W1701K wireless pod

EXTENDING THE NEXT GENERATION OF WIFI

The demand for high-speed, high-capacity WiFi in modern homes has driven the evolution of WiFi standards.

With fast multi-gig internet connections and increasing numbers of connected devices, WiFi technology is adapting to deliver higher speeds, lower latency, and greater capacity. This new standard meets the growing needs of bandwidth-hungry activities like 4K/8K video streaming, HD video calling, graphics-intensive work, real-time gaming, and AR/VR applications. Wi-Fi 7, also known as IEEE 802.11be, represents the next generation of WiFi technology, offering exceptional performance for today's connected world. WiFi 7 delivers speeds eight times faster than WiFi 6 and thirteen times faster than WiFi 5, ensuring uninterrupted high-bandwidth activities. The W1701K WiFi 7 pod is designed to work with the W1700K gateway pod to expand coverage in larger households.

Enjoy more reliable WiFi connectivity with less interference, advanced features, and best-in-class technology.

KEY FEATURES AT A GLANCE

- **Powerful 1.3 GHz quad-core ARM processor** boosts wireless, wired, and WAN-to-LAN performance with an Xmart (XPA) Smart Packet Accelerator that ensures smooth 4K UHD streaming and gaming.
- **Full spectrum utilization** – WiFi 7 operates across all three frequency bands (2.4 GHz, 5 GHz, and 6 GHz), maximizing spectrum resources.
- **Speed and efficiency** – WiFi 6 aimed to accommodate more devices, while WiFi 7 provides faster speeds efficiently for all connected devices.
- **Buffering and lag mitigation** through MRU and MLO
- **320 MHz channel support**[***] – Doubles the speeds as offered by 160 MHz channels to provide gigabit speeds for compatible mobile devices and laptops.
- **Reduced target wake time** – Enables dedicated service period for low latency traffic.

- **Dual 2.5G ports** – 2 x 2.5 Gbps Ethernet ports to connect wired devices for faster file transfer and uninterrupted connections.
- **One WiFi network (SSID)** for the entire home
- **Supports all current WiFi devices** – Backwards compatible with 802.11a/b/g/n/ac/ax/be client devices.
- **IOT radio supporting Bluetooth 5.1** Class II radio supporting BLE and Zigbeee / Matter
- Supports **Quantum Fiber 360 WiFi** service

APPLICATIONS

WiFi 7 is suitable for various applications, including:

- **Video streaming** – Smoother streaming of 4K and 8K content
- **Video conferencing** – High-quality video conferences without disruptions
- **Graphic-intensive work** – Efficient collaboration on graphics intensive projects
- **Real-time gaming** – Lag-free, immersive gaming experiences
- **AR/VR applications** – Engaging with augmented and virtual reality applications with minimal latency

WIFI RANGE

- **Faster, expanded coverage** throughout your home and for all your devices
  - **High-performance antennas** – Nine internal antennas provide reliable WiFi coverage over a large area; antennas are optimized for the best WiFi performance.
  - **AFC support** – Onboard GPS provides capability to Geo-locate the device to provide more power and range[++]
  - **Beamforming** – Concentrates wireless signal strength towards clients to expand WiFi range.
  - **High power amplifiers** – Improves transmission power to improve whole-home coverage.

PERFORMANCE

- **320 MHz ultra-wide bandwidth** – WiFi 7 offers a broad 320 MHz bandwidth for faster data transmission.
- **4096-QAM** (Quadrature Amplitude Modulation) – Advanced modulation techniques result in efficient data rates.
- **Multi-RU** (Resource Unit) – Optimizes resource allocation for enhanced network efficiency and significant latency reduction with multiple users.
- **Multi-link operation** – Simultaneously distributes traffic across multiple links for WiFi 7.

WIFI Capacity

- **4x4 MU-MIMO** – Simultaneously communicates with multiple MU-MIMO clients.
- **OFDMA** – Simultaneously communicates with multiple WiFi 6 and WiFi 7 clients.
- **Airtime fairness** – Improves network efficiency by limiting excessive occupation.
- **DFS** – Access an extra band to reduce congestion.
- **12 streams** – More streams means more available bandwidth and less congestion.

TECHNICAL SPECIFICATIONS

- Tri-band WiFi 7 radios
  - 2.4 GHz: 4x4 (Tx/Rx) 4096 QAM 40 MHz, up to 1376 Mbps[†]
  - 5 GHz: 4x4 (Tx/Rx) 4096 QAM 160 MHz, up to 5.76 Gbps[†]
  - 6 GHz: 4x4+1 (Tx/Rx) 4096 QAM 320 MHz backhauled, up to 10 Gbps[†]
    - Optimally positioned internal antennas deliver more capacity, stronger and more reliable connections, and less interference
  - Backwards compatible with 802.11a/b/g/n/ac/ax/be
- 2 x 2.5G Ethernet ports
- IPv6 support
- WiFi certified WPA3™ enables more robust security for networks
- Bluetooth 5.1 Class II radio supporting Zigbee / Matter / BLE
- Multi-color LED status
- OFDMA uplink & downlink[§]
- Multi-Link Operation (MLO)

- Multi-RU
- 320 MHz channel support***
- Programmable BSS coloring
- Supports UNII – 1, 2, 3, 5, 6, 7, and 8 bands
- High-power amplifiers
- Quad-core 1.3 GHz CA53 ARM processor
- 2 GB DDR4 memory, 512 MB flash

SECURITY

- Standards-based WiFi WPA3 security
  - WPA / WPA2 / WPA3 / WPA2-Enterprise (802.1x)
- Automatic firmware update delivers the latest security patches to the W1700K

DIMENSIONS & WEIGHT

- Pod (unit only)
- Size: 154 mm x 97 mm x 39.7 mm
- Weight: 1.26 lbs

ENVIRONMENTAL

- Indoor placement only, away from areas with water or steam
- Power: AC power adapter plugs into standard 120V US power outlet
- Operating temperature: 0º C to 40º C (32º F to 104º F)
- Storage temperature: -20º C to 85º C (-4º F to 185º F)
- Operating humidity: 10% to 90% (non-condensing)
- Storage humidity: 10% to 90% (non-condensing)

* MLO is required to achieve this performance

†Maximum wireless signal rate derived from IEEE 802.11 specifications. Actual data throughput and wireless coverage will vary and maybe lowered by network and environmental conditions, including network traffic volume, and building construction.

‡MU-MIMO capability requires both router and client device to support MU-MIMO.

***Requires client device that supports 320MHz bandwidth on Wi-Fi.

§ Requires compatible Wi-Fi 6 clients with DL-OFDMA and UL-OFDMA support.

++ AFC support expected to be released in Q1 2024. Unit is certified as an Indoor Power unit in low power mode. Once certified, it will be able to operate in standard power mode providing more range and performance to connected devices.