PCM-CHASSIS-08
PCM-3002SFP-BT

| PCM-CHASSIS-08

8-Slot PoE Media Converter Chassis

| PCM-3002SFP-BT

100/1000Base-X SFP to

10/100/1000Base-T RJ-45

with IEEE 802.3bt PoE/PSE type 4 (90W)

media converter module

Description

The **CTS PCM-CHASSIS-08** is an **unmanaged media converter chassis with eight module slots** designed for the installation of CTS's **PCM-3002SFP-BT, a 1G media converter compliant with 90W IEEE 802.3bt PoE standard.**

PCM-CHASSIS-08: Reliably Built for a Wide Temperature Range

The PCM-CHASSIS-08, when combined with the PCM-3002SFP-BT modules, features a swappable redundant power system to ensure uninterrupted operation, even if one power module fails.

Its fanless, plug-and-play design allows easy maintenance, with both power module units and media converter slots accessible from the front panel. The chassis supports wide operating temperature ranges across -10˚C ~ 60˚C, making it ideal for deployment in harsh environments.

PCM-3002SFP-BT: Media Converter with a 90W PoE Injector

The **PCM-3002SFP-BT** media converter is specifically designed for the PCM-CHASSIS-08 platform. It provides:

- one 100/1000 Mbps SFP slot

- one 10/100/1000 Mbps RJ-45 port with a maximum IEEE 802.3bt Type 4 (90W) PoE output capability

The media converter features a plug-and-play design with a DIP switch located on the rear panel, allowing users to configure multiple functions. This makes it an excellent choice for efficient and reliable network operations.

Key Features of PCM-CHASSIS-08

■ **Easy Maintenance with Hot-Swappable, Plug-and-Play Design**

The **PCM-CHASSIS-08** accommodates up to eight media converter slots and two power slots, all accessible from the front panel. Its plug-and-play, hot-swappable design ensures easy maintenance and minimizes downtime during module replacement.

■ **Optimized for Compact Rack-Mount Environments**

Designed with depth-conscious installations in mind, the **PCM-CHASSIS-08** supports **standard 19-inch rack mounting with a 200mm depth**, making it ideal for deployment in narrow spaces.

■ **Fanless Thermal Design**

The **PCM-CHASSIS-08** employs a **fanless** natural airflow design, ensuring silent operation and reducing the risk of fan failure, providing long-term reliability.

■ **-10˚C ~ 60˚C Operating Temperature Range**

Designed for demanding environments, the **PCM-CHASSIS-08** operates reliably in temperatures ranging from **-10°C to 60°C**, ensuring optimal performance even in extreme conditions.

■ **Target Applications**

Ideal for challenging network infrastructures, where temperature might fluctuate from -10°C to 60°C.

Key Features of PCM-3002SFP-BT

■ **Instantly grasp when link issue occur**

The Link Alarm function promptly notifies network managers when unmanaged devices encounter link issues, enabling immediate response.

■ **Maximum 90W PoE output on per RJ-45 Port**

The **PCM-3002SFP-BT** equipped 10/100/1000 Base-T RJ-45 port, which delivers IEEE 802.3bt **90W PoE output**, ideal for powering high-demand devices such as PTZ IP cameras, Wi-Fi 6/6E/7 access points, and self-service terminals.

■ **Rear-side DIP Switch**

Featuring a rear-side DIP switch that allows users to configure functions, while its rear placement prevents accidental operation.

■ **Reduce operational cost effectively**

The PSE Auto Power Off function can automatically disable PoE during a fiber link disruption and reboot remote devices if needed, especially those located at long distances (e.g., 120 km), eliminating manual intervention and reducing operational costs.

■ **Assurance for Cyber Security: Data Diode**

The integrated data diode guarantees unidirectional data flow, preventing data leakage or unauthorized access by blocking reverse communication channels. Users can also customize the direction of data transfer to meet specific needs, ensuring protection of sensitive information and critical systems.

Specification

■ Interface

PCM-CHASSIS-08

- Media converter Slots
  8 x Hot-Swappable
- Power Slots
  2 x Hot-Swappable

PCM-3002SFP-BT

- 1 x 100/1000Base-X SFP
- 1 x 10/100/1000Base-T RJ-45 with
  IEEE 802.3af/at/bt injector, up to 90W PoE output

Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX/FX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3z 1000Base-X
- IEEE 802.3af Power over Ethernet
- IEEE 802.3at Power over Ethernet +
- IEEE 802.3bt Power over Ethernet ++

■ H/W Specification

PCM-3002SFP-BT

- MAC Address Table: 2K
- Non-blocking Switching Fabric: 4Gbps
- Throughput @ 64Bytes: 2.9Mpps
- Jumbo Frame: 9K Bytes
- Packet Buffer: 1Mbit
- Store and Forward Switching Mechanism
- Auto-Cross over for MDI/MDI-X in TP port
- Auto-Negotiation in TP Port
- Full/Half Duplex Mode Operation

■ Power over Ethernet

Max. PoE output budget for PCM-CHASSIS-08

- 100~240V AC @ 50°C : 240W
- 220~240V AC @ 60°C : 240W
- 110V AC @ 60°C : 230W
- 100V AC @ 60°C : 200W

Power Pin Assignment for PCM-3002SFP-BT

- IEEE 802.3af/at (mode A/end-span)
  1/2(-), 3/6(+)
  max. PoE output budget: 15/30W
- IEEE 802.3bt (4-pair mode, 4-pair mandatory)
  1/2(-), 3/6(+)& 4/5(+), 7/8(-)
  max. PoE output budget: 90W

■ LED

PCM-CHASSIS-08
- Power (power module)

PCM-3002SFP-BT
- Power, Status, PoE
- TP Link/Act/Speed, F/O Link/Act/Speed

■ DIP Switch

PCM-3002SFP-BT

- Manual/Auto for TP Auto-Negotiation
- TP speed 100/1000Mbps
- Force/Auto Mode for F/O
- F/O speed 100/1000Mbps
- Link Alarm Enable/Disable
- Data-diode Enable/Disable
- Data-diode Direction
  block Fiber to RJ-45 direction
  block RJ-45 to Fiber direction
- PSE Auto Power Off (PAPO)* Enable/Disable

■ Power Requirement

PCM-CHASSIS-08 (with power module)
- AC Input : 100~240VAC, 50/60Hz
- Power Consumption: full-load ≤ 292W (996 BTU/h)

PCM-3002SFP-BT
- Power Input : 54VDC
- Power Consumption: full-load ≤ 95W (324 BTU/h)

■ Environmental Condition

- Operation: -10°C~60°C
- Storage: -20°C~70°C
- Humidity: 5%~90% RH, Non-Condensing

■ Dimension & Weight

PCM-CHASSIS-08
- Size: 440 x 200 x 132mm (W x D x H)
- Weight: 4.25Kg (without power and converter module)

PCM-CHASSIS-08-AC POWER
- Size: 75 x 181 x 132mm (W x D x H)
- Weight: 2.0Kg

PCM-3002SFP-BT
- Size: 34 x 94 x 132mm (W x D x H)
- Weight: 0.27Kg

■ Standards and Certifications

CE/FCC Class A
- Safety: EN/IEC 62368-1
- EMC: EN 55032 / EN 55035
- ESD
  Air Discharge: +/-8kV
  Contact Discharge: +/-4kV
- EFT
  AC input: +/-1kV
  Signal (RJ-45): +/-0.5kV
- Surge Protection
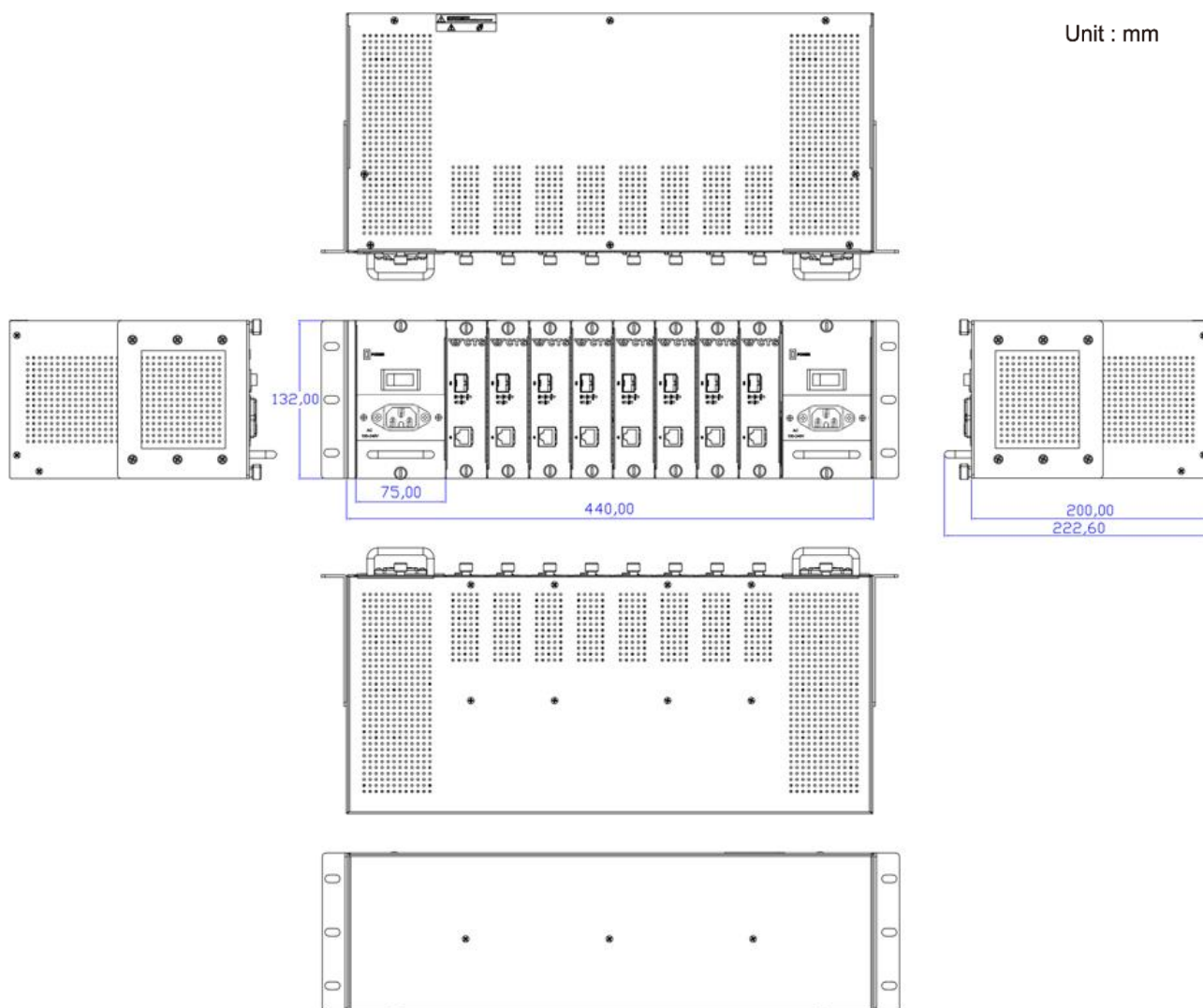 AC input: +/-2kV
  Signal (RJ-45): +/-2kV

VCCI/UKCA/RCM

RoHS 2.0

* The PAPO function operates when the fiber interface link goes down, with link alarm function enabled.
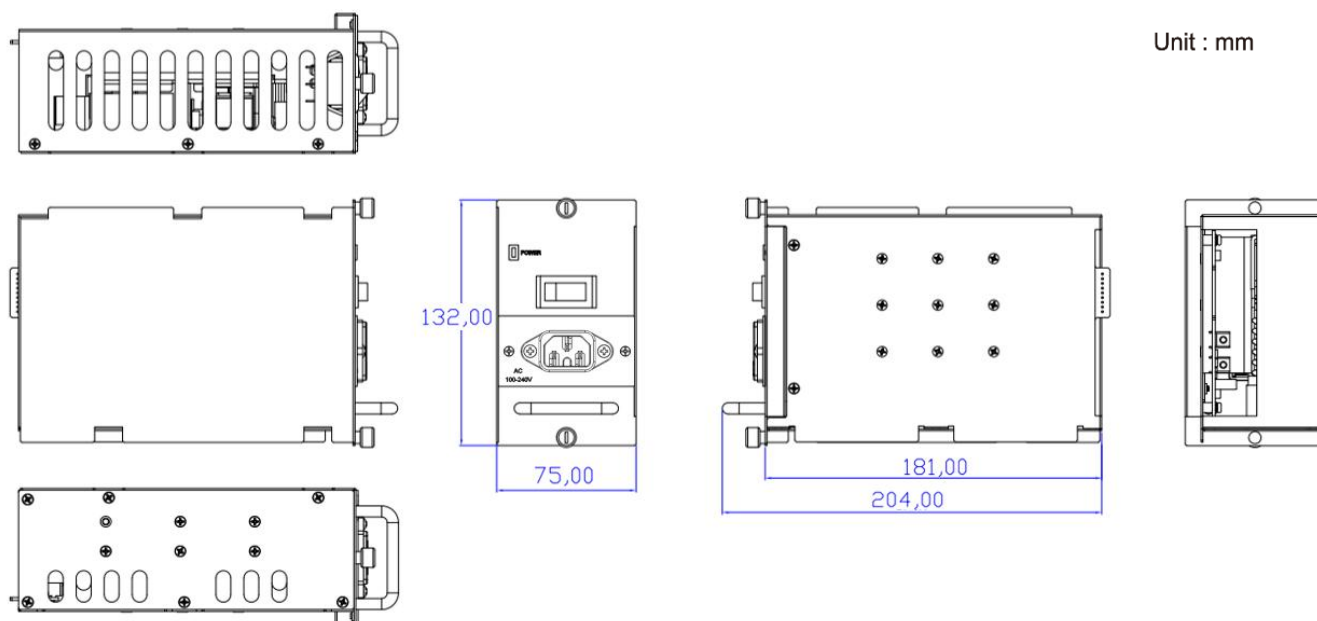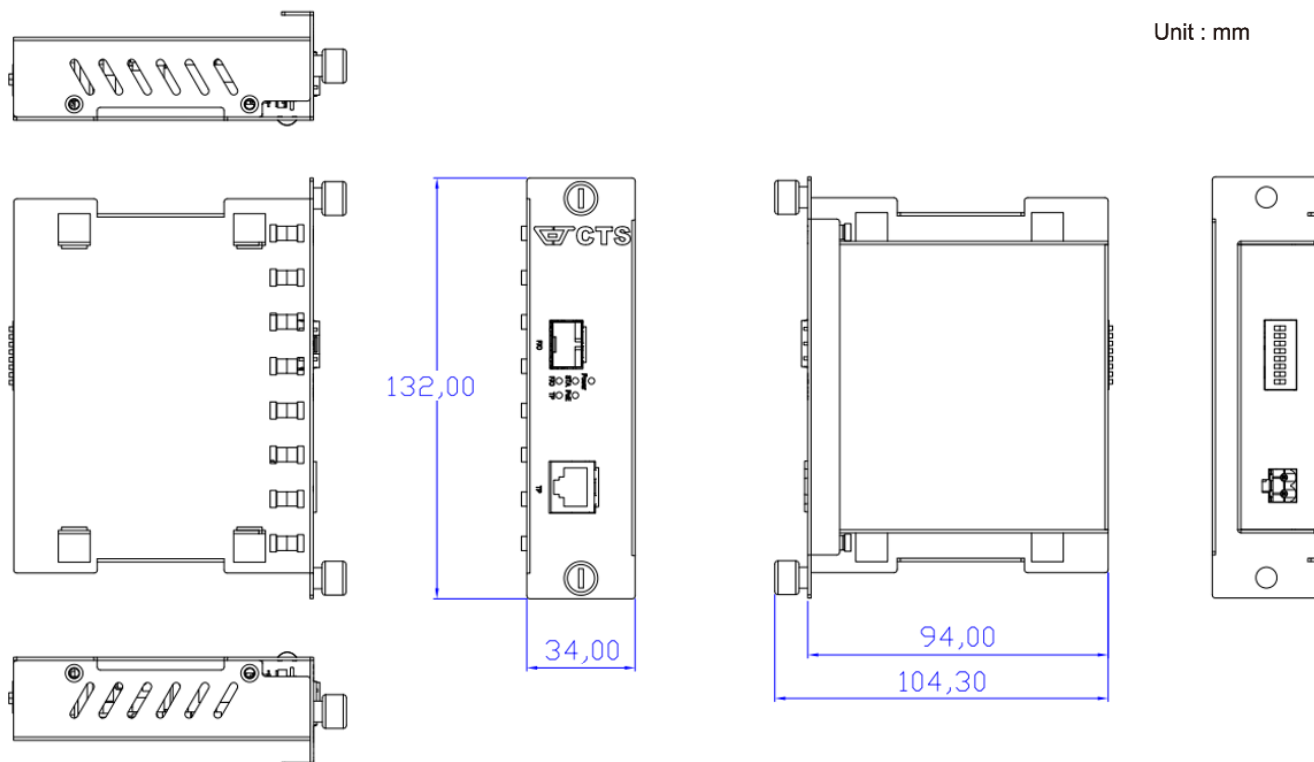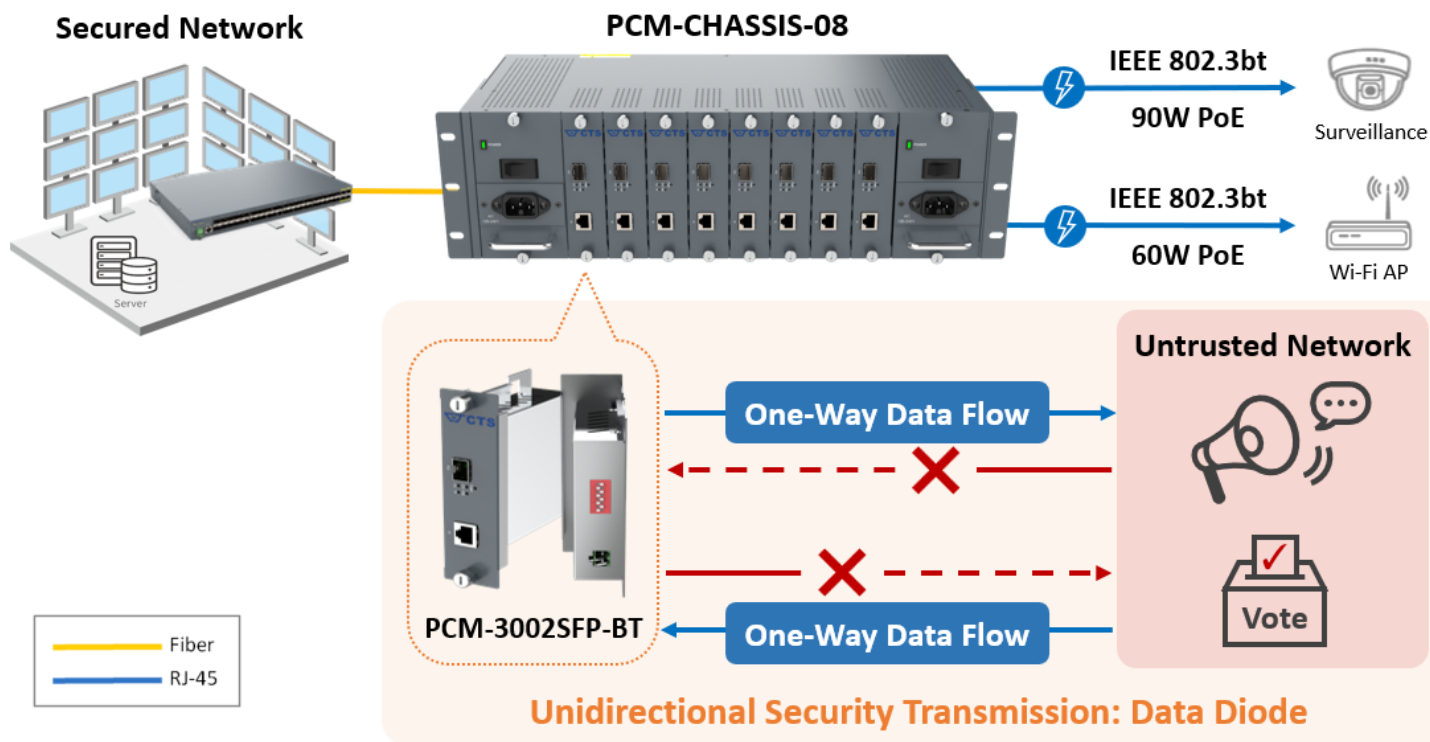
Dimension

PCM-CHASSIS-08

Unit : mm

132,00

75,00

440,00

200,00
222,60

PCM-CHASSIS-08-AC POWER

Unit : mm

132,00

75,00

181,00
204,00

PCM-3002SFP-BT

Unit : mm

132,00

34,00

94,00

104,30

Application Diagram

Secured Network

PCM-CHASSIS-08

IEEE 802.3bt
90W PoE
Surveillance

IEEE 802.3bt
60W PoE
Wi-Fi AP

Server

Untrusted Network

One-Way Data Flow

PCM-3002SFP-BT

Vote

One-Way Data Flow

Unidirectional Security Transmission: Data Diode

Fiber
RJ-45

Order Information

Model	Module Slot Amount		Support Power Source	Remark
	Converter Module	Power Module		
PCM-CHASSIS-08	8	2	Provide by PCM-CHASSIS-08-AC POWER	**Without** AC power module & converter module
PCM-CHASSIS-08-1A	8	2	Provide by PCM-CHASSIS-08-AC POWER	With 1 AC power module, **without** converter module
PCM-CHASSIS-08-2A	8	2	Provide by PCM-CHASSIS-08-AC POWER	With 2 AC power module, **without** converter module
PCM-CHASSIS-08-AC POWER	-	-	100~240V AC power input	AC power module for PCM-CHASSIS-08

Model	Fiber Slot			TP Port		Support Power Source
	Speed(Mbps)	Type	Slot	Speed(Mbps)	Port	
PCM-3002SFP-BT	100/1000	SFP	1	10/100/1000	1	1 x 54V DC power input provide by PCM-CHASSIS-08

Accessory

SFP-31-D

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