

10Gtek G0101-SC20

10Gtek Gigabit Fiber Media Converter Instruction Manual

Model: G0101-SC20

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your 10Gtek Gigabit Fiber Media Converter. Please read this manual thoroughly before using the product to ensure optimal performance and safety. This device is designed to convert electrical Ethernet signals to optical signals, extending network reach over fiber optic cables.

2. PRODUCT FEATURES

- **Smart Connectivity:** Equipped with one Dual SC Fiber Optical Port (1.25Gbps, 1310nm wavelength, supporting Gigabit Ethernet) and one RJ45 Port (UTP CAT5 10M/100M/1000M, supporting full/half-duplex auto-negotiation and MDI/MDIX auto-crossover).
- **High Quality & Wide Compatibility:** Utilizes a QUAL COMM QCA8334 chip for stable, low-latency data transmission. Complies with IEEE 802.3/802.3u/802.3z/802.3ab, 10/100/1000Base-TX/FX standards. Supports 9K byte Jumbo Frame size.
- **Easy Installation & Use:** Features a modular configuration design, hot-swappable, and plug-and-play functionality. LED indicators for TX, FX LINK/ACT, POWER, and FDX provide dynamic feedback on link status and fault detection for easy network monitoring.
- **Compact Design:** With dimensions of 9.3cm x 7.1cm x 2.7cm, its compact modular design allows for easy installation in confined spaces, optimizing space utilization.

3. PACKAGE CONTENTS

The package includes the following items:

- 2 x 10Gtek Gigabit Media Converters
- 2 x DC Power Adapters (5V-1A, PSE certified)

- 2 x User Manuals

4. SPECIFICATIONS

Feature	Description
Brand	10Gtek
Model Number	G0101-SC20(x2)
Manufacturer Part Number	WG-33-1GX1GT-SC20(2pc)-jp
Interface Type	Fiber (SC), RJ45
Fiber Port	Dual SC, Single-mode, 1.25Gbps, 1310nm, 20km
Ethernet Port	RJ45, 10/100/1000Base-Tx, UTP CAT5/5e/6
Power Supply	DC 5V-1A
Dimensions (L x W x H)	9.3cm x 7.1cm x 2.7cm
Chipset	QUAL COMM QCA8334
Standards	IEEE 802.3/802.3u/802.3z/802.3ab
Jumbo Frame Support	9K Bytes

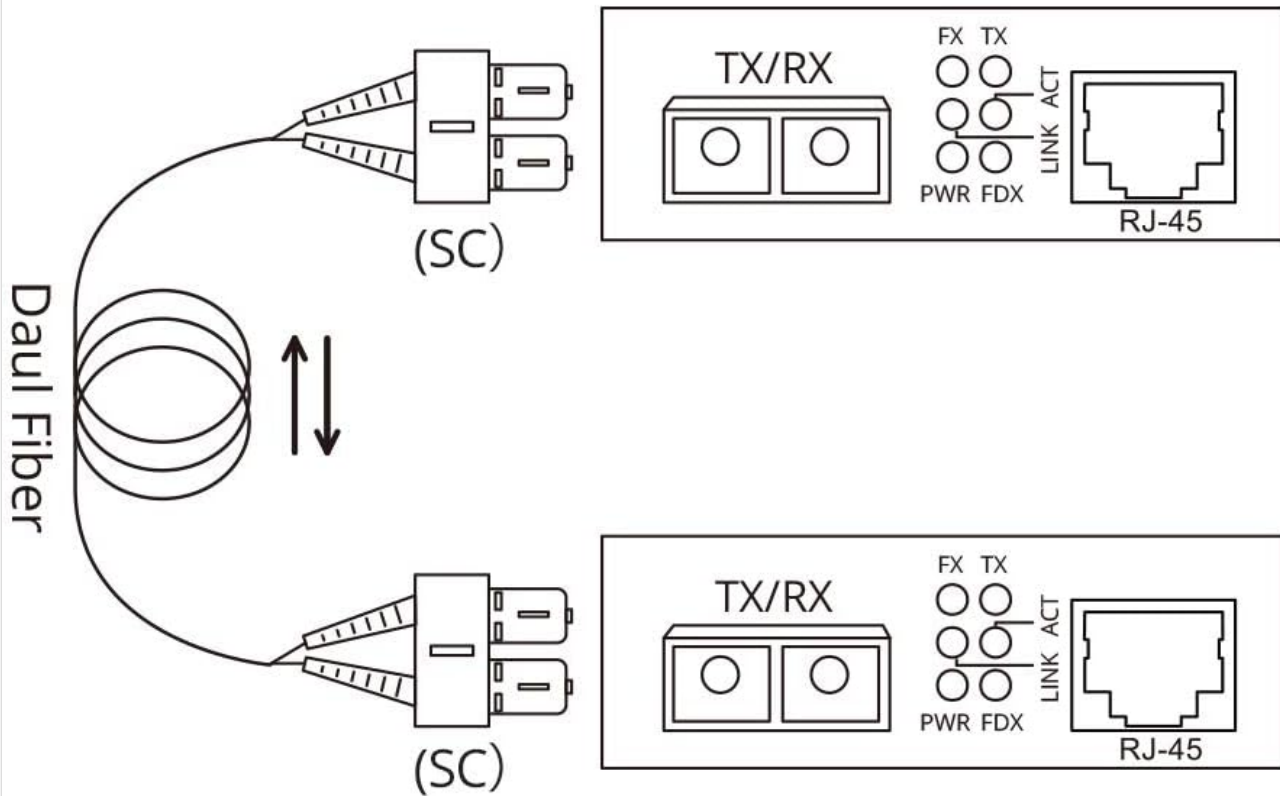
5. SETUP INSTRUCTIONS

5.1 Connecting the Media Converter

- Power Connection:** Connect the provided 5V-1A DC power adapter to the media converter's power input port. Plug the adapter into a suitable power outlet. The PWR LED indicator should light up.
- Ethernet Connection:** Connect an Ethernet cable (CAT5, CAT5e, or CAT6) from your network device (e.g., router, switch, computer) to the RJ45 port on the media converter. The 1000M or 100M LED indicator will light up depending on the link speed, and the TP LINK/ACT LED will flash when data is being transmitted.
- Fiber Optic Connection:** Connect a single-mode dual SC fiber optic cable to the SC fiber ports (TX/RX) on the media converter. Ensure the fiber cable is correctly inserted. The FIBER LINK/ACT LED will light up when a stable fiber link is established and flash during data transmission.

Media Converter Application(SC)

Application



* SC Transceiver is included

Figure 1: Typical application diagram for connecting two media converters.

5.2 Port Overview

**With SC Transceiver,
Dual Fiber, 20-km
Singlemode
Dual Fiber**

20-km

**1-year
Warranty**

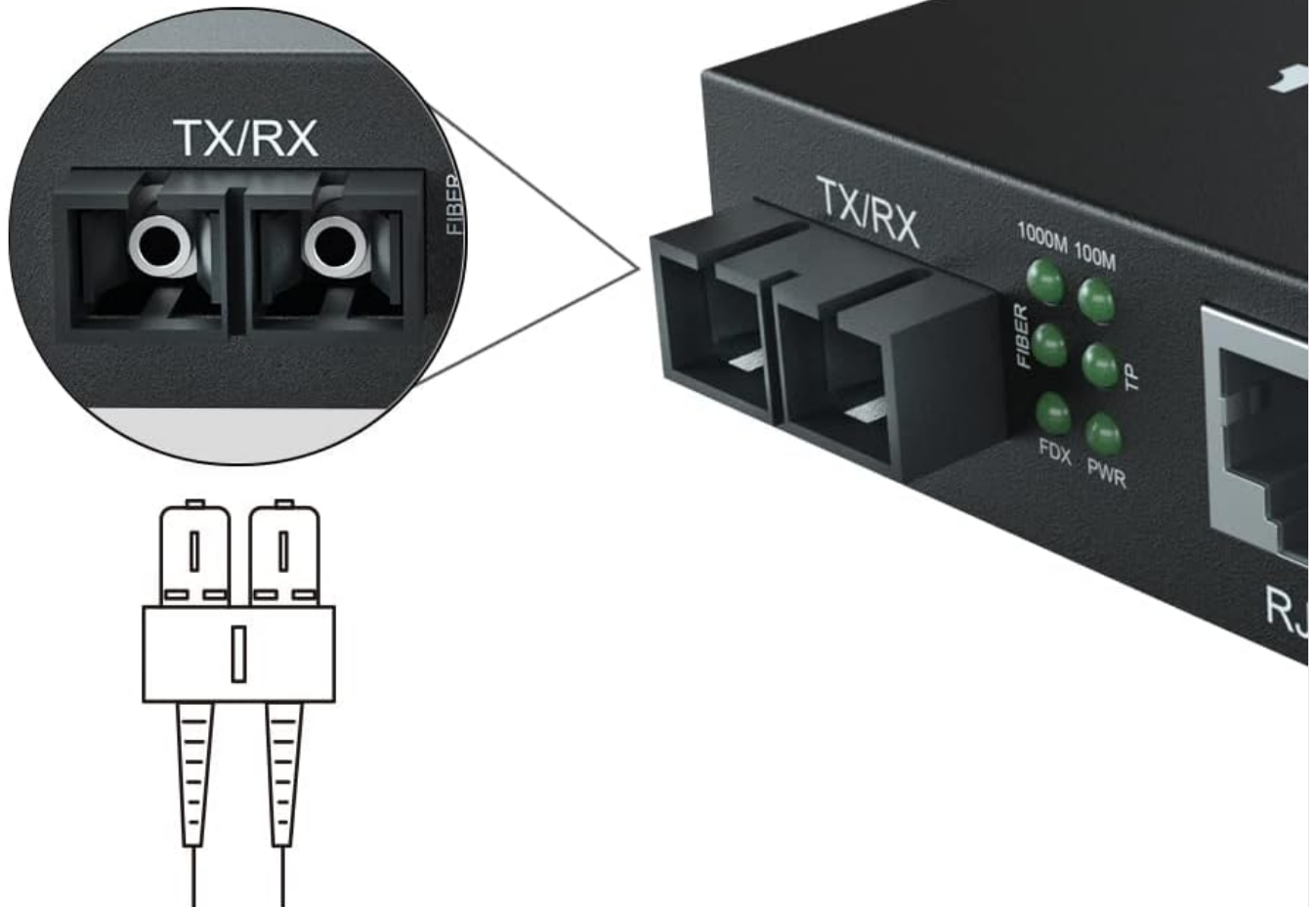
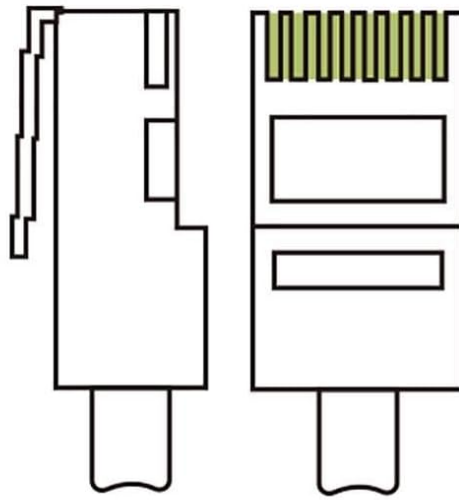


Figure 2: Dual SC Fiber Port (TX/RX) for optical fiber connection.

RJ45 Port:



UTP/STP
Cat.5
Cat.5e
Cat.6

- 10M/100M/1000Mbps,
- Full/Half Duplex auto-negotiation
- MDI/MDIX auto-crossover

Figure 3: RJ45 Port for Ethernet cable connection (supports UTP CAT5/5e/6).

5.3 LED Indicators

The media converter features several LED indicators to monitor its status:

Visualized LED Indicator

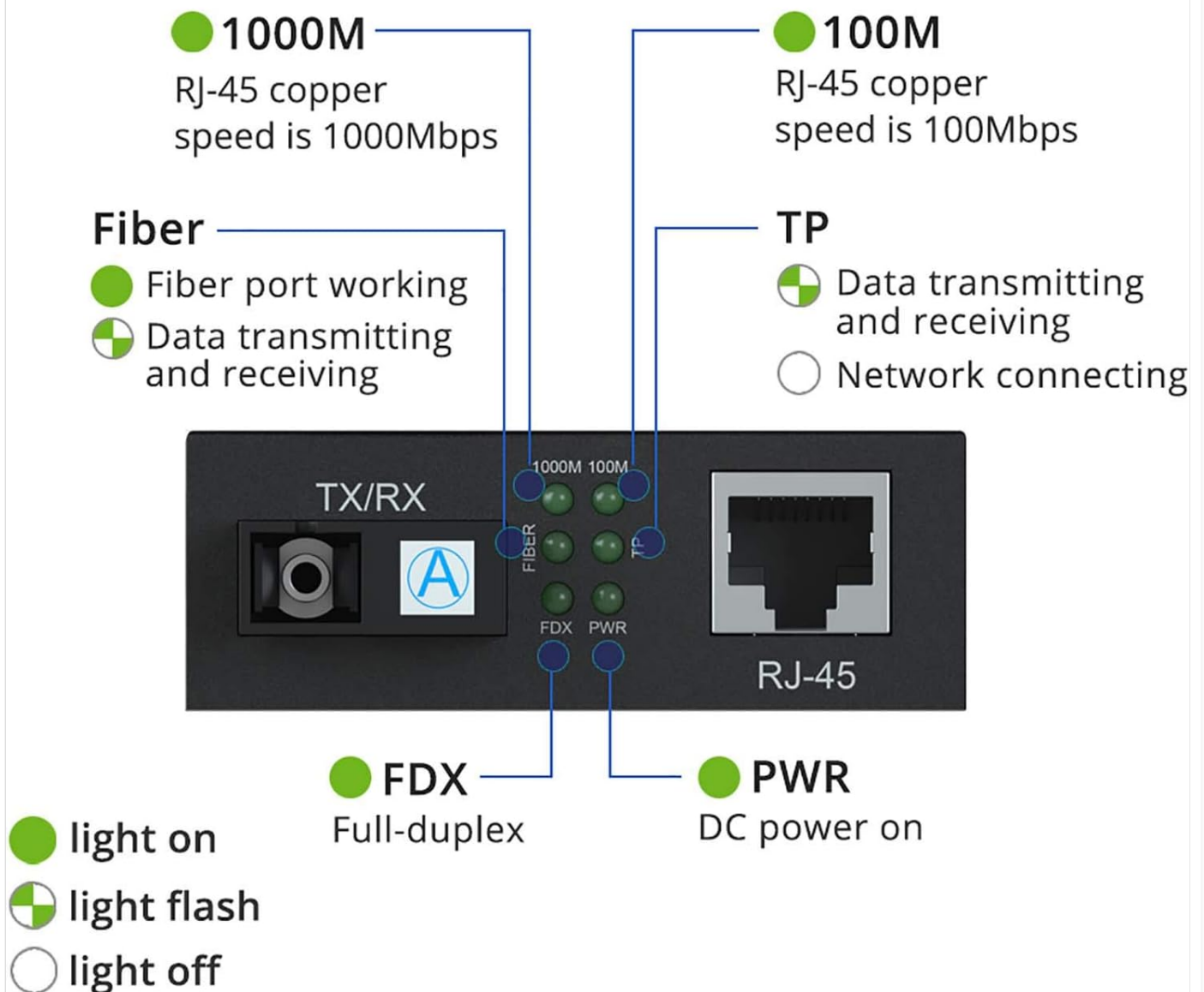


Figure 4: Visualized LED Indicators.

- **PWR (Power)**: Lights up when the device is powered on.
- **FDX (Full-Duplex)**: Lights up when the RJ45 port is operating in full-duplex mode.
- **TP (RJ45 Link/Act)**: Lights up when an Ethernet link is established; flashes when data is being transmitted/received.
- **100M (RJ45 Speed)**: Lights up when the RJ45 port speed is 100Mbps.
- **1000M (RJ45 Speed)**: Lights up when the RJ45 port speed is 1000Mbps.
- **FIBER (Fiber Link/Act)**: Lights up when a fiber link is established; flashes when data is being transmitted/received.

6. OPERATING INSTRUCTIONS

The 10Gtek Gigabit Fiber Media Converter operates automatically once connected. It is a plug-and-play device that does not require any software configuration.

1. Ensure all cables (power, Ethernet, fiber) are securely connected as described in the Setup section.
2. Verify that the PWR LED is illuminated, indicating the device is receiving power.

- 3. Check the TP and FIBER LINK/ACT LEDs. If they are lit steadily, a stable network link has been established on both the Ethernet and fiber sides. Flashing indicates active data transmission.
- 4. The device will automatically negotiate the speed (10/100/1000Mbps) and duplex mode (full/half) for the Ethernet connection.

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Video 1: Overview of the Gigabit Fiber Media Converter and its features.

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Video 2: Demonstration of an ultra-compact Gigabit Fiber Media Converter, showing its size and basic functionality.

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Video 3: Another demonstration of an ultra-compact Gigabit Fiber Media Converter.

7. MAINTENANCE

The 10Gtek Gigabit Fiber Media Converter is designed for reliable operation with minimal maintenance. Follow these guidelines to ensure its longevity:

- **Cleaning:** Keep the device clean and free from dust. Use a soft, dry cloth for cleaning. Do not use liquid or aerosol cleaners.
- **Environment:** Operate the device within its specified environmental conditions (temperature, humidity). Avoid exposing it to extreme temperatures, direct sunlight, or high moisture.
- **Cable Management:** Ensure all cables are properly routed and not under strain. Avoid sharp bends in fiber optic cables, as this can damage the fiber and impair performance.
- **Power Supply:** Use only the provided power adapter. If a replacement is needed, ensure it matches the original specifications (5V-1A DC).

8. TROUBLESHOOTING

If you encounter issues with your media converter, refer to the following troubleshooting steps:

Problem	Possible Cause	Solution
No Power (PWR LED off)	Power adapter not connected or faulty; power outlet not working.	Check power adapter connection. Try a different power outlet. Ensure the power adapter is functioning correctly.
No Ethernet Link (TP LED off)	Ethernet cable faulty or disconnected; connected device is off or faulty; incorrect cable type.	Verify Ethernet cable connection. Try a different Ethernet cable. Ensure the connected network device is powered on and working. Use CAT5/5e/6 cable.
No Fiber Link (FIBER LED off)	Fiber cable faulty or disconnected; incorrect fiber type (e.g., multi-mode instead of single-mode); connected fiber device is off or faulty.	Check fiber cable connection. Ensure the fiber cable is single-mode dual SC. Verify the connected fiber device is powered on and working. Clean fiber connectors if necessary.
Slow Network Speed	Cable issues; network congestion; device compatibility.	Check Ethernet and fiber cable quality. Ensure all devices in the network path support Gigabit speeds. Reduce network traffic if possible.

Problem	Possible Cause	Solution
Intermittent Connection	Loose connections; faulty cables; environmental interference.	Secure all cable connections. Replace suspected faulty cables. Ensure the device is in a stable environment away from strong electromagnetic interference.

9. WARRANTY AND SUPPORT

10Gtek provides a 1-year warranty for this product from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by misuse, accident, unauthorized modification, or external causes such as power surges.

For technical support, warranty claims, or product inquiries, please contact 10Gtek customer service through the retailer where you purchased the product or visit the official 10Gtek website for contact information.

Please retain your proof of purchase for warranty service.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question