EDIMAX
NETWORKING PEOPLE TOGETHER

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

CAX1800

FEATURES

- **AX1800 Wi-Fi 6**: Wireless speed is up to 1800Mbps (2.4GHz at 574Mbps and 5GHz at 1201Mbps).
- **Efficient OFDMA and MU-MIMO**: Serves multiple devices simultaneously for wireless connection and improves capacity for data transmission.
- **High Performance Wi-Fi**: Beamforming, AirTime Fairness, Band Steering and 802.11r/k Fast Roaming enhance the best Wi-Fi performance.
- **High Density Network**: Supports up to 200 users simultaneously, ideal for BYOD workplace.
- **Secure Wi-Fi**: High-level Wi-Fi Security supported with WPA3-Personal, WPA2, WPA, WEP and 802.1X.
- **Friendly UI**: Succinct management interface allows administrator to manage CAX1800 intuitively.

OVERVIEW

The CAX1800 is powered by either power adapter or PoE switch. If operated with EDIMAX PoE Switch Series, you can get rid of power line deployment. With multiple SSIDs and VLAN setting, you can separate different identities into different groups. With these features, the administrator can easily deploy CAX1800 and manage a large group of employees, visitors, students and others.

CAX1800 supports Wi-Fi 6 technologies such as OFDMA, MU-MIMO, high-order modulation and beam-forming, which increase the bandwidth and improve the efficiency for the low-latency video conference, voice call and file transmission.

Enterprise-grade performance, fancy appearance and ceiling-mount design make CAX1800 an ideal solution to be deployed in the offices, schools, hotels, hospitals and malls where are security, reliability, expandability, high-density and high-speed wireless connectivity demanding.

HIGHLIGHTS

- **Wi-Fi 6 High Speed**: CAX1800 supports DBS to fully utilize 2.4GHz and 5GHz at the same time to maximum the wireless throughput at up to 1800Mbps.
- **Efficiency with OFDMA and MU-MIMO:** The joint OFDMA and MU-MIMO technology serves multiple devices at the same time and fulfills high and low throughput demands simultaneously to improve connection efficiency.
- **High Performance Wi-Fi**: Beamforming with targeted, directional signals for long-range and reliability. AirTime Fairness smartly assigns time to devices to achieve fairness. Band steering lessens radio collision and transmission lag.
- **Designed for High Density Network**: Supports up to 200 users simultaneously.
- **Multiple SSIDs and VLANs for Management**: Supports up to 32 SSIDs and corresponding VLANs, which is easy to manage 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**: High receiver sensitivity and adjustable RF output power for wide coverage across large spaces.
- **Flexible Power Source**: Powered by PoE (Power Over Ethernet) or power adapter.
- **Built-In RADIUS Server**: With management for up to 256 user accounts.
- **Business Environments**: High-performance and high-density design is perfect for a wide deployments such as offices, hotels, meeting rooms, schools, campuses, resorts, retail and others.

Benefit of Wi-Fi 6

More Capacity
MU-MIMO allows devices to access same frequency bands at the same time to serve multiple users simultaneously and increase wireless capacity.

Faster Speed
2-antenna, 1024QAM and DBS design make data rate up to 1.8Gbps. You may enjoy watching videos and transmit bulk files without lag.

Further Range
Longer guard intervals have stronger capability to cope with multi-path interference to achieve farther distance outdoor such as stadium and outlet.

Better Efficiency
The combined OFDMA and MU-MIMO technology serves multiple users with different bandwidth needs at the same time.

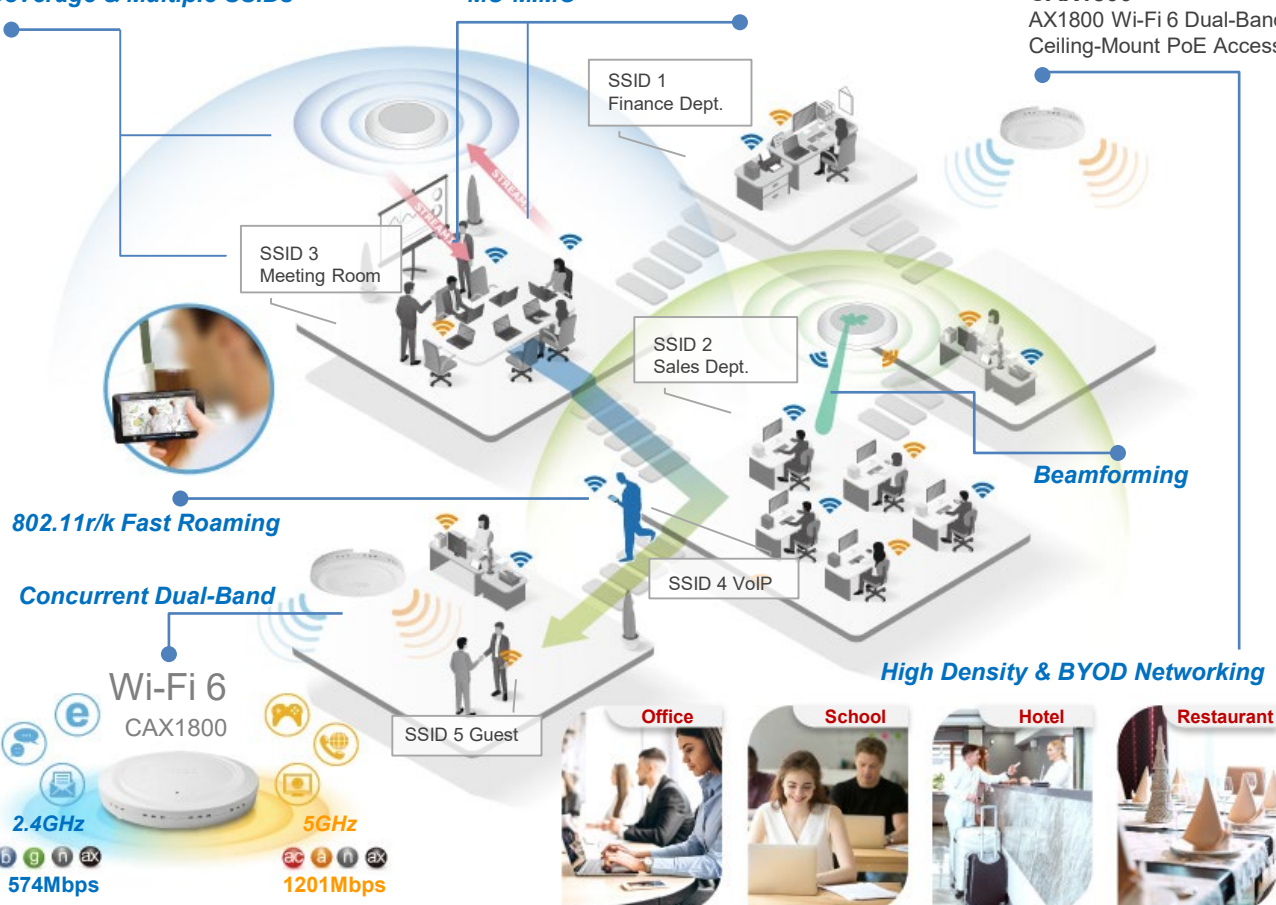## Ideal for High-Density & BYOD Networking

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

SSID 1 Finance Dept.

SSID 3 Meeting Room

SSID 2 Sales Dept.

Beamforming

802.11r/k Fast Roaming

SSID 4 VoIP

Concurrent Dual-Band

Wi-Fi 6
CAX1800

2.4GHz
b g n ax
574Mbps

5GHz
ac a n ax
1201Mbps

SSID 5 Guest

High Density & BYOD Networking

Office | School | Hotel | Restaurant

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SPECIFICATIONS

HARDWARE

Interface	1 x RJ45 10/100/1000Mbps Ethernet Port (PoE in)
Button	Reset button
LED Indicator	• 1 x LED (Power and Diag)
Antenna	• Type: 2 x Built-In PIFA (2 dual-band antenna) • Gain: 2.2dBi (2.4GHz), 2.9dBi (5GHz) Max.
Power	• 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	IEEE 802.11 a/b/g/n/ac/ax
Frequency Band	• 2.4GHz: IEEE 802.11b/g/n/ax • 5GHz: IEEE 802.11a/n/ac/ax * Subject to local regulations.
Maximum Data Rate / Speed	• 2.4GHz: 574Mbps • 5GHz: 1201Mbps
Operation Channels	• 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:** − Band 1: 36, 40, 44, 48; 5.180~5.240(GHz) − Band 4:149, 153, 157, 161, 165; 5.745~5.825(GHz) 　**Europe:** − Band 1: 36, 40, 44, 48; 5.180~5.240(GHz)
Maximum Transmit Power	• 802.11b 17dBm@1Mbps 17dBm@11Mbps • 802.11g 17dBm@6Mbps 15dBm@54Mbps • 802.11n (2.4GHz) 17dBm@MCS0(HT20) 15dBm@MCS7(HT20) 12dBm@MCS9(HT40) • 802.11ax (2.4GHz) 9dBm@MCS11(HT40) 15dBm@MCS4/12 15dBm@MCS5/13 14dBm@MCS6/14 14dBm@MCS7/15 • 802.11a 17dBm@6Mbps 16dBm@54Mbps • 802.11n(5GHz) 17dBm@MCS0 (HT20) 15dBm@MCS7 (HT20) • 802.11ac 17Bm@MCS0 (VHT80) 15dBm@MCS7 (VHT80) 14dBm@MCS9 (VHT80) • 802.11ax (5GHz) 10dBm@MCS11 (HT80) (CE: 20dBm or lower, FCC: 23dBm or lower)
Receiver Sensitivity	• 802.11b ≤-88dBm@1Mbps ≤-86dBm@11Mbps • 802.11g ≤-88dBm@6Mbps ≤-71dBm@54Mbps • 802.11n (2.4GHz) ≤-88dBm@MCS0 ≤-68dBm@MCS7 ≤-60dBm@MCS9 • 802.11ax (2.4GHz) ≤-53dBm@MCS11 • 802.11a ≤-87dBm@6Mbp ≤-68dBm@54Mbps • 802.11n(5GHz) ≤-87dBm@MCS0 ≤-68dBm@MCS7 • 802.11ac ≤ -56dBm@MCS9 • 802.11ax (5GHz) ≤ -50dBm@MCS11
Concurrent Clients	200 (100 at 2.4GHz and 100 at 5GHz)
No. of SSIDs	32 (16 at 2.4GHz and 16 at 5GHz)
Fast Roaming	Y (802.11 r/k)
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	Y (STP)
QoS	Y (802.11e WMM)
Pass-Through	IPv6 and VPN (PPTP, L2TP/IPsec)
DSCP (802.1p)	Y
Multicast	Y (Multicast Rate up to 54Mbps)

SECURITY

Security	WPA3/ WPA2 / WPA/ WEP/ 802.1X
Wireless Client Isolation	Y
IEEE 802.1x Authenticator	Y
EAP Authentication	PEAP
Hidden SSID	Y
MAC Address Filter	Y
Rogue AP Detection	Y (with NMS)

MANAGEMENT

Deployment	• **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	• HTTP/HTTPS • SNMP v1, v2c, v3 • CLI (Telnet, SSH)
RADIUS Server	Built-In
Syslog	Y
Ping/Traceroute Test	Y

OTHERS

Certification	CE, FCC
Environmental Condition	• Operating Temperature: 0˚C~40˚C (32˚F~104˚F) • Operating Humidity: 90% or Less
Package Content	• 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