G-140W-C
User Manual

NOKIA

1   Precautions

Please read the user manual before installation and operation of the device. Please keep the User Manual for future reference.

1.1   Installation Precautions

- The device should only be installed by qualified personnel.
- Please check the voltage rating before connecting the power. It is recommended not to share the same power socket with other high power-rated devices (examples: Hairdryer, Refrigerator, Iron).
- Do not place the device in the vicinity of flammable or conductive materials, high temperature (direct sunlight), moisture, or other appliances that produce heat.
- Always make sure the device is properly ventilated, do not place any objects on the device to avoid overheating.
- Ensure the device is installed on an even surface.
- The power socket and power cable shall be inspected regularly and replaced in case ofdamage to avoid risk of electric shock or fire.

1.2   Operation Precautions

- Do not attempt to repair the device in any occasion. Improper disassembly of the device may expose you to electric components and may cause shock or other risks. Please contact your service provider if there are problems with the device.
- Unplug the power before cleaning equipment. Use a soft and dry cloth to clean the equipment.Avoid the use of liquid or aerosol.
- Prevent liquid spillage on the device to avoid short circuit.
- Ensure a proper environment for the device to avoid overheating; do not block the device ventilation outlet.
- Please contact the Service Provider if you are in doubt in on how to connectother electronic devices to the ONT to avoid possible damage to the devices.
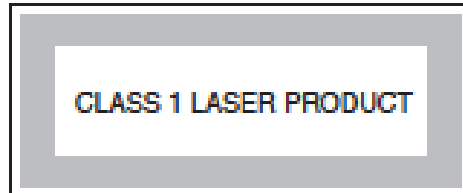
1.3 Laser Safety

Only qualified service personnel who are extremely familiar with laser radiation hazards should install or remove the fiber optic cables and fiber related units in this system.

There may be invisible laser radiation at the fiber optic cable when the cable is removed from the connector. Avoid direct exposure to the laser beam

Notethe following danger with regards to laser safety: Eyes can be damaged when they are exposed to a laser beam. Take necessary precautions before you plug in the optical modules.

Do not bend the cables to a diameter of less than 7.5 cm as this may damage the fiber or reducethe normal optical signal strength.

The ONT is classified as a Class 1 laser product based on its transmit optical output.

CLASS 1 LASER PRODUCT

2   Introduction

G-140W-C is a convenient, flexible, standard compliant and highly integrated GPON Optical Network Termination (ONT) device. It can be used in residential, Small Office Home Office (SOHO) and enterprise environment providing a highly reliable broadband service.

G-140W-C is equipped with a ITU-T G.984 compliant GPON optical interface, and provides the following user interfaces:

- Four auto sensing 10/100/1000M Ethernet interfaces for high-speed Internet access and IPTV or Video on Demand (VOD) service
- One voice (VoIP) service port
- Two USB ports
- 2.4G(802.11b/g/n) WIFI
- 5 GHz(802.11ac) WIFI

2.1   Features

G-140W-CProduct Features：

- Support for multiple simultaneous users
- Advanced VLAN Bridge,supportinga variety of operating modes
- Support for WEB configurable ONU authentication password
- Supports traffic classification and powerful QoS features to meet the needs of different residential or business services
- Support USB devices to plug in.
- Support 2.4G 802.11b/g/n wireless adapter to associate
- Support 5G 802.11ac wireless adapter to associate

2.2   Product Specifications

- Environmental Requirements
    Ambient Temperature：－5C～＋45C
    Humidity： 10% to 90% (non-condensing)
- Power Specifications
    Input：AC100 ~240V/50~60Hz
    Output：DC12V，1.5A
    Power consumption：<18W

3 Installation
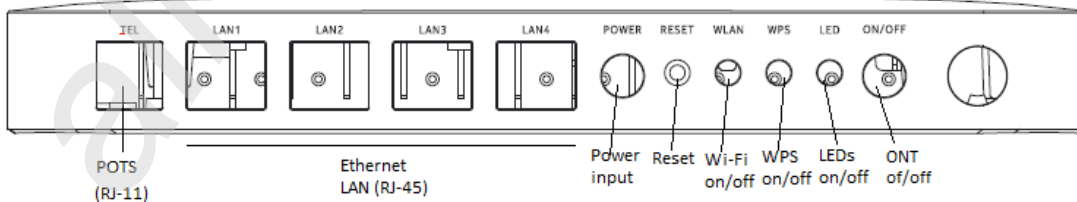
3.1 Hardware Description

3.1.1 Front Panel

POWER GPON LOS LAN1 LAN2 LAN3 LAN4 TEL WPS WLAN2.4G WLAN5G USB INTERNET

LED Description：

LED	Color	Status	Description
POWER		Off	Power off
	Green	Solid	Power on
	Green	Blinking	ONTself-test failed
LINK		Off	GPON is down or no link connected
	Green	Solid	GPON link between ONT and OLT is operating normally
LOS		Off	ONU is NOT authorized
	Red	Off	Optical signal is present on GPON Link
	Red	Solid	Optical signal is not present on GPON link
LAN1-4		Off	ONT power off or Ethernet not connected
	Green	Solid	Ethernet is linked
	Green	Flashing	Ethernet link is active and data is transmitted/received
TEL		Off	No Service
	Green	Solid	On Hook
	Green	Flashing	Call in or talking
WPS 2.4G/ 5G		Off	WPS disabled
	Green	Solid	WPS success
WLAN 2.4G		Off	Wireless is down or no link connected

	Green	Solid	Wireless enabled
	Green	Flashing	Traffic on wireless interface
WLAN 5G		Off	Wireless is down or no link connected
	Green	Solid	Wireless enabled
	Green	Flashing	Traffic on wireless interface
USB 1,2		Off	No device connected
	Green	Solid	At least one USB device is connected
	Green	flashing	Traffic activity on at least on USB device
INTERNET		Off	connection not present or device in bridged mode with no IP address
	Green	Solid	HSI WAN is connected: a) the device has an IP address assigned from IPCP, DHCP, or static, and no traffic has been detected; b) the session is dropped due to idle timeout but the PON link is still present.
	Green	Flashing	PPPoE or DHCP connection in progress or traffic present

3.1.2 Rear Panel and Side

Rear Panel and Side Buttons：

Port / Button	Description
TEL	RJ-11 FXSPort: Connect Phone or Fax to provide voice service

LAN1/2/3/4	RJ-45 10/100/1000M Ethernet Port: Connect Local Network device (PC, STB)
RESET	Factory Resetbutton. Press and hold the button for 10 seconds or more to restore the device to the factory defaults.
WPS	This button turnsWIFI WPS on.
WLAN	This button turnsWIFIon or off
POWER	Power connector.Used to connect the external power adapter
ON/OFF	Power On/Off
OPTICAL	SC/APC Fiber Optic connector for PON Interface
LED	1st press: Power LED is solid Green. Turn off the other LEDs. 2nd press: turn on all LEDs (back to normal)

3.2 Hardware Installation

3.2.1 Mounting the G-140W-Cindoor ONT on the desk
● allow a minimum 100 mm clearance above the top cover
●allow a minimum 50 mm clearance from the side vents
●do not place any heat source directly above the top cover or belowthe bottom cover

3.3 Cable Connections and Login

● RJ45Ethernet Interfaces (LAN1/2/3/4)

Connect the computer network interface or other network devices (such as Ethernet switch, IPTV Set-Top-Box) to the Ethernet LAN ports of the G-140W-Cusing a RJ45 cable. The 4 LAN ports are 10/100/1000M Ethernet interface. It auto senses the Ethernet interface speed to 10Mbps, 100Mbps or 1000Mbps.

● RJ11 Voice Interface(TEL)

Connect the telephone set or Fax machine to the TEL ports of the G-140W-Cusing a RJ11 cable. The TEL1 ports are FXS interfaces providing services to voice and/or fax devices.

●PON Broadband Interface (OPTICAL)

Connect the Fiber Interface point provided by the Broadband Internet Services Provider to the OPTICAL port of the G-140W-Cusing a single mode fiber optics cable with a SC/APC connector. There is a cover to protect the optical port. Remove the cover before making the connection.

● Power Interface (POWER)

Connect the power adapter provided in the package to the POWER connector of the G-140W-C. Connect the power adapter to the power socket. Press the ON/OFF button. Ensure the power LED indicator is on.

● Login to the WEB Graphical User Interface

IP address: 192.168.1.1
User name: admin
Password: admin

3.4 Troubleshooting

Problem	Possible Solutions
POWER LED is off	Check if the power on/off button is in the ON position
	Check if the power adapter is properly connected to the G-140W-C
LINK LED is off	Check if the fiber optic cable is properly connected at both ends
LAN1-4 LED is off	Check if proper RJ45 Ethernet cable is used
	Check if the RJ45 cable is properly connected at both ends
	Check if the network interface on the computer or network device is functioning properly
TEL1 LED is off	Check if the RJ11 cable is properly connected at both ends
	Check if the telephone set is in off hook status
WPS LED is red	Check if the button is pushed and the wireless adapter's WPS button is also pushed.
WLAN LED is off	Check if the WLAN is properly disabled on web GUI or the WLAN button is pushed.

4 Hazardous Substances

Parts	Hazardous Substance					
	Pb	Hg	Cd	Cr^{6+}	PBB	PBDE
Circuit Modules	×	○	×	○	○	○
Cables & Cable Assemblies	×	○	○	○	○	○
Metal Parts	×	○	○	○	○	○
Plastic and Polymeric parts	○	○	○	○	○	○

○ ：Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

×: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard.

This table shows where these substances may be found in the supply chain of NokiaElectronic information products, as of the date of sale of the enclosed product. Note that some of the component types listed above may or not be a part of theenclosed product.

The Environment-Friendly Use Period (EFUP) for all enclosed products and their parts are per the symbol shown here, unless otherwise marked. Certain parts may have a different EFUP (for example, battery modules) and so are marked to reflect such. The Environment-Friendly Use Period is valid only when the product is operated under the conditions defined in the product manual.

Federal Communications Commission (FCC) Interference Statement
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device must not be collocated or operating in conjunction with any other antenna or transmitter.

RF exposure warning
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body