CTS
CONNECTION TECHNOLOGY SYSTEMS

Industrial Solutions
Product Catalogue
High-speed and Reliability Communication Networks

Industrial Switch | Industrial Media Converter

Table Of Contents

About CTS

Professional Network Solution Provider

Founded in 1998, Connection Technology System Inc. (CTS) consists of a group of design, technical, and marketing professionals with diverse backgrounds in the communication field and focuses on the professional FTTX and Industrial networking solutions to telcos, network operators, and broadband service providers all over the world. In 2017, with the advantages and experiences accumulated from FTTX markets, CTS launched SiMPNiC* to dedicate to the most cutting-edge IoT integrated solutions to meet the trend of smart living.
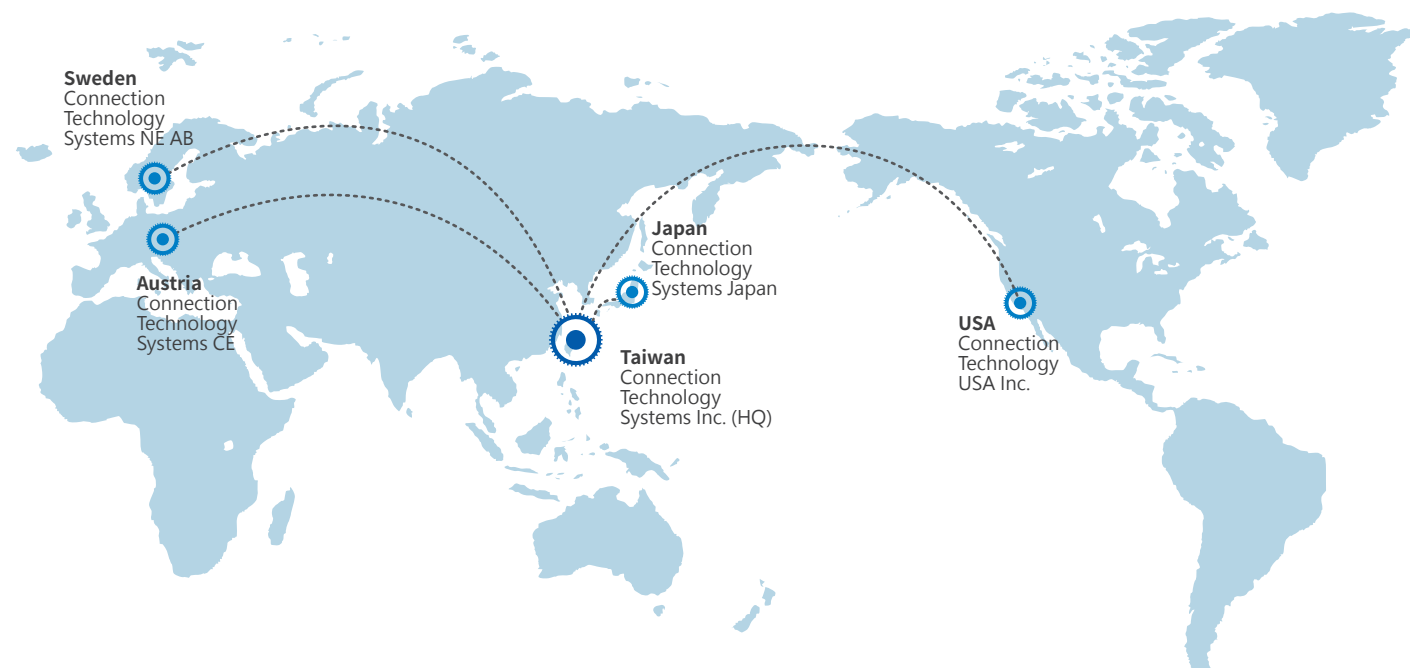
CTS Group

CTS CONNECTION TECHNOLOGY SYSTEMS — FTTX, Industrial Network Solutions

SiMPNiC — IoT Integrated Solutions (*www.simpnic.com)

In close cooperation with our partners, CTS has achieved:

Over **1,4 Million** FTTH Last Mile Deployments

Over **750,000** Fiber Ethernet Connectivity Deployments

Over **100,000** FTTB Access-Side Deployments

With in-house design capability and over 20 years of FTTX domain knowledge, CTS has been a reliable partner who always acts proactively to understand customers needs in order to provide the most innovative and valuable solution. While our business is growing in different parts of the world, CTS established local branches in Sweden, USA, Japan and Austria since 2010 to provide fast and efficient response as well as to form a deeper understand and closer relationship with regional markets.

Throughout the past two decades, CTS has seamlessly teamed up with our customers and delivered a wide range of professional fiber connectivity solutions. We will continue to keep our customer in mind and think steps-ahead to develop flexible, high-quality and efficient solutions that create the most value to our customers around the world.

Sweden
Connection Technology Systems NE AB

Austria
Connection Technology Systems CE

Japan
Connection Technology Systems Japan

Taiwan
Connection Technology Systems Inc. (HQ)

USA
Connection Technology USA Inc.

Why CTS

The Spirit of Pursuing Excellence

For CTS, our achievement is defined by each successful story our customers have experienced. Until this day, with 20 years experiences in the field, CTS' innovative spirit and passion still driving the company to pursue excellence. Through continuously interact with the clients and the markets, CTS has insisted on keeping "Differentiation and Glocalization" which has make us one of the leading solution providers for telecom companies, network operators, and broadband service providers all over the world.

Networking Consultant

- With more than 20 years of FTTX experiences, our " Smart-consult Team" combines the best of CTS members who work closely with customers.
- Local professional team in CTS branches offers quick and regional-specific assist and allows us to response value-added information and can think steps ahead.

In-house Designer

- With the ability to design and manufacture by ourselves, CTS continuously pursues to optimize the solution for better fiber connectivity deployment and future applications.
- Conscientiously research on the market in order to create innovative differentiations to fulfill the ever-growing expectation from the customers worldwide.

Trustworthy Partner

- CTS is not just a vender but partner to our client because we always keep our customer's goal in mind to develop the most fitted solution.
- 0.07% DOA rate is a result of CTS' high-standard quality control program that demonstrate throughout the design, manufacturing, customer service process.

Largest Ski Resort in Austria Adopts CTS Industrial and Fiber Switch for Ski Lift Network

Background

Skiwelt in Ellmau, Tyrol is the largest and state of the art ski resort in Austria which has 284km of ski runs in Austrian Alps. In order to enhance safety and to provide better service, the resort planned to invest to update its communication infrastructure into fiber in order to overcome longer distances. The City of Ellmau and Skiwelt also developed an application with regional information such as events, special offerings, local weather, and entertainment. Hopefully tourists can access to real-time information anytime anywhere in the resort. Skiwelt needed a solution reliable provider who can help with fulfill this plan...

CTS Products

IPS-3110
8-Port Gigabit 802.3at PoE + 2-Port Gigabit Combo Industrial Managed Switch

IPS-3106-SE-PB
4-Port Gigabit 802.3at PoE + 2-Port Gigabit SFP Industrial Managed Switch

FOS-3128
28-Port Managed Fiber Access Switch

"We need products that work stable at 50 degrees Celsius as well as in -25 degrees Celsius and CTS has proven that their products are reliable and persistent even in harsh environment like in the Austrian Alps"

Johannes Winkler, Operations Manager, Skiwelt

SkiWelt WILDER KAISER BRIXENTAL

Networking Consultant
CTS' regional technical support can quickly identified and resolved the issues.
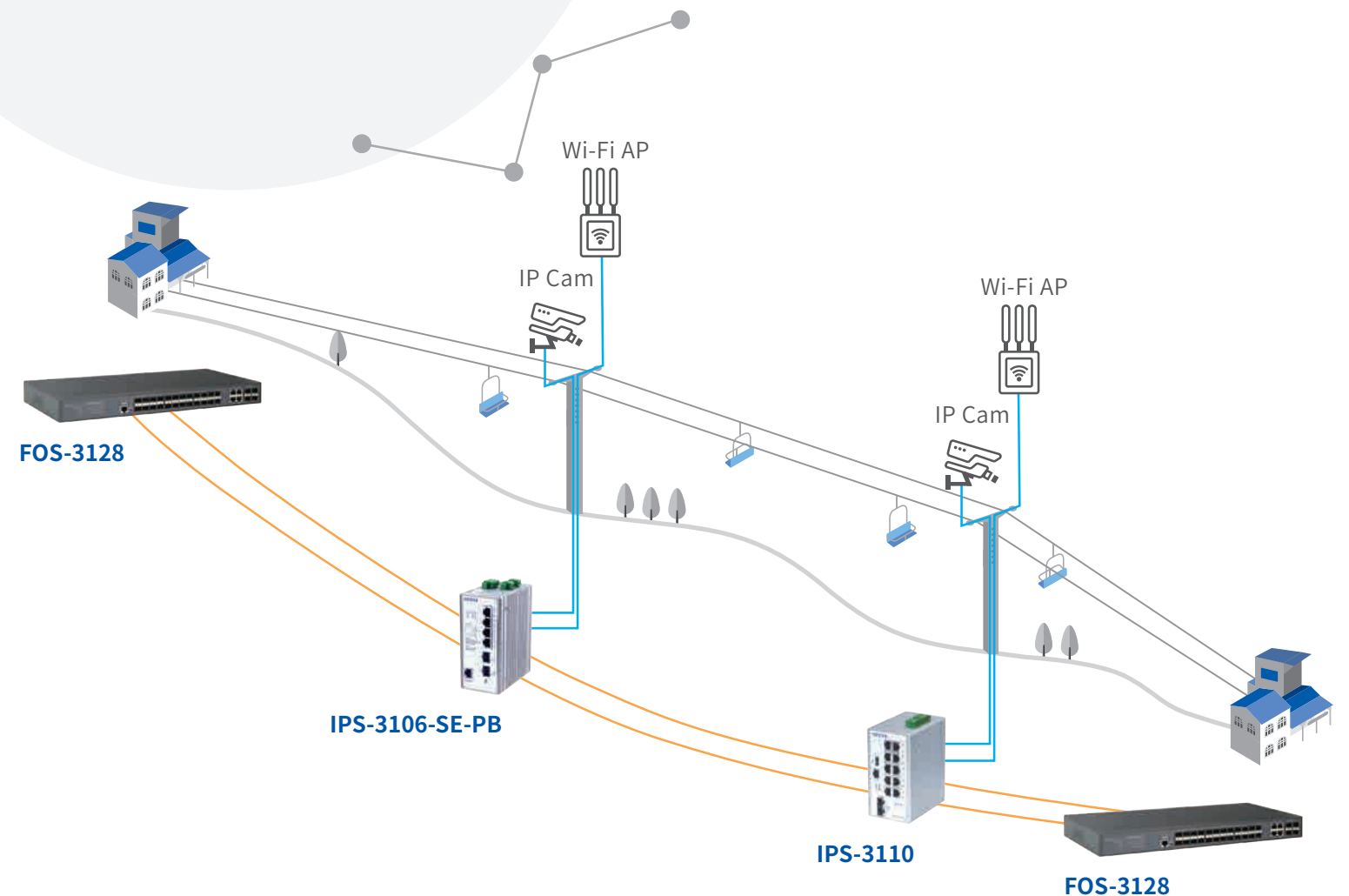
Trustworthy Partner
High quality and stability over several years in extremely harsh weather conditions.

In-house Designer
Reliable and robust network helps Skiwelt to provide the best experience for their visitors.

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

FOS-3128

IPS-3106-SE-PB

IPS-3110

FOS-3128

Challenge

① Build long distance networks along cable car systems with the longest over 3km.
② Lightening can easily strike when devices are being installed on the cable car mask.
③ Outdoor devices have to be able to endure local temperature from -10~26 degrees Celsius.
④ Offer public Wi-Fi along the ski-lift for visitors as well as IP cameras for slop monitoring.
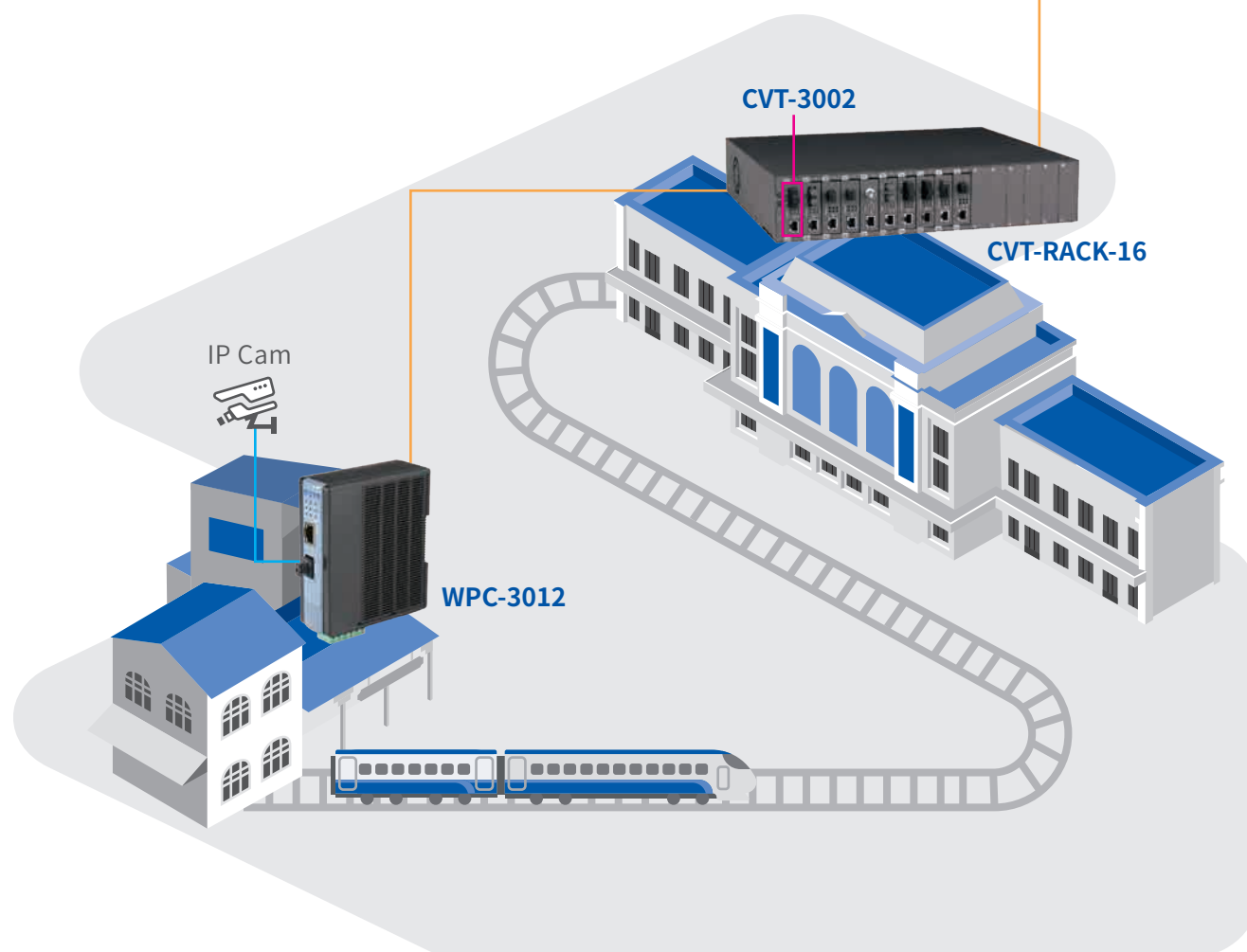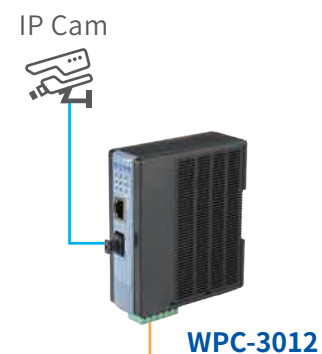⑤ Provide a stable connection for security and safety control.

Solution & Benefit

① CTS fiber connectivity solution help to overcome the challenge of long-distance transmission.
② CTS IPS-3110 equips with K.21 surge protection to protect devices from damage.
③ CTS industrial solutions is designed to endure harsh outdoor environment and it can operate under temperature from -40 to 75 degrees Celsius.
④ PoE features on both IPS-3106-SE-PB and IPS-3110 ease Skiwelt's effort in deploying Wi-Fi networks along the lifts and IP cameras by the slope.
⑤ Supports redundancy protocol to provide a 24/7 stable security network.

Railway Station in Saudi Built the Surveillance System with CTS Lite-industrial Solution

Background

The Haramain high-speed railway is an inter-city high-speed rail transport system linking 5 stations in Saudi Arabia. The railway system is expected to transport over 100,000 passengers per day. In order to keep these modern designed stations secure and organized for travelers, a robust surveillance system is crucial for its daily operation. However, a durable solution is needed to withstand Saudi's harsh natural environment.

IP Cam

WPC-3012

CVT-3002

CVT-RACK-16

IP Cam

WPC-3012

Challenge

① Temperature can rise up to 55 degrees Celsius and drop to 8 degrees Celsius in one day.

② Traditional RJ-45 copper is not able to transmit for over 100m thus increase the complexity to cover each station's range.

③ PoE IP cameras are used in these stations to reduce wiring complexity.

④ These stations need 24/7 non-stop monitoring.

Solution & Benefit

① CTS WPC-3012 lite-industrial media converter works reliably and stably from -20 degrees Celsius to 60 degrees Celsius.

② The transmission distance can be extended from 2km to 120km over fiber.

③ WPC-3012 supports 802.3at/af PoE/PSE for up to 30W power to PoE enabled devices temperature from -40 to 75 degrees Celsius.

④ Link Alarm feature enables administrator to monitor the fiber link status in visually and intuitively mechanism and power redundancy.

CTS Products

CVT-RACK-16
16 Slots Universal Media Converter Chassis

WPC-3012
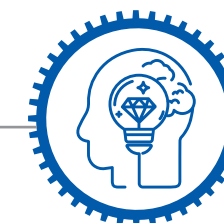1-Port Gigabit 802.3at PoE to 1-Port Gigabit SFP slot Industrial Media Converter

Networking Consultant

Carefully evaluate the customer's situation and recommend the best options.

Trustworthy Partner

CTS act swiftly and efficiently upon customer's requests.

In-house Designer

Robust design that ensure the device can run smoothly under harsh conditions.

Providing Robust, Reliable & Flexible Solution for Industrial Environment

The CTS Industrial Ethernet Switch series is enclosed in IP30 case which can endure wide-ranging operating temperature from -40 to 75 degrees Celsius. All CTS Industrial Ethernet Switches support DIN-rail mounts which allows efficient use of cabinet space. CTS also provide redundant supply system to enable a more secure, stable and sustainable connection.The industrial PoE Ethernet Switch series support IEEE 802.3af/at or 60W PoE power output that is able to supply power to PoE compliant devices which greatly reduce wiring complexity and save trouble to search for extra power outlets.

- IP30 Design Housing
- -40~75 degrees Celsius Operating Temperature Range for Harsh Operating Environment
- 9.6~55/12~54/24~54/44~55/48~54VDC Dual Power Input for Uninterrupted Network System
- Industrial PoE Switch Series Support IEEE 802.3at/af PoE and 60W PoE++ Power Output
- IEEE 802.1q Tagged VLAN and Q-in-Q
- IGMP Snooping v1, v2 and v3
- IEEE 802.1p QoS, ToS and DSCP
- IEEE 802.3ad Link Aggregation and Static Trunk
- STP, RSTP and Fast Ring v2

60W PoE Output

-40~75 Degrees Celsius

Power Booster

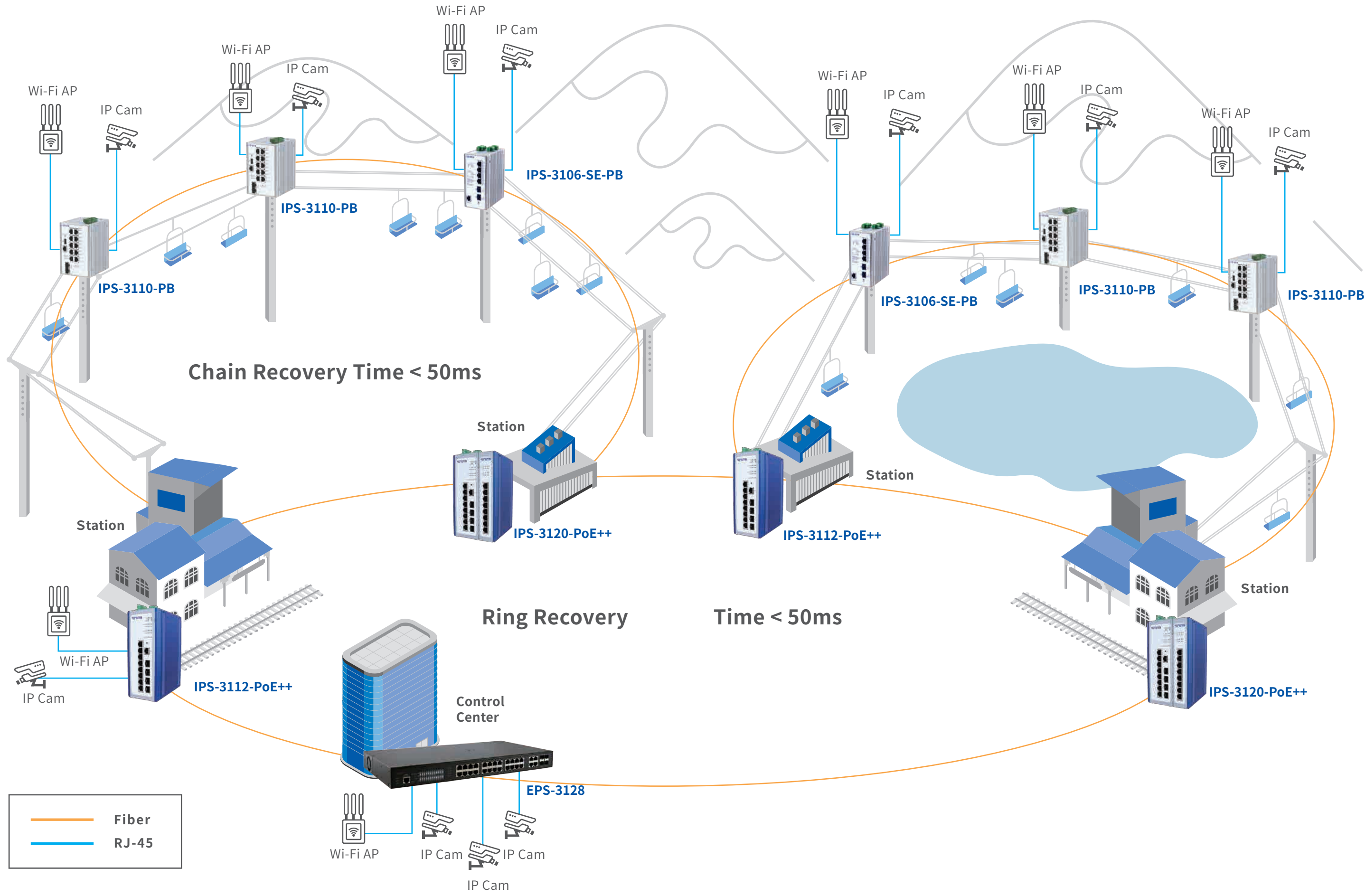**IPS-3120-PoE++**   **IES-3110**   **IPS-3106-SE-PB**

Robust, Reliable & Extendable Solution to Reach Copper Devices Effortlessly

Dual Fiber

60W PoE Output

-40~75 Degrees Celsius

IPC-3014-PoE++   **IPC-3012-PoE++**   **IAC-3012**

CTS Industrial Media Converters in a robust IP30 housing are designed to meet the demands of industrial network for plug-and-play usage. Industrial Media Converters can extend your Ethernet network beyond 100-meter limitation and convert fiber links from multi-mode to single-mode or vice versa. The wiring distance of CTS Industrial Media Converters can extend from 2 to 120km and data transmission distance is up to 120km.

- IP30 Slim Design Housing
- -40~75 Degrees Celsius Operating Temperature for Harsh Operating Environment
- 12~48/12~57/48~54 Dual Power Input for Uninterrupted Network System
- 1-/2-port Copper to 1-/2-port Fiber-optic Interface
- Supports 1-/2-port PoE Injector
- Supports IEEE 802.3at/af PoE and 60W PoE++ Power Output
- Built-in DIP Switch Provides Port Isolation and Fiber Redundancy Mode

Application of Industrial Networking Solutions

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

Wi-Fi AP

IP Cam

IPS-3106-SE-PB

IPS-3110-PB

IPS-3110-PB

IPS-3106-SE-PB

IPS-3110-PB

IPS-3110-PB

Chain Recovery Time < 50ms

Station

Station

IPS-3120-PoE++

IPS-3112-PoE++

Station

Station

Ring Recovery   **Time < 50ms**

Wi-Fi AP

IP Cam

IPS-3112-PoE++

IPS-3120-PoE++

Station

**Control
Center**

EPS-3128

Wi-Fi AP   IP Cam   IP Cam

IP Cam

Fiber

RJ-45

Industrial 60W PoE++ Managed Switch

Model Name	IPS-3120-PoE++	IPS-3112-PoE++	IPS-3108-EXP*
Product Image			

		IPS-3120-PoE++	IPS-3112-PoE++	IPS-3108-EXP*
Hardware	10/100/1000Base-T	16	8	8
	10/100Base-TX	-	-	-
	1000Base-X	4	4	-
	100Base-FX	Compatible	Compatible	-
	RS-232 Console Port (RJ-45)	1	1	-
	Digital Input/Output	1 x DI + 1 x DO		-
	PoE	8 x 60W PoE++ + 8 x 802.3af/at PoE+	8 x 60W PoE++	8 x 802.3af/at PoE+
	PoE Budget (Max.)	720W	480W	-
	Power Connector	Terminal Block		-
	Power Source	48~55VDC Dual Input		-
	Power Consumption	740W	495W	-
	Dimension W x D x H	115 x 135 x 200mm	80 x 135 x 200mm	35 x 135 x 200mm
	Operating Temperature (Humidity)	-40~75°C (5~90%)		
	MAC Address Table	8K		-
	Non-blocking Switching Fabric	40Gbps	24Gbps	16Gbps
	Memory Buffer	4.1M Bytes		-
	Jumbo Frame	10K Bytes		-
Traffic Management	IPv6	-		
	QoS	802.1p, ToS/DSCP		-
	QoS Priority Queue	8		-
	Bandwidth Control	-		
	Broadcast Storm Control	-		
	IPTV Multicast	IGMP Snooping v1/v2/v3		-
	Network Redundancy	CTS Fast Ring v2** STP/RSTP		-
	LACP	●		-
	VLAN	802.1q, Q-in-Q, Port Based		-
	VLAN ID	4094		-
	VLAN Group	2K		-
Security & Authentication	SSHv2	●		-
	DHCP Option 82	-		
	Authentication	RADIUS, TACACS+, 802.1x MAB		-
	ACL (Access Control List)	●		-
Network Management & Maintenance	Management	Telnet, CLI, WEB, SNMP v1/v2c/v3		-
	Port Mirroring	-		
	SNMP Power Down Trap	-		
	DHCP	Client		-
	SNTP	●		-
	Firmware/Configuration Upgrade	FTP/TFTP/HTTP		-
Certifications	EMC/Safety	FCC Class A, CE		
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)		
	Surge	ITU-T K.21 Enhanced Level 6KV		

* IPS-3108-EXP is expansion module for IPS-3112-PoE++

** CTS Fast Ring v2 includes Ring and Chain Protocol

Industrial 802.3at PoE+ Managed Switch

Model Name	IPS-3110	IPS-3110-PB	IPS-3106-SE-PB
Product Image			

		IPS-3110	IPS-3110-PB	IPS-3106-SE-PB
Hardware	10/100/1000Base-T	10	10	4
	10/100Base-TX	-	-	-
	1000Base-X	2 (COMBO)	2 (COMBO)	2
	100Base-FX	Compatible	Compatible	Compatible
	RS-232 Console Port (RJ-45)	1	1	1
	Digital Input/Output	1 x DO		1 x DI + 1 x DO
	PoE	8 x 802.3af/at PoE+		4 x 802.3af/at PoE+
	PoE Budget (Max.)	240W		120W
	Power Connector	Terminal Block		
	Power Source	48~54VDC Dual Input	24~54VDC Dual Input	
	Power Consumption	255W		135W
	Dimension W x D x H	73 x 110 x 135mm	88 x 110 x 135mm	63 x 110 x 135mm
	Operating Temperature (Humidity)	-40~75°C (5~90%)		
	MAC Address Table	16K		8K
	Non-blocking Switching Fabric	20Gbps		12Gbps
	Memory Buffer	256K Bytes		4.1M Bytes
	Jumbo Frame	9K Bytes		10K Bytes
Traffic Management	IPv6	-		●
	QoS	802.1p, ToS/DSCP		
	QoS Priority Queue	8		
	Bandwidth Control	●		
	Broadcast Storm Control	●		
	IPTV Multicast	IGMP Snooping v1/v2		IGMP Snooping v1/v2/v3 MLD Snooping v1/v2
	Network Redundancy	CTS Fast Ring v2** STP/RSTP		
	LACP	●		
	VLAN	802.1q, Q-in-Q, Port Based		
	VLAN ID	4094		
	VLAN Group	128		
Security & Authentication	SSHv2	●		
	DHCP Option 82	-		●
	Authentication	RADIUS, 802.1x		RADIUS, TACACS+, 802.1x MAB
	ACL (Access Control List)	●		
Network Management & Maintenance	Management	Telnet, CLI, WEB, SNMP v1/v2c/v3		
	Port Mirroring	●		
	SNMP Power Down Trap	-		
	DHCP	Client, Auto Provisioning, Snooping		
	SNTP	●		
	Firmware/Configuration Upgrade	FTP/TFTP/HTTP/USB 2.0 Type A		FTP/TFTP/HTTP
Certifications	EMC/Safety	FCC Class A, CE		
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)		
	Surge	ITU-T K.21 Enhanced Level 6KV		

** CTS Fast Ring v2 includes Ring and Chain Protocol

Industrial Ethernet Managed Switch

	Model Name	IES-3110	IES-3106
	Product Image		

Category	Feature	IES-3110	IES-3106
Hardware	10/100/1000Base-T	10	4
	10/100Base-TX	-	-
	1000Base-X	2 (COMBO)	2
	100Base-FX	Compatible	Compatible
	RS-232 Console Port (RJ-45)	1	1
	Digital Input/Output	1 x DO	2 x DI + 2 x DO
	PoE	-	
	PoE Budget (Max.)	-	
	Power Connector	Terminal Block	
	Power Source	9.6~55VDC Dual Input	12~54VDC Dual Input
	Power Consumption	15W	5.1W
	Dimension W x D x H	73 x 110 x 135mm	83 x 110 x 125mm
	Operating Temperature (Humidity)	-40~75°C (5~90%)	
	MAC Address Table	16K	2K
	Non-blocking Switching Fabric	20Gbps	12Gbps
	Memory Buffer	256K Bytes	128K Bytes
	Jumbo Frame	9K Bytes	
Traffic Management	IPv6	-	
	QoS	802.1p, ToS/DSCP	
	QoS Priority Queue	8	4
	Bandwidth Control	●	
	Broadcast Storm Control	●	
	IPTV Multicast	IGMP Snooping v1/v2	
	Network Redundancy	CTS Fast Ring, STP/RSTP	
	LACP	●	
	VLAN	802.1q, Q-in-Q, Port Based	
	VLAN ID	4094	
	VLAN Group	128	
Security & Authentication	SSHv2	●	
	DHCP Option 82	-	
	Authentication	RADIUS, 802.1x	
	ACL (Access Control List)	●	
Network Management & Maintenance	Management	Telnet, CLI, WEB, SNMP v1/v2c/v3	Telnet, CLI, WEB, SNMP v1/v2c
	Port Mirroring	●	
	SNMP Power Down Trap	●	
	DHCP	Client, Auto Provisioning, Snooping	
	SNTP	●	
	Firmware/Configuration Upgrade	FTP/TFTP/HTTP/USB 2.0 Type A	
Certifications	EMC/Safety	FCC Class A, CE	
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)	
	Surge	ITU-T K.21 Enhanced Level 6KV	-

Industrial 802.3at PoE+ Non-managed Switch

	Model Name	IPS-3005-F1	IPS-3005
	Product Image		

Category	Feature	IPS-3005-F1	IPS-3005
Hardware	10/100/1000Base-T	4	5
	10/100Base-TX	-	-
	1000Base-X	1	-
	100Base-FX	Compatible	-
	RS-232 Console Port (RJ-45)	-	-
	Digital Input/Output	-	
	PoE	4 x 802.3af/at PoE+	
	PoE Budget (Max.)	120W	
	Power Connector	Terminal Block	
	Power Source	48~58VDC Dual Input	
	Power Consumption	130W	127W
	Dimension W x D x H	29 x 107 x 139mm	
	Operating Temperature (Humidity)	-40~75°C (5~90%)	
	MAC Address Table	2K	
	Non-blocking Switching Fabric	10Gbps	
	Memory Buffer	1M Bytes	
	Jumbo Frame	9K Bytes	
Certifications	EMC/Safety	FCC Class A, CE	
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)	

Industrial Non-managed Switch

	Model Name	IES-3008-F2	IES-3008	IES-3005-F1	IES-3005
	Product Image				

Category	Feature	IES-3008-F2	IES-3008	IES-3005-F1	IES-3005
Hardware	10/100/1000Base-T	6	8	4	5
	10/100Base-TX	-	-	-	-
	1000Base-X	2	-	1	-
	100Base-FX	Compatible	-	Compatible	-
	RS-232 Console Port (RJ-45)	-	-	-	-
	Digital Input/Output	1 x DO			
	PoE	-			
	PoE Budget (Max.)	-			
	Power Connector	Terminal Block			
	Power Source	12~58VDC Dual Input			
	Power Consumption	8.16W	7.56W	3.24W	2.88W
	Dimension W x D x H	39 x 96.9 x 117.8mm		29.1 x 89.4 x 109.2mm	
	Operating Temperature (Humidity)	-40~75°C (5~90%)			
	MAC Address Table	8K		2K	
	Non-blocking Switching Fabric	16Gbps		10Gbps	
	Memory Buffer	64K Bytes		1M Bytes	
	Jumbo Frame	9K Bytes			
Certifications	EMC/Safety	FCC Class A, CE			
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)			

Industrial Non-managed Switch

	Model Name	WPS-3005	WAS-3005	WPS-2006	WAS-2006
	Product Image				
Hardware	10/100/1000Base-T	4	4	-	-
	10/100Base-TX	-	-	5	5
	1000Base-X	1	1	-	-
	100Base-FX	-	-	1	1
	RS-232 Console Port (RJ-45)	-	-	-	-
	Digital Input/Output	1 x DO			
	PoE	4 x 802.3af/at PoE+	-	4 x 802.3af/at PoE+	-
	PoE Budget (Max.)	120W	-	120W	-
	Power Connector	Terminal Block + DC Jack			
	Power Source	48~54VDC Triple Input	12~54VDC Triple Input	48~54VDC Triple Input	12~54VDC Triple Input
	Power Consumption	130W	4.2W	128W	4W
	Dimension W x D x H	61 x 93 x 105mm			
	Operating Temperature (Humidity)	-20~60°C (5~90%)			
	MAC Address Table	2K			
	Non-blocking Switching Fabric	10Gbps		1.2Gbps	
	Memory Buffer	128K Bytes		80K Bytes	
	Jumbo Frame	9K Bytes			
Certifications	EMC/Safety	FCC Class A, CE			

Industrial 60W PoE++ Media Converter (-40~75°C)

	Model Name	IPC-3014-PoE++ Non-managed	IPC-3012-PoE++ Non-managed
	Product Image		
Hardware	10/100/1000Base-T	2	1
	1000Base-X	2	1
	100Base-FX	Compatible	Compatible
	Digital Output	•	
	PoE	1 x 60W PoE++ + 1 x 802.3af/at PoE+	1 x 60W PoE++ or 1 x 802.3af/at PoE+
	PoE Budget (Max.)	90W	60W
	Power Connector	Terminal Block	
	Power Source	12~57VDC Dual Input	
	Power Consumption	96W	64.8W
	Store and Forward	•	
	Auto-MDI/MDI-X	•	
	Auto-negotiation in Fiber Port	•	
	MAC Address Table	2K	
	Memory Buffer	128K Bytes	
	Jumbo Frame	9K Bytes	
	Dimension W x D x H	36 x 110 x 135mm	
	Operating Temperature (Humidity)	-40~75°C (5~90%)	
	Network Redundancy	Fiber Backup Mode	-
Certifications	EMC/Safety	FCC Class A, CE	
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)	
	Surge	ITU-T K.21 Enhanced Level 6KV	

Industrial 802.3at PoE+ Media Converter (-40~75°C)

	Model Name	IPC-3014 Non-managed	IPC-3012 Non-managed
	Product Image		
Hardware	10/100/1000Base-T	2	1
	1000Base-X	2	1
	100Base-FX	Compatible	Compatible
	Digital Output	•	
	PoE	2 x 802.3af/at PoE+	1 x 802.3af/at PoE+
	PoE Budget (Max.)	60W	30W
	Power Connector	Terminal Block	
	Power Source	12~57VDC Dual Input	
	Power Consumption	66W	34.8W
	Store and Forward	•	
	Auto-MDI/MDI-X	•	
	Auto-negotiation in Fiber Port	•	
	MAC Address Table	2K	
	Memory Buffer	128K Bytes	
	Jumbo Frame	9K Bytes	
	Dimension W x D x H	36 x 110 x 135mm	
	Operating Temperature (Humidity)	-40~75°C (5~90%)	
	Network Redundancy	Fiber Backup Mode	-
Certifications	EMC/Safety	FCC Class A, CE	
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)	
	Surge	ITU-T K.21 Enhanced Level 6KV	

Industrial Media Converter (-40~75°C)

	Model Name	IAC-3014 Non-managed	IAC-3012 Non-managed
	Product Image		
Hardware	10/100/1000Base-T	2	1
	1000Base-X	2	1
	100Base-FX	Compatible	Compatible
	Digital Output	•	
	Power Connector	Terminal Block	
	Power Source	12~48VDC Dual Input	
	Power Consumption	4.8W	3.4W
	Store and Forward	•	
	Auto-MDI/MDI-X	•	
	Auto-negotiation in Fiber Port	•	
	MAC Address Table	2K	
	Memory Buffer	128K Bytes	
	Jumbo Frame	9K Bytes	
	Dimension W x D x H	36 x 110 x 135mm	
	Operating Temperature (Humidity)	-40~75°C (5~90%)	
	Network Redundancy	Fiber Backup Mode	-
Certifications	EMC/Safety	FCC Class A, CE	
	Stability	IEC 60068-2-27 (Shock), IEC 60068-2-32 (Freefall), IEC 60068-2-6 (Vibration)	
	Surge	ITU-T K.21 Enhanced Level 6KV	

Industrial 802.3at PoE+ Media Converter (-20~60°C)

	Model Name	WPC-3112	WPC-3012	WPC-2112	WPC-2012
		Managed	Non-managed	Managed	Non-managed
	Product Image				
Hardware	10/100/1000Base-T	1	1	-	-
	10/100Base-TX	-	-	1	1
	1000Base-X	1	1	-	-
	100Base-FX	-	-	1	1
	Digital Output	•			
	PoE	1 x 802.3af/at PoE+			
	PoE Budget (Max.)	30W			
	Power Connector	Terminal Block + DC Jack			
	Power Source	48~54VDC Triple Input			
	Power Consumption	38W	34W	36W	32W
	Store and Forward	•			
	Auto-MDI/MDI-X	•			
	Auto-negotiation in TP Port	•			
	Flow Control	•			
	MAC Address Table	1K			
	Memory Buffer	32K Bytes		12K Bytes	
	Jumbo Frame	9K Bytes			
	Dimension W x D x H	35 x 93 x 105mm			
	Operating Temperature (Humidity)	-20~60°C (5~90%)			
Management & Features	TS-1000 Loopback Test	•	-	•	-
	Bandwidth Control	•	-	•	-
	VLAN	802.1q, Q-in-Q	-	802.1q, Q-in-Q	-
	VLAN ID	4094	-	4094	-
	VLAN Groups	16	-	16	-
	Management	WEB, SNMP v1/v2c	-	WEB, SNMP v1/v2c	-
	SNMP Power Down Trap	•	-	•	-
	DHCP	Client	-	Client	-
	Link Alarm	•			
	Firmware Upgrade	HTTP	-	HTTP	-
Certifications	EMC/Safety	FCC Class A, CE			

Industrial Media Converter (-20~60°C)

	Model Name	WAC-3112	WAC-3012	WAC-2112	WAC-2012
		Managed	Non-managed	Managed	Non-managed
	Product Image				
Hardware	10/100/1000Base-T	1	1	-	-
	10/100Base-TX	-	-	1	1
	1000Base-X	1	1	-	-
	100Base-FX	-	-	1	1
	Digital Output	•			
	PoE	-			
	PoE Budget (Max.)	-			
	Power Connector	Terminal Block + DC Jack			
	Power Source	12~48VDC Triple Input			
	Power Consumption	3.84W		2.88W	
	Store and Forward	•			
	Auto-MDI/MDI-X	•			
	Auto-negotiation in TP Port	•			
	Flow Control	•			
	MAC Address Table	1K			
	Memory Buffer	32K Bytes		12K Bytes	48K Bytes
	Jumbo Frame	9K Bytes			
	Dimension W x D x H	35 x 93 x 105mm			
	Operating Temperature (Humidity)	-20~60°C (5~90%)			
Management & Features	TS-1000 Loopback Test	•	-	•	-
	Bandwidth Control	•	-	•	-
	VLAN	802.1q, Q-in-Q	-	802.1q, Q-in-Q	-
	VLAN ID	4094	-	4094	-
	VLAN Groups	16	-	16	-
	Management	WEB, SNMP v1/v2c	-	WEB, SNMP v1/v2c	-
	SNMP Power Down Trap	•	-	•	-
	DHCP	Client	-	Client	-
	Link Alarm	•			
	Firmware Upgrade	HTTP	-	HTTP	-
Certifications	EMC/Safety	FCC Class A, CE			

Industrial Gigabit Ethernet SFP Transceiver

Product Image						

Model Name	SFP-31-D					
	Specification					
	Speed (Mbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-31FC-D	1000	MM	LC	550M	850	-40~85°C
SFP-31FC(MM-02)-D	1000	MM	LC	2KM	1310	-40~85°C
SFP-31FC(SM-10/20/40/80)-D	1000	SM	LC	10/20/40/80KM	1310/1310/1310/1550	-40~85°C
SFP-31W2A(SM-10/20)-D	1000	WDM	LC	10/20KM	TX:1310/1310 RX:1550/1550	-40~85°C
SFP-31W2B(SM-10/20)-D	1000	WDM	LC	10/20KM	TX:1550/1550 RX:1310/1310	-40~85°C

Industrial Power Supply

Product Image				

Model Name		SDR-480-48	SDR-240-48	SDR-120-48	SDR-75-48
Output	Rated Power	480W	240W	120W	76.8W
	Voltage Adj. Range*	48~55V			
	Current Range	0~10A	0~5A	0~2.5A	0~1.6A
Input	Voltage Range	90~264VAC 127~370VDC	88~264VAC 124~370VDC		
Protection		Overload, Over Voltage, Over Temperature			
Temperature		-25~70°C			
Dimension W x D x H		85.5 x 125.2 x 128.5mm	63 x 125.2 x 113.5mm	40 x 125.2 x 113.5mm	32 x 125.2 x 102mm

Product Image			

Model Name		NDR-75-48	MDR-60-48	MDR-20-12
Output	Rated Power	76.8W	60W	20W
	Voltage Adj. Range*	48~55V	48~56V	10.8~13.2V
	Current Range	0~1.6A	0~1.25A	0~1.67A
Input	Voltage Range	90~264VAC 127~370VDC	85~264VAC 120~370VDC	
Protection		Overload, Over Voltage, Over Temperature	Overload, Over Voltage	
Temperature		-25~70°C		
Dimension W x D x H		32 x 125.2 x 102mm	40 x 90 x 100mm	22.5 x 90 x 100mm

* Voltage Tolerance: ± 1.0%

CTS

Innovation to Your Needs

http://www.ctsystem.com

Connection Technology Systems Inc. (HQ)
18F-6, No. 79, Sec 1, Xintai 5th Rd.,
Xizhi Dist., New Taipei City 221, Taiwan
Sales Direct Line: +886-2-26989201
E-mail: info@ctsystem.com

Connection Technology Systems NE AB
August Barks Gata 21,
421 32 Västra Frölunda, Sweden
Tel: +46-31-221980
E-mail: info@ctsystem.se

Connection Technology Systems Central Europe
(COMPONET Handels GmbH)
Hirschstettner Straße 19-21/Stiege I
A-1220 Vienna, Austria
Tel: +43-1-235 05 66-0
E-mail: cts_ce@ctsystem.com

Connection Technology Systems Japan
Higobashi Bldg, No3 R201, 1-23-13, Edobori,
Nisi-ku, Osaka 550-0002, Japan
Tel: +81-6-6450-8890
E-mail: cts_japan@ctsystem.com

Connection Technology USA Inc.
40538 La Purissima Way, Fremont, CA 94539, USA
Tel: +1-510-509-0304
Sales Direct Line: +1-510-509-0305
E-mail: cts_us@ctsystem.com