



AX1800 Wi-Fi 6 Dual-Band Ceiling-Mount PoE Access Point

CAX1800

FEATURES

- **AX1800 High-Speed:** Max Wi-Fi speed up to 1800Mbps (2.4GHz at 574Mbps and 5GHz at 1201Mbps)
- **Efficient MU-MIMO:** Serves multiple devices simultaneously for data transmission with improved capacity for wireless connections.
- **High Performance Wi-Fi:** Beamforming, AirTime Fairness, Band Steering and 802.11r/k Fast Roaming enhance the best Wi-Fi performance
- **High Density Mobile & IoT Usage:** Supports up to 256 users simultaneously, ideal for BYOD workplace.
- **Reliable, Secure Wi-Fi:** WPA3 & WPA2-AES encryption supported for high level of security.

OVERVIEW

The CAX1800 is a powerful wireless solution designed to meet the needs of modern mainstream high-density business with the latest emerging IEEE 802.11ax Wi-Fi 6 technology for wireless speeds up to 1800Mbps (574Mbps at 2.4GHz and 1201Mbps at 5GHz). Enterprise-grade performance and build quality, combined with user-friendly operation, easy deployment, super-fast wireless speed, an extensive feature set and a practical, ceiling-mount design make an ideal dual-band solution for enterprise environments that demand security, reliability, expandability, high-density and high-speed wireless connectivity of mobile and IoT environments such as offices, schools, hotels, hospitals, retail shops or shopping malls.

HIGHLIGHTS

- **802.11ax High Speed Wi-Fi Dual-Band:** IEEE 802.11ax concurrent dual-band with 1800Mbps (2.4GHz at 574Mbps and 5GHz at 1201Mbps).
- **Efficient MU-MIMO:** Serves multiple devices simultaneously to enhance connected devices capacity for data transmission.
- **High Performance Wi-Fi:** Beamforming with targeted, directional signals for better range and reliability. AirTime Fairness optimizes the Wi-Fi speed and eliminates Wi-Fi lag. Band steering balances channel utilization, enabling high capacity environment.
- **Designed for High Density Mobile & IoT Usage:** Supports up to 256 users simultaneously (100 users per band), ideal for BYOD (Bring Your Own Device) workplace.
- **Reliable, Secure Wi-Fi:** Reliable Wi-Fi access with WPA3 and WPA2-AES encryption supported for high level of security.
- **Multiple SSIDs for Security Management:** Supports up to 32 SSIDs (16 x 2.4GHz & 16 x 5GHz) ideal for multiple departments, groups, customers or guests.
- **802.11r/k Fast Roaming:** Roams smoothly between APs without lag or interruption, ensuring top performance for video & voice streaming applications.
- **Wide Coverage & High Sensitivity:** Adjustable RF output power and high receiver sensitivity for wide coverage across large spaces.
- **Power over Ethernet (PoE):** Supports IEEE 802.3af PoE and includes a power jack for flexible power supply option..
- **Built-In RADIUS Server:** With management for up to 256 user accounts.
- **Business Environments:** Advanced choice for high-performance and high-density applications. Suitable for a wide range of commercial applications such as offices, hotels, meeting rooms, schools, campuses, resorts, retail and others.

Benefit of 802.11ax, The Latest Emerging Wi-Fi



More Capacity

Up to 4X capacity and data throughput to maximize Wi-Fi performance with MU-MIMO serving multiple devices simultaneously and improving capacity for wireless connections.



Fastest Speed

Offers up to 1.8Gbps peak speeds through Dual Band Simultaneous (DBS) combining 2.4 and 5GHz bands, and higher order modulation (1024 QAM) for streaming HD videos without lag.



Further Range

New packet format, longer guard intervals and modes that introduce redundancy, allowing error recovery in order to extend the range, especially for outdoor Wi-Fi Point- to-Point links.



Better Efficiency

Designed to be more efficient for multiple users with varying bandwidth needs to be served simultaneously for efficient wireless access in highly demand IoT environments.



Power Saving

Less battery drain with Target Wakeup Time (TWT) which allows devices to negotiate when and how often they will wake up to send or receive data for longer battery life.

Ideal for High-Density & BYOD Networking

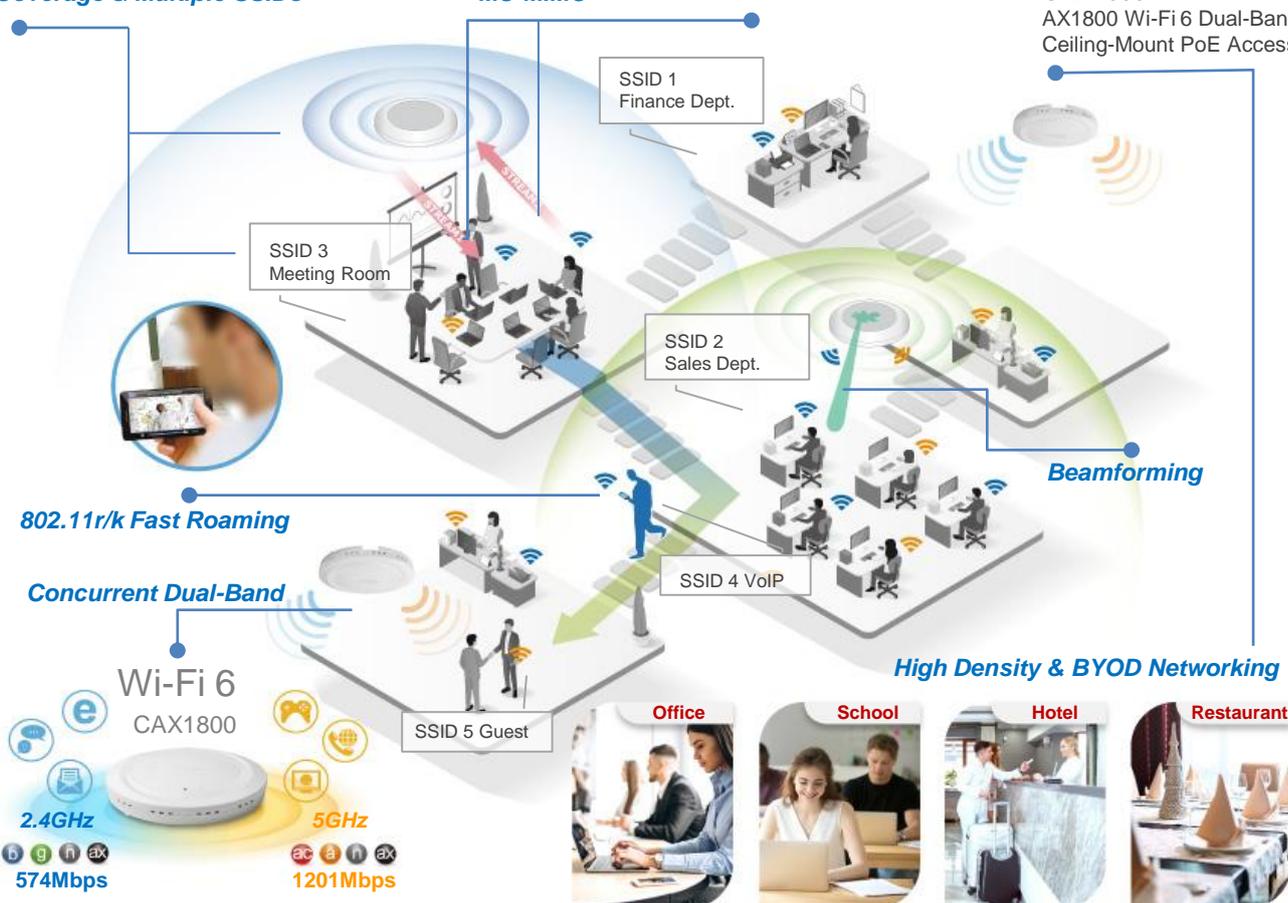
Wide range of potential applications for enterprise High-Density, BYOD, mobile and IoT environments from office, meeting rooms to schools, campuses and hospitality business such as hotels, restaurants, shopping malls, retail shops and hospital.

Wide Coverage & Multiple SSIDs

MU-MIMO

CAX1800

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SPECIFICATIONS

| HARDWARE | | | |
|---|--|---|--|
| Interface | 1 x RJ45 10/100/1000Mbps Ethernet Port (PoE in) | | |
| Button | Reset button | | |
| LED Indicator | <ul style="list-style-type: none"> Power LED Diag LED | | |
| Antenna | <ul style="list-style-type: none"> Type: 2 x Built-In PIFA (2 dual-band antenna) Gain: 2.2dBi (2.4GHz), 2.9dBi (5GHz) Max. | | |
| Power | <ul style="list-style-type: none"> DC: 12V / 1A 802.3af (PoE Injector Optional) | | |
| Power Consumption | 12W (Full Loading) | | |
| Power Saving | 802.3az | | |
| Mounting | Ceiling | | |
| Housing | UL94-5VB Flammability Rating | | |
| Dimension | 176.29 (D) x 32.75 (H) mm | | |
| Weight | 372g | | |
| WIRELESS | | | |
| Standard | 802.11 a/b/g/n/ac/ax Concurrent Dual-Band | | |
| Frequency Band | <ul style="list-style-type: none"> Radio I : 802.11b/g/n/ax 2.412~2.484(GHz) Radio II : 802.11a/n/ac/ax 5.15~5.25(GHz), 5.25~5.35(GHz), 5.470~5.725(GHz) (The supported frequency band is restricted by local regulations.) | | |
| Maximum Data Speed | <ul style="list-style-type: none"> 2.4GHz: 574Mbps 5GHz: 1201Mbps | | |
| Operation Channels | <ul style="list-style-type: none"> 2.4GHz : US/Canada 1-11; 2.412~2.462GHz Europe 1-13; 2.412~2.472GHz 5GHz : Country dependent for the following ranges: US/Canada: <ul style="list-style-type: none"> Band 1: 36, 40, 44, 48; 5.180~5.240(GHz) Band 4: 149, 153, 157, 161, 165; 5.745~5.825(GHz) Europe: <ul style="list-style-type: none"> Band 1: 36, 40, 44, 48; 5.180~5.240(GHz) | | |
| Maximum Transmit Power | <table border="0"> <tr> <td> <ul style="list-style-type: none"> 802.11b 17dBm@1Mbps 17dBm@11Mbps 802.11g 17dBm@6Mbps 15dBm@54Mbps 802.11n (2.4G) 17dBm@MCS0(HT20) 15dBm@MCS7(HT20) 12dBm@MCS9(HT40) 802.11ax (2.4G) 9dBm@MCS11(HT40) 15dBm@MCS4/12 15dBm@MCS5/13 14dBm@MCS6/14 14dBm@MCS7/15 </td> <td> <ul style="list-style-type: none"> 802.11a 17dBm@6Mbps 16dBm@54Mbps 802.11n(5G) 17dBm@MCS0 (HT20) 15dBm@MCS7 (HT20) 802.11ac 17Bm@MCS0 (VHT80) 15dBm@MCS7 (VHT80) 14dBm@MCS9 (VHT80) 802.11ax (5G) 10dBm@MCS11 (HT80) (CE: 20dBm or lower, FCC: 23dBm or lower) </td> </tr> </table> | <ul style="list-style-type: none"> 802.11b 17dBm@1Mbps 17dBm@11Mbps 802.11g 17dBm@6Mbps 15dBm@54Mbps 802.11n (2.4G) 17dBm@MCS0(HT20) 15dBm@MCS7(HT20) 12dBm@MCS9(HT40) 802.11ax (2.4G) 9dBm@MCS11(HT40) 15dBm@MCS4/12 15dBm@MCS5/13 14dBm@MCS6/14 14dBm@MCS7/15 | <ul style="list-style-type: none"> 802.11a 17dBm@6Mbps 16dBm@54Mbps 802.11n(5G) 17dBm@MCS0 (HT20) 15dBm@MCS7 (HT20) 802.11ac 17Bm@MCS0 (VHT80) 15dBm@MCS7 (VHT80) 14dBm@MCS9 (VHT80) 802.11ax (5G) 10dBm@MCS11 (HT80) (CE: 20dBm or lower, FCC: 23dBm or lower) |
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| Receiver Sensitivity | <table border="0"> <tr> <td> <ul style="list-style-type: none"> 802.11b ≤-88dBm@1Mbps ≤-86dBm@11Mbps 802.11g ≤-88dBm@6Mbps ≤-71dBm@54Mbps 802.11gn (2.4G) ≤-88dBm@MCS0 ≤-68dBm@MCS7 ≤-60dBm@MCS9 802.11ax (2.4G) ≤-53dBm@MCS11 </td> <td> <ul style="list-style-type: none"> 802.11a ≤-87dBm@6Mbps ≤-68dBm@54Mbps 802.11n(5G) ≤-87dBm@MCS0 ≤-68dBm@MCS7 802.11ac ≤-56dBm@MCS9 802.11ax (5G) ≤-50dBm@MCS11 </td> </tr> </table> | <ul style="list-style-type: none"> 802.11b ≤-88dBm@1Mbps ≤-86dBm@11Mbps 802.11g ≤-88dBm@6Mbps ≤-71dBm@54Mbps 802.11gn (2.4G) ≤-88dBm@MCS0 ≤-68dBm@MCS7 ≤-60dBm@MCS9 802.11ax (2.4G) ≤-53dBm@MCS11 | <ul style="list-style-type: none"> 802.11a ≤-87dBm@6Mbps ≤-68dBm@54Mbps 802.11n(5G) ≤-87dBm@MCS0 ≤-68dBm@MCS7 802.11ac ≤-56dBm@MCS9 802.11ax (5G) ≤-50dBm@MCS11 |
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| Concurrent Clients | Up to 100 Per Radio | | |
| No. of SSIDs | 16 (2.4GHz) + 16 (5GHz) | | |
| 802.11 r/k Fast Roaming | Y | | |
| Band Steering | Y | | |
| AirTime Fairness | Y | | |
| Beamforming | Y | | |

| SOFTWARE | |
|-----------------------------|--|
| Wireless Mode | AP / WDS AP / WDS Bridge |
| 802.1q VLAN | Y (VID = 1-4095) |
| Spanning Tree | STP |
| QoS | <ul style="list-style-type: none"> WMM (802.11e) Max associated station number |
| Pass-Through | IPv6 and VPN (PPTP, L2TP/IPsec) |
| DSCP (802.1p) | Y |
| Multicast Rate up to 54Mbps | Y |
| SECURITY | |
| Encryption | WEP / WPA2-AES / WPA3 |
| Wireless L2 Isolation | Y |
| Station Isolation | Y |
| IEEE 802.1x Authenticator | Y |
| EAP Authentication | PEAP |
| Hidden SSID | Y |
| MAC Address Filter | Y |
| Wireless Client Isolation | Y |
| Rogue AP Detection (w/ NMS) | Y |
| MANAGEMENT | |
| Deployment | <ul style="list-style-type: none"> Standalone (AP mode) Master AP mode: Can manage 16 Edimax CAX1800 APs with NMS Managed AP mode: Be managed by Edimax CAX1800 Master AP with NMS |
| Configuration | <ul style="list-style-type: none"> HTTP/HTTPS SNMP v1, v2c, v3 CLI (Telnet, SSH) |
| RADIUS Server | Built-In |
| Auto-Channel | Y |
| Private MIB | Y |
| OTHERS | |
| Certification | CE, FCC |
| Environmental Condition | <ul style="list-style-type: none"> Operating Temperature: 0°C~40°C (32°F~104°F) Operating Humidity: 90% or Less |
| Package Content | <ul style="list-style-type: none"> AX1800 Ceiling Mount PoE Access Point Ceiling-Mount & T-rail Mount Bracket Kit Ethernet Cable Quick Installation Guide |
| Optional Accessory | GP-101IT IEEE802.3at PoE Injector |

Maximum performance, actual data rates, and coverage will vary depending on network conditions and environmental factors. Product specifications and design are subject to change without notice.
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