Product Name	GAOTek WiFi 6 high speed dual band router
Product SKU	GAOTek-WM-105
Product URL	https://gaotek.com/product/gaotek-5g-module/

Contents

1. INTRODUCTION

➤ AX 5400 11ax series product is describing as "High Speed Dual Band 5400Mbps Wifi Support 5G Module Gigabit Wireless Wifi 6 Routers wifi extender repetidor".

➤ AX5400 supports the access of up to hundreds of wireless terminals to meet the application scenarios of high-density wireless terminals.

➤ AX5400 also has good compatibility and supports most wireless terminals on the market. Users can use mobile phones, tablets, or laptops to connect conveniently.

➤ For those companies which have software development capabilities but lack a hardware platform, AX5400 is a very good choice if they want to develop their own wireless flax AP.

➤ AX5400 supports PoE power supply and pole installation, installation and configuration are flexible and convenient.

2. SPECIFICATIONS

Chipset	IPQ 5018 +QCN 6102 x 2+QPF 4588 A x 4+QPF 4288 A x 2
Memory	512MB DDR 3 L memory
Flash	128MB NAND Flash
Input Voltage	48 V to 57 V, 802.3 at PSE
Ethernet	1 x 1GbE WAN (802.3at PoE) + 1 x 2.5 G SFP port 6x N-Type RF connector for external antenna Indicator LED Light: PWR/ WAN/SFP/ 2.4G/ 5G
Power Consumption	23 W
Antenna	Built-in 2 G x 2.4 G antenna （≥13 dBi）, 2 G x 5.2G Antenna （≥11 dBi）, 2 G x 5.8 G Antenna （≥11 dBi or External antenna optional)
Working Temp	-40 °F to 149 °F (-40 °C to 65 °C)
Storage Temp	-40 °F to 176 °F (-40 °C to 80 °C)
Humidity	5% to 95％
Frequency Band	802.11ax （2.4G radio: 2.4 Ghz to 2.4835 Ghz, 5.8 GHz radio: 5.150 Ghz 5.250 Ghz,5.250 Ghz to 5.350 Ghz,5.470 Ghz to 5.725 Ghz, 5.725 Ghz to 5.850 Ghz）
Wireless speed	2.4 GHz 574 Mbps, 5.2 GHz 2402 Mbps, 5.8 GHz 2402 Mbps
Working Mode	AP mode, station mode
Max Transmission RF Power	2.4G Radio: 27 dBm, MCS0; 21dBm, MCS 11 5.2G Radio: 27 dBm, MCS0; 21dBm, MCS 11 5.8G Radio: 27 dBm, MCS0; 21dBm, MCS 11

2.1: Frequency Band Specification

AX 5400 series product is equipped with a 5G module. It enables to enhancing connectivity and ensuring high-speed internet access. It also supports VPN Fusion, allowing specific devices to use a VPN without affecting the browsing experience of other users and this router's WiFi 6 technology leverages faster speeds, higher network efficiency, and increased capacity to accommodate a growing number of smart devices in your home.

WiFi 6 - 802.11 ax	
Bands	2.4 GHz and 5 GHz
Channel Bandwidth	20 MHz, 40 MHz, 80 MHz, 80+80 MHz & 160 MHz
FFT Sizes	256, 512, 1024, 2048
Subcarrier Spacing	78. 125 kHz
OFDM Symbol Duration	12.8 us + 0.8/1.6/3.2 us CP
Highest Modulation	1024-QAM
Data Rates	600.4Mbps (80 MHz, 1 SS) 9607.8Mbps (160MHz, 8 SS)

2.2: Chipset specifications

- Chipset Qualcomm Altheros QCN6102

- WLAN Host Interface PCI Express 3.0 Interface

- Operating Systems QSDK Host Interface M.2 E Key

- Data Rates for WALN 5GHz, max 23dBm per chain, up to 2402Mbps

- Channel Spectrum Widths for WLAN Support 20/40/80/ 160MHz at 5GHz.

3: WIRELESS RATE

WLAN Standard	2.4 GHz	5 GHz
802.11b	1, 2, 5.5, and 11 Mbps	-
802.11g	6, 9, 12, 18, 24, 36, 48, and 54 Mbps	-
802.11n HT20/ HT40	MCS0 – MCS15 (400/ 800nsGI)	MCS0 – MCS15(400/ 800ns GI)
802.11ac VHT20/ VHT40	MCS0 – MCS9(400/ 800ns GI)	MCS0 – MCS9(400/ 800ns GI)
802.11ax HE20/ HE40/ HE80	MSC0 – MCS11(400/ 800ns GI)	MSC0 – MSC13(400/ 800ns GI)
802.11a	-	6, 9, 12, 18, 24, 36, 48, and 54 Mbps

4. FEATURES AND BENEFITS
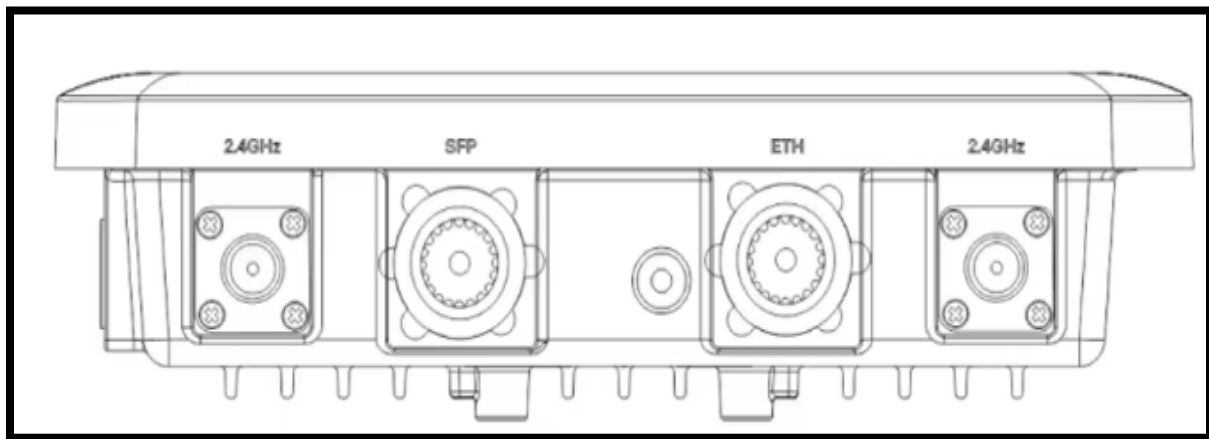
4.1: Features

- ➢ **High Speed connectivity -** Offers ultra-fast WiFi speeds of up to 5400Mbps, ensuring seamless internet access for a multitude of devices.
- ➢ **Dual band Support -** Operates on both 2.4GHz and 5GHz frequency bands, providing flexibility and reducing interference for improved performance.
- ➢ **WiFi 6 (802.11ax) Compatibility -** Supports the latest WiFi standard, offering enhanced efficiency, higher throughput, and better performance in congested environments compared to previous generations.
- ➢ **MU-MIMO Technology -** Utilizes MU-MIMO (Multi-User, Multiple Input, Multiple Output) technology to efficiently handle multiple devices simultaneously, reducing latency and improving overall network performance.

4.2: Benefits

> **Improve Performance -** Delivers blazing-fast WiFi speeds and reliable connectivity, enhancing the overall user experience for activities such as streaming, gaming, video conferencing, and web browsing.

> **Secure Networking -** Incorporates advanced security features to protect against cyber threats and unauthorized access, providing peace of mind for users concerned about their online security and privacy.

> **Easy Installation and Benefits -** Simplifies the setup and management process, even for users with limited technical knowledge, ensuring a hassle-free experience from installation to day-to-day operation.

> **Future Proofing -** Supports the latest WiFi standards and technologies, ensuring compatibility with future devices and services, and providing a long-term investment in your network infrastructure.
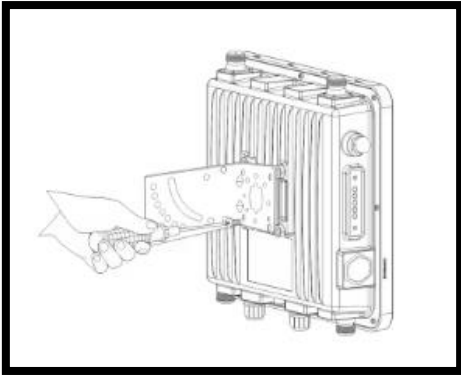
5. INSTALLATION GUIDE AND SETUP

5.1: Interface Guidance
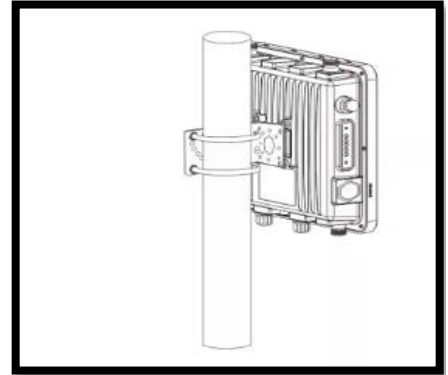

- ANT1, ANT3   -   2.4G antenna interface
- ANT2, ANR4   -   5G antenna interface
- WAN/POE   -   POE power supply interface, uplink interface.
- Rest   -   Restore the factory button.
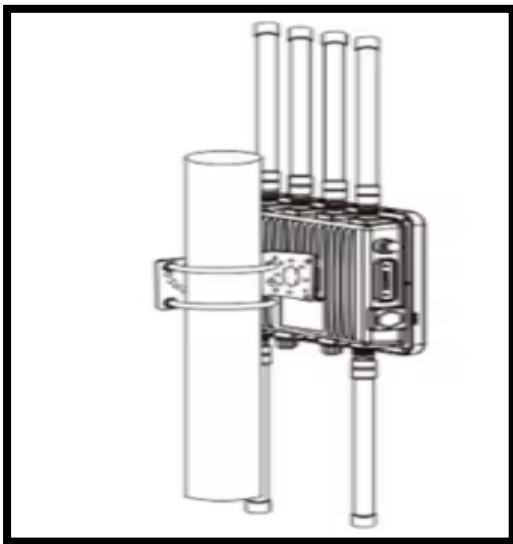
5.2: STEP 1 - Install AP bracket

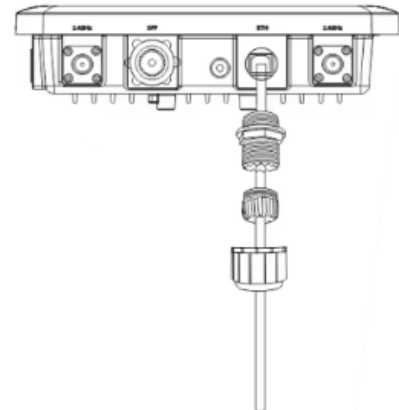Use four internal hexagonal screws to install the L shaped bracket on the bottom of the device.

Fix the equipment on the hug through the U – Shape back clip, dog teeth and nuts.

5.3: STEP 2 – Installation of the antenna and ETH interface connection

Install antenna according to the antenna interface of the corresponding specification.

When using POE power supply, the device should have been connected to the network, please install the waterproof kit on the network online.

Contact us: sales@gaotek.com