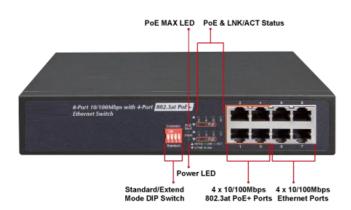


# 8-Port 10/100Mbps with 4-Port PoE+ Ethernet Switch (60W)



#### **Cost-effective Centralized Power Distribution**

This switch is equipped with **eight 10/100BASE-TX** ports, four of which are **802.3at PoE+** copper interfaces. For cost saving and flexible use of PoE power provision, half of the 10/100Mbps TP ports of the switch provide PoE power injector function which is able to drive 4 IEEE 802.3at/af compliant powered devices. For SOHO or department network, the switch also provides a simple, cost-effective and highly-reliable network connection for data as well as power. Furthermore, it is the ideal device for bridging Ethernet and Fast Ethernet workgroups or networks.



#### **Ethernet Data Transmit Distance Extension**

The built-in solid DIP switch provides "Standard" and "Extend" operation modes. The switch operates as a normal IEEE 802.at/af PoE Switch in the "Standard" operation mode. In the "Extend" operation mode, the switch operates on a per-port basis at 10Mbps duplex operation but can support 30-watt PoE power output over a distance of up to 200 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the switch provides an additional solution for 802.3at/af PoE distance extension, thus saving the cost of Ethernet cable installation.

#### **Physical Port**

- 8-port 10/100BASE-T Fast Ethernet RJ45 copper
- 4-port IEEE 802.3at/af PoE Injector (Port-1 to Port-4)

#### **Power over Ethernet**

- Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- Up to 4 ports of IEEE 802.3af/802.3at devices powered
- Supports PoE Power up to 30.8 watts for each PoE port
- Each port supports 53V DC power to PoE powered device
- 60-watt PoE budget
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m with standard mode, 200m with extended mode

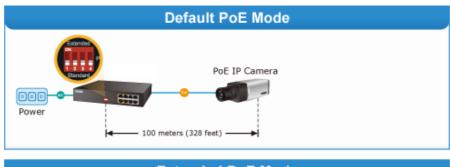
#### **Switching**

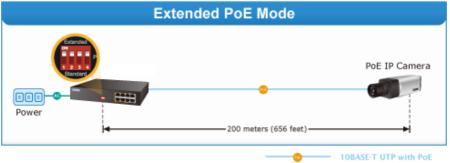
- Hardware based 10/100Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation
- IEEE 802.1Q VLAN transparency
- Hardware DIP switch for "Standard" and "Extend" mode selection; the "Extend" mode features 30-watt PoE transmit distance of 200m at speed of 10Mbps (Only for Port1 – Port4)

#### Hardware

- 8.5-inch desktop size, 1U height, rack mountable
- LED indicators for system power, per port PoE ready and PoE activity, speed, Link/Act
- Fanless design
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)
- Supports 4000VDC Ethernet ESD protection







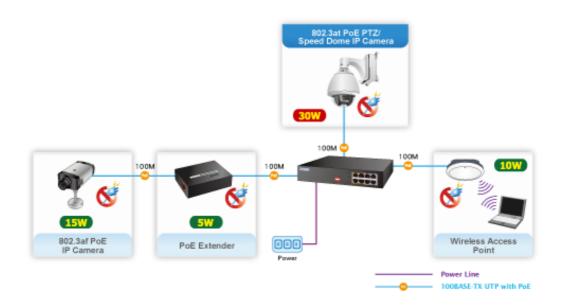


#### **Environment-friendly, Fanless Design for Silent Operation**

The switch comes with a desktop-sized, compact metal housing, making the placement of the unit convenient. It features a ventilated construction in which a cooling fan is not necessary, thereby making its operation noiseless. Moreover, the switch is able to operate reliably and stably in any environment without affecting its performance. The deployment of PoE PDs with constant power feeding can be easily and quickly done.

#### **Easy Cable Connection**

With data switching and power over Ethernet integrated into one unit, the switch reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. With 4 PoE interfaces, the switch is ideal for small businesses and workgroups making the deployment of the PoE facility including wireless access points, IP-based surveillance camera and IP phones in any places easier, more efficient and more cost-effective.

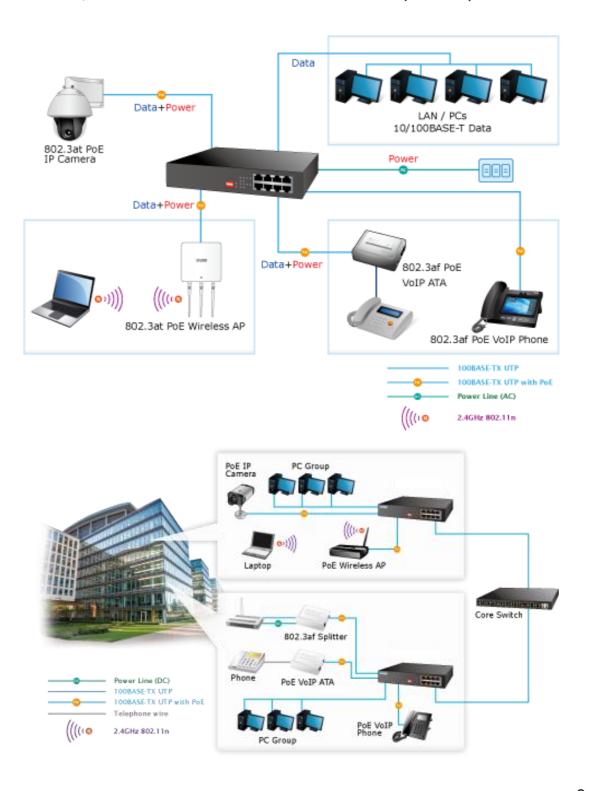




### **Applications**

#### **Department/Workgroup PoE Switch**

Providing four 802.3at PoE+ in-line power interfaces, the switch can easily build a power source that centrally controls the enterprises' IP phone systems, IP camera systems and wireless AP systems. For instance, up to 4 cameras can be installed around the corner in the company for surveillance demands or up to 4 wireless APs can be built to have a wireless roaming environment in the office. Without the power-socket limitation, the switch makes the installation of cameras or wireless APs more easily and efficiently.





## Specifications

Hardware Version   4     10/100BASE-TX MDI/MDIX Ports   8     PoE Injector Port   4   ports with 802.3at/af PoE injector function with Port-1 to Port-4     Switch Architecture   5   1.66 (Sps.non-blocking     Switch Throughput@64 bytes   1.19Mpps@64 bytes     MAC Address Table   1.66 (Sps.non-blocking     Switch Throughput@64 bytes   1.19Mpps@64 bytes     MAC Address Table   1   1.54 (Sps.non-blocking     Switch Throughput@65   System:     Power Gireen     Po	Hardware Specifications	
PoE Injector Port	Hardware Version	4
Switch Architecture         Store-and-Forward           Switch Throughput@64 bytes         1.6Gbps/non-blocking           MAC Address Table         11 Mypps@64 bytes           MAC Address Table         1EEE 802.3 x pause frame for full-duplex           Back pressure for half-duplex           Back pressure for half-duplex           Back pressure for half-duplex           Back pressure for half-duplex           Power (Green)	10/100BASE-TX MDI/MDIX Ports	8
Switch Architecture  Since-and-Forward  Switch Throughput@64 bytes  MAC Address Table  It entries, automatic source address learning and aging  IEEE 802.3 x pause frame for full-duplex Back pressure for half-duplex	PoE Injector Port	4 ports with 802.3at/af PoE injector function with Port-1 to Port-4
Switch Throughput@64 bytes         1.19Mpps@64 bytes           MAC Address Table         1K entries, automatic source address learning and aging           Flow Control         IEEE 802.3x pause frame for full-duplex           Back pressure for half-duplex           System:	· · · · · · · · · · · · · · · · · · ·	Store-and-Forward
MAC Address Table  1K entries, automatic source address learning and aging  IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex Power (Green) Power (Green) Power (Green) PoE max. (Green) PoE max. (Green) PoE max. (Green) PoE interfaces: 10/10/0BASE-T   Rads Interfaces: 10/10/0BASE-T   Rads	Switch Fabric	1.6Gbps/non-blocking
MAC Address Table  IK entries, automatic source address learning and aging  IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex Power (Green) Power (Green) Power (Green) PoE max. (Green) PoE max. (Green) PoE max. (Green) PoE interfaces: 10/100MpsE LNK/ACT(Green) PoE interfaces: PoE-in-Use (Orange) ESD Protection 4KV DC  DIP Switch  Selectable operation mode Standard Extended Dimensions (W x D x H) 215 x 133 x 42 mm (1U height) Enclosure Metal  Weight B809 Power Requirements AC 100-240V, 50/60Hz, 2A max. Power Consumption/Dissipation Max. 65 wats/223 BTU  Thermal Fan Fanless  Poet Standard IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE PoE Power Supply Type End-span PoE Power Output Per port 53V DC, 600mA. max. 30 watts Power Orutput Poet Power Glass 2 PDs 4 Max. Number of Class 2 PDs 4 Max. Number of Class 2 PDs 4 Max. Number of Class 3 PDs 4 Max. Number of Class 3 PDs 4 Max. Number of Class 3 PDs 2 Standards Conformance Regulatory Compliance FC Poet Power Standard IEEE 802.3 to IDRASE-T IEEE 802.3 to IDRASE-T IEEE 802.3 to IDRASE-T IEEE 802.3 and Power over Ethernet Plus IEEE 802.3 and Power over Ethernet Plus IEEE 802.3 and Power over Ethernet Plus IEEE 802.3 to IDRASE-T	Switch Throughput@64 bytes	
Flow Control    IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex System:   Power (Green)     PoE max. (Green)     10/100Mbps LNK/ACT(Green)     PoE interfaces:     10/100Mbps LNK/ACT(Green)     10/100Mbps	2	
LED  System: Power (Green) Poblimax. (Green) Poblimax. (Green) Poblimax. (Green) Poblimax. (Green) Poblimax. (Green) Poblimax. (Green) Poblimerfaces: 10/100Mbps LNK/ACT(Green) Poblimerfaces: 10/100Mbps LNK/ACT(Green) Poblimerfaces: Poblimerfaces: EStended  DIP Switch  Selectable operation mode Selectable operation (Selectable operation) Metal Weight  880g Power Requirements AC 100-240V, 50/60Hz, 2A max. Power Consumption/Dissipation Max. 65 watts/223 BTU Thermal Fan Fanless  Power over Ethernet  Poblimer Supply Type End-span Power over Ethernet Poblimer Supply Type End-span Poblimer Supply Type End-span Poper Power Output Per port 53V DC, 600mA. max. 30 watts Power Pin Assignment 1/2(+), 3/6(-) Poblimer of Class 2 PDs 4 Max. Number of Class 3 PDs 4 Max. Number of Class 3 PDs 4 Max. Number of Class 4 PDs 2 Standards Conformance Regulatory Compliance FCC Part 15 Class A, CE IEEE 802.31 10BASE-T IEEE 802.32 10BASE-T IEEE 802.33 10BASE-T IEEE 802.33 10BASE-T IEEE 802.33 1 Power over Ethernet Plus IEEE 802.33 Flow control and back pressure IEEE 802.33 Flow control (EEE) Environment  Operating Temperature: 0 - 50 degrees C Relative Humidity: 5 - 95% (non-condensing) Storage		IEEE 802.3x pause frame for full-duplex
DIP Switch  ■ Standard ■ Extended  Dimensions (W x D x H) 215 x 133 x 42 mm (1U height) Enclosure  Metal  Weight 880g Power Requirements AC 100-240V, 50/60Hz, 2A max.  Power Consumption/Dissipation Max. 65 watts/223 BTU  Thermal Fan Fanless  Power over Ethernet  PoE Standard    EEE 802.3af Power over Ethernet/PSE   IEEE 802.3af Power over Ethernet/PSE   IEEE 802.3at Power over Ethernet Plus/PSE PoE Power Supply Type End-span PoeP Power Supply Type End-span PoeP Power Budget 60 watts  Max. Number of Class 2 PDs 4 Max. Number of Class 2 PDs 4 Max. Number of Class 4 PDs 2  Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE   IEEE 802.3 t 10BASE-T   IEEE 802.3 t 10bASE-T   IEEE 802.3 t 10wASE-T   IEEE 802.3 u 10wBASE-TX   IEEE 802.3 u 10wBASE-TX   IEEE 802.3 and Power over Ethernet   IEEE 802.3 and	LED	Power (Green) PoE max. (Green) 10/100BASE-T RJ45 Interfaces: 10/100Mbps LNK/ACT(Green) PoE Interfaces: PoE-in-Use (Orange)
Enclosure Metal Weight 880g Power Requirements AC 100~240V, 50/60Hz, 2A max. Power Consumption/Dissipation Max. 65 watts/223 BTU Thermal Fan Fanless Power over Ethernet  PoE Standard IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE PoE Power Supply Type End-span PoE Power Output Per port 53V DC, 600mA. max. 30 watts Power Pin Assignment 1/2(+), 3/6(-) PoE Power Budget 60 watts Max. Number of Class 2 PDs 4 Max. Number of Class 3 PDs 4 Max. Number of Class 4 PDs 2 Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE IEEE 802.3 10BASE-T IEEE 802.3 10BASE-TX IEEE 802.3 3F Dower over Ethernet Plus IEEE 802.3 3F Power over Ethernet Plus IEEE 802.3 3F Power over Ethernet Plus IEEE 802.3 3F Power over Ethernet (EEE)  Environment  Operating Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing) Temperature: 10 ~ 70 degrees C	DIP Switch	■ Standard
Weight     880g       Power Requirements     AC 100-240V, 50/60Hz, 2A max.       Power Consumption/Dissipation     Max. 65 watts/223 BTU       Thermal Fan     Fanless       Power over Ethernet     Fanless       Power over Ethernet     IEEE 802.3af Power over Ethernet/PSE (IEEE 802.3at Power over Ethernet Plus/PSE)       PoE Power Supply Type     End-span       PoE Power Output     Per port 53V DC, 600mA. max. 30 watts       Power Pin Assignment     1/2(+), 3/6(-)       PoE Power Budget     60 watts       Max. Number of Class 2 PDs     4       Max. Number of Class 3 PDs     4       Max. Number of Class 4 PDs     2       Standards Conformance     FCC Part 15 Class A, CE       Regulatory Compliance     FCC Part 15 Class A, CE       IEEE 802.3 10BASE-T     IEEE 802.3u 100BASE-TX       IEEE 802.3u 100BASE-TX     IEEE 802.3u 100BASE-TX       IEEE 802.3at Power over Ethernet Plus IEEE 802.3at Power over Ethernet Plus IEEE 802.3at Power over Ethernet (EEE)     IEEE 802.3at Power over Ethernet (EEE)       Environment     Temperature: 0 ~ 50 degrees C       Relative Humidity: 5 ~ 95% (non-condensing)       Storage     Temperature: -10 ~ 70 degrees C	Dimensions (W x D x H)	215 x 133 x 42 mm (1U height)
Power Requirements AC 100~240V, 50/60Hz, 2A max.  Power Consumption/Dissipation Max. 65 watts/223 BTU  Thermal Fan Fanless  Power over Ethernet  PoE Standard IEEE 802.3af Power over Ethernet/PSE (IEEE 802.3af Power over Ethernet Plus/PSE)  PoE Power Supply Type End-span  PoE Power Output Per port 53V DC, 600mA. max. 30 watts  Power Pin Assignment 1/2(+), 3/6(-)  PoE Power Budget 60 watts  Max. Number of Class 2 PDs 4  Max. Number of Class 3 PDs 4  Max. Number of Class 4 PDs 2  Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE  IEEE 802.31 10BASE-T  IEEE 802.32 10BASE-T  IEEE 802.31 10BASE-TX  Standards Compliance IEEE 802.32 Flow control and back pressure  IEEE 802.33 Flow control and back pressure  IEEE 802.3af Power over Ethernet Plus  IEEE 802.3af Power over Ethernet Plus  IEEE 802.3ar Power over Ethernet (EEE)  Environment  Operating Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	Enclosure	Metal
Power Consumption/Dissipation Thermal Fan Fanless  Power over Ethernet  PoE Standard    IEEE 802.3af Power over Ethernet/PSE   IEEE 802.3af Power over Ethernet Plus/PSE   PoE Power Supply Type   End-span   End	Weight	880g
Thermal Fan Fanless  Power over Ethernet  PoE Standard IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE  PoE Power Supply Type End-span PoE Power Output Per port 53V DC, 600mA. max. 30 watts  Power Pin Assignment 1/2(+), 3/6(-)  PoE Power Budget 60 watts  Max. Number of Class 2 PDs 4  Max. Number of Class 3 PDs 4  Max. Number of Class 4 PDs 2  Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x Flow control and back pressure IEEE 802.3at Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3at Power over Ethernet (EEE)  Environment  Operating Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	Power Requirements	AC 100~240V, 50/60Hz, 2A max.
Poer Standard    IEEE 802.3af Power over Ethernet/PSE   IEEE 802.3af Power over Ethernet/PSE   IEEE 802.3af Power over Ethernet Plus/PSE	Power Consumption/Dissipation	Max. 65 watts/223 BTU
PoE Standard    IEEE 802.3af Power over Ethernet/PSE   IEEE 802.3af Power over Ethernet Plus/PSE     PoE Power Supply Type	Thermal Fan	Fanless
PoE Power Supply Type	Power over Ethernet	
PoE Power Output Per port 53V DC, 600mA. max. 30 watts  Power Pin Assignment 1/2(+), 3/6(-) PoE Power Budget 60 watts  Max. Number of Class 2 PDs 4 Max. Number of Class 3 PDs 4 Max. Number of Class 4 PDs 2 Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE    IEEE 802.3 10BASE-T     IEEE 802.3u 100BASE-TX   IEEE 802.3w Flow control and back pressure     IEEE 802.3ar Power over Ethernet     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3ar Energy Efficient Ethernet (EEE)    Environment	PoE Standard	
Power Pin Assignment  1/2(+), 3/6(-)  PoE Power Budget  60 watts  Max. Number of Class 2 PDs  4  Max. Number of Class 3 PDs  4  Max. Number of Class 4 PDs  2  Standards Conformance  Regulatory Compliance  FCC Part 15 Class A, CE    EEE 802.3 10BASE-T     IEEE 802.3u 100BASE-TX   IEEE 802.3x Flow control and back pressure     IEEE 802.3ar Power over Ethernet     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3ar Energy Efficient Ethernet (EEE)  Environment  Operating  Temperature: 0 ~ 50 degrees C   Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	PoE Power Supply Type	End-span
PoE Power Budget 60 watts  Max. Number of Class 2 PDs 4  Max. Number of Class 3 PDs 4  Max. Number of Class 4 PDs 2  Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE    EEE 802.3 10BASE-T     EEE 802.3u 100BASE-TX     EEE 802.3x Flow control and back pressure     EEE 802.3ar Power over Ethernet     EEE 802.3ar Power over Ethernet Plus     EEE 802.3ar Energy Efficient Ethernet (EEE)    Environment	PoE Power Output	Per port 53V DC, 600mA. max. 30 watts
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Max. Number of Class 3 PDs 4  Max. Number of Class 4 PDs 2  Standards Conformance  Regulatory Compliance FCC Part 15 Class A, CE    IEEE 802.3 10BASE-T     IEEE 802.3u 100BASE-TX     IEEE 802.3x Flow control and back pressure     IEEE 802.3ar Power over Ethernet     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3ar Power over Ethernet (EEE)     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3ar Power over Ethernet (EEE)     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3ar Power over Ethernet (EEE)     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.	1 Owel 1 III Assignment	1/2(+), 3/6(-)
Max. Number of Class 4 PDs     2       Standards Conformance     FCC Part 15 Class A, CE       Regulatory Compliance     IEEE 802.3 10BASE-T       IEEE 802.3u 100BASE-TX     IEEE 802.3x Flow control and back pressure       IEEE 802.3ar Power over Ethernet     IEEE 802.3ar Power over Ethernet Plus       IEEE 802.3az Energy Efficient Ethernet (EEE)     IEEE 802.3az Energy Efficient Ethernet (EEE)       Environment     Temperature: 0 ~ 50 degrees C       Relative Humidity: 5 ~ 95% (non-condensing)       Temperature: -10 ~ 70 degrees C	_	
Standards Conformance  Regulatory Compliance  FCC Part 15 Class A, CE  IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX  IEEE 802.3x Flow control and back pressure IEEE 802.3ar Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet (EEE)  Environment  Operating  Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	PoE Power Budget	60 watts
Regulatory Compliance  FCC Part 15 Class A, CE  IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX  IEEE 802.3x Flow control and back pressure IEEE 802.3ar Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet (EEE)  Environment  Operating  Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	PoE Power Budget Max. Number of Class 2 PDs	60 watts
Standards Compliance    IEEE 802.3 10BASE-T   IEEE 802.3u 100BASE-TX   IEEE 802.3x Flow control and back pressure   IEEE 802.3at Power over Ethernet   IEEE 802.3at Power over Ethernet Plus   IEEE 802.3at Energy Efficient Ethernet (EEE)	PoE Power Budget Max. Number of Class 2 PDs Max. Number of Class 3 PDs	60 watts 4 4
Standards Compliance    IEEE 802.3u 100BASE-TX     IEEE 802.3x Flow control and back pressure     IEEE 802.3ar Power over Ethernet     IEEE 802.3ar Power over Ethernet Plus     IEEE 802.3az Energy Efficient Ethernet (EEE)    Environment	PoE Power Budget Max. Number of Class 2 PDs Max. Number of Class 3 PDs Max. Number of Class 4 PDs	60 watts 4 4
Operating  Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	PoE Power Budget Max. Number of Class 2 PDs Max. Number of Class 3 PDs Max. Number of Class 4 PDs Standards Conformance	60 watts 4 4 2
Relative Humidity: 5 ~ 95% (non-condensing)  Temperature: -10 ~ 70 degrees C	PoE Power Budget Max. Number of Class 2 PDs Max. Number of Class 3 PDs Max. Number of Class 4 PDs Standards Conformance Regulatory Compliance	60 watts 4 4 2  FCC Part 15 Class A, CE IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x Flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
	PoE Power Budget Max. Number of Class 2 PDs Max. Number of Class 3 PDs Max. Number of Class 4 PDs Standards Conformance Regulatory Compliance Standards Compliance	60 watts 4 4 2  FCC Part 15 Class A, CE IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x Flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
	PoE Power Budget Max. Number of Class 2 PDs Max. Number of Class 3 PDs Max. Number of Class 4 PDs Standards Conformance Regulatory Compliance Standards Compliance Environment	60 watts  4  4  2  FCC Part 15 Class A, CE  IEEE 802.3 10BASE-T  IEEE 802.3u 100BASE-TX  IEEE 802.3x Flow control and back pressure  IEEE 802.3af Power over Ethernet  IEEE 802.3at Power over Ethernet Plus  IEEE 802.3az Energy Efficient Ethernet (EEE)  Temperature: 0 ~ 50 degrees C



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