Data Sheet

AP5022 Series Access Points

Highlights

- Wi-Fi 7 technology – high throughput, low latency, and extended range
- Manageable by Extreme Platform ONE™/ExtremeCloud™ IQ Controller
- Extreme Platform ONE Security policy enforcement, Extreme Fabric integration

Models

- AP5022 – Internal omnidirectional antennas
- AP5022S6D – 60° internal directional antennas
- AP5022FX* – external antenna connectivity and extended temp range

Advanced Radio Technology

Quad-Radio Design

- 2.4 GHz (4x4:4)
- 5 GHz (4x4:4)
- 6 GHz (4x4:4)**
- Dedicated Tri-band 2x2 Sensor

Integrated IoT Radios

- Two IoT radios with Bluetooth Low Energy (BLE), Zigbee, and Thread capabilities

Operational Modes

- 2.4 GHz/5 GHz/6 GHz + tri-band sensor
- 5 GHz/5 GHz/6 GHz + tri-band sensor
- 6 GHz/5 GHz/6 GHz + tri-band sensor

Cellular Coexistence Filter (CCF)

- Minimizes the impact of interference from cellular networks

Power

- Fully functional with 802.3bt
- Wi-Fi 7 functionality with 802.3at
- Built-in Power over Ethernet (PoE) failover or power sourcing equipment (PSE) (PoE out)

*Country-based availability
**6 GHz is country-dependent



High-Performance Wi-Fi 7 Indoor Wireless Access Point

The AP5022 series of premium-tier Wi-Fi 7 indoor access points (APs) deliver enhanced wireless experiences, faster speeds, and a range of use cases. This AP is built on Extreme's Universal Hardware Platform technology, enabling deployment flexibility, and it leverages Extreme Platform ONE™ AIOps management to provide improved user experiences.

The AP5022 series, with three 4x4:4 radios, provides high-efficiency, high-performance 802.11be aggregate data rates of up to 20 Gbps in the 6 GHz, 5 GHz, and 2.4 GHz bands. Designed for high-density environments, such as schools, warehouses, healthcare facilities, and stadiums, the AP5022 is powerful and intelligent enough to provide the highest level of client services without compromising security. It operates with fully featured performance capabilities using 802.3bt PoE, simplifying power capacity planning.

With more users, more devices, more applications, and more threats straining the infrastructure, the AP5022 was engineered to meet those challenges. It combines powerful 802.11be Wi-Fi 7 technology, advanced security, and AIOps 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 APs that scan only part time, the AP5022 features a dedicated 2x2 tri-band sensor that monitors rogue devices full time, eliminating the risk of vulnerability and attacks. This AP is capable of multiple operational modes, optimizing for maximum performance and security, and features additional dual IoT radios, removing complexity by supporting multiple simultaneous IoT use cases.

Business Benefits and Outcomes

Improve Operational Efficiency

The AP5022 series of indoor access points are part of a complete wired and wireless solution that includes AI, Extreme's Universal Wired portfolio, and access security. Using powerful 802.11be Wi-Fi 7 technology, this solution allows deployment of high-speed and highly secure Wi-Fi into a broad range of environments, including high-density venues. Operational efficiency is improved through powerful cloud-based management capabilities offered by Extreme Platform ONE or ExtremeCloud IQ across the wired and wireless infrastructure.

Reduce Risk

With more users, more devices, more applications, and more threats straining the network, the AP5022 is engineered to meet these performance and security challenges. Unlike other APs that scan only part time, the AP5022 features a dedicated tri-band sensor that monitors rogue devices full time, eliminating the risk of vulnerability and attacks. The AP5022, as part of the Extreme Universal Wireless portfolio, allows the user to change an operating system use case without changing the hardware, providing deployment flexibility.

Enhance User Experiences

The enhanced user experience with AP5022 series is marked by ultra-high speeds, low latency, and exceptional connectivity, even in dense or complex environments. Leveraging Wi-Fi 7's Extremely High Throughput (EHT) technology, users enjoy faster downloads, smoother streaming, and more responsive real-time applications like video conferencing and data-intensive tasks.

Models to Suit Customer Needs

The AP5022 series includes three models, each designed for specific deployment needs:

- **AP5022:** features omnidirectional internal antennas, delivering optimal coverage for high-density environments such as carpeted enterprise offices, healthcare facilities, and retail spaces.
- **AP5022S6D:** incorporates 60° directional internal antennas, delivering focused coverage for environments such as warehouses, manufacturing facilities, and logistics operations.
- **AP5022FX:** offers external antenna connections and extended temperature range -20°C to 50°C (-4°F to 122°F) support, enabling flexible antenna choices to support diverse environments such as carpeted enterprise spaces, arenas, lecture halls, warehouses, and manufacturing facilities.



AP5022 with omni-directional antennas



AP5022S6D with internal 60° directional antennas



AP5022FX with external antenna connectivity

Network Management Options

The AP5022 series can be flexibly 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-powered workflows for configuration, deployment, and management
- Inventory management that simplifies budgeting, planning, and compliance

Wi-Fi 7 (802.11be) Technology

Wi-Fi 7 (802.11be) introduces benefits across the 2.4 GHz, 5 GHz, and 6 GHz bands with reduced latency and jitter for time-sensitive networking applications. Wi-Fi 7 capabilities such as 320 MHz channels, 4K-QAM, and Multi-Link Operation (MLO) help enable superior speeds and high-density performance. The 6 GHz band enables improved quality of service (QoS) in dense environments, new applications and use cases, and an improved user experience.

*Country dependent

Software-Defined Radios

The AP5022 series features the industry's first software-defined Wi-Fi 7 AP that supports not only dual 5 GHz and dual 6 GHz capabilities, but also an additional software-programmable mode to optimally manage radios to provide the highest level of client performance. The AP5022 is a tri-radio AP that can transmit with multiple combinations of three data radios across the 2.4 GHz, 5 GHz, and 6 GHz bands in addition to a dedicated tri-band sensor.

The AP5022 intelligently monitors the software-configurable radios, enabling network managers to configure network RF technology based on the user environment and to configure the APs in different modes as required. The AP5022 features superior tri-band radio performance with a multiband filter that reduces interference and enables 5 GHz and 6 GHz operation across all available channels without restrictions.

6 GHz Spectrum and AFC

The AP5022 series is designed to support the 6 GHz spectrum with Low Power Indoor (LPI) as well as standard power for the USA and Canada. To enable standard power support, these APs require additional deployment steps to obtain Automated Frequency Coordination (AFC) authorization, such as external geolocation input and anchor-based location support. To implement 6 GHz with standard power safely and quickly, please refer to the Indoor Access Point 6GHz Standard Power Deployment Guide for more detailed information.

Modern IoT Platform

The AP5022 series features dual IoT radios enabling multiple concurrent IoT use cases and eliminates the need for an overlay infrastructure with improved performance and reduced complexity of multiple wireless networks. It is also hardware ready to support Ultra-wideband (UWB) for cm-level accuracy with indoor location services.

To support both IoT and guest engagement services, the AP5022 integrates Bluetooth® Low Energy (BLE) to connect with IoT devices wirelessly and to engage customers with Apple iBeacon. Enterprises can use API-driven applications to send ads directly to shoppers, guests, and conference attendees. This makes it ideal for businesses to advertise their app, download pages, deliver captive portals, or share site-specific information.

Universal Hardware

The AP5022 series 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 Universal World part numbers, the AP5022 series allows customers, partners, and distributors to order one model for any region where Extreme Networks products are sold, replacing the problem of country-specific models.

Security

The AP5022 series APs deliver the highest level of security services, beginning with support for the latest Wi-Fi Alliance WPA3 security certifications. It acts as an enforcement point for Extreme Platform ONE Security – the industry's most complete network access security solution. Extreme Platform ONE Security provides automated security policy enforcement and manages SSIDs to enforce policies on the AP5022 APs. Extreme Fabric adds security by automating provisioning and deployment by connecting to a Fabric-enabled switch. Additionally, the AP supports a stateful L2–L7 deep packet inspection (DPI) firewall for context-based access security, tri-band security, a location analytics sensor, and much more. The AP5022 series also includes a unique dedicated security sensor for rich insights and threat detection when paired with AirDefense Essentials, which is part of an Extreme Platform ONE license.

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

802.11n

- 2.4 GHz–2.5 GHz and 5.150–5.850 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: MCS0 – MCS31 (6.5 Mbps–600 Mbps)

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: MCS0–MCS9 (6.5 Mbps–3,466 Mbps) 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
- Rates:
  - 6G: HE0-HE11 (8 Mbps–9,600 Mbps)
  - 5G: HE0-HE11 (8 Mbps– 4,800 Mbps)
  - 2.4G: HE0-HE11 (8 Mbps– 1,148 Mbps)
- 4x4:4 Stream MIMO Radio at 6 GHz
- 4x4:4 Stream MIMO Radio at 5 GHz
- 4x4:4 Stream MIMO Radio at 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
- UL/DL SU-MIMO and MU-MIMO
- TxBF (Transmit Beamforming)

802.11be

- 2.4 GHz–2.5 GHz, 5.15 GHz–5.850 GHz, and 5.925 GHz–7.125 GHz Operating Frequencies
- 802.11be modulation (4096-QAM)
- Rates:
  - 6G: EHT0-EHT13 (8 Mbps–11,500 Mbps)
  - 5G: EHT0-EHT13 (8 Mbps–5,700 Mbps)
  - 2.4G: EHT0-EHT13 (8 Mbps–1,300 Mbps)
- 4x4:4 stream MIMO radio at 6 GHz
- 4x4:4 stream MIMO radio at 5 GHz
- 4x4:4 stream MIMO radio at 2.4 GHz
- EHT20/EHT40/EHT80/EHT160/EHT320 support for 6 GHz
- EHT20/EHT40/EHT80/EHT160 support for 5 GHz
- EHT20/EHT40 support for 2.4 GHz
- UL/DL SU-MIMO and MU-MIMO
- TxBF (Transmit Beamforming)

IoT Support

- (2) radios for Thread, Zigbee®, Bluetooth Low Energy (BLE) 5.4, IEEE 802.15.4
- Ultra-wideband (UWB) ready

Interfaces

- ETH0, ETH1: (2) wired Ethernet ports (RJ45)
  - ETH0: 100/1,000/2,500/5,000/10,000 Mbps autosensing link speed Ethernet port, PoE PD, MACsec (802.1AE)
  - ETH1: 100/1,000/2,500/5,000/10,000 Mbps autosensing link speed Ethernet port, PoE PD in or 15.4W PSE out mode (requires 802.3bt on Eth0), PoE Hitless failover
- 802.3az Energy-Efficient Ethernet (EEE)
- USB 2.0, Type A, 5V/1,000mA with PoE 802.3bt

Power Options

- Power draw: 802.3at PoE: typical 21W, max. 25.5W without PSE or USB
- Power draw: 802.3bt PoE: typical 26W without USB, max 38W with 5W USB no PSE, 32W without PSE or USB
- 12V DC/3A. DC power has priority when both DC and PoE power sources are available

Physical Specifications

Model	Dimensions	Weight
AP5022	25.8 cm x 25.8 cm x 4.6 cm (10.16 in. x 10.16 in. x 1.81 in.)	1.63 kg (3.59 lb)
AP5022S6D	25.8 cm x 25.8 cm x 4.6 cm (10.16 in. x 10.16 in. x 1.81 in.)	1.58 kg (3.48 lb)
AP5022FX	25.8 cm x 26.5 cm x 4.6 cm (10.16 in. x 10.43 in. x 1.81 in.)	1.60 kg (3.52 lb)

Mounting

- AP support 15/16 in. flush ceiling tile included in the box
- Wall mount included in the box or sold as an accessory
- Sculpted ceiling tile 15/16 in. wide t-bar sold as an accessory
- Sculpted ceiling tile 9/16 in. wide t-bar sold as an accessory
- Beam sold as an accessory
- Junction box sold as an accessory
- IL or 9/16 in. t-bar sold as an accessory
- SL (Silhouette) sold as an accessory
- WiNG main plate adapter sold as an accessory
- Built-in slot for Kensington

Security

- Kensington lock slot
- Trusted Platform Module (TPM)

Environmental

Environmental Specifications

- AP5022 Operating: 0°C to 50°C (32°F to 122°F)
- AP5022S6D Operating: 0°C to 50°C (32°F to 122°F)
- AP5022FX Operating: -20°C to 50°C (-4°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 and 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
- Part 15F – 15.1517 UWB
- RF exposure - FCC Part 1.1307
- IEC 60601-1-2 EMC for medical devices

Radio Standards Canada

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

Radio Standards CE

- 2014/53/EU Radio Equipment Directive
- EN 300 328, EN 301 893, EN 303 687, EN 300 440
- EN 301 489 1, EN 301 489 17, EN 62311, EN 50385
- EN 18031-1 Cybersecurity

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)
- U/CuL 62368-1 Listed
- UL 2043 Plenum rated

European ITE

- EN 62368-1
- 2014/35/EU Low Voltage Directive

International ITE

- IEC 60950-1 + National Differences
- CB IEC 62368-1 2nd Edition + National Differences
- CB IEC 62368-1 1st and 3rd Editions + National Differences
- AS/NZS 62368-1-1 (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 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)
- CISPR 11
- AS/NZS CISPR32
- CISPR 35 (International Immunity)

Wi-Fi Alliance Certifications*

Connectivity	Wi-Fi CERTIFIED™ 7 Wi-Fi CERTIFIED™ 6 Release 2 Wi-Fi CERTIFIED™ a, b, g, n, ac Wi-Fi Enhanced Open™
Optimization	WMM® Wi-Fi Agile Multiband™
Security	Protected Management Frames WPA™ – Enterprise, Personal WPA2™ – Enterprise, Personal WPA3™ – Enterprise, Personal

*Certification tests in progress as of publication

Antenna Gain Matrix

Max Antenna Gain – AP5022

Operational Mode	Radio 1	Radio 2	Radio 3	Scan Radio	IoT Radio 1	IoT Radio 2
1	2.4 GHz - 3.5 dBi	5 GHz - 6.7 dBi	6 GHz - 5.7 dBi	2.4 GHz – 3.1 dBi 5 GHz – 4.7 dBi 6 GHz - 6.1 dBi	5.4 dBi	4.0 dBi
2	5 GHz - 5.3 dBi	5 GHz - 6.7 dBi	6 GHz - 5.7 dBi	2.4 GHz - 3.1 dBi 5 GHz – 4.7 dBi 6 GHz - 6.1 dBi	5.4 dBi	4.0 dBi
3	6 GHz – 5.1 dBi	5 GHz - 6.7 dBi	6 GHz - 5.7 dBi	2.4 GHz – 3.1 dBi 5 GHz – 4.7 dBi 6 GHz - 6.1 dBi	5.4 dBi	4.0 dBi

Max Antenna Gain – AP5022S6D

Operational Mode	Radio 1	Radio 2	Radio 3	Scan Radio	IoT Radio 1	IoT Radio 2
1	2.4 GHz – 3.5 dBi	5 GHz - 7.0 dBi	6 GHz – 7.2 dBi	2.4 GHz – 3.3 dBi 5 GHz – 4.7 dBi 6 GHz - 5.8 dBi	4.8 dBi	4.2 dBi
2	5 GHz – 6.7 dBi	5 GHz – 7.0 dBi	6 GHz – 7.2 dBi	2.4 GHz – 3.3 dBi 5 GHz – 4.7 dBi 6 GHz - 5.8 dBi	4.8 dBi	4.2 dBi
3	6 GHz – 6.5 dBi	5 GHz – 7.0 dBi	6 GHz – 7.2 dBi	2.4 GHz – 3.3 dBi 5 GHz – 4.7 dBi 6 GHz - 5.8 dBi	4.8 dBi	4.2 dBi

Power and Sensitivity Tables – AP5022, AP5022S6D, and AP5022FX

Power and Sensitivity – 2.4 GHz Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11b	1 - 11 Mbps	18	-93, -87
11g	6 Mbps	18	-93
	54 Mbps	16	-75
11n HT20	MCS0,7	18, 16	-93, -75
11n HT40	MCS0,7	18, 16	-90, -72
11ax HE20	HE0,11	18, 14	-93, -63
11ax HE40	HE0,11	18, 14	-90, -60
11be EHT20	EHT1,13	18, 12	-92, -58
11be EHT40	EHT1,13	18, 12	-89, -55

Power and Sensitivity - 2.4 GHz Radio – Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11b	1 - 11 Mbps	18	-94, -88
11g	6 Mbps	18	-94
	54 Mbps	16	-76
11n HT20	MCS0,7	18, 16	-94, -76
11n HT40	MCS0,7	18, 16	-91, -73
11ax HE20	HE0,11	18, 14	-94, -65
11ax HE40	HE0,11	18, 14	-91, -62
11be EHT20	EHT1,13	18, 12	-94, -59
11be EHT40	EHT1,13	18, 12	-91, -56

Power and Sensitivity – 5 GHz Full Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-93
	54 Mbps	16	-73
11n HT20	MCS0,7	18, 16	-93, -73
11n HT40	MCS0,7	18, 16	-91, -71
11ac VHT20	MCS0,8	18, 15	-92, -70
11ac VHT40	MCS0,9	18, 15	-90, -65
11ac VHT80	MCS0,9	18, 15	-88, -63
11ac VHT160	MCS0,9	17, 14	-85, -61
11ax HE20	HE0,11	18, 14	-92, -62
11ax HE40	HE0,11	18, 14	-90, -60
11ax HE80	HE0,11	18, 14	-87, -58
11ax HE160	HE0,11	17, 13	-85, -55
11be EHT20	EHT0,13	18, 12	-92, -55
11be EHT40	EHT0,13	18, 12	-89, -53
11be EHT80	EHT0,13	18, 12	-86, -50
11be EHT160	EHT0,13	17, 12	-84, -47

Power and Sensitivity – 5 GHz Radio - High

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	17	-92
	54 Mbps	15	-73
11n HT20	MCS0,7	17, 15	-92, -73
11n HT40	MCS0,7	16, 15	-90, -71
11ac VHT20	MCS0,8	17, 14	-92, -70
11ac VHT40	MCS0,9	16, 14	-90, -65
11ac VHT80	MCS0,9	16, 14	-88, -63
11ac VHT160	MCS0,9	16, 14	-85, -61
11ax HE20	HE0,11	17, 13	-92, -62
11ax HE40	HE0,11	16, 13	-89, -60
11ax HE80	HE0,11	16, 13	-87, -58
11ax HE160	HE0,11	16, 13	-85, -56
11be EHT20	EHT0,13	17, 12	-91, -55
11be EHT40	EHT0,13	16, 12	-88, -53
11be EHT80	EHT0,13	16, 12	-85, -50
11be EHT160	EHT0,13	16, 12	-82, -48

Power and Sensitivity – 5 GHz Radio - Low

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	17	-93
	54 Mbps	15	-74
11n HT20	MCS0,7	17, 15	-93, -74
11n HT40	MCS0,7	16, 15	-91, -71
11ac VHT20	MCS0,8	17, 14	-93, -70
11ac VHT40	MCS0,9	16, 14	-91, -66
11ac VHT80	MCS0,9	16, 14	-88, -63
11ac VHT160	MCS0,9	15, 14	-85, -61
11ax HE20	HE0,11	17, 13	-93, -62
11ax HE40	HE0,11	16, 13	-91, -60
11ax HE80	HE0,11	16, 13	-87, -58
11ax HE160	HE0,11	15, 13	-85, -56
11be EHT20	EHT0,13	17, 12	-92, -56
11be EHT40	EHT0,13	16, 12	-91, -54
11be EHT80	EHT0,13	16, 12	-86, -51
11be EHT160	EHT0,13	15, 12	-84, -48

Power and Sensitivity – 5 GHz Radio – Sensor

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-95
	54 Mbps	16	-75
11n HT20	MCS0,7	18, 16	-95, -75
11n HT40	MCS0,7	18, 16	-92, -73
11ac VHT20	MCS0,8	18, 15	-95, -72
11ac VHT40	MCS0,9	18, 15	-92, -67
11ac VHT80	MCS0,9	18, 15	-90, -65
11ac VHT160	MCS0,9	17, 14	-87, -63
11ax HE20	HE0,11	18, 14	-95, -64
11ax HE40	HE0,11	18, 14	-92, -62
11ax HE80	HE0,11	18, 14	-89, -60
11ax HE160	HE0,11	17, 13	-87, -57
11be EHT20	EHT0,13	18, 12	-95, -57
11be EHT40	EHT0,13	18, 12	-91, -55
11be EHT80	EHT0,13	18, 12	-88, -52
11be EHT160	EHT0,13	17, 12	-86, -49

Power and Sensitivity – 6 GHz Full Radio

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	17	-92
	54 Mbps	16	-73
11n HT20	MCS0,7	17, 16	-92, -73
11n HT40	MCS0,7	17, 16	-90, -71
11ac VHT20	MCS0,8	17, 15	-92, -69
11ac VHT40	MCS0,9	17, 15	-90, -65
11ac VHT80	MCS0,9	17, 15	-87, -62
11ac VHT160	MCS0,9	15, 15	-85, -59
11ax HE20	HE0,11	17, 14	-92, -62
11ax HE40	HE0,11	17, 14	-90, -59
11ax HE80	HE0,11	17, 14	-87, -56
11ax HE160	HE0,11	15, 14	-85, -53
11be EHT20	EHT0,13	17, 12	-92, -56
11be EHT40	EHT0,13	17, 12	-90, -54
11be EHT80	EHT0,13	17, 12	-87, -51
11be EHT160	EHT0,13	15, 12	-84, -48
11be EHT320	EHT0, 13	15, 12	-81, -45

Power and Sensitivity – 6 GHz Radio – High

Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	16	-91
	54 Mbps	15	-73
11n HT20	MCS0,7	16, 15	-91, -73
11n HT40	MCS0,7	16, 15	-89, -70
11ac VHT20	MCS0,8	16, 14	-91, -69
11ac VHT40	MCS0,9	15, 14	-89, -65
11ac VHT80	MCS0,9	15, 14	-86, -62
11ac VHT160	MCS0,9	14, 13	-83, -59
11ax HE20	HE0,11	16, 13	-91, -62
11ax HE40	HE0,11	15, 13	-89, -59
11ax HE80	HE0,11	15, 13	-86, -56
11ax HE160	HE0,11	14, 13	-83, -53
11be EHT20	EHT0,13	16, 12	-91, -55
11be EHT40	EHT0,13	15, 12	-89, -52
11be EHT80	EHT0,13	15, 12	-86, -49
11be EHT160	EHT0,13	14, 12	-83, -47

Power and Sensitivity – 6 GHz Radio – Low

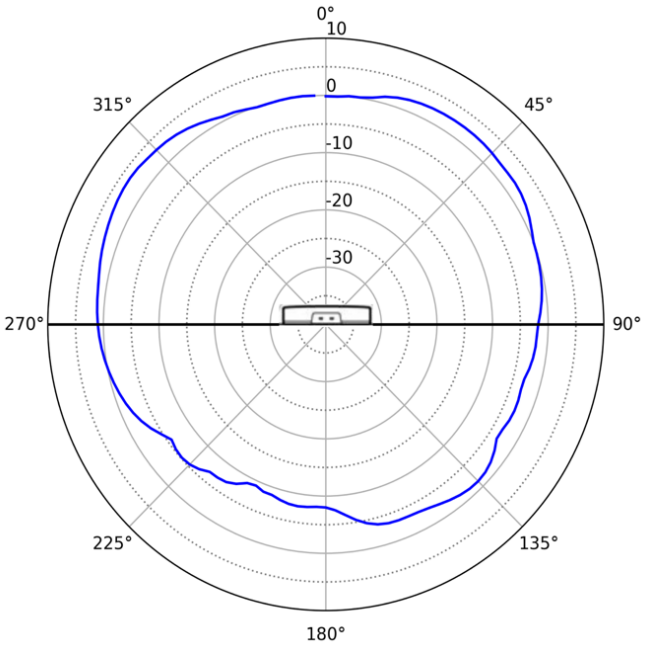
Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	17	-92
	54 Mbps	15	-73
11n HT20	MCS0,7	17, 15	-92, -73
11n HT40	MCS0,7	16, 15	-89, -70
11ac VHT20	MCS0,8	17, 14	-92, -69
11ac VHT40	MCS0,9	16, 14	-89, -65
11ac VHT80	MCS0,9	16, 14	-86, -62
11ac VHT160	MCS0,9	15, 14	-83, -59
11ax HE20	HE0,11	17, 13	-92, -62
11ax HE40	HE0,11	16, 13	-89, -59
11ax HE80	HE0,11	16, 13	-86, -56
11ax HE160	HE0,11	15, 13	-83, -53
11be EHT20	EHT0,13	17, 12	-91, -55
11be EHT40	EHT0,13	16, 12	-89, -52
11be EHT80	EHT0,13	16, 12	-86, -49
11be EHT160	EHT0,13	15, 12	-83, -47
11be EHT320	EHT0, 13	15, 12	-80, -45

Power and Sensitivity – 6 GHz Radio – Sensor

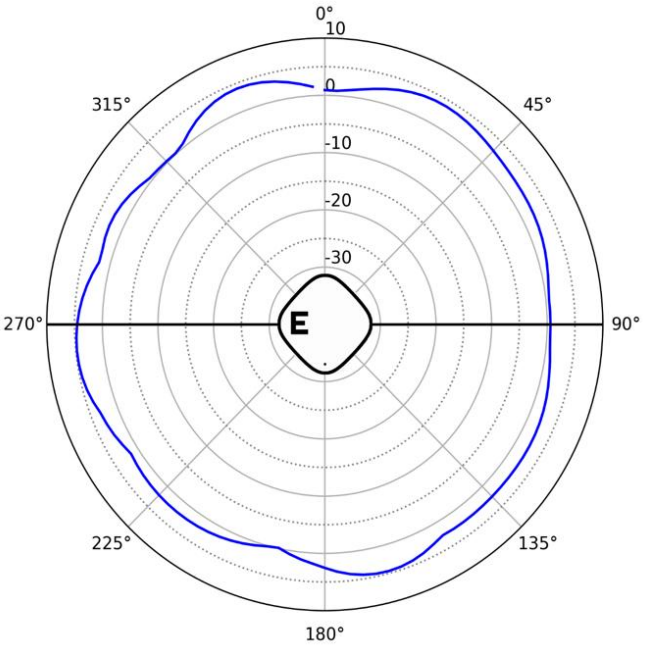
Channel	Data Rate	Power (dBm)	Sensitivity (dBm)
11a	6 Mbps	18	-93
	54 Mbps	16	-75
11n HT20	MCS0,7	18, 16	-93, -74
11n HT40	MCS0,7	18, 16	-91, -72
11ac VHT20	MCS0,8	18, 15	-93, -70
11ac VHT40	MCS0,9	18, 15	-91, -66
11ac VHT80	MCS0,9	18, 15	-88, -63
11ac VHT160	MCS0,9	17, 14	-86, -60
11ax HE20	HE0,11	18, 14	-93, -63
11ax HE40	HE0,11	18, 14	-91, -60
11ax HE80	HE0,11	18, 14	-88, -57
11ax HE160	HE0,11	17, 13	-86, -55
11be EHT20	EHT0,13	18, 12	-93, -58
11be EHT40	EHT0,13	18, 12	-91, -55
11be EHT80	EHT0,13	18, 12	-88, -52
11be EHT160	EHT0,13	17, 12	-86, -50
11be EHT320	EHT0, 13	17, 12	-83, -48

Radiation Patterns – AP5022

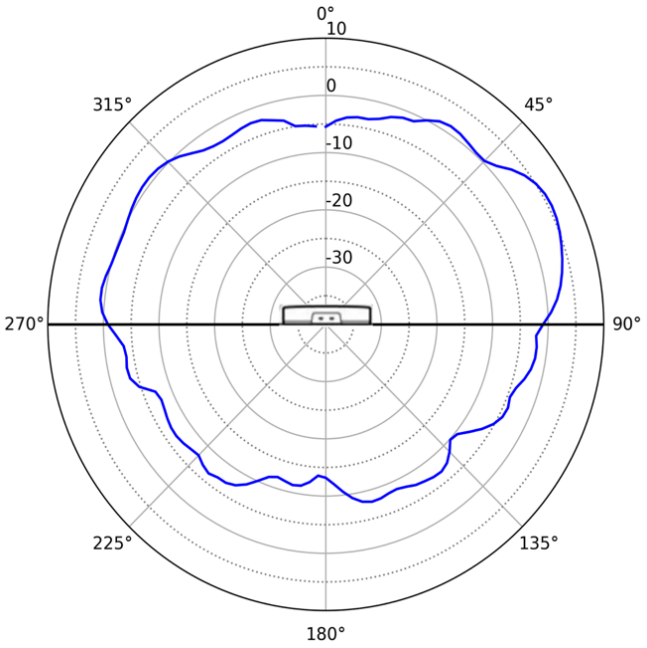
2G Elevation



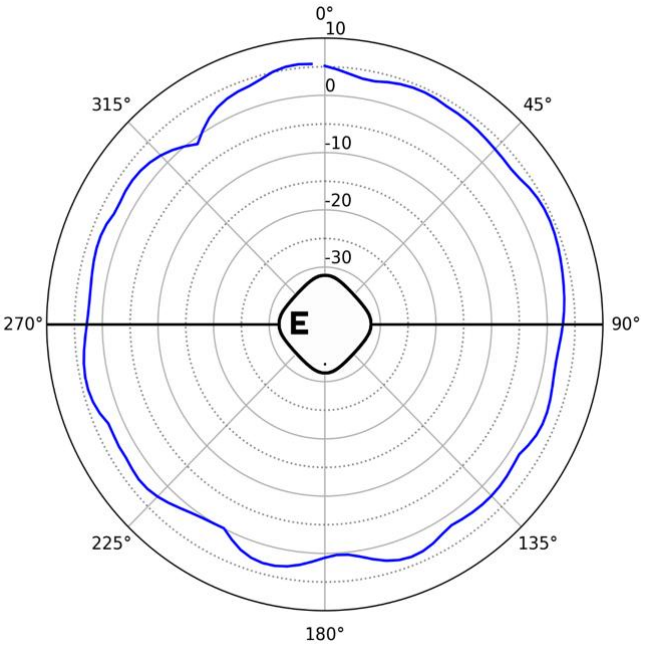
2G Azimuth



5G Elevation

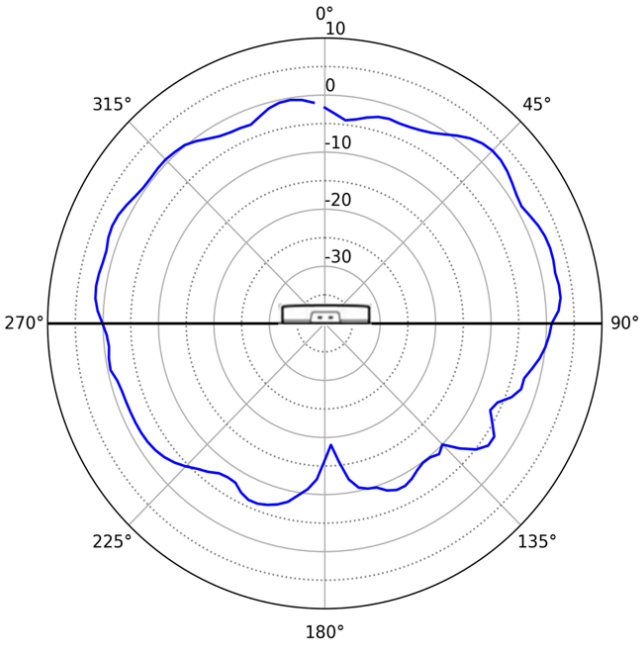


5G Azimuth

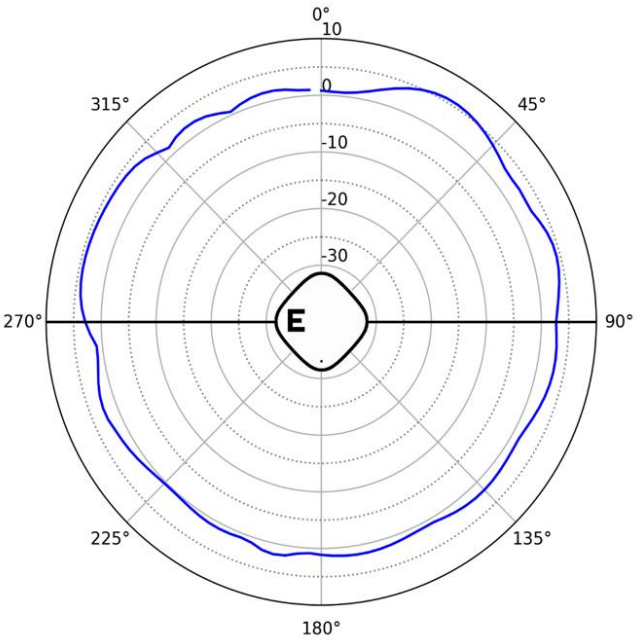


Radiation Patterns – AP5022

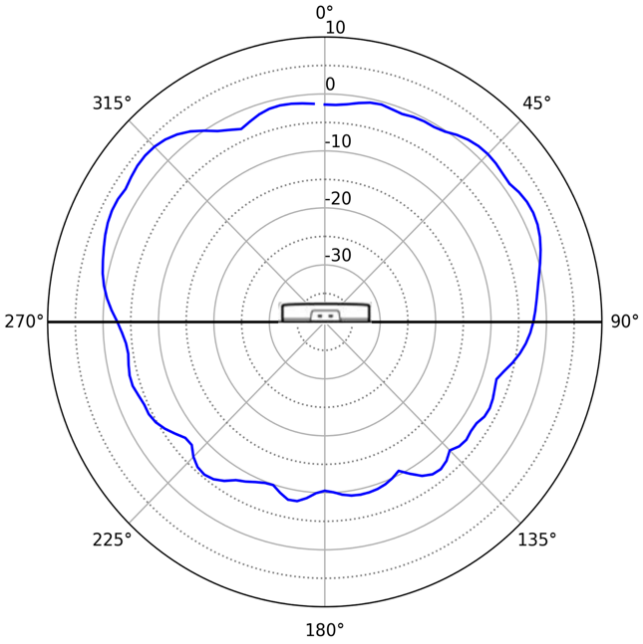
6G Elevation



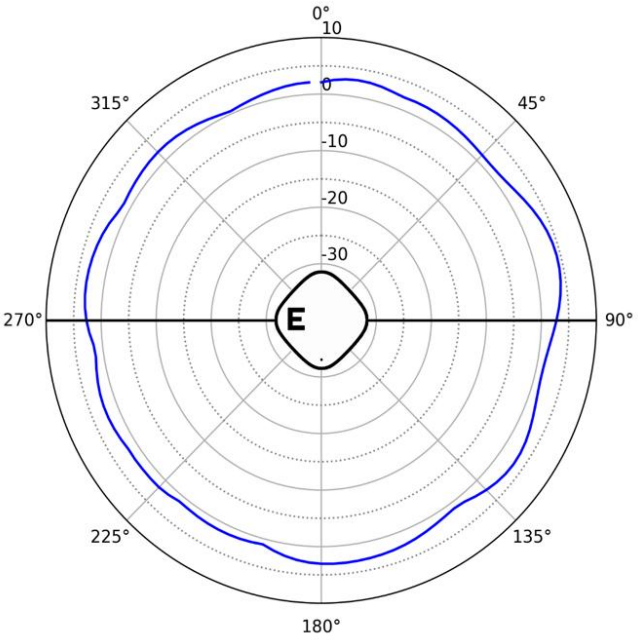
6G Azimuth



5G Low Elevation

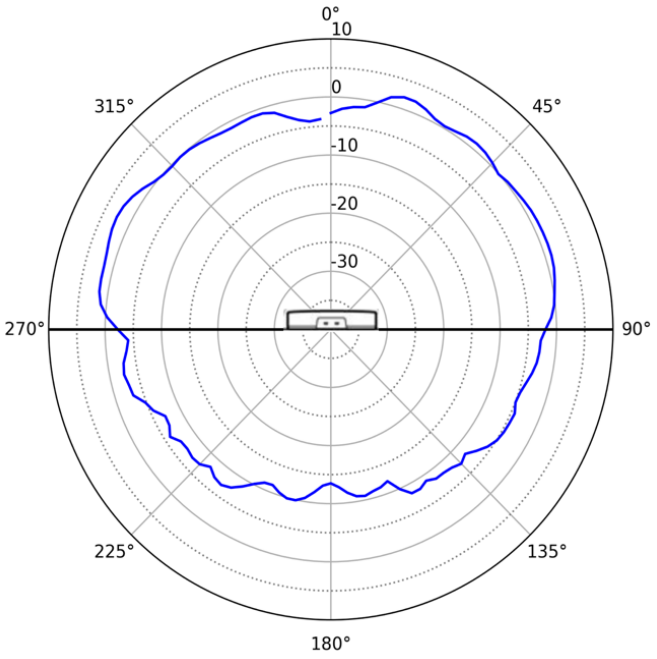


5G Low Azimuth

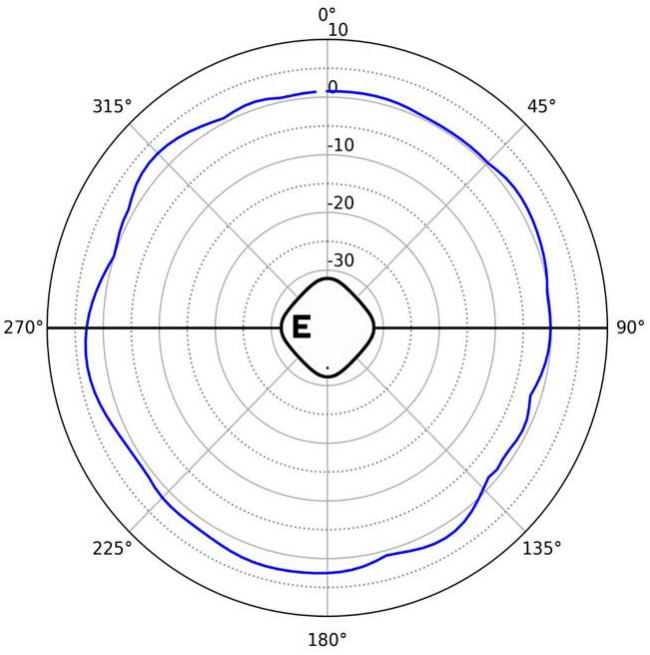


Radiation Patterns – AP5022

6G High Elevation

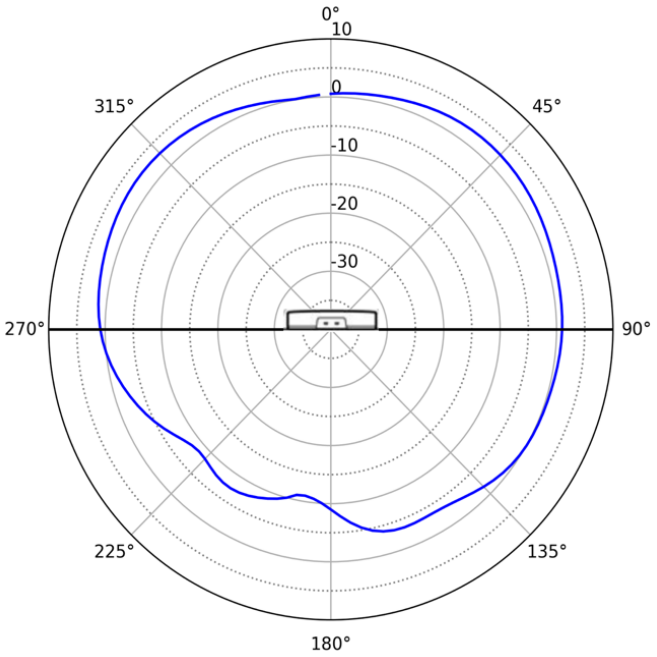


6G High Azimuth

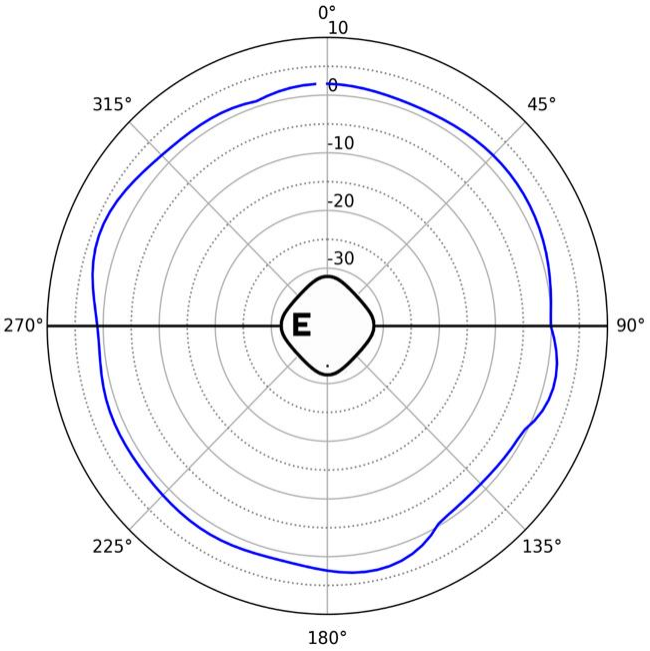


Radiation Patterns – AP5022 – Sensor

2G Sensor Elevation

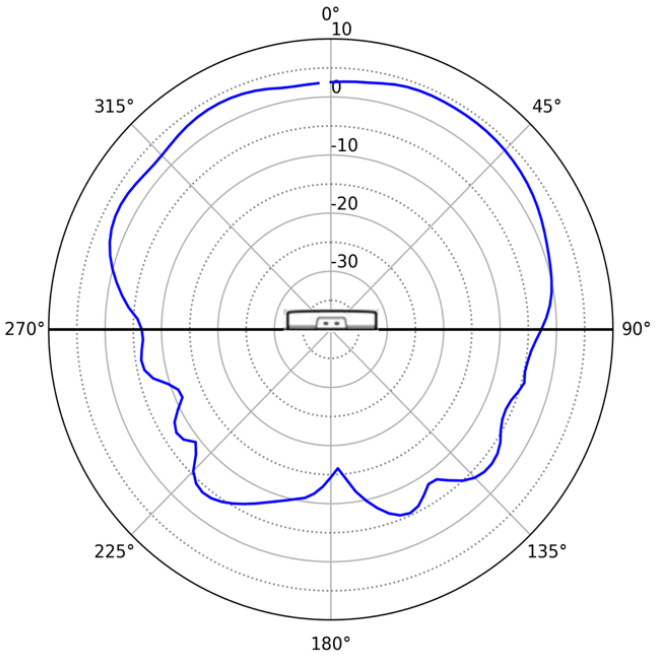


2G Sensor Azimuth

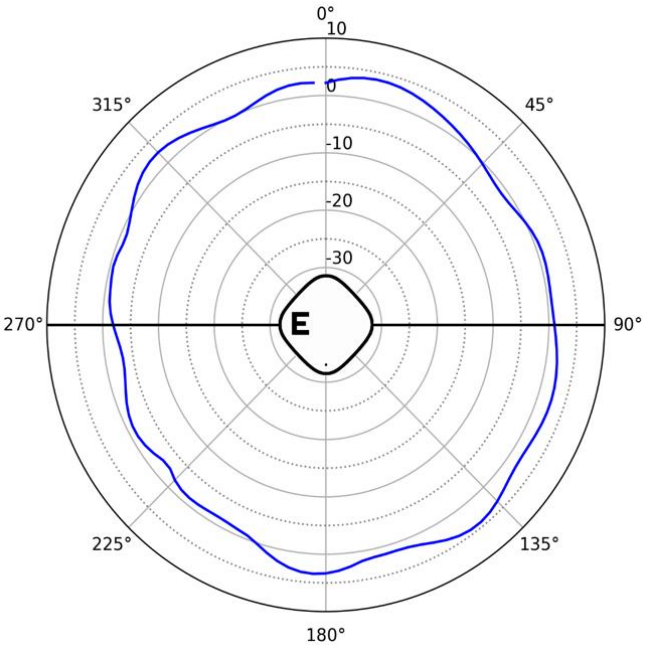


Radiation Patterns – AP5022 – Sensor

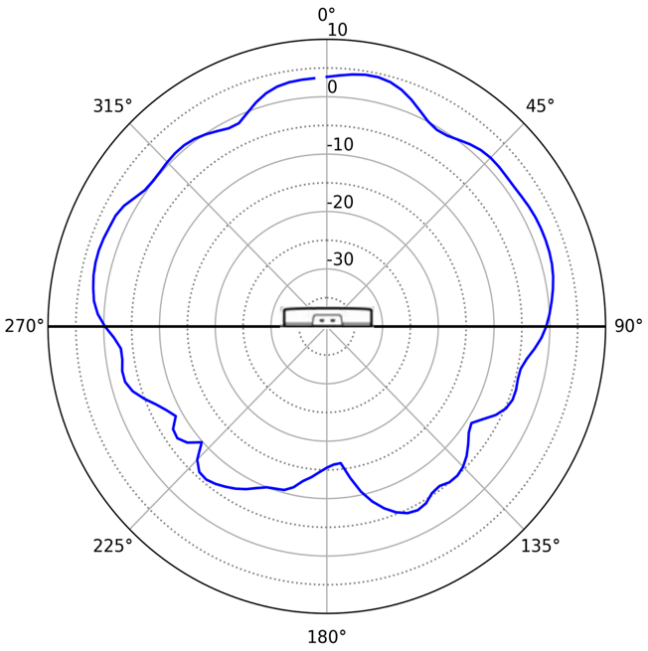
5G Sensor Elevation



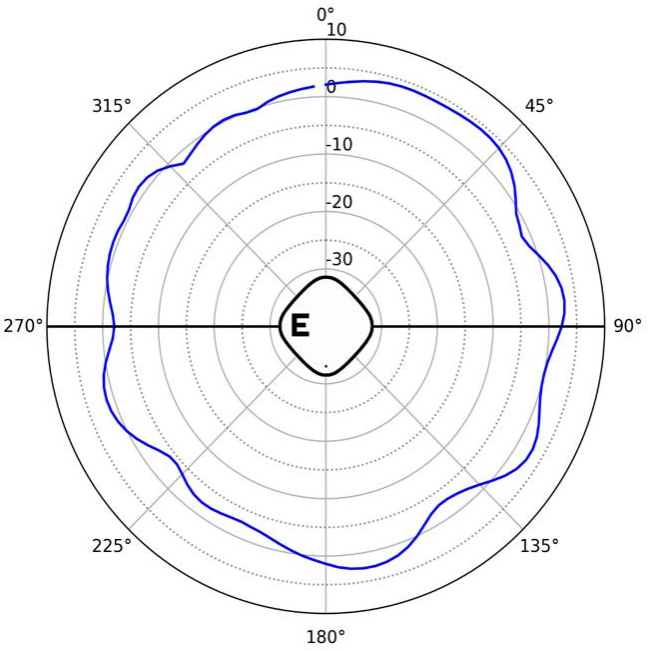
5G Sensor Azimuth



6G Sensor Elevation

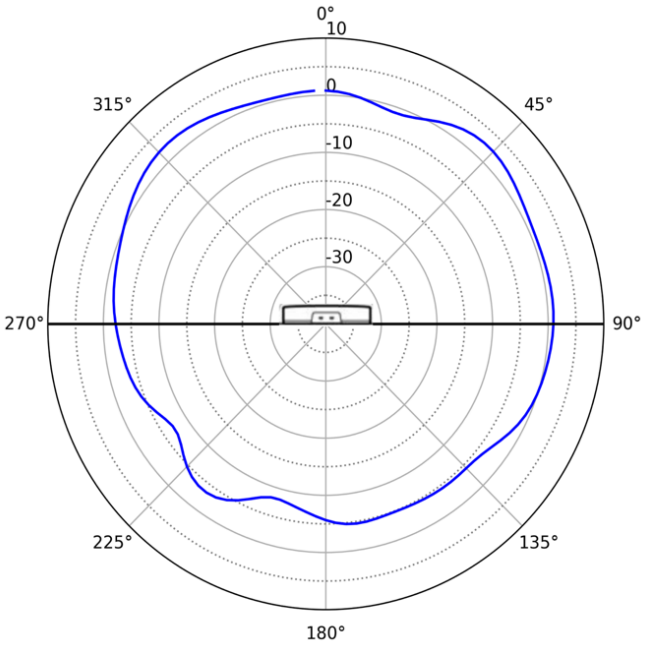


6G Sensor Azimuth

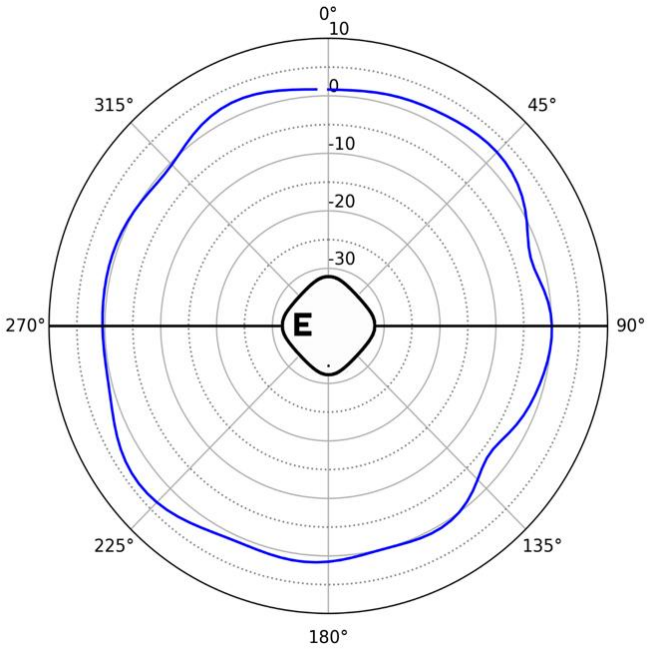


Radiation Patterns – AP5022 – BLE Radios

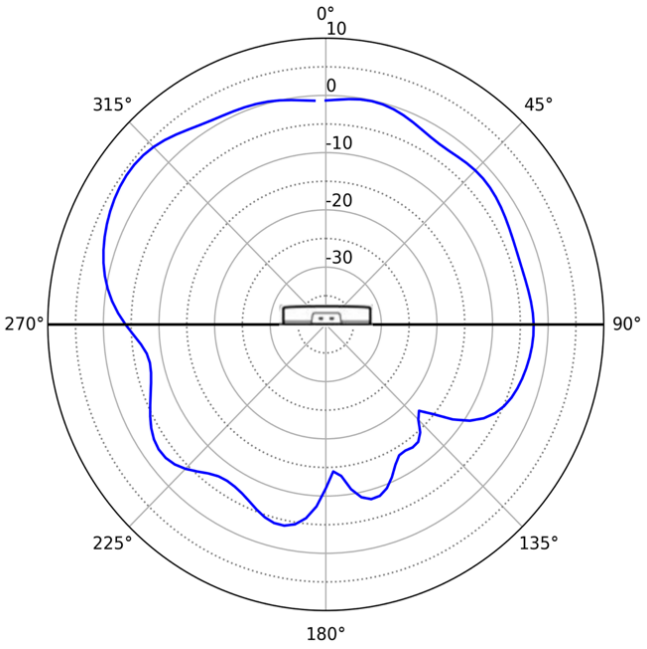
BLE R1 Elevation



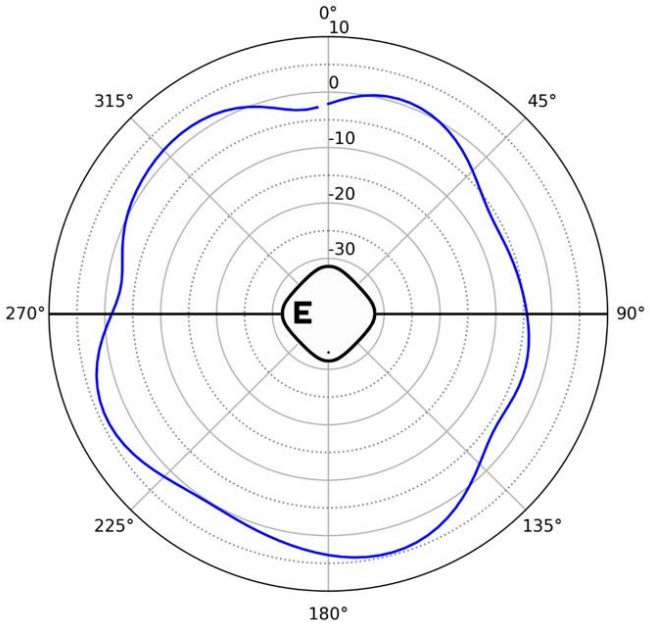
BLE R1 Azimuth



BLE R2 Elevation

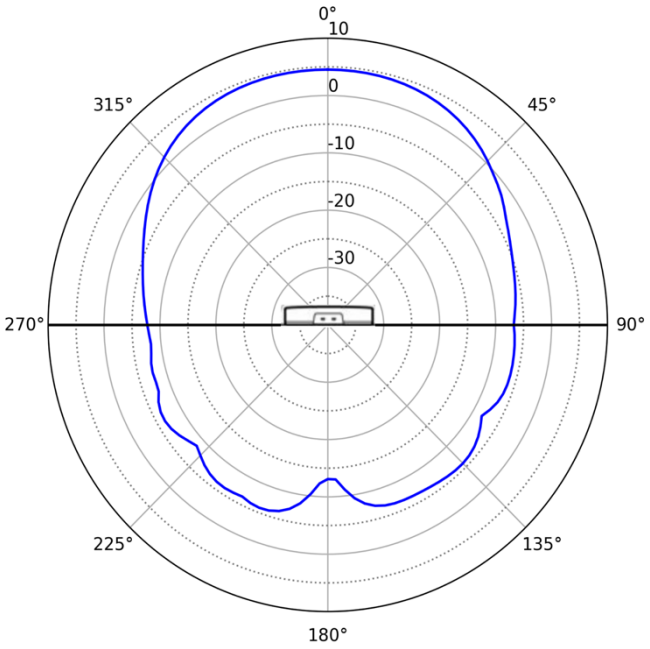


BLE R2 Azimuth

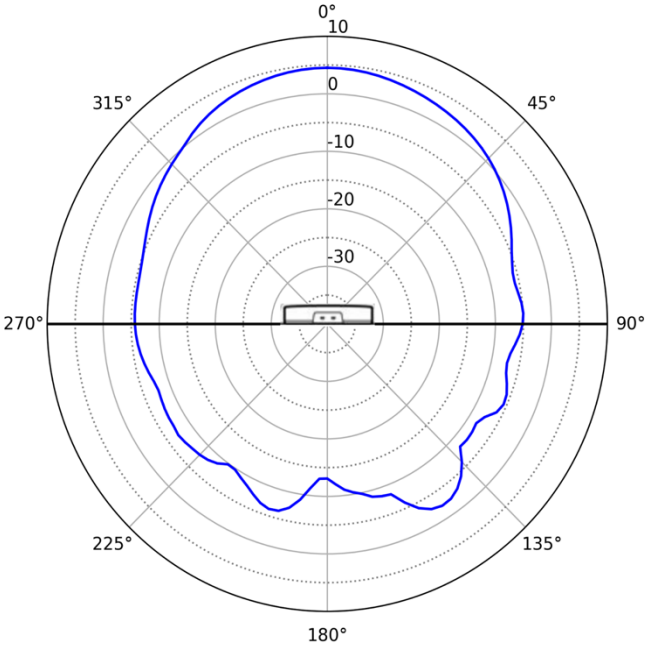


Radiation Patterns – AP5022S6D

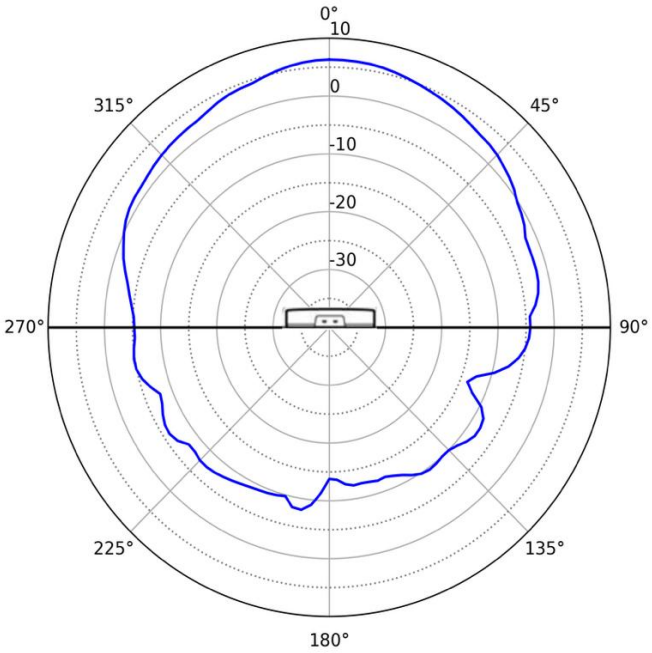
2G Elevation



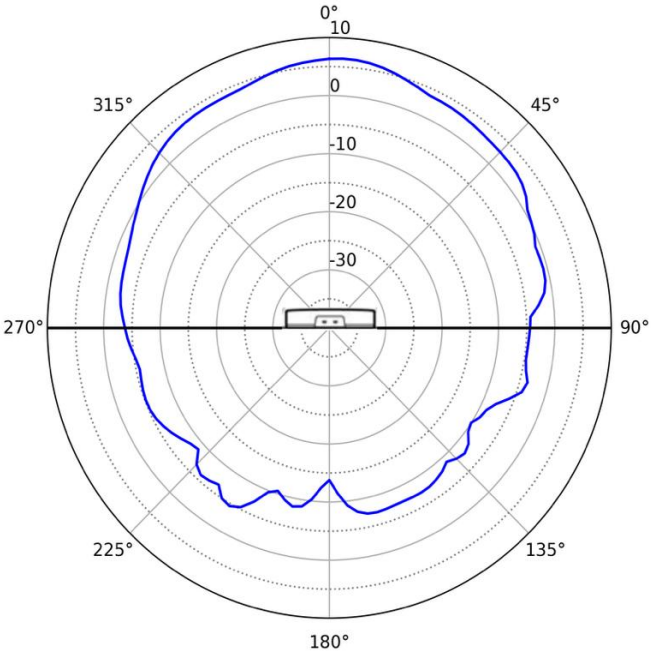
2G Azimuth



5G Elevation

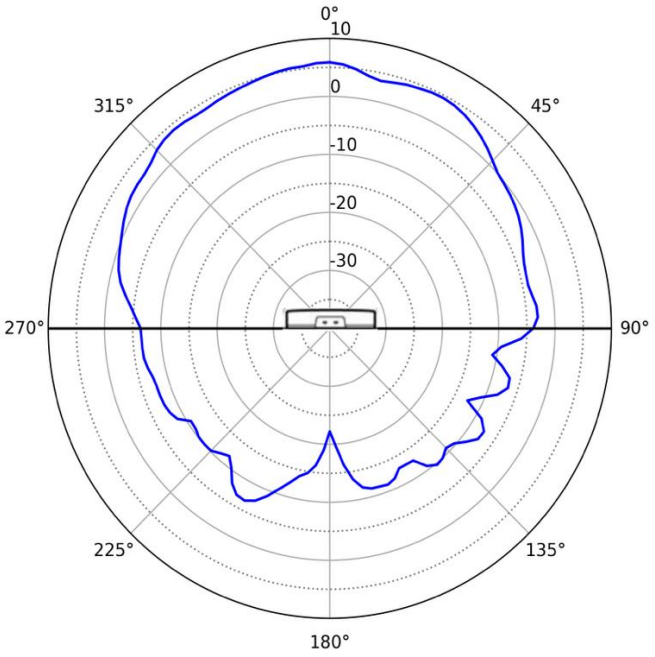


5G Azimuth

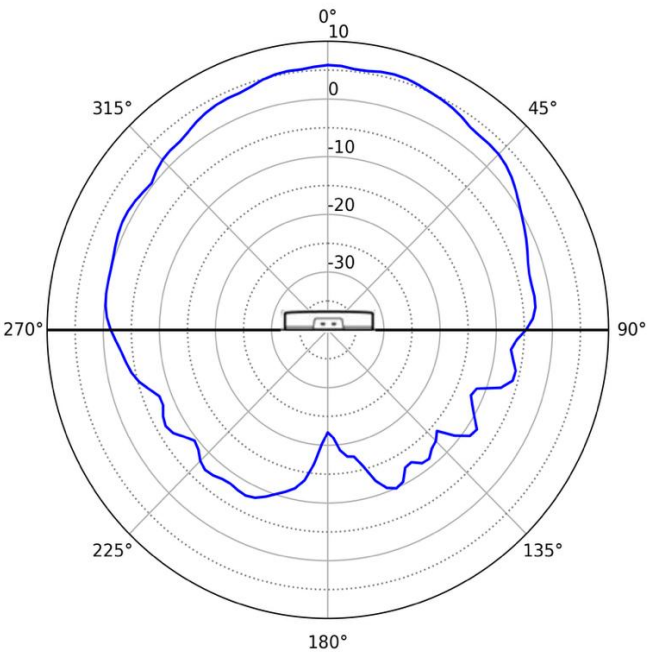


Radiation Patterns – AP5022S6D

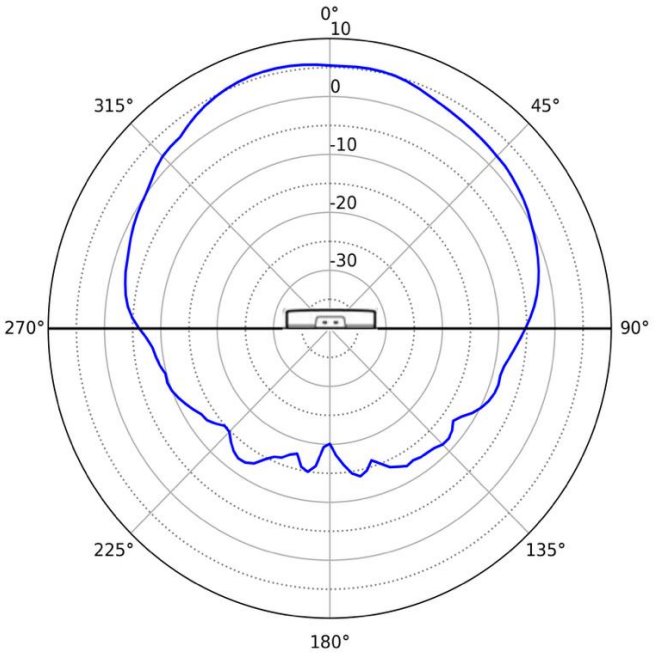
6G Elevation



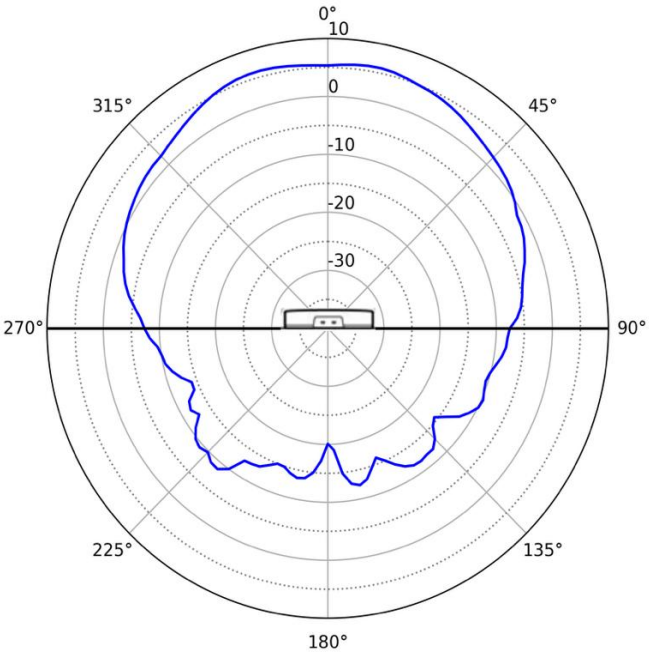
6G Azimuth



5G Low Elevation

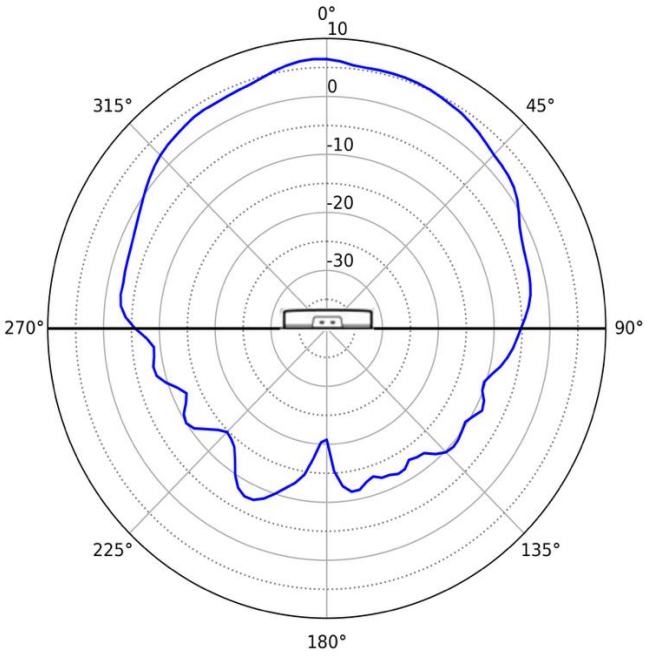


5G Low Azimuth

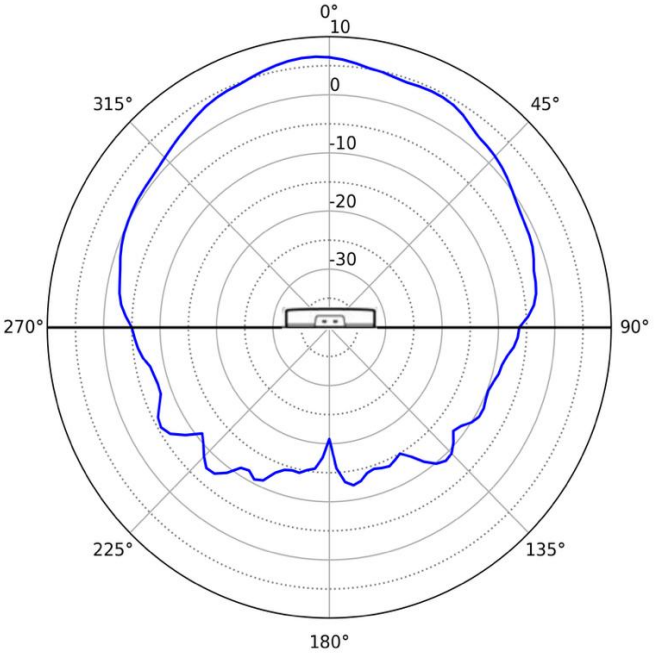


Radiation Patterns – AP5022S6D

6G High Elevation

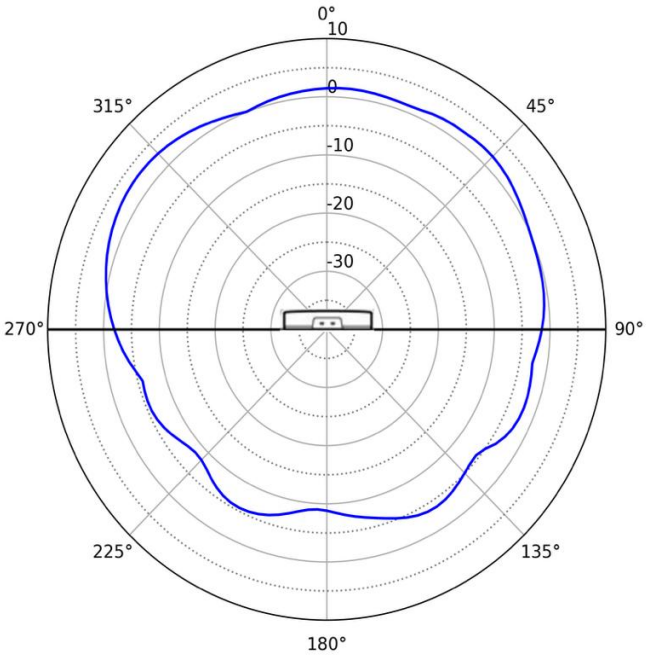


6G High Azimuth

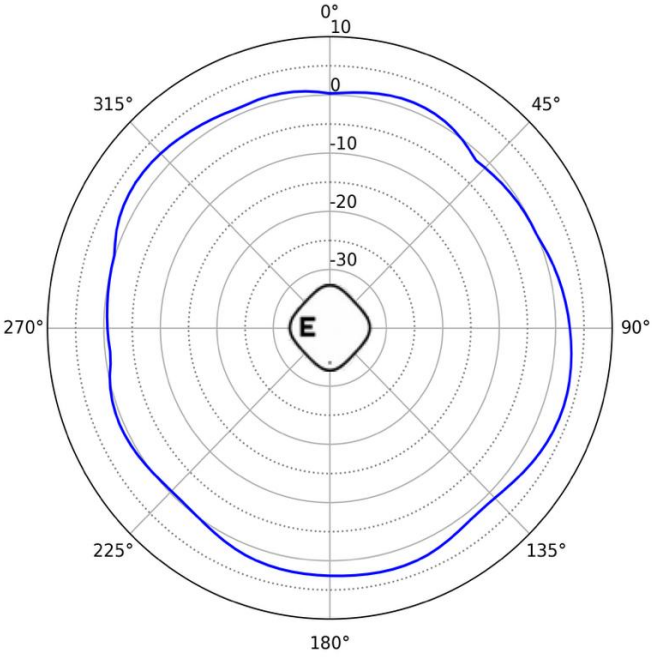


Radiation Patterns – AP5022S6D – Sensor

2G Sensor Elevation

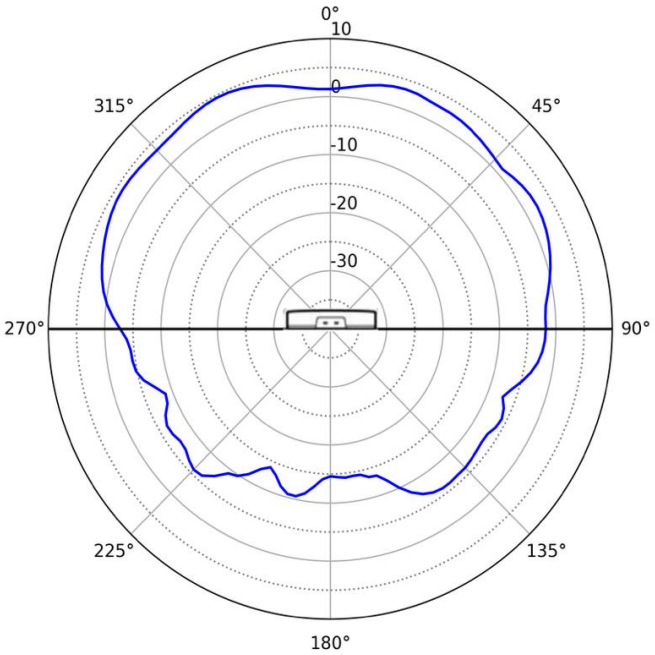


2G Sensor Azimuth

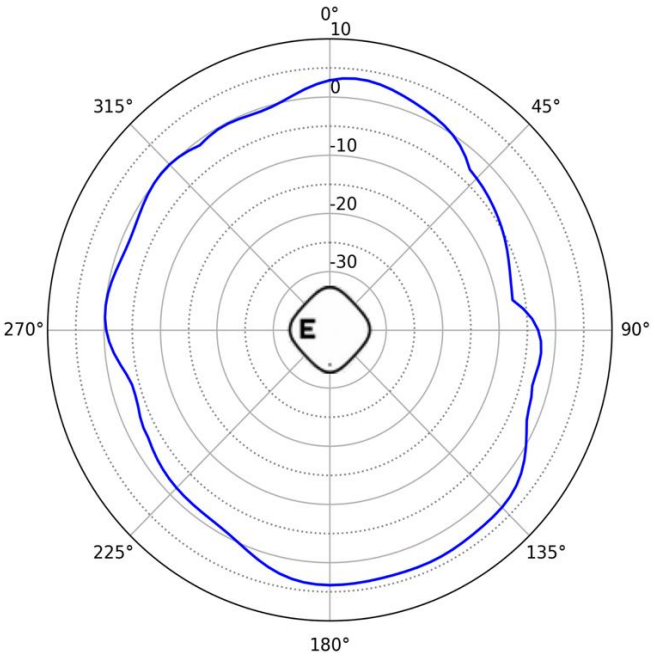


Radiation Patterns – AP5022S6D – Sensor

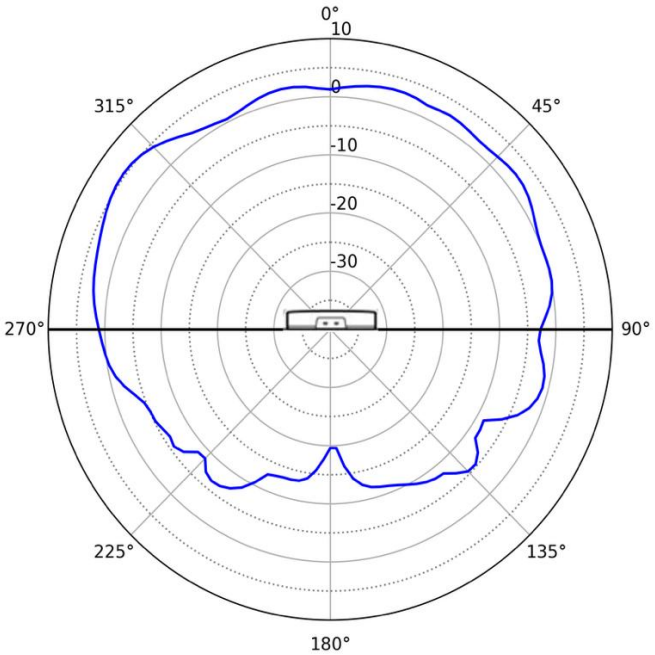
5G Sensor Elevation



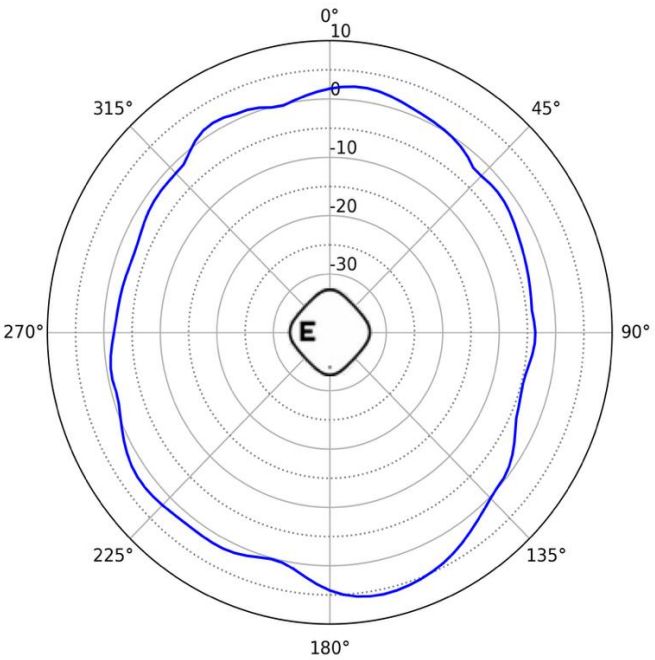
5G Sensor Azimuth



6G Sensor Elevation

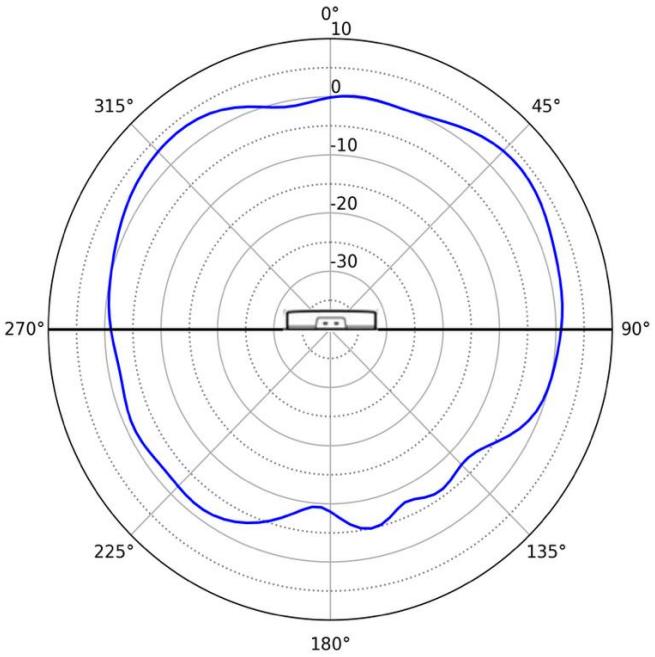


6G Sensor Azimuth

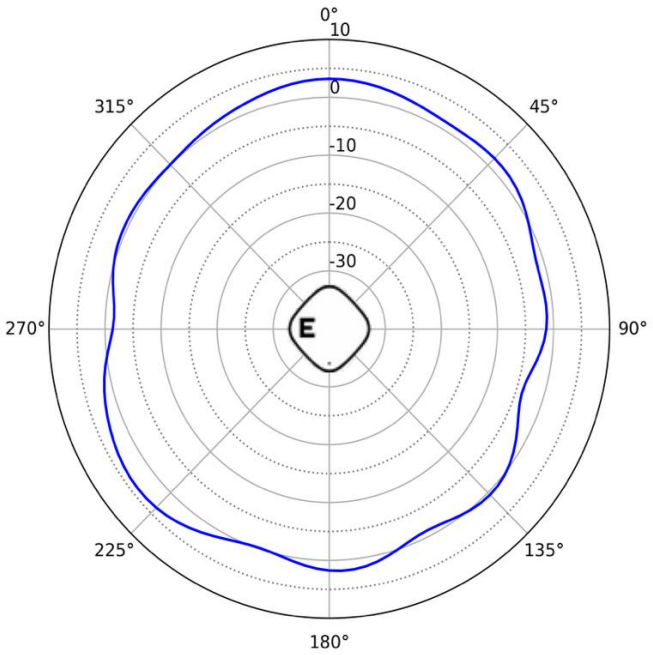


Radiation Patterns – AP5022S6D – BLE Radios

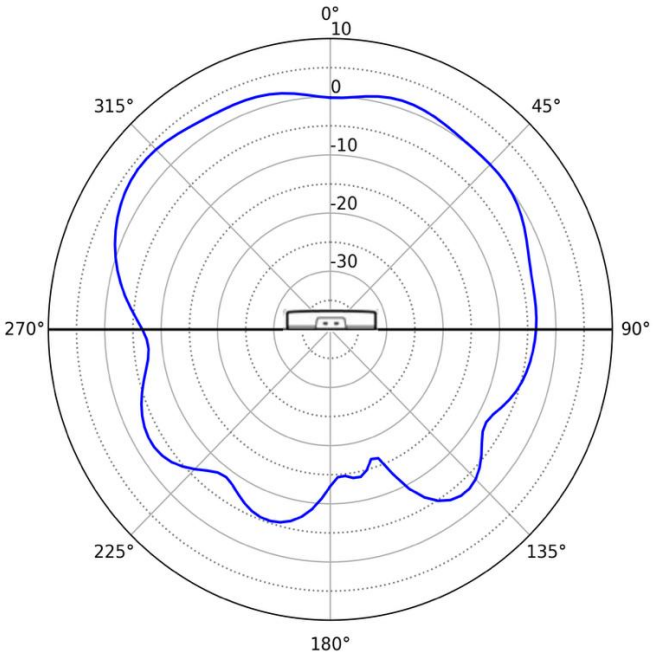
BLE R1 Elevation



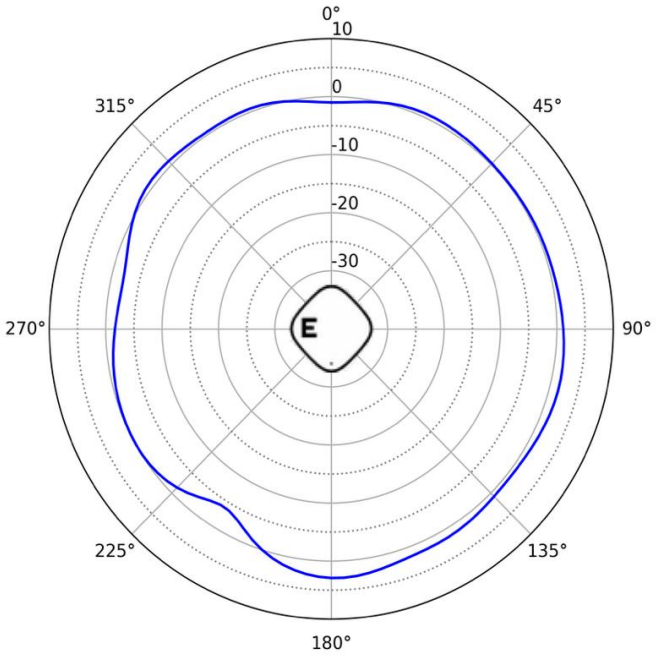
BLE R1 Azimuth



BLE R2 Elevation



BLE R2 Azimuth



Ordering Information

AP5022 Series

Part Number	Description
AP5022-WW	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU
AP5022S6D-WW	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Internal 60 Degree directional antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU
AP5022FX-WW	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Extended Temp, External antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU
AP5022-WW-TAA	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: World SKU TAA Compliant
AP5022-EG	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Internal antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: Egypt
AP5022FX-EG	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Extended Temp, External antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: Egypt
AP5022S6D-EG	Indoor Quad Radio Wi-Fi 7 (4x4:4): 2.4 GHz, 5 GHz, 6 GHz & dedicated full time sensor, Dual IoT, Dual 5 GHz, Dual 6 GHz, Multi-Rate Port, Internal 60 Degree directional antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Domain: Egypt

Notes:
1. 6 GHz operation is country dependent.
2. AP5022FX-WW includes one ACC-CBL-BRKOUT-12RPSMA cable
3. For AP5022FX units outside the US and Canada, the internal 6 GHz radio is enabled to support Low Power Indoor (LPI) operation.

Antennas – AP5022FX

Part Number	Description	Notes
AI-TQ08055	7 dBi (2.4 GHz) and 6 dBi (5 and 6 GHz) Indoor, Hex Sector 2.4 GHz 65 Degrees and 5 GHz 55 Degrees Tri-band with attached 1 meter 4-port RP-SMA cable. Mount included.	
AIO-DQ15021-RPSMA	15 dBi Indoor/Outdoor Four-port, 2.4 GHz and 5 GHz, Directional 21 Degree with 36 in. RPSMA cable	No 6 GHz support
AIO-HQ17020	17 dBi (5 and 6 GHz) Indoor Quad Directional 20 Degree with detachable 1 meter 4-port RP-SMA cable. Mount included.	
AI-TQ06120	6 dBi Indoor Quad Sector 120 Degree Tri-band with attached 1 meter 4-port RP-SMA cable. Mount included.	
AI-TP05360	5 dBi Indoor Omni Ceiling antenna with 4 Tri-band (2.4 GHz, 5 GHz, 6 GHz) and 1 IoT 1 meter RP-SMA cables.	
AIO-HE17020	17 dBi (5 and 6 GHz) Indoor 8-port Directional 20 Degree with detachable 1 meter 8-port RP-SMA cable. Mount included.	Future support
AI-TS06360	3 dBi (2.4 GHz) and 5 dBi (5 and 6 GHz) Indoor Dipole Tri-band with RP-SMA connector. IoT only.	IoT radio only

Refer to the Antenna Specification Guide for more details.

Mounting Options

Part Number	Description	Notes
AH-ACC-BKT-AX-TB	Mounting bracket for Prelude 15/16 in. and Suprafine 9/16 in. ceilings and walls	Ships with AP5022 Can be used for wall – 0.25 in.
AH-ACC-BKT-AX-WL	Mounting bracket for direct-to-wall installations	Can be used for wall – 1.25 in.
AH-ACC-BKT-AX-IL	Mounting bracket for interlude ceilings	
AH-ACC-BKT-AX-SL	Mounting bracket for Armstrong 1/8 in. and 1/4 in. main beam Silhouette reveal ceiling grids	Up to 0.33 in. ceiling tile protrusion
ACC-BKT-AX-JB	Junction box or wall mounting for indoor APs	Gang/junction box
ACC-BKT-AX-BEAM	Beam mounting for indoor APs	Up to 0.78 in. thick beam
AH-ACC-BKT-916-KIT	9/16 in. ceiling mount brackets for non-flat/protruded ceiling tiles - use with AH-ACC-BKT-AX-TB	9/16 in. non-flat/protruded ceiling tiles
ACC-BKT-TB-NF	Adapter bracket AH-ACC-BKT-TB for 15/16 in. wide t-bars non-flat/protruded ceiling tiles	15/16 in. 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 adapter 12V DC, 3A, 2.5 mm x 5.5 mm connector

Other Accessories

Part Number	Description
ACC-CBL-BRKOUT-12RPSMA	12 RPSMA Port Breakout antenna cable for AP5022FX using LMR-100 cable and 9 in. long. May be installed on a pole/wall.
ACC-WIFI-MICRO-USB	Micro-USB to USB console adapter cable for Extreme wireless APs

For more details, refer to the Product Accessories Guide.

Warranty

The AP5022 series wireless access points are covered under Extreme's Product Warranty policy. For warranty details, visit our Policies and Warranties page.

Support Services

Extreme offers a portfolio of services that adapts to your unique environment and technical support needs. Globally available technical support and professional services from our in-house team of experts provides the resiliency and optimization that accelerates your business and innovation.

Combined with Extreme Platform ONE agentic support tools and workflows, Extreme Services helps you to anticipate issues and identify risks before they impact your business. For more information, visit our Services page.

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