CTS
CONNECTION TECHNOLOGY SYSTEMS

Media Converter Solutions
Product Catalogue

Extend and Convert Interface, Signals for Ethernet Network

Media Chassis | Media Converter | 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

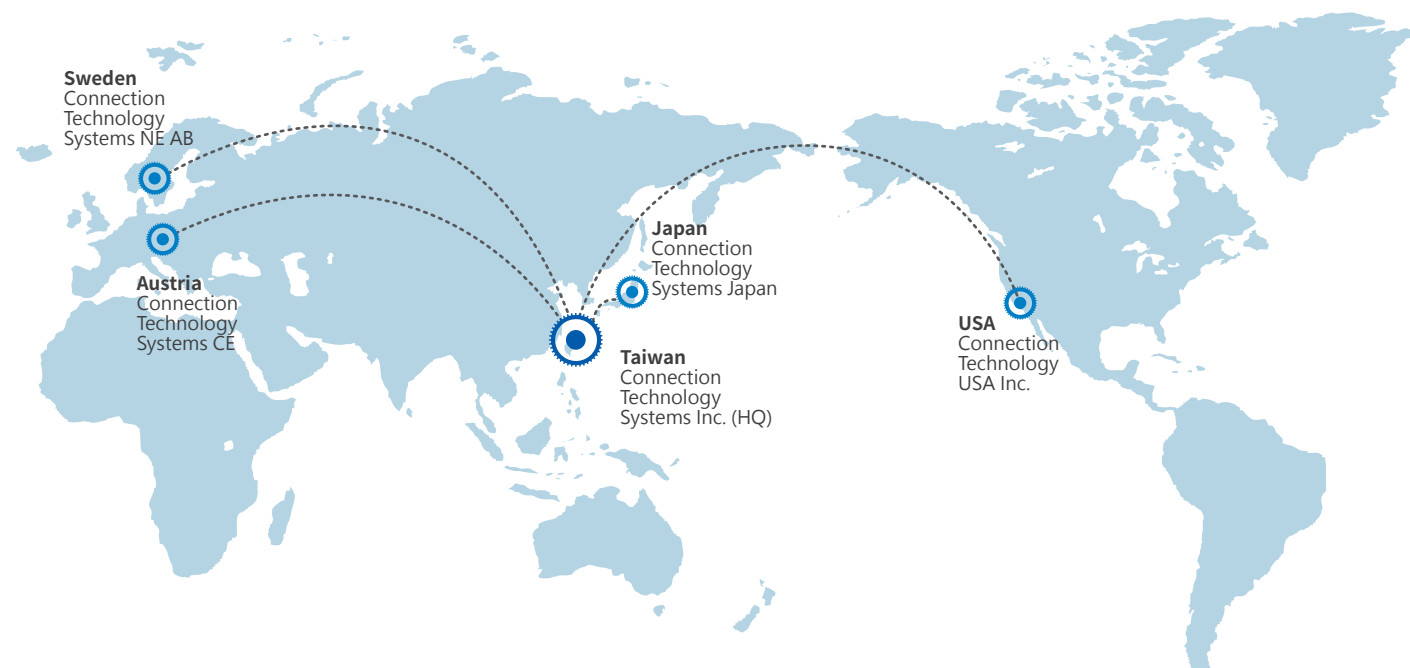**CTS** — FTTX, Industrial Network Solutions

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.
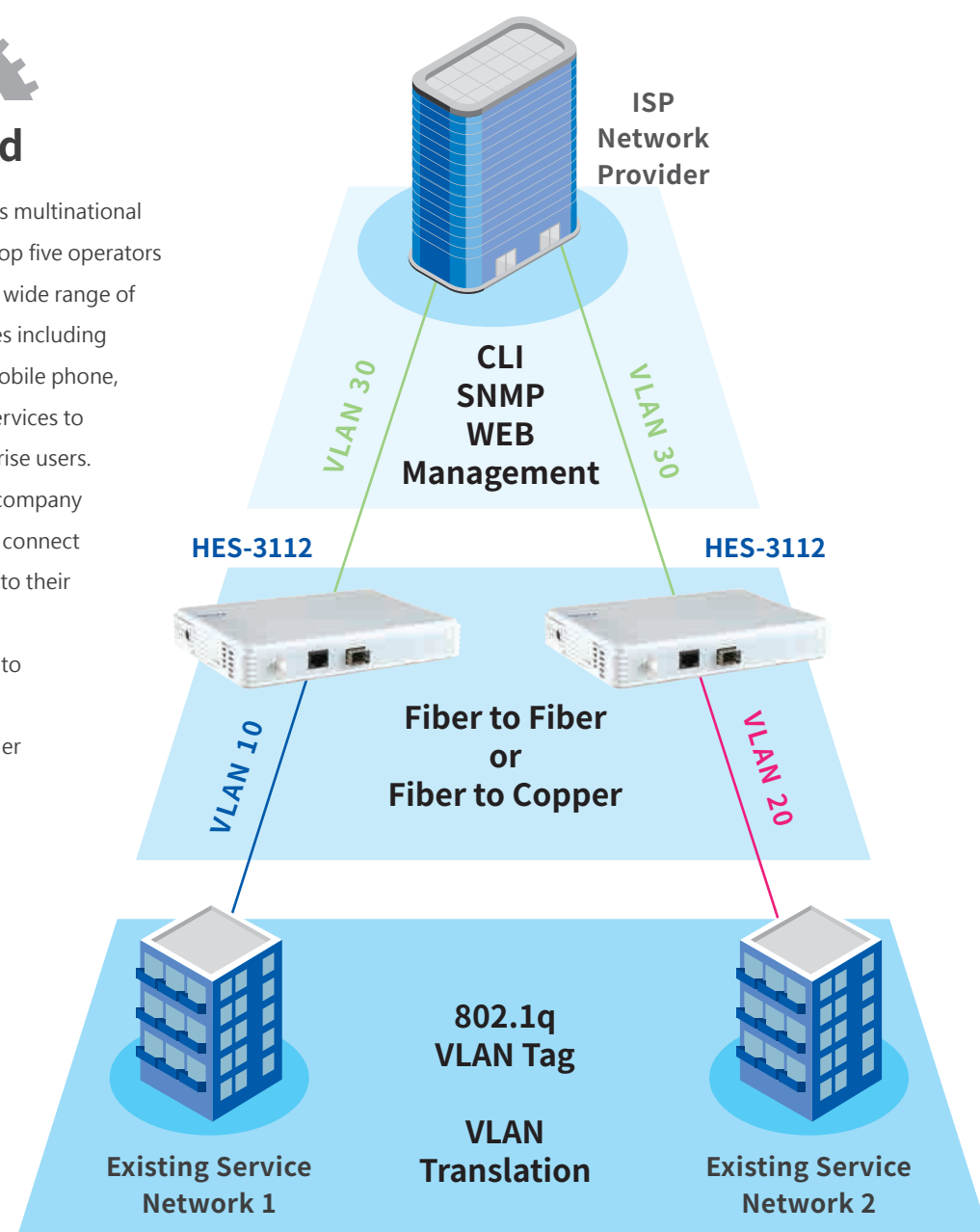
Trustworthy Partner

- 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.

Top 5 Europe-based Telecom Chose CTS Solution for Its Enterprise Network

Background

Established in 1988, this multinational telecom is ranked the top five operators in Europe. It provides a wide range of communication services including fixed line telephone, mobile phone, broadband and IPTV services to both home and enterprise users. However, the telecom company faced challenges when connect the expanded network to their existing network. This triggered the company to search for the most efficient solution in order to serve its enterprise customers without too much hassle...

ISP Network Provider

VLAN 30

CLI
SNMP
WEB
Management

VLAN 30

HES-3112   **HES-3112**

VLAN 10

Fiber to Fiber
or
Fiber to Copper

VLAN 20

**802.1q
VLAN Tag**

**VLAN
Translation**

Existing Service
Network 1

Existing Service
Network 2

CTS Products

HES-3112SFP-CL-DR

Managed Dual Rate Media Converter

Challenge

① The VLAN in the newly expanded network is different from the VLAN in the existing network.
② Increase popularity of Gigabit network in business users while some still remain at 100Mbps.
③ The operator needs to be able to monitor and troubleshoot around the clock for its enterprise users.
④ Request high security that only allows specify source from the operator to manage the devices.

Solution & Benefit

① Intergrate two networks by VLAN Translation feature to avoid massive re-configuration.
② With dual-rate capability from 100Mbps to Gigabit, the operator is able to cater different requirements.
③ Remote IP management with WEB/CLI configurable option allows the operator to manage and trouble shoot with ease.
④ Support IP Source Binding to meet the security requirement for a large operator.
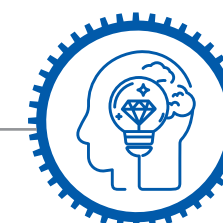
Networking Consultant

Adapt features to meet local needs with standard interoperability.

Trustworthy Partner

Our smart-consult team provides professional assists in the project development stage.

In-house Designer

Help the customer to solve the problem in the most efficient way.

CTS Industrial Media Converter Is Adopted by Hong Kong Border Facility

Background

Hong Kong Boundary Crossing Facilities (HKBCF) is the immigration and customer check point on the Hong Kong–Zhuhai–Macau Bridge. To meet security requirements and provide convenient services to motorists and passengers, HKBCF deployed state of the art Automatic Vehicle Clearance System (AVCS) for vehicle tracking, license plate recognition, and intrusion detection. Numerous speed dome cameras are installed across the Vehicle Clearance Plaza which needs a PoE network solution to help to build a complete surveillance system.

Speed Dome

Speed Dome

Speed Dome
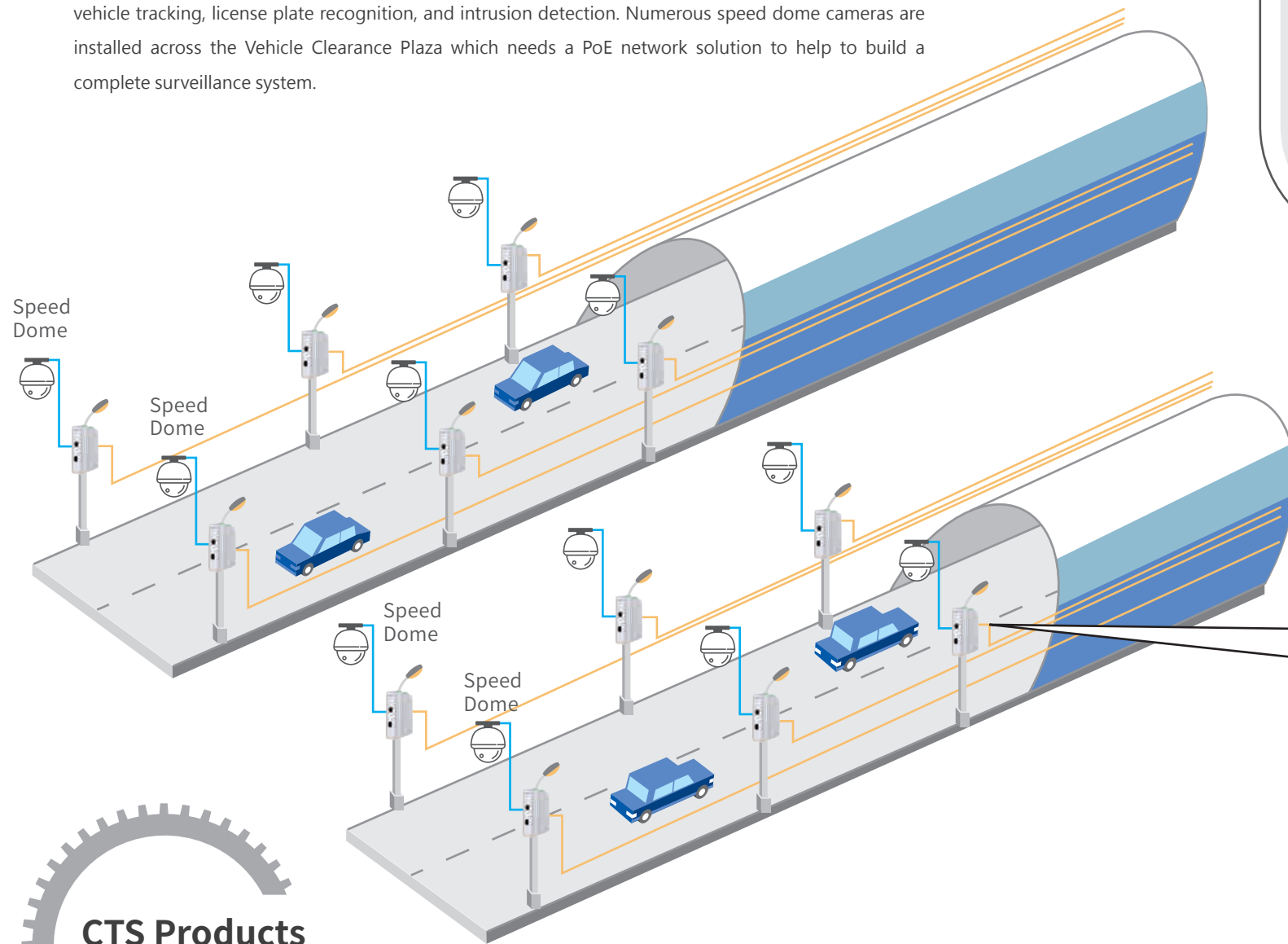
Speed Dome

CTS Products

IPC-3012-PoE++

1-Port SFP to 1-Port 60W PoE++ Gigabit Industrial Media Converter

Challenge

① Speed dome camera require 60W power input.
② Outdoor site on an artificial island with subtropical climate.
③ Frequent thunder storm on site.
④ Required 24/7 non-stop surveillance network.

Solution & Benefit

① IPC-3012-PoE++ compatible with IEEE 802.3af/at PoE+ and up to 60W power output.
② Able to operate smoothly in outdoor, marine, hot and humid environments.
③ 6KV Surge Immunity on copper ports prevent devices from damage.
④ Dual power input (12~57VDC) and built-in power booster to ensure non-stop and stable power supply to the connected cameras.

12~57 VDC Power Input
60W PoE Power Output
6KV Surge Protection
-40~75 Degrees Celsius
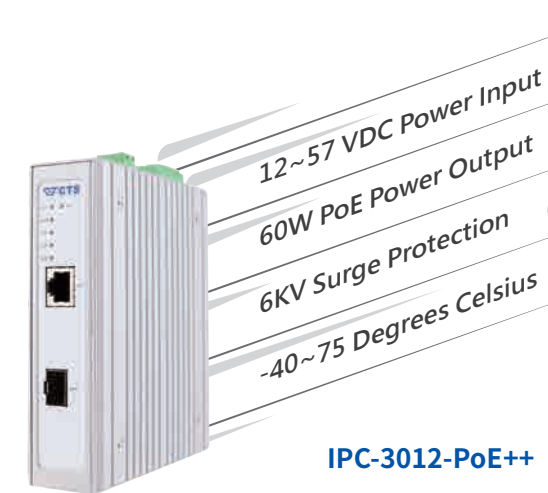
IPC-3012-PoE++
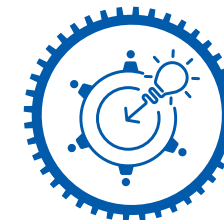
Networking Consultant

Our professional sales and technical team helped client looking for the best fitted solution.

Trustworthy Partner

The CTS in-house design and production team ensure the top-notch quality.

In-house Designer

Providing the reliable product that helps the customer achieve their goal more effectively.

Extension and Expansion for Point-to-Point Solutions

In an ever-growing world of internet, media conversion is important for interconnecting two source of services. For CTS, it's our job to simplify data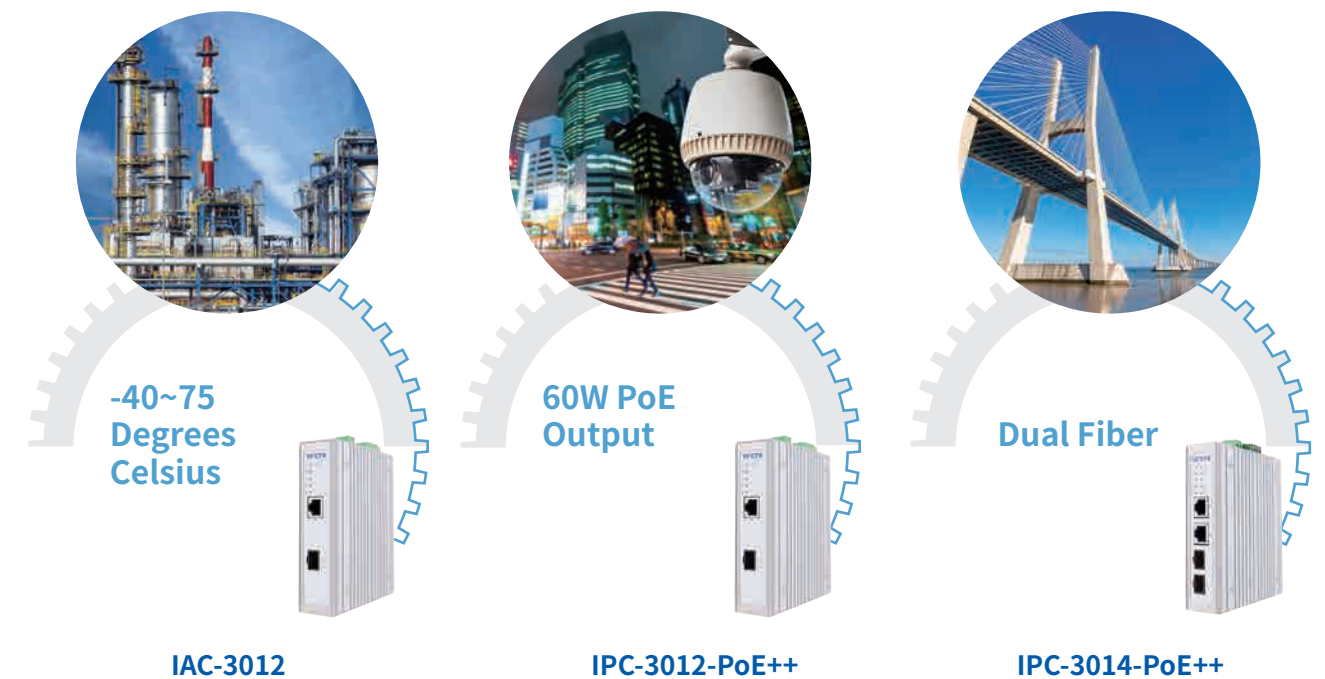 transportation and create seamless connection between different devices. MCT/CVT Media Converters series are flexible and cost-effective solution for implementing and optimizing fiber links to copper link in all types of networks.

With centralized Media Chassis – MCT/CVT-RACK Series, the stand-alone, plug-and-play MCT/CVT Media Converters can easily expand the fiber-optic networks. The wiring distance of MCT/CVT-RACK Series can extend from 2 to 120km and the transmission distance is up to 120km.

- 10G Solution for 10G SFP+ to 10G SFP+ or 10G SFP+ to 100M/1G/2.5G/5G/10G N-Base-T
- Gigabit Solution for 100/1000Base-X SFP to 100/1000Base-X SFP or 1G SFP to 10/100/1000Base-T
- WEB UI and SNMP v1/v2c Management Interface for Managed Media Converter
- Plug and Play 2/16/18-Slots Media Chassis
- 12/18-Slots Managed Media Chassis via WEB UI, CLI, Telnet, SSH and SNMP v1/v2c Management Interface

N-Base-T

Management

Media Converter Chassis

MCT-5002SFP+

CVT-3512

MCT-RACK-18-MGM
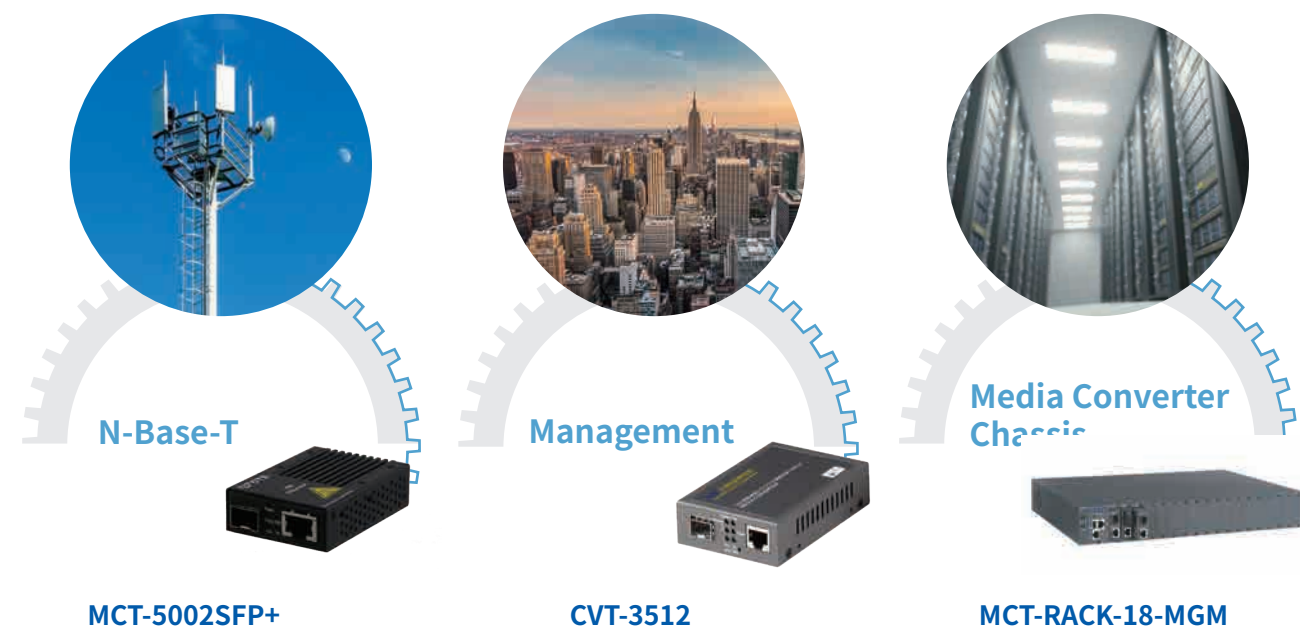
Robust, Reliable and Extenable Solution to Reach Copper Devices Effortlessly

-40~75 Degrees Celsius

60W PoE Output

Dual Fiber

IAC-3012

IPC-3012-PoE++

IPC-3014-PoE++

CTS Industrial Media Converters in robust IP30 housing are designed to meet the demands of industrial network 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
- 12~48/12~57/48~54VDC 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 Media Converter Solutions

Wi-Fi AP

Wi-Fi AP

Wi-Fi AP

Wi-Fi AP

IP Cam

IP Cam

IP Cam

IP Cam

CVT-RACK-16

Data Center

IPC-3014-PoE ++

IPC-3014

IPC-3014-PoE ++

IPC-3014

Highway

HES-3112

MCT-5002SFP+

Community

MCT-RACK-18-MGM

10G Fiber

10G Fiber

10G Fiber

Enterprise

10G Fiber

MCT-5002SFP+

MCT-RACK-2

CVT-3002-PLUS

Mobile DU

Mobile DU

MCT-5002SFP+

N-Base-T Switch

Warehouse

Branch Office

MCT-3512

MCT-5002SFP+

40km

80km

120km

▬▬▬	**10G Fiber**
▬▬▬	**1G Fiber**
▬▬▬	**RJ-45**
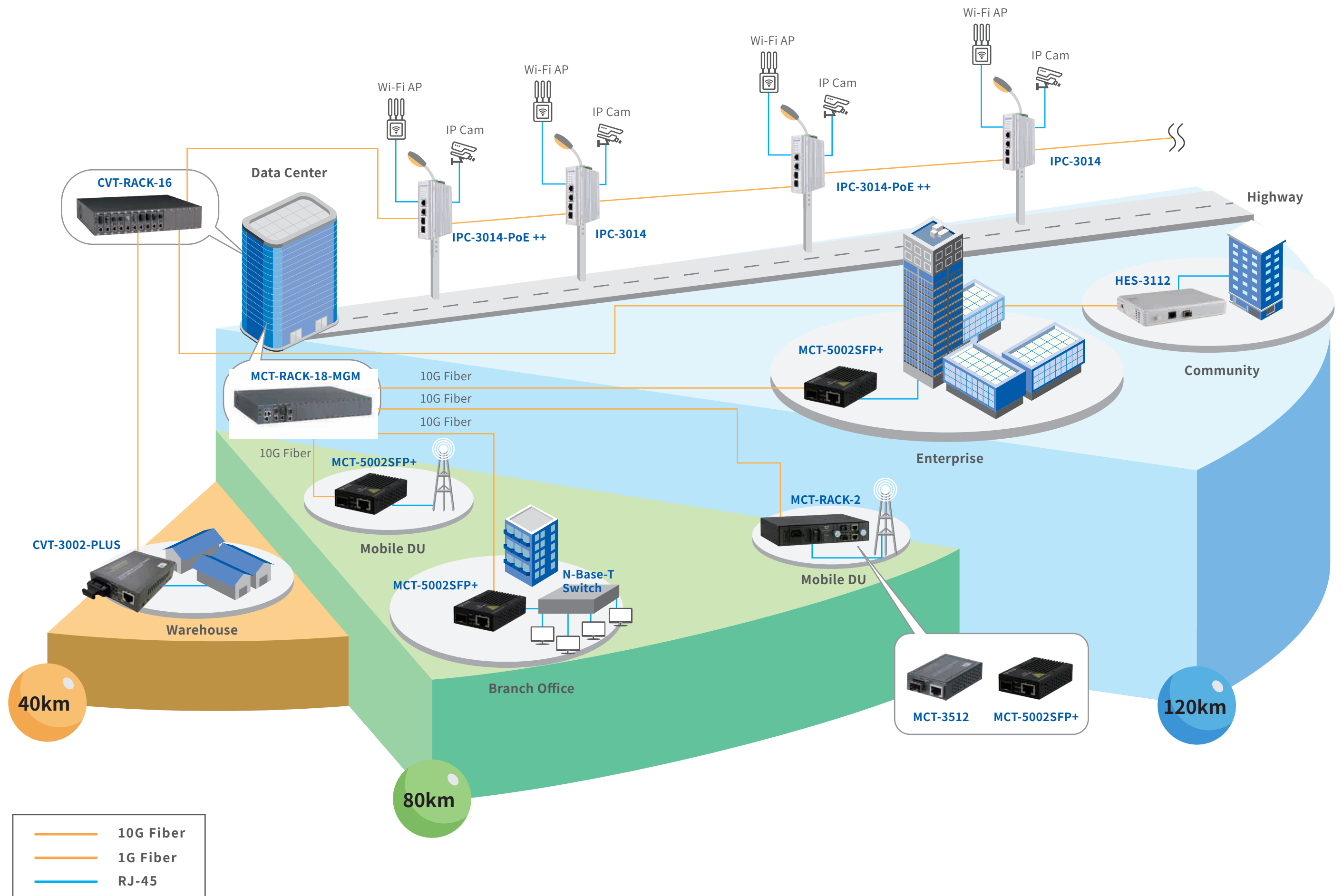
Compact Media Converter Chassis

Model Name	MCT-RACK-18-MGM	MCT-RACK-12-MGM	MCT-RACK-18	MCT-RACK-2
	Managed	Managed	Non-managed	Non-managed
Product Image				

		MCT-RACK-18-MGM	MCT-RACK-12-MGM	MCT-RACK-18	MCT-RACK-2
Hardware	Chassis Slots	18	12	18	2
	Dimension W x D x H	440 x 340 x 66 mm	440 x 340 x 44 mm	440 x 340 x 66 mm	210 x 160 x 44 mm
	Operating Temperature (Humidity)	0~50°C (5~90%)			
	Power Source	2 x Hot Swappable 100~240VAC/48VDC		2 x Fixed 100~240VAC/48VDC	1 x Fixed 100~240VAC/48VDC
	Power Consumption (Full Load)	35W	26W	33W	16W
	Converter Modules	MCT-5002SFP+, MCT-3512, MCT-3612, MCT-3002, MCT-100 Series			
Management & Features	Management Port	1 x 10/100Base-T RJ-45 1 x RS-232 to RJ-45 Console		-	
	USB Port	1 x USB 2.0 (Type A)		-	
	Digital Input/Output	1/1		-	
	Management	Telnet, CLI, WEB, SNMP v1/v2c/v3		-	
	SNMP Power Down Trap	●		-	
	SNTP	●		-	
	Firmware/Configuration Upgrade	FTP/TFTP/HTTP		-	
Certifications	EMC/Safety	FCC Class A, CE			

Media Converter Chassis

Model Name	CVT-RACK-16	CVT-RACK-16S
	Non-managed	Non-managed
Product Image		

		CVT-RACK-16	CVT-RACK-16S
Hardware	Chassis Slots	16	16
	Dimension W x D x H	440 x 385 x 88mm	440 x 280 x 88mm
	Operating Temperature (Humidity)	0~50°C (5~90%)	
	Power Source	2 x Hot Swappable 115 or 230VAC/48VDC	1 x Fixed 115 or 230VAC/48VDC
	Power Consumption (Full Load)	98W	95W
	Hot Swappable FAN Number	3	-
	Converter Modules	CVT-5002SFP+, CVT-3512, CVT-3112, CVT-3002, CVT-2512, CVT-2112, CVT-100 Series	
Certifications	EMC/Safety	FCC Class A, CE	

10G Media Converter

Model Name	MCT-5002SFP+	CVT-5002SFP+
	Non-managed	Non-managed
Product Image		

		MCT-5002SFP+	CVT-5002SFP+
Hardware	10G SFP+	1	2
	10G N-Base-T*	1	-
	Store and Forward	●	-
	Auto-MDI/MDI-X	●	-
	Auto-negotiation in TP Port	●	-
	Flow Control	-	
	MAC Address Table	2K	-
	Memory Buffer	128K Bytes	-
	Jumbo Frame	9K Bytes	
	Slide-in Chassis	MCT-RACK Series	CVT-RACK Series
	Dimension W x D x H	51 x 74 x 20mm	71 x 94 x 26mm
	Operating Temperature (Humidity)	0~50°C (5~90%)	
	Power Source	12VDC	5VDC
	Power Consumption	8W	4.3W
Management & Features	IEEE 802.3ah OAM	-	
	TS-1000 Loopback Test	-	
	QoS	-	
	QoS Priority Queue	-	
	Bandwidth Control	-	
	VLAN	-	
	VLAN ID	-	
	VLAN Groups	-	
	Management	-	
	SNMP Power Down Trap	-	
	DHCP	-	
	Link Alarm	●	
	Firmware Upgrade	-	
Certifications	EMC/Safety	FCC Class A, CE	

* 100M/1G/2.5G/5G/10G N-Base-T RJ-45 interface

1G Compact Media Converter

	Model Name	MCT-3512* MCT-3512-DR* Managed	MCT-3612 MCT-3612-DR Managed	MCT-3002 MCT-3002-DR Non-managed
	Product Image	OAM		
Hardware	10/100/1000Base-T	1	1	1
	10/100Base-TX	-	-	-
	1000Base-X	1 (BTFX/W2X/SFP)	1 (BTFX/W2X/SFP)	1 (BTFX/W2X/SFP)
	100Base-FX	Compatible	Compatible	Compatible
	Store and Forward	●		
	Auto-MDI/MDI-X	●		
	Auto-negotiation in TP Port	●		
	Flow Control	-		
	MAC Address Table	2K		
	Memory Buffer	128K Bytes		
	Jumbo Frame	9K Bytes		
	Slide-in Chassis	MCT-RACK Series		
	Dimension W x D x H	51 x 74 x 20mm		
	Operating Temperature (Humidity)	0~50°C (5~90%)		
	Power Source	3.3VDC		
	Power Consumption	2.5W	2.1W	2.3W
Management & Features	IEEE 802.3ah OAM	●	-	
	TS-1000 Loopback Test	-		
	QoS	-		
	QoS Priority Queue	-		
	Bandwidth Control	●	-	
	VLAN	802 1q, Q-in-Q	-	
	VLAN ID	4094	-	
	VLAN Groups	8	-	
	Management	In Rack Management Remote Management**	In Rack Management	-
	SNMP Power Down Trap	-		
	DHCP	-		
	Link Alarm	-	●	
	Firmware Upgrade	In Rack	-	
Certifications	EMC/Safety	FCC Class A, CE		

* MCT-3512/MCT-3512-DR support Link Pass Through

** Must be used with another MCT-3512 in a managed MCT-RACK

1G Media Converter

	Model Name	CVT-3512 Managed	CVT-3112 Managed	CVT-3002-PLUS CVT-3002-PLUS-DR Non-managed	CVT-3002FSMSFP-DR Non-managed
	Product Image	OAM			
Hardware	10/100/1000Base-T	1	1	1	-
	10/100Base-TX	-	-	-	-
	1000Base-X	1 (BTFX/W2X/SFP)	1 (BTFX/W2X/SFP)	1 (BTFX/W2X/SFP)	2 (SFP)
	100Base-FX	-	-	Compatible	Compatible
	Store and Forward	●			-
	Auto-MDI/MDI-X	●			-
	Auto-negotiation in TP Port	●			-
	Flow Control	●			-
	MAC Address Table	1K		2K	-
	Memory Buffer	32K Bytes		128K Bytes	-
	Jumbo Frame	9K Bytes		9K Bytes	
	Slide-in Chassis	CVT-RACK Series		CVT-RACK Series	
	Dimension W x D x H	71 x 94 x 26mm		71 x 94 x 26mm	
	Operating Temperature (Humidity)	0~50°C (5~90%)		0~50°C (5~90%)	
	Power Source	5VDC		5VDC	
	Power Consumption	3.4W		2.2W	1.8W
Management & Features	IEEE 802.3ah OAM	●	-	-	
	TS-1000 Loopback Test	●		-	
	QoS	-		-	
	QoS Priority Queue	-		-	
	Bandwidth Control	●		-	
	VLAN	802 1q, Q-in-Q		-	
	VLAN ID	4094		-	
	VLAN Groups	16		-	
	Management	WEB, SNMP v1/v2c		-	
	SNMP Power Down Trap	●		-	
	DHCP	Client		-	
	Link Alarm	●		●	
	Firmware Upgrade	HTTP		-	
Certifications	EMC/Safety	FCC Class A, CE		FCC Class A, CE	

100M Media Converter

		CVT-2512 Managed	CVT-2112 Managed	CVT-100 Non-managed	MCT-100 Non-managed
	Product Image				
Hardware	10/100/1000Base-T	-	-	-	-
	10/100Base-TX	1	1	1	1
	1000Base-X	-	-	-	-
	100Base-FX	1 (BTFX/W2X/SFP)	1 (BTFX/W2X/SFP)	1 (BTFX/W2X)	1 (BTFX/W2X/SFP)
	Store and Forward	●			
	Auto-MDI/MDI-X	●			
	Auto-negotiation in TP Port	●			
	Flow Control	●			-
	MAC Address Table	1K			
	Memory Buffer	12K Bytes			48K Bytes
	Jumbo Frame (9K Bytes)	9K Bytes			
	Slide-in Chassis	CVT-RACK Series			MCT-RACK Series
	Dimension W x D x H	71 x 94 x 26mm			51 x 74 x 20mm
	Operating Temperature (Humidity)	0~50°C (5~90%)			
	Power Source	5VDC			3.3VDC
	Power Consumption	2.9W		2.5W	1.9W
Management & Features	IEEE 802.3ah OAM	●	-		
	TS-1000 Loopback Test	●		-	
	QoS	-			
	QoS Priority Queue	-			
	Bandwidth Control	●		-	
	VLAN	802 1q, Q-in-Q		-	
	VLAN ID	4094		-	
	VLAN Groups	16		-	
	Management	WEB, SNMP v1/v2c		-	
	SNMP Power Down Trap	●		-	
	DHCP	Client		-	
	Link Alarm	●			
	Firmware Upgrade	HTTP		-	
Certifications	EMC/Safety	FCC Class A, CE			

Home Size Media Converter

		HES-3112-CL-DR Managed	HET-3012 / HET-3012-DR Non-managed
	Product Image		
Hardware	10/100/1000Base-T	1 (COMBO)	1
	10/100Base-TX	-	-
	1000Base-X	2 (W2X/SFP)	1 (BTFX/W2X/SFP)
	100Base-FX	Compatible	Compatible
	Store and Forward	●	
	Auto-MDI/MDI-X	●	
	Auto-negotiation in TP Port	●	
	Flow Control	●	
	MAC Address Table	2K	
	Memory Buffer	128K Bytes	
	Jumbo Frame	9K Bytes	
	Cable Tray	Option (HES-FCT-S)	Built-in
	Dimension W x D x H	180 x 130 x 30mm	160 x 110 x 45mm
	Operating Temperature (Humidity)	0~50°C (5~90%)	
	Power Source	12VDC	
	Power Consumption	4.8W	3W
Management & Features	IEEE 802.3ah OAM	-	
	IPv6	IPv4/IPv6 Dual Stack	-
	QoS	P-bit, CoS, DSCP	-
	QoS Priority Queue	4	-
	Bandwidth Control	●	-
	VLAN	802.1q, Q-in-Q, Port Based	-
	VLAN ID	4094	-
	VLAN Groups	128	-
	SSHv2	●	-
	Management	Telnet, CLI, WEB, SNMP v1/v2c	-
	SNMP Power Down Trap	●	-
	DHCP	Client, Auto Provisioning	-
	Link Alarm	-	
	Firmware Upgrade	FTP/TFTP	-
Certifications	EMC/Safety	FCC Class A, CE	

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

Model Name	IPC-3014-PoE++	IPC-3012-PoE++
	Non-managed	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++ and 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	IPC-3012
	Non-managed	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	IAC-3012
		Non-managed	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			

10G Ethernet SFP+ Transceiver

	SFP-51					
Model Name	Specification					
	Speed (Gbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-51FC	10	MM	LC	300M	850	0~70°C
SFP-51FC(SM-10/20/40/80)	10	SM	LC	10/20/40/80KM	1310/1310/1550/1550	0~70°C
SFP-51W2A(SM-10/20/40)	10	WDM	LC	10/20/40KM	TX:1270/1270/1270	0~70°C
					RX:1330/1330/1330	
SFP-51W2B(SM-10/20/40)	10	WDM	LC	10/20/40KM	TX:1330/1330/1330	0~70°C
					RX:1270/1270/1270	
SFP-51FC(SM-10)-C11	10	CWDM	LC	10KM	1470	0~70°C
SFP-51FC(SM-10)-C12	10	CWDM	LC	10KM	1490	0~70°C
SFP-51FC(SM-10)-C13	10	CWDM	LC	10KM	1510	0~70°C
SFP-51FC(SM-10)-C14	10	CWDM	LC	10KM	1530	0~70°C
SFP-51FC(SM-10)-C15	10	CWDM	LC	10KM	1550	0~70°C
SFP-51FC(SM-10)-C16	10	CWDM	LC	10KM	1570	0~70°C
SFP-51FC(SM-10)-C17	10	CWDM	LC	10KM	1590	0~70°C
SFP-51FC(SM-10)-C18	10	CWDM	LC	10KM	1610	0~70°C
SFP-51FC(SM-20)-C11	10	CWDM	LC	20KM	1470	0~70°C
SFP-51FC(SM-20)-C12	10	CWDM	LC	20KM	1490	0~70°C
SFP-51FC(SM-20)-C13	10	CWDM	LC	20KM	1510	0~70°C
SFP-51FC(SM-20)-C14	10	CWDM	LC	20KM	1530	0~70°C
SFP-51FC(SM-20)-C15	10	CWDM	LC	20KM	1550	0~70°C
SFP-51FC(SM-20)-C16	10	CWDM	LC	20KM	1570	0~70°C
SFP-51FC(SM-20)-C17	10	CWDM	LC	20KM	1590	0~70°C
SFP-51FC(SM-20)-C18	10	CWDM	LC	20KM	1610	0~70°C
SFP-51FC(SM-40)-C11	10	CWDM	LC	40KM	1470	0~70°C
SFP-51FC(SM-40)-C12	10	CWDM	LC	40KM	1490	0~70°C
SFP-51FC(SM-40)-C13	10	CWDM	LC	40KM	1510	0~70°C
SFP-51FC(SM-40)-C14	10	CWDM	LC	40KM	1530	0~70°C
SFP-51FC(SM-40)-C15	10	CWDM	LC	40KM	1550	0~70°C
SFP-51FC(SM-40)-C16	10	CWDM	LC	40KM	1570	0~70°C
SFP-51FC(SM-40)-C17	10	CWDM	LC	40KM	1590	0~70°C
SFP-51FC(SM-40)-C18	10	CWDM	LC	40KM	1610	0~70°C

Gigabit Ethernet SFP Transceiver

Product Image

Model Name	SFP-31-DR					
	Specification					
	Speed (Mbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-31FC-DR	100/1000	MM	LC	2KM/550M	1310	0~70°C
SFP-31FC(SM-10)-DR	100/1000	SM	LC	10KM	1310	0~70°C
SFP-31W2A(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX:1310/1310	0~70°C
					RX:1550/1550	
SFP-31W2B(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX:1550/1550	0~70°C
					RX:1310/1310	

Model Name	SFP-31					
	Specification					
	Speed (Mbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-31FC	1000	MM	LC	550M	850	0~70°C
SFP-31FC(SM-10/20/40/50/80/120)	1000	SM	LC	10/20/40/50/80/120KM	1310/1310/1310/1550/1550/1550	0~70°C
SFP-31W2A(SM-10/20/40/60/80)	1000	WDM	LC	10/20/40/60/80KM	TX:1310/1310/1310/1310/1510	0~70°C
					RX:1550/1550/1550/1550/1570	
SFP-31W2B(SM-10/20/40/60/80)	1000	WDM	LC	10/20/40/60/80KM	TX:1550/1550/1550/1550/1570	0~70°C
					RX:1310/1310/1310/1310/1510	
SFP-31FC-C11	1000	CWDM	LC	80KM	1470	0~70°C
SFP-31FC-C12	1000	CWDM	LC	80KM	1490	0~70°C
SFP-31FC-C13	1000	CWDM	LC	80KM	1510	0~70°C
SFP-31FC-C14	1000	CWDM	LC	80KM	1530	0~70°C
SFP-31FC-C15	1000	CWDM	LC	80KM	1550	0~70°C
SFP-31FC-C16	1000	CWDM	LC	80KM	1570	0~70°C
SFP-31FC-C17	1000	CWDM	LC	80KM	1590	0~70°C
SFP-31FC-C18	1000	CWDM	LC	80KM	1610	0~70°C

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	-40~85°C
					RX:1550/1550	
SFP-31W2B(SM-10/20)-D	1000	WDM	LC	10/20KM	TX:1550/1550	-40~85°C
					RX:1310/1310	

Fast Ethernet SFP Transceiver

Product Image

Model Name	SFP-21					
	Specification					
	Speed (Mbps)	Type	Connector	Distance	Wavelength (nm)	Temperature
SFP-21FC	100	MM	LC	2KM	1310	0~70°C
SFP-21FC(SM-20/30/40/50/80)	100	SM	LC	20/30/40/50/80KM	1310/1310/1310/1310/1550	0~70°C
SFP-21W2A(SM-20/40/80)	100	WDM	LC	20/40/80KM	TX:1310/1310/1310	0~70°C
					RX:1550/1550/1550	
SFP-21W2B(SM-20/40/80)	100	WDM	LC	20/40/80KM	TX:1550/1550/1550	0~70°C
					RX:1310/1310/1310	
SFP-21FC-C11	100	CWDM	LC	80KM	1470	0~70°C
SFP-21FC-C12	100	CWDM	LC	80KM	1490	0~70°C
SFP-21FC-C13	100	CWDM	LC	80KM	1510	0~70°C
SFP-21FC-C14	100	CWDM	LC	80KM	1530	0~70°C
SFP-21FC-C15	100	CWDM	LC	80KM	1550	0~70°C
SFP-21FC-C16	100	CWDM	LC	80KM	1570	0~70°C
SFP-21FC-C17	100	CWDM	LC	80KM	1590	0~70°C
SFP-21FC-C18	100	CWDM	LC	80KM	1610	0~70°C

Lightning Protector

Product Image

Model Name	LPB-101						
	Speed (Mbps)	Copper Port			Temperature	Dimension W x D x H	Note
		Type	Input Port	Output Port			
LPB-101G-P	10/100/1000	RJ-45 w/ PoE	1	1	0~50°C	70 x 25 x 25mm	It is necessary to be grounding properly when implementing.
LPB-101G	10/100/1000	RJ-45	1	1	0~50°C	70 x 25 x 25mm	

External Battery Unit

Product Image

Model Name	EBU-120						
	DC Input	External Battery (Recommended Spec.)		Charging/Backup (for reference)		Temperature	Dimension W x D x H
	Voltage	Type	Capacity	Charging Time	Backup Time		
EBU-120	12V	VRLA	12V/2.3h	7hrs	2.2hrs (for HES-3109SSFP)	0~50°C	124 x 70 x 30mm

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
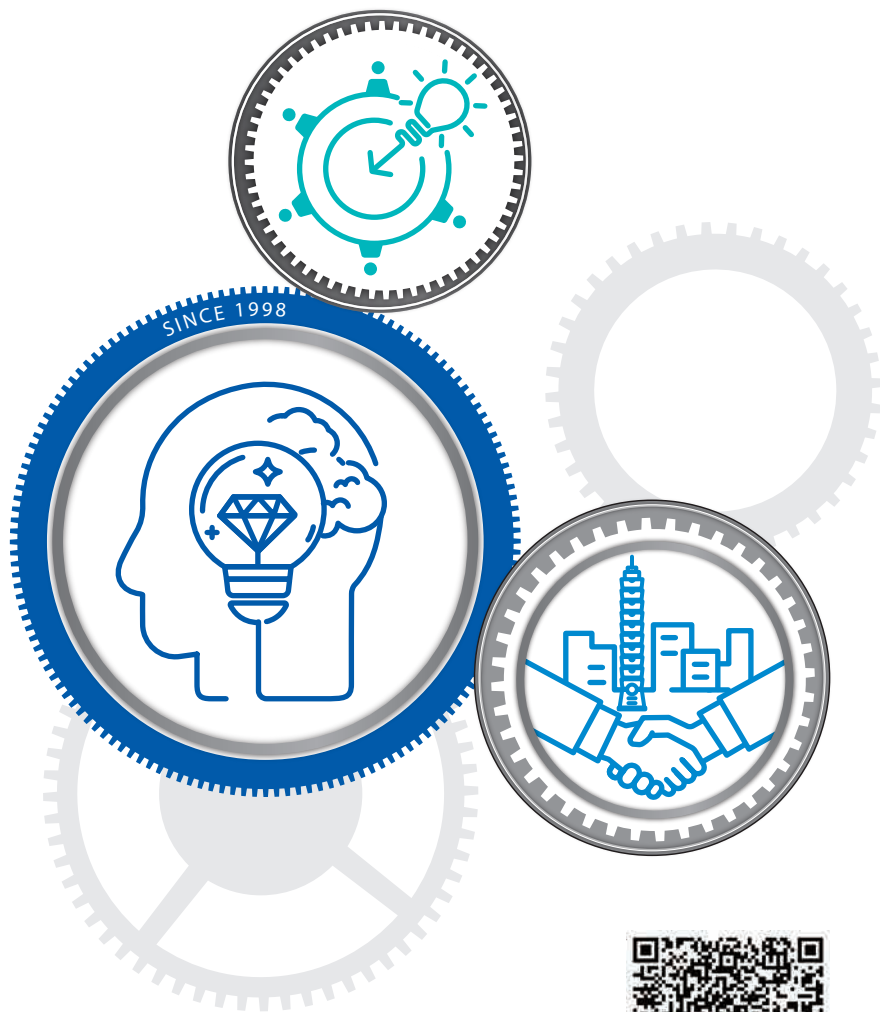
Innovation to Your Needs

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

SINCE 1998