Universal Wireless AP5050U and AP5050D

Highlights

For Outdoor Deployments Only
Advanced Radio Technology

Tri-Radio Design

- 2.4 GHz (4x4:4)
- 5 GHz (4x4:4)
- 6 GHz (4x4:4) - Disabled until AFC rule is ratified

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)

Universal Hardware Platform

- On-Premise: WiNG OS (Centralized and Distributed*)
- Cloud: IQ Engine

Designed for Harsh Environments

- IP67 Outdoor Rated
- Extended temp range: -40C to +60C

Superior Tri-Frequency Radio Performance

- Multi-band filter reduces interference and enables 5 GHz and 6 GHz operation across all available channels

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

Smart Management Choices

- ExtremeCloud IQ delivers powerful, simple, and secure public or private cloud management capabilities
- ExtremeCloud IQ Controller is ideal for on-premises requirements

* Distributed in a future release

Wi-Fi 6E Tri-Radio IP67-Rated Outdoor Access Point

Extreme Networks is adding a new family of purpose-built 802.11ax (Wi-Fi 6E) Access Points (APs) for Stadiums to its Smart portfolio, that support more users and IoT devices with greater performance and efficiency.

The 6 GHz radio will be disabled until the Automated Frequency Coordination (AFC) regulations are ratified.*

6 GHz AFC ratification varies by region. Initial release of the product will be outdoor deployment only.

Key Benefits Include:

Harsh Outdoor & Stadium Optimized
As the Official Wi-Fi Solutions Provider of the National Football League (NFL) and Major League Baseball (MLB), Extreme understands firsthand the unique challenges of stadiums and harsh outdoor high-density Wi-Fi deployments. The IP67-rated AP5050 Series builds on that experience, by delivering a custom-designed family of access points that cater specifically to these types of challenging environments.

High Performance in High Density Environments
Improve user experience and device performance with 4x4:4 6 GHz, 4x4:4 5 GHz, and 4x4:4 2.4 GHz with OFDMA technology. With the latest Wi-Fi 6E performance and multiple software programmable radio modes, AP5050 series can serve the most dense environments.

Future-Proof with Wi-Fi 6E
With built-in 6 GHz radios, Extreme AP5050 series increases device capacity and improves spectral efficiency, allowing stadiums and high-density environments to extract more out of the Wi-Fi spectrum and future-proof their network and investment. The AP5050 series comes with multipurpose GPS capabilities, allowing it to detect regional location for approved Wi-Fi 6E outdoor use.*

*Full Automated Frequency Coordination (AFC) compliance when available in region.

Key Benefits (cont'd)

Modular Design for Flexible Deployment

Extreme's experience has taught us there is no one-size-fits-all solution for stadiums and complex outdoor environments. From the field to bowl seating, to gate entrances, to concierge areas, to parking lots, temporary medical sites, or outdoor campus locations each area has its own requirements. The AP5050 series delivers flexible deployment options—from under seat mounted, to pole-mounted, to APs with software selectable antennas—they ensure an exceptional mobile experience throughout the entire stadium or deployment environment.

AP5050U-WW

AP5050D-WW

The AP5050U and AP5050D are an Enterprise Universal and World SKU Wi-Fi 6E Wireless access point. This innovation simplifies the sales ordering process and reinforces Extreme's commitment to the journey to the "Infinite Enterprise". 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 AP5050U and AP5050D Wi-Fi 6E access points, with three 4x4:4 radios, provide 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 event venues, schools, transportation facilities, healthcare facilities, and stadiums, the AP5050U and AP5050D are powerful and intelligent enough to provide the highest level of client services without compromising security. Despite powerful capabilities, the AP5050U and AP5050D 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 AP5050U and AP5050D are engineered to meet those challenges. The AP5050U and AP5050D combine 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 AP5050U and AP5050D feature a tri-frequency sensor mode 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.

Wi-Fi 6E Enhanced Capacity

By utilizing the additional 6 GHz spectrum offered by Wi-Fi 6E, the AP5050U and AP5050D operate up to 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	Maximum Channel Size	Maximum throughput
6 GHz	59	160 MHz	4.8 Gbps
5 GHz	25	160 MHz	4.8 Gbps
2.4 GHz	3	20 MHz	1.148 Gbps
Total	87		10.7 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 which enables improved quality of service (QoS) in dense environments, new applications and use cases, and an improved user experience. To learn more about 802.11ax and Wi-Fi 6E, visit here.

Management Analytics

In conjunction with Extreme centralized management software, cloud or on-premises, the AP5050U and AP5050D provide a rich set of data displayed via 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, as well as policy roles. In each context, administrators can make 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 AP5050U and AP5050D are tri-radio access points that can transmit with three data radios or with two data radios and a dedicated tri-frequency sensor. The AP5050U and AP5050D intelligently monitor 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

Security

The AP5050U and AP5050D deliver the highest level of security services, beginning with support for the latest Wi-Fi Alliance WPA3 security certifications. Leverage Extreme Fabric Attach to securely automate provisioning and deployment by connecting to a Fabric Connect-enabled switch. AP5050U and AP5050D support a stateful L2-L7 DPI firewall for context-based access security, tri-frequency security, and Private Pre-Shared Key (PPSK), location analytics sensor and much more.

Universal Hardware

The AP5050U and AP5050D are universal hardware platforms that come with a dual-persona capability allowing user choice of the Wi-Fi operating system (OS). Either the IQ Engine operating system or the WiNG Operating System persona can be enabled as required. The desired persona can be selected at start-up or changed at a later stage. Once selected, the AP5050U or AP5050D assumes the features or capabilities of the selected OS. When first booted, the AP5050U or AP5050D automatically connects to ExtremeCloud™ IQ to find its persona. The preprovisioned OS persona is then remotely enabled on the AP5050U or AP5050D system, eliminating the need for manual selection.

Integrated Bluetooth Low Energy

To support both IoT and Guest Engagement services integrates Bluetooth® to connect with IoT devices wireless 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.

Product Specifications - Outdoor Deployment Only

Radio Specifications

Max Users

- SSID per Radio/Total: 8/24
- Users per Radio/total: 512/1536

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

802.11n

- 2.4–2.5 GHz and 5.150–5.850 GHz Operating Frequency
- 802.11n Modulation
- HT20 High-Throughput (HT) Support (for both 2.4 GHz and 5 GHz)
- HT40 High-Throughput (HT) Support for 5 GHz
- A-MPDU and A-MSDU Frame Aggregation
- Rates (Mbps): MCS0 – MCS31 (6.5MBps - 600Mbps)

802.11ac

- 5.150–5.850 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

- 2.4-2.5GHz, 5.50-5.850 and 5.925-7.125 GHz Operating Frequencies
- 802.11ax Modulation (1024-QAM)
- Dual-band OFDMA
- Rates (Mbps):
  - 6G: HE0-HE11 (8 Mbps – 4800 Mbps)
  - 5G: HE0-HE11 (8 Mbps – 4800 Mbps)
  - 2.4G: 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, Zigbee®, Bluetooth® 5.2 Low Energy, IEEE 802.15.4

GPS Radio

- Support L1 frequency (1575.42 MHz)

Interfaces

- Eth0 is 5/2.5/1GE with Power over Ethernet (PoE)
- Eth1 is 2.5/1GE/100 with PoE power sourcing equipment (PSE) 15.4W when 802.3bt on Eth0

Power Options

- Power Draw: 802.3at PoE: Typical 21W; Max: 25.5W (802.3at profile) w/o PoE out
- Power Draw: 802.3bt
- Eth0 PoE 5Gbps Ethernet port RJ45

Physical Specifications

AP5050D

- Dimensions: 11.3" x 19.1" x 3.4" (28.6 cm x 48.4 cm x 8.6 cm)
- Weight: 10.2 lbs

AP5050U

- Dimensions: 11.3" x 10" x 3" (28.6 cm x 25.4 cm x 7.cm)
- Weight: 7.1 lbs

Security

- Trusted Platform Module(TPM)

Mounting

- 15 Degree tilt: KT-147407-02
- 12" Extension: KT-150173-01
- 80 Degree tilt + Ext: MBO-ART03

Environmental Specifications

- Operating: -40°C to 60°C (-40°F to 140°F)
- Storage: -40°C to 70°C (-40°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

Canada

- RSS 247 for 2.4G & 5GHz
- RSS 248 6GHz RLAN
- RF exposure - RSS-102: Issue 5, 2015

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 60601-1-2
- 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 CISPR32
- CISPR 24/CISPR 35 (International Immunity)

Warranty

The AP5050U and AP5050D is covered under Extreme's Warranty policy. For warranty details, please visit: www.extremenetworks.com/support/policies.

Antenna Gain Matrix

Max Antenna Gain (AP5050U)				
Software Mode	Radio 1	Radio 2	Radio 3	IoT Radio
Mode 1	5.0 dBi 2G	5.8 dBi 5G	5.8 dBi 6G	5 dBi
Mode 2	5.8 dBi 6G	5.8 dBi 5G	5.0 dBi 2G 4.9 dBi 5G 4.9 dBi 6G	5 dBi

Max Antenna Gain (AP5050D 30 Degrees)				
Software Mode	Radio 1	Radio 2	Radio 3	IoT Radio
Mode 1	8.8 dBi 2G	8.1 dBi 5G	8 dBi 6G	2.7 dBi
Mode2	8.8 dBi 2G 6.7 dBi 5G 6.4 dBi 6G	8.1 dBi 5G	8 dBi 6G	2.7 dBi

Max Antenna Gain (AP5050D 70 Degrees)				
Software Mode	Radio 1	Radio 2	Radio 3	IoT Radio
Mode 1	6.2 dBi 2G	6.7 dBi 5G	6.4 dBi 6G	2.7 dBi
Mode2	6.2 dBi 2G 6.7 dBi 5G 6.4 dBi 6G	6.7 dBi 5G	6.4 dBi 6G	2.7 dBi

Power and Sensitivity Tables

Power and Sensitivity - 2.4 GHz Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11b	1 - 11 Mbps	18	-97, -89
11g	6 Mbps	18	-95
	54 Mbps	16	-77
11n HT20	MCS0, 7	18, 16	-95, -76
11n HT40	MCS0, 7	18, 16	-93, -75
11ax HE20	HE0, 11	18, 14	-95, -65
11ax HE40	HE0, 11	18, 14	-92, -62

Power and Sensitivity - 2.4 GHz Radio - Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11b	1 - 11 Mbps	18	-97, -89
11g	6 Mbps	18	-95
	54 Mbps	16	-77
11n HT20	MCS0, 7	18, 16	-95, -76
11n HT40	MCS0, 7	18, 16	-93, -75
11ax HE20	HE0, 11	18, 14	-95, -65
11ax HE40	HE0, 11	18, 14	-92, -62

Power and Sensitivity - 5 GHz Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-95
	54 Mbps	16	-76
11n HT20	MCS0, 7	18, 16	-95, -75
11n HT40	MCS0, 7	18, 16	-92, -72
11ac VHT20	MCS0, 8	18, 15	-94, -71
11ac VHT40	MCS0, 9	18, 15	-92, -68
11ac VHT80	MCS0, 9	18, 15	-89, -65
11ac VHT160	MCS0, 9	16, 15	-85, -61
11ax HE20	HE0, 11	18, 14	-94, -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 - 5 GHz Radio - Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-94
	54 Mbps	16	-75
11n HT20	MCS0, 7	18, 16	-94, -75
11n HT40	MCS0, 7	18, 16	-92, -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 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, -73
11ac VHT20	MCS0, 8	18, 14	-93, -71
11ac VHT40	MCS0, 9	17, 13	-92, -67
11ac VHT80	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 - 6 GHz Radio - 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
11ax HE160	HE0, 11	17, 14	-84, -54

Ordering Information

Product SKU	Description
AP5050U-WW	Outdoor Tri Radio Wi-Fi 6E AP (4x4:4) , 2.4 GHz, 5GHz, 6GHz & Multirate Port, Internal Omni antennas. Mounting sold separately, Domain: World SKU
AP5050D-WW	Outdoor Internal Directional Antenna Tri Radio Wi-Fi 6E AP (4x4:4), 2.4 GHz, 5GHz, 6GHz & Multirate Port, Directional Antennas: software selectable: 30° or 70° . Mounting sold separately. Domain: World SKU

Mounting Options

Pole Mounted: +/- 15 Degree Tilt				
Item	**Quantity**	**Marketing Part Number**	**Outdoor AP Mounting Accessories**	**Comments**
Straps	2	AH-ACC-STRP-MRN	Outdoor Access Point stainless steel strap for 3 inches to 7 inches diameter pole	Order (2) for mounting to a pole
Pole Bracket	1	KT-147407-02	Outdoor Mounting Hardware kit for outdoor Access Points- stainless steel for harsh environments	Allows +/- 15 degree tilt - wall or pole mount (powder coat white)
Optional 12 inches Extension Bracket	1	KT-150173-01	Outdoor Ap 12 Inch Ext Arm For Mntg Kit	Allows 12 inches of extension - can be used with KT-147407-02 (powder coat white)

The access point is attached to the tilt part (KT-147407-02) which is attached to pole part (KT-147407-02). The pole part is attached to the pole using two cable straps (AH-ACC-STRP-MRN).

The optional extension is placed between the access point and the tilt part of KT-147407-02.

Pole Mounted: +/- 80 Degree Tilt				
Item	**Quantity**	**Marketing Part Number**	**Outdoor AP Mounting Accessories**	**Comments**
Straps	2	AH-ACC-STRP-MRN	Outdoor Access Point stainless steel strap for 3 inches to 7 inches diameter pole	Order (2) for mounting to a pole
Pole Bracket	1	KT-147407-02	Outdoor Mounting Hardware kit for outdoor Access Points- stainless steel for harsh environments	Attach MBO-ART03 to KT-147407-02 prior to attaching KT-147407-02 to the pole. KT-147407-02 allows +/-15 degree tilt to wallsor poles (powder coat white)
Tilt + Extension Bracket	1	MBO-ART03	MBO-ART03 2-Axis Rotational Variable Extension Mtg Brkt for Outdoor Access Points	Allows 2 axis +/- 80 degree tilt (10 degree increments) and 3 position (7.0 inches, 8.5 inches, and 10.0 inches) extension - wall or Unistrut bracket

Wall Mounted: +/- 15 Degree Tilt				
Item	**Quantity**	**Marketing Part Number**	**Outdoor AP Mounting Accessories**	**Comments**
Wall	1	KT-147407-02	Outdoor Mounting Hardware kit for outdoor Access Points- stainless steel for harsh environments	Allows +/- 15 degree tilt - wall or pole mount (powder coat white)
Optional 12 inches Extension Bracket	1	KT-150173-01	Outdoor AP 12 inch ext arm for mntg kit	Allows 12 inches extension and can be used with KT-147407-02 (powder coat white)

The access point is attached to the tilt part (KT-147407-02), which is attached to the wall part (KT-147407-02). The wall part is attached to the wall using four screws and bolts.

The optional extension is placed between the access point and the tilt part of KT-147407-02.

Wall Mounted: +/- 80 Degree Tilt				
Item	Quantity	Marketing Part Number	Outdoor AP Mounting Accessories	Comments
Tilt + Extension	1	MBO-ART03	MBO-ART03 2-Axis Rotational Variable Extension Mtg Brkt for Outdoor Access Points	Allows 2 axis +/- 80 degree tilt (10 degree increments) and 3 position (7.0 inches, 8.5 inches, and 10.0 inches) extension - wall or Unistrut bracket

The access point is attached to the large bracket (MBO-ART02) using two screws, lock washers, and nuts. The bracket is attached to the wall using four screws and bolts.

Unistrut Mounted: +/- 80 Degree Tilt				
Item	Quantity	Marketing Part Number	Outdoor AP Mounting Accessories	Comments
Bracket Attach Screws, Nuts, Lock Washers	2 of each	Installer Supplied Items	Stainless Steel, 1/2 inch or M13 thread diameter (2) Bolts: hex head, machine thread (length-dependent on installation) (2) Lock Washers: split-lock washers (2) Nuts: hex head	Installer supplied hardware
Tilt + Extension	1	MBO-ART03	MBO-ART03 2-Axis Rotational Variable Extension Mtg Brkt for Outdoor Access Points	Allows 2 axis +/- 80 degree tilt (10 degree increments) and 3 position (7.0 inches, 8.5 inches, and 10.0 inches) extension - wall or Unistrut bracket

AP5050U Underseat or Underbench Mounted				
Item	Quantity	Marketing Part Number	Outdoor AP Mounting Accessories	Comments
AP5050U Only	1	EIO-04	EIO-04 Underseat Mounting Slope, EIO-03-SP (Service Panel), "L" Brackets, and Hardware.	Can run conduit into or through both ends of the slope. Kit also allows for access point horizontal installation and gland protection.

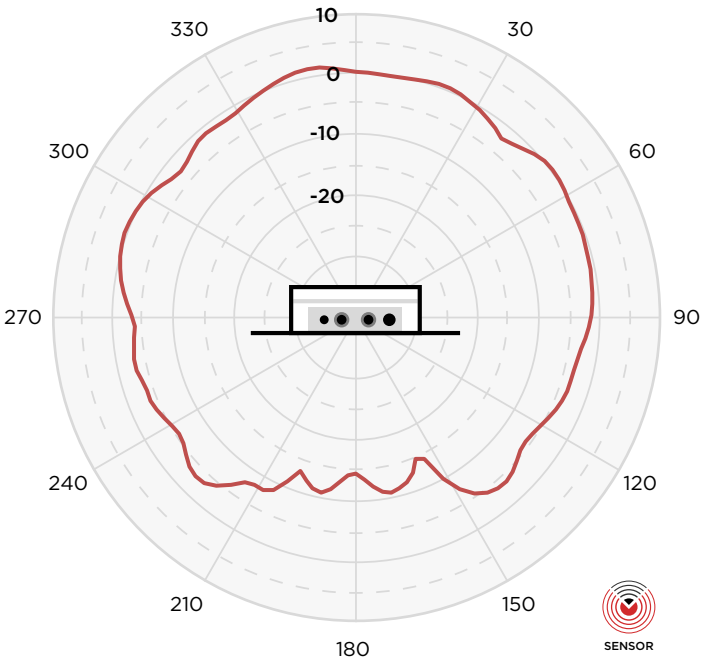
Accessories

Power Accesories	
	Description
PD-9001GO-ENT	Outdoor 802.3at PoE single port midspan
Other Accesories	
	Description
ACC-WIFI-MICRO-USB	Micro-USB to USB Console Adapter Cable for Extreme Wireless Access Points

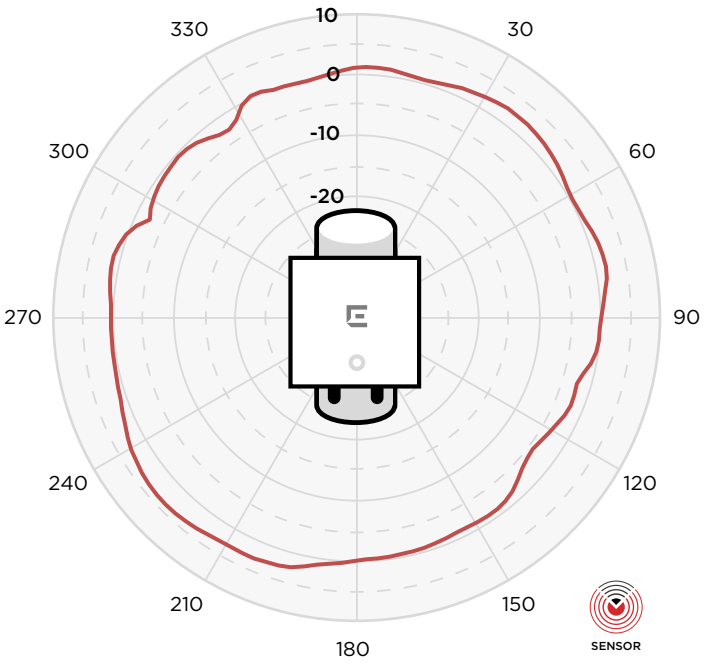
See Product Installation guide for more details

Radiation Patterns – AP5050U

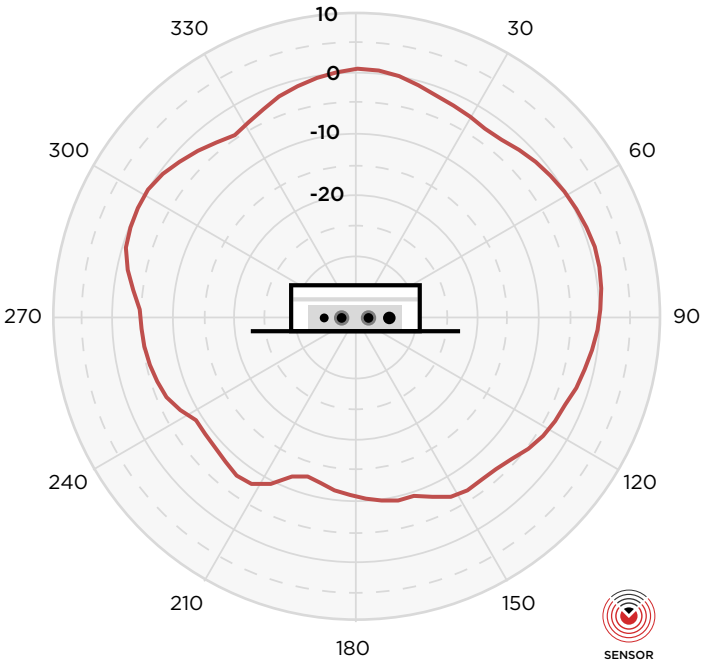
Sensor 5G Elevation



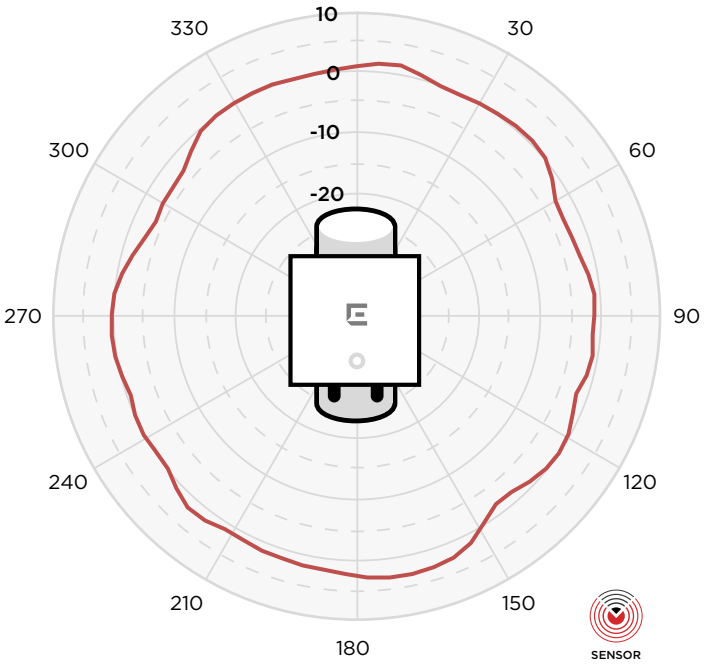
Sensor 5G Azimuth



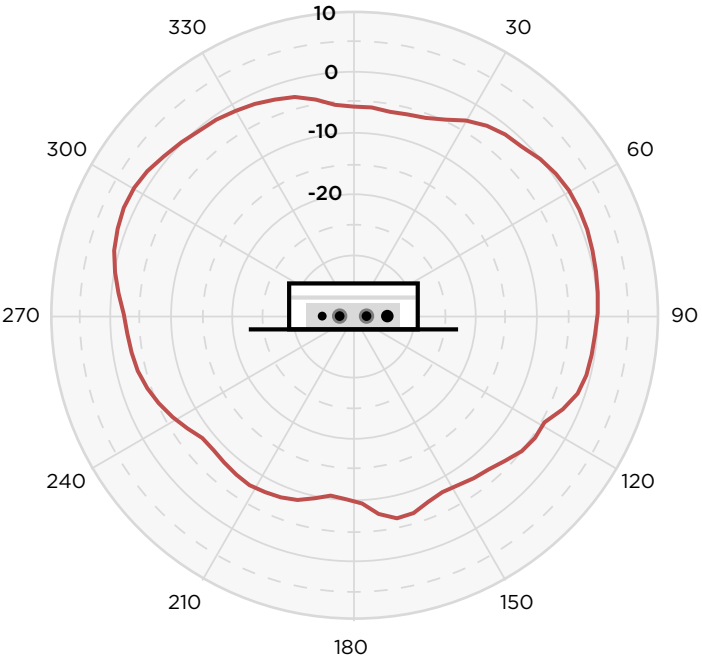
Sensor 6G Elevation



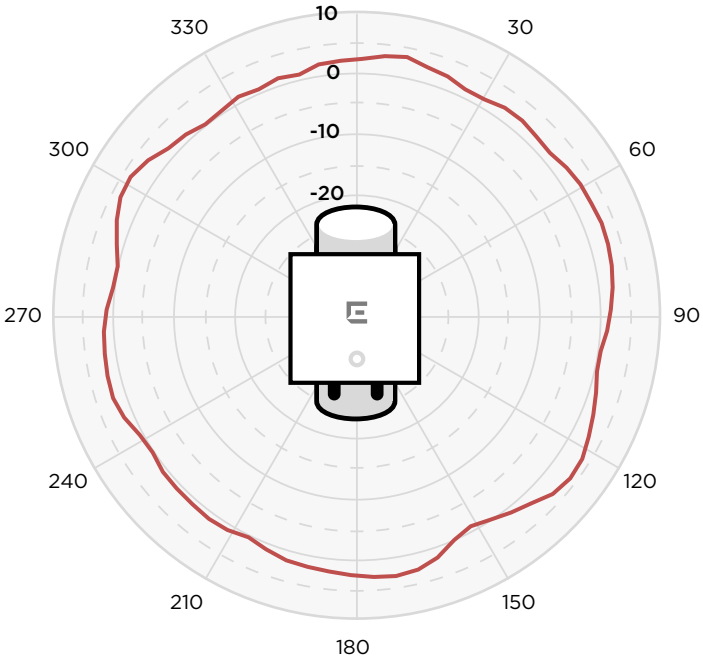
Sensor 6G Azimuth



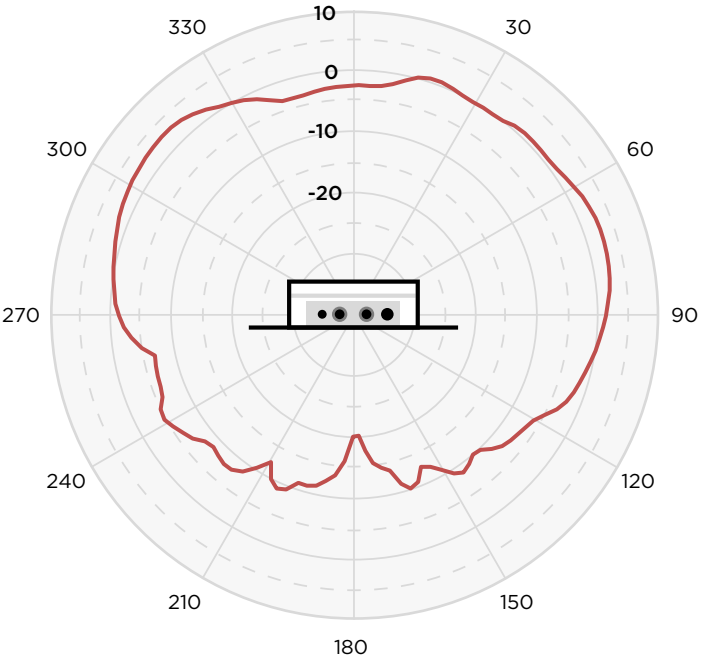
6G Elevation



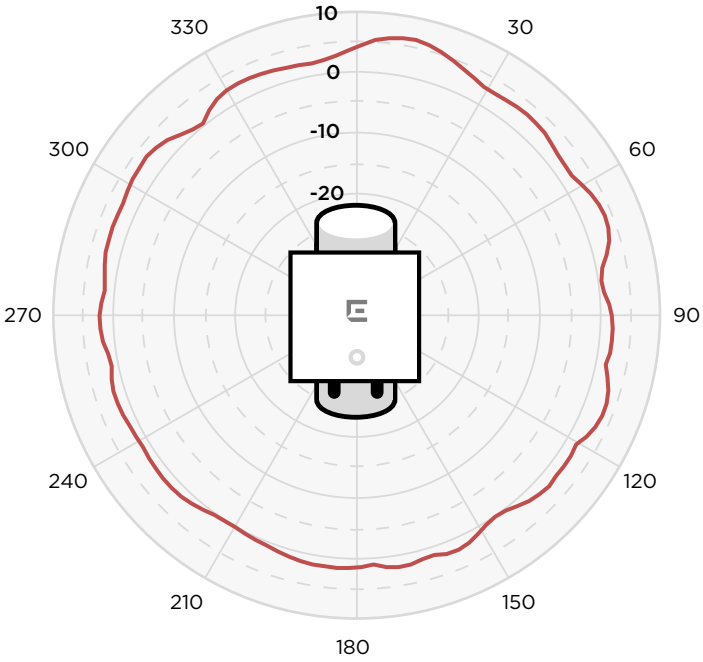
6G Azimuth



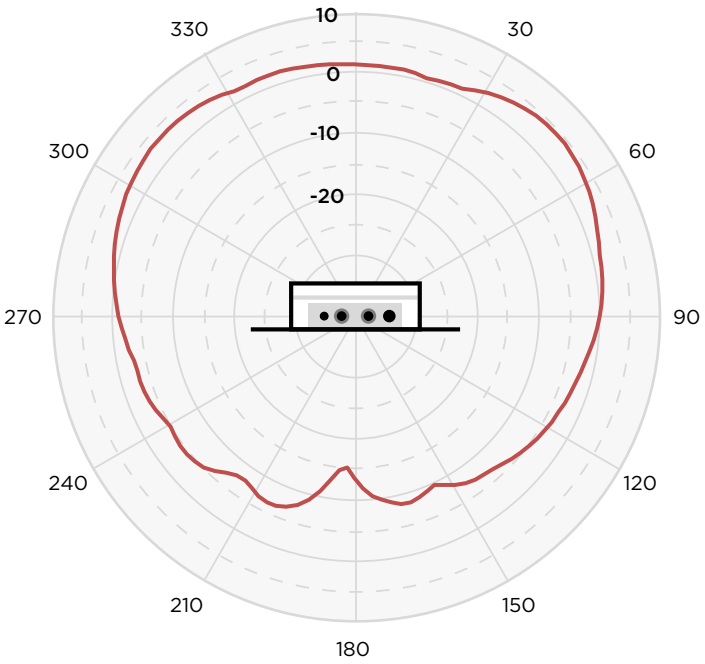
5G Elevation



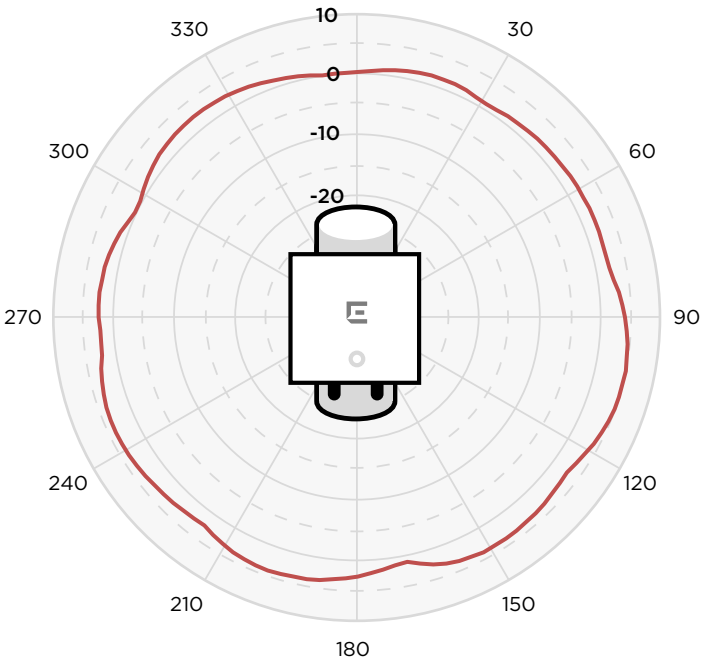
5G Azimuth



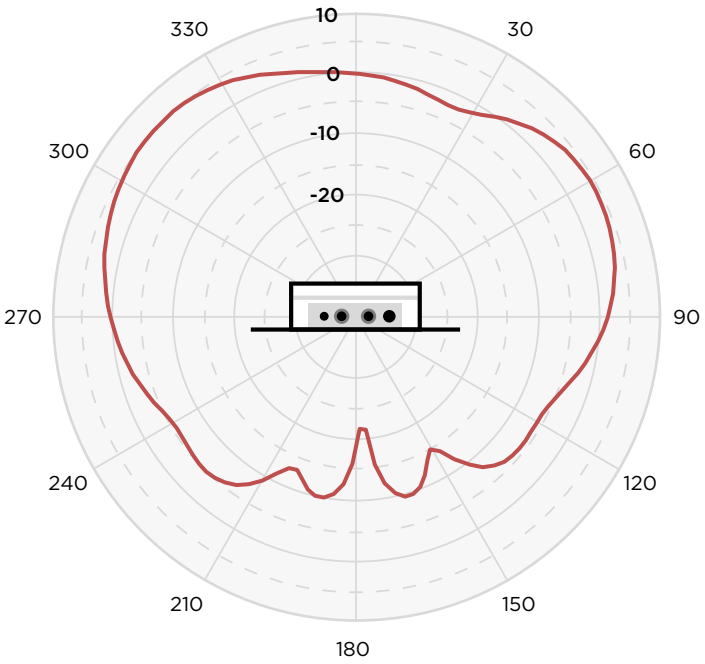
Data and Sensor 2G Azimuth



Data and Sensor 2G Elevation



BLE 2G Elevation



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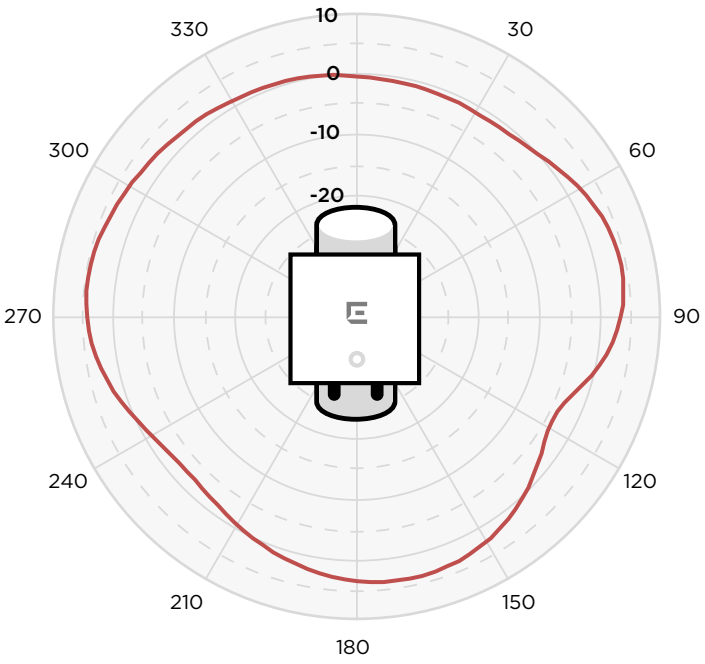
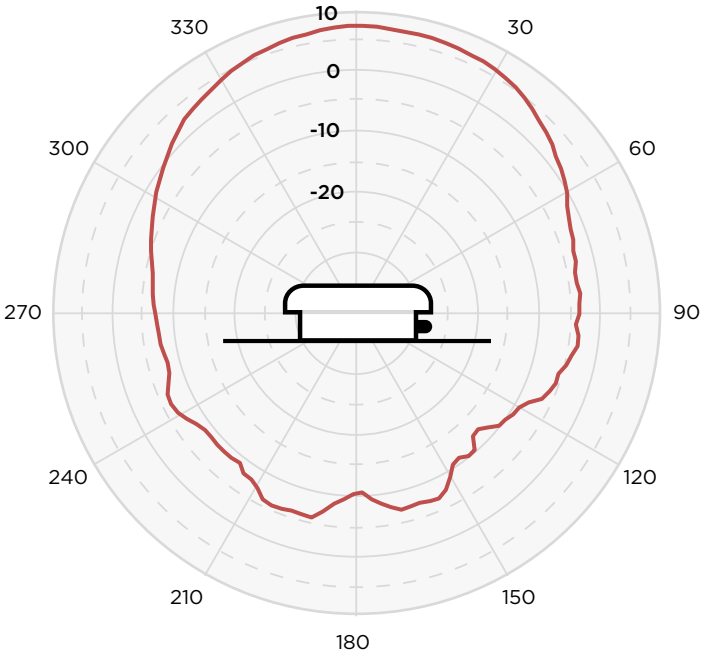


Radiation Patterns – AP5050D

5G Narrow Elevation



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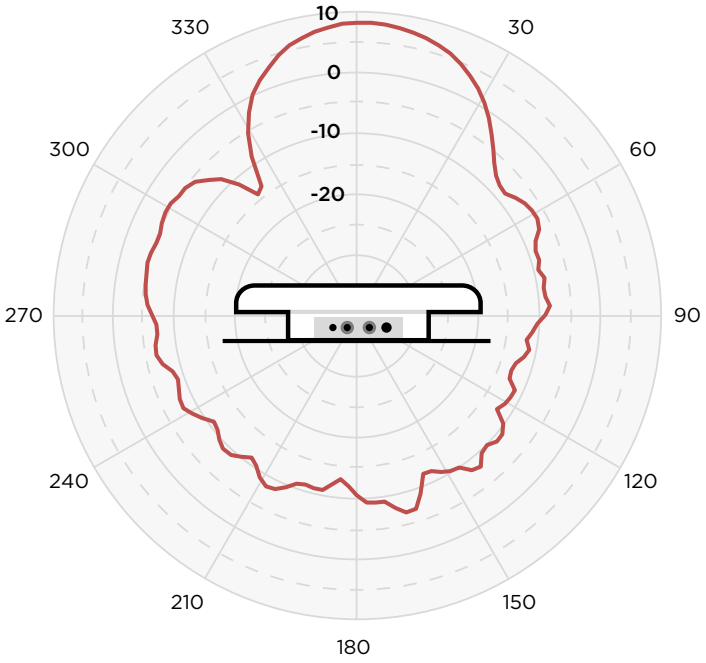
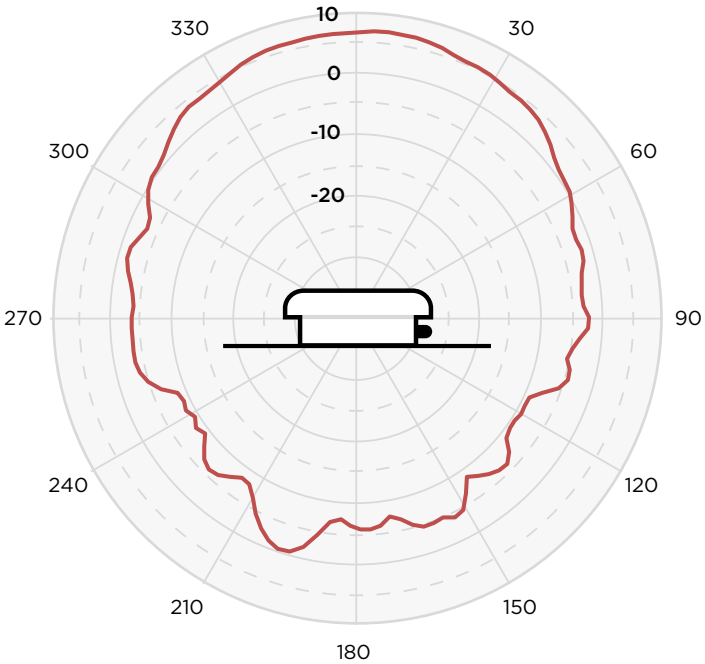


5G Wide Elevation



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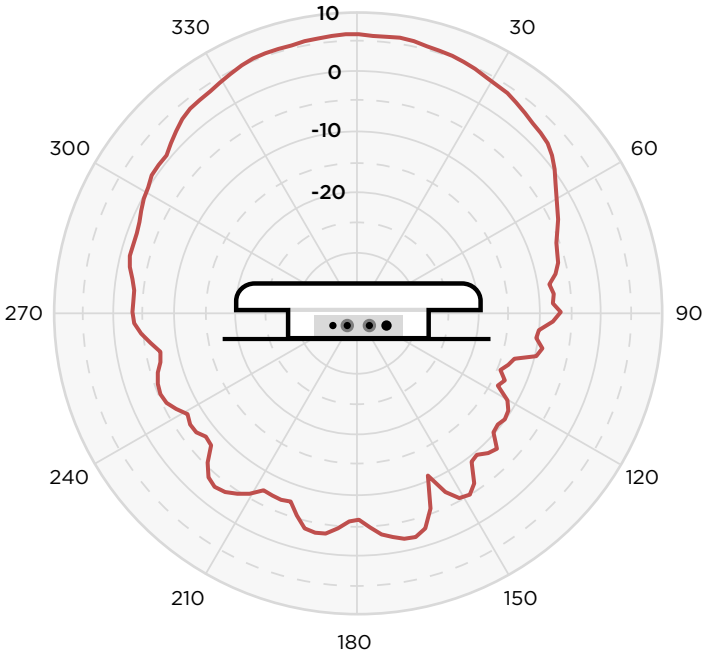
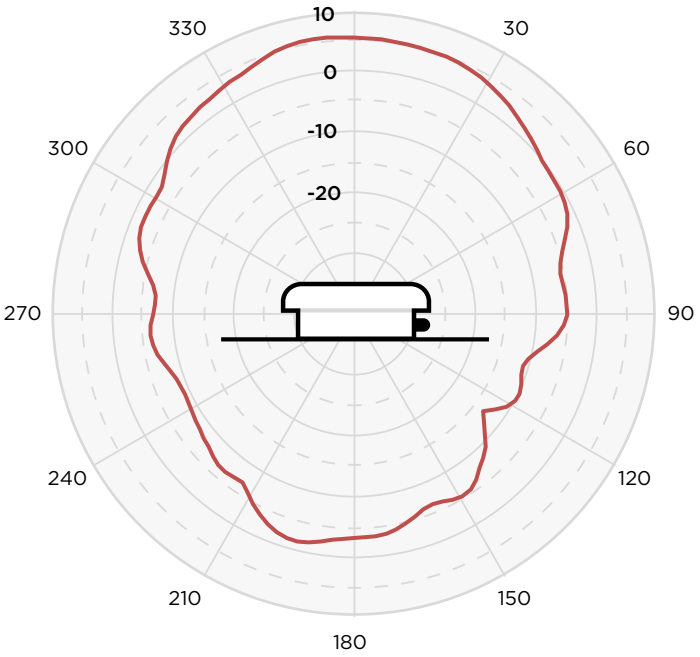


2G Wide Elevation



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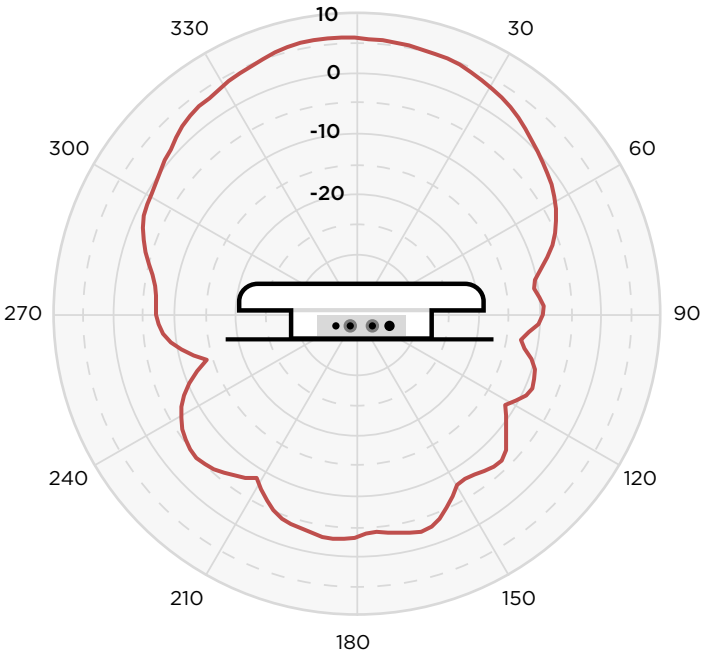
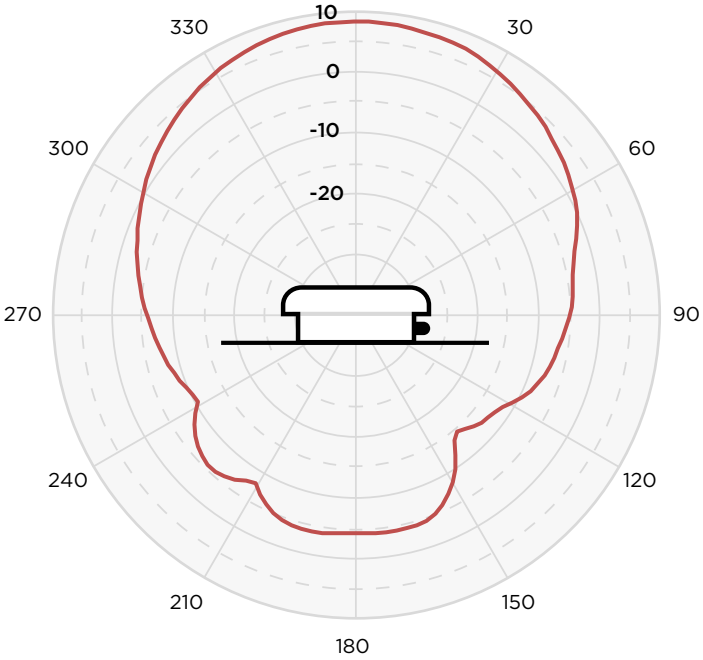


2G Narrow Elevation



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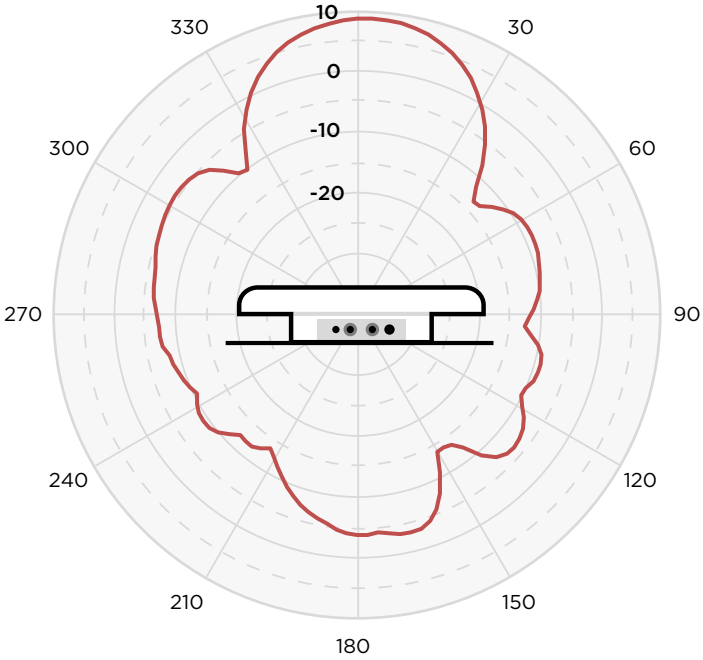
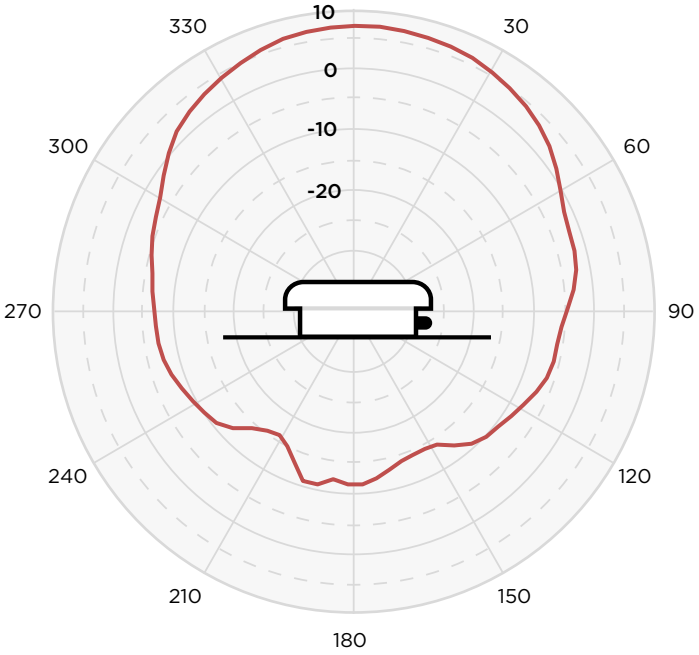
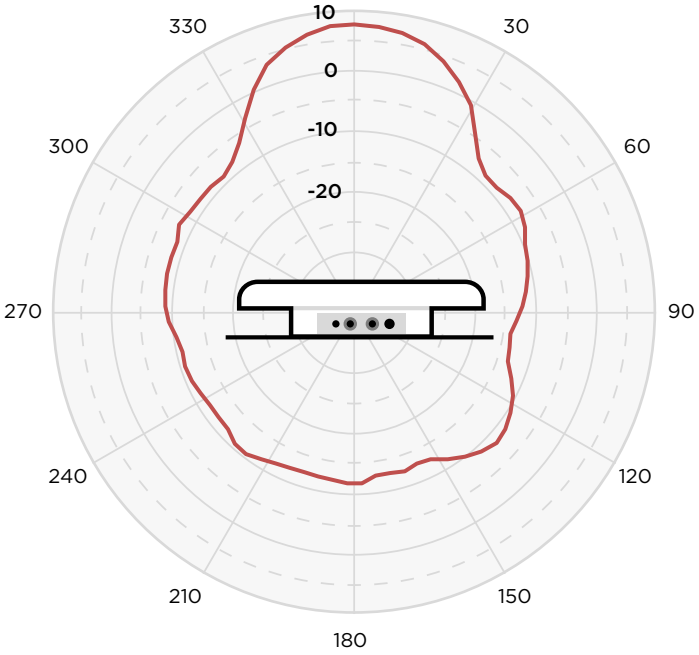


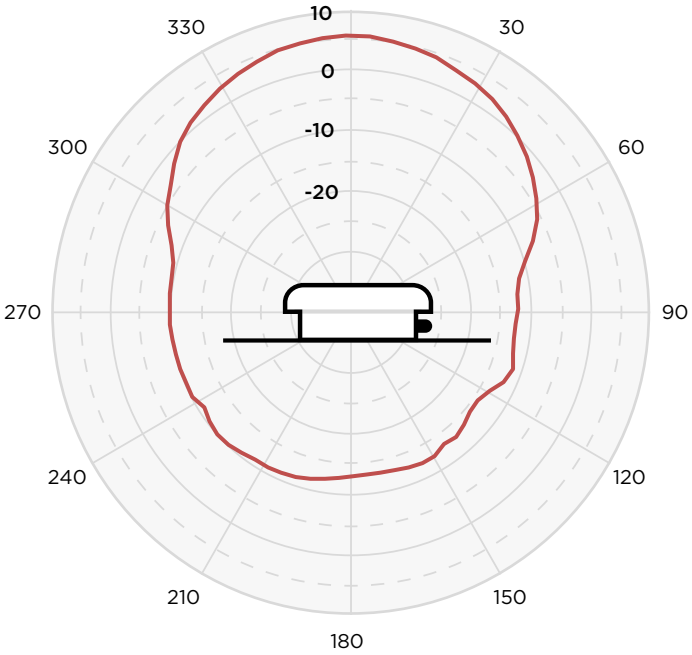
6G Narrow Elevation



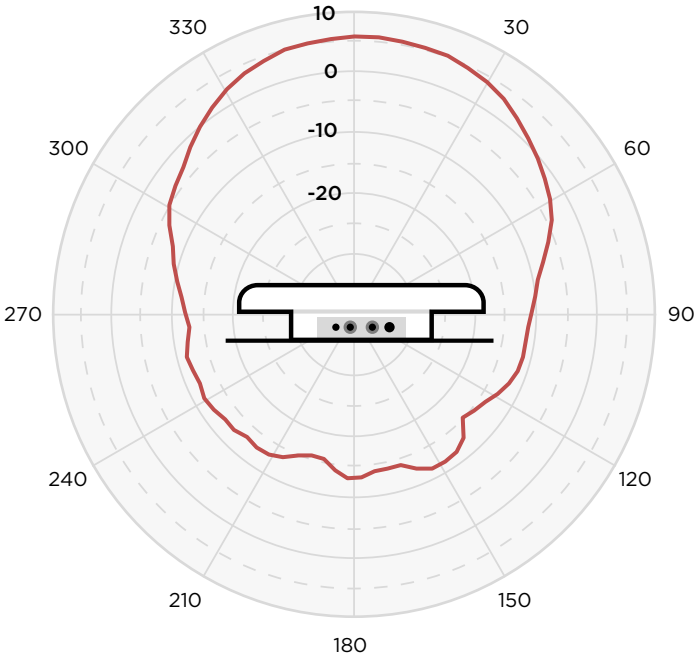
6G Narrow Azimuth



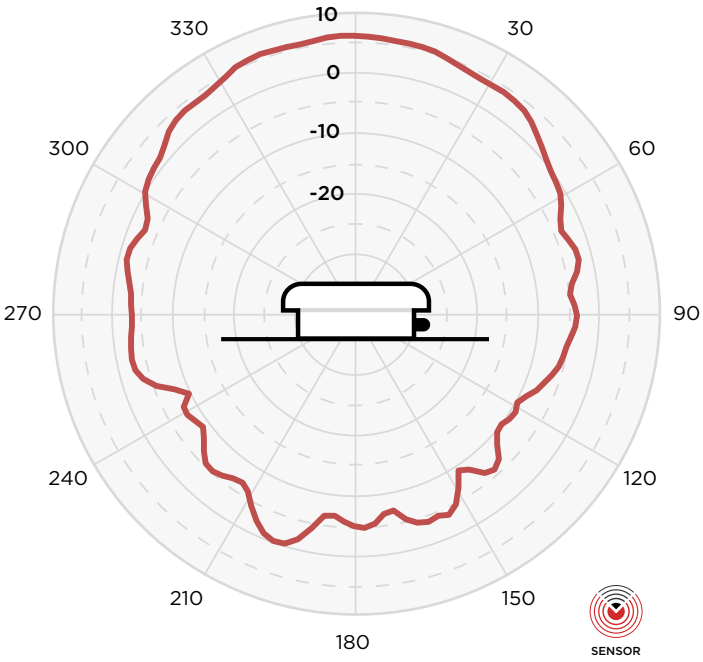
6G Wide Elevation



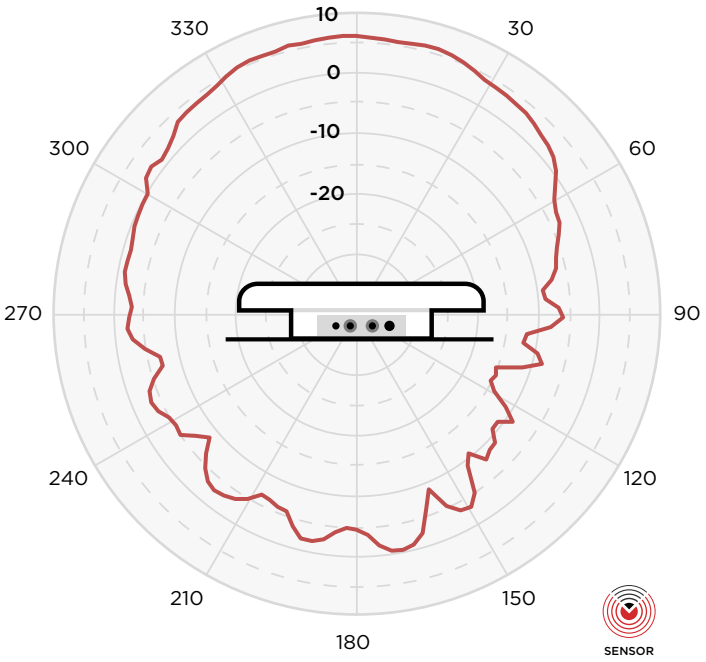
6G Wide Azimuth



5G Scan Elevation



5G Scan Azimuth



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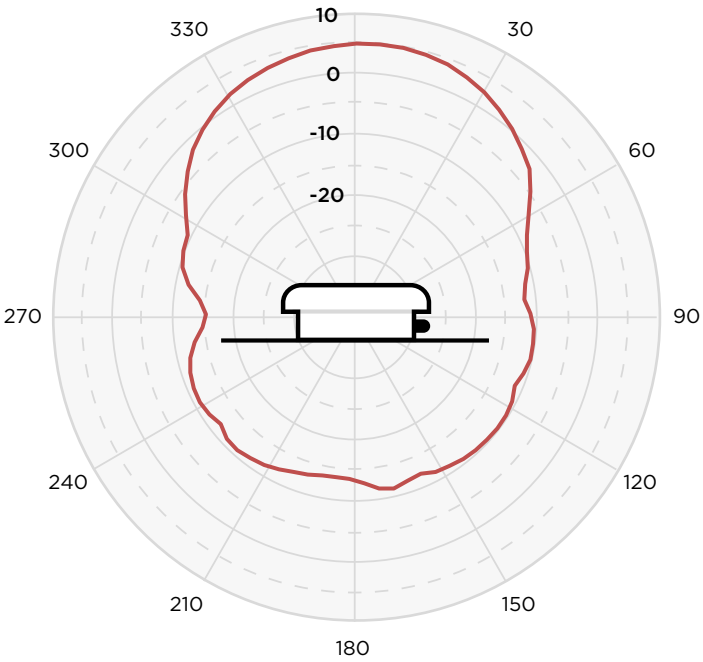
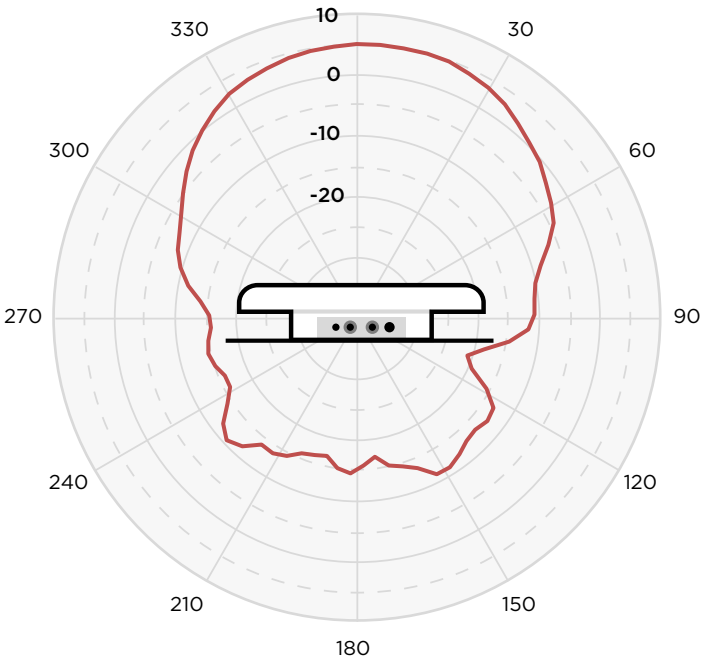
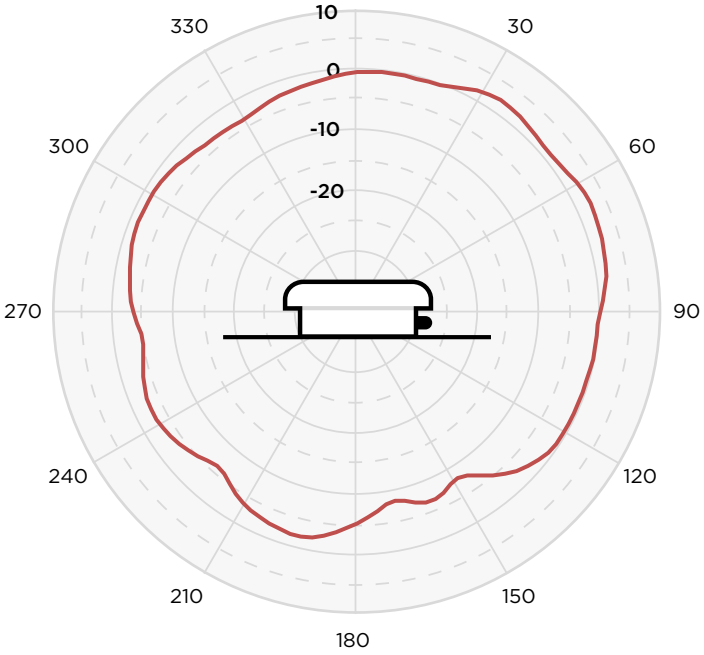


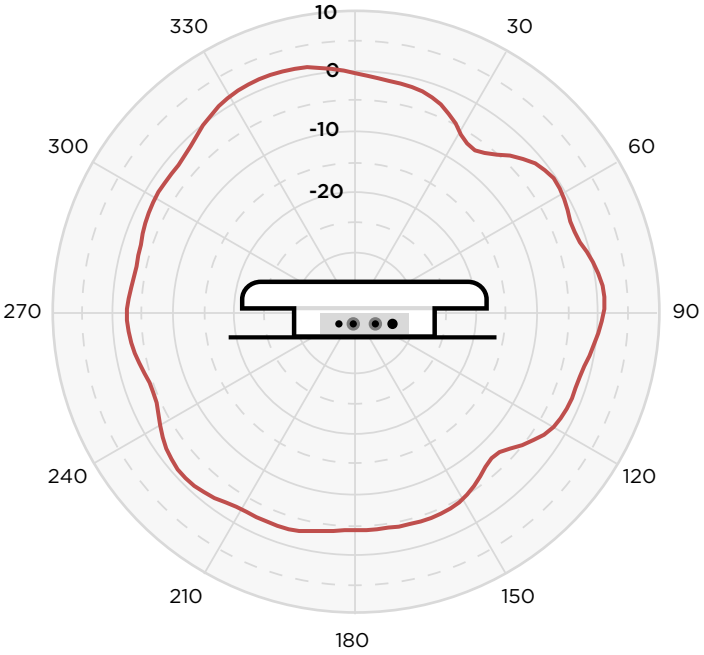
6G Scan Azimuth



BLE 2G Elevation



BLE 2G Azimuth



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