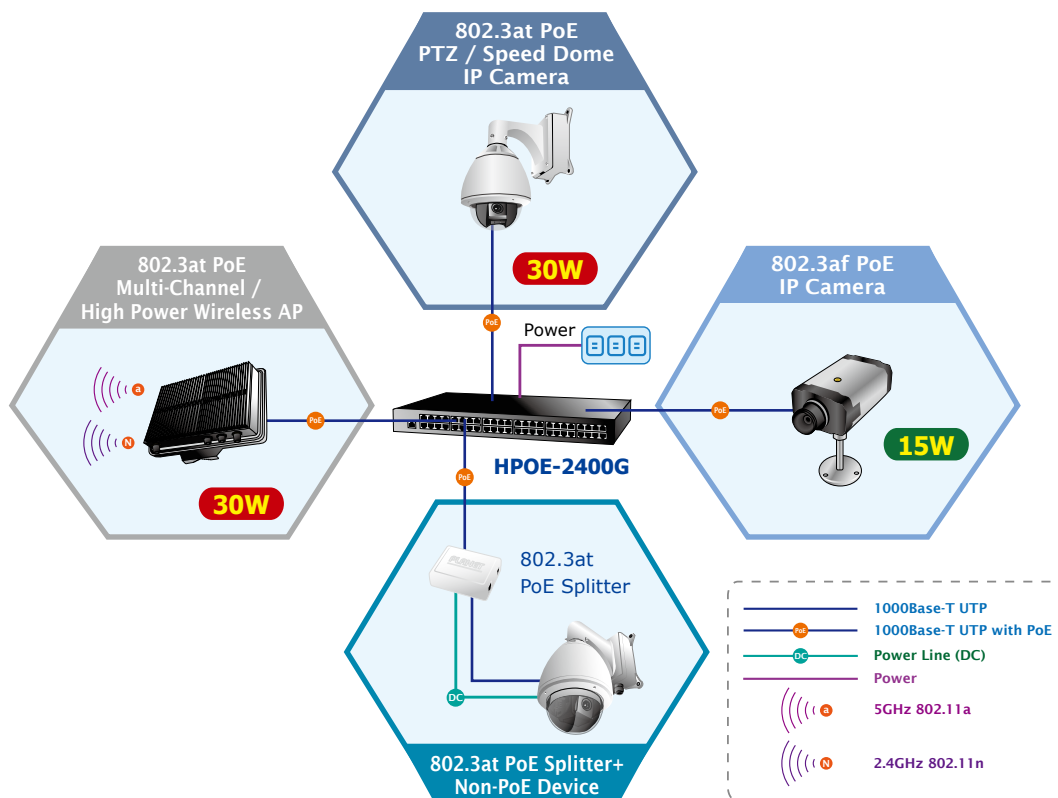
1000Base-T UTP with PoE

### Advanced Power Management

To facilitate power management, the HPOE-2400G is implemented powerful PoE management features such as over temperature protection, usage threshold alert and auto power allocate to prevent power budget overloading. The PoE power budget can be allocated by priorities or classification and sent alert event logs when power usage reaches the defined threshold. The HPOE-2400G enables centralization of the power supply and optimizes the installation and power management of remote network devices; therefore, it eliminates costs for additional AC wiring and reduces installation time.

### Quick and Easy PoE Network Deployment

The HPOE-2400G complies with IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3af standards and IEEE 802.3at pre-standard. With 24 **10/100/1000Base-T Gigabit** Ethernet ports, the HPOE-2400G supports 52V DC power for any remote 802.3af / 802.3at powered device (PD). Supports PoE power budget of **460 Watts**, the HPOE-2400G provides sufficient 15.4 / 30.8 Watts PoE power up to 24 remote PD devices.



### Easy Cabling Installation

The HPOE-2400G is installed between a regular Ethernet Switch and the powered devices; it injects power to the PDs without affecting data transmission performance. It offers a cost effective and quick solution to upgrade network system to IEEE 802.3af / IEEE 802.3at Power over Ethernet system without replacing the existing Ethernet Switch. There are 48 RJ-45 STP ports on the front panel of the **HPOE-2400G**, of which the 24 ports on the lower stack function as "**Data input**" and the other 24 ports on the upper stack function as "**PoE (Data and Power) output**". The 24 "**PoE output**" ports are also the power injectors that transmit DC Voltage to the CAT 5/5e/6 cable and transfer data and power simultaneously between the Injectors and Splitters.

### Friendly Web Management Interface

To efficiently manage the powered devices, the HPOE-2400G provides simple Web management interface in which administrators can control the functions including port Enable / Disable, port priority, system configuration, Username / Password changing and smart features for powered devices. The PoE injector Hub can automatically detect the power status of each port and show messages on its Web management interface. These features also provide users a cost-effective way to manage the device via Internet whenever they are at work or at home.

## KEY FEATURES

- **48-Port RJ-45**
  - 24 -Port 10/100/1000Mbps “**Data input**”
  - 24 -Port 10/100/1000Mbps “**Data + Power output**”
- 1-Port 10/100Base-TX Management Port
- Complies with IEEE 802.3at and IEEE 802.3af Power over Ethernet Mid-Span PSE
- Up to 24 IEEE 802.3at / 802.3af devices powered
- Supports PoE power up to 30.8 Watts (802.3at PoE) / 15.4 Watts (802.3af PoE) for each PoE port
- Automatically detect powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100 meters

## POE MANAGEMENT

- Total PoE power budget control
- Per port PoE power schedule
- PoE function enable / disable
- Per port PoE function enable / disable
- Per port 802.3at / 802.3af mode switch
- PoE port power feeding priority
- Per PoE port power limit
- PD classification detection
- Over Temperature Protection
- PoE Temperature Threshold
- PoE power Usage Threshold

## MANAGEMENT

- Web interface for remote management
- Supports Network Time Protocol (NTP)
- Firmware upgrade through Web interface
- PLANET Smart Discovery utility automatically finds PLANET devices on the network
- SNMP Trap for alarm notification of events
- System Log / Remote Syslog

## HARDWARE

- 19-inch rack mountable; 1U height
- Reset button for reset to default setting and system reboot
- LED indicators for PoE ready and PoE activity
- LED indicators for Power Alert and Fan Alert
- FCC Part 15 Class A, CE

## STANDARD COMPLIANCE

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3at pre-standard Power over Ethernet
- IEEE 802.3af Power over Ethernet
- RFC 768: UDP
- RFC 791: IP
- RFC 2068 HTTP
- RFC 1157: SNMPv1
- RFC 1902: SNMPv2c
- RFC 5424: Syslog

**APPLICATIONS**

*Gigabit PoE Network Deployment*

The HPOE-2400G 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 24 10/100/1000Base-T Gigabit Ethernet ports, the HPOE-2400G supports full 52V DC power for any remote IEEE 802.3af / 802.3at powered device (PD).

To control the power system of your networking devices, the HPOE-2400G can directly co-work with PoE IP phone to build VoIP telephony network in the office. Furthermore, the HPOE-2400G can be directly connected to any third party IEEE 802.3af / 802.3at compliant devices installed 100 meters away.



Figure: HPOE-2400G Application Topology

**SPECIFICATION**

Product	<b>24-Port Gigabit IEEE 802.3af Power over Ethernet Injector Hub</b>	
Model	HPOE-2400G	
<b>Hardware Specification</b>		
Interface	"Data" Input Ports	24 x RJ-45
	"Data+Power" Output Ports	24 x RJ-45
	Management Port	1 x RJ-45; 10/100Base-TX, auto-negotiation, auto-MDI / MDIX
Data Rate	10/100/1000Mbps	
LED	System: SYS Power x 1 (Green) Management Port x2: 10/100(Green / Orange) Per PoE Port: PoE in use x 1 (Green) PoE1 Fail x 1 PoE2 Fail x 1 FAN1 Fail x 1 FAN2 Fail x 1	
Network Cable	10Base-T: 4-Pair UTP Cat. 5 up to 100m (328ft) 100Base-TX: 4-Pair UTP Cat. 5 up to 100m (328ft) 1000Base-T: 4-Pair UTP Cat. 5e, 6, up to 100m (328ft) EIA/TIA- 568 100-ohm STP (100m)	
Dimension (W x D x H)	440 x 300 x 44 mm (1U height)	
Weight	5.08kg	
Power Requirement	100-240V AC, 50/60 Hz	
Power Consumption	490 Watts max.	
Cooling	Fan x 3	
<b>Power over Ethernet</b>		
PoE Power supply Type	Mid-Span	
PoE Power Output	Per Port DC 52V 30.8 / 15.4 Watts	
Power Pin Assignment	4/5(+), 7/8(-)	
PoE Power Budget	460 Watts	
Number of 802.3af PD Class 0, 1, 2, 3 can be powered	24	
Number of 802.3at PD Class 1, 2, 3 can be powered	24	
Number of 802.3at PD Class 0, 4 can be powered	14	
<b>Management</b>		
Management Interface	Web, PLANET Smart Discovery Lite	
PoE Management	Power Limit by Consumption, Classification and Total Limit	
	PoE Admin Mode	
	Per port Power Schedule	
	Per port Power Enable / Disable	
	Power Feeding Priority	
	Over Temperature Protection	
	Temperature Threshold	
	PoE Power Budget Usage Threshold	
Management Feature	Current per port usage and status	
	Total power consumption	
	System / Management functions setup	
<b>Standards Conformance</b>		
Standards Compliance	IEEE 802.3 10Base-T Ethernet	
	IEEE 802.3u 100Base-TX Fast Ethernet	
	IEEE 802.3ab 1000Base-T Gigabit Ethernet	
	IEEE 802.3at Power over Ethernet (Pre-standard)	
	IEEE 802.3af Power over Ethernet	
	RFC 768: UDP	
	RFC 791: IP	
	RFC 2068 HTTP	
	RFC 1157: SNMPv1	
	RFC 1902: SNMPv2c	
RFC 5424: Syslog		
Regulation Compliance	FCC Part 15 Class A, CE	

**Environment**

Operating Temperature	0 ~ 50 Degree C
Storage Temperature	-10 ~ 70 Degree C
Humidity	5 ~ 95% (Non-condensing)

**ORDERING INFORMATION**

<b>HPOE-2400G</b>	24-Port Gigabit IEEE 802.3at Power over Ethernet Injector Hub (460W)
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**RELATED POE PRODUCTS**

<b>POE-151S</b>	IEEE 802.3af Power Over Ethernet Splitter with 5VDC output (Mid-Span), (10/100Mbps)
<b>POE-152S</b>	IEEE 802.3af Power Over Ethernet Splitter with 5VDC output (End-Span), (10/100/1000Mbps)
<b>POE-161S</b>	IEEE 802.3at Gigabit High Power over Ethernet Splitter
<b>ICA-H312</b>	H.264 25-meter IR Internet Camera
<b>ICA-H610</b>	H.264 Indoor CCD Internet Camera
<b>ICA-HM136</b>	H.264 2Mega-Pixel 15M IR Vandal Proof Dome IP Camera
<b>ICA-HM230</b>	H.264 Mega-Pixel CMOS Pan/Tilt Internet Camera
<b>ICA-HM240</b>	H.264 Mega-Pixel Vandal Proof Pan/Tilt IP Camera
<b>ICA-HM830</b>	H.264 2Mega-Pixel Fish-Eye Panorama IP Camera
<b>WNAP-1120PE</b>	802.11n Wireless Access Point with PoE
<b>WNAP-3000PE</b>	54/108Mbps 802.11n Enterprise PoE Access Point
<b>VIP-255PT</b>	Multi-Language PoE IP Phone
<b>VIP-156PE</b>	802.3af PoE SIP Analog Telephone Adapter
<b>VIP-560PE</b>	Professional PoE IP Phone with Expansion Function
<b>VIP-560PT</b>	Professional PoE IP Phone