

16-Port 10/100TX 802.3at PoE + 2-Port Gigabit TP + 2-Port SFP Ethernet Switch with LCD PoE Monitor

FGSW-1822VHP



Presentation Outlines

- ◆ Product Positioning
- ◆ Product Features
- ◆ Product Overview
- ◆ Applications
- ◆ Product Benefits
- ◆ Appendix

Perfect PoE+ Solution with **New-generation** Screen

PSE Port Priority

Port	Priority
01	Critical
	High
	Low

Current Setting: Low
<Up>/<Down>:Select
<Enter>:Confirm <Back>:Return

Switch Mode

Options:

Standard	<
VLAN	
Extend	>

Current Setting: Standard
<Down>:Select
>:Confirm <Back>:Return

Switch Port Information

01	---	W	---	M	---	M	08	---	W	---	M	---	M
02	---	W	---	M	---	M	09	---	W	---	M	---	M
03	---	W	---	M	---	M	10	---	W	---	M	---	M
04	---	W	---	M	---	M	11	---	W	---	M	---	M
05	---	W	---	M	---	M	12	---	W	---	M	---	M
06	---	W	---	M	---	M	13	---	W	---	M	---	M
07	---	W	---	M	---	M	14	---	W	---	M	---	M

PB:300W TP:0W PD:0

Main Menu

02	-	Budget Control
03	-	PSE Port Priority
04	-	PSE Port Enable
05	-	PO Type
06	-	Alive Check
07	-	Bandwidth
08	-	Fan Control

Smart
LCD

UTP Extend
250M

Port VLAN

300W
PoE Budget



Product Positioning



PLANET LCD Switch

Gigabit

Fast Ethernet



GWS-1222VHP
 - 8G 60W PoE+
 - 2G TP/SFP
 - 380W Budget



GSD-1002VHP
 - 8G PoE+
 - 2G TP
 - 120W Budget



FGSD-1022VHP
 - 8 FE PoE+
 - 2G TP/SFP Combo
 - 120W Budget
 - DIP Switch



GSW-1820VHP
 - Color LCD
 - 16G PoE+
 - 2G SFP
 - 300W Budget



GSW-2620VHP
 - Color LCD
 - 24G PoE+
 - 2G SFP
 - 300W Budget



FGSW-1822VHP
 - Color LCD
 - 16 FE PoE+
 - 2G TP/SFP
 - 300W Budget



FGSW-2622VHP
 - Color LCD
 - 24 FE PoE+
 - 2G TP/SFP
 - 300W Budget



GS-5220-16UP2XV(R)
GS-5220-24UP4XV(R)
 - Color LCD
 - 16G/24G 60W PoE+
 - 2/4 10G SFP
 - 400W Budget



GS-5220-24UPL4XV(R)
 - Color LCD
 - 24G 60W PoE+
 - 4 10G SFP
 - 600W Budget



WGS-5225-8P2SV
 - Color LCD
 - 8G PoE+
 - 2G SFP
 - 240W Budget



GS-5220-16P2XV(R)
GS-5220-24P4XV(R)
 - Color LCD
 - 16G/24G PoE+
 - 2/4 10G SFP
 - 220/400W Budget





GS-5220-24PL4XV(R)
 - Color LCD
 - 24G PoE+
 - 4 10G SFP
 - 600W Budget

Unmanaged

LCD Management

Touch LCD + Web Management

Quick Product Review – Smart LCD PoE Switch I/II

	GSW / FGSW Series II	GSW / FGSW Series I
Product Outlook		
LCD	2-inch color LCD with smart management	2-inch graphic LCD
Uplink Port	2-port 1G SFP (GSW) 2-port 1G TP/SFP (FGSW)	2-port 1G SFP (GSW) 2-port 1G TP/SFP Combo (FGSW)
DIP Switch (VLAN/Extend)	(Built-in to LCD)	■
ESD Protection	Contact discharge of ±6KV DC Air discharge of ±8KV DC	Contact discharge of ±4KV DC Air discharge of ±6KV DC
LCD Smart Management	PoE status, PoE budget control , PSE port priority , PSE port enable , alive check , bandwidth detection , fan control , factory default	PoE status

Quick Product Review – LCD Management I/II



PoE & Port information											
Switch Port Information											
01	30.3W	---	M	---	M	08	---	W	877M	---	M
02	ULP	---	M	---	M	09	---	W	---	M	867M
03	OLP	---	M	---	M	10	---	W	---	M	---
04	SCP	---	M	---	M	11	---	W	---	M	---
05	---	---	W	---	M	12	---	W	---	M	---
06	---	---	W	---	M	13	---	W	---	M	---
07	---	---	W	---	M	14	---	W	---	M	---
PB: 300W				TP: 0W				PD: 0			

Main Menu	
Main Menu	
01	Switch Mode
02	Budget Control
03	PSE Port Priority
04	PSE Port Enable
05	PD Type
06	Alive Check
07	Bandwidth
08	Fan Control

Alive Check		
Alive Check		
Port	Status	
01	Disable	
Startup	Interval	PowerOff
180	180	5
<UP>/<Down>:Select		
<Enter>:Confirm <Back>:Return		

Switch Mode	
Switch Mode	
Options:	
Standard <	
VLAN	
Extend	
Current Setting: Standard	
<UP>/<Down>:Select	
<Enter>:Confirm <Back>:Return	

P01: 12.2W	P07: 18.4W
P02: 8.4W	P08: 20.5W
P03: ULP	P09: 15.5W
P04: OLP	P10: ----
P05: OLP	P11: ----
P06: OLP	P12: SCP
PB: 300W	TP: 140W-10

GSW / FGSW Series II

GSW / FGSW Series I

Product Overview



Product Overview

◆ Front Panel

- ✓ **LCD Monitor** for system status and PoE management
- ✓ **5 manual buttons** for LCD management (**Up/Down/Manual/Enter/Back**)
- ✓ **LED Indication** for **system power, per port PoE-in-use, speed, LNK/ACT**
- ✓ **16-port 10/100BASE-TX 802.3at PoE+**, auto-MDI/MDI-X, auto negotiation
- ✓ **2-port Gigabit TP and 2-port SFP**



Product Overview

◆ Rear Panel – Interface

✓ Power jack

- **100~240V AC**, universal power socket
- Earth grounding



Product Benefits



Product Benefits

◆ As required by customers

Provides **16/24**
802.3at PoE+
interfaces

Works with **16-/32-**
channel NVR via
two Gigabit TP/SFP
interfaces



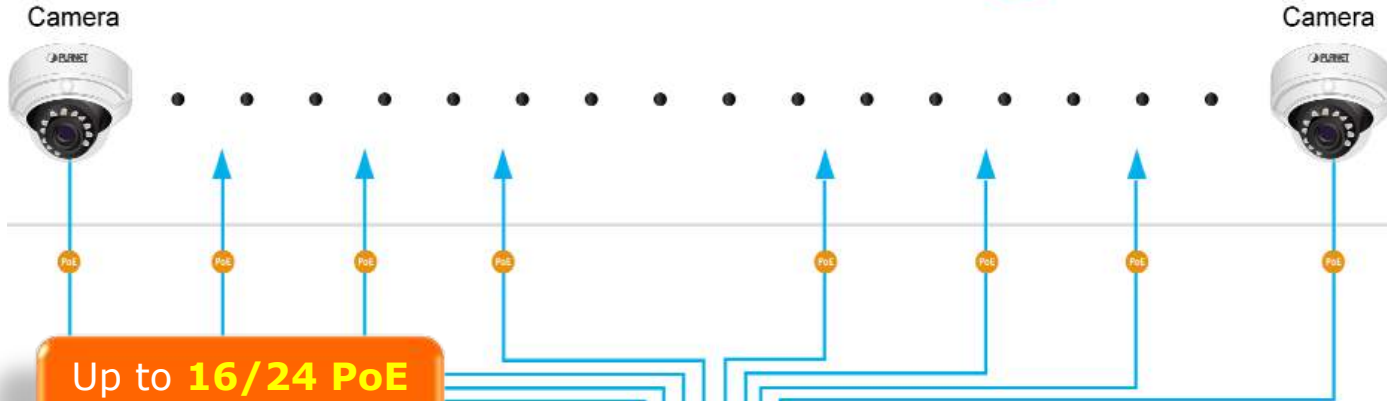
LCD Management
PoE and Sys

FGSW-1822VHP
FGSW-2622VHP

er Flexibility
Effectiveness
Management

Product Benefits

Up to 24 PoE IP Cameras



Up to **16/24 PoE**
Cameras



One Gigabit Port
for **NVR** connection

One Gigabit Port
for **Uplink**

8-/16-/32-ch NVR



Router



Internet

LCD Monitor for PoE Management

Switch Port Information			
01	---	M	---
02	---	M	---
03	---	M	---
04	---	M	---
05	---	M	---
06	---	M	---
07	---	M	---
PB: 300W TP: 0W PD: 0			



Product Benefits

- ◆ Why 16/24 PoE Ports w/2 Gigabit uplink?

Designed for IP Surveillance

NVR

4-/8-/16-/32-channel
Video Recording

CMS

4-/8-/16-/32-/64-channel
Central Management Software

Make it a part of the IP Surveillance Kit



**FGSW-1822VHP/
FGSW-2622VHP 16-/24-
port PoE Switch**



8-/16-/32-ch NVR

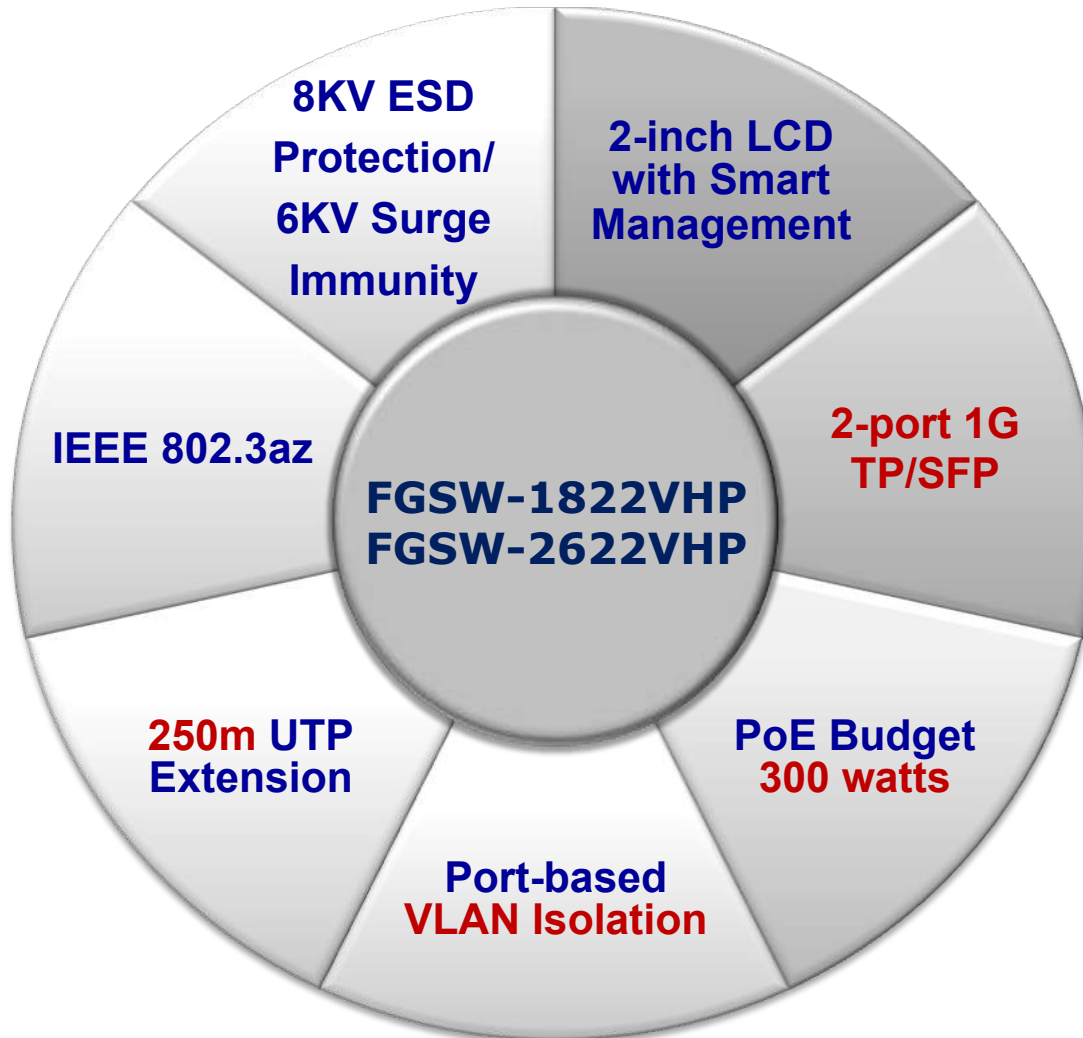


8/16/24 PoE IP Cameras

Product Features



Product Key Features



Product Features

◆ Hardware

- ✓ **16** 10/100BASE-TX Fast Ethernet RJ45 interfaces
- ✓ **2** 10/100/1000BASE-T TP and **2** 1000BASE-X mini-GBIC SFP
- ✓ 19-inch desktop size, 1U height, rack mountable
- ✓ 2-inch color LCD with smart management functions
- ✓ **3** silent fans to provide stable and efficient power performance
- ✓ Auto-MDI/MDI-X on each copper port
- ✓ **8KV** DC Ethernet ESD protection and **6KV** DC surge immunity
- ✓ IEEE 802.1Q VLAN transparency
- ✓ Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)



Product Features

◆ Power over Ethernet Plus

- ✓ Complies with **802.3at** Power over Ethernet Plus PSE
- ✓ **16** 10/100Mbps copper ports with built-in **PoE+** injector
- ✓ **54V DC, 30-watt** PoE power output
- ✓ **300-watt** PoE power budget
- ✓ **Auto detects** powered device and consumption levels
- ✓ Circuit protection prevents power interference between ports

Model		FGSW-1822VHP
PoE Budget		300 watts
PoE Ability	Class 1 PD, <3.8W	16
	Class 2 PD, <6.5W	16
	Class 3 PD, <12.9W	16
	Class 4 PD, <25W	11
Input Power		100~240V AC/50-60Hz, 5A

Product Features

◆ LCD Management

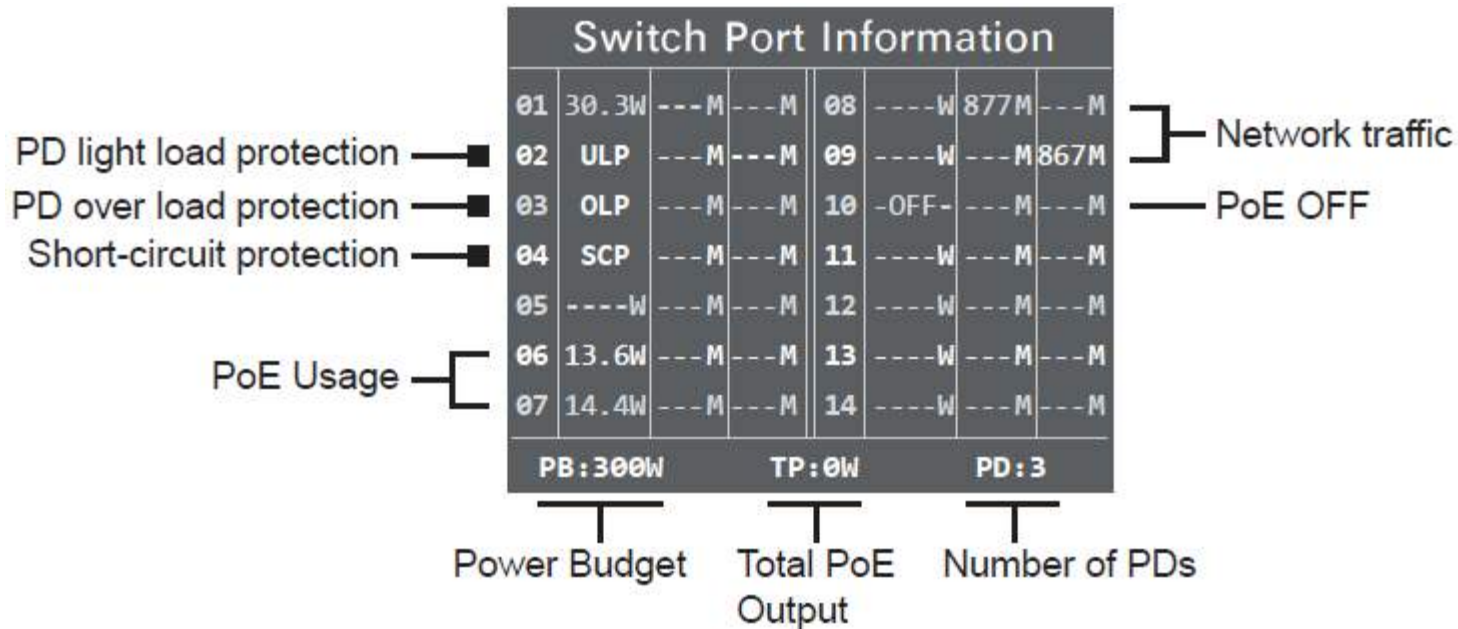
- ✓ LCD switch mode for “**Standard**”, “**VLAN**” or “**Extend**” mode selection
- ✓ Solid LCD switch mode to isolate ports to prevent broadcast storm and defend DHCP spoofing
- ✓ Power low-voltage, power over-voltage and PSE over-temperature protection
- ✓ Screen saver, fan control, factory default and save configuration
- ✓ PoE management
 - PoE management and status
 - Port management and status
 - Budget control and bandwidth detection
 - PD alive check



Product Features

◆ LCD Monitor for Real-time PoE Usage/System Status

- ✓ The LCD monitor 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**.



Product Features

◆ Smart and Intuitive LCD Control

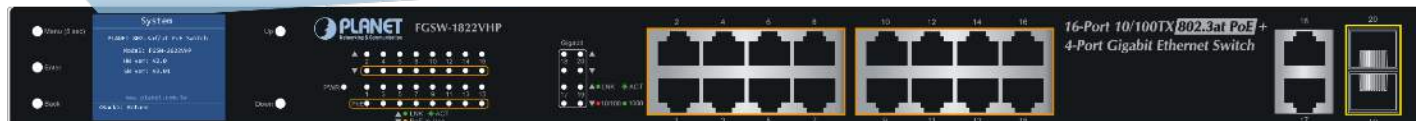
- ✓ LCD switch provides an intuitive color panel on its front panel that facilitates the Ethernet management and PoE PD management.

Switch Port Information											
01	30.3W	---	M	-33M	08	---	W	---	M	---	M
02	---	W	---	M	---	M	09	-8.3W	---	M	-11M
03	---	W	---	M	---	M	10	---	W	---	M
04	15.4W	-10M	---	M	11	-OFF-	---	M	---	M	
05	---	W	---	M	---	M	12	---	W	---	M
06	---	W	---	M	---	M	13	17.6W	-11M	-12M	
07	---	W	---	M	---	M	14	---	W	---	M
PB:300W				TP:72W				PD:4			

Main Menu	
01	Switch Mode
02	Budget Control
03	PSE Port Priority
04	PSE Port Enable
05	PD Type
06	Alive Check
07	Bandwidth
08	Fan Control

Switch Mode	
Options:	
Standard	<
VLAN	
Extend	

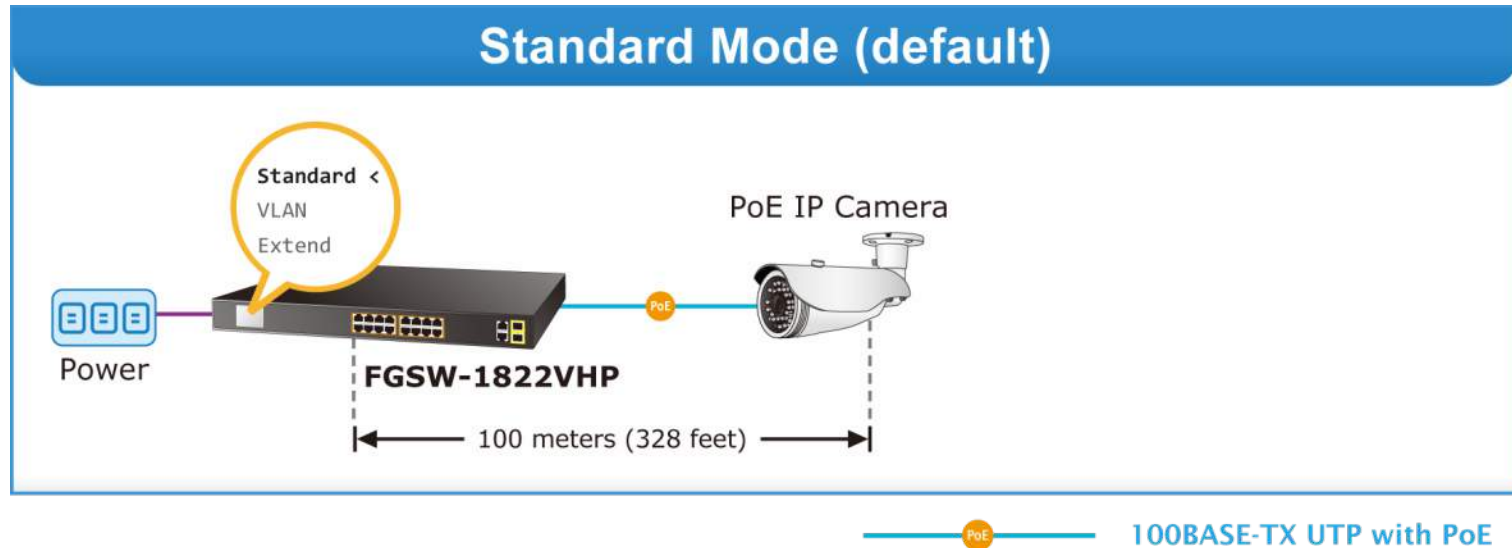
PSE Port Enable	
Port	Status
01	Enable <
	Disable
Current Setting: Enable	
<UP>/<Down>:Select	
<Enter>:Confirm <Back>:Return	



Product Features

◆ Standard Mode (Default)

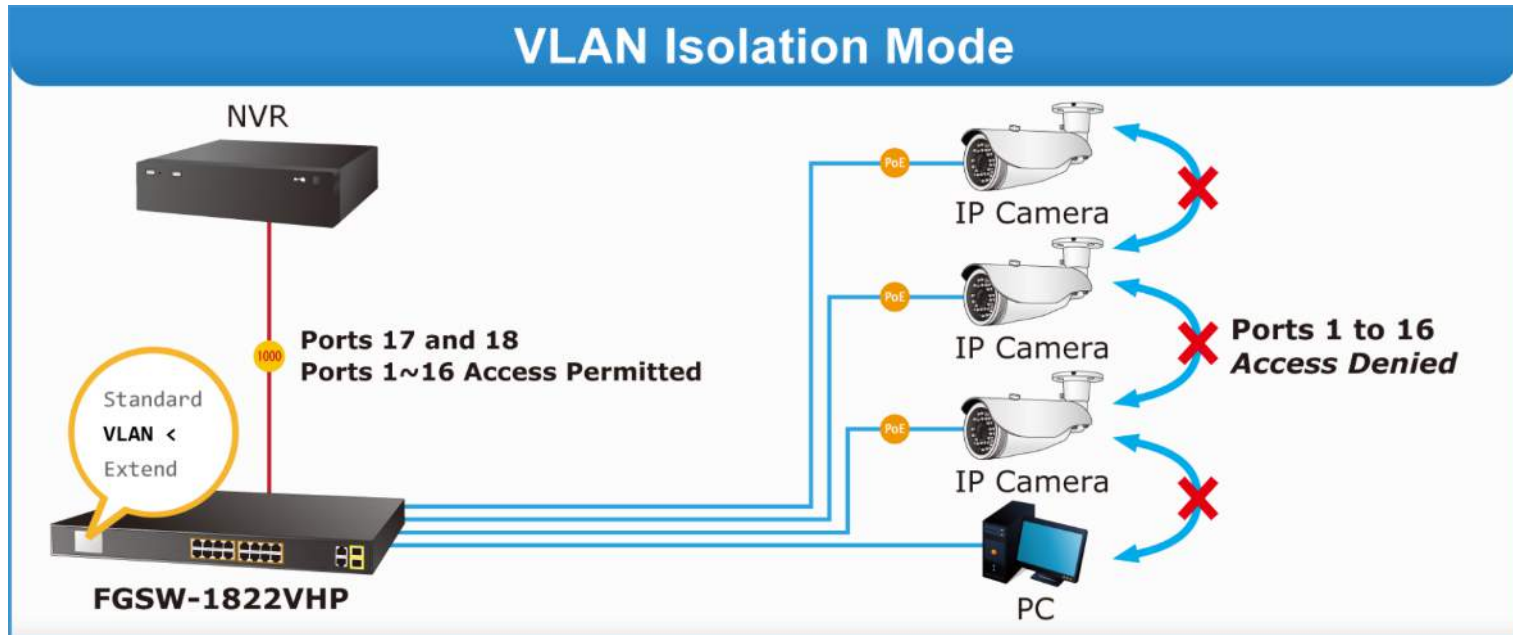
- ✓ The FGSW Series operates as a normal IEEE 802.3at PoE+ Switch in the “**Standard**” operation mode.



Product Features

◆ VLAN Mode

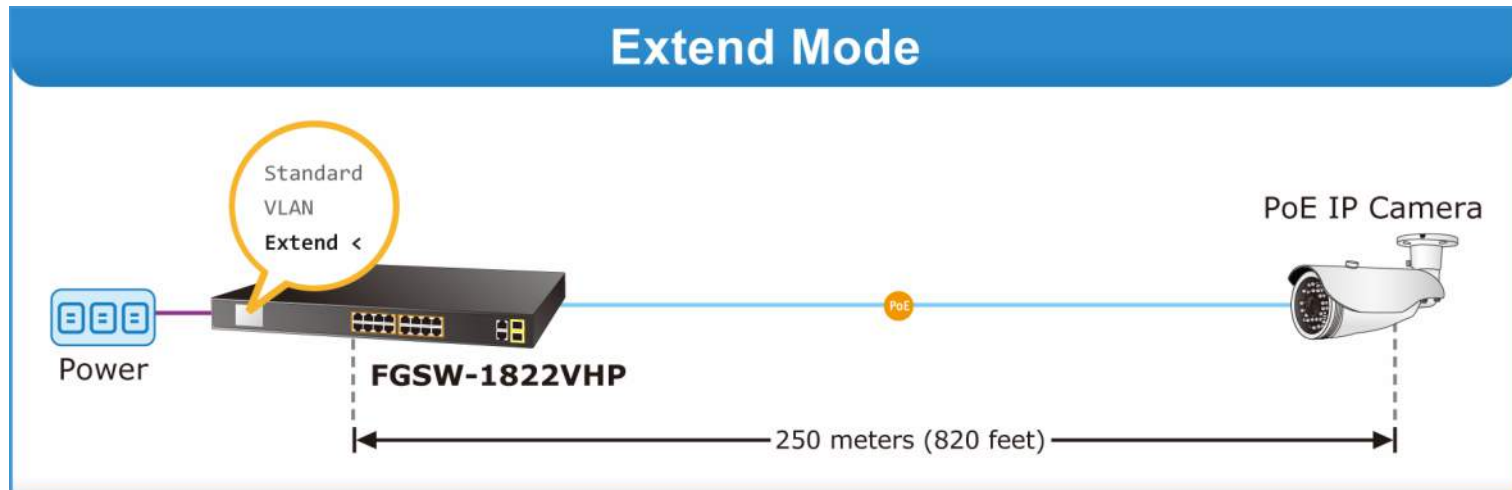
- ✓ The “**VLAN**” operation mode features **port-based VLAN** function that can help to prevent the IP camera’s multicast or broadcast storm from influencing each other.



Product Features

◆ Extend Mode

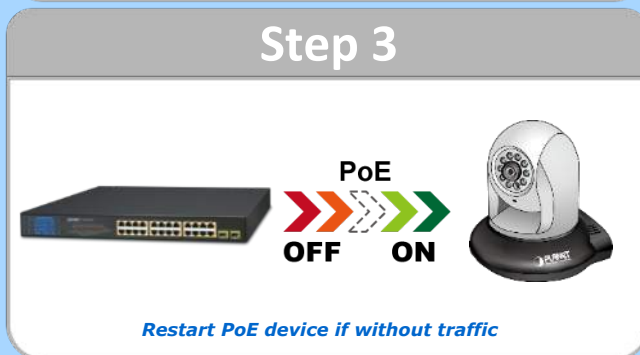
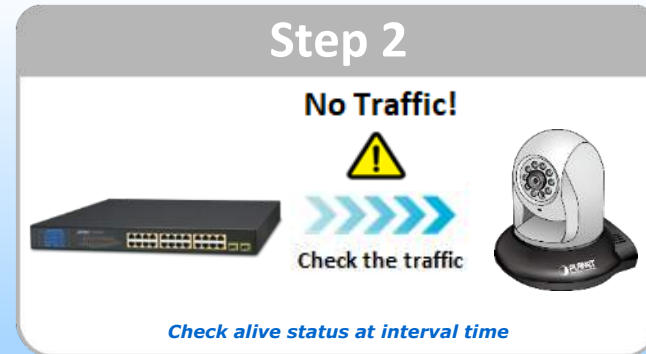
- ✓ In the “**Extend**” operation mode, the FGSW Series operates on a per-port basis at **10Mbps** duplex operation but can support 30-watt PoE power output over a distance of up to **250 meters** overcoming the 100m limit on Ethernet UTP cable.
- ✓ Furthermore, its **VLAN isolation** function isolates ports so as to prevent broadcast storm and defend DHCP spoofing in the “**Extend**” operation mode.



Product Overview

◆ Intelligent Powered Device Alive Check

- ✓ The LCD Switch can be configured to monitor connected PD (Powered Device) status in real time via traffic detection.
- ✓ Once there is no traffic at interval time, the LCD Switch will resume the PoE port power automatically and bring the PD back to work.

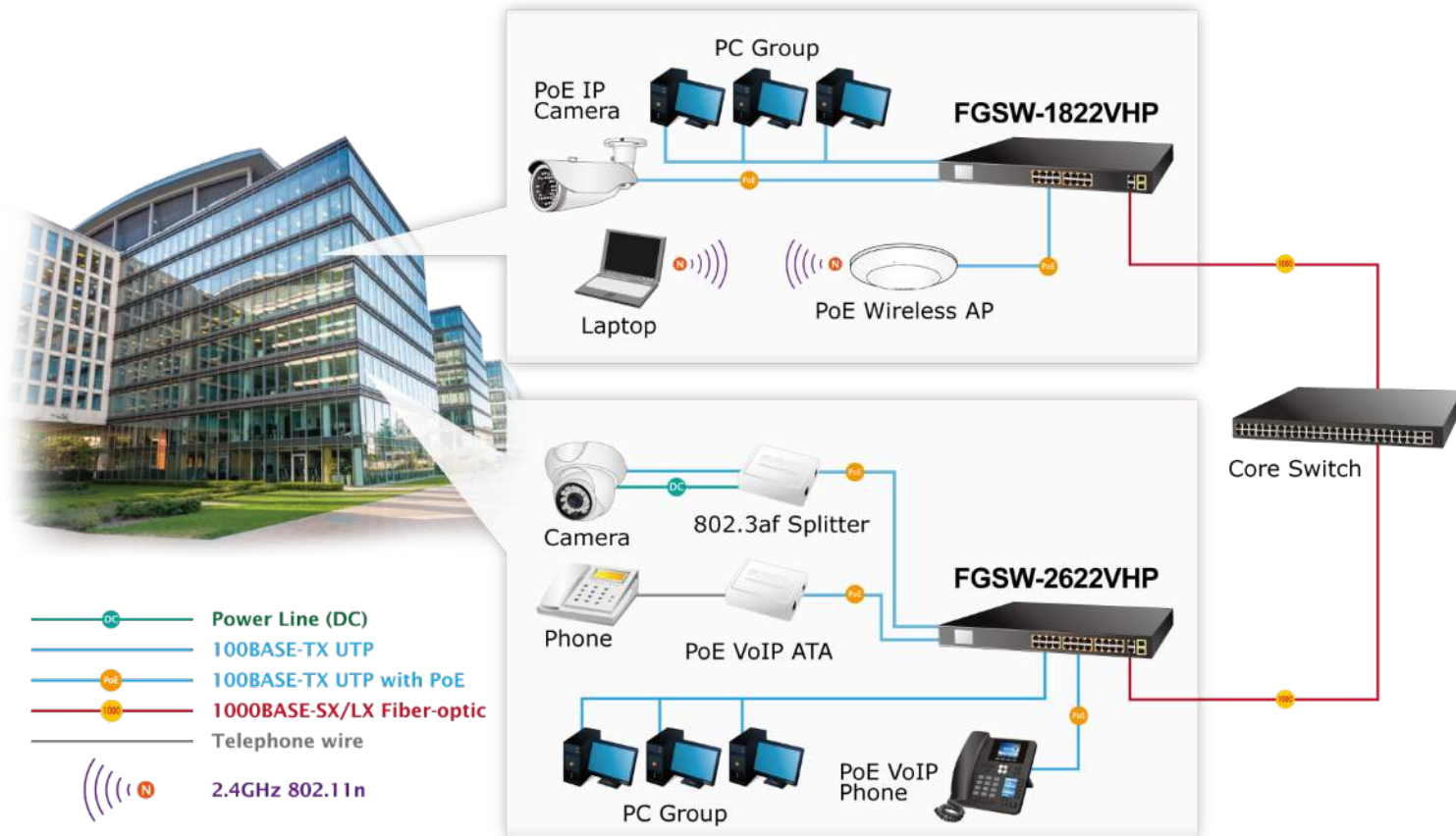


Applications





Applications

◆ Central PoE Injector Switch for SMB/Enterprise Network Infrastructure



Smart LCD PoE Switch Comparison

Model	FGSW-1822VHP(v2)	FGSW-1822VHP(v1)
Features		
Product outlook		
Hardware		
PoE Injector Ports	16	16
10/100BASE-TX Ports	16	16
1000BASE-X SFP Ports	2	2 (combo)
10/100/1000BASE-T Ports	2	2 (combo)
DIP Switch	Built-in to LCD	■
Button	Menu, Enter, Back, Up and Down	--
Switch Fabric	11.2Gbps	7.2Gbps
Thermal Fan	3 (Smart Fan)	2
ESD Protection	Contact discharge of $\pm 6\text{KV DC}$ Air discharge of $\pm 8\text{KV DC}$	Contact discharge of $\pm 4\text{KV DC}$ Air discharge of $\pm 6\text{KV DC}$
Power Supply	Internal	Internal

Smart LCD PoE Switch Comparison

Model	FGSW-1822VHP(v2)	FGSW-1822VHP(v1)
Features		
Power over Ethernet		
PoE Standard	IEEE 802.3af/802.3at	IEEE 802.3af/802.3at
Max. Power Output	54V DC, 30W (max.) per port	54V DC, 30W (max.) per port
PoE Power Budget	300 watts	300 watts
PoE Management		
PoE Usage Monitoring	■	■
Power Low-voltage	■	■
Power Over-voltage	■	■
PSE Over-temperature	■	■
PoE Port enable/disable	■	--
PSE Port Priority	■	--
PD Alive Check	■	--
Power Budget Control	■	--
Bandwidth Detection	■	--
Fan Control	■	--

Appendix



Appendix Sales Target

◆ Target Markets

- ✓ IP Surveillance integrators, Wireless Service Providers
- ✓ Enterprises, SMBs, Governments, Campuses
- ✓ System Integrators



◆ Recommended Solutions

- ✓ The following 802.3af/802.3at PoE switches are potential to all customers:
 - GSW-1222VHP, GSD-1002VHP, FGSD-1022VHP
 - GSD-808HP, GSD-1008HP, GSW-1600HP, GSW-2620HP
 - FSD-604HP, FGSD-910HP, FGSD-1011HP, FNSW-1600P
- ✓ The following network video recorders (NVRs) are potential to all customers:
 - NVR-915, NVR-1615, NVR-1620, HDVR-830, HDVR-1630, NVR-3210, NVR-3250



Appendix



◆ **Related IP Surveillance PoE Products:**

Model Name		Description
ICA-E3550V		5 Mega-pixel Bullet IR PoE IP Camera with Extended Support
ICA-E5550V		5 Mega-pixel Vandalproof IR PoE IP Camera with Extended Support
ICA-E8550V		5 Mega-pixel Outdoor IR PoE Fisheye
ICA-4210P		60fps Full HD IR IP Camera
ICA-2250VT		Industrial PoE Plus Outdoor IR IP Camera




Appendix

◆ Related **NVR** Products

✓ Midrange NVRs

Model Name		Description
NVR-1615		16-Ch Network Video Recorder
NVR-915		9-Ch Network Video Recorder




✓ Entry-Level HDVRs

Model Name		Description
HDVR-1630		16-Ch Hybrid Digital Video Recorder
HDVR-830		8-Ch Hybrid Digital Video Recorder
HDVR-430		4-Ch Hybrid Digital Video Recorder

Appendix






◆ Related **NVR** Products

✓ Professional NVRs

Model Name		Description
NVR-E6480		64-Ch Windows-based NVR with 8-Bay Hard Disks
NVR-1620		16-Ch Network Video Recorder with HDMI
NVR-820		8-Ch Network Video Recorder with HDMI

Appendix

◆ Related **Wireless PoE** Products:

Model Name		Description
WDAP-W7200AC		1200Mbps 802.11ac Wall-mount Wireless Access Point
WDAP-C7200AC		1200Mbps 802.11ac Ceiling-mount Wireless Access Point
WAP-552N		5GHz 802.11a/n 300Mbps Outdoor Wireless AP
WAP-252N		2.4GHz 802.11n 300Mbps Outdoor Wireless AP
WNAP-8350		600Mbps 802.11n Dual Band Outdoor Wireless CPE (IP66, 802.3at PoE, 4 x N-type Connector)

Appendix

◆ Related PoE Extender and Splitter Products

Model Name		Description
POE-E101		IEEE 802.3af Power over Ethernet Extender
POE-E201		IEEE 802.3at Power over Gigabit Ethernet Extender
IPOE-E202		Industrial 1-Port 802.3at PoE+ to 2-Port 802.3af PoE Extender
POE-162S		IEEE 802.3at High Power over Ethernet Splitter (12V & 24V)
IPOE-162S		Industrial IEEE 802.3at High Power over Ethernet Splitter (12V & 24V)

Appendix

◆ Available Gigabit Ethernet Fiber Optic SFP Modules:

✓ 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 °C
MGB-SX	1000	LC	Multi Mode	550m	850nm	0 ~ 60 °C
MGB-SX2	1000	LC	Multi Mode	2km	1310nm	0 ~ 60 °C
MGB-LX	1000	LC	Single Mode	10km	1310nm	0 ~ 60 °C
MGB-L30	1000	LC	Single Mode	30km	1310nm	0 ~ 60 °C
MGB-L50	1000	LC	Single Mode	50km	1550nm	0 ~ 60 °C
MGB-L70	1000	LC	Single Mode	70km	1550nm	0 ~ 60 °C
MGB-L120	1000	LC	Single Mode	120km	1550nm	0 ~ 60 °C
MGB-TSX	1000	LC	Multi Mode	550m	850nm	-40 ~ 75 °C
MGB-TLX	1000	LC	Single Mode	10km	1310nm	-40 ~ 75 °C
MGB-TL30	1000	LC	Single Mode	30km	1310nm	-40 ~ 75 °C
MGB-TL70	1000	LC	Single Mode	70km	1550nm	-40 ~ 75 °C

Appendix

- ◆ Available **Gigabit Ethernet WDM** Fiber Optic SFP Modules:
 - ✓ 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	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	0 ~ 60 °C
MGB-LB10	1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	0 ~ 60 °C
MGB-LA20	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	0 ~ 60 °C
MGB-LB20	1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	0 ~ 60 °C
MGB-LA40	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	0 ~ 60 °C
MGB-LB40	1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	0 ~ 60 °C
MGB-LA60	1000	WDM(LC)	Single Mode	60km	1310nm	1550nm	0 ~ 60 °C
MGB-LB60	1000	WDM(LC)	Single Mode	60km	1550nm	1310nm	0 ~ 60 °C
MGB-TLA10	1000	WDM(LC)	Single Mode	10km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB10	1000	WDM(LC)	Single Mode	10km	1550nm	1310nm	-40 ~ 75 °C
MGB-TLA20	1000	WDM(LC)	Single Mode	20km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB20	1000	WDM(LC)	Single Mode	20km	1550nm	1310nm	-40 ~ 75 °C
MGB-TLA40	1000	WDM(LC)	Single Mode	40km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB40	1000	WDM(LC)	Single Mode	40km	1550nm	1310nm	-40 ~ 75 °C
MGB-TLA60	1000	WDM(LC)	Single Mode	60km	1310nm	1550nm	-40 ~ 75 °C
MGB-TLB60	1000	WDM(LC)	Single Mode	60km	1550nm	1310nm	-40 ~ 75 °C



ACTIVATING IP POWER