

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



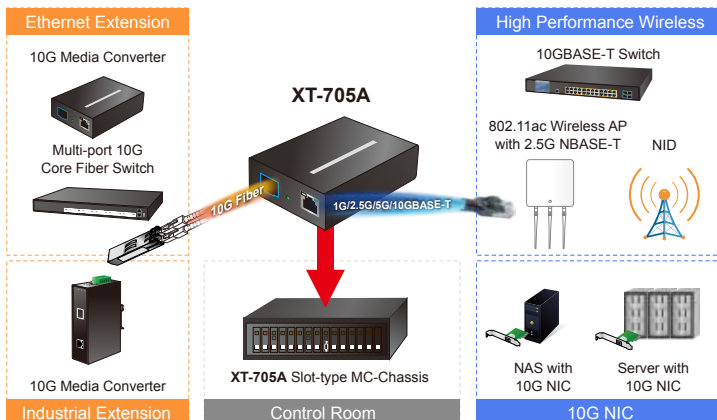
### Flexible and Reliable Network Distance Extension Solution

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**

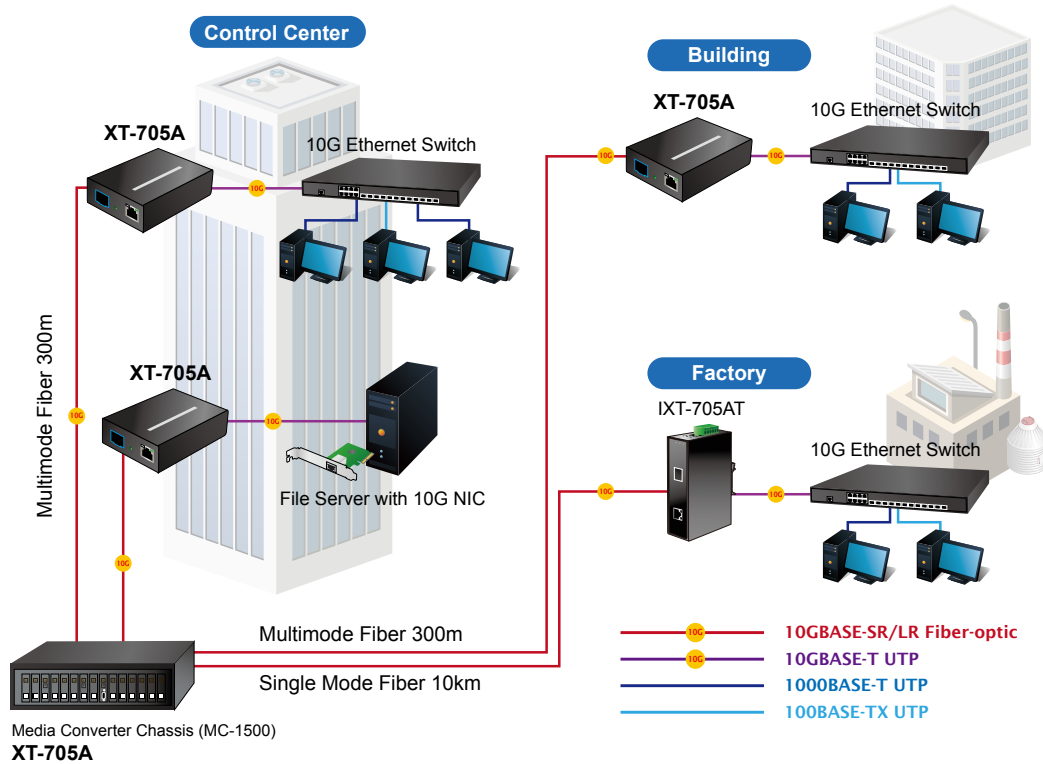
The XT-705A adopting the advanced chip technology has the power-saving feature like a low power consumption of only 3.75 watts when in full operation.

## 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



**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



Media Chassis Installation



DIN-rail Installation



Wall-mount Installation

## Specifications

Product	XT-705A
<b>Hardware Specifications</b>	
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.
<b>Converter Specifications</b>	
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
Fabric	20Gbps
Throughput (packet per second)	2.48Mpps@64bytes
Address Table	9K entries, automatic source address learning and aging
Jumbo Frame	16K
Network Cables	<b>10G/5G/2.5G/1G/100M BASE-T:</b> 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.) <b>10GBASE-LR/SR/BX :</b> 50/125µm or 62.5/125µm multi-mode fiber optic cable, up to 300m 9/125µm single-mode fiber optic cable, up to 60km
<b>Standards Conformance</b>	
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