QMiroPlus-201W
Tri-Band Wi-Fi Mesh AC2200 2.5GbE NAS and SD-WAN Router

The Tri-Band Mesh Wi-Fi Router with QNAP home cloud 2.0 solution

2 x 2.5" SATA SSD/HDD bay
J4125
IPQ4019
QTS 4.5.2 + QuRouter
What are we going to handle to build a Wi-Fi and cloud service environment at home?

• Where and how can we access the cloud service?
• Can we put all services in a single device?
• Too much devices at home, can we simplify them?
• Why bother when you just want connect back to office to get a file?
• Why don't you have a Wi-Fi signal at my room?
• Why the device is so hard to use?
QMiroPlus-201W
Tri-band Wi-Fi Mesh AC2200 2.5GbE NAS and SD-WAN router

1. Based on QTS smart home management storage system
2. Co-work with QMiro-201W to build Wi-Fi Mesh extending your Wi-Fi coverage
3. QuWAN can easily connected company network with home network through SD-WAN, let's you easily work at home.
4. QuRouter APP makes device managed easily
QMiroPlus-201W is a dual systems which integrated x86 and ARM CPU together.
What are the expectations for a smart home wireless storage network?
Sufficient Wi-Fi coverage

1. Wi-Fi signal all over the house
2. Single SSID access
Mesh is the way to go

Independent inter-AP communication channel
Work from home capabilities

1. Connect to office network from home
2. Good transfer efficiency
Easy setup and managed VPN - QuWAN(SD-WAN)

1. Centralized managed and setup
2. Connected all the sides automatically
3. Always keeps in the best route

* SD-WAN auto mesh the VPN
* Software defined routing
QuRouter APP makes setup/managed easily

1. Android/iOS APP QuRouter setup networking through bluetooth/wireless, and managed QuRouter

2. Graphical interface and only need login by using QNAP ID to QuRouter APP for configuration
Multiple clouds managed

Support **22** public cloud service and keep increasing

- Support difference cloud services backup
- Support different version's backup
QMiroPlus-201W

born for home
It is less functions and slow R/W speed for sharing the USB flash disk through Wi-Fi router

Disadvantages of share files on the USB flash disk/HDD through Wi-Fi router

- Most of devices had only FTP or SMB for file sharing.
- Hard for managing with multiple files stored in different storages.
- Throughput is worse with USB
  - Without USB port for entry level devices
  - Only provide USB 2.0 port (20~37.8MB/s) for middle level and throughput is bad.
  - Up to USB 3.0 for high end devices · but usually it only based on ARM with dual/four cores of CPU, with clock rate 700MHz ~ 1.4GHz or lower · can handle routing and data transfering at the same time well.

It needs more space to put a Wi-Fi router + NAS and organized cables at home, also much expensive.

Considering the placed requirements of buying router and NAS seperated

- Larger space on the table: It takes double space for router + NAS then single one.
- Need more power sockets and adapters.
- Extended cables for physical conneted to router and NAS.
- Do you really need high level but expensive Wi-Fi router at this moment?
- Further NAS but only used 1/10 functions.
QMIroPlus-201W HW spec

Tri-Band Wi-Fi Mesh AC2200 2.5GbE NAS and SD-WAN Router

|                      | Router (QuRouter): Qualcomm IPQ4019 ARM 4cores 717MHz  
                          NAS (QTS ): Intel Celeron J4125 4C 2.0GHz, up to 2.7GHz |
|----------------------|----------------------------------------------------------------------------------------------------------|
| **CPU**              | Router: 512MB DDR3 onboard  
                          NAS: 4GB DDR4 onboard                                                                 |
| **Memory**           | Router: 4MB SPI NOR Flash, 4GB eMMC  
                          NAS: 4GB                                                                                   |
| **Flash memory**     | Router: --  
                          NAS: 2 x USB 3.2 Gen1 5Gb/s Type-A                                                        |
| **USB port**         | Router: 3 x LAN GbE RJ45 ports  
                          1 x WAN GbE RJ45 port  
                          NAS: 1 x 2.5GbE RJ45 port                                                                 |
| **Ethernet port**    | Router: --  
                          NAS: 2 x 2.5" SATA 3Gbps SSD/ HDD (compatible with 6Gb/s SSD/HDD)                        |
| **SSD/HDD slot**     | Router: --  
                          NAS: 2 x 2.5" SATA 3Gbps SSD/ HDD (compatible with 6Gb/s SSD/HDD)                        |
# QMiroPlus-201W HW spec (con't)

Tri-Band Wi-Fi Mesh AC2200 2.5GbE NAS and SD-WAN Router

| **Button** | Router: WPS, Reset(share with NAS)  
| NAS: Power button, Reset(share with router) |
| **LED** | Router: QuRouter status LED  
| NAS: hard disk1 & hard disk2 status LED |
| **Wireless antenna** | 2 x internal dual band(2.4GHz/5GHz) antenna  
| 2 x internal single band(5GHz) antenna |
| **Wireless Standard** | 802.11a/b/g/n/ac |
| **Wireless Speed Rating** | Wi-Fi 5 AC2200  
| 2.4GHz (400Mbps)+ 5GHz (867Mbps x 2) |
| **Wireless bandwidth** | 20/40/80MHz |
| **Bluetooth** | Version 5 |
QMiroPlus-201W HW panel - front

**NAS only:**
- 2 x 2.5" SATA SSD/HDD hot swap slots
- Hard disk1 & hard disk2 status LEDs

**Router only:**
- WPS (Wi-Fi Protected Setup) Button - for edge wireless device connect to QMiroPlus-201W
- QuRouter status LED

Front cover
QMiroPlus-201W HW panel - back

**Router only:**
- 3 x 1GbE RJ45 ports
  - 1 x WAN/Internet 1GbE RJ45 port

**NAS only:**
- 2 x USB 3.2 Gen1 (USB 3.0) Type-A
- 2.5GbE/1GbE RJ45 (internal storage access only)
- DC 12V power input

**Notice:**
- Router will boot up directly after plug in power adapter
- It can only reset NAS password when NAS booted up
Through QNAP 2.5GbE network equipments building up high speed intranet

- Co-work with QNAP QSW-1105-5T 2.5GbE switch to have high speed intranet access
- Connected to a PC directly to enjoy high speed NAS access
Can install up to two 4TB 2.5" SATA SSD with 8TB (RAID 0) or 4TB (RAID 1) larger storage space, high speed and quietly!
QMiroPlus-201W LED helps you realize the status immediately.

<table>
<thead>
<tr>
<th>Description</th>
<th>Color</th>
<th>Light Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>QuRouter booting up</td>
<td>Green</td>
<td>Blinking 2s</td>
</tr>
<tr>
<td>NAS power off/booting up</td>
<td>Green</td>
<td>Blinking 2s</td>
</tr>
<tr>
<td>QuRouter is ready but NAS is still booting up</td>
<td>Green</td>
<td>Static</td>
</tr>
<tr>
<td>QuRouter is ready and NAS boots up successfully</td>
<td>Blue</td>
<td>Blinking 2s</td>
</tr>
<tr>
<td>QuRouter finished pairing and NAS boots up successfully</td>
<td>Blue</td>
<td>Static</td>
</tr>
<tr>
<td>No Internet/Wi-Fi signal out of range</td>
<td>Red</td>
<td>Static</td>
</tr>
<tr>
<td>Weak Wi-Fi Mesh signal (-70 DB)</td>
<td>Orange</td>
<td>Blinking 0.5s</td>
</tr>
<tr>
<td>Adding Wi-Fi Mesh satellite</td>
<td>Blue</td>
<td>Blinking 0.5s</td>
</tr>
</tbody>
</table>
User friendly design let user can one click accessing QTS/QuRouter
Extend your Wi-Fi Mesh QMiro-201W (Tri-Band Wi-Fi Mesh AC2200 SD-WAN Router)

Router Status LED

WPS (Wi-Fi Protected Setup) Button · for edge wireless device connect to QMiroPlus-201W

1x USB 3.2 Gen1 (USB 3.0) Type-A

LAN port x 1 (fix)

WAN port x 1 (fix)
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<tr>
<th>CPU</th>
<th>Qualcomm IPQ4019 ARM 4cores 717MHz</th>
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<tr>
<td>Memory</td>
<td>512MB DDR3</td>
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<tr>
<td>Flash</td>
<td>4MB SPI NOR Flash, 4GB eMMC</td>
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| Antenna | 2 x Internal Dual Band(2.4/5G) antennas  
2 x Internal Single Band(5G) antennas |
| USB | 1 x USB 3.2 Gen1 5Gb/s Type-A |
| Wireless Standard | 802.11a/b/g/n/ac |
| Wireless Speed Rating | AC2200  
2.4G (400Mbps)+5G (867Mbps x 2) |
| Wireless Bandwidth | 20/40/80MHz |
| Bluetooth | Version 5 |
QMiro-201W
Tri-Band Wi-Fi Mesh AC2200 SD-WAN Router

1. More affordable than QHora-301W
2. Co-work with QMiroPlus-201W to build Wi-Fi Mesh extending your Wi-Fi coverage

3. QuWAN can easily connected company network with home network through SD-WAN, let's you easily work at home.
4. The QuRouter app makes device management easy
5. Fanless design quiet without any noise
No Wi-Fi coverage dead zones for your home
How can AP communicate without affecting client-side transfers?

- A third band lets AP communication with each other
- No interference with client-side transfers
Handle multiple devices

- Bring your own devices
- MU-MIMO can serve multiple devices at same time
Easily work from home
Enable QuWAN to manage QMiroPlus-201W/QMiro-201W through the cloud platform

QuWAN Orchestrator

Go to quwan.qnap.com and log in with QID to view the QMiro-201W device, network and VPN connection status, organization-wise topology, connection method. You can also perform remote debugging through the cloud platform.

Login by QNAP ID can managed QuWAN on the QMiroPlus-201W/QMiro-201W
A central managed platform solves the management issues of multiple devices.

1. Intuitive graphical user interface
2. Geological location of each device
3. Overview connection status of all devices
4. Simultaneously execute various parameter settings
5. Set once and apply to all. Save time to set devices individually.
6. Remote troubleshooting (e.g., packet capture)
Rich services of home cloud 2.0
Core value of Home cloud 2.0

- Well developed to QTS
  - Base on QTS 4.5.2 for development

- Home driven APP
  - Multi Media
  - File applications
  - Surveillance
  - Networking applications

- QTS Home cloud 2.0
  - Help for generating accounts
  - Easy for understanding of functions description
  - Installation guide

- Home used interface design
QMiRoPlus-201W Home cloud 2.0

**Multi media**
- Video Station
- QuMagie
- Music Station

**File applications**
- File Station
- Hybrid Backup Sync
- Qsync 5.0

**Surveillance**
- QVR Elite

**Networking application**
- QuRouter
Managing pictures by using albums or folders in QuMagie

Browsing by albums

Browsing by folders

AI smart engine
The AI engine of QuMagie Core can help verify similar people, stuff or even pictures

Backup files from different devices

Personal exclusivity albums

Easily share your pictures

Support iOS® Live Photo dynamic play
Auto backup/sync files through Qsync 5.0

- **One way synchronized**
  One way from device to NAS: data synchronize
  One way from NAS to device: data deployed

- **Dual way synchronized**
  Standard dual way synchronization, make sure the files in both sides are synchronized.

- **Filtering**
  To chose the file type which don’t like to synchronize

- **Smart Delete**
  Setup synchronized without removing files on the NAS, also make a copy for backup on the NAS avoiding delet them accidentally.

- **Space-Saving Mode**
  Space-Saving Mode allows you to view files without downloading them to your device. You can download files only when you need to open and edit them.

1 Only support on Qsync Client 5.0.0 or latest. Windows supported in Windows 10 (1909) or latest.
Integrate data backup/recovery/synchronized into a single QTS application, let you easily backup/synchronized files to another QNAP NAS, remote server, extend flash disk or cloud space.
Brand new surveillance service - QVR Elite

Optional Subscription-Based
Chose how many channels you like to purchase, subscripted and use it.

More channels
Can up to 8 channels

Performance improvement
Use QVR Pro Client as same as QVR Pro, including dynamic frame, live view and replay, alert review of E-map.

Standard MP4 file type
Based on MP4 file format, can easily play on different players.
Building a multi media streaming platform

QuMagie AI albums and pictures classification

CAYIN MediaSign Player HEVC (H.265) live converting and displaying

Streaming the stream to meeting room or display devices by Cinema28

Plex Server streaming and converting
How to set up Wi-Fi Mesh with QMiro-201W?
QMiroPlus-201W + QMiro-201W deployment advices

**Single QMiroPlus-201W/QMiro-201W for master**
- 2,100 sq ft./195 sq meter
- 1-2 rooms apartment
- Small store

**Single QMiroPlus-201W for master**
- Multiple QMiro-201W for satellites
- Additional 2,100 sq ft./195 sq meter for each
- 3-5 rooms apartment
- Large store
- Single-family villa

* Home size, materials, and layout can affect how Wi-Fi signal travels. These are suggestion deployment values based on laboratory tests.

** Single mesh site can only have 4 QMiroPlus-201W/QMiro-201W: 1 x primary + 3 x nodes
Add more QMiro-201W extend your Wi-Fi coverage if needed

Do we really need 2 or 3 APs?
Why don’t we get just one and gradually upgrade if needed?

1. Single selling pack, buy more if needed
2. QuRouter APP help you easily deploy Wi-Fi Mesh
QMiroPlus-201W

QMiro-201W

The new normal of smart home and remote working

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