

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



Flexible and Reliable Network Distance Extension Solution

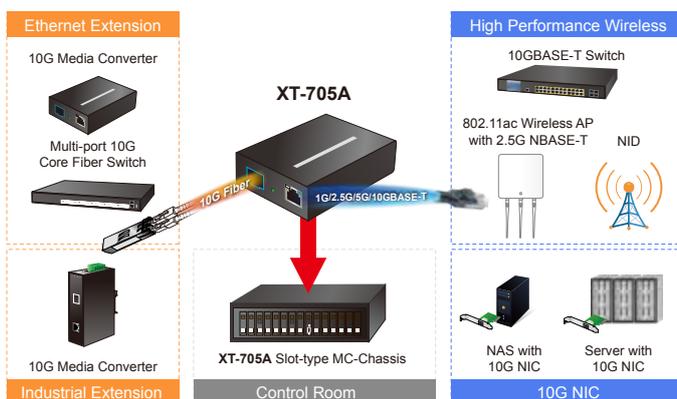
PLANET XT-705A Media Converter is equipped with one 10G/5G/2.5G/1G/100BASE-T auto-negotiation port and one 10GBASE-X SFP+ slot. It supports 10Gigabit Ethernet media conversion from copper 10GBASE-T to fiber multi-mode or single-mode, utilizing 10GBASE-SR or 10GBASE-LR SFP+ transceiver installed in the 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.



High Performance 10Gbps Ethernet Capacity

The XT-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, 16K jumbo frame feature and auto negotiation support in its 10 Gigabit port, the XT-705A can handle extremely large amounts of data transmission in a secure topology linking to data center cloud computing, enterprise backbones, campus networks, and carrier infrastructure.

10Gbps Fiber to Copper Media Converter Application



Physical Port

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

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
- DIN-rail and wall-mount design
- Supports 6000 VDC Ethernet ESD protection
- 100 meters over Cat 6A / Cat7 at 10Gbps
- 0 to 50 degrees C operating temperature
- Co-works with PLANET's 10"/19" Media Converter Chassis (MC-700/MC-1500/MC-1500R/MC-1500R48)
- Plug and Play installation

Robust Protection

The IXT-705AT provides contact discharge of $\pm 6\text{KV}$ DC and air discharge of $\pm 8\text{KV}$ DC for Ethernet ESD protection. It also supports $\pm 4\text{KV}$ surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Low Power Consumption

The XT-705A adopting the advanced chip technology has the power-saving feature like a low power consumption of only 3.75 watts when in full operation.

Easy Chassis Installation

The XT-705A Media Converter can be used as a stand-alone unit or as a slide-in module to the PLANET Media Converter Chassis (MC-700 and MC-1500 chassis series). The media chassis can assist in providing DC power to the XT-705A Media Converter to maintain the fiber-optic network at one centralized location. It can be DIN-rail or wall mounted for efficient use of cabinet space.

Optional installation method

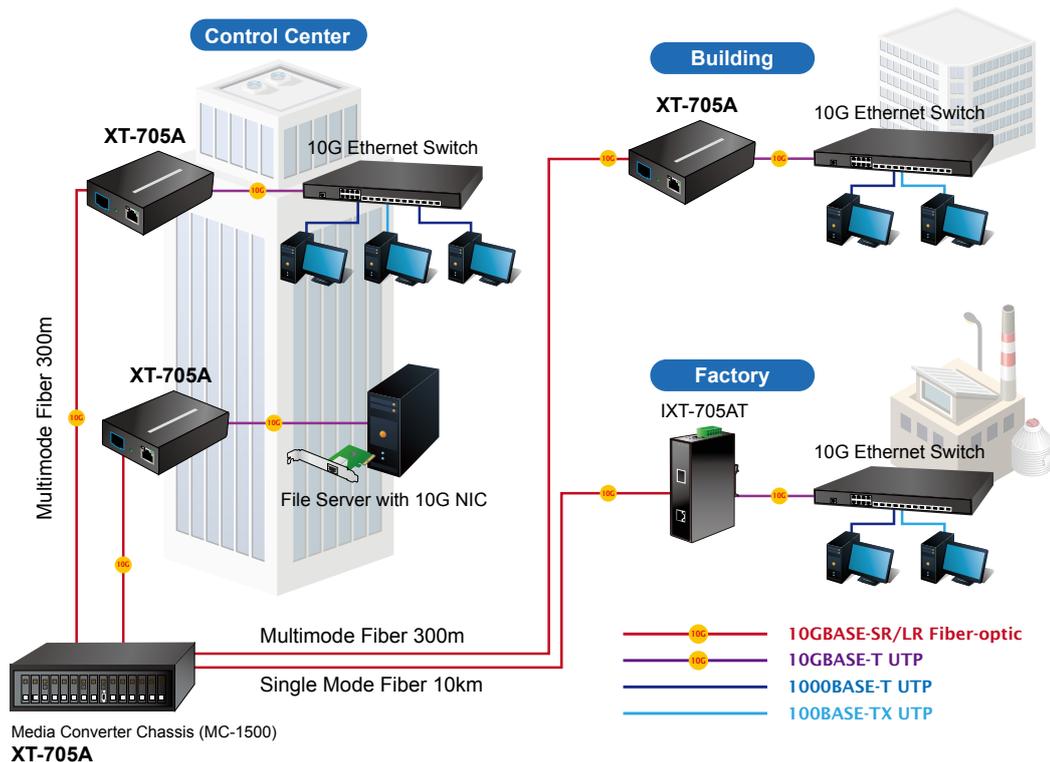


Applications

Fiber-optic Linking Capability Enables Extension of Network Deployment

The SFP+ slot of the XT-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 factory data centers and distributions.

Fiber to Ethernet Can Support Large-scale Retail Networks



Specifications

Product	XT-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 R SFP+ interface.
LED	System: PWR (Green) 10G/5G/2.5G/1G/100 BASE-T RJ45 Interfaces: 1G/10G LNK (Orange) 5G/2.5G/100M LNK (Green)
Switch Processing Scheme	Store and Forward
ESD Protection	6KV DC
Enclosure	Compact-sized metal case
Installation	Desktop, wall mountable Media convert Chassis installation Optional DIN-rail kit
Dimensions (WxDxH)	94 x 70 x 26mm
Weight	180g (device only)
Power Requirements	5V DC, 2A max.
Power Consumption	3.75 watts / 12.8 BTU per hour max.
Converter Specifications	
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Fabric	20Gbps
Address Table	9K entries, automatic source address learning and aging
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

Ordering Information

XT-705A	10G/5G/2.5G/1G/100M Copper to 10GBASE-X SFP+ Media Converter
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Related Products

SGS-6340-16XR	Layer 3 16-Port 10GBASE-SR/LR SFP+ Stackable Managed Switch (100~240V AC, -48~60V DC)
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
MTB-Series Transceiver	10GBASE-LR/SR SFP+ Transceiver

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