10G/5G/2.5G/1G/100M Copper to 10GBASE-X SFP+ Smart Media Converter

Flexible and Reliable Network Distance Extension Solution

PLANET XST-705A Smart Media Converter is equipped with one **10G/5G/2.5G/1G/100BASE-T** auto-negotiation port and one **10GBASE-X SFP+** slot. It supports 10Gigabit Ethernet media conversion from copper 10GBASE-T to fiber multi-mode or single-mode, utilizing 10GBASE-SR or 10GBASE-LR SFP+ transceiver installed in the SFP+ slot to extend distances to servers, switches and patch panels. The deployment distance can be extended from 300 meters (multi-mode) to up to 60 kilometers (single-mode).They are designed for use in network environments where the ultra-high bandwidth provided by 10Gigabit Ethernet is required, for example, data center cloud computing, enterprise backbones, campus networks, and carrier infrastructure.

Physical Port

- One 10G/5G/2.5G/1G/100BASE-T RJ45 interface with auto MDI/MDI-X function
- One 10GBASE-X SFP+ slot

Layer 2 Features

- IEEE 802.3u/802.3ab/802.3bz/802.3ae Ethernet standard compliant
- Supports auto-negotiation and 100Mbps half/full duplex and 1/2.5/5/10Gbps full duplex mode
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- 16K jumbo frame size support
- Automatic address learning and address aging

Case and Installation

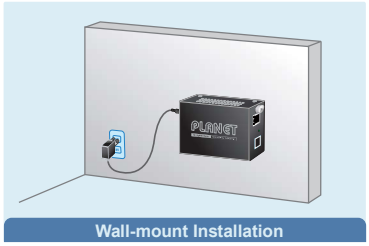
- External 5V DC, 2A power supply
- Wall-mount design
- Supports 6000 VDC Ethernet ESD protection
- 100 meters over Cat. 6A / Cat. 7 at 10Gbps
- 0 to 50 degrees C operating temperature
- Co-works with PLANET's 19" Managed Media Converter Chassis series **(MC-1610MR / MC-1610MR48)**
- Plug and Play installation

Diversified Central Management and Easy Chassis Installation

The XST-705A Smart Media Converter can be used as a stand-alone unit or as a slide-in module to the PLANET 19-inch Managed Media Converter Chassis series (MC-1610MR / MC-1610MR48). When working with Managed media converter chassis, the chassis can assist in providing DC power to the XST-705A and can be managed. Its port status such as link on/off can be monitored through the local RS232 console or remote web interface. Installing multiple XST-705As in the MC-1610MR is ideal for telecom and corporate applications where a number of 10Gbps fiber links need to be managed and controlled from a central location.

Optional installation method

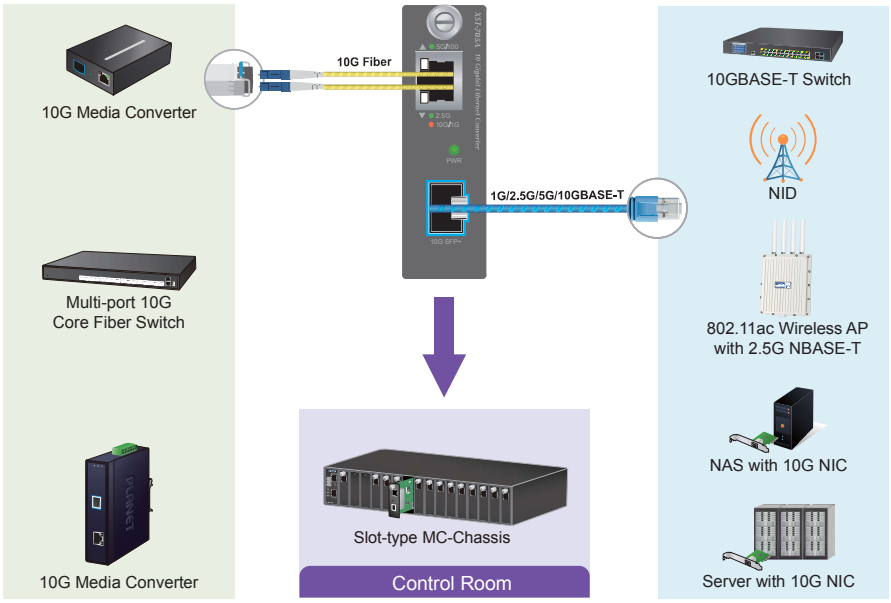

Media Chassis Installation


Wall-mount Installation

High Performance 10Gbps Ethernet Capacity

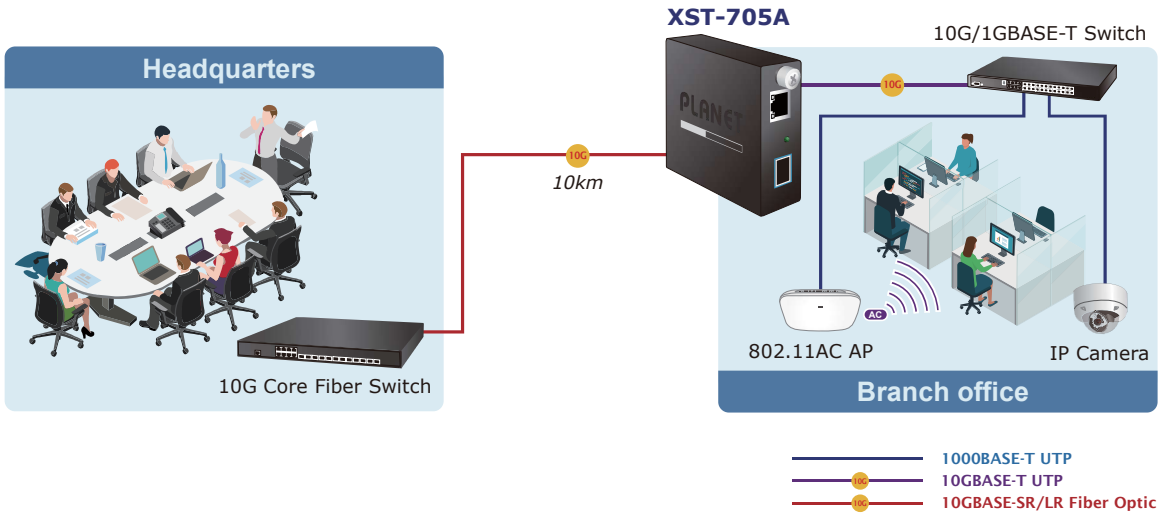
The XST-705A offers wire-speed packets transfer performance without the risk of packet loss. The high data throughput of the device makes it ideal for most Gigabit environments. With a 20Gbps internal fabric and featuring auto negotiation support in its 10 Gigabit port, the XST-705A Smart Media Converter can handle large amounts of data in a secure topology linking to a backbone or high capacity servers.

10Gbps Fiber to Copper Media Converter Application



Fiber-optic Linking Capability Enables Extension of Network Deployment

The SFP+ slot of the XST-705A is compatible with **10GBASE-SR** or **10GBASE-LR** (Small Form Factor Pluggable) fiber-optic transceivers. The fiber optic uplink capability guarantees the throughput to all nodes hooked into the network and the 10 Gigabit Ethernet distance can be extended from 300 meters (multi-mode fiber cable) to 10/40/60 kilometers (single-mode fiber cable). It is ideal for applications within the data centers and distributions.



Low Power Consumption

The XST-705A adopting the advanced chip technology has the power-saving feature like a low power consumption of only 3.8watts when in full operation.

Specifications

Model	XST-705A
Hardware Specifications	
Copper Interface	1 x 10G/5G/2.5G/1G/100BASE-T RJ45 Auto-MDI/MDI-X, auto-negotiation
Fiber Optic Interface	1 x 10GBASE-X SFP+ interface.
LED	**System:** PWR (Green) **10G/5G/2.5G/1G/100 BASE-T RJ45 Interfaces:** 1G/10G LNK (Amber) 5G/2.5G/100M LNK (Green)
ESD Protection	6KV DC
Enclosure	Compact-sized metal case
Installation	Desktop or wall mounting
Dimensions (WxDxH)	93.8 x 80.75 x 26.4mm
Weight	182g (device only)
Power Requirements	5V DC, 2A max.
Power Consumption	3.8 watts / 13 BTU per hour (max.)
Converter Specifications	
Switch Processing Scheme	Store and Forward
Flow Control	Copper Interface: Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Fabric	20Gbps
Jumbo Frame	16K
Network Cables	**10G/5G/2.5G/1G/100M BASE-T:** 10G--Cat. 6A/Cat. 7 5G--Cat. 6/Cat. 6A/Cat. 7 1G/2.5G—Cat. 5e/Cat. 6/Cat. 6A/Cat. 7 100M—Cat. 5/Cat. 5e/Cat. 6/Cat. 6A/Cat. 7 Cat. 5/5e/6/6A/7 UTP cable (100 meters, max.) EIA/TIA-568 100-ohm STP (100 meters, max.) **10GBASE-LR/SR/BX:** 50/125μm or 62.5/125μm multi-mode fiber optic cable, up to 300m 9/125μm single-mode fiber optic cable, up to 60km
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Operating environment	0 ~ 50 degrees C
Storage Environment	-10 ~ 70 degrees C
Operating Humidity	5 ~ 95%, relative humidity (non-condensing)
Storage Humidity	5 ~ 95%, relative humidity (non-condensing)
Standards Compliance	IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5GBASE-T IEEE 802.3an 10GBASE-T IEEE 802.3ae 10Gbps Ethernet IEEE 802.3x full-duplex flow control (Copper Port)

Ordering Information

XST-705A	10G/5G/2.5G/1G/100M Copper to 10GBASE-X SFP+ Smart Media Converter

Related Products

MC-1610MR/MC-1610MR48	16-Slot Managed Media Converter Chassis with Redundant Power Supply System
XGS-6350-12X8TR	Layer 3 12-Port 10G SFP+ + 8-Port 10/100/1000T Managed Switch with Dual 100~240V AC Redundant Power
IXT-705AT	Industrial 10G/5G/2.5G/1G/100M Copper to 10GBASE-X SFP+ Media Converter
ENW-9801	10Gbps SFP+ PCI Express Server Adapter
ENW-9803	10GBASE-T PCI Express Server Adapter

Available 10Gbps Modules

MTB-RJ	10GBASE-T SFP+ Copper Fiber Optic Module – 30m
MTB-SR	10GBASE-SR mini-GBIC module – 300m
MTB-LR	10GBASE-LR mini-GBIC module – 10km
MTB-TSR	10GBASE-SR mini-GBIC module – 300m (-40~75 degrees C)
MTB-TLR	10GBASE-LR mini-GBIC module – 10km (-40~75 degrees C)
MTB-LA20	10GBASE-LX (WDM,TX:1270nm) mini-GBIC module – 20km
MTB-LB20	10GBASE-LX (WDM,TX:1330nm) mini-GBIC module – 20km
MTB-LA40	10GBASE-LX (WDM,TX:1270nm) mini-GBIC module – 40km
MTB-LB40	10GBASE-LX (WDM,TX:1330nm) mini-GBIC module – 40km
MTB-LA60	10GBASE-LX (WDM,TX:1270nm) mini-GBIC module – 60km
MTB-LB60	10GBASE-LX (WDM,TX:1330nm) mini-GBIC module – 60km

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