

## Highlights

### Radio Technology

- 802.11ac – 5 GHz 2x2:2
- 802.11ac – 2.4 GHz 2x2:2
- Integrated BLE (Bluetooth Low Energy) Radio for location services

### Management and Analytics with ExtremeCloud™ IQ

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

### Self-Driving Architecture

- Distributed control Wi-Fi delivers self-optimizing and self-healing mobility
- Automated client distribution between radios or neighboring access points
- Dynamic mesh backhaul

### Secure Network Access

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



## ExtremeWireless™ AP122X

Enterprise-Grade 2x2, 2-Stream, 802.11n/ac Access Points with External Antennas for Medium-Density Environments, as well as IoT and Location-Based Services

AP122X provides the full breadth of Extreme's enterprise-grade feature set and IoT readiness in medium density environments, achieving 802.11ac performance with data rates up to 867 Mbps, along with built-in BLE and USB port using existing 802.3af PoE infrastructure.

The AP122X 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 AP122 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 <https://www.extremenetworks.com/extreme-elements/>.



## 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.

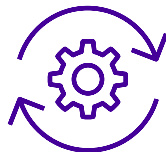
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## Management Analytics

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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## 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.



## Performance Optimization

With a performance optimized operating system, this access point works collectively with neighboring devices to fine tune overall network health for connected clients, utilizing a granular, customizable QoS engine that adjusts performance based on user, device, and application privileges.

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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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## Integrated BLE and Zigbee

To support both IoT and guest engagement services this access point integrates Bluetooth to connect with IoT devices or engage loyalty customers with beacon services. Enterprises can use Google Eddystone to send advertisements directly to shoppers, guests, and conference attendees. This makes it ideal for businesses to advertise their app download pages, captive portals, or site-specific information.

# 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 - MCS15 (6.5Mbps - 300Mbps)
- 2x2 Multiple-In, Multiple-Out (MIMO) Radio

### 802.11ac

- 5.150–5.850 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0–MCS9 (6.5Mbps - 867Mbps), NSS = 1-2.
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support
- TxBF ( Transmit Beamforming)

## Interfaces

- Autosensing 10/100/1000 Base-T Ethernet PoE (Power over Ethernet 802.3af) Port
- RJ-45 console port
- Standard USB port

## Power Specifications

- IEEE 802.3af PoE Power

## Power Options

- Power Draw: Typical 10.5W, Max 12.9W
- 802.3af / 802.3at (PoE/PoE+)

## Physical

Dimensions:

- LxWxH 171x171x44.5 mm (6.75x6.75x1.75in). w/o mounting brackets
- Weight: 1.13 lb (0.51 kg)

Shipping Physical Dimensions:

- WxDxH: 8" x 7" x 3" (194mm x 186mm x 70mm)
- Weight: 1.54 lbs (0.7 Kg)

## Antennas

- 2x external single band, 2.4-2.5GHz omnidirectional antennas (sold separately)
- 2x external single band, 5.1-5.8GHz omnidirectional antennas (sold separately)
- 1 x BLE internal antenna

Antenna Gain:

- 2.4GHz: 4 dBi
- 5GHz: 4 dBi

Max EIRP (dBm):

- 2400 MHz to 2500 MHz: 27 dBm
- 5250 MHz to 5350 MHz: 30 dBm
- 5725 MHz to 5875 MHz :30 dBm

## Mounting

- Desktop
- Wall Mount
- Ceiling Tile flush 15/16"
- 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
- TPM chip for added security

## Environmental

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

## Environmental/Regulatory Compliance

- Environmental Compliance: UL2043
- Regulatory Model: AP122X

FCC

- 15.247
- 15.407
- OET65 Supplement C
- UL60950-1

Canada

- ISED 15.247
- ICES-003 Class B
- RSS-102
- CSA C22.2
  - 60950-1

CE

- EN 300-328
- EN 301-893
- EN 301-489-1/-17
- EN 62311
- EN60950-1

# Power and Sensitivity Tables

## Power - 2.4GHz

Channel	Data Rate	Power (dBm)
11b	1-11 Mbps	18
11g	6 Mbps	17
	54 Mbps	16
11n HT20	MCS7, 15, 23	17

## Receive Sensitivity - 2.4GHz

Channel	Data Rate	Power (dBm)
11b	1-11 Mbps	-99
11g	6 Mbps	-94
	54 Mbps	-77
11n HT20	MCS7, 15, 23	-94

## Power - 5GHz

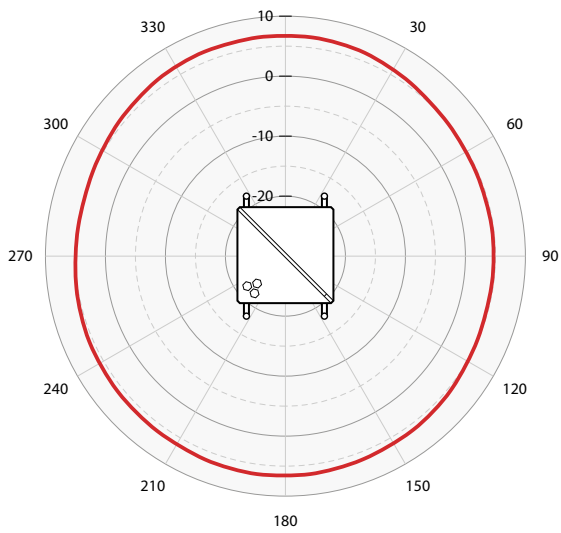
Channel	Data Rate	Power (dBm)
11a	6 Mbps	17
	54 Mbps	16
11n HT20	MCS0, 8, 16	17
	MCS7, 15, 23	16
11n HT40	MCS0, 8, 16	17
	MCS7, 15, 23	14
11ac VHT20	MCS0	17
	MCS9	16
11ac VHT40	MCS9	17
	MCS9	16
11ac VHT80	MCS9	15

## Receive Sensitivity - 5GHz

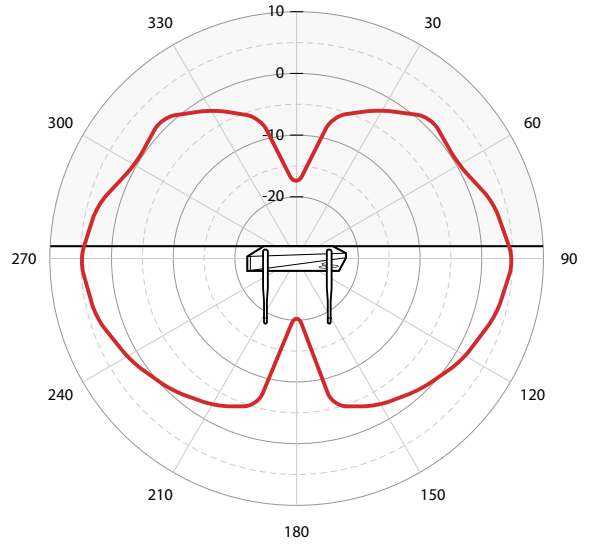
Channel	Data Rate	Power (dBm)
11a	6 Mbps	-93
	54 Mbps	-75
11n HT20	MCS0, 8, 16	-93
	MCS7, 15, 23	-75
11n HT40	MCS0, 8, 16	-90
	MCS7, 15, 23	-72
11ac VHT20	MCS0	-93
	MCS9	-70
11ac VHT40	MCS9	-90
	MCS9	-64
11ac VHT80	MCS9	-87

# Radiation Patterns - Azimuth and Elevation

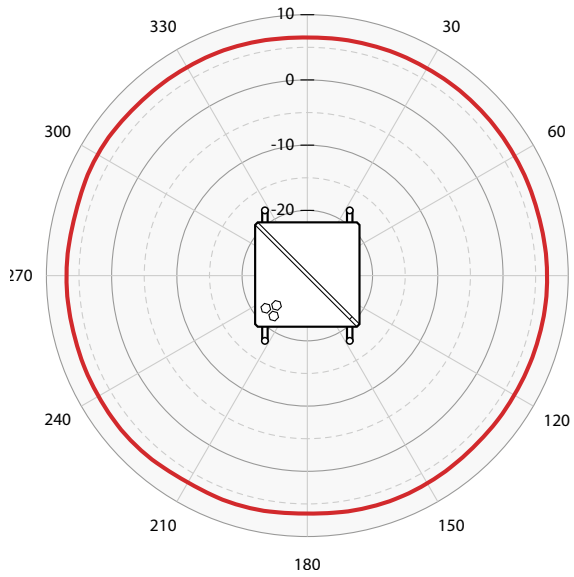
Azimuth - 2.4 GHz



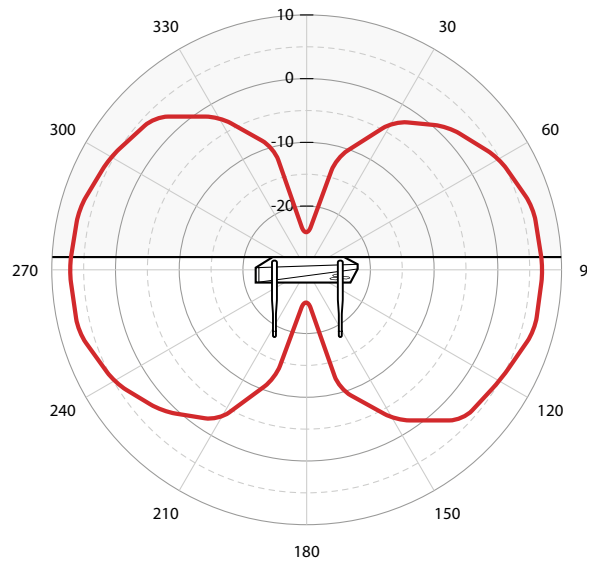
Elevation - 2.4 GHz



Azimuth - 5 GHz



Elevation - 5 GHz



## Ordering Information

### AP30 - Misc SKUs

SKU	Description
AH-AP-122X-AC-XX	AP122X Indoor, 2 radio 2x2:2 802.11a/b/g/n/ac Access Point, external antennas, 1 10/100/1000 Ethernet port, without power injector (Antenna sold separately). Includes HiveManager Connect & HiveCare Community. (Regulatory Domains available: FCC, CE, W (World), CAN (Canada), CE)

### AP30 - Misc 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-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-SEC-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-ANT-4-KIT	Articulated male indoor antenna kit (2x2.4Ghz 4dBi and 2x5Ghz 4dBi antennas) for AP122X
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
AH-ACC-ANT-4-2G	2.4GHz RP-SMA female indoor 4dBi articulated antenna for AP122X
AH-ACC-ANT-4-5G	5GHz RP-SMA female indoor 4dBi articulated antenna AP122X



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