

GL.iNet First Install Checklist

Steps to take on your computer	Steps to take on your node hardware
<input type="checkbox"/> Download the AREDN® sysupgrade.bin file for your device from arednmesh.org	<i>None</i>
<input type="checkbox"/> Connect your computer's Ethernet port to your device <input type="checkbox"/> Verify that your computer received an IP address from the node's DHCP service <input type="checkbox"/> Navigate to the GL.iNet web interface (default URL = http://192.168.8.1)	<input type="checkbox"/> Answer the initial GL.iNet configuration questions <input type="checkbox"/> Navigate to the Upgrade menu and click <i>Local Upgrade</i> to select the sysupgrade.bin file you downloaded previously
<i>None</i>	<input type="checkbox"/> Verify that you uncheck the Keep Settings checkbox (GL.iNet settings are incompatible)
<i>None</i>	<input type="checkbox"/> After the firmware image is uploaded to the device, it will process the image and reboot twice (this process takes several minutes)
<input type="checkbox"/> Verify that your computer is assigned a new IP address automatically using DHCP, then disconnect & reconnect the Ethernet interface <input type="checkbox"/> Open a web browser and enter http://localnode as the URL to begin using your new node	<i>None</i>

Datasheet (GL-AX1800)

Meet Flint

- Secure and Ultra Fast Wi-Fi 6 Wireless Router



Flint (GL-AX1800) is a dual-band Wi-Fi 6 wireless router designed for heavy-duty home and office applications. It offers a combined Wi-Fi speed of 1800 Mbps (600 Mbps for 2.4GHz and 1200 Mbps for 5GHz), with high connection stability, and minimal network congestion. Flint comes with MU-MIMO and OFDMA technology, which is most effective in maintaining ultra-low latency connections during heavy data usage under mass device connectivity scenarios.

Highlights

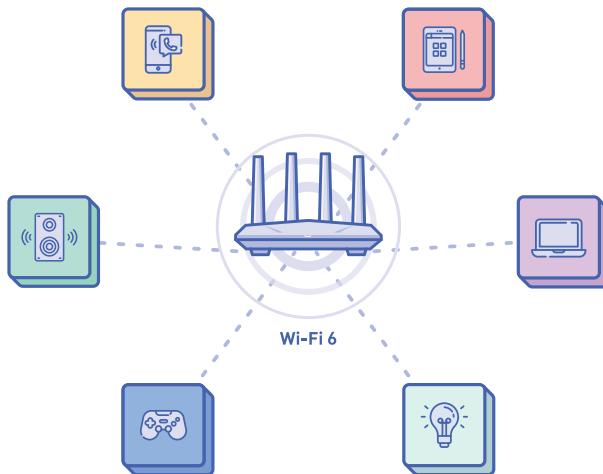
Ultra-Fast VPN Encryption

Flint is pre-installed with OpenVPN (Maximum 112Mbps) and WireGuard® (Maximum 667Mbps) supporting 30+ VPN services. It automatically encrypts all network traffic within the connected network, including guest devices and client devices that are not capable of running VPN encryption. Flint can also act as a VPN server, redirecting traffic from client devices in remote locations to the VPN server via a VPN tunnel before accessing the public internet.



Mass Device Connectivity MU-MIMO Technology

Flint comes with MU-MIMO. It processes multiple data streams from client devices simultaneously, instead of queuing network traffic into one data stream, reducing the queuing delay in high density networks.



Multi-device Transmission Efficiency OFDMA Technology

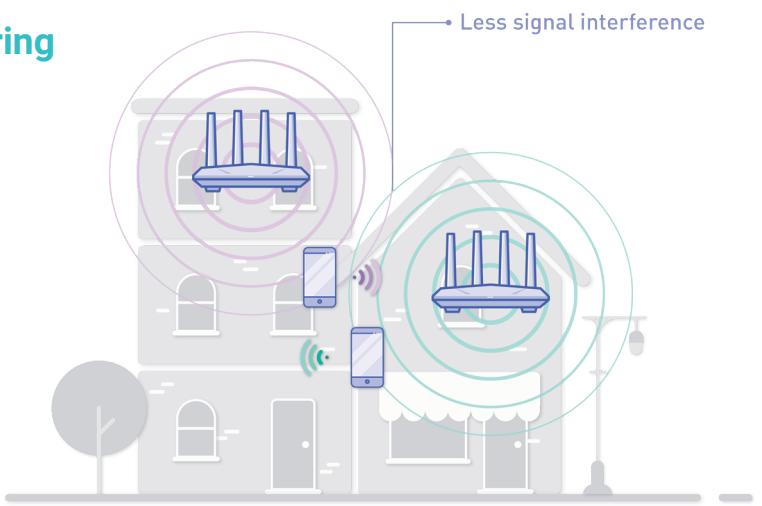
Flint comes with OFDMA technology (orthogonal frequency division multiple access). It lets multiple devices receive data from a single transmission, drastically improving the transmission efficiency when connected to multiple devices.



Stability Improvement using BSS Coloring

Flint comes with Base Service Station Coloring (BSS Coloring), it measures operating Wi-Fi channel thresholds, and automatically selects a channel with loose thresholds (Minimal usage) for connectivity.

BSS Coloring improves the connection stability by minimizing the router's risk of potentially picking up signal interference.



Specifications

HARDWARE

CPU	IPQ6000 Quad-core, @1.2 GHz
Memory / Storage	DDR3L 512MB / NAND Flash 128MB
Wi-Fi	802.11 a/b/g/n/ac/ax, 2x2 600Mbps (2GHz) 802.11 a/b/g/n/ac/ax, 2x2 1200Mbps (5GHz)
External Antennas	4 x 2.4GHz + 5GHz two-in-one Wi-Fi Antennas
Ethernet Speed	10/100/1000 Mbps
Power Consumption	Normal operating consumption: <6W Operating at full capacity: <11W
Dimension / Weight	210 x 120 x 36.8mm (L*W*H) / 445g

SOFTWARE FEATURES

Operating System	OpenWrt
Network mode	Routing, AP, Wireless Bridge, Wired Bridge
Ethernet Dialing Mode	DHCP, Static, PPPoE, Tethering
Repeater Mode	Scans and connects to SSID Connects to hidden SSID

Wireless Configuration	Switching on and off wireless AP
	Modifying and hiding SSID
	Modifying encryption mode and password
	Channel modification
	Bandwidth modification
	Modifying transmission power
	Guest SSID
Firewall Function	Port forwarding, open port, DMZ
VPN	OpenVPN client & server
	WireGuard client & server
	Maximum OpenVPN Speed: 112Mbps
	Maximum WireGuard Speed: 500Mbps
	Policy routing
System Function	Restart
	Restore factory settings
	Change IP address range on LAN side
	Change time zone
	MAC address clone
	Advanced DNS
	Cloud remote management
	Remote web management
	Remote SSH management
	Installing / uninstalling packages

INTERFACE

Ethernet Port	4 x LAN, 1 x WAN
USB Port	1 x USB3.0 Type-A
LED Indicator	1 x dual color LED indicator for Power and Internet
Reset Button	Press (>3s, <8s) restores network settings to device initial state Long press (>=8s) restores factory settings
Power Port	DC5521, 12V/1.5A (55*21*11mm)

CERTIFICATION

- CE
- MIC
- WEEE
- FCC
- Rosh
- CCC

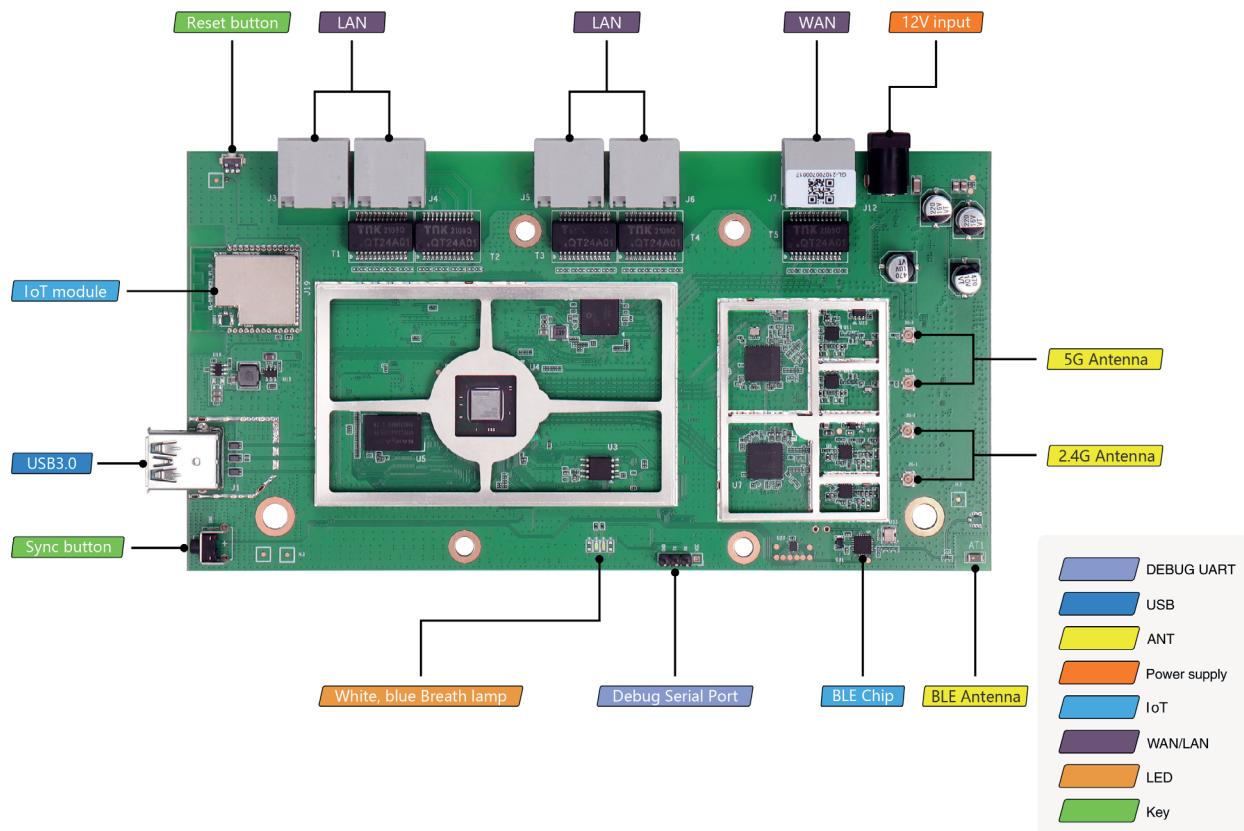
ENVIRONMENT

Operating Temperature	0 ~ 40°C (32 ~ 104°F)
Storage Temperature	-20 ~ 70°C (-4 ~ 158°F)
Operating Humidity	5%~95%, non-condensing
Storage Humidity	5%~95%, non-condensing

PACKAGE LIST

- 1 x Flint (GL-AX1800) Router
- 1 x Power Adapter (12V/1.5A)
- 1 x Ethernet Cable
- 1 x Warranty Card
- 1 x User Manual

PINOUT



CONTACT US

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Datasheet (GL-E750)

Meet Mudi - Cellular Portable Privacy Router

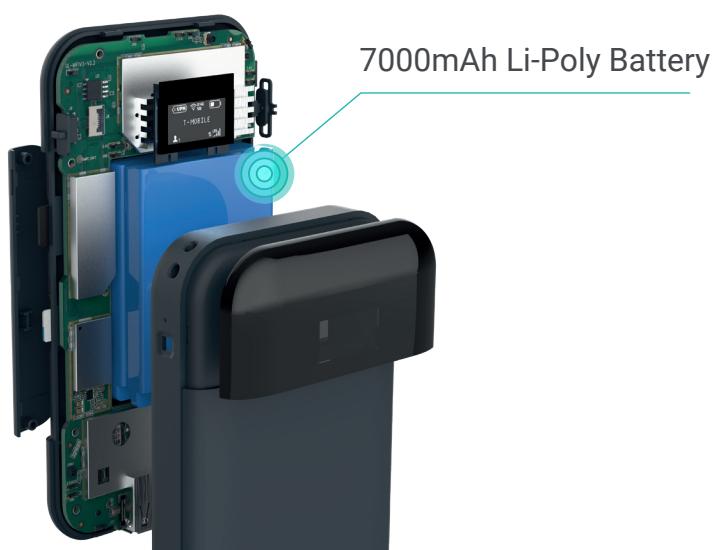


Mudi (GL-E750) is a pocket Wi-Fi device offering 300Mbps (2.4GHz) + 433Mbps (5GHz) combined Wi-Fi Speed. It has an ultra-high capacity 7000 mAh rechargeable battery for long term portable use, and is also equipped with a BLE module for industrial field devices and equipment. Mudi is convenient for long periods of portable use during travels, or serves as a network encryption router for all connected devices using pre-installed VPN supporting 30+ VPN services.

Highlights

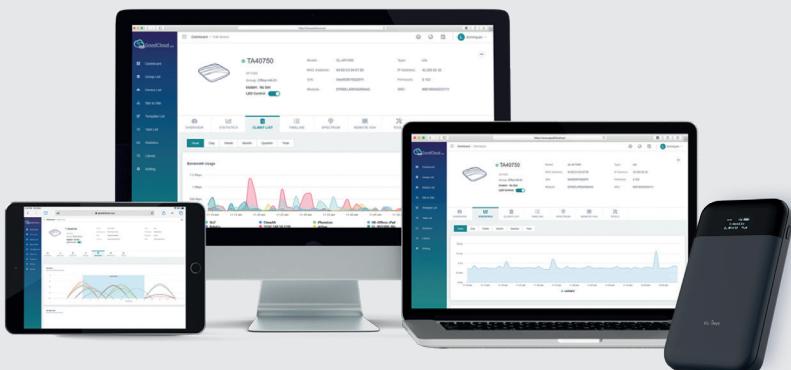
Ultra-high Capacity Battery

Mudi has a built-in 7000 mAh rechargeable lithium polymer battery, it has a high energy density while maintaining a lightweight and small size. The battery has a long life cycle without a battery memory effect that reduces its lifespan.



Custom IoT Solution

The Mudi (GL-E750) offers seamless integration with IoT modules, primarily available for bulk orders. This device is designed to be customizable, allowing clients to tailor it to their specific needs by choosing from various connectivity options, including BLE, ZigBee, or lightning-fast 5G Wi-Fi. This adaptability makes the Mudi an excellent choice for businesses and developers looking to build IoT solutions tailored to their specific use cases.

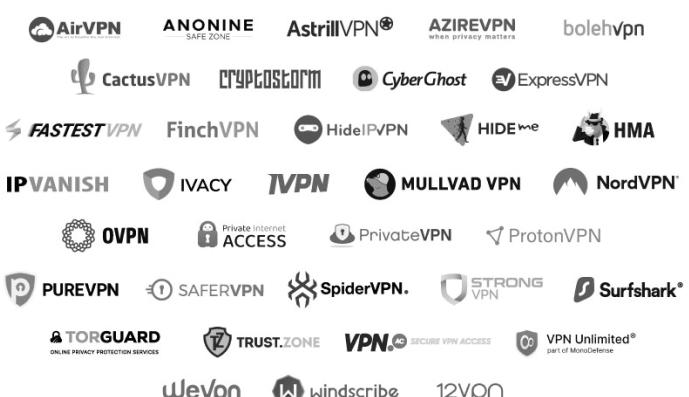


Remote Device Management

Mudi comes with GoodCloud, our remote device management platform for remote monitoring client device data usage, accessing the device's terminal, batch update, view analytics, and more.

Secured Network

Mudi is pre-installed with OpenVPN and WireGuard supporting 30+ VPN services, it supports VPN remote access to client devices using GoodCloud, and automatically encrypts all network traffic within the connected network. The network runs on the latest version of Internet Protocol IPv6, and it also supports Cloudflare DNS over TLS security protocol, ensuring a secure network.



Specifications

HARDWARE

CPU	Qualcomm QCA9531, @650MHz
Memory / Storage	DDR2 128 MB / NOR Flash 16MB + NAND Flash 128 MB
Wi-Fi	802.11 a/b/g/n, 300Mbps (2.4GHz) 802.11 ac, 433Mbps (5GHz)
4G Module	CAT4 / CAT6
BLE Module	Siliconlabs EFR32MG21
Internal Antennas	2 x full-band antenna
Ethernet Speed	10/100/1000Mbps
Power Consumption	Operating at full capacity: <6W (excluding USB external devices)
Battery	Built-in 7000mAh rechargeable lithium polymer battery
Dimension / Weight	Router: 145 x 77.5 x 23.5 mm (L*W*H) / 300g Docking station: 50.8 x 40 x 17.3 mm (L*W*H)

SOFTWARE FEATURES

Operating System	OpenWrt
Network mode	Routing, AP, Wireless Bridge, Wired Bridge
Ethernet Dialing Mode	DHCP, Static, PPPoE
Repeater Mode	Scans and connects to SSID Connects to hidden SSID

4G Modem

- Automatic / Manual setting
- Sets AT command
- Receives SMS
- Display signal strength

BLE

- Scans and receives BLE broadcasting signals

Wireless Configuration

- Switching on and off wireless AP
- Modifying and hiding SSID
- Modifying encryption mode and password
- Channel modification
- Bandwidth modification
- Modifying transmission power
- Guest SSID

VPN

- OpenVPN client & server
- WireGuard client & server
- Maximum OpenVPN Speed: 10Mbps
- Maximum WireGuard Speed: 50Mbps
- Policy routing

System Function

- Restart
- Restore factory settings
- Change IP address range on LAN side
- Change time zone
- MAC address clone
- Advanced DNS
- Cloud remote management
- Remote web management
- Remote SSH management
- Installing / uninstalling packages

INTERFACE

Ethernet Port	1 x LAN or WAN (Ethernet Port Dock)
SD Card Slot	TF card, maximum 512 GB
SIM Card Slot	Nano SIM card, and optional e-SIM
USB Port	USB2.0 Type-A
Display Screen	0.96 inch monochrome OLED display
Reset Button	Long press (>=8s) restores factory settings
Power Port	USB Type-C interface, 5V/2A power supply

CERTIFICATION

- CE
- FCC

ENVIRONMENT

Operating Temperature	0~35°C (32 ~ 95°F)
Storage Temperature	-20~45°C (-4 ~ 113°F)
Operating Humidity	5%~95%, non-condensing
Storage Humidity	5%~95%, non-condensing

PACKAGE LIST

- 1 x Mudi (GL-E750) Router
- 1 x Power adapter
- 1x USB cable (Type-A <-> Type-C)
- 1 x USB cable (Type-C <-> Type-C)
- 1 x Ethernet port dock
- 1 x Ethernet Cable
- 1 x Warranty Card
- 1 x User Manual

CONTACT US

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Datasheet (GL-X2000)

Spitz Plus

Wi-Fi Dual-SIM Cellular Router



GL-X2000 is a Wi-Fi 6 cellular router designed to provide reliable cellular connectivity in remote locations and high-speed internet in urban areas. It features two external full-band LTE antennas for exceptional signal reception and supports dual SIM slots, ensuring redundancy to keep the device online at all times.

GL-X2000 also includes a USB interface, allowing users to connect external USB devices and expand storage capacity. Additionally, it supports OpenVPN and WireGuard for enhanced online privacy and security. With multi-WAN capabilities (failover and load balancing) and bandwidth bonding, GL-X2000 offers reliable network connectivity for enterprises of all sizes and individual users.

Highlights

Lightning-Fast 4G LTE Cat.12 Connectivity

GL-X2000 employs 3GPP UE downlink Category 12, simultaneously streams data on three carrier bands, providing 3X available bandwidth. Ultra-fast and reliable for all your digital needs.

Exceptional Internet Performance

Supporting the Wi-Fi 6 (802.11ax) standard, the GL-X2000 delivers exceptional performance in handling a large number of connected devices. It is equipped with advanced network technologies, including MU-MIMO for simultaneously processing multiple data streams in high-density networks, and OFDMA for efficient and low-latency data throughput.

Increased Network Reliability with Multi-WAN

GL-X2000 features multi-WAN for increased bandwidth and improved network stability. It supports Load-balancing to optimize bandwidth usage and prevent network congestion, as well as cellular Failover to ensure uninterrupted connectivity. Users can configure the priority of different connection methods, including Ethernet, Cellular, and Repeater.

Carrier Certified for US Network Integration

GL-X2000 is planned for certification with T-Mobile, AT&T and US Cellular* to ensure full compatibility and seamless integration with three carrier's networks.

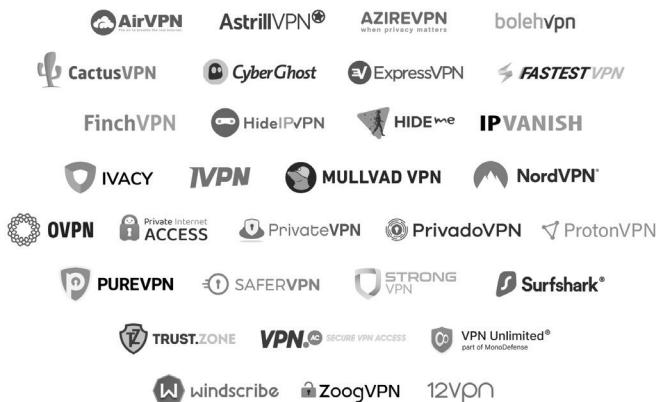
*The functions are not available yet.



NETWORK CERTIFIED



AT&T
Network
Ready
Device



Enhanced Security with VPN Functionality

GL-X2000 is preinstalled with support for over 30 VPN service providers, including OpenVPN (Up to 30Mbps) and WireGuard (Up to 190Mbps) protocols, to secure all connected devices. Giving you reliable security.

Interchangeable Antennas for Customized Setups

GL-X2000 is equipped with four SMA connectors, offering the flexibility to integrate various external antennas to optimize the device for different application scenarios.



Wall Mount: Stick or Screw

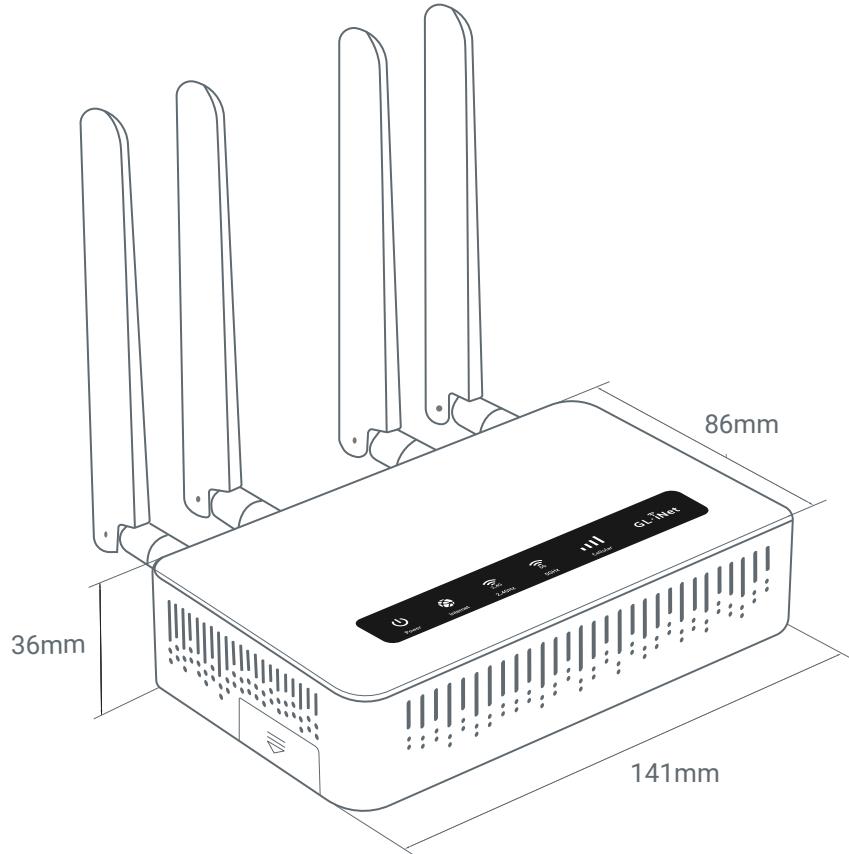
GL-X2000 is equipped with a versatile two-in-one adhesive and screw-in wallmount, allowing for convenient temporary or permanent installation on both smooth and rugged surfaces.

Specifications

HARDWARE

CPU	Qualcomm Dual-core, @1GHz
Memory/Storage	DDR3L 512MB/NAND Flash 128MB
Wi-Fi	802.11 b/g/n/ac/ax, 2x2 574Mbps (2.4GHz) 802.11 a/n/ac/ax, 2x2 2402Mbps (5GHz)
External Antennas	2 x 4G LTE Antennas (SMA, 600M~3.8GHz) 2 x Wi-Fi Antennas (PR-SMA, 2.4G~2.5GHz, 5.15~5.84GHz)
Ethernet Speed	10/100/1000Mbps
Power Consumption	<14W
Dimension/Weight	141 x 86 x 36mm / 443g

Dimension (mm)



SOFTWARE FEATURES

Operating System	OpenWrt 19.07
Network mode	Routing, AP, Wireless Bridge, Wired Bridge
Ethernet Dialing Mode	DHCP, Static, PPPoE
Repeater Mode	Scans and connects to SSID Connects to hidden SSID
4G Modem	Sets AT command Automatic / Manual setting Receives SMS Display signal strength
Wireless Configuration	Switching on and off wireless AP Modifying and hiding SSID Modifying encryption mode and password Channel modification Bandwidth modification Modifying transmission power Guest SSID
Display Flow Statistics <i>(Cloud Platform Required)</i>	Display product model, name, IP address, MAC address Current rate Flow statistics QoS settings
Client List	Show current connected clients Disable a client (no internet access)
Firewall Function	Port forwarding, open port, DMZ

VPN

OpenVPN client & server
WireGuard client & server
Maximum OpenVPN Speed: 30Mbps
Maximum WireGuard Speed: 190Mbps
Policy routing

System Function

Restart
Restore factory settings
Change IP address range on LAN side
Change time zone
MAC address clone
Encrypted DNS
DDNS
Cloud remote management
Remote web management
Remote SSH management
Installing / uninstalling packages
Drop-in Gateway mode
Multi-WAN

INTERFACE**Ethernet Port**

1 x 1G WAN, 1 x 1G LAN

SIM Card Slot

2 x Nano SIM card (12.3mm x 8.8mm)

USB Port

USB2.0 Type-A (maximum output of 1A)

LED Indicator

PWR / Internet / 2.4G Wi-Fi / 5G Wi-Fi / Cellular Signal Strength

Reset Button

Press (>3s, <8s) to restore network settings to device initial state.
Long press (>=8s) to restore factory settings

Power Port

DC5521, 12V/2.5A (5.5*2.1mm) [default adapter]/9V~36V

CERTIFICATION

- CE+DFS
- FCC+DFS
- IC
- RoHs
- WEEE
- CP65
- PTCRB
- AT&T
- T-Mobile
- US Cellular*

*The functions are not available yet.

ENVIRONMENT

Operating Temperature	0 ~ 40°C (32 ~ 104°F)
Storage Temperature	-20 ~ 70°C (-4 ~ 158°F)
Operating Humidity	5%~95%, Non-Condensing
Storage Humidity	5%~95%, Non-Condensing

PACKAGE CONTENTS

- 1 x GL-X2000 router
- 1 x Power adapter
- 2 x Wi-Fi antennas
- 2 x 4G LTE antennas
- 1 x Ethernet cable
- 1 x User manual
- 1 x Warranty card
- 1 x Wall bracket

Order Information

PRODUCT CODE	GL-X2000-NA	GL-X2000-EA
Module	Quectel EG120K-NA	Quectel EG120K-EA
Regions	Primary: North America	Primary: EMEA/APAC/Brazil

FREQUENCY BANDS

	LTE Category	Cat 12	Cat 12
LTE	LTE-FDD	B2/4/5/7/12/13/14/25/26/ 29/30/66/71	B1/3/5/7/8/20/28 32
	LTE-TDD	B41/48	B38/40/41
UMTS	WCDMA	–	B1/3/5/8

DATA RATES (MAX.) ①

LTE	600Mbps (DL)/150Mbps (UL)	600Mbps (DL)/150Mbps (UL)
LTE	430Mbps (DL)/90Mbps (UL)	430Mbps (DL)/90Mbps (UL)
UMTS	–	42Mbps (DL)/5.76Mbps (UL)
WCDMA	–	384Kbps (DL)/384Kbps (UL)

NOTE:

①: The presented data rates are theoretical only, and actual values depend on network conditions.

CONTACT US

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