User Manual
GRG-4355u | XGSPON ONT

GRG-4355u Device Image

Contents

COMTREND

Chapter 1 Safety Instructions

⚠ IMPORTANT Safety Instructions

- Read all safety precautions carefully before using the device.
- Use only the accessories provided in the package, such as the power adapter. Do not splice or extend the power cable; as this may cause the device to malfunction.
- Ensure the power supply voltage matches the device's input requirements (voltage fluctuation range should be less than 10%).
- Keep the power plug clean and dry. Disconnect all cables during a thunderstorm to prevent damage. Turn off and unplug the device when not in use for an extended period.
- Do not attempt to open the device casing. It is dangerous to do so when the device is powered on.
- Avoid looking directly into the optical interface to avoid eye injury. If the device emits abnormal sounds, smoke, or odours, stop using it immediately and contact your service provider for maintenance.
- Ensure proper ventilation. Place it away from direct sunlight, heat sources, moisture, or strong electromagnetic fields. Keep the device dry and well-ventilated. Avoid spilling liquids on the device and do not place objects on top of it to prevent deformation or damage.
- Before cleaning, turn off the device and unplug all cables. Use only a soft, dry cloth. Do not use any liquids or sprays.
- Dispose of the device properly according to local regulations for electronic waste and recycling.
- The maximum permissible exposure (MPE) level is calculated at a minimum distance of 20 cm between the device and the human body. Maintain this distance to comply with RF exposure requirements.
- Disconnect the power line from the device before servicing.
- For indoor use only.
- Do NOT use near water.
- Keep away from fire.
- 5GHz band restrictions: According to Article 10(10) of Directive 2014/53/EU, this device is subject to restrictions in certain countries, Belgium (BE), Bulgaria (BG), the Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), the Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), Turkey (TR), Norway (NO), Switzerland (CH), Iceland (IS), and Liechtenstein (LI). WLAN operation in the 5150–5350 MHz range is limited to indoor use only.

CAUTION:

- Always disconnect all telephone lines from the wall outlet before servicing or disassembling this equipment.
- Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.
- Do not stack equipment or place equipment in tight spaces, in drawers, or on carpets. Be sure that your equipment is surrounded by at least 2 inches of air space.
- To prevent interference with cordless phones, ensure that the gateway is at least 5 feet (1.5m) from the cordless phone base station.
- If you experience trouble with this equipment, disconnect it from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

Chapter 2 Accessibility Statement

Comtrend is committed to making our user menu accessible to everyone, including people with disabilities. We strive to provide an inclusive and user-friendly experience for all.

Accessibility Standards
Our user menu has been designed with accessibility in mind and aims to comply with the Web Content Accessibility Guidelines (WCAG) 2.1.able level to ensure that the user manual is accessible in digital formats (PDF/HTML) and readable by screen readers (e.g. Narrator, NVDA).

Accessibility Features
To enhance usability, we have implemented the following accessibility features:
- High-contrast mode compatibility
- Screen reader-friendly labels and descriptions
- Resizable text without loss of functionality

Ongoing Improvements
We regularly review and update our accessibility practices to improve usability for all users. If you encounter difficulties using our user menu, please let us know so we can address them.

Contact Us
If you need help or have feedback about the accessibility of our user menu, please contact us at:
info@comtrend.com

Chapter 3 Energy Consumption and Power Management

Energy Consumption

This device is designed to minimize energy use in compliance with European Union ecodesign standards. Below is the power consumption table:

Mode	Power Consumption (Watts)	Transition Time (Minutes)
Off Mode	N/A	N/A
Standby Mode	N/A	N/A
Networked Standby	≤ 7.8 W (HiNA)*	Configurable (default: 20 minutes)

The power consumption table below shows the device in networked standby mode with all wired network ports connected and all wireless network ports activated.

Mode	Power Consumption (Watts)	Transition Time (Minutes)
Networked Standby	≤ 7.9 W (HiNA)*	Configurable (default: 20 minutes)

*HiNA: High Network Availability equipment, such as routers.

Automatic Power Management

This device automatically transitions to low-power modes:

- **Networked Standby Mode**: After 20 minutes of inactivity, the device will reduce power usage while maintaining quick reactivation capability.
- **How to Adjust**: Go to *Settings > Advance > Power Management > Idle Time* and select your preferred duration (5 to 20 minutes). Then click the **Save & Apply** button to implement your changes.

Customizing Power Management

To meet your specific needs, the power management features can be customized:

- **To Disable Power Management**:
    1. Go to *Settings >Advance > Power Management*.
    2. Here you can Enable or Disable Power Saving.

Device-Specific Recommendations
1. **Avoid extended idle periods**: If you won't use the device for a long time, power it off instead of leaving it in standby mode.
2. **Optimize settings for usage patterns**: Use shorter standby timers for devices with sporadic usage.
3. **Update firmware regularly**: Ensure energy-saving features are optimized with the latest updates.

Chapter 4 Compliance and Certification

- Power measurements were conducted using protocols specified in Annex IV of Commission Regulation (EU) 2023/826.
- This device meets the power limits and functional requirements outlined in the regulation.

    Power Specifications: -   Input : 12Vdc, 3A   ◇─ℂ─◇

Certification
This device meets the following CE Standards:
> EN 55032 / EN 55035
> EN 301 489-1
> EN 301 489-17
> EN 300 386
> EN 300 328
> EN 301 893
> EN 62311
> EN 62368-1
> (EU)2023/826

CE

Chapter 5 Copyright

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Chapter 6 Environment

This symbol indicates that when the equipment has reached the end of its useful life, it must be taken to a recycling center and processed separate from domestic waste

The cardboard box, the plastic contained in the packaging, and the parts that make up this router can be recycled in accordance with regionally established regulations.　Never dispose of this electronic equipment along with your household waste; you may be subject to penalties or sanctions under the law. Instead, please be responsible and ask for disposal instructions from your local government.
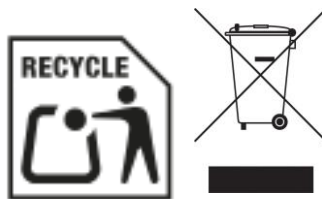
Chapter 7 Product Introduction

Comtrend's GRG-4355u is designed as an XGS-PON device. It offers high-performance Data, Voice and Video services for individual users, SOHO (small office or home office) setups, and small businesses, among others.

It provides one high-speed 10GE LAN port and four GE ports, along with two FXS ports for internet calling. It also features dual-band Wi-Fi 7 (4T4R 802.11be@2.4GHz and 4T4R 802.11be@5GHz). The two wireless bands are separated into two dedicated Wi-Fi networks, which support more end-user devices while reducing signal interference. Furthermore, there is a USB 3.0 host interface on the user side.

Chapter 8 Product Connection

Back Panel

The connections in the illustration are explained alphabetically from the bottom to the top.
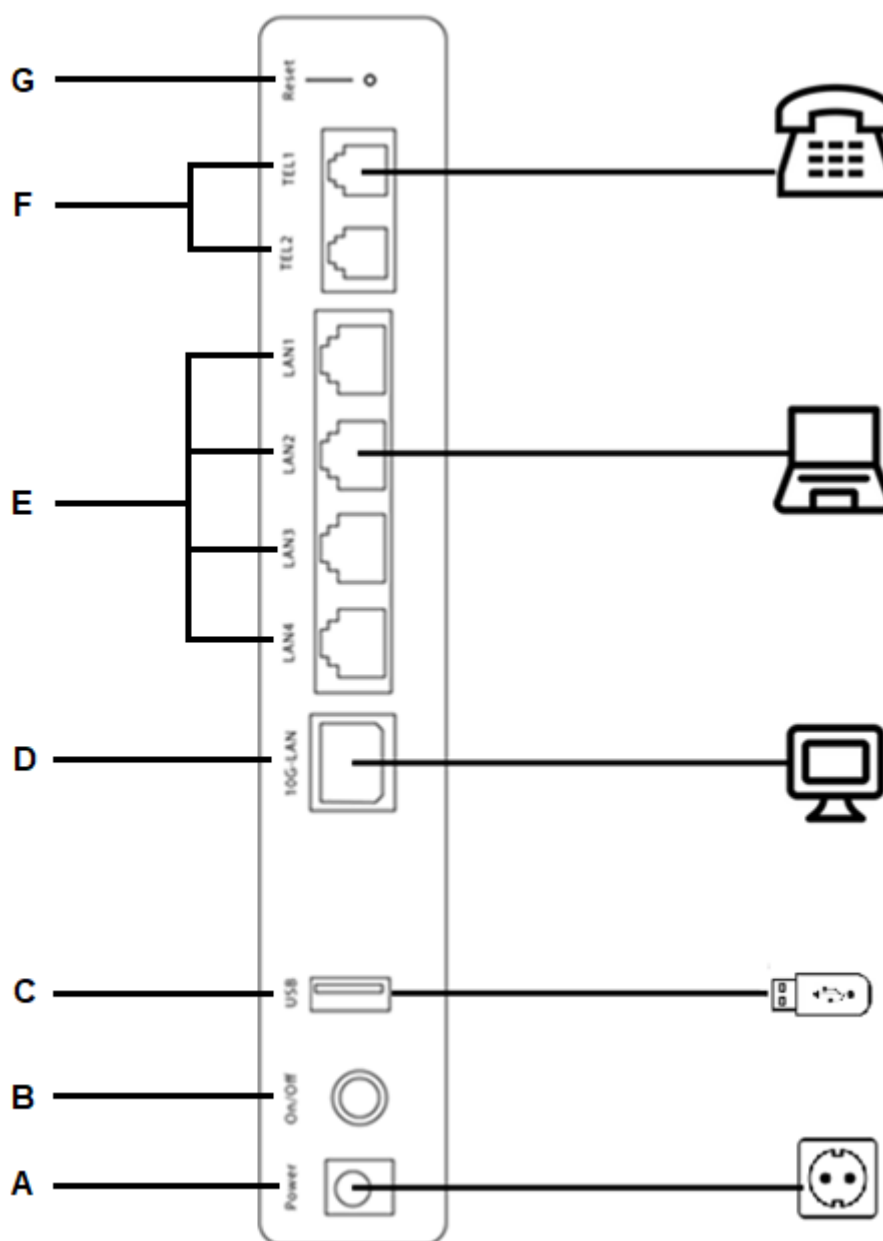
A. Power supply port: Connect the power adapter to the power port. Attach the power adapter to a wall outlet or other AC source.

B. Power ON/OFF Button: If the Power LED displays as expected then the device is ready for setup (see section Chapter 9 LED Front and Rear Panel Indicators for details).

Caution 1: If the device fails to power up, or it malfunctions, first verify that the power cord is connected securely. If the problem persists, contact technical support.

Caution 2: Before servicing or disassembling this equipment, disconnect all power cords and telephone lines from their outlets.

C. USB Host Port (Type A)

The USB port supports storage devices. If a storage device is connected to the USB host port, it can be used to stream the DLNA service. Support for other devices may be added in future firmware upgrades.

D. 10 Gigabit ETH WAN Port

Use a 10000-BASE-T RJ-45 cable to connect up to a network device to a Gigabit LAN, or 10/100BASE-T RJ-45 cable for standard network usage. These ports are auto-sensing MDI/X; so either straight-through or crossover cable can be used.

E. Four GE LAN Ports

Use 1000-BASE-T RJ-45 cable to connect up to a network device to a Gigabit LAN, or 10/100BASE-T RJ-45 cable for standard network usage. These ports are auto-sensing MDI/X; so either straight-through or crossover cable can be used.

F. Two Phone Ports

Use an RJ11 cable to connect analog telephones.

G. Reset Button

Restore the default Items of the device by pressing the Reset button for at least 10 seconds. After the device has rebooted successfully, the front panel should display as expected (see Chapter 9 LED Front and Rear Panel Indicators for details).

Bottom Panel

The optical port connection is located in this area.
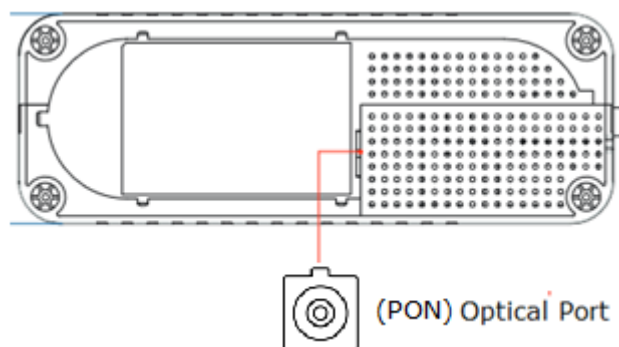

The Passive Optical Network (PON) uses fiber optic cabling to provide Ethernet connectivity from a main data source to endpoints.

While there are many subtle differences, a clear distinction between active optical networking and PON topology is PON's use of a technique that distributes a single signal to multiple branches through unpowered devices called optical beam splitters.

Chapter 9 LED Front and Back Panel Indicators

The front panel LED indicators are explained in the table below.

Front Panel
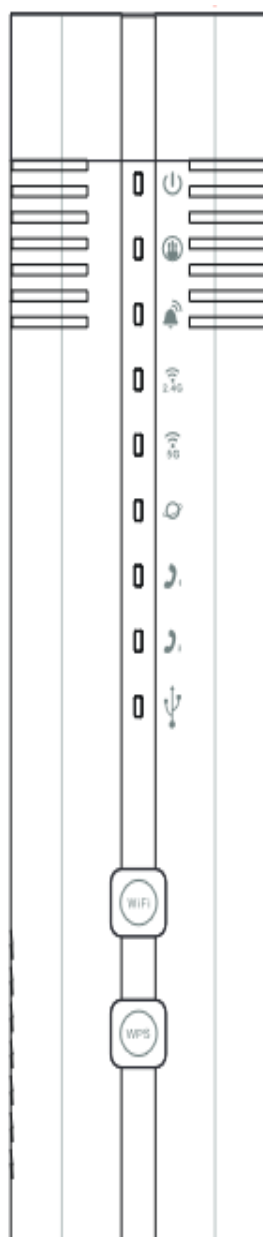
LED		Color	Status	Description
POWER		Green	Solid Light	Power on
		Green	Blinking	Boot in process… or any problem found during booting
		Green	Off	Power off
PON		Green	Solid Light	Device has a successful GPON connection
		Green	Blinking	The device is initializing to an OLT
		Green	Light off	Device does NOT have a laser connection
LOS		Red	Solid Light	LOS
		Red	Off	Not LOS
2.4G		Green	Solid Light	Device enable 2.4G WLAN
		Green	Blinking	WLAN activity
		Green	WPS Blinking	WPS active
		Green	Off	Device disable 2.4G WLAN
5G		Green	Solid Light	Device enable 5G WLAN
		Green	Blinking	WLAN activity
		Green	WPS Blinking	WPS active
		Green	Off	Device disable 5G WLAN
NET		Green	Solid Light	The WAN connection is online
		Green	Blinking	Data transmission
		Green	Fast blinking	Device has a connection problem
		Green	Off	There is no internet connection/Device powered OFF
TEL1		Green	On	A SIP account is registered in TEL1
		Green	Blinking	Ongoing call/Off the hook in TEL1
		Green	Off	SIP account not registered/SIP account not configured in TEL1
TEL2		Green	On	A SIP account is registered in TEL2
		Green	Blinking	Ongoing call/Off the hook in TEL2
		Green	Off	SIP account not registered/SIP account not configured in TEL2
USB		Green	On	A USB device is connected
		Green	Blinking	Activity
		Green	Off	No USB device connected

Back Panel

LAN LED	Color	Status	Description
10G LAN	Green	On	Ethernet connected
	Green	Off	Ethernet not connected
	Orange	On	Ethernet connected
	Orange	Blinking	Ethernet is transmitting/receiving
	Orange	Off	Ethernet not connected
GE LAN 1-4	Green	On	Ethernet connected
	Green	Blinking	Ethernet is transmitting/receiving
	Green	Off	Ethernet not connected

Chapter 10 Specifications

The specifications are explained in the table below.

SPECIFICATIONS	
Flash Memory	512MB
SDRAM	512MB
WAN(PON)	1 x XGS-PON SC/APC Both downstream and upstream rates can reach 10Gbps
10G LAN	1x RJ-45 Port
GE LAN	4x RJ-45 Ports
FXS (VoIP)	2x RJ-11 Ports
USB	1x USB3.0
Buttons	Power, WPS, Factory Reset
LEDs	POWER / PON / LOS / NET / 2.4G/5G / lan1~4 / TEL1·2
Features	WAN Type: IPoE / Static IP / PPPoE / Bridge Supports VLAN 1-4094 Protocols: IPv4 / IPv6 dual stack Support IGMP Snooping & Proxy T.30/T.38/G.711 FAX mode Supports WAN/LAN access the Telnet & HTTP Supports Parental Controls Security: Firewall, IP/ MAC /URL Filter Supports TR-069 Remote Management Protocol Call waiting/ Unconditional Call Forward/Call Forward Busy/ Call Forward No Reply/ Three-party calls
WiFi	2.4GHz: 11be 4×4 5GHz:11be 4×4 2.4G Phy rate: 1376Mbps 5G Phy rate: 5764Mbps
Power Adaptor	DC 12V/3A
Dimensions	190mm x 80mm x 255mm (L x W x H)
Certifications	CE & RoHS
ENVIRONMENT	
Operating Temperature	0~ 45 degrees Celsius
Operating Humidity	5 ~ 95%

 NOTE: Specifications are subject to change without notice.