

## Highlights

### Radio Technology

- 5 GHz 3x3:3
- 2.4 GHz 3x3:3
- Integrated BLE (Bluetooth Low Energy) Radio for location services

### Radio Modes - SDR

- 5 GHz / 2.4 GHz Fixed
- 5 GHz / 5 GHz - Dual 5 GHz

### High Density Environments

- Delivers exceptional end-user experience even in dense user environments
- Automated client distribution between radios or neighboring access points
- Dynamic mesh backhaul

### Management and Analytics with ExtremeCloud™ IQ

- Automated deployments
- Simplified network operations
- Advanced reporting and network insights

### Secure Network Access

- Broad range of authentication modes for all devices from Corporate to IoT
- Integrated enterprise protection mechanisms including WIPS and VPN



# ExtremeWireless™ AP250

Performance-Optimized Indoor 802.11ac Wave 2 Dual-Radio Dual 5 GHz 3x3:3 MIMO Access Point for High Capacity Environments

The AP250 is an excellent choice to provide instant adaption to ever-changing capacity needs with its software-defined Dual 5 GHz radio technology, providing data rates up to 2.6 Gbps even while using 802.3af PoE infrastructure. Software-defined radios allow IT managers to enable 802.11ac performance on both radios to provide the best of coverage and capacity.

The AP250 benefits from an AI-driven Wi-Fi architecture capable of self-organizing, self-healing, and self-optimizing connectivity in the most challenging environments, helping eliminate single points of failure and data bottlenecks. Underlying the AP250 is a powerful operating system driving a stateful L2-L7 DPI firewall for context-based access security, advanced and customizable QoS for traffic optimization, intelligent meshing algorithms, Private Pre-Shared Key (PPSK) security, and much more. In addition, the integrated BLE radio and a USB interface in the access point opens up a multitude of deployment use-cases in IoT and proximity/location-oriented services.



### Built to Suit Your Business Needs

**Extreme Elements** are the building blocks that allow you to tailor your network to your specific business environment, goals, and objectives. They enable the creation of an Autonomous Network that delivers the positive experiences and business outcomes most important to your organization.

Combining architecture, automation, and artificial intelligence, Extreme Elements enable you to ensure that your users get what they need — when and where they need it. Providing these superior user experiences is as simple as mixing and matching the right elements.

Learn more at [extremenetworks.com/elements/](http://extremenetworks.com/elements/).



## Programmable Radios

Software-defined dual 5 GHz radios monitor and automatically adjust Wi-Fi performance to achieve the highest levels of client performance and network optimization in challenging and demanding environments. Further fine tune network health with a granular, customizable QoS engine that adjusts performance based on user, device, and application privileges.

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## Management Analytics

In conjunction with Extreme's management system, this access point provides a rich set of data displayed via context driven widgets, detailing historical data and real-time analytics. This provides context-specific granularity with perspective views for locations, network, network devices, individual client devices, as well as policy roles. In each context, administrators can adjust dashboards from the widget library.

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## Resilient Access

Distributed control Wi-Fi architecture delivers self-organizing, self-healing, and self-optimizing connectivity in the most challenging environments, eliminating single points of failure and bottlenecks, delivering bulletproof stability and unbridled performance, and offering unparalleled scale.

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## RF Monitoring

Adaptive RF algorithms provide intelligent selection of the best channels and transmit power for unimpaired network access. Load balancing, band steering and many other attributes of the RF can all be automated. In addition, administrators can view network health through Extreme's management system.

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## Advanced Security

This access point delivers the highest level of security services, including a fully stateful L2-L7 DPI firewall for context-based access security, Private Pre-Shared Key (PPSK) authentication, on-board RADIUS services, WIPS, VPN tunnelling, and much more.



## Automated Deployments

Powered by cloud networking, this access point can easily be deployed alongside thousands of others in no time at all. Extreme's management system provides granular templates and auto provisioning to enable centralized enterprise plug-and-play rollouts.

# Product Specifications

## Radio Specifications

### 802.11a

- 5.150–5.850 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

### 802.11b

- 2.4–2.5 GHz Operating Frequency
- Direct-Sequence Spread-Spectrum (DSSS) Modulation
- Rates (Mbps): 11, 5.5, 2, 1 w/auto fallback

### 802.11g

- 2.4–2.5 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- 20 dBm (100 mW) Transmit Power
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

### 802.11n

- 2.4–2.5 GHz & 5.150–5.850 GHz Operating Frequency
- 802.11n Modulation
- Rates (Mbps): MCS0–MCS23 (6.5Mbps - 450Mbps)
- 3x3:3 Stream Multiple-In, Multiple-Out (MIMO) Radio
- HT20 High-Throughput (HT) Support for both 2.4 GHz and 5 GHz
- A-MPDU and A-MSDU Frame Aggregation

### 802.11ac

- 5.150–5.850 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0–MCS9 (6.5Mbps - 1300Mbps), NSS = 1-3.
- 3x3:3 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support

## Interfaces

- Two Autosensing 10/100/1000 BASE-T Ethernet ports.  
PoE/ PoE+ capability on one of the ports
- RJ-45 console port
- Standard USB port
- IEEE 802.3af PoE Power: Full 3x3:3 802.11ac MU-MIMO performance, BLE and Dual 5 GHz. No USB port, no 2nd Ethernet port.
- IEEE 802.3at PoE Power: full set of features (all of the above plus USB port and 2nd Ethernet port).
- 2.4 GHz typical power draw: 17 dBm, max 20 dBm
- 5 GHz typical power draw: 18 dBm, max 19 dBm

## Physical

- WxDxH: 7.25" x 7.25" x 1.87"(18.4 cm x 18.4 cm x 1.87cm) [plus .25", mounting hardware - 2.12" (5.4 cm) H total]
- Weight: 1.8 lb ( 0.81 kg)

## Antennas

- 6 + 2 internal Wi-Fi antennas for spatial and polarization diversity
- 1x BLE internal antenna

## Mounting

- Desktop
- Ceiling Tile Recessed 15/16", 3/8", 9/16" sold as an accessory
- Ceiling Tile flush 3/8", 9/16" sold as an accessory
- Suspend Mount sold as an accessory
- Plenum Mount sold as an accessory
- Silhouette and Interlude sold as an accessory
- TPM chip for added security

## Environmental

- Operating: 0 to +40°C, Storage: -40 to +70°C
- Humidity: 95%

## Environmental Compliance

- UL2043

# Power and Sensitivity Tables

## Power 2.4 GHz

| Channel  | Data Rate             | Power (dBm) |
|----------|-----------------------|-------------|
| 11b      | 1, 2, 5.5, 11 Mbps    | 20          |
| 11g      | 54 Mbps               | 17          |
|          | 48 Mbps               | 18          |
|          | 36 Mbps               | 19          |
|          | 6 Mbps                | 19          |
| 11n HT20 | MCS7, 15, 23          | 17          |
|          | MCS6, 14, 22          | 18          |
|          | MCS5, 13, 21          | 19          |
|          | MCS0, 1, 2, 3, 4      | 19          |
|          | MCS8, 9, 10, 11, 12   | 19          |
|          | MCS16, 17, 18, 19, 20 | 19          |

## Receive Sensitivity - 2.4 GHz

| Channel  | Data Rate    | Sensitivity |
|----------|--------------|-------------|
| 11b      | 1 Mbps       | -100        |
|          | 11 Mbps      | -93         |
| 11g      | 6 Mbps       | -95         |
|          | 36 Mbps      | -86         |
|          | 48 Mbps      | -82         |
|          | 54 Mbps      | -80         |
| 11n HT20 | MCS0, 8, 16  | -95         |
|          | MCS5, 13, 21 | -81         |
|          | MCS6, 14, 22 | -79         |
|          | MCS7, 15, 23 | -77         |

## Power 5 GHz

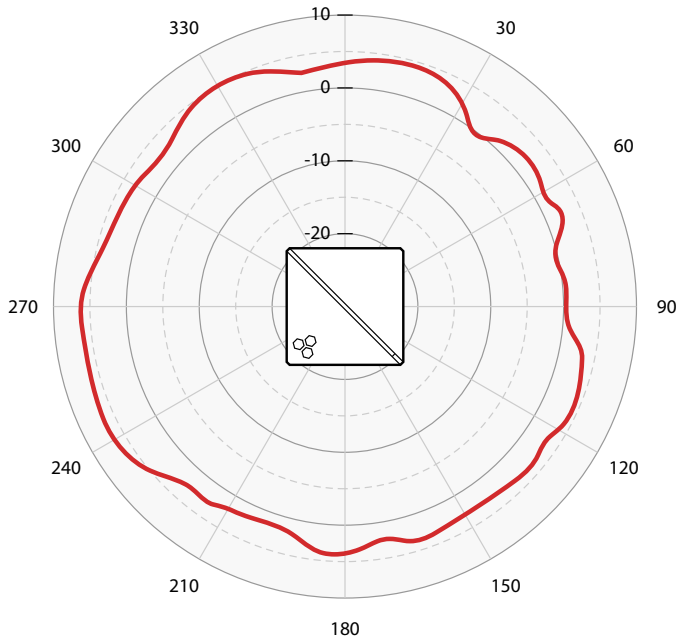
| Channel  | Data Rate              | Power (dBm) |
|----------|------------------------|-------------|
| 11a      | 54 Mbps                | 17          |
|          | 48 Mbps                | 18          |
|          | 36 Mbps                | 19          |
|          | 6 Mbps                 | 19          |
| 11n HT20 | MCS7, 15, 23           | 17          |
|          | MCS6, 14, 22           | 18          |
|          | MCS5, 13, 21           | 19          |
|          | MCS0, 1, 2, 3, 4       | 19          |
|          | MCS8, 9, 10, 11, 12    | 19          |
|          | MCS16, 17, 18, 19, 20  | 19          |
| 11n HT40 | MCS7, 15, 23           | 17          |
|          | MCS6, 14, 22           | 18          |
|          | MCS5, 13, 21           | 19          |
|          | MCS0, 1, 2, 3, 4       | 19          |
|          | MCS8, 9, 10, 11, 12    | 19          |
|          | MCS16, 17, 18, 19, 20  | 19          |
| 11ac VHT | 256QAM @ 3/4 Code Rate | 14          |
|          | 256QAM @ 5/6 Code Rate | 13          |

## Receive Sensitivity - 5 GHz

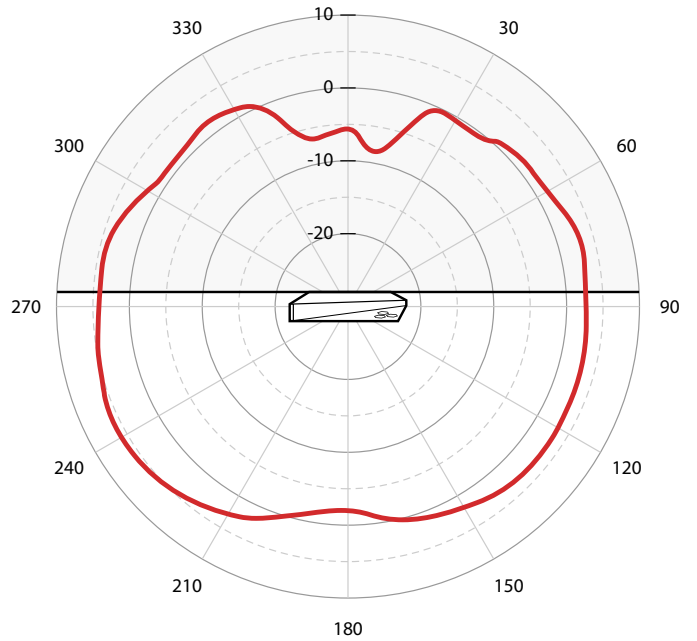
| Channel   | Data Rate     | Sensitivity |
|-----------|---------------|-------------|
| 11a       | 6 Mbps        | -95         |
|           | 36 Mbps       | -86         |
|           | 48 Mbps       | -81         |
|           | 54 Mbps       | -80         |
| 11n HT20  | MCS0, 8, 6    | -91         |
|           | MCS5, 13, 21  | -78         |
|           | MCS6, 14, 22  | -76         |
|           | MCS7, 15, 23  | -74         |
| 11n HT40  | MCS0, 8, 16   | -88         |
|           | MCS5,13,21    | -75         |
|           | MCS6, 14, 22  | -73         |
| 11ac HT20 | MCS7, 15, 23  | -71         |
|           | Code Rate 3/4 | -65         |
| 11ac HT40 | Code Rate 5/6 | -63         |
|           | Code Rate 3/4 | -62         |
| 11ac HT80 | Code Rate 5/6 | -60         |
|           | Code Rate 3/4 | -59         |
|           | Code Rate 5/6 | -57         |

# Radiation Patterns - Azimuth and Elevation

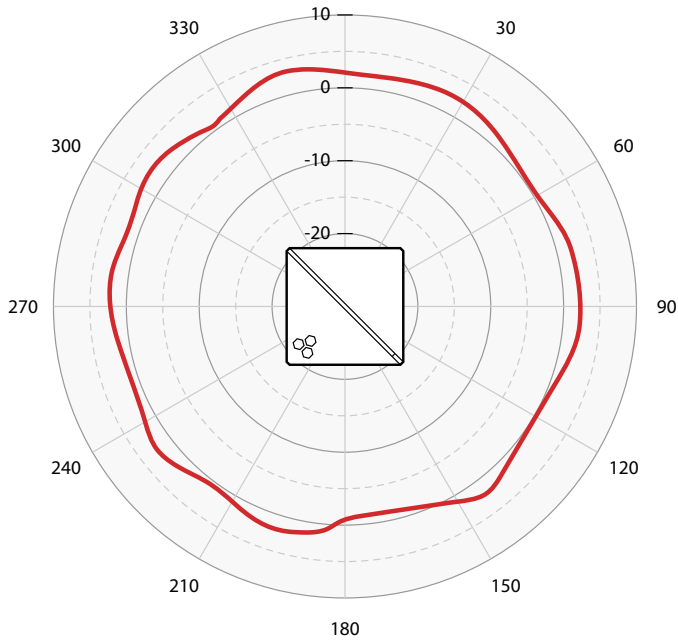
## Azimuth 2.4 GHz



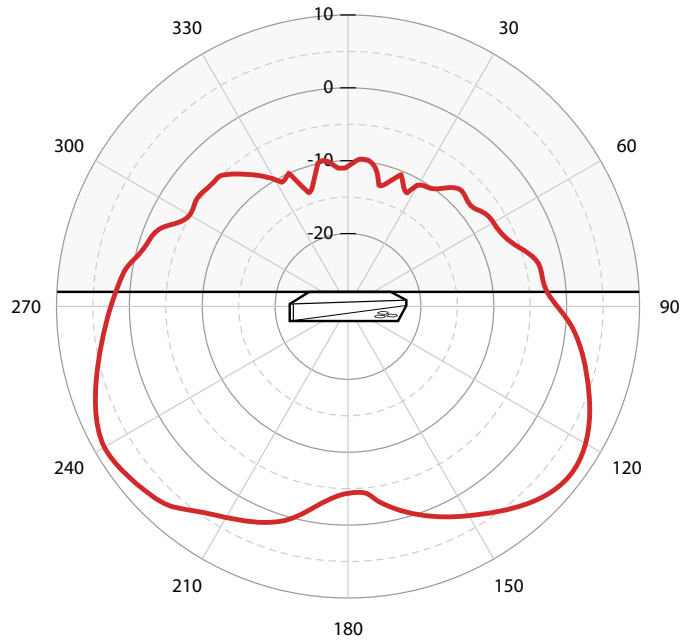
## Elevation 2.4 GHz



## Azimuth 5 GHz



## Elevation 5 GHz



## AP250 – Miscellaneous SKUs

| SKU             | Description   |
|-----------------|---|
| AH-AP-250-AC-XX | AP250 Indoor plenum rated Access Point, 2 radio 3x3:3 802.11a/b/g/n/ac MU-MIMO, 2 10/100/1000 Ethernet ports, without power supply (Internal Antenna only). Includes HiveManager Connect & HiveCare Community. (Regulatory Domains available: FCC, CE, W (World), CAN (Canada)) |

## AP250 – Miscellaneous SKUs

| SKU                  | Description  |
|----------------------|--|
| AH-ACC-INJ-30W-UK    | 30W POE power injector with UK power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X                    |
| AH-ACC-INJ-30W-US    | 30W POE power injector with US power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X                    |
| AH-ACC-PLENUM-KIT    | AP130,AP230, AP245X, AP250, AP550 Plenum Bracket Kit   |
| AH-ACC-RBR-FT        | Rubber feet for AP130/AP200 series/AP550   |
| AH-ACC-SEC-BIT-3PK   | AP122,AP122X,AP130,AP230, AP245X, AP250, AP550 security screw bit (3pk)  |
| AH-ACC-SEC-KIT       | Security bracket, screws and security screw bit for AP122,AP122X, AP130, AP230, AP245x, AP250                                  |
| AH-ACC-BKT-916-KIT   | AP122, AP122X, AP130, AP200 series/AP500 series 9/16" ceiling mount brackets for recessed and flush ceiling tiles              |
| AH-ACC-BKT-AC-KIT    | AP122, AP122X, AP130, AP200 series/AP500 series 15/16" ceiling mount brackets for recessed and non-recessed ceiling tiles      |
| AH-ACC-BKT-AC-WALL   | AP122, AP122X, AP130/AP230/AP245X/AP250,AP550 wall mounting and 15/16" ceiling mount bracket                                   |
| AH-ACC-BKT-SILINT-KT | AP122, AP122X, AP130,AP230/AP245X/AP250 ,AP550 Mounting bracket kit for Silhouette and Interlude ceiling types                 |
| AH-ACC-BKT-SU-KIT    | AP122,AP122X,AP130,AP230,AP245X, AP250, AP550 Suspend Bracket Kit  |
| AH-ACC-BKT-WP-KIT    | Wall plate bracket kit for AP122, AP122X, AP130, AP230, AP245X, AP250,AP550 Includes the bracket and security screws           |
| AH-ACC-INJ-30W-AU    | 30W POE power injector with Australia/New Zealand power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X |
| AH-ACC-INJ-30W-EU    | 30W POE power injector with EU power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X                    |