

## ITP-802GT-8PH24

2x Gigabit M12 + 8x 10/100Base M12 with 8x PoE 120W, 24/48VDC

**NEW**



- 24/48VDC input power
- Regulated PoE output voltage
- M12 connector for UTP and Power
- EN50155, EN50121-4 and EN45545-2 for railway certified



The ITP-802GT-8PH24 is an unmanaged, PoE switch, that provides 8 x 10/100Base-TX PoE+ Ethernet ports and 2x Gigabit can be uplink ports. This Ethernet switch is designed for industrial applications in harsh environments with Ethernet ports that utilize M12 connectors to ensure, robust connections and guarantee reliable operation against environmental disturbances such as vibration and shock. The Ethernet switch is compliant with EN50155, covering operating temperature, power input voltage, surge, ESD, vibration, and shock, thus making switch suitable for industrial applications in vehicle, rolling stock and factory automation.

### Features

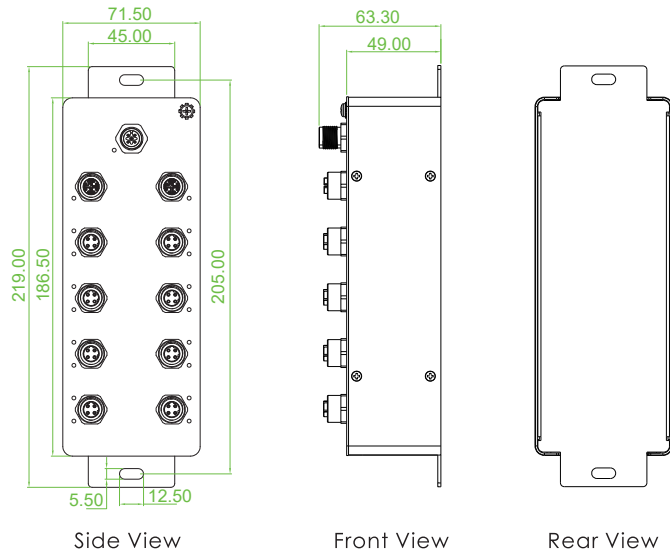
- Use M12 connector anti vibration and shock for vehicle, rolling stock, and railway applications
- Regulated PoE output voltage (50VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100 meters
- Wide operating temperature -40~75°C
- CE, FCC, EN51055, EN50121-4 and EN45545-2 for railway certified
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified

### Specifications

<b>IEEE Standard</b>	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T Gbit/s Ethernet over twisted pair IEEE 802.3x Flow Control and Back Pressure IEEE 802.3af PoE (Power over Ethernet) IEEE 802.3at PoE+ (Power over Ethernet enhancements)
<b>Switch Architecture</b>	Back-plane (Switching Fabric): 5.6Gbps (Full wire-speed)
<b>Data Processing</b>	Store and Forward
<b>Flow Control</b>	IEEE 802.3x flow control, back pressure flow control
<b>MAC Address Table</b>	4 K
<b>Packet Buffer Size</b>	448Kbits
<b>Network Connector</b>	8x M12 D-code Female 10/100Base-TX auto negotiation speed 2x M12 X-code Female 10/100/1000Base-TX auto negotiation speed Auto MDI/MDI-X function Full/Half duplex
<b>Network Cable</b>	UTP/STP Cat. 5e cable above EIA/TIA-568 100-ohm (100meter)
<b>Protocols</b>	CSMA/CD
<b>LED</b>	Per unit: Power 1 (Green) Per port: Link/Active (Green) PoE Port LED 1x LED /per Port : • PoE Output Power On : ON (Green)
<b>Reverse Polarity Protection</b>	Present for power input
<b>Overload Current Protection</b>	Supported
<b>PoE Standard</b>	IEEE 802.3af, IEEE 802.3at
<b>PoE Power Budget</b>	Maximum PoE output power budget 120W (30W/per port)
<b>Power Supply</b>	Provide 1x M12 (5-Pin) for DC 24/48V (20~57VDC) input power Built-in very high efficiency (97~98%) to boost PoE output voltage to 50VDC Regulate PoE output voltage (50VDC) to stabilize PoE device, and guarantee delivery PoE power distance to 100 meters

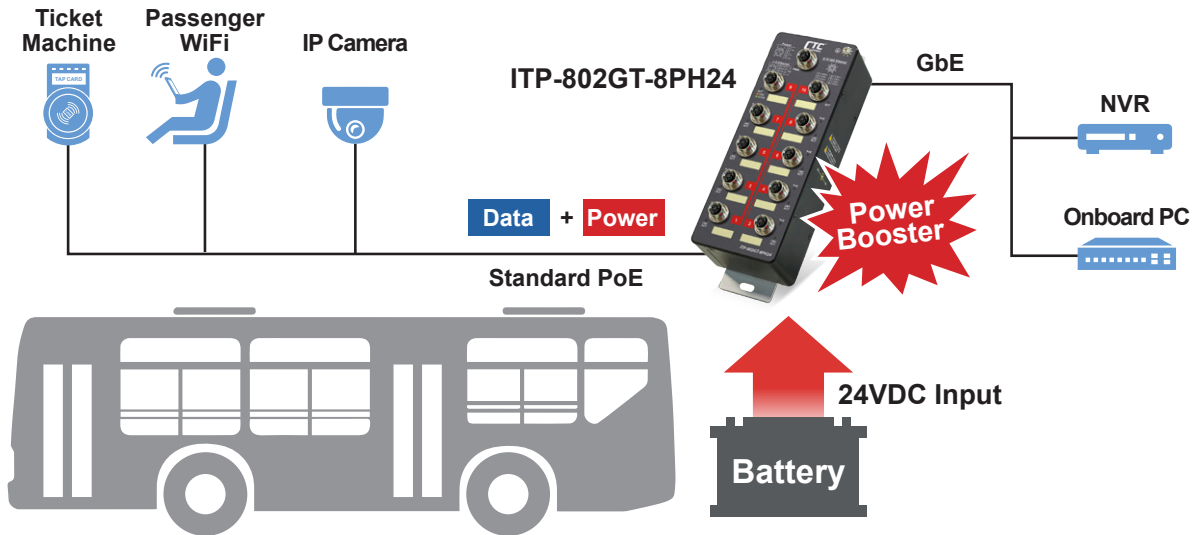
<b>Power Consumption</b>	<table border="1"> <thead> <tr> <th>Input Voltage</th> <th>Total Power Consumption</th> <th>Device Power Consumption</th> <th>PoE Budget</th> <th>Boost Efficiency</th> </tr> </thead> <tbody> <tr> <td>24 VDC</td> <td>125W</td> <td>3.6W</td> <td>120W</td> <td>98%</td> </tr> <tr> <td>48 VDC</td> <td>127W</td> <td>4.3W</td> <td>120W</td> <td>97%</td> </tr> </tbody> </table>	Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget	Boost Efficiency	24 VDC	125W	3.6W	120W	98%	48 VDC	127W	4.3W	120W	97%
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24 VDC	125W	3.6W	120W	98%												
48 VDC	127W	4.3W	120W	97%												
<b>Operating Temperature</b>	-10°C~60°C (ITP-802GT-8PH24) -40°C~75°C (ITP-802GT-8PHE24)															
<b>Operating Humidity</b>	5% to 95% (Non-condensing)															
<b>Storage Temperature</b>	-40°C~85°C															
<b>Housing</b>	Rugged metal, IP30 protection housing, and fanless															
<b>Dimensions</b>	63.3 x 71.5 x 219mm (D x W x H)															
<b>Weight</b>	TBD															
<b>Installation Mounting</b>	Wall mounting															
<b>MTBF</b>	TBD (MIL-HDBK-217)															
<b>Warranty</b>	5 years															
<b>Certification</b>																
<b>EMC</b>	CE (EN55035, EN55032)															
<b>EMI</b>	FCC, FCC Part 15 Subpart B Class A CE															
<b>Railway Traffic</b>	EN50155, EN50121-4															
<b>Fire Protection of Railway Vehicles</b>	EN45545-2															
<b>EMS (Electromagnetic Susceptibility) Protection Level</b>	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 EN61000-4-11 Voltage Dips															
<b>Shock</b>	IEC 61373															
<b>Freefall</b>	IEC 60068-2-32															
<b>Vibration</b>	IEC 61373															

## Dimensions



## Application

Figure 1 : EN50155 PoE switch in smart Bus application



## Optional Accessories

### 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-M12AF5-OPEN**  
M12 A-code Female (5-Pin) to open wire, AWG 22, IP67, 1 meter



For Power

**P/N: CAB-M12XM8-RJ45**  
M12 X-code Male (8-Pin) to RJ-45, AWG 24 ,IP67, 1 meter



For GbE UTP (X-code)

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



For FE UTP

## Ordering Information

Model Name	Total Port	UTP Port M12		PoE Port	PoE Total Power Budget	Power Input	Certification				Shock Vibration	Operating Temperature
		10/100 Base-TX	10/100/1000 Base-TX	IEEE802.3at		Redundant	EN45545-2	EN50121-4	EN50155	CE, FCC	IEC61373	
ITP-802GT-8PH24	8	8	2	8	120W	24/48VDC	V	V	V	V	V	-10~60°C
ITP-802GT-8PHE24	8	8	2	8	120W	24/48VDC	V	V	V	V	V	-40~75°C

### Package List

- ITP-802GT-8PH24
- Protective caps for UTP port
- Wall mount