Extreme networks

Data Sheet

Universal Wireless AP5010

Highlights

- Manageable by Extreme Platform ONE™*, ExtremeCloud™ IQ/Controller
- Reduced mean time to resolution with AI
- ExtremeCloud Universal ZTNA policy enforcement, Fabric integration

Advanced Radio Technology

Tri-Radio Design

- 2.4 GHz (4x4:4)
- 5 GHz (4x4:4)
- 6 GHz (4x4:4)

Operational modes

- Mode 1: 2.4 GHz/5 GHz/6 GHz Data Radios
- Mode 2: 5 GHz/6 GHz Data Radios + Tri-frequency sensor (2.4 GHz/5 GHz/6 GHz)

Superior Tri-Frequency Radio Performance

- Multi-band filter reduces interference and enables 5 GHz and 6 GHz operation across all available channels without restrictions

WPA3 Support

- Includes the latest WPA3 Wi-Fi security standard delivering robust protections for users and IoT devices

Cellular Coexistence Filter (CCF)

- Minimizes the impact of interference from cellular networks

Fully Functional Wi-Fi with 802.3at

***Extreme Platform ONE™ - General Availability in H2 2025**

Wi-Fi 6E Tri-Radio Indoor Access Point with Support for Multiple Extreme Operating Systems

The AP5010 is an Enterprise Universal and World SKU Wi-Fi 6E Wireless access point, enabling flexible deployment for on-premises or cloud, and simplified sales ordering process. The World SKU allows customers, partners, and distributors to order one model for any region, replacing the age-old problem of country specific models. ExtremeCloud IQ geo-locates the access point and accurately provides it the corresponding set of channel and power specifications that the product can operate under in that country.

The AP5010 Wi-Fi 6E access point, with three 4x4:4 radios, provides high-efficiency, high-performance 802.11ax aggregate data rates up to 10 Gbps in the 6 GHz, 5 GHz, and 2.4 GHz band. Designed for high density environments, such as schools, warehouses, healthcare facilities, and stadiums, the AP5010 is powerful and intelligent enough to provide the highest level of client services without compromising security. Despite powerful capabilities, the AP5010 can operate with fully-functional Wi-Fi capabilities using 802.3at PoE, simplifying power capacity planning.

With more users, more devices, more applications, and more threats straining the infrastructure, the AP5010 was engineered to meet those challenges. The AP5010 combines powerful 802.11ax Wi-Fi 6E technology, advanced security, and ML/AI management capabilities together as an enterprise-class solution that allows you to deploy high speed, highly secure Wi-Fi into high-density environments.

Unlike other access points that scan only part-time, the AP5010 features a dedicated tri-frequency sensor that monitors for rogue devices full time, eliminating the risk of vulnerability and attacks. This tri-radio AP is capable of multiple operating modes, optimizing for maximum performance without trading off security. The AP5010 features a fully functional multi-band filter, enabling simultaneous operations with no performance degradation between all the 5 GHz frequencies and the entire range of 6 GHz frequencies (U-NII-5 thru U-NII-8 bands).*

* Country dependent

Network Management Flexibility

The AP5010 can be managed by Extreme Platform ONE or ExtremeCloud IQ from the cloud or on premises.

Extreme Platform ONE™

Extreme Platform ONE™ is an enterprise connectivity platform that integrates networking and security with AI into one powerful and radically simplified experience and licensing model. It supports NetOps, SecOps, and business teams with built in automation and enables organizations to regain control, unlock innovation, and boost productivity through:

- One integrated experience that is easy to use.
- Automation through built-in AI that boosts productivity, reducing cycle time for many tasks from hours to minutes.
- Simplified licensing that makes the solution as easy to buy as it is to use.
- AI driven workflows for configuration, deployment, and management.
- Inventory management simplifies budgeting, planning and compliance.

Wi-Fi 6E Enhanced Capacity

By utilizing the additional 6 GHz spectrum offered by Wi-Fi 6E, the AP5010 operates across three times as much spectrum as previous generations of Wi-Fi to deliver enhanced wireless experiences, faster speeds, and less interference.

Band	Number of 20 MHz Channels	Max Channel Size	Max throughput
6 GHz	59	160 MHz	4.8 Gbps
5 GHz	25	160 MHz	4.8 Gbps
2.4 GHz	3	20 MHz	572 Mbps
Total	87		10 Gbps

For US regulatory environments (20 MHz channels)

Wi-Fi 6E (802.11ax) Technology

Wi-Fi 6 ushered a new generation of Wi-Fi. While prior generations emphasized on higher speeds, 802.11ax technology instead focused on improving Wi-Fi efficiency as well as speed, taking Wi-Fi networks to an entirely new level. Now, with addition of the 6 GHz band for unlicensed operation, Wi-Fi 6E has access to up to 1,200 MHz of spectrum*, which is three times that of existing "usable" spectrum and which enables improved quality of service (QoS) in dense environments, new applications and use cases, and an improved user experience. Visit here to learn more about 802.11ax and Wi-Fi 6E.

* Country dependent

Management Analytics

In conjunction with Extreme centralized management software, cloud or on-premises, the AP5010 provides a rich set of data displayed via context driven widgets, representing unlimited historical data or a combination of historical and current data. This provides context-specific granularity with perspective views for locations, network, APs, individual client devices, and policy roles. In each context, administrators can adjust dashboards using a widget library.

Tri-Radio Programmable AP

Extreme launched the industry's first software defined Wi-Fi 6E access point supporting two software programmable modes to optimally manage radios to provide the highest level of client performance. The AP5010 is a tri-radio access point and can transmit with three data radios or with two data radios and a dedicated tri-frequency sensor. The AP5010 intelligently monitors the software-configurable radios, enabling network managers to configure network RF technology based on the user environment and configure the access points in different modes as required.

* Country dependent

Integrated Bluetooth Low Energy and USB Port

To support both IoT and Guest Engagement services, the AP5010 integrates Bluetooth® to connect with IoT devices to engage loyalty customers with Apple iBeacon. Enterprises can use API driven applications 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.

Universal Hardware

The AP5010 is built with Extreme's Universal Hardware technology that allows multiple deployment use cases through a simple change of the software or feature set. This technology allows the user to choose between operating systems tailored to work with cloud- or controller-based management. The desired persona can be selected at startup or changed later. Universal hardware platforms increase flexibility and reduce obsolescence by allowing customers to gradually adopt new technologies without the need for a rip and replace approach to their hardware.

Offered with a Universal World SKU AP, the AP5010 allows customers, partners, and distributors to order one model for any region where Extreme Networks products are sold, replacing the age-old problem of country-specific models.

Security

The AP5010 delivers the highest level of security services, beginning with support for the latest Wi-Fi Alliance WPA3 security certifications. Also it acts as an enforcement point for ExtremeCloud Universal ZTNA – the industry's most complete network access security solution. Universal ZTNA provides automated security policy enforcement and manages SSIDs to enforce policies on the AP5010. Extreme Fabric adds additional security by automating provisioning and deployment by connecting to a Fabric-enabled switch. Additionally, the AP supports a stateful L2-L7 DPI firewall for context-based access security, tri-frequency security, a location analytics sensor, and much more.

Product Specifications

Radio Specifications

Max Users

SSID per Radio/Total: 16/48

Users per Radio/total: 512/1536

802.11a

5.150 GHz–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 GHz–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 GHz–2.5 GHz Operating Frequency

Orthogonal Frequency Division Multiplexing (OFDM) Modulation

Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/auto fallback

802.11n

2.4 GHz–2.5 GHz and 5.150 GHz–5.850 GHz Operating Frequency

802.11n Modulation

HT 20 High-Throughput (HT) Support (for both 2.4 GHz and 5 GHz)

HT 40 High-Throughput (HT) Support for 5 GHz

A-MPDU and A-MSDU Frame Aggregation

Rates (Mbps): MCS0 – MCS31 (6.5MBps - 600Mbps)

802.11ac

5.150 GHz–5.850 GHz Operating Frequency

802.11ac Modulation (256-QAM)

5G: 4x4 Multiple-In, Multiple-Out (MIMO) Radio

2.4G: 4x4 Multiple-In, Multiple-Out (MIMO) Radio

Rates (Mbps): MCS0–MCS9 (6.5Mbps), 3466Mbps, NSS = 1-4.

4x4:4 Stream Multiple-In, Multiple-Out (MIMO) Radio

VHT20/VHT40/VHT80/VHT160

TxBF (Transmit Beamforming)

802.11ax

2.4 GHz-2.5 GHz, 5.15 GHz-5.850 GHz and 5.925 GHz-7.125 GHz Operating Frequencies

802.11ax Modulation (1024-QAM)

Dual-band OFDMA

6G Rate: HE0-HE11 (8 Mbps – 4800 Mbps)

5G Rate : HE0-HE11 (8 Mbps – 4800 Mbps)

2.4G Rate: HE0-HE11 (8Mbps – 1148 Mbps)

4x4:4 Stream Multiple-In, Multiple-Out (MIMO) Radio @ 6 GHz

4x4:4 Stream Multiple-In, Multiple-Out (MIMO) Radio @ 5 GHz

4x4:4 Stream Multiple-In, Multiple-Out (MIMO) Radio @ 2.4 GHz

HE20/HE40/HE80/HE160 support for 6 GHz

HE20/HE40/HE80/HE160 support for 5 GHz

HE20/HE40 support for 2.4 GHz

DL SU-MIMO and MU-MIMO

TxBF (Transmit Beamforming)

IoT Radio

Thread, Bluetooth® 5.2 Low Energy, IEEE 802.15.4

Interfaces

Eth0, Eth1: (2) Wired Ethernet ports (RJ-45)

100/1000/2500/5000Mbps auto-sensing link speed Ethernet port, PoE PD

100/1000/2500Mbps auto-sensing link speed Ethernet port, optional PoE 15.4W PSE mode requires 802.3bt on Eth0)

802.3az Energy Efficient Ethernet(EEE)

USB 2.0, Type A, 5V/500mA

Power Options

Power Draw: 802.3at PoE: Typical 21W; Max: 25.5W (802.3at profile) w/o PoE out and USB

Power Draw: 802.3bt: PoE out enable with USB

Eth0 PoE 5Gbps Ethernet port RJ45

Physical Specifications

Dimensions: 9.5 in. x 9.5 in. x 1.5 in. (243mm x 243mm x 38mm)

Weight: 2.9 lbs

Security

Kensington lock slot

Trusted Platform Module (TPM)

Internal Antennas

(4) Dual Banded 2.4 GHz and 5 GHz

(4) Single band 6 GHz

(2) 5 GHz Sensor

(2) 6 GHz Sensor

Mounting

AP support 15/16 flush ceiling tile include in box

Wall mount included in box or sold as an accessory

Ceiling Tile Recessed 15/16 sold as accessory

Beam sold as an accessory

Junction Box sold as an accessory

IL or 9/16 t-bar sold as an accessory

SL (Silhouette) sold as an accessory

Wing Main Plate adaptor sold as an accessory

Built in slot for Kensington

Environmental Specifications

Operating: 0°C to 50°C (32°F to 122°F)

Storage: 0°C to 70°C (32°F to 158°F)

Humidity: 0% to 95% (non-condensing)

Environmental Compliance

EU RoHS – 2011/65/EU & Amendments(EU) 2015/863

EU WEEE – 2012/19/EU

EU REACH - Regulation (EC) No 1907/2006 – Reporting

EU SCIP – EU Waste Framework Directive

China RoHS – 2 SJ/T 11364-2014

Taiwan RoHS CNS 15663 (2013.7)

Regulatory Compliance

Radio Standards USA

Part 15C - 15.247

Part 15E - 15.407

RF exposure - FCC Part 1.1307

IEC 60601-1-2 EMC for medical devices

Radio Standards Canada

RSS 247 for 2.4G & 5 GHz

RSS 248 6GHz RLAN

RF exposure - RSS-102: Issue 5, 2015

Radio Standards CE

2014/53/EU Radio Equipment Directive

EN 300 328, EN 301 893, EN 302 502, EN 300 440

EN301 489 1, EN 301 489 17, EN 62311, EN 62479

Regulatory and Safety

North American ITE

UL 60950-1 2nd edition Listed device (U.S.)

CSA 22.2 No. 60950-1 2nd edition 2014 (Canada)

UL/CuL 62368-1 Listed

UL 2043 Plenum rated

European ITE

EN 62368-1

2014/35/EU Low Voltage Directive

International ITE

CB Report and Certificate per IEC 60950-1 + National Differences

CB Report and IEC 62368-1

AS/NZS 60950-1 (Australia /New Zealand)

EMI/EMC Standards

North American EMC Standards

FCC CFR 47 part 15 Class B (USA)

ICES-003 Class B (Canada)

European EMC Standards

EN 55032 Class B

EN 55024

EN 55035

EN 55011

EN 61000-3-2: (Harmonics)

EN 61000-3-3 (Flicker)

2014/30/EU EMC Directive

International EMC Certifications

CISPR 32 Class B (International Emissions)

AS/NZS CISPR 32

CISPR 24/CISPR 35 (International Immunity)

Wi-Fi Alliance Certifications

Applications & Services	Voice – Enterprise
Connectivity	Wi-Fi CERTIFIED™ 6 Wi-Fi CERTIFIED a,b, g, n, ac Wi-Fi Enhanced Open™
Access	Passpoint®
Optimization	WMM® Wi-Fi Agile Multiband™ WMM – Admission Control WMM – Power Save
Security	Protected Management Frames: WPA™ – Enterprise, Personal WPA2™ – Enterprise, Personal WPA3™ – Enterprise, Personal

Power and Sensitivity

Power and Sensitivity - 2.4 GHz Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11b	1 - 11 Mbps	18	-96, -89
11g	6 Mbps	18	-94
	54 Mbps	16	-76
11n HT20	MCS0,7	18, 16	-94,-75
11n HT40	MCS0,7	18, 16	-92,-74
11ax HE20	HE0,11	18, 14	-93,-65
11ax HE40	HE0,11	18, 14	-90,-60

Power and Sensitivity - 5 GHz Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-94
	54 Mbps	16	-76
11n HT20	MCS0,7	18, 16	-94,-75
11n HT40	MCS0,7	18, 16	-91,-72
11ac VHT20	MCS0,8	18, 15	-94,-71
11ac VHT40	MCS0,9	18, 15	-92,-68
11ac VHT80	MCS0,9	18, 15	-89,-64
11ac VHT160	MCS0,9	18, 15	-85, -61
11ax HE20	HE0,11	18, 14	-93,-64
11ax HE40	HE0,11	18, 14	-91, -61
11ax HE80	HE0,11	18, 14	-88, -58
11ax HE160	HE0,11	16, 14	-84, -54

Power and Sensitivity - 6 GHz Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-93
	54 Mbps	16	-75
11n HT20	MCS0,7	18, 15	-93,-75
11n HT40	MCS0,7	17, 15	-92,-72
11acVHT20	MCS0,8	18, 14	-93,-71
11ac VHT40	MCS0,9	17, 13	-92,-67
11acVHT80	MCS0,9	17, 13	-89,-64
11ac VHT160	MCS0,9	16, 13	-85, -61
11ax HE20	HE0,11	18, 12	-92,-63
11ax HE40	HE0,11	17, 12	-92,-60
11ax HE80	HE0,11	17, 12	-88, -58
11ax HE160	HE0,11	16, 12	-84, -54

Power and Sensitivity - 2.4 GHz Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11b	1 - 11 Mbps	18	-96, -89
11g	6 Mbps	18	-94
	54 Mbps	16	-76
11n HT20	MCS0,7	18, 16	-94,-75
11n HT40	MCS0,7	18, 16	-92,-74
11ax HE20	HE0,11	18, 14	-93,-65
11ax HE40	HE0,11	18, 14	-90,-60

Power and Sensitivity - 5 GHz Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-94
	54 Mbps	16	-76
11n HT20	MCS0,7	18, 16	-94,-75
11n HT40	MCS0,7	18, 16	-91,-72
11ac VHT20	MCS0,8	18, 15	-94,-71
11ac VHT40	MCS0,9	18, 15	-92,-68
11ac VHT80	MCS0,9	18, 15	-89,-64
11ac VHT160	MCS0,9	17, 15	-85, -61
11ax HE20	HE0,11	18, 14	-93,-64
11ax HE40	HE0,11	18, 14	-91, -61
11ax HE80	HE0,11	18, 14	-88, -58
11ax HE160	HE0,11	17, 14	-84, -54

Power and Sensitivity - 6 GHz Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-94
	54 Mbps	16	-76
11n HT20	MCS0,7	18, 16	-94,-75
11n HT40	MCS0,7	18, 16	-92,-72
11ac VHT20	MCS0,8	18, 15	-94,-72
11ac VHT40	MCS0,9	18, 15	-92,-68
11ac VHT80	MCS0,9	18, 15	-89,-65
11ac VHT160	MCS0,9	17, 15	-85, -61
11ax HE20	HE0,11	18, 14	-93,-64
11ax HE40	HE0,11	18, 14	-92,-61
11ax HE80	HE0,11	18, 14	-89,-59
11axHE160	HE0,11	17, 14	-84, -54

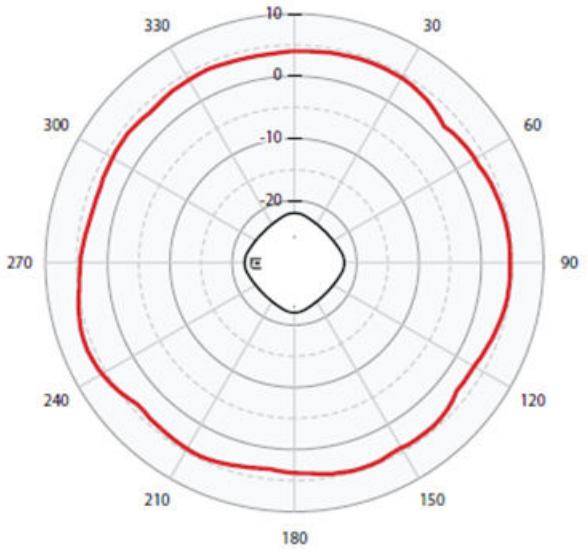
Antenna Gain Matrix - AP5010

Software Mode	Radio 1	Radio 2	Radio 3	IoT Radio
Mode 1	2.4 GHz –4.2 dBi	5 GHz –6 dBi	6 GHz –5.2 dBi	4.2 dBi
Mode 2	2.4 GHz –4.2 dBi 5 GHz –6 dBi 6 GHz –6 dBi	5 GHz –6 dBi	6 GHz –5.2 dBi	4.2 dBi

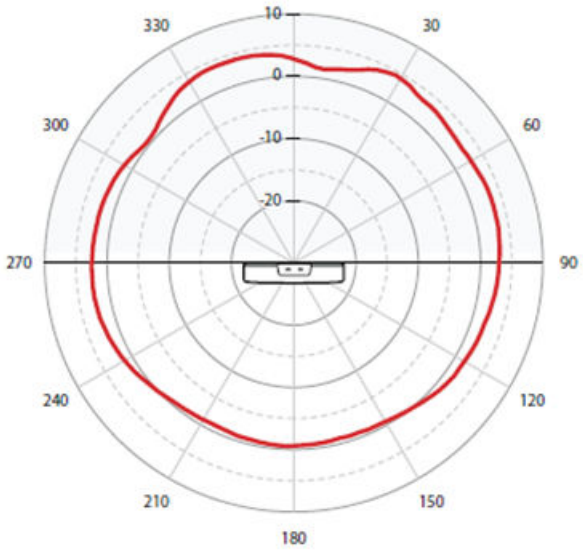
Radiation Patterns – Azimuth and Elevation

AP5010 Antenna Radiation Patterns - 2.4 GHz

AZIMUTH 2.4 GHz

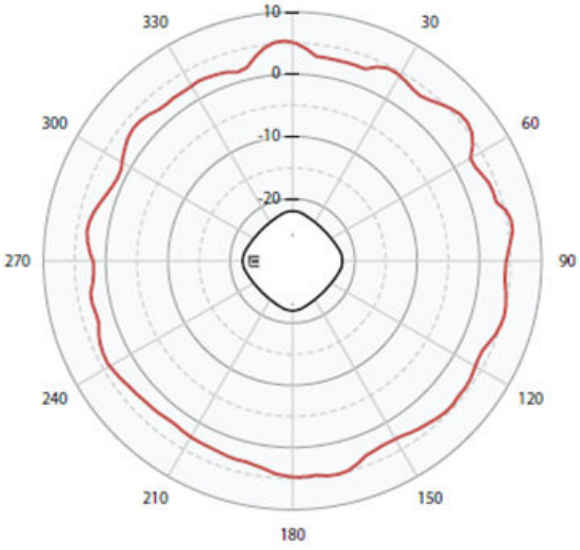


ELEVATION 2.4 GHz

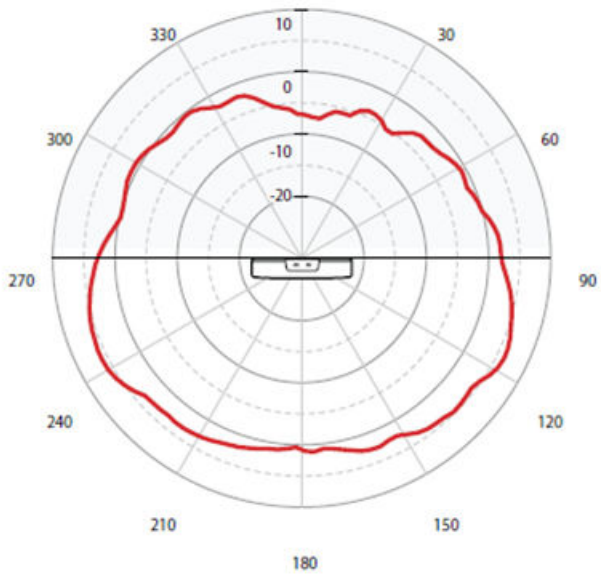


AP5010 Antenna Radiation Patterns - 5 GHz

AZIMUTH 5 GHz



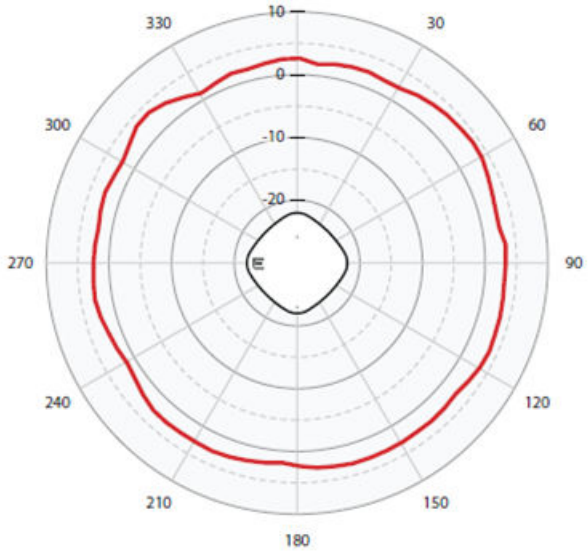
ELEVATION 5 GHz



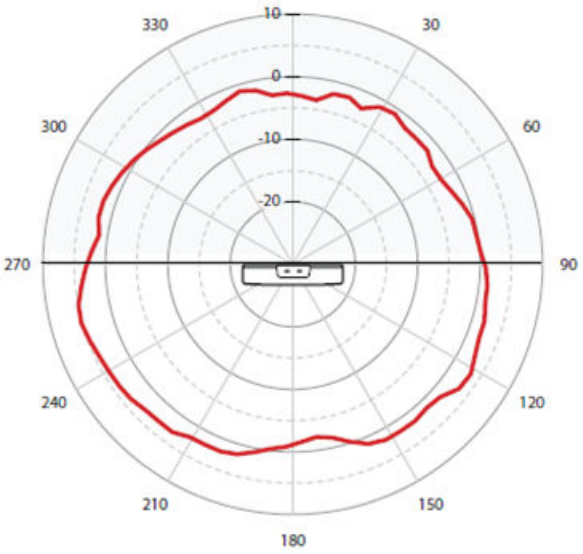
Radiation Patterns – Azimuth and Elevation

AP5010 Antenna Radiation Patterns - 6 GHz

AZIMUTH 6 GHz

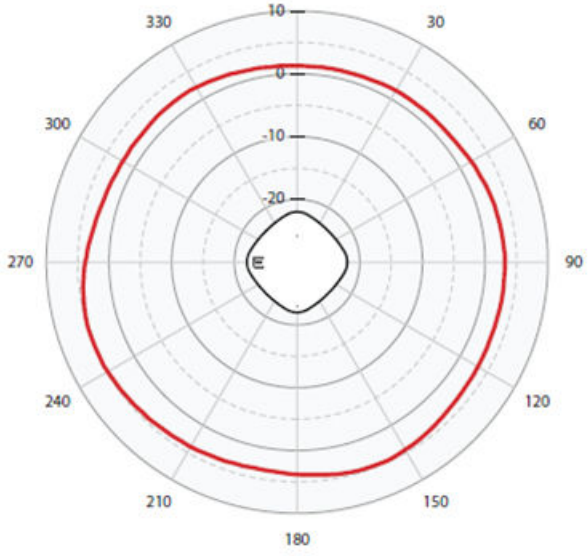


ELEVATION 6 GHz

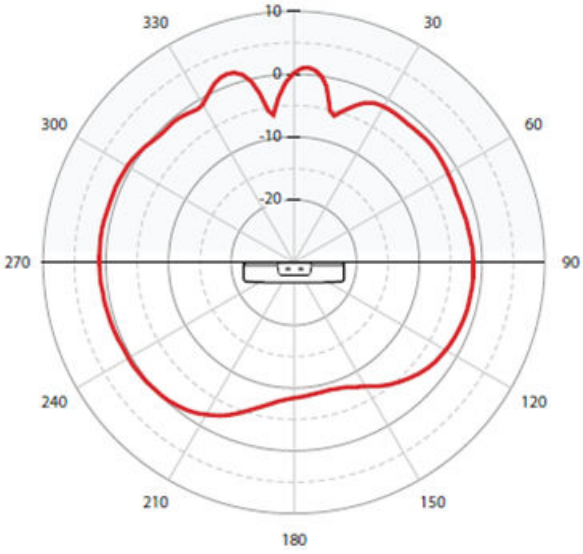


AP5010 Antenna Radiation Patterns - 2.4 GHz BLE

AZIMUTH BLE 2 GHz



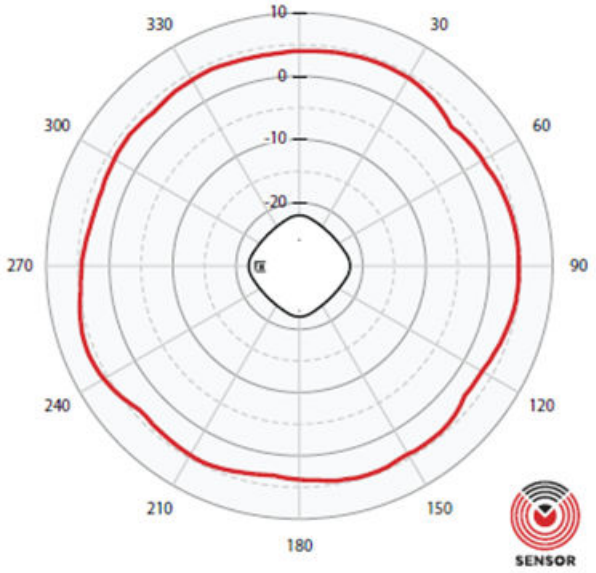
ELEVATION - BLE 2 GHz



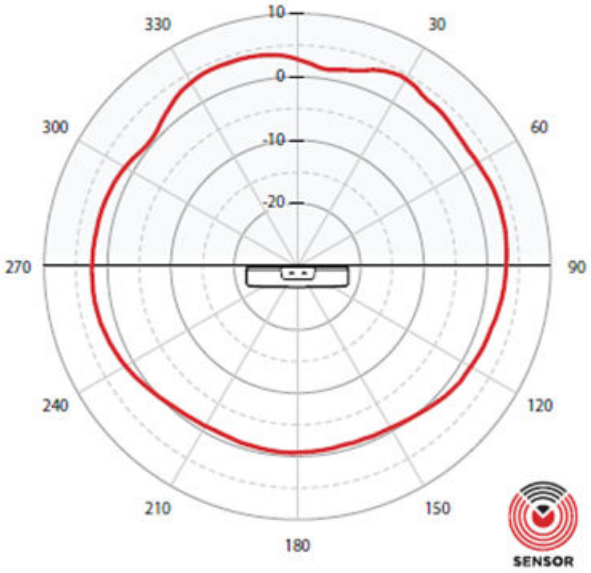
Radiation Patterns – Azimuth and Elevation

AP5010 Antenna Radiation Patterns - 2.4 GHz Sensor

AZIMUTH 2 GHz SENSOR

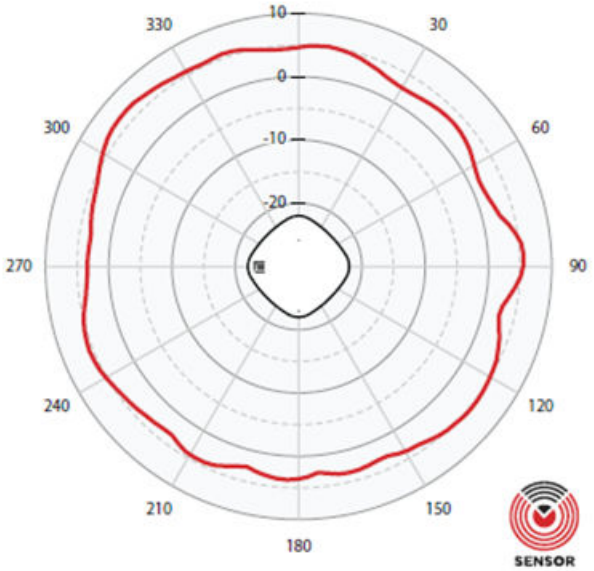


ELEVATION 2 GHz SENSOR

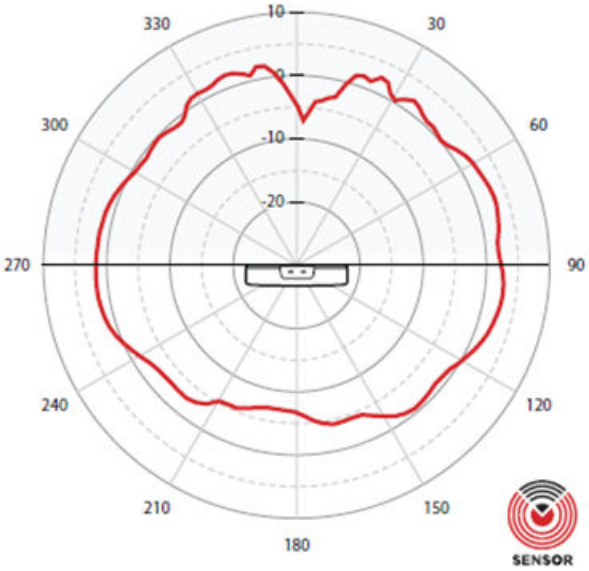


AP5010 Antenna Radiation Patterns - 5 GHz Sensor

AZIMUTH 5 GHz SENSOR



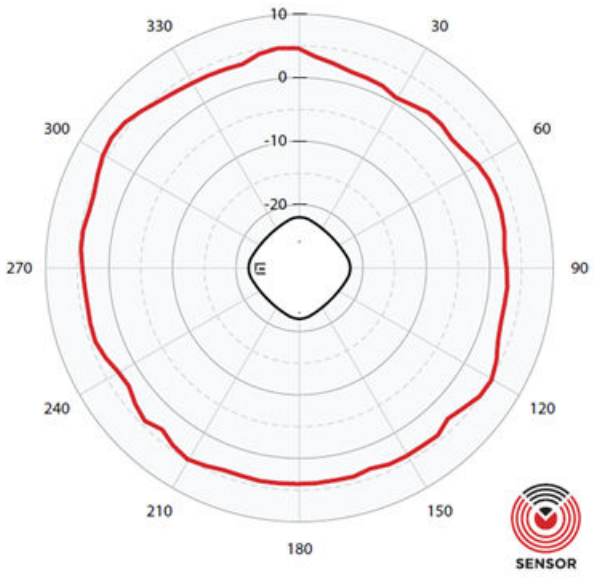
ELEVATION 5 GHz SENSOR



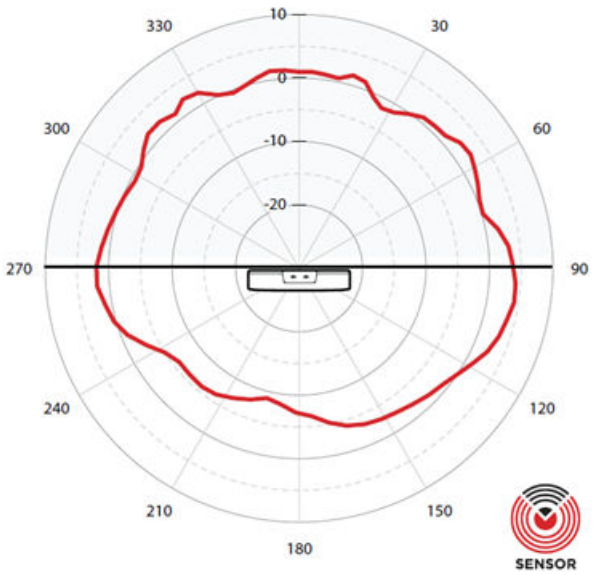
Radiation Patterns – Azimuth and Elevation

AP5010 Antenna Radiation Patterns - 6 GHz Sensor

AZIMUTH 6 GHz SENSOR



ELEVATION 6 GHz SENSOR



Ordering Information

AP5010 - SKUs

Part Number	Description
AP5010-IL	Indoor Tri Radio Wi-Fi 6E AP (4x4:4): 2.4 GHz, 5 GHz, 6 GHz and Multirate Port, Internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: Israel
AP5010-WW	Indoor Tri Radio Wi-Fi 6E AP (4x4:4): 2.4 GHz, 5 GHz, 6 GHz and Multirate Port, Internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU

Accessories

Marketing Part #	Indoor AP Mounting	Notes
AH-ACC-BKT-AX-TB	Mounting bracket for prelude 15/16" and suprafine 9/16" ceilings and walls	Ships with AP5010 Can be used for wall - .25"
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations	Can be used for wall - 1.25"
AH-ACC-BKT-AX-IL	Mounting bracket for interlude ceilings	
AH-ACC-BKT-AX-SL	Mounting bracket for Armstrong 1/8" and 1/4" main beam silhouette reveal ceiling grids	Up to .33" ceiling tile protrusion
ACC-BKT-AX-JB	Junction box or wall mounting for indoor access points	Gang/Junction Box
ACC-BKT-AX-BEAM	Beam mounting for indoor access points	Up to 0.78" thick beam.
AH-ACC-BKT-916-KIT	9/16" ceiling mount brackets for Non-Flat/Protruded ceiling tiles - Use with AH-ACC-BKT-AX-TB	9/16" Non-Flat/Protruded ceiling tiles
ACC-BKT-TB-NF	Adapter bracket AH-ACC-BKT-TB for 15/16" Wide T-Bars Non-Flat/Protruded ceiling tiles	5/16"Wide T-Bars Non-Flat/Protruded ceiling tiles
ACC-BKT-AX-WNGADAPT	Adapter bracket for Cloud AP to WiNG Mounting Plate (#37201). 10 pack	Allow twist mount to mount to legacy mounts

Power Accessories

Part Number	Description
37219	PWR 12VDC, 3A, 2.5mm x 5.5mm connector
10061	Pwr Cord, 10A, NEMA 5-15P, IEC320-C13,125V, 18AWG (for US)
10034	Pwr Cord,10A, BS1363, IEC320-C13,250V, 0.75MMSQ (for UK)
10033	Pwr Cord,10A, CEE 7/7, IEC320-C13,250V, 0.75MMSQ (for EU)
10036	Pwr Cord,10A, AS3112, IEC320-C13,250V, 0.75MMSQ (for AU)
10062	Pwr Cord,12A, JISC8303, IEC320-C13,125V, 1.25MMSQ (for Japan)
10033	Pwr Cord,10A, CEE 7/7, IEC320-C13,250V, 0.75MMSQ (for Korea)

Other Accessories

Part Number	Description
ACC-WIFI-MICRO-USB	Micro-USB to USB Console Adapter Cable for Extreme Wireless Access Points

See the Product Installation guide for more details.

Warranty

The AP5010 is covered under Extreme's Universal LLW policy. For warranty details, visit: http://www.extremenetworks.com/support/policies.