8-Port 10/100/1000T Ultra PoE + 2-Port 10/100/1000T + 2-Port 1000X SFP Gigabit Ethernet Switch with LCD PoE Monitor (380W)


Ready to Deploy Next Generation Power over Ethernet

PLANET has recently announced a complete 60W Ultra PoE Solution, such as 60W Ultra PoE Injector/Splitter, 60W Ultra PoE Extender and 60W Ultra PoE Injector Hub. One of them in the PLANET ultra PoE product series family is the GSW-1222VUP.

A new family member of PLANET 60W Ultra PoE Solution, the GSW-1222VUP is an 8-port 10/100/1000T Ultra PoE + 2-port 10/100/1000T + 2-port 1000X SFP Gigabit Ethernet Switch with a total of 380 watts of PoE budget. One special feature that this unit has is the LCD display for PoE work status monitoring. Each PoE port can deliver up to 60-watt power over Cat.5e/6 Ethernet UTP cables which allow data and power to transmit simultaneously to a remote 60W or standard 802.3at compatible powered device (PD) for different kinds of PoE applications, respectively.

The GSW-1222VUP is an ideal Plug and Watch Power over Ethernet solution which provides quick installation, real-time PoE monitoring and immediate troubleshooting through its unique LCD display to improve work efficiency and quality without any PC or software required.
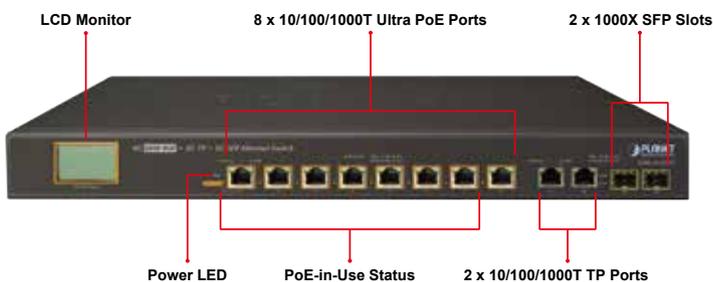
60 Watts of Power over 4-pair UTP System

The GSW-1222VUP Ultra PoE solution adopts the IEEE 802.3at PoE standard. Instead of delivering power over 2-pair twisted UTP – be it end-span (Pins 1, 2, 3 and 6) or mid-span (Pins 4, 5, 7 and 8), it provides the capability to source up to 60 watts of power by using all the four pairs of standard Cat.5e/6 Ethernet cabling. In the new 4-pair system, the GSW-1222VUP is able to deliver per port 60watts of power to each remote PoE compliant powered device.

Physical Port

- 8 10/100/1000BASE-T Gigabit Ethernet RJ45 copper ports
- 2 10/100/1000BASE-T TP ports
- 2 1000BASE-X mini-GBIC SFP interfaces

Power over Ethernet

- Ultra Power over Ethernet end-span/mid-span PSE
- Up to 60 watts of power on 4-pair UTP
- Backward compatible with IEEE 802.3at/af PD device
- Up to 8 ports of IEEE 802.3af/IEEE 802.3at/Ultra PoE devices powered
- 54V DC, 60-watt PoE power output at maximum on each port
- 380-watt PoE budget
- Auto-detection of IEEE 802.3at/af PoE equipment and device to avoid possible damage by incorrect installation
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

Hardware

- 19-inch size, 1U height, rack mounting
- LED indicators for system power, per port PoE ready and PoE activity, speed Link/Act
- LCD monitor for system status and PoE usage status display
- 3 silent smart fans designed to provide stable and efficient power performance

The amount of power capability that the GSW-1222VUP possesses doubles that of the conventional 802.3at PoE, thus making an ideal solution to meeting the growing demand for higher power consuming network PDs, such as:

■ PoE PTZ speed dome

■ Any network device that needs higher PoE power to work normally

■ Thin-client

■ AIO (all-in-one) touch PC, point of sale (POS) and information kiosks

■ Remote digital signage display
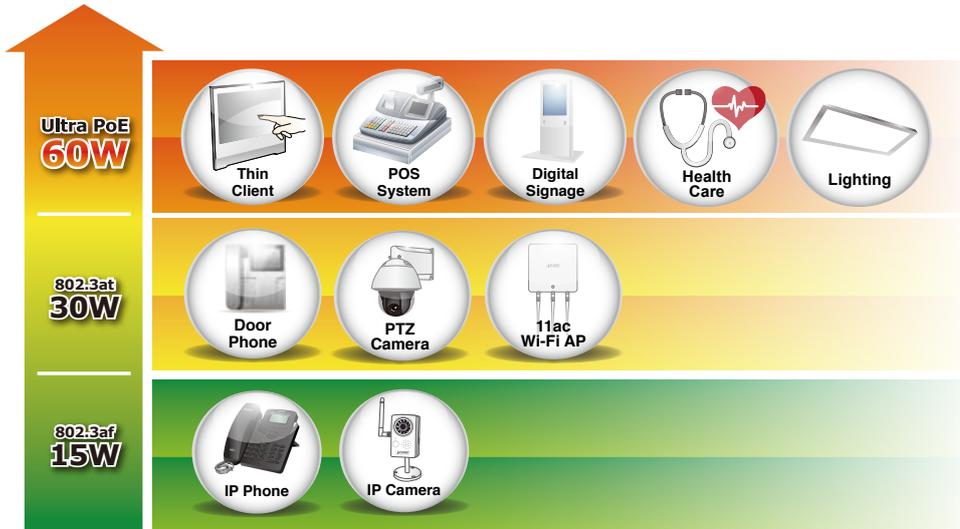
LCD Monitor for Real-time PoE Usage and System Status Display

The LCD monitor of the GSW-1222VUP clearly shows the PoE loading of each port, total PoE power usage and system status, such as overload, low voltage, over voltage and high temperature. With its brand-new LCD monitor, user is able to obtain detailed information about real-time PoE working condition of the GSW-1222VUP directly. Also the Power Budget Control function helps to prevent power budget overloading.

PoE Port Status

Power Over-voltage Protection

Power Low-voltage Protection

Power Over Temperature Protection

Flexible and Extendable Two Gigabit Uplink Solution

The GSW-1222VUP provides two extra Gigabit TP ports and two extra Gigabit SFP interfaces. The two Gigabit TP ports support 10/100/1000BASE-T RJ45 copper for surveillance network devices such as NVR, video streaming server and NAS to facilitate surveillance management. Or through two Gigabit speed fiber SFP slots, the 1000BASE-SX/LX SFP (Small Form-factor Pluggable) fiber transceiver is inserted to be uplinked to a backbone switch and monitoring center over a long distance. The distance can be extended from 550m to 2km (multi-mode fiber), or even going up to 10/20/30/40/50/60/70/120km (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

Smart Fan Design for Silent Operation

The GSW-1222VUP features a low noise design and an effective ventilation system. It supports the smart fan technology that automatically activates 3 fans once the PoE budget reaches 126 watts and maintains the temperature of the GSW-1222VUP for optimal power output capability. The GSW-1222VUP is able to operate reliably, stably and quietly in any environment without affecting its performance.

Robust Protection

The GSW-1222VUP provides contact discharge of ±4KV DC and air discharge of ±6KV DC for Ethernet ESD protection. It also supports ±4KV surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Quick and Easy PoE Network Deployment

As data transfer and high power PoE are transmitted over a cable, the GSW-1222VUP is able to reduce the need of extended cables and electrical outlets on the wall, ceiling or any unreachable place. It helps to lower the installation costs and simplify the installation effort. All RJ45 copper interfaces of the GSW-1222VUP support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ45 Category 6 or 5e cable. It also supports standard auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight-through or crossover cables.
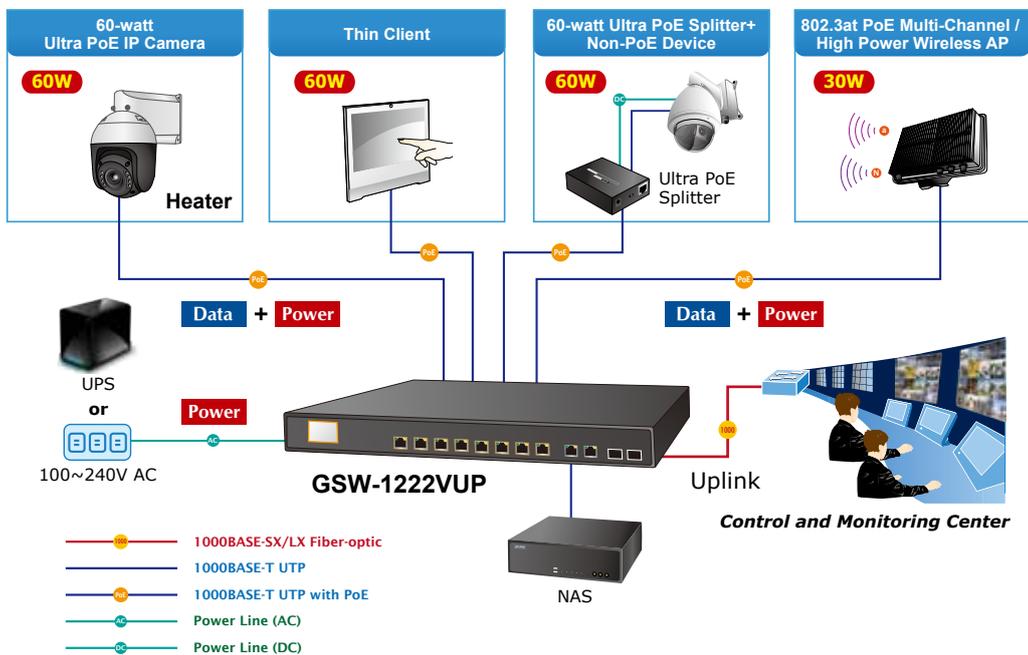
Applications

Ultra PoE Injector and Ultra PoE Splitter Solutions

PLANET GSW-1222VUP can easily build an Ultra PoE networking solution on the cyber security system for the enterprises. For instance, it can work with the POS system and thin client to perform comprehensive security protection for today's businesses. The GSW-1222VUP and POE-171S Ultra PoE Splitter operate as a pair to provide the easiest way to power your Ethernet devices which need high power input.
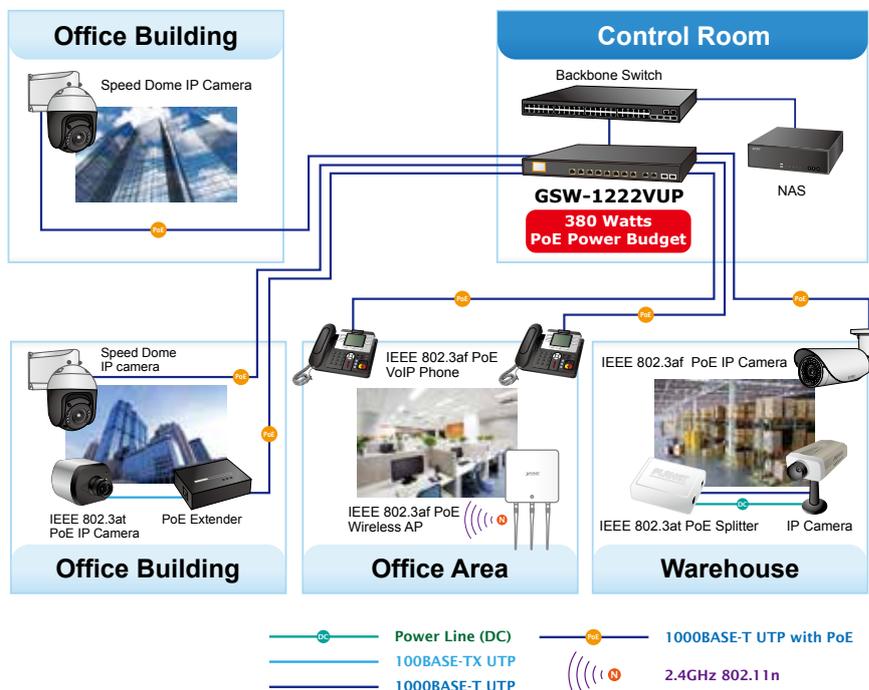
Each PoE port of the GSW-1222VUP can deliver up to 60-watt power to enable to transmit both data and power to POE-171S. The POE-171S will then separate digital data and power into three optional outputs (12V, 19V or 24V DC) to non-PoE devices such as laptops, Thin Client, POS System, PTZ (Pan, Tilt & Zoom) network cameras, PTZ speed dome, color touch-screen IP phones, multi-channel wireless LAN access points and other network devices at distance up to 100 meters.
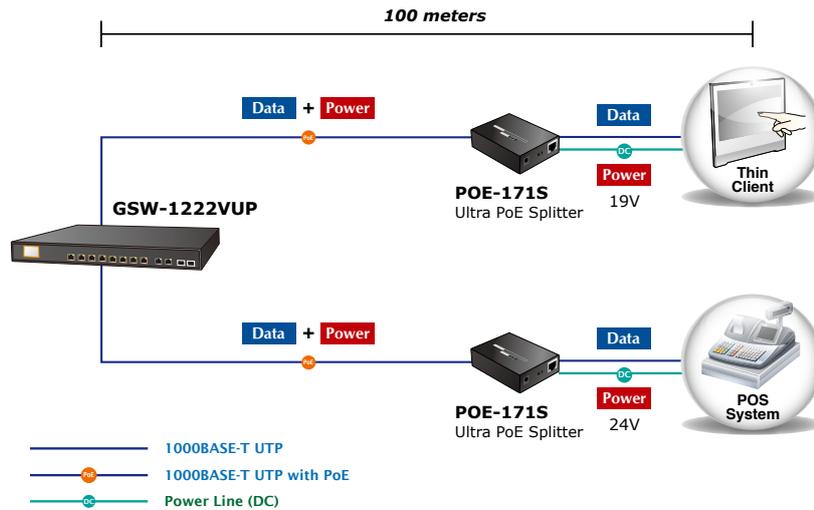
Gigabit Ultra PoE and PoE+ Network Deployment

The GSW-1222VUP conveniently supplies power to your Ethernet devices such as IP camera on the ceiling and wireless access point installed on the top of the building. With eight 10/100/1000T Ultra PoE in-line power interfaces, the GSW-1222VUP supports full 54V DC power for any remote 60W and IEEE 802.3af/IEEE 802.3at powered device (PD).

To control the power system of your networking devices, the GSW-1222VUP can directly co-work with network devices such as PoE IP phone to build VoIP telephony network in the office. The GSW-1222VUP can be directly connected to any third-party IEEE 802.3af/802.3at compliant devices installed within 100 meters. Furthermore, the GSW-1222VUP 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

Model	GSW-1222VUP
Hardware Specifications	
PoE Copper Ports	10 x 10/100/1000BASE-T RJ45 auto-MDI/MDI-X port
SFP/mini-GBIC Slots	2 x 1000BASE-X SFP interface
PoE Injector Ports	8 ports with Ultra PoE/802.3at/af PoE injector function with Port-1 to Port-8
Switch Architecture	Store-and-Forward
Switch Fabric	24Gbps/non-blocking
Switch Throughput@64 bytes	17.8 mpps@64 bytes
MAC Address Table	8K entries
Jumbo Packet Size	10K bytes
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
LED	**System:** Power (Green) **Ultra PoE 10/100/1000BASE-T RJ45 Interfaces (port 1 to port 8):** 1000Mbps LNK/ACT (Green) 10/100Mbps LNK/ACT (Orange) PoE-in-Use (Orange) **10/100/1000BASE-T RJ45 Interfaces (port 9 to port 10):** 1000Mbps LNK/ACT (Green) 10/100Mbps LNK/ACT (Orange) **1000BASE-X SFP Interfaces (port 11 to port 12):** 1000Mbps LNK/ACT (Green)
LCD Monitor (W x D)	39.5mm x 24.8mm System status and PoE usage port status
Dimensions (W x D x H)	440 x 233 x 44 mm, 1U height
Enclosure	metal
Weight	3.3kg
Power Requirements	100~240V AC, 50/60Hz, 6A max.
Power Consumption/Dissipation	Max. 420 watts/1433 BTU
Ventilation	Smart fan x 3 (Fans will activate once the PoE budget reaches 126 watts)
ESD Protection	Contact discharge of ±4KV DC Air discharge of ±6KV DC
Surge Immunity	±4KV
Power over Ethernet	
PoE Standard	IEEE 802.3af/802.3at/Ultra PoE PSE
PoE Power Supply Type	End-span + Mid-span
PoE Power Output	Per port 54VDC, 600mA. max. 60 watts (Ultra PoE) Per port 54V DC, 600mA. max. 30 watts (IEEE 802.3at) Per port 54V DC, 300mA. max. 15.4 watts (IEEE 802.3af)
Power Pin Assignment	Ultra PoE: 1/2 (+), 3/6 (-), 4/5 (+), 7/8 (-) End-span: 1/2 (+), 3/6 (-) Mid-span: 4/5 (+), 7/8 (-)
PoE Power Budget	380 watts (max.)
PoE Ability PD @ 15 watts	8 units
PoE Ability PD @ 30 watts	8 units
PoE Ability PD @ 60 watts	6 units
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3z Gigabit SX/LX IEEE 802.3x Flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
Environment	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

Ordering Information

GSW-1222VUP	8-port 10/100/1000T Ultra PoE + 2-port 10/100/1000T + 2-port 1000X SFP Gigabit Ethernet Switch (380 watts)

Related PoE Products

GS-4210-24UP4C	24-port 10/100/1000T Ultra PoE + 4-port Gigabit TP/SFP Combo Managed Switch (600W)
GS-4210-16UP4C	16-port 10/100/1000T Ultra PoE + 4-port Gigabit TP/SFP Combo Managed Switch (400W)
UPOE-800G	8-port Gigabit 60W Ultra PoE Managed Injector Hub (400 watts)
UPOE-1600G	16-port Gigabit 60W Ultra PoE Managed Injector Hub (600 watts)
POE-171	Single-port 10/100/1000Mbps Ultra PoE Injector (60 watts, external power supply)
POE-172	Single-port 10/100/1000Mbps Ultra PoE Injector (60 watts, internal power supply)
POE-173	Single-port 10/100/1000Mbps Ultra PoE Injector (60 watts, internal power supply)
IPOE-E174	1-port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender
POE-171S	Single-port 10/100/1000Mbps Ultra PoE Splitter (12V/19V/24V)
POE-E201	IEEE 802.3at Power over Ethernet Extender
ICA-2250VT	Industrial PoE Plus Outdoor IR IP Camera
ICA-2500	5 Mega-pixel PoE Box IP Camera
ICA-3250V	Full HD Outdoor IR PoE IP Camera
ICA-HM351	2 Mega-pixel 35M IR Outdoor Box PoE IP Camera
ICA-E3550V	5 Mega-pixel Bullet IR PoE IP Camera
ICA-E5550V	5 Mega-pixel Vandalproof IR PoE IP Camera
ICA-E6260	2 Mega-pixel PoE Plus Speed Dome IP Camera with Extended Support
ICA-E6265	2 Mega-pixel IR PoE Plus Speed Dome IP Camera with Extended Support

SFP Gigabit Modules are available for the GSW-1222VUP

Gigabit Ethernet Transceiver (1000BASE-X SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (nm)	Operating Temp.
MGB-GT	1000	Copper	--	100m	--	0 ~ 60℃
MGB-SX	1000	LC	Multi Mode	550m	850nm	0 ~ 60℃
MGB-SX2	1000	LC	Multi Mode	2km	1310nm	0 ~ 60℃
MGB-LX	1000	LC	Single Mode	10km	1310nm	0 ~ 60℃
MGB-L30	1000	LC	Single Mode	30km	1310nm	0 ~ 60℃
MGB-L50	1000	LC	Single Mode	50km	1550nm	0 ~ 60℃
MGB-L70	1000	LC	Single Mode	70km	1550nm	0 ~ 60℃
MGB-L120	1000	LC	Single Mode	120km	1550nm	0 ~ 60℃
MGB-TSX	1000	LC	Multi Mode	550m	850nm	-40 ~ 75℃
MGB-TLX	1000	LC	Single Mode	10km	1310nm	-40 ~ 75℃
MGB-TL30	1000	LC	Single Mode	30km	1310nm	-40 ~ 75℃
MGB-TL70	1000	LC	Single Mode	70km	1550nm	-40 ~ 75℃

Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

Model	Speed (Mbps)	Connector Interface	Fiber Mode	Distance	Wavelength (TX)	Wavelength (RX)	Operating Temp.
MGB-LA10 MGB-LB10	1000	WDM (LC)	Single Mode	10km	1310nm	1550nm	0 ~ 60℃
	1000	WDM (LC)	Single Mode	10km	1550nm	1310nm	0 ~ 60℃
MGB-LA20 MGB-LB20	1000	WDM (LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60℃
	1000	WDM (LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60℃
MGB-LA40 MGB-LB40	1000	WDM (LC)	Single Mode	40km	1310nm	1550nm	0 ~ 60℃
	1000	WDM (LC)	Single Mode	40km	1550nm	1310nm	0 ~ 60℃
MGB-LA60 MGB-LB60	1000	WDM (LC)	Single Mode	60km	1310nm	1550nm	0 ~ 60℃
	1000	WDM (LC)	Single Mode	60km	1550nm	1310nm	0 ~ 60℃
MGB-TLA10 MGB-TLB10	1000	WDM (LC)	Single Mode	10km	1310nm	1550nm	-40 ~ 75℃
	1000	WDM (LC)	Single Mode	10km	1550nm	1310nm	-40 ~ 75℃
MGB-TLA20 MGB-TLB20	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 75℃
	1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 75℃
MGB-TLA40 MGB-TLB40	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 75℃
	1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 75℃
MGB-TLA60 MGB-TLB60	1000	WDM(LC)	Single Mode	60km	1310nm	1550nm	-40 ~ 75℃
	1000	WDM(LC)	Single Mode	60km	1550nm	1310nm	-40 ~ 75℃

GSW-1222VUP