



NEW

180 Watts,
24V Booster

ITP-800-8PH24

8x 10/100Base-TX with 8x PoE+ Ethernet Switch

The ITP-800-8PH24 is a non-managed Fast Ethernet PoE switch that provides 8 10/100Base-TX PoE+ Fast Ethernet ports. The Ethernet switch is designed for industrial applications in harsh environments. The switch's Ethernet ports utilize M12 connectors to ensure tight, robust connections and guarantee reliable operation against environmental disturbances such as vibration and shock. The ITP-800-8PHE24 series Ethernet switches are compliant with EN 50155, covering operating temperature, power input voltage, surge, ESD, vibration, and shock, thus making these switches suitable for industrial applications in vehicle, rolling stock and railways.

Feature

- IP67 grade housing for against water, dust, and oil (Figure 3)
- 8-Port 10/100Base-TX UTP with 8x IEEE802.3af/af PoE Ethernet Switch
- Use M12/M23 connector anti vibration and shock for vehicle, rolling stock, and railway applications
- 24/48VDC (20~57VDC) redundant dual input power with built-in very high efficiency (94~97%) to boost PoE output voltage to 55VDC
- Regulated PoE output voltage (55VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100meter (Figure 2)
- Provides 8-port IEEE802.3af / 802.3at PoE output (30W per Port), Maximum PoE output power budget 180W
- Supports flow control
- DIN rail or wall mounting installation
- Supports broadcast storm protection
- Supports auto-negotiation and auto-MDI/MDI-X
- Wide operating temperature -40~75°C (ITP-800-8PHE24)
- CE, FCC, EN50155 and EN50121-4 for railway certified
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified

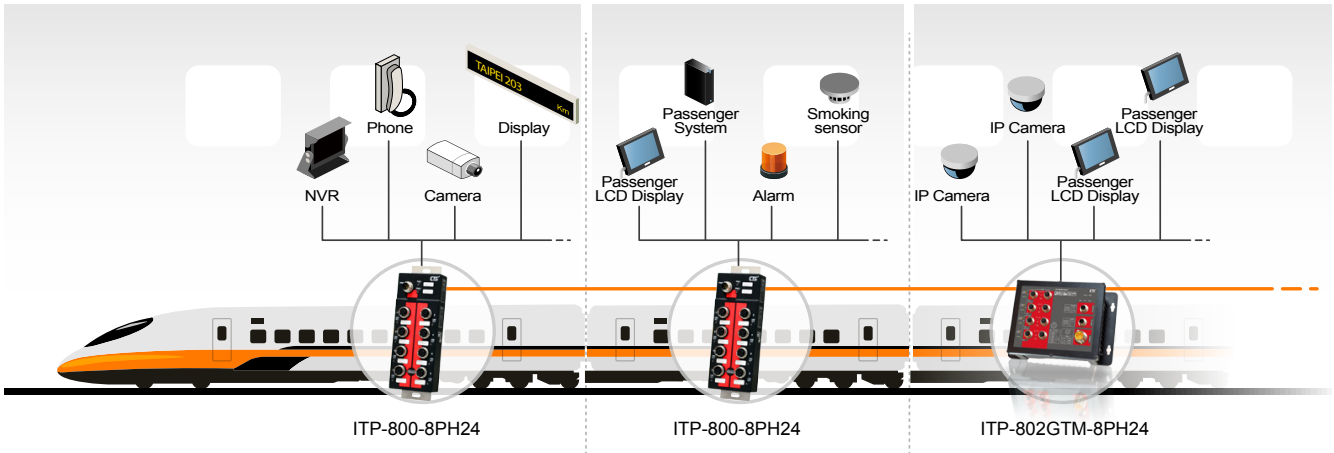
Specifications

IEEE Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.3af PoE (Power over Ethernet) IEEE 802.3at PoE+ (Power over Ethernet enhancements)
Switch Architecture	Back-plane (Switching Fabric): 1.6Gbps
Data Processing	Store and Forward
Flow Control	IEEE 802.3x flow control, back pressure flow control
Provides Broadcast Storm Protection	Present
MAC Address Table	1 K
Packet Buffer Size	448Kbits
Network Connector	8x M12 D-code Female 10/100Base-TX auto negotiation speed Auto MDI/MDI-X function Full/Half duplex
Network Cable	10Base-T: 2-pair UTP/STP Cat. 5e cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5e cable EIA/TIA-568 100-ohm (100m)
Protocols	CSMA/CD
LED	Per unit: Power 1 (Green), Power 2 (Green) Per port: Link/Active (Green) PoE Port LED 1x LED /per Port : • PoE Output Power On : ON (Green) • PoE Output Power Off : Off (Green)
Reverse Polarity Protection	Present for power input
Overload Current Protection	Present
PoE Standard	IEEE802.3af, IEEE802.3at
PoE Power Budget	Maximum PoE output power budget 180W (30W/per port) Regulated PoE output voltage at 55VDC (Figure 2)
Power Supply	Provide 1x M23 (5-Pin, male) for redundant dual DC 24/48V (20~57VDC) input power Built-in very high efficiency (94~97%) to boost PoE output voltage to 55VDC Regulate PoE output voltage (55VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100meter (Figure 2)

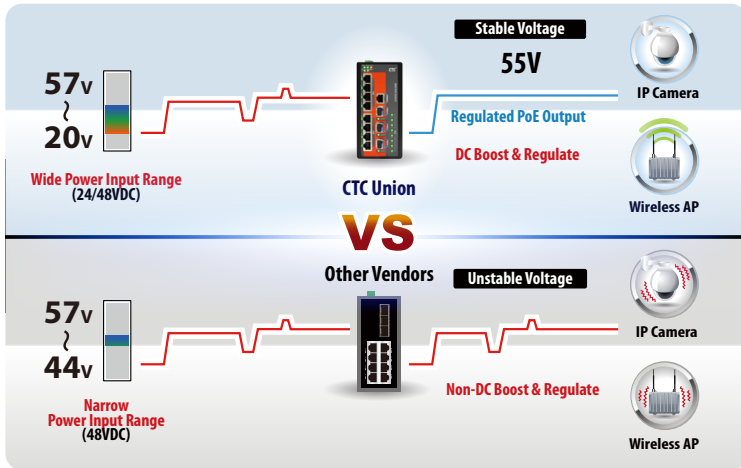
Power Consumption	<table border="1"> <thead> <tr> <th>Input Voltage</th> <th>Total Power Consumption</th> <th>Device Power Consumption</th> <th>PoE Budget</th> <th>Boost Efficiency</th> </tr> </thead> <tbody> <tr> <td>24 VDC</td> <td>188.9W</td> <td>3.6W</td> <td>180W</td> <td>95.7%</td> </tr> <tr> <td>48 VDC</td> <td>191W</td> <td>4.3W</td> <td>180W</td> <td>96.0%</td> </tr> </tbody> </table>	Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget	Boost Efficiency	24 VDC	188.9W	3.6W	180W	95.7%	48 VDC	191W	4.3W	180W	96.0%
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24 VDC	188.9W	3.6W	180W	95.7%												
48 VDC	191W	4.3W	180W	96.0%												
Operating Temperature	-10°C~60°C (ITP-800-8PH24) -40°C~75°C (ITP-800-8PHE24)															
Operating Humidity	5% to 95% (Non-condensing)															
Storage Temperature	-40°C~85°C															
Housing	IP67 water-proof grade housing, and fan-less (Figure 3)															
Dimensions	66.8 x 71.4 x 214.5 mm (D x W x H)															
Weight	TBD															
Installation Mounting	DIN rail or wall mounting															
MTBF	582,483 Hours (MIL-HDBK-217)															
Warranty	5 years															
Certification																
EMC	CE															
EMI	FCC, FCC Part 15 Subpart B Class A CE EN 55022 Class A															
Railway Traffic	EN50155, EN50121-4															
Immunity for Heavy Industrial Environment	EN61000-6-2															
Emission for Heavy Industrial Environment	EN61000-6-4															
EMS (Electromagnetic Susceptibility) Protection Level	EN61000-4-2 (ESD) Level 3, Criteria B EN61000-4-3 (RS) Level 3, Criteria A EN61000-4-4 (Burst) Level 3, Criteria A EN61000-4-5 (Surge) Level 3, Criteria B EN61000-4-6 (CS) Level 3, Criteria A EN61000-4-8 (PFMF, Magnetic Field) Field Strength: 300A/m, Criteria A EN 61000-4-11 Voltage Dips EN 61000-4-12															
Safety	UL60950-1 (Pending)															
Shock	IEC 61373															
Freefall	IEC 60068-2-32															
Vibration	IEC 61373															

Application

► **Figure 1 : ITP Series in Railway Application**



► **Figure 2 : High efficiency boost technology for PoE**



- Regulated PoE output voltage (55VDC) to stabilize PoE device
- Guarantee delivery PoE power distance to 100 meter
- Wide range input power 24/48VDC (20~57VDC)
- Built-in very high efficiency (94~97%) to boost PoE output voltage

► **Figure 3 : IP67 water proof Protection**



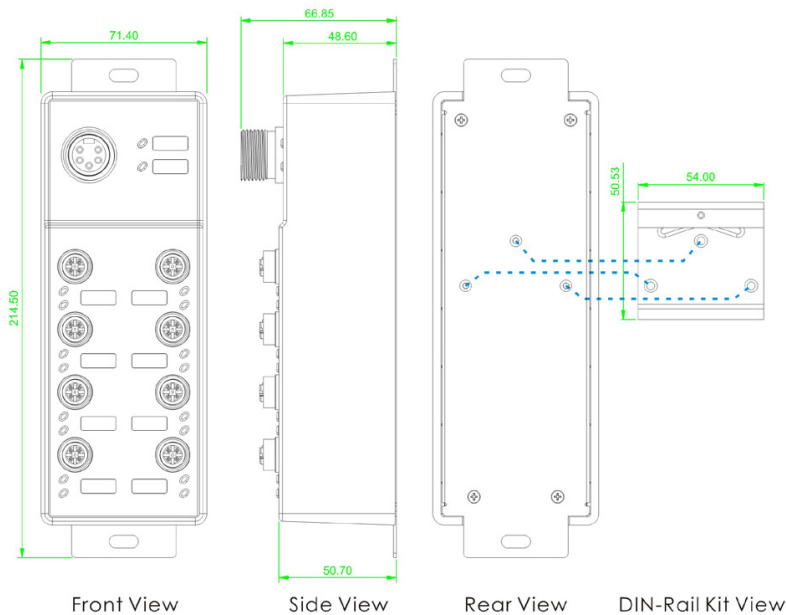
► **Figure 4 : Wide Range Temperature**



► **Figure 5 : ITP Series for Industrial Automation**



Dimensions



Ordering Information

Model Name	IP67	Total Port	UTP Port M12	PoE Port	PoE Total Power Budget	Input Voltage	Certification				Shock Vibration	Operating Temperature
			10/100 Base-TX	IEEE802.3af			EN50155	EN50121-4	EN61000-6-2 EN61000-6-4	CE FCC	IEC61373	
ITP-800-8PH24	V	8	8	8	180W	V	V	V	V	V	V	-10~60°C
ITP-800-8PHE24	V	8	8	8	180W	V	V	V	V	V	V	-40~75°C

Model Naming Rule



Optional Accessories

Industrial Power Supply

DR-4524	Industrial Power, Input 85 ~ 264VAC, Output 24VDC, 48W, -10 ~ +50°C
DRP-240-48	Industrial Power, Input 85 ~ 264VAC, Output 48VDC, 240W, -10 ~ +70°C

Optional Cable/Connector

P/N: CAB-M12DM4-RJ45
M12 D-code Male (4-Pin) to RJ-45, AWG 24, IP67, 1 meter



For FE UTP

P/N: CAB-M23F5-OPEN
M23 Female (5-Pin) to open wire, (AWG 16), IP67, 1 meter



For Power

P/N: M12D-M4
M12 D-code Male (4-Pin) connector, IP67



For FE UTP

Package List

- ITP-802-8PH24 device
- Protective caps for UTP port
- Wall mount (bound with switch device)
- Din Rail with screws
- Quickly installation guide