



180 Watts,
24V Booster

ITP-802GSM-8PH24

8x 10/100Base-T + 2x 100/1000Base-X SFP with 8x PoE+ Managed Ethernet Switch

ITP-802GTM-8PH24

8x 10/100Base-T + 2x 100/1000Base-X with 8x PoE+ Managed Ethernet Switch

ITP-800M-8PH24

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

ITP-802GSM-8PH24 series are managed industrial grade PoE (Power over Ethernet) switches with 8x 10/100Base-TX PoE ports and/or 2 SFP/UTP Gigabit/Fast Ethernet ports that provide stable and reliable Ethernet transmission. ITP-802GSM-8PH24 series equipped with PoE feature enable power and data to be transferred via a single cable, hereby considerably reducing cabling expense. ITP-802GSM-8PH24 series also provide a variety of functions to manage PoE operation including PoE device auto-checking, auto reset, PoE power weekly scheduling. Other L2 management functions supported include STP/RSTP/MSTP/ ITU-T G.8032 Ring and multiple u-Ring for redundant cabling, layer 2 Ethernet IGMP, VLAN, QoS, Security, IPv6, bandwidth control, port mirroring, cable diagnostic and Green Ethernet.

Housed in rugged DIN rail or wall mountable enclosures, these switches are designed for the harshest environments. Especially, ITP-802GSM-8PH24 series switches use M12 connectors to ensure tight, robust connections and to guarantee reliable and anti environmental disturbances operation, such as vibration and shock. ITP-802GSM-8PH24 series are compliant with EN 50155, covering power input voltage, surge, EFT, ESD, vibration, shock, thus making the switches suitable for industrial applications, such as vehicle, rolling stock, ship, vessel.

ITP-802GSM-8PH24 series are IP67 rated to protect against dust and water submersion. They are particularly used in environments with extreme temperature, high humidity, oil, dust and in outdoor environments requiring water-proof applications such as IP surveillance, city security. ITP-802GSM-8PH24 series can also work with CTC Management platform SmartView to provide convenient, real-time and centralized network management.

Feature

- 8x 10/100Base-TX M12 and 2x 100/1000Base-X SFP Fiber (Total 10 Port) (ITP-802GSM-8PH24)
- 8x 10/100Base-TX M12 and 2x 10/100/1000Base-T (Total 10 Port) (ITP-802GTM-8PH24)
- 8x 10/100Base-TX M12 (Total 8 Port) (ITP-800M-8PH24)
- M12 and M23 connector against vibration and shock
- IP67 water proof design against dust and water (Figure 4)
- 24/48VDC redundant dual input power, and built-in power booster design upto 55 VDC for PoE output (Figure 2)
- 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
- Advanced PoE Management, PoE PD Failure Auto Checking and auto reset, PoE configuration for power planning, weekly scheduling
- UL60950-1, CE, FCC, Rail Traffic EN50155, EN50121-4 certified
- Industrial Grade EMS, EMI, EN61000-6-2, EN61000-6-4 certified
- Cable diagnostic, Measuring cable OK or broken point distance
- Supports Green Ethernet IEEE802.3az EEE (Energy Efficient Ethernet) management to optimize the power consumption
- STP, RSTP, MSTP, ITU-T G.8032 Ethernet Protection Ring (EPR) for redundant cabling
- Provide up to 5 instances that each supports u-Ring, u-Chain or Sub-Ring type for flexible uses (Figure 6)
- u-Ring for Redundant Cabling, recovery time < 10ms in 250 maximum devices
- DHCP Server/Client/Relay/Snooping/Snooping option 82/Relay option 82
- QoS, Traffic classification QoS, CoS, bandwidth control for Ingress and Egress, Storm Control, DiffServ
- IEEE802.1q VLAN, MAC based VLAN, IP subnet based VLAN, Protocol based VLAN, VLAN translation, GVRP, MVR
- Dynamic IEEE 802.3ad LACP Link Aggregation, Static Link Aggregation
- IGMP snooping V1/V2/V3, IGMP Filtering/ Throttling, IGMP query, IGMP proxy reporting, MLD snooping V1/V2
- Security : Port based and MAC based IEEE802.1X, RADIUS, ACL, TACACS+, HTTP/HTTPS, SSL/SSH v2
- Software upgrade via TFTP and HTTP, redundant firmware to avoid in case of upgrade failure
- Support IEEE1588 PTP V2 for precise time synchronization to operate in Ordinary-Boundary, Peer to Peer Transparent Clock, End to End Transparent Clock, Master, Slave mode by each port
- RMON, MIB II, Port mirroring, Event syslog, DNS, NTP IEEE802.1ab LLDP
- Support 5 operating mode in each port: Ordinary-Boundary, Peer to Peer Transparent Clock, End to End Transparent Clock, Master, Slave
- Supports IPv6 Telnet server /ICMP v6
- CLI, Web based management, SNMP v1/v2c/v3, Telnet server for management
- Provides SmartConfig for quick and easy mass configuration tool (Figure 8)
- Supports SmartView for centralized management (Figure 9)
- Supporting Central EMS for management of upto 50 SmartView Server, and maximum upto 25,000 device (Figure 10)

Specifications

Standard	IEEE 802.3	10Base-T 10Mbit/s Ethernet
	IEEE 802.3u	100Base-TX, 100Base-FX, Fast Ethernet
	IEEE 802.3ab	1000Base-T Gbit/s Ethernet over twisted pair
	IEEE 802.3z	1000Base-X Gbit/s Ethernet over Fiber-Optic
	IEEE 802.1d	STP (Spanning Tree Protocol)
	IEEE 802.1w	RSTP (Rapid Spanning Tree Protocol)
	IEEE 802.1s	MSTP (Multiple Spanning Tree Protocol)
	ITU-T G.8032 / Y.1344	ERPS (Ethernet Ring Protection Switching)
	IEEE 802.1Q	Virtual LANs (VLAN)
	IEEE 802.1X	Port based and MAC based Network Access Control, Authentication
	IEEE 802.3ad	Link aggregation for parallel links with LACP(Link Aggregation Control Protocol)
	IEEE 802.3x	Flow control for Full Duplex
	IEEE 802.3af	PoE (Power over Ethernet)
	IEEE 802.3at	PoE+ (Power over Ethernet enhancements)

Standard	IEEE 802.1ad	Stacked VLANs, Q-in-Q
	IEEE 802.1p	LAN Layer 2 QoS/CoS Protocol for Traffic Prioritization
	IEEE 802.1ab	Link Layer Discovery Protocol (LLDP)
	IEEE 802.3az	EEE (Energy Efficient Ethernet)
VLAN ID	4094	IEEE802.1Q VLAN VID
Switch Architecture	Back-plane (Switching Fabric): 5.6Gbps (ITP-802GSM-8PH24) 5.6Gbps (ITP-802GTM-8PH24) 1.6Gbps (ITP-800M-8PH24) (Full wire-speed)	
Data Processing	Store and Forward	
Flow Control	IEEE 802.3x for full duplex mode Back pressure for half duplex mode	
PoE RJ-45 Pin Assignment	8x M12 (4-Pin D-code Female) ports support IEEE 802.3af / IEEE 802.3at End-Span, Alternative A mode. Positive (V+) : M12 pin 2,4 Negative (V-) : M12 pin 1,3. Data (1,2,3,4)	

ITP-802GSM-8PH24, ITP-802GTM-8PH24 & ITP-800M-8PH24

Specifications & design are subject to change without prior notice. Please visit CTC Union website for more details.

Managed PoE Switch

Network Connector	8x M12 (4-Pin, Female,D-Code) 10/100Base-TX UTP , Auto negotiation speed, Auto MDI/MDI-X function, Full/Half duplex 2x M12 (8-Pin, female,A-Code) 10/100/1000Base-T UTP (For ITP-802GTM-8PH24)																																								
Network Connector	Water proof Fiber Cable Gland support for 2 X 100/1000 Base-X SFP slot, with DDMI (For ITP-802GSM-8PH24) Build-in 2 bypass port (For ITP-802GTM-8PH24)																																								
Console	RS-232 (5-pin A-Code M12 male)																																								
Network Cable	UTP/STP above Cat. 5e cable EIA/TIA-568 100-ohm (100m)																																								
Protocols	CSMA/CD																																								
Reverse Polarity Protection	Present																																								
Overload Current Protection	Present																																								
CPU Watch Dog	Present																																								
LED	Per unit: Power 1 (Green), Power 2 (Green), Fault (Amber), CPU Act (Green), Ring Master (Yellow) Per UTP port: 10/100 Link/Active (Green) 1000 Link/Active (Amber) (For ITP-802GTM-8PH24) SFP Fiber Per port: Link/Active (Green) (For ITP-802GSM-8PH24) PoE Port LED 1 LED /per Port : • PoE Output Power On : ON (Green) • PoE Fault (Over Load, Short Circuit, Port failed at Startup) : Flash 1times /sec (Green) • PoE Output Power Off : Off (Green)																																								
Jumbo Frame	9.6KB																																								
MAC Address Table	8K																																								
Memory Buffer	256K Bytes for packet buffer																																								
PoE Standard	IEEE802.3af, IEEE802.3at																																								
PoE Power Output	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 power booster design up to 55 VDC for PoE output Built-in very high efficiency booster(94~97%) to rise up 55 VDC for PoE output Regulated 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 colspan="5">ITP-802GSM-8PH24</th> </tr> <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>196.4W</td> <td>8.1W</td> <td>180W</td> <td>95.50%</td> </tr> <tr> <td>48 VDC</td> <td>197.8W</td> <td>9.6W</td> <td>180W</td> <td>95.60%</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="5">ITP-802GTM-8PH24</th> </tr> <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>198.3W</td> <td>8.9W</td> <td>180W</td> <td>95.00%</td> </tr> <tr> <td>48 VDC</td> <td>198.8W</td> <td>10.1W</td> <td>180W</td> <td>95.30%</td> </tr> </tbody> </table>	ITP-802GSM-8PH24					Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget	Boost Efficiency	24 VDC	196.4W	8.1W	180W	95.50%	48 VDC	197.8W	9.6W	180W	95.60%	ITP-802GTM-8PH24					Input Voltage	Total Power Consumption	Device Power Consumption	PoE Budget	Boost Efficiency	24 VDC	198.3W	8.9W	180W	95.00%	48 VDC	198.8W	10.1W	180W	95.30%
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ITP-800M-8PH24																					
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24 VDC	195.6	7.2W	180W	95.50%																	
48 VDC	196.8	8.7	180W	95.60%																	
Warning Message	System Syslog, SMTP/ e-mail event message, alarm relay																				
Alarm Relay Contact	5-pin A-code M12 male Relay outputs with current carrying capacity of 1 A @24VDC																				
Operating Temperature	-10 ~ 60°C (ITP-802GSM-8PH24, ITP-802GTM-8PH24, ITP-800M-8PH24) -40 ~ 75°C (ITP-802GSM-8PHE24, ITP-802GTM-8PHE24, ITP-800M-8PHE24)																				
Operating Humidity	5% to 95% (Non-condensing)																				
Storage Temperature	-40 ~ 85°C																				
Housing	Rugged Metal, Fanless , IP67 water proof protection (Figure 4)																				
Dimensions	70x240x168mm (D x W x H)																				
Weight	2.17kg (ITP-802GSM-8PH24) 2.15kg (ITP-802GTM-8PH24) 2.055kg (ITP-800M-8PH24)																				
Installation Mounting	Wall mounting, or DIN Rail mounting (Optional)																				
MTBF	184,605Hours (ITP-802GSM-8PH24) 131,930 Hours (ITP-802GTM-8PH24) 218,010 Hours (ITP-800M-8PH24)																				
Warranty	5 years																				
Certification																					
EMC	CE																				
EMI (Electromagnetic Interference)	FCC Part 15 Subpart B Class A,CE EN55022 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 (PFME, Magnetic Field) Field Strength: 300A/m, Criteria A																				
Safety	UL60950-1																				
Shock	IEC-61373																				
Freefall	IEC 60068-2-32																				
Vibration	IEC-61373																				
Traffic Classification QoS	IEEE802.1p based CoS IP Precedence based CoS IP DSCP based CoS																				
Traffic Classification QoS	QCL(QoS Control List): Frame Type, Source/ Destination MAC, VLAN ID, PCP, DEI QCE(QoS Control Entry): Protocol, Source IP, IP Fragment, DSCP, TCP/UDP port number																				
Bandwidth Control for Ingress	Rate in steps :1 kbps / Mbps / fps / kfps Range : 100 kbps to 1Gbps / 1fps to 3300kfps Rate Unit : bit or frame																				
Bandwidth Control for Egress	Rate in steps : 1 kbps / Mbps Range : 100 kbps to 1Gbps Rate Unit : bit Per queue / Per port shaper																				
DiffServ (RF 2474) Remarking																					
Storm Control	for Unicast, Broadcast, Multicast																				
IP Multicasting Feature																					
IGMP / MLD Snooping	IGMP Snooping v1, v2, v3 / MLD Snooping v1, v2 Port Filtering Profile, Throttling																				
IGMP / MLD Snooping	Fast Leave Maximum Multicast Group : up to 1022 entries Query / Static Router Port																				
Security Features																					
IEEE 802.1X	Port-Based, MAC-Based																				

Software Specifications

Topology	
VLAN	IEEE 802.1q VLAN, up to 4094 802.1Q VLAN VID IEEE 802.1q VLAN, up to 4094 Groups IEEE 802.1ad Q-in-Q MAC-based VLAN, up to 256 entries IP Subnet-based VLAN, up to 128 entries Protocol-based VLAN(Ethernet, SNAP, LLC), up to 128 entries VLAN Translation, up to 256 entries GVRP (GARP VLAN Registration Protocol) MVR (Multicast VLAN Registration)
Link Aggregation (Port Trunk)	Static (Hash with SA, DA, IP, TCP/UDP port), up to 5 trunk group Dynamic (IEEE 802.3ad LACP), up to 5 trunk group
Spanning Tree	IEEE802.1d STP, IEEE802.1w RSTP, IEEE802.1s MSTP
Multiple u-Ring	up to 5 instances that each supports u-Ring, u-Chain or Sub-Ring type for flexible uses, and maximum up to 5 Rings. Recovery time <10ms The maximum number of devices allowed in a Ring supported ring is 250.
Loop Protection	Present
ITU-T G.8032 / Y.1344 ERPS (Ethernet Ring Protection)	Recovery time <50ms Single Ring, Sub-Ring, Multiple ring topology network
QoS Feature	
Class of Service	IEEE802.1p 8 active priorities queues for per port

ITP-802GSM-8PH24, ITP-802GTM-8PH24 & ITP-800M-8PH24

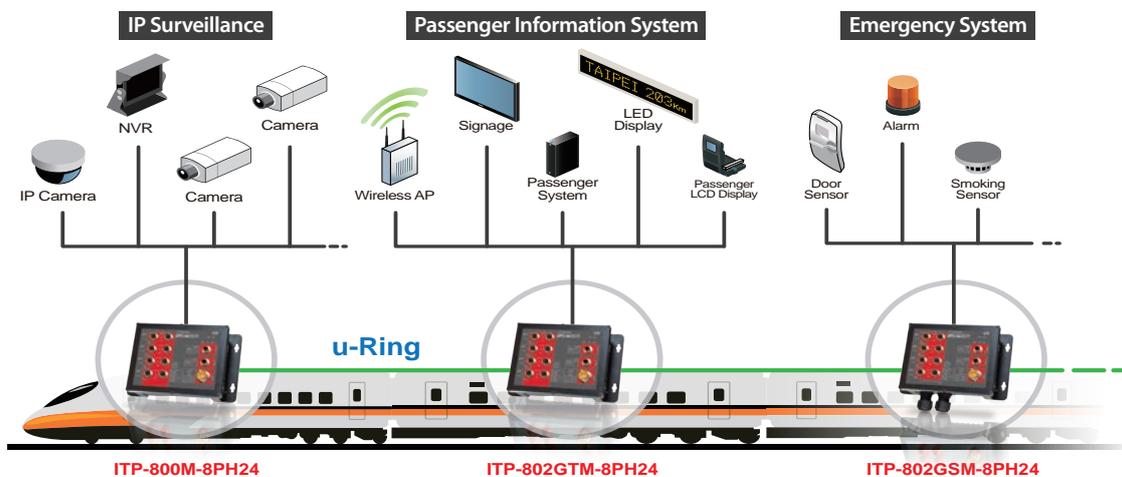
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ACL	Number of rules : up to 256 entries for L2 / L3 / L4
RADIUS authentication & accounting	
TACACS+ authentication & accounting, TACACS+ 3.0	
HTTPS, HTTP	
SSL / SSH v2	
User Name	Local Authentication
Password	
Authentication	Remote Authentication (via RADIUS / TACACS+)
Management	
Interface Access	Web, Telnet / SSH , CLI RS-232 console
Filtering	
Management Features	
CLI	Cisco® like CLI
Web Based Management	
Telnet	Server
SNMP	V1, V2c, V3
SW & Configuration Upgrade	TFTP, HTTP
Redundant firmware	in case of upgrade failure
RMON	RMON I (1, 2, 3, 9 group), RMON II
MIB II	RFC 1213
UPnP	
DHCP	Server, Client, Relay, Snooping Snooping option 82, Relay option 82
IP Source Guard	
Port Mirroring	
Event Syslog	Syslog server (RFC3164) (Support 1 server)
Warning Message	System syslog, e-mail, alarm relay
DNS	Client, Proxy
IEEE1588 PTP V2	Support 5 operating mode in each port : Ordinary-Boundary, Peer to Peer Transparent Clock, End to End Transparent Clock, Master, Slave

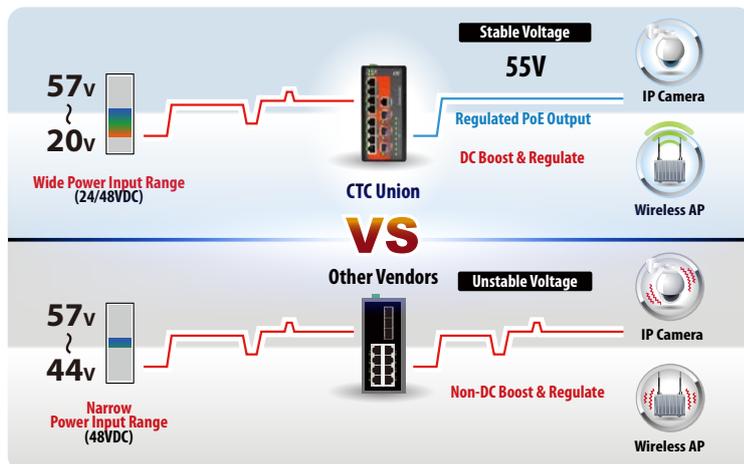
NTP	
LLDP (IEEE 802.1ab)	Link Layer Discovery Protocol LLDP-MED
IPv6 Features	
IPv6 Management	Telnet Server/ICMP v6
SNMP over IPv6	
HTTP over IPv6	
SSH over IPv6	
IPv6 Telnet Support	
IPv6 NTP Support	
IPv6 TFTP Support	
IPv6 QoS	
IPv6 ACL	Number of rules: up to 256 entries L2 / L3 / L4
Others Features	
Green Ethernet	Supports IEEE802.3az EEE (Energy Efficient Ethernet) Management to optimize the power consumption Determine the cable length and lowering the power for ports with short cables
Green Ethernet	Lower the power for a port when there is no link LED Power Management :Adjustment LEDs intensity
Cable Diagnostic	Measuring cable OK or broken point distance
Advanced PoE Management	
	PoE PD Failure Auto Checking, and Auto reset when PD fail
	PoE Scheduling (On/Off schedule weekly)
	PoE Configuration
	PoE Enable/Disable
	Power limit by classification
	Power limit by management
	Total PoE Power budget (maximum 180W) limitation
	Power feeding priority

Application

► Figure 1 : ITP Series in Onboard Application



► Figure 2 : High efficiency boost technology



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

ITP-802GSM-8PH24, ITP-802GTM-8PH24 & ITP-800M-8PH24

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► Figure 3 : ITP Series for Industrial Automation



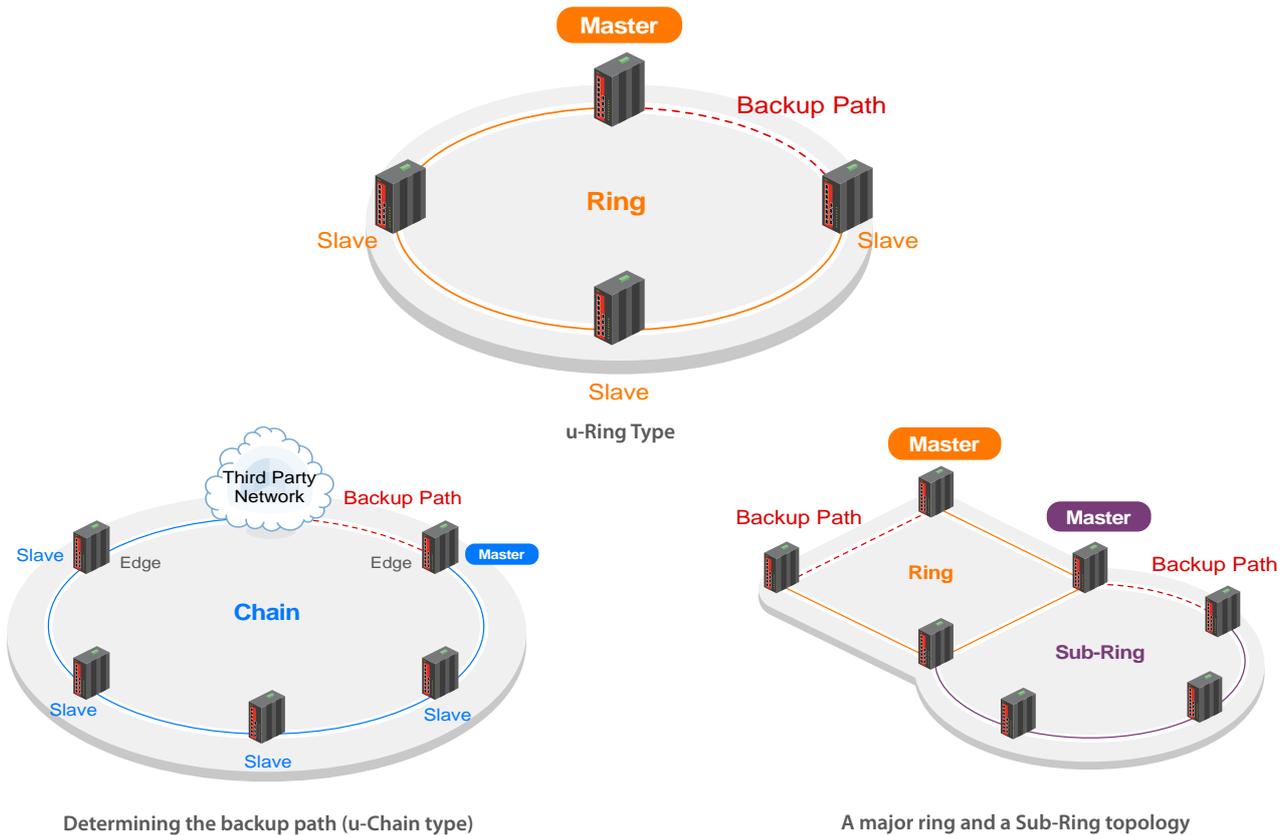
► Figure 4 : IP67 Waterproof



► Figure 5 : An illustration of u-Ring instances configured in Web interface

u-Ring Configuration								Auto-refresh <input type="checkbox"/>	Refresh
Delete	Instance	Type	Master	East		West			
				Port	Edge	Port	Edge		
Delete	1	u-Ring	<input type="checkbox"/>	1		2			
Delete	2	u-Ring	<input type="checkbox"/>	4		3			
Delete	3	u-Ring	<input type="checkbox"/>	10 (Fiber2)		11 (Fiber3)			
Delete	4	Sub-Ring	<input type="checkbox"/>	6					
Delete	5	u-Chain	<input type="checkbox"/>	5	<input type="checkbox"/>	9 (Fiber1)	<input type="checkbox"/>		

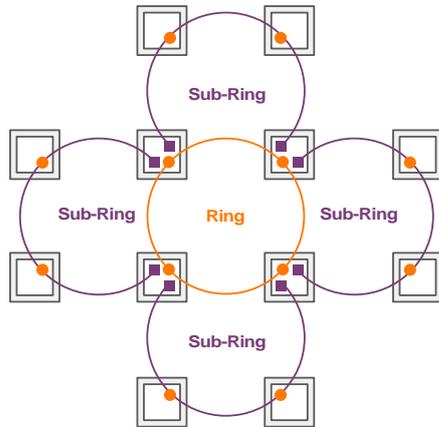
► Figure 6 : u-Ring Typ



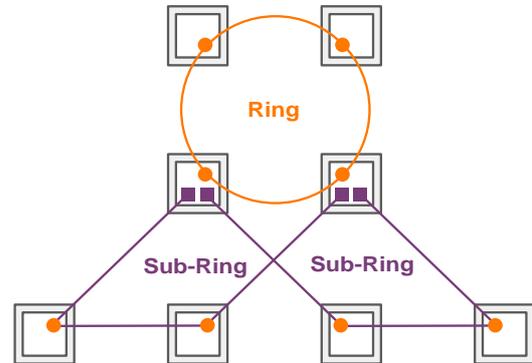
► **Figure 7 : Ring Configuration Example**

Ring Configuration Type

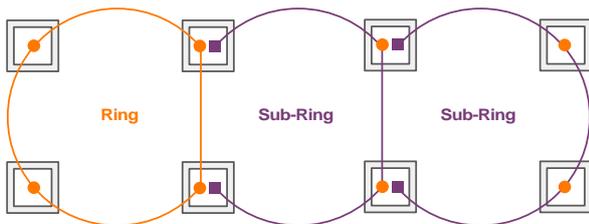
- u-Ring
- Sub-Ring



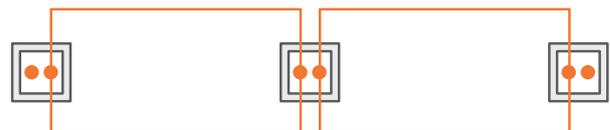
Combination of a ring and four Sub-Ring



Combination of a ring and two Sub-Ring

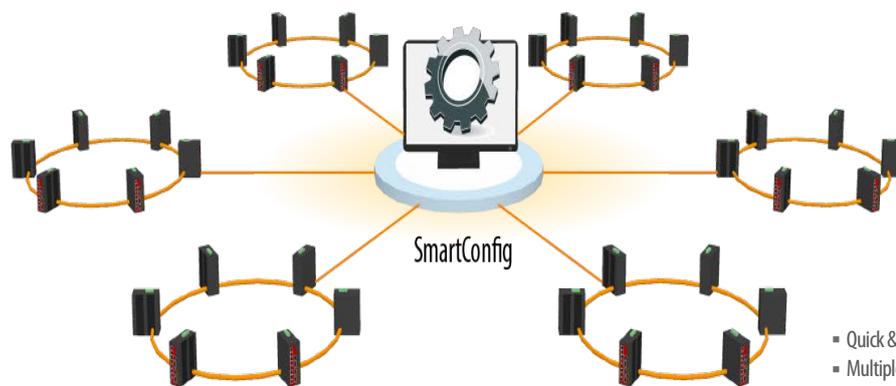


Ring Configuration Type



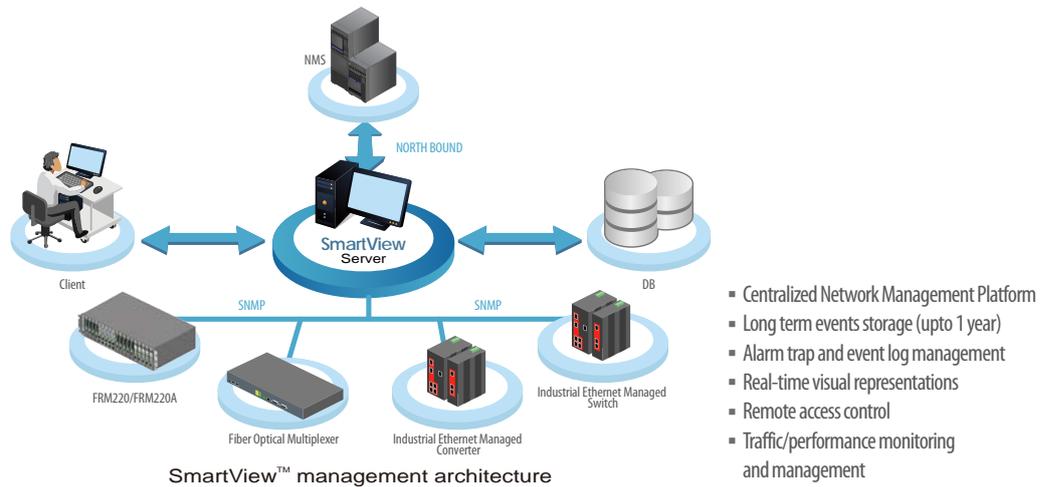
Cable Redundancy

► **Figure 8 : SmartConfig™ is a convenient configuration tool for mass deployment of switch products**

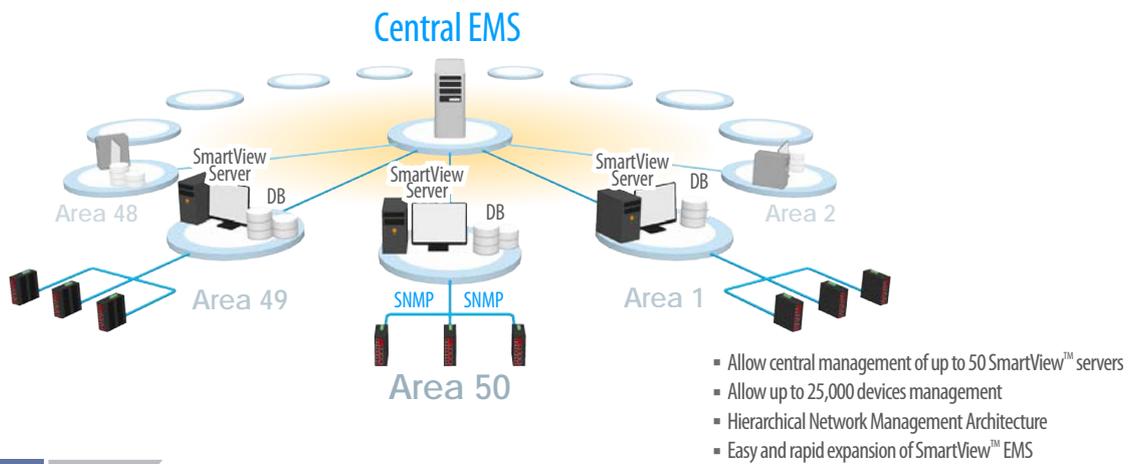


- Quick & Easy for mass configuration tool
- Multiple device auto discovery
- Group configuration, access
- Group firmware upgrade
- Export/Import Configuration

► **Figure 9 : SmartView™**

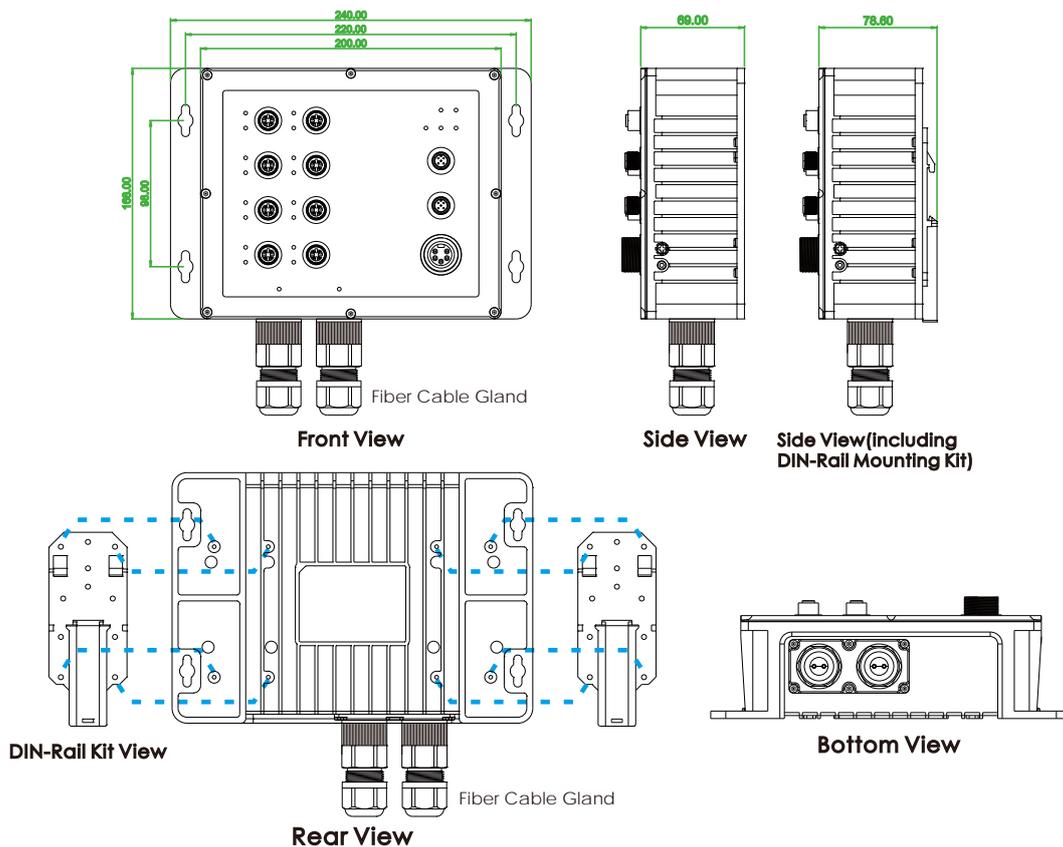


► **Figure 10 : Central EMS allows central management of up to 50 SmartView™ servers**

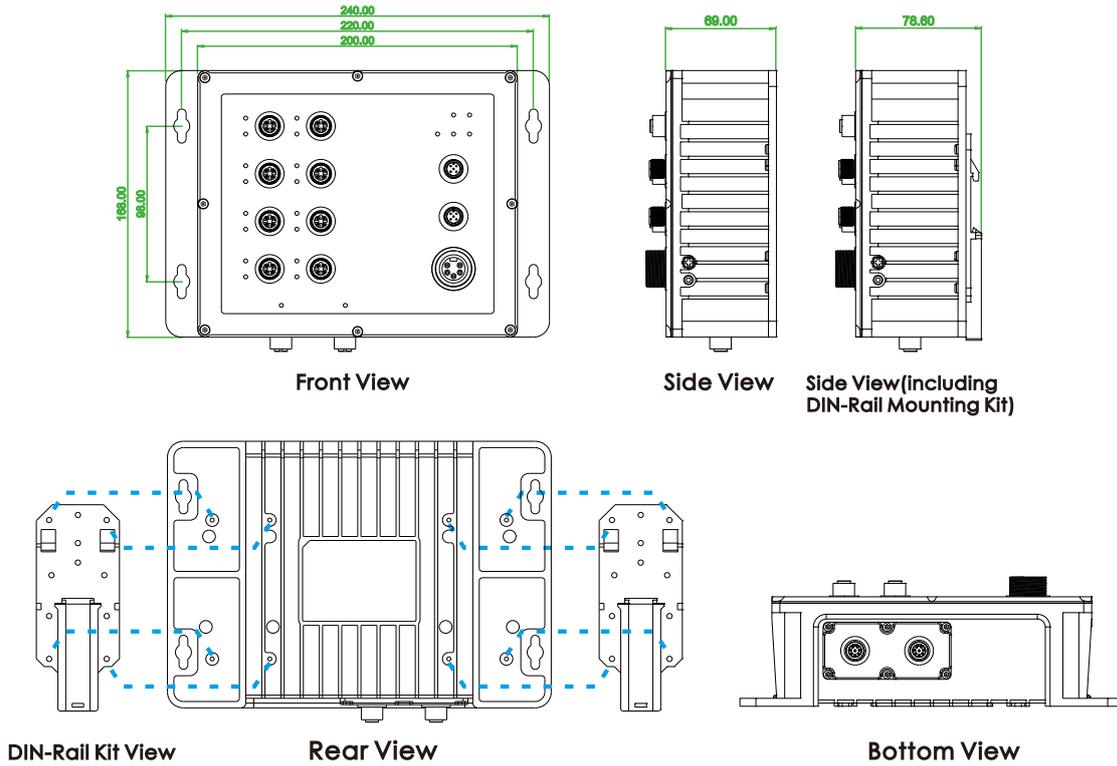


Dimensions

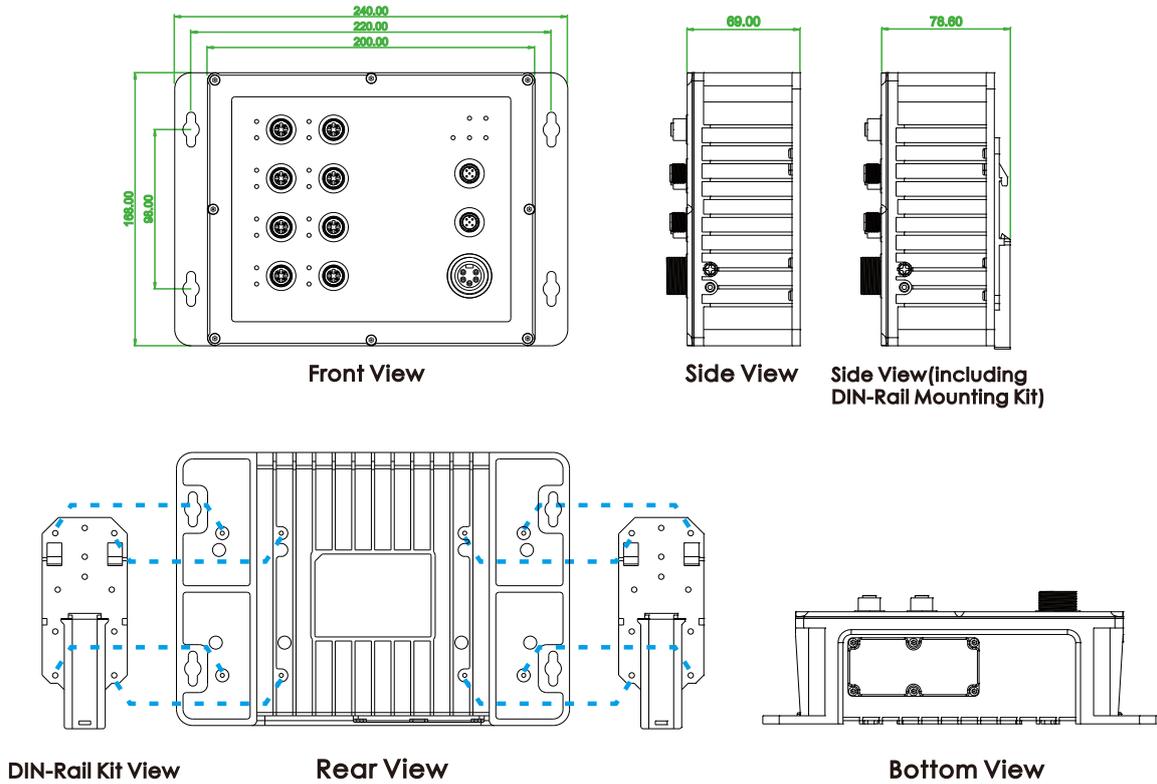
► **ITP-802GSM-8PH24**



▶ ITP-800GTM-8PH24



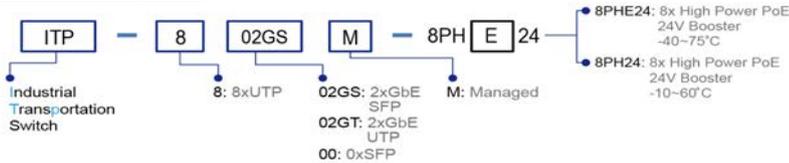
▶ ITP-800M-8PH24



Ordering Information

Model Name	Managed	IP67	Total Port	UTP Port M12 10/100 Base-TX	Gigabit Port	PoE Port IEEE 802.3at	PoE Total Power Budget	Input Voltage 24/48 VDC (20-57 VDC)	Certification				Shock Vibration IEC61373	Operating Temperature
									EN50155 EN50121-4	UL60950-1	EN61000-6-2 EN61000-6-4	CE FCC		
ITP-802GSM-8PH24	V	V	10	8	2 SFP	8	180W	V	V	Plan	V	V	V	-10~60 C
ITP-802GSM-8PHE24	V	V	10	8	2 SFP	8	180W	V	V	Plan	V	V	V	-40~75 C
ITP-802GTM-8PH24	V	V	10	8	2 UTP	8	180W	V	V	Plan	V	V	V	-10~60 C
ITP-802GTM-8PHE24	V	V	10	8	2 UTP	8	180W	V	V	Plan	V	V	V	-40~75 C
ITP-800M-8PH24	V	V	8	8	—	8	180W	V	V	Plan	V	V	V	-10~60 C
ITP-800M-8PHE24	V	V	8	8	—	8	180W	V	V	Plan	V	V	V	-40~75 C

Model Naming Rule



Optional Accessories

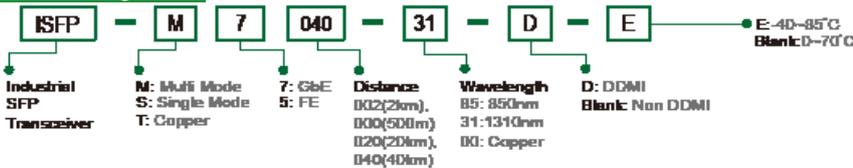
DRP-240-48	Industrial Power, Input 85 ~ 264VAC, Output 48VDC, 240W, -10 ~ +70°C
IND-DNK04	Din Rail Kit for Industrial, Wide : 52mm (130 X52mm / 4 Screws) (2pcs/set)
SmartView™	Network management platform with 50/100/200/500 device agents

Optional Accessories (SFP)

(The SFP series have been tested with the best operating performance on the series product.)
(Please see CTC Industrial SFP for more detail and more item.)

ISFP-M7000-85-D(E)	Industrial SFP GbE, M/M, 500 meter, wave length 850nm, DDML, -10~70°C (-40~85°C)
ISFP-S7020-31-D(E)	Industrial SFP GbE, S/M, 20km, wave length 1310nm, DDML, -10~70°C (-40~85°C)
ISFP-T7100-00-D(E)	Industrial SFP GbE, UTP 100meter, DDML, -10~70°C (-40~85°C)

SFP Naming Rule



Package List

- ITP-802GSM-8PH24, ITP-802GTM-8PH24 or ITP-800M-8PH24 device
- Protective caps for UTP port and Console, Alarm port
- Fiber Cable Gland for SFP port x2 set (For ITP-802GSM-8PH24)
- Console cable (M12 to DB9)
- CD (SmartConfig, Manual)
- Quickly installation guide

Optional M12 Cable

CAB-M12AM8-RJ45
M12 A-code Male (8-Pin) to RJ-45, AWG 24, IP67, 1 meter length

GbE port
(For ITP-802GTM-8PH24)

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

For FE UTP

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

For Alarm

CAB-M23F5-OPEN
M23 Female (5-Pin) to open wire, (AWG 16), IP67, 1 meter length

For Power

Optional M12 Connector

M12A-M8
M12 A-code Male (8-Pin) connector, IP67

GbE port
(For ITP-802GTM-8PH24)

M12D-M4
M12 D-code Male (4-Pin) connector, IP67

For FE UTP

M12A-F5
M12 A-code Female (5-Pin) connector, IP67

For Alarm

Optional Din-Rail Kit

IND-DNK04
Din Rail Kit for Industrial, Wide: 52mm (130 X52mm / 4 Screws) (2pcs/set)