# **NETWORKING**



## **PS-1020**



# **INDUSTRIAL PoE SWITCH**

Unmanaged Industrial PoE Switch

## Scope of Application

The PS-1020 Unmanaged Industrial PoE Switch is specifically engineered to offer an affordable solution for outdoor surveillance systems. Built to withstand operating temperature from -40°C to 75°C, the industrial PoE switch can operate consistently even in harsh industrial environments. The PS-1020 features intelligent functions like Auto MDI/MDIX, LFS (Link Fault Signalling), LLB (Line Loopback), LEDs, DIP switches etc. to provide easy plug-and-play, continuous monitoring thereby minimizing downtime for mission-critical networks.

Featuring two 10/100/1000Mbps PoE+ copper port, the PS-1020 provides power up to 30W per port to IEEE802.3af/at compliant powered devices such as IP cameras, wireless access points and access control devices. Equipped with one multi-rate 100/1000Mbps SFP port, the industrial PoE switch offers fiber advantages of secure data transmissions over long distances to mission-critical networks and support to transmit VLAN packet (IEEE 802.1Q). PS-1020 provides maximum bandwidth flexibility and extended connectivity for workgroups that are ready to expand and migrate from existing fast Ethernet network to gigabit network.

## **Features Highlight**

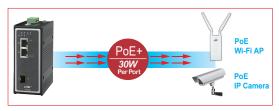
#### **Robust Performance**

With an industrial aluminum housing case, IP30, surge and ESD protection, the PS-1020 provides a high level of immunity against electromagnetic interference and heavy electrical surges, thus facilitating easy deployment in demanding environments. In addition, the PS-1020 offers high performance switch architecture with two 10/100/1000Base-T PoE+ port and one 100Base-FX /1000Base-X SFP port to meet the requirements of high-bandwidth access in extreme operating temperatures.



#### High-Power Budget for PoE Network Devices

The PS-1020 industrial PoE switch is capable of delivering power up to 30W per port to both IEEE802.3af PoE and IEEE802.3at PoE+ compliant powered devices. Thereby, powered devices located in both indoor and remote outdoor locations can be powered without installing additional power outlets or cabling significantly reducing your CAPEX.



#### Fault-tolerant and User-friendly Monitoring

Network administrators can now easily monitor and troubleshoot issues associated with device functionality and link activity using the advanced features of PS-1020. LFS (Link Fault Signalling) enables you to easily detect optical signal strengths and faulty links on both copper and fiber ports. And LLB (Line look back) allows you to remotely isolate and localize network problems, thereby significantly minimizing network downtime. In addition, the LEDs on the device convey essential diagnostic and status information of device power, link activity on ports etc. allowing you to easily monitor without having to get into tight spaces.







## **Features Highlight**

#### AC Power Adapter (AC to DC) & 6-pin Terminal Block

The PS-1020 is an ideal solution to prevent the failure of single power circuit, in which provides you power redundant options to facilitate the high power PoE+ usage. Either "AC Power Adapter" to convert AC to DC for board operation in an easy and firm installation with hardened connection or "6-pin Terminal Block" which supports primary and secondary power input. Categorized by its compact design, AC Power Adapter can easily fit in smaller infrastructures and is extremely simple to install. Saving you time and space, this adapter can be easily installed next to PS-1020 in surveillance applications that have little space available.

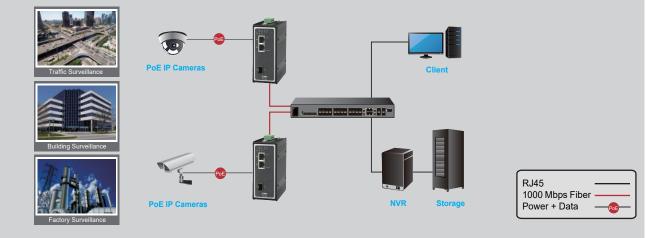


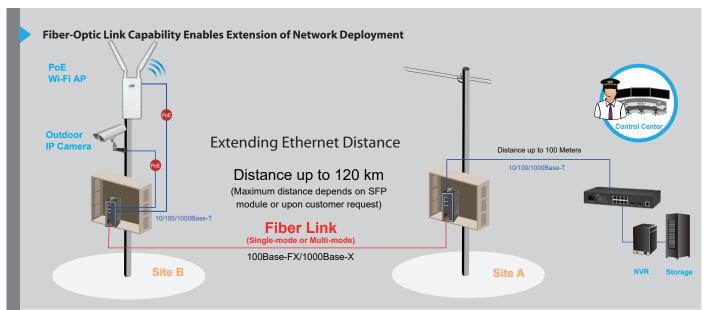
#### Easy Plug-and-play Operation

Being compact in size, PS-1020 is an easy-to-setup and ready-to-use solution for surveillance systems. Featuring Auto-MDI/MDIX and Auto-negotiation (automatically detect for half duplex and full duplex), the industrial PoE switch automatically detects and configures the best mode of operation over a link. This eliminates the need for user setup or configuration procedure and simplifies installation, once installed these industrial PoE switch operate automatically.

## **Applications**

The PS-1020 combines high-power PoE+, robust performance for surveillance systems in harsh industrial environments. With its compact size, highly reliable and secure features ensure continuous operations in some special requirements for transportation, factory and outdoor places where high vibration degree, shock and wide range temperatures are present.







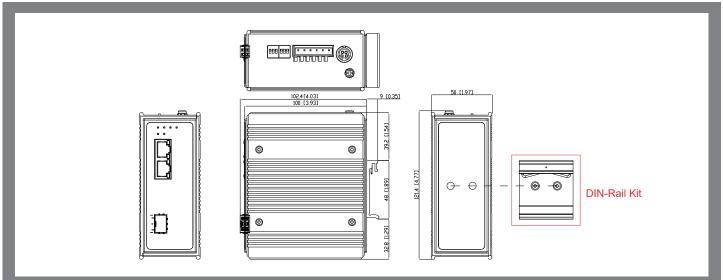
## **Technical Data**

IEEE 802.310Base-TIEEE 802.3u100Base-TX, 100Base-FXIEEE 802.3ab1000Base-SX/LXIEEE 802.3xFlow ControlIEEE 802.3axFlow ControlIEEE 802.3atPoEIEEE 802.3atPoE+IEEE 802.3azEnergy Efficient EthernetInterface2 x 10/100/1000Base-T PoE/PoE+, RI4S portPorts2 x 10/100/1000Base-T PoE/PoE+, RI4S portDIP SwitchFUN: LLB, LFS, FX100 ALM: PWR, RPS, LFSLED PanelPWR, RPS, ALM, SFP, PoE, 1000, LNK/ACTFeaturesMAC table size: 8KPerformanceSwitching Capacity: 6GbpsPacket buffer: 1Mbit Forwarding rate: 4.46MppsBER : <1E-12Device Monitoring: LFS (Link Fault Signalling) Device Management: FX100 (100Base-FX)IEE 802.3af/at powered devices PoE Power up to 30W for each PoE pot Auto detect powered devices (PDS) Remote Power Feeding up to 100mPowerPrimary: 48V to 57V DCPower ConnectionPrimary Kedundant Power Input) 6-pin Terminal block (Primary Power Input)Input VoltagePrimary/Redundant Power InputAlarm RelayOne relay output with current carrying capacity of 1A @ 24V DCPower ConsumptionSystem: 8W PoE Power Budget: 60WESD Protection6KV	Standards	
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Auto detect powered devices (PDS) Remote Power Feeding up to 100m     Power     Input Voltage   Primary: 48V to 57V DC     Power Connection   4-pin DC-Jack (48V DC)(Primary Power Input)     6-pin Terminal block (Primary/Redundant Input)     Input Polarity Protection   Present     Voltage Drop Alarm   Primary/Redundant Power Input     Alarm Relay   One relay output with current carrying capacity of 1A @ 24V DC     Power Consumption   System: 8W     PoE Power Budget: 60W   ESD Protection		PoE Power up to 30W for each PoE port
Power   Primary: 48V to 57V DC     Input Voltage   Primary: 48V to 57V DC     Redundant: 48V to 57V DC   Redundant: 48V to 57V DC     Power Connection   4-pin DC-Jack (48V DC)(Primary Power Input)     6-pin Terminal block (Primary/Redundant Input)   Input Polarity Protection     Input Polarity Protection   Present     Voltage Drop Alarm   Primary/Redundant Power Input     Alarm Relay   One relay output with current carrying capacity of 1A @ 24V DC     Power Consumption   System: 8W     PoE Power Budget: 60W   ESD Protection	PoE+	Auto detect powered devices (PDs)
Input Voltage     Primary: 48V to 57V DC       Redundant: 48V to 57V DC     Redundant: 48V to 57V DC       Power Connection     4-pin DC-Jack (48V DC)(Primary Power Input)       Input Polarity Protection     Present       Voltage Drop Alarm     Primary/Redundant Power Input       Alarm Relay     One relay output with current carrying capacity of 1A @ 24V DC       Power Consumption     System: 8W       PoE Power Budget: 60W     ESD Protection		Remote Power Feeding up to 100m
Input Voltage Redundant: 48V to 57V DC   Power Connection 4-pin DC-Jack (48V DC)(Primary Power Input)   6-pin Terminal block (Primary/Redundant Input)   Input Polarity Protection Present   Voltage Drop Alarm Primary/Redundant Power Input   Alarm Relay One relay output with current carrying capacity of 1A @ 24V DC   Power Consumption System: 8W   PoE Power Budget: 60W ESD Protection	Power	
Redundant: 48V to 57V DC     Power Connection   4-pin DC-Jack (48V DC)(Primary Power Input)     6-pin Terminal block (Primary/Redundant Input)     Input Polarity Protection   Present     Voltage Drop Alarm   Primary/Redundant Power Input     Alarm Relay   One relay output with current carrying capacity of 1A @ 24V DC     Power Consumption   System: 8W     PoE Power Budget: 60W   ESD Protection	Input Voltage	<u> </u>
Power Connection     6-pin Terminal block (Primary/Redundant Input)       Input Polarity Protection     Present       Voltage Drop Alarm     Primary/Redundant Power Input       Alarm Relay     One relay output with current carrying capacity of 1A @ 24V DC       Power Consumption     System: 8W       PoE Power Budget: 60W     ESD Protection       8KV, 15KV (contact/air)     SkV, 15KV (contact/air)		
6-pin Terminal block (Primary/Redundant Input)     Input Polarity Protection   Present     Voltage Drop Alarm   Primary/Redundant Power Input     Alarm Relay   One relay output with current carrying capacity of 1A @ 24V DC     Power Consumption   System: 8W     PoE Power Budget: 60W   ESD Protection     8KV, 15KV (contact/air)	Power Connection	4-pin DC-Jack (48V DC)(Primary Power Input)
Voltage Drop Alarm Primary/Redundant Power Input   Alarm Relay One relay output with current carrying capacity of 1A @ 24V DC   Power Consumption System: 8W   PoE Power Budget: 60W   ESD Protection 8KV, 15KV (contact/air)	Power connection	6-pin Terminal block (Primary/Redundant Input)
Alarm Relay One relay output with current carrying capacity of 1A @ 24V DC   Power Consumption System: 8W   PoE Power Budget: 60W   ESD Protection 8KV, 15KV (contact/air)	<u> </u>	
Addition Relay of 1A @ 24V DC   Power Consumption System: 8W   PoE Power Budget: 60W   ESD Protection 8KV, 15KV (contact/air)	Voltage Drop Alarm	
of 1A @ 24V DC   Power Consumption System: 8W   PoE Power Budget: 60W   ESD Protection 8KV, 15KV (contact/air)	Alarm Relay	One relay output with current carrying capacity
Power Consumption     PoE Power Budget: 60W       ESD Protection     8KV, 15KV (contact/air)		of 1A @ 24V DC
ESD Protection 8KV, 15KV (contact/air)	Power Consumption	System: 8W
		PoE Power Budget: 60W
Surge Protection 6KV	ESD Protection	8KV, 15KV (contact/air)
	Surge Protection	6KV

Mechanical and Environment		
Housing	5	Aluminum (IP30 Protection)
Mounting		DIN-Rail
Operati	ng Temperature	-40°C to 75°C
Storage	Temperature	-40°C to 85°C
Operati	ng Humidity	10% to 95% RH (non-condensing)
Storage	Humidity	5% to 95% RH (non-condensing)
Weight		460g
Dimens	ion (WxHxD)	50 x 120 x 100 mm
Certifi	cations	·
Safety		UL/IEC/EN 60950
FCC		Part 15 Subpart B Class A
	FMI	EN 55011
	EIVII	EN 55022
	EMS	EN 55024
		EN 61000-6-2
CE		EN 61000-4-2 (ESD)
		EN 61000-4-3 (RS)
		EN 61000-4-4 (EFT)
		EN 61000-4-5 (Surge)
		EN 61000-4-6 (CS)
		EN 61000-4-8 (PFMF)
Shock		IEC 60068-2-27
Freefall		IEC 60068-2-32
Vibratio	on	IEC 60068-2-6
Battery	-powered	UL/IEC/EN 60950-1
Orderi	ng Information	
PS-1020		2-Port Industrial GIGABIT PoE SWITCH
		2 GE (PoE) + 1 SFP (GE)
Power Adapter		90W, 48V, Industrial Grade AC Power Adapter
		(-30°C to 60°C for 220V AC input)
(Include	ea)	(P/N: PS-9001)

Note : \* The SFP communication distance upon the request (support 550m to 120km). \* Specifications subject to change without notice.

# Drawing



3

