

# Managed Gigabit Ethernet Media Converter



## WEB/SNMP/OAM Remotely Managed Gigabit Converter

The PLANET GT-90x series is the 10/100/1000Base-T to 1000Base-LX / SX Managed Media Converter developed to fill the advanced demand from further Network applications and equipped with the feature of plug and play. The GT-90x series provide the flexibility with all kinds of 10/100/1000Mbps Ethernet Media on RJ-45 port and offer highly stable Gigabit fiber performance. It supports conversion between 10/100/1000Base-T and 1000Base-LX / SX network, which includes SC / SFP / WDM connectors with single-mode or multi-mode media as required. The Ethernet signal allows three types of segments to connect easily, efficiently and inexpensively.

## Friendly/Centralize/Simple Web Management Interface

For efficient management, the GT-90x series Managed Gigabit Ethernet Media Converter is equipped with remote Web / SNMP interface. With its built-in Web-based management, the PLANET GT-90x series acts as an easy-to-use, platform-independent management and configuration facility. The GT-90x series also supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. Moreover, the TS-1000/802.3ah OAM protocol (operations, administration, and maintenance) supported helps remote device be managed and monitored by GT-90x.

## Enhanced Management Features

The GT-90x series can be programmed for advanced management functions such as IP address configuration, DHCP Client function, port configuration, converter configuration, 802.1Q Tag VLAN, Q-in-Q VLAN, Ingress/Egress bandwidth control, QoS and Layer protocol filter, broadcast storm and bandwidth control, to enhance bandwidth utilization.

## Easy Installation

As the GT-90x series Managed Gigabit Ethernet Media Converter fully complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T and IEEE 802.3z 1000Base-LX / SX, the Gigabit media conversion installation is quite quick and easy by simple plugging and playing feature. This GT-90x series can be used as a stand-alone unit or as a slide-in module to the PLANET Media Converter Chassis (MC-700, MC-1000 and MC-1500). The media converter chassis can provide DC power to GT-90x series to maintain the fiber-optic network at the central location.

## KEY FEATURES

- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-SX/LX
- One-channel media conversion between 10/100/1000Base-T and 1000Base-SX / LX
- TP port supports 10/100/1000Base-T auto-negotiation and auto-MDI/MDI-X
- 1000Base-SX: 50/125µm or 62.5/125µm multi-mode fiber cable, up to 220/550m on GT-902
- 1000Base-LX: 9/125µm single-mode cable provides long distance for 10km on GT-902S
- 1000Base-LX WDM interface for up to 15km (single-mode fiber 9µm/125µm) on GT-906A15/B15
- 1000Base-LX WDM interface for up to 60km (single-mode fiber 9µm/125µm) on GT-906A60/B60
- 1000Base-T: 2-pair Cat. 5/5e/6 UTP cable, up to 100 meters
- Compact size for working with PLANET MC family Media Chassis (MC-700/1000R/1500)
- Wall-mountable hardware design
- Built-in IP-based Web interface for remote management
- Layer 2 Management Feature
  - IEEE 802.3x PAUSE Frame Flow Control for Full-Duplex mode
  - Store-and-Forward mechanism
  - Built-in Web interface for remote management and setup
  - Manual IP address setting / DHCP client for IP address assignment
  - SNMP v1 / v2c monitor / private Enterprise MIB
  - Event trap and SNMP trap support
  - Speed duplex mode configuration / Flow Control setting / bandwidth Control on TP / Fiber port
  - Supports Port Status / Ethernet Statistics on both TP and Fiber interface
  - Supports Maximum frame size to 16K bytes
  - Loop detection / Broadcast / Multicast / Unicast storm control
  - Management VLAN / 16 IEEE 802.1Q VLAN groups / Q-in-Q VLAN
  - 802.1p Tag Priority / IP address priority / IP DSCP option in Quality of Service Mode and Strict Priority / Weighted Round Robin (WRR) QoS policies
  - TS-1000 OAM / IEEE 802.3ah OAM / Loop Back Test
  - 16 TCP / UDP Filter groups
  - Password setting, IP setting and devices description setting through Planet Smart discovery utility
  - Firmware upgrade via remote Web interface
- External DC 5V 2A power supply
- LED indicators for easy network diagnosing
- Reset Button at the front panel for the factory default reset
- Choice of fiber-connector from SC, LC, WDM, multi-mode / single-mode fiber / 1000Base-SX / LX mini GBIC module

## Fiber-Optic Networking for ISP, Enterprise, and Home

**ISP Central Building**

**Remote WEB Management Monitoring Center**

**GT-90X in MC-Chassis slot**

**GT-905A**

**GT-906A15**

**GT-902S**

**GT-905A**

**10/100/1000 Media Converter**

**1000Base-LX 120km**

**FTTP**

**1000Base-LX 15km**

**GT-906B15**

**10/100/1000 Media Converter**

**1000Base-LX 10km**

**GSW-2416SF**

**GT-902S**

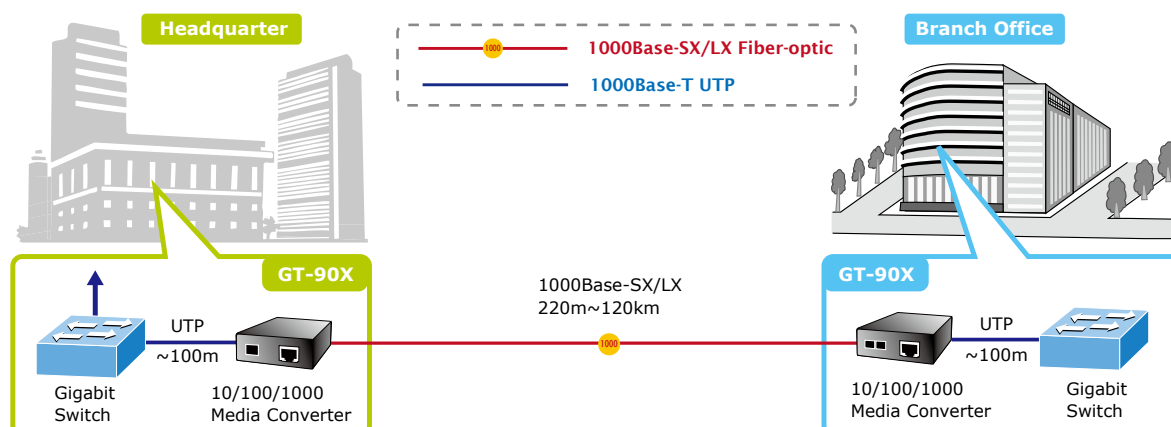
**FTTB**

**FTTH**

**100Base-TX UTP**

**1000Base-T UTP**

**1000Base-SX/LX Fiber-optic**



## SPECIFICATION

| Model                  |                   | GT-902                                                                                                                                                                                          | GT-902S   | GT-905A | GT-906A15              | GT-906B15              | GT-906A60              | GT-906B60              |
|------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|------------------------|------------------------|------------------------|------------------------|
| Hardware Specification |                   |                                                                                                                                                                                                 |           |         |                        |                        |                        |                        |
| Standards              |                   | IEEE 802.3, 10Base-T<br>IEEE 802.3u, 100Base-TX<br>IEEE 802.3ab, 1000Base-T<br>IEEE 802.3z, 1000Base-SX/LX                                                                                      |           |         |                        |                        |                        |                        |
| Ports                  |                   | 1 x 10/100/1000Base-T port,<br>1 x 1000Base-SX/LX port                                                                                                                                          |           |         |                        |                        |                        |                        |
| Copper Interface       |                   | RJ-45 port (Auto-MDI/MDI-X) Twisted Pair                                                                                                                                                        |           |         |                        |                        |                        |                        |
| Optic Interface        |                   | SC                                                                                                                                                                                              |           | SFP     | WDM                    |                        |                        |                        |
| Optic wavelength       |                   | 850nm                                                                                                                                                                                           | 1310nm    | --      | TX:1310nm<br>RX:1550nm | TX:1550nm<br>RX:1310nm | TX:1310nm<br>RX:1550nm | TX:1550nm<br>RX:1310nm |
| Launch Power (dBm)     | Max.              | -4 dBm                                                                                                                                                                                          | -3 dBm    | --      | -3 dBm                 | +5 dBm                 | -3 dBm                 | +4 dBm                 |
|                        | Min.              | -9.5 dBm                                                                                                                                                                                        | -9.5dBm   | --      | -9 dBm                 | 0 dBm                  | -9 dBm                 | -1 dBm                 |
| Receive Sensitivity    |                   | -13.5 dBm                                                                                                                                                                                       | -14.4 dBm | --      | -21 dBm                | -25 dBm                | -21 dBm                | -25 dBm                |
| Maximum Input power    |                   | -18 dBm                                                                                                                                                                                         | -20 dBm   | --      | -3 dBm                 | -3 dBm                 | -2 dBm                 | -2 dBm                 |
| Speed                  | Twisted-pair      | 10/20Mbps for Half / Full-Duplex<br>100/200Mbps for Half / Full Duplex<br>2000Mbps for Full-Duplex                                                                                              |           |         |                        |                        |                        |                        |
|                        | Fiber-optic       | 2000Mbps for Full-Duplex                                                                                                                                                                        |           |         |                        |                        |                        |                        |
| Cable                  | Twisted-pair      | 10Base-T: 2-pair UTP Cat. 3,4,5, up to 100 m<br>100Base-TX: 2-pair UTP Cat. 5, up to 100 m<br>1000Base-T: 4-pair STP Cat 5 up to 100m                                                           |           |         |                        |                        |                        |                        |
|                        | Fiber-optic cable | 50/125µm or 62.5/125µm multi-mode fiber cable, up to 220/550m.<br>9/125µm single-mode cable, provides long distance for 10/15/20/30/40/50/60/70/120km (very on fiber transceiver or SFP module) |           |         |                        |                        |                        |                        |
| LED indicator          |                   | PWR,<br>TP LINK/ACT, 1000<br>Fiber LINK/ACT                                                                                                                                                     |           |         |                        |                        |                        |                        |
| Power consumption      |                   | 3.8 Watts/ 13 BTU (maximum)                                                                                                                                                                     |           |         |                        |                        |                        |                        |
| Power Input            |                   | DC 5V / 2A                                                                                                                                                                                      |           |         |                        |                        |                        |                        |
| Dimension (W x D x H)  |                   | 93 x 70 x 26 mm                                                                                                                                                                                 |           |         |                        |                        |                        |                        |
| Operating Environment  |                   | Temperature: 0~50 Degree C; Humidity: 5~90% non-condensing                                                                                                                                      |           |         |                        |                        |                        |                        |
| Storage Environment    |                   | Temperature: -40~70 Degree C; Humidity: 5~90% non-condensing                                                                                                                                    |           |         |                        |                        |                        |                        |
| Emissions              |                   | FCC Class A, CE Class A                                                                                                                                                                         |           |         |                        |                        |                        |                        |

## ORDERING INFORMATION

|           |                                                                                                 |
|-----------|-------------------------------------------------------------------------------------------------|
| GT-902    | 10/100/1000Base-T to 1000Base-SX Managed Media Converter (SC,MM)-220/550m                       |
| GT-902S   | 10/100/1000Base-T to 1000Base-LX Managed Media Converter (SC,SM)-10km                           |
| GT-905A   | 10/100/1000Base-T to mini-GBIC Managed Media Converter (LC,MM/SM)-distance depend on SFP module |
| GT-906A15 | 10/100/1000Base-T to 1000Base-LX Managed Media Converter (WDM,SM, TX:1310 RX:1550)-15km         |
| GT-906B15 | 10/100/1000Base-T to 1000Base-LX Managed Media Converter (WDM,SM, TX:1550 RX:1310)-15km         |
| GT-906A60 | 10/100/1000Base-T to 1000Base-LX Managed Media Converter (WDM,SM, TX:1310 RX:1550)-60km         |
| GT-906B60 | 10/100/1000Base-T to 1000Base-LX Managed Media Converter (WDM,SM, TX:1550 RX:1310)-60km         |

# AVAILABLE MINI-GBIC MODULES FOR GT-905A

|          |                                                                   |
|----------|-------------------------------------------------------------------|
| MGB-GT   | SFP-Port 1000Base-T mini-GBIC module                              |
| MGB-SX   | SFP-Port 1000Base-SX mini-GBIC module                             |
| MGB-LX   | SFP-Port 1000Base-LX mini-GBIC module                             |
| MGB-L30  | SFP-Port 1000Base-LX mini-GBIC module -30KM                       |
| MGB-L50  | SFP-Port 1000Base-LX mini-GBIC module -50KM                       |
| MGB-L70  | SFP-Port 1000Base-LX mini-GBIC module -70KM                       |
| MGB-L120 | SFP-Port 1000Base-LX mini-GBIC module -120KM                      |
| MGB-LA10 | SFP-Port 1000Base-LX mini-GBIC module- LC WDM(TX:1310nm), SM,10km |
| MGB-LB10 | SFP-Port 1000Base-LX mini-GBIC module- LC WDM(TX:1550nm), SM,10km |
| MGB-LA20 | SFP-Port 1000Base-LX mini-GBIC module- LC WDM(TX:1310nm), SM,20km |
| MGB-LB20 | SFP-Port 1000Base-LX mini-GBIC module- LC WDM(TX:1550nm), SM,20km |
| MGB-LA40 | SFP-Port 1000Base-LX mini-GBIC module- LC WDM(TX:1310nm), SM,40km |
| MGB-LB40 | SFP-Port 1000Base-LX mini-GBIC module- LC WDM(TX:1550nm), SM,40km |