

Product Specifications

100/1000BASE-X SFP to 10/100/1000BASE-T Managed Media Converter

GT-915A

Version 1.0

This document contains confidential proprietary information and is property of PLANET. The contents of this document should not be disclosed to unauthorized persons without the written consent of PLANET.

Change History:

| Revision: | Date: | Author: | Change List |
|-------------|------------|----------|-----------------|
| Version 1.0 | 11/18/2022 | Angeline | Initial Release |

| | | | |
|--------------|----------|--------------|-----------|
| Author: | Angeline | Editor: | Angeline |
| Reviewed by: | Reyo Wu | Approved by: | Kent Kang |

1. PRODUCT DESCRIPTION



Remotely Managed Gigabit Converter

PLANET GT-915A 10/100/1000BASE-T to 100/1000BASE-X Managed Media Converter is developed to meet the advanced demand of network applications but it comes with the easy Plug and Play feature. The GT-915A provides all kinds of 10/100/1000Mbps Ethernet Media on RJ45 port and offers highly-stable Gigabit SFP fiber performance. It supports conversion between 10/100/1000BASE-T and 100/1000BASE-X Ethernet, which includes SFP slot with single-mode or multi-mode media as required. The Ethernet signal allows three types of segments to connect easily, efficiently and inexpensively.

Enhanced Smart Management Features

The GT-915A provides auto MDI/MDI-X on its TP port and built-in **Link Fault Pass-through function (LFP)**. The LFP function includes **Link Loss Carry Forward (LLCF)** and **Link Loss Return (LLR)**, both of which can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net.

- LLCF means when a device connected to the converter and the TP line loses the link, the converter's fiber port will disconnect the link of transmission.
- LLR means when a device connected to the converter and the fiber line loses the link, the converter's fiber port will disconnect the link of transmission.

Therefore, the GT-915A greatly supports the administrators to manage the network efficiently.

Network with Cybersecurity Helps Minimize Security Risks

The GT-915A comes with enhanced cybersecurity to fend off cyberthreats and cyberattacks. It supports SSHv2, TLSv1.2 and SNMPv3 protocols to provide strong protection against advanced threats. Served as a key point to transmit data to customer's critical equipment in a business network, the cybersecurity feature of the IGT-900-Series protects the management and enhances the security of the mission-critical network without any extra deployment cost and effort.

User-friendly and Centralized Web Management Interface

For efficient management, the GT-915A is equipped with a remote Web/SNMP interface. With its built-in Web-based management, PLANET GT-915A acts as an easy-to-use, platform-independent management and configuration facility. The GT-915A also supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software.

OAM Management

TS-1000/802.3ah OAM protocol (operation, administration, and maintenance) supported enables remote OAM compliant device to be managed and monitored by the GT-915A.

Remotely Manage Solution

PLANET's Universal Network Management System (**UNI-NMS**) and **CloudViewer** App support IT staff to remotely manage all network devices and monitor the GT-915A operation statuses. Thus, they're designed for both the enterprises and industries where deployments of the GT-915A can be as remote as possible, without having to go to the actual location once a bug or faulty condition is found. With the UNI-NMS or CloudViewer app, all kinds of businesses can now be speedily and efficiently managed from one platform.

Enhanced Traffic Control

The GT-915A 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, and broadcast storm and bandwidth control to enhance bandwidth utilization.

Intelligent SFP Diagnosis Mechanism

The GT-915A supports SFP-DDM (digital diagnostic monitor) function that greatly helps network administrator to easily monitor real-time parameters of the SFP transceivers, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.

Easy Chassis Installation

The GT-915A Media Converter can be used as a stand-alone unit or as a slide-in module to the PLANET Media Converter Chassis (**MC-700, MC-1500 and MC-1500R series**). The media chassis can assist in providing DC power to the GT-915A 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.

2. PRODUCT FEATURES

Physical Port

- One 1G/100/10BASE-T RJ45 interface with auto MDI/MDI-X function
- One 1G/100BASE-X SFP interface

Layer 2 Features

- Supports VLAN
 - IEEE 802.1Q tagged VLAN
 - Supports provider bridging (VLAN Q-in-Q, IEEE 802.1ad)
 - VLAN transparent
- Storm Control support
 - Broadcast/Multicast/DLF (Destination Lookup Failure)/ARP/ICMP
- Store-and-Forward mechanism
- Non-blocking full wire-speed forwarding rate
- 16K jumbo frame size support
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Automatic address learning and address aging
- Supports port status/Ethernet statistics on both TP and fiber interfaces
- Supports Link Fault Passthrough (LFP) and Link Layer Discovery Protocol (LLDP)

OAM Compliant

- TS-1000 OAM / IEEE 802.3ah OAM / Loop Back Test

Quality of Service

- Ingress Shaper and Egress Rate Limit per port bandwidth control
- 8 priority queues on all converter ports
- Strict priority and Weighted Round Robin (WRR) CoS policies
- Traffic classification
 - IEEE 802.1p CoS
 - IP DSCP
 - IP Address

Management

- IPv4 and IPv6 dual stack management
- Management Interfaces
 - Web HTTP management
 - Telnet Command Line Interface
 - SNMP v1, v2c monitoring
 - SSHv2, TLSv1.2 and SNMP v3 secure access
- System Maintenance
 - Firmware upload/download via HTTP
 - Reset button for system reboot or reset to factory default

- Network Time Protocol (NTP)
- SNMP Management
 - SNMP trap for interface link up and link down notification
 - Four RMON groups (history, statistics, alarms and events)
- Network Diagnostic
 - SFP-DDM (Digital Diagnostic Monitor)
- Syslog remote alarm
- Local system Log
- PLANET Smart Discovery Utility for deploy management
- PLANET Remote Management
 - PLANET NMS Controller and CloudViewer for deployment management

Case and Installation

- External 5V DC, 2A power supply
- 0 to 50 degrees C operating temperature
- Supports 6000 VDC Ethernet ESD protection
- Wall mounting and DIN-rail installation supported
- Works with PLANET's 10"/19" Media Converter Chassis (MC-700/MC-1500/MC-1500R/MC-1500R48)
- Plug and Play installation

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

Converter ASIC: IC+ IP1103M x1

CPU: IC+ IP210W x1

3.2 FUNCTION SPECIFICATIONS

| | |
|---------------------------------|---|
| Model | GT-915A |
| Hardware Specifications | |
| Copper Interface | 1 x 10/100/1000BASE-T RJ45 port (Auto-MDI/MDI-X) twisted pair |
| Fiber Interface | 1 x 100/1000BASE-X SFP Slot |
| Reset Button | < 10 sec.: System reboot > 10 sec.: Factory default |
| ESD Protection | 6KV DC |
| Enclosure | Compact-sized metal case |
| Installation | Wall mountable Media convert Chassis installation Optional DIN-rail kit |
| Dimensions (W x D x H) | 94 x 70 x 26mm |
| Weight | 201g (device only) |
| Power Input | DC 5V, 2A |
| Power Consumption | 3.4 watts/11.6 BTU (maximum) |
| LED Indicator | PWR, (Green) TP LINK/ACT, 1000 (Green) Fiber LINK/ACT (Green) |
| Network Cables | 10/100/1000BASE-T : 10BASE-T: 2-pair UTP Cat. 3,4,5, up to 100 m 100BASE-TX: 2-pair UTP Cat. 5, up to 100 m 1000BASE-T: 4-pair STP Cat 5 up to 100m 100/1000GBASE-LR/SR : 50/125µm or 62.5/125µm multi-mode fiber cable, up to 220/550m. 9/125µm single-mode cable, extending long distance to 10/20/40/60/80/120km (vary on fiber transceiver or SFP module) |
| Switching Specifications | |
| Switch Processing Scheme | Store and Forward |
| Fabric | 4Gbps |

| | |
|---------------------------------------|--|
| Throughput (packet per second) | 2.98Mpps@64bytes |
| Address Table | 1K entries, automatic source address learning and aging |
| Flow Control | Back pressure for half duplex IEEE 802.3x pause frame for full duplex |
| Jumbo Frame | 16K |
| Shared Buffer | 512Kb |
| Layer 2 Function | |
| Port Configuration | Port disable/enable Auto-negotiation 10/100/1000Mbps full and half duplex mode selection Flow control disable/enable |
| Port Status | Display each port's speed duplex mode, link status, flow control status, auto negotiation status |
| VLAN | IEEE 802.1Q tag-based VLAN IEEE 802.1ad Q-in-Q tunneling Up to 16 VLAN groups, out of 4094 VLAN IDs Management VLAN |
| Bandwidth Control | Per port bandwidth control Ingress: 1~1000,000Kbps Egress: 1~1000,000Kbps |
| QoS | Traffic classification based, strict priority and WRR 8-level priority for switching Traffic classification: - 802.1p priority - IP DSCP - IP Address |
| Security Function | |
| Access Security | Remote management protocols control by SSH, Telnet, HTTP and HTTPS |
| System Management | |
| Basic Management Interfaces | Telnet; Web browser; SNMP v1, v2c |
| Secure Management Interfaces | SSHv2, TLS v1.2, SNMP v3 |
| System Management | Firmware upgrade by HTTP protocol through Ethernet network Configuration upload/download through HTTP LLDP protocol NTP PLANET Smart Discovery Utility |

| | |
|------------------------------|---|
| | PLANET CloudViewer app |
| Event Management | Remote syslog Local system log SNMP trap |
| Standards Compliance | IEEE 802.3, 10BASE-T IEEE 802.3u, 100BASE-TX/FX IEEE 802.3ab, 1000BASE-T IEEE 802.3z, 1000BASE-SX/LX IEEE 802.3x full-duplex flow control IEEE 802.1p Class of Service IEEE 802.1Q VLAN tagging IEEE 802.1ad Q-in-Q VLAN stacking IEEE 802.1ab LLDP IEEE 802.3ah OAM RFC 768 UDP RFC 793 TFTP RFC 791 IP RFC 792 ICMP RFC 2068 HTTP |
| Standards Conformance | |
| Regulatory Compliance | FCC Class A, CE Class A |
| 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) |

3.3 PHYSICAL SPECIFICATIONS:

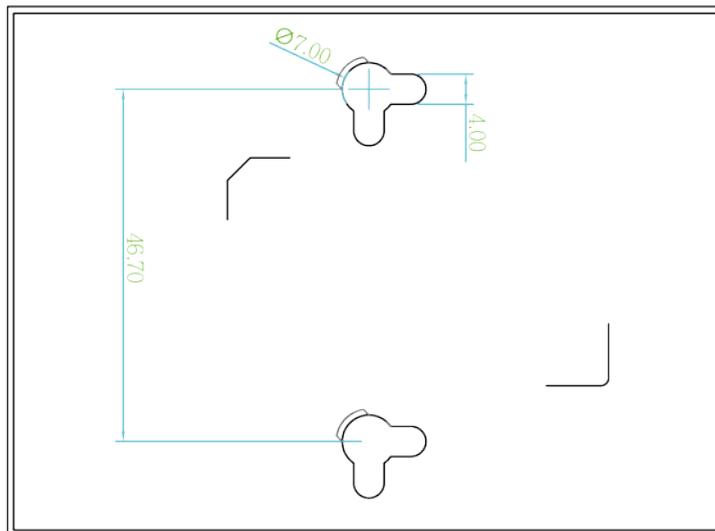
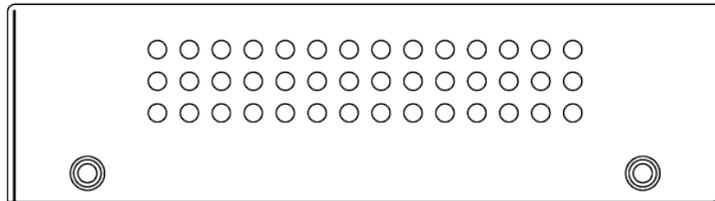
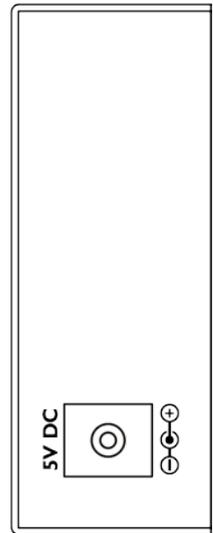
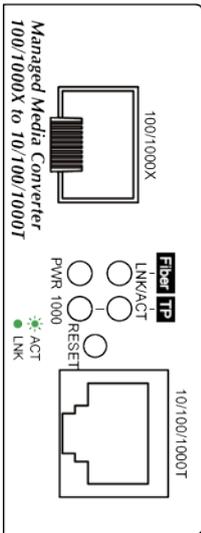
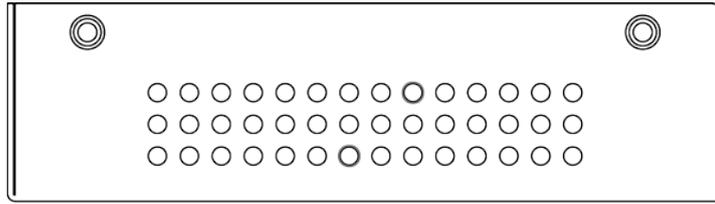
■ **Dimensions:**

94 x 70 x 26mm (W x D x H)

■ **Weight:**

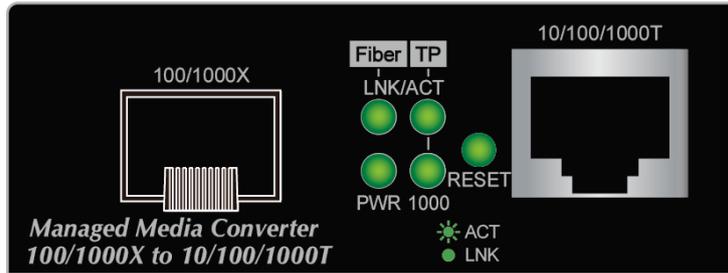
201g

GT-915A Multi View Drawing



Unit: mm

GT-915A Front Panel



GT-915A Rear Panel



LED Definition

■ **System**

| LED | Color | Function |
|-----|-------|--|
| PWR | Green | Lights to indicate that the Media Converter has power. |

■ **1000BASE-X Fiber Optic Interface (SFP, SC & WDM)**

| LED | Color | Function |
|---------|-------|--|
| LNK/ACT | Green | Lights to indicate that the fiber optic link is established. |
| | | Blinks to indicate that the fiber optic link is actively sending or receiving data over that fiber port. |

■ **10/100/1000BASE-T Port**

| LED | Color | Function |
|------------|-------|--|
| LNK/ACT | Green | Lights to indicate the link through TP port is successfully established. |
| | | Blinks to the TP port is actively sending or receiving data |
| 1000 Speed | Green | Lights to indicate that the port is operating at 1000Mbps . |
| | | Off to indicate that the port is linkdown or 10Mbps or 100Mbps . |

3.4 ENVIRONMENTAL SPECIFICATIONS

■ **Operating:**

Temperature: 0 ~ 50 degrees C

Relative Humidity: 5 ~ 95% (non-condensing)

■ **Storage:**

Temperature: -10 ~ 70 degrees C

Relative Humidity: 5 ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATIONS

■ **Power Requirement:** 5V DC, 2A max.

■ **Power consumption:**

- **System on without any devices attached**

1.8 watts / 6.1 BTU per hour max

- **System on and with Full Loading and Steady**

3.4 watts / 11.6 BTU per hour max.

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- Media Converter x 1
- QR code sheet x 1
- 5V DC, 2A Power adapter x 1
- SFP Dust Cap x 1

3.9 PACKING INFORMATION

| | |
|---------------------------------------|--------------------|
| Box Dimensions (W x D x H): | 280 x 133 x 66 mm |
| Gross Weight: | TBD |
| Carton Dimensions (W x D x H): | 580 x 360 x 305 mm |
| Total Weight: | TBD |
| Quantity: | 20pcs per carton |