Highlights

Advanced Radio Technology

Tri-Radio Design

- 5 GHz 4x4:4
- 2.4 GHz 2x2:2
- 2.4 GHz / 5 GHz / Sensor

Radio Modes - SSR

- 2.4 GHz / 5 GHz / Sensor (2.4 GHz/5GHz)
- 5 GHz / 5 GHz - Dual 5 GHz

High Density Environments

- Delivers exceptional end-user experience even in the densest user environments

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 over 802.3at

Smart Management Choices

- ExtremeCloud IQ delivers powerful, simple and secure public or private cloud management capabilities

BUILT ON BROADCOM

ExtremeWireless™ AP 410C

Wi-Fi 6 (802.11ax) Tri-Radio Access

The AP 410C provides high-efficiency, high-performance 802.11ax aggregate data rates up to 4.8 Gbps in the 5 GHz band and concurrent 2.4 Gbps in the 2.4 GHz band. Designed for high density environments, AP 410C is powerful enough and smart enough to provide the highest level of client services without compromising security monitoring. Unlike other access points that scan only part time, the dedicated, dual-band sensor scans for rogue devices full time, eliminating the risk of vulnerability or attacks. Tri-Radio APs continues the Extreme tradition of software-selectable radios (SSRs) capable of dual 5 GHz connectivity.

With more users, more devices, more things, more applications and more threats straining the infrastructure, the AP 410C was engineered to meet those challenges. The AP 410C combines powerful 802.11ax Wi-Fi 6 technology, advanced security and ML/AI management capabilities together into an enterprise class solution that allows you to deploy high speed, highly secure Wi-Fi into the toughest environments.

Extreme Elements™
ExtremeWireless™ AP 410C

Hu Human | IQ Extreme Cloud IQ | Wi Wireless Indoor APs

Built to Suit Your Business Needs

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

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

Learn more at www.extremenetworks.com/extreme-elements/.

Security

The AP 410C delivers the highest level of security services, beginning with support for the latest Wi-Fi Alliance WPA3 security certifications. Additionally, supporting a stateful L2-L7 DPI firewall for context-based access security.

Wi-Fi 6 (802.11ax) Technology

Prior generations of 802.11n, 802.11ac wave 1 and 2, can be considered generational improvements with an emphasis on faster speed. 802.11ax technology instead enhances Wi-Fi efficiency as well as speed, taking Wi-Fi networks to an entirely new level. To learn more about 802.11ax, go to: https://www.extremenetworks.com/are-you-ready-for-802-11ax/

Programmable Radios

Extreme launched the industry's first software defined 802.11ax access point supporting not only a dual 5 GHz capability but also two software programmable modes to optimally manage radios to provide the highest level of client performance. The AP 410C intelligent monitoring of the software- configurable radios enables network managers to configure network RF technology based on user environment and configure the access points in different modes was required.

Management Analytics

In conjunction with management system, cloud or On-premises the AP 410C provides a very rich set of data displayed via context driven widgets, representing 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 adjust dashboards from widget library.

RF Monitoring

Network managers will appreciate a powerfulchoice of RF management for their Wi-Fi networks,with Adaptive RF management with AI/ML-like functionality. Adaptive RF algorithms provide intelligent selection of the best channels and transmit power for unimpaired dual 5 GHz operation. Load balancing, band steering and many other attributes of the RF can all be automated.

Integrated BLE

To support both IoT and Guest Engagement services the AP 410C 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

Radio Specifications

802.11a
- 5.150–5.850 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- Rates (Mbps): 54, 48, 36, 24, 18, 12, 9, 6 w/ auto fallback

802.11b
- 2.4–2.5 GHz Operating Frequency
- Direct-Sequence Spread-Spectrum (DSSS) Modulation
- Rates (Mbps): 11, 5.5, 2, 1 w/ auto fallback

802.11g
- 2.4–2.5 GHz Operating Frequency
- Orthogonal Frequency Division Multiplexing (OFDM) Modulation
- 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

802.11ac
- 5.150–5.850 GHz Operating Frequency
- 802.11ac Modulation (256-QAM)
- Rates (Mbps): MCS0 – MCS31 (6.5MBps - 600Mbps)
- 5G: 4x4 Multiple-In, Multiple-Out (MIMO) Radio
- 2.4G: 2x2 Multiple-In, Multiple-Out (MIMO) Radio
- Rates (Mbps): MCS0–MCS9 (6.5Mbps – 3467Mbps), NSS = 1-4.
- 4x4:4 Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80/VHT160 support
- TxBF (Transmit Beamforming)

802.11ax
- 2.4–2.5 GHz and 5.150–5.850 GHz Operating Frequency
- 802.11ax Modulation (1024-QAM)
- Dual-band OFDMA
- Rates (Mbps):
  - 5G: HE0-HE11 (8 Mbps – 4800 Mbps).
  - 2.4G: HE0-HE11 (8Mbps – 574 Mbps).
- 4x4:4 Stream Multiple-In, Multiple-Out (MIMO) Radio@ 5GHz
- 2x2:2 Stream Multiple-In, Multiple-Out (MIMO) Radio @2.4GHz
- 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
- BLE 5 Radio Bluetooth® Low Energy (BLE)

Interfaces
- (1) 100/1000/2500 Mbps auto-negotiation Ethernet port, RJ45 PoE (Power over Ethernet 802.3at) Port
- (1) 10/100/1000 Mbps auto-negotiation Ethernet port, RJ45
- USB 2.0, Type A , 5V, 0.9A

Power Specifications
- IEEE 802.3at PoE Power

Power Options
- Power Draw: Typical: 17.69; Max: 18.74 (w/o USB)
  Typical: 22.69; Max: 23.74 (w USB)
- 802.3at Power over Ethernet (PoE) capable
- Gigabit Ethernet port (RJ-45 power input pins:
- Wires 4,5,7,8 or 1,2,3,6)
- 802.3af Power over Ethernet injector

Physical
- 8″ x 8″ x 1.8″ (205mm x 205mm x 37mm)
- AP 410C: 2 lbs (.9 kg)
- TPM chip for added security

Internal Antennas
- (2) Integrated single band, 5.1-5.8 GHz omnidirectional antennas
- (2) Integrated dual band, 2.4-2.5 GHz and 5.1-5.8 GHz omnidirectional
- (4) Integrated single band, 2.4-2.5 GHz omnidirectional antennas for BLE

Mounting
- AP support 15/16 flush ceiling tile included in the box
- Wall Mount sold as an accessory
- Ceiling Tile Recessed 15/16″ sold as an accessory
- Built-in slot for Kensington type locks

Environmental
- Operating: AP 410C: 0 to 40°C
- Storage: -40 to 70°C
- Humidity: 0% to 95% (non-condensing)

Environmental Compliance
- UL2043 - Plenum Rated

Regulatory Compliance

Product Safety Certifications
- IEC 60950-1, EN 60950-1, UL 60950-1, CSA 22.2 No.60950-1-03 AS/NZS 60950.1,
- RoHS Directive 2011/65/EU

Radio Approvals
- FCC CFR 47 Part 15, Class B
- ICES-003, Class B
- FCC Subpart C 15.247
- FCC Subpart E 15.407
- RSS247
- AS/NZS4268 + CISPR32
- IEC/EN 60601-1-2
- EN 62311
- EN 50385
- EN 301 489-1
- EN 301 489-17
- EN 55032, (Class B)
- EN 55011, (Group 1, Class B)
- EN 55024
- EN 60601-1-2
- EN 61000-3-2
- EN 61000-3-3
- EN 300 328
- EN 301 893
- EN 300 440
- EN 50581

Support
- Limited Lifetime Warranty

Power and Sensitivity Tables

Power and Receive Sensitivity- 2.4 GHz

Channel	Data Rate	Power (dBm)	Sensitivity
11b	1 - 11 Mbps	18	-94, -87
11g	6 Mbps	18	-90
	54 Mbps	17	-73
11n HT20	MCS0, 7	18, 14	-89, -70
11n HT40	MCS0, 7	18, 14	-86, -67
11ax HE20	HE0, 11	18, 11	-89, -60
11ax HE40	HE0, 11	18, 11	-86, -56

Power and Receive Sensitivity – 5 GHz (Low Band)

Channel	Data Rate	Power (dBm)	Sensitivity
11a	6 Mbps	18	-91
	54 Mbps	15	-73
11n HT20	MCS0, 7	18, 15	-90, -72
11n HT40	MCS0, 7	18, 15	-89, -70
11ac VHT20	MCS0, 8	18, 14	-90, -69
11ac VHT40	MCS0, 9	18, 13	-89, -64
11ac VHT80	MCS0, 9	18, 13	-86, -62
11ax HE20	HE0, 11	18, 11	-89, -59
11ax HE40	HE0, 11	18, 11	-87, -59
11ax HE80	HE0, 11	18, 11	-84, -53

Power and Receive Sensitivity – 5 GHz (Full Band)

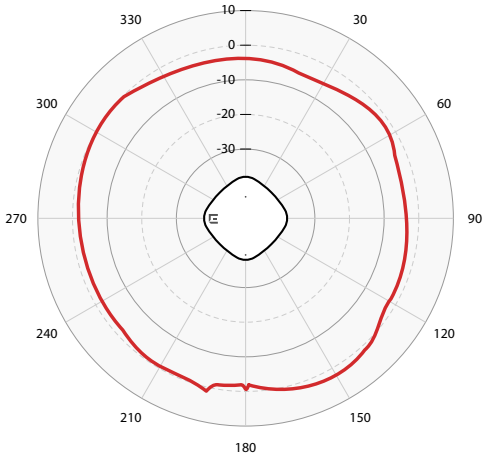
Channel	Data Rate	Power (dBm)	Power (dBm)
11a	6 Mbps	18	-92
	54 Mbps	16	-74
11n HT20	MCS0, 7	18, 15	-91, -74
11n HT40	MCS0, 7	18, 15	-89, -71
11ac VHT20	MCS0, 8	18, 14	-91, -70
11ac VHT40	MCS0, 9	18, 13	-90, -65
11ac VHT80	MCS0, 9	18, 13	-87, -63
11ac VHT160	MCS0, 9	17, 12	-82, -58
11ax HE20	HE0, 11	18, 11	-90, -60
11ax HE40	HE0, 11	18, 11	-88, -60
11ax HE80	HE0, 11	18, 11	-85, -54
11ax HE160	HE0, 11	17, 10	-82, -52

Power and Receive Sensitivity – 5 GHz (High Band)

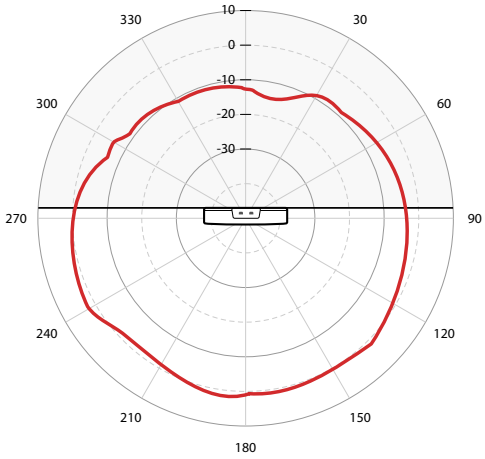
Channel	Data Rate	Power (dBm)	Sensitivity
11a	6 Mbps	17	-91
	54 Mbps	15	-73
11n HT20	MCS0, 7	17, 14	-90, -72
11n HT40	MCS0, 7	17, 14	-89, -70
11ac VHT20	MCS0, 8	17, 13	-90, -69
11ac VHT40	MCS0, 9	17, 12	-89, -64
11ac VHT80	MCS0, 9	17, 12	-86, -62
11ac VHT160	MCS0, 9	16, 11	-81, -57
11ax HE20	HE0, 11	17, 10	-89, -59
11ax HE40	HE0, 11	17, 10	-87, -59
11ax HE80	HE0, 11	17, 10	-84, -53
11ax HE160	HE0, 11	16, 9	-81, -51

Antenna Radiation Patterns

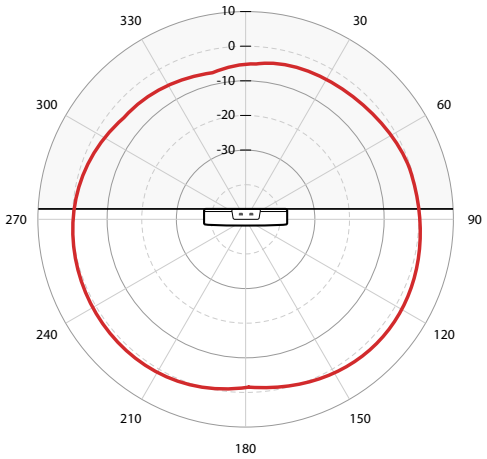
Azimuth - 2.4 GHz



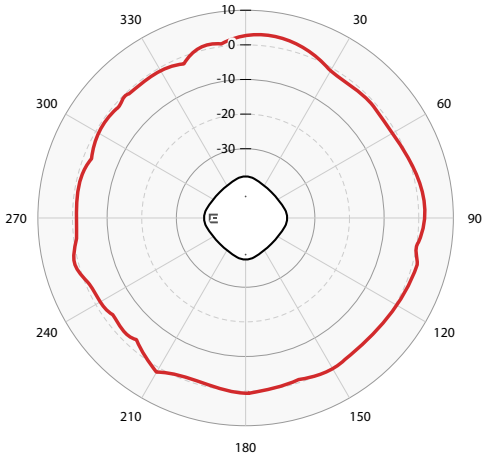
Elevation - 5 GHzz



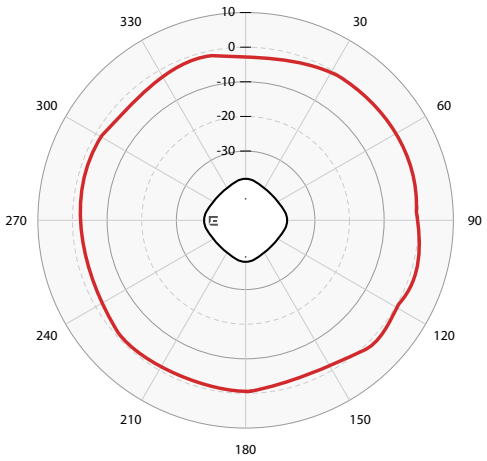
Azimuth - 2.4 GHz



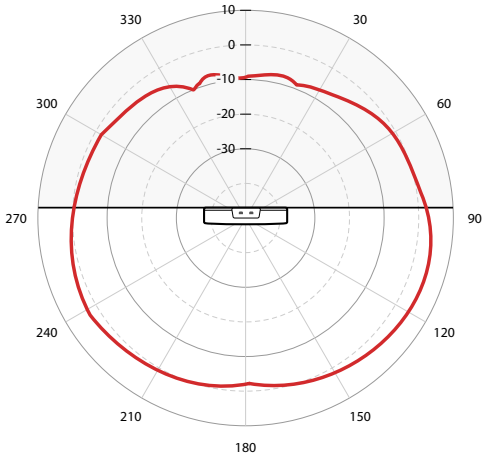
Elevation - 5 GHz



Azimuth - 5 GHz

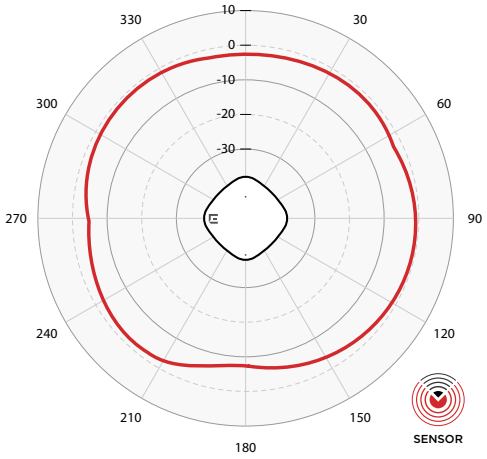


Elevation - 5 GHz

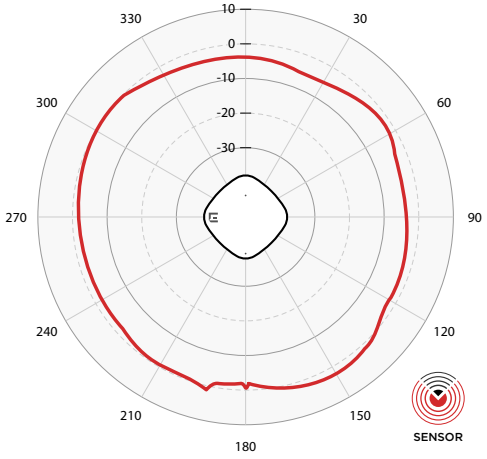


Antenna Radiation Sensor Patterns

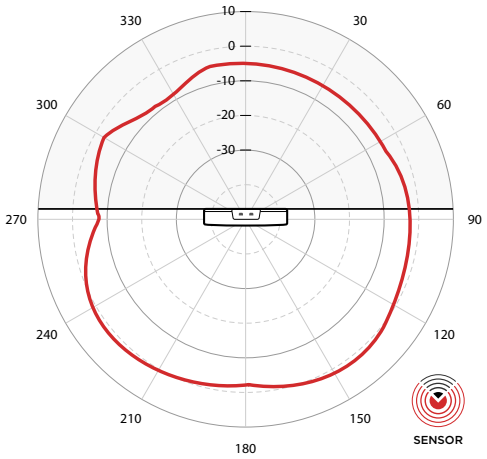
Azimuth - 2.4 GHz



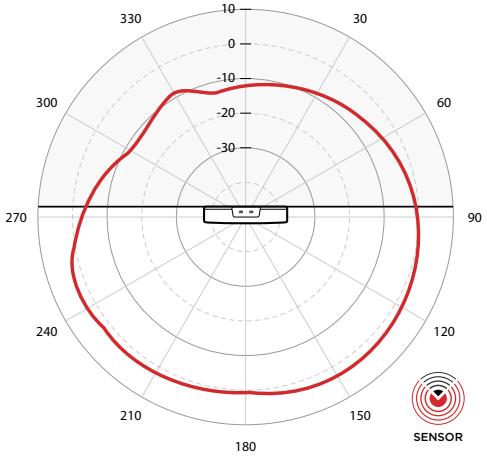
Elevation - 5 GHz



Azimuth - 5 GHz



Elevation - 5 GHz



Ordering Information

AP 410C - SKUs

Part Number	Description
AP 410C-FCC	ExtremeCloud IQ: Indoor Tri Radio WiFi6 AP, 2.4 GHz, 5GHz, and Sensor w/ Dual 5GHz and Mulitrate Port. Environmentally friendly, Light, power sensors. AI/ML green mode. INT antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). NA
AP 410C-CAN	ExtremeCloud IQ: Indoor Tri Radio WiFi6 AP, 2.4 GHz, 5GHz, and Sensor w/ Dual 5GHz and Mulitrate Port. Environmentally friendly, Light, power sensors. AI/ML green mode. INT antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Canada
AP 410C-WR	ExtremeCloud IQ: Indoor Tri Radio WiFi6 AP, 2.4 GHz, 5GHz, and Sensor w/ Dual 5GHz and Mulitrate Port. Environmentally friendly, Light, power sensors. AI/ML green mode. INT antennas. T-Bar, Incl Mt (AH-ACC-BKT-AX-TB). Rest of World

Accessories

Part Number	Description
Mounting Accessories	
AH-ACC-BKT-AX-IL (x1 per)	Mounting bracket for Interlude ceilings
AH-ACC-BKT-AX-SL (x1 per)	Mounting bracket for Silhouette 1/8" and Silhouette 1/4" ceilings
AH-ACC-BKT-AX-TB (x1 per)	Mounting bracket for Prelude 15/16" and Suprafine 9/16" ceilings (Shipped with AP)
AH-ACC-BKT-AX-WL (x1 per)	Mounting bracket for direct-to-wall installations
Power Accessories	
PD-9001GR-ENT	Single port 802.3at compliant midspan
AH-ACC-PW-CBL-US	6ft 18 AWG universal power cord with US plug
AH-ACC-PW-CBL-UK	6ft universal power cord with UK plug
AH-ACC-PW-CBL-EU	6ft universal power cord with EU plug
AH-ACC-PW-CBL-AU	6ft universal power cord with AU plug
AH-ACC-PW-CBL-JP	6ft universal power cord with Japan plug
AH-ACC-PW-CBL-KR.	6ft universal power cord with Korea plug

Extreme networks

http://www.extremenetworks.com/contact