AP 550

Performance-Optimized Indoor 802.11ac Wave 2 Dual-Radio 4x4:4 MIMO Access Point
for High Capacity Environments

AEROHIVE®
NETWORKS

AP550 is engineered for high performance in demanding environments, with aggregate data rates up to 3.46Gbps. AP550 features software defined radios that allow IT managers to enable 802.11ac 5 GHz performance on both radios. AP550 extends support to the next-generation Wi-Fi clients, such as smartphones, tablets, and high-performance laptops that have integrated 802.11ac Wave 2 support.

With the underlying powerful HiveOS and innovative distributed Co-operative Control architecture, **AP550** brings to market a rich set of enterprise-grade features and best-in-class performance. In addition, the integrated BLE radio and a USB interface in the access point lay the foundation for a wide variety of deployment use-cases in IoT and proximity/location-oriented services. The powerful, integrated software defined radios allow IT managers to enable 802.11ac performance on both radios to provide the best of coverage and capacity.

The AP550 benefits from an AI-driven Wi-Fi architecture capable of self-organizing, self-learning, self-healing and self-optimizing in the most challenging environments. Cooperative Control eliminates single points of failure and bottlenecks, delivering bulletproof stability and unbridled performance, perfectly complimenting the unrivalled capabilities of HiveOS - a stateful L2-L7 DPI firewall for context-based access security, advanced and customizable QoS for traffic optimization, intelligent meshing algorithms, Private Pre-Shared Key (PPSK) and much more.

All Aerohive APs can be centrally managed using Aerohive's out-of-band cloud network management system - *HiveManager*. HiveManager is an industry-leading and visionary approach to cloud-managed networking, built from the ground up to take full advantage of the SD-LAN and SD-WAN solution from Aerohive. Working in tandem with Aerohive's cutting-edge HiveOS, HiveManager leverages state-of-the-art cloud technology. Benefit from unified, full-stack management of Wi-Fi, switching and routing, centralized monitoring and configuration, real-time and historical reporting, simplified troubleshooting, integrated RF planner tools and much more.

HiveManager is available in two editions: *Connect* and *Select*. The Connect solution is bundled with Aerohive access points and switches and is free for the lifetime of the device. Connect is the perfect solution for those looking to provide robust, yet enterprise-grade connectivity, without having to invest in the full suite of management features. The optional upgrade to Select unlocks a slew of advanced features and capabilities that enhance network management, security and visibility.

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 & 5.150–5.850 GHz Operating Frequency
- Rates (Mbps): MCS0–MCS23 (6.5Mbps - 300Mbps)
- 4x4 4-Stream Multiple-In, Multiple-Out (MIMO) Radio
- HT20 High-Throughput (HT) Support for 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–MCS9 (6.5Mbps – 1733Mbps), NSS = 1-4.
- 4x4 4-Stream Multiple-In, Multiple-Out (MIMO) Radio
- VHT20/VHT40/VHT80 support

Interfaces

- Two Autosensing 10/100/1000 BASE-T Ethernet ports. PoE (Power over Ethernet 802.3af) capability on both ports for redundancy and high availability
- RJ-45 console port
- Standard USB port

Power Specificatons

- IEEE 802.3at PoE+ Power required for full 4x4:4 MU-MIMO, dual 5 GHz, USB, BLE and 2 Ethernet ports to operate*

Power Options

- Power Draw: Typical 10.5W, Max 12.9W
  Typical DC 16.9W, Max DC 21.6W

Physical

- WxDxH: 8.15" x 8.15" x 2.17" (208mm x 208mm x 55mm)
- Weight: 2.4 lbs (1.1 Kg)

Antennas

- 12x WiFi internal antennas (4x 2.4 GHz antennas and 8x 5 GHz antennas)
- 1x BLE internal antenna

Mounting

- Desktop
- Wall Mount *(included)*
- Ceiling Tile flush 15/16" *(included)*
- Ceiling Tile Recessed 15/16", 3/8", 9/16" sold as an accessory
- Ceiling Tile flush 3/8", 9/16" sold as an accessory
- Suspend Mount sold as an accessory
- Plenum Mount sold as an accessory
- Silhouette and Interlude sold as an accessory
- TPM chip for added security

Environmental

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

Environmental Compliance

- UL2043

Power and Sensitivity Tables

Power - 2.4 GHz

CHANNEL	DATA RATE	POWER (dBm)
11b	1-11 Mbps	21
11g	6 Mbps	20
	36 Mbps	18
	48 Mbps	17
	54 Mbps	16
11n HT20	MCS7, 15, 23	16
	MCS6, 14, 22	17
	MCS5, 13, 21	18
	MCS0-4, 8-12, 16-20	20

Receive Sensitivity - 2.4 GHz

CHANNEL	DATA RATE	SENSITIVITY
11b	1 Mbps	-100
	11 Mbps	-93
11g	6 Mbps	-95
	36 Mbps	-86
	48 Mbps	-82
	54 Mbps	-80
11n HT20	MCS0, 8, 16	-95
	MCS5, 13, 21	-81
	MCS6, 14, 22	-79
	MCS7, 15, 23	-77

Power - 5 GHz

CHANNEL	DATA RATE	POWER (dBm)
11a	6 Mbps	19
	36 Mbps	18
	48 Mbps	16
	54 Mbps	15
11n HT20	MCS7, 15, 23	15
	MCS6, 14, 22	16
	MCS5, 13, 21	18
	MCS0-4, 8-12, 16-20	19
11n HT40	MCS7, 15, 23	14
	MCS6, 14, 22	16
	MCS5, 13, 21	18
	MCS0-4, 8-12, 16-20	19
11ac VHT	256QAM @ 3/4 Code Rate	12
	256QAM @ 5/6 Code Rate	11

Receive Sensitivity - 5 GHz

CHANNEL	DATA RATE	SENSITIVITY
11a	6 Mbps	-95
	36 Mbps	-86
	48 Mbps	-81
	54 Mbps	-80
11n HT20	MCS0, 8, 16	-91
	MCS5, 13, 21	-78
	MCS6, 14, 22	-76
	MCS7, 15, 23	-74
11n HT40	MCS0, 8, 16	-88
	MCS5, 13, 21	-75
	MCS6, 14, 22	-73
	MCS7, 15, 23	-71
11ac HT20	Code Rate 3/4	-65
	Code Rate 5/6	-63
11ac HT40	Code Rate 3/4	-62
	Code Rate 5/6	-60
11ac HT80	Code Rate 3/4	-59
	Code Rate 5/6	-57

Radiation Patterns – Azimuth & Elevation

Azimuth - 2.4 GHz
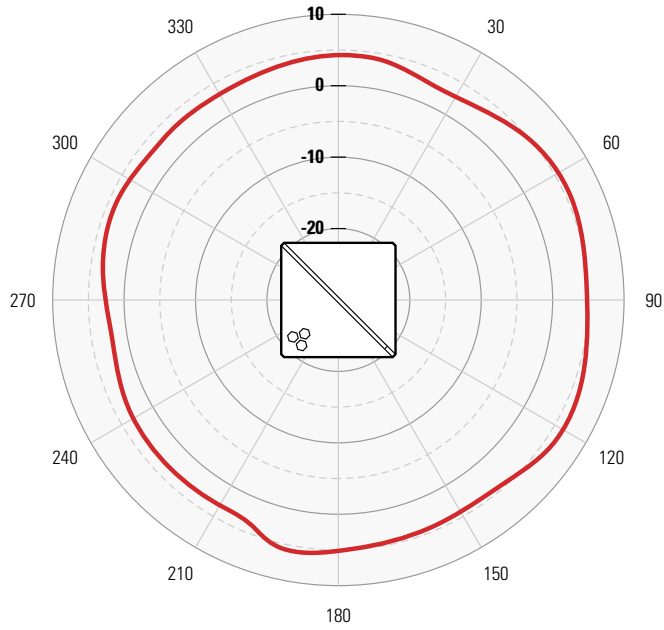
Elevation - 2.4 GHz
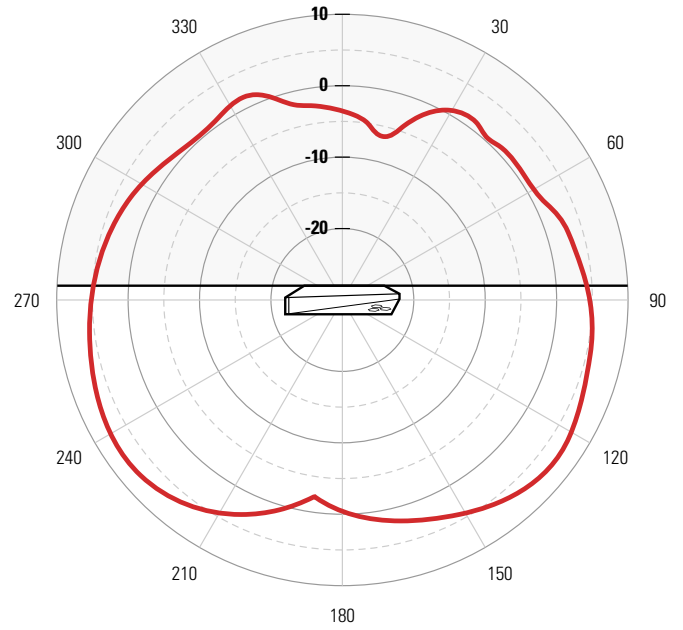
Azimuth - 5 GHz
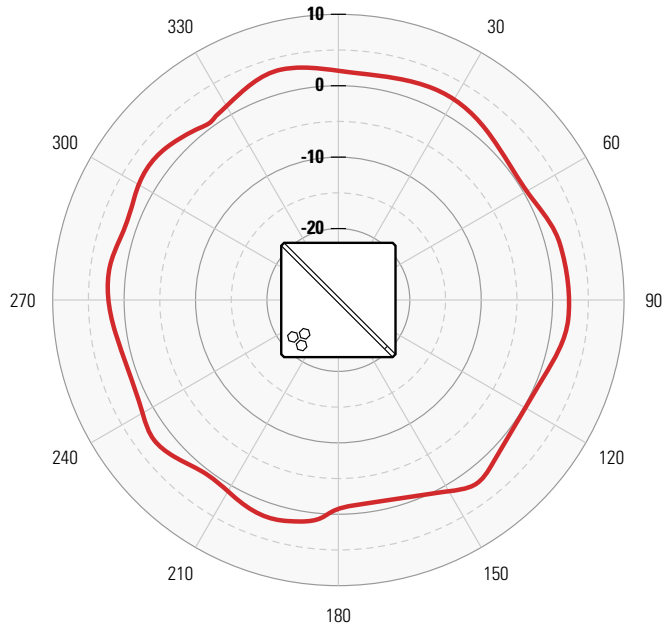
Elevation - 5 GHz
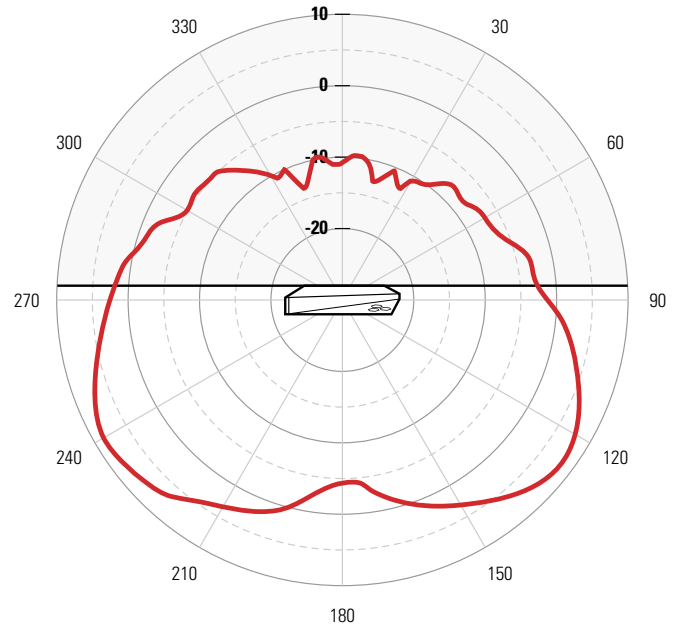
AP550 - SKUs

SKU	DESCRIPTION
AH-AP-550-AC-XX	AP550 Indoor plenum rated, 2 radio 4x4:4 802.11a/b/g/n/ac Access Point, MU-MIMO, 2 10/100/1000 Ethernet ports, without power supply (Internal Antenna only). Includes HiveManager Connect & HiveCare Community. (Regulatory Domains available: FCC, CE, W (World), CAN (Canada))

AP550 - MISCELLANEOUS SKUs

SKU	DESCRIPTION
AH-ACC-INJ-30W-UK	30W PoE power injector with UK power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
AH-ACC-INJ-30W-US	30W PoE power injector with US power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
AH-ACC-PLENUM-KIT	AP130,AP230, AP245X, AP250, AP550 Plenum Bracket Kit
AH-ACC-PWR-36W-US	36W power supply for AP550. Includes adapter for US
AH-ACC-PWR-36W-W	36W power supply for AP550. Includes adaptors for UK, EU, AU
AH-ACC-RBR-FT	Rubber feet for AP130/AP200 series/AP550
AH-ACC-SEC-BIT-3PK	AP122,AP122X,AP130,AP230, AP245X, AP250, AP550 security screw bit (3pk)
AH-ACC-SEC-KIT-2	Security bracket, screws and security screw bit for AP500 series
AH-ACC-BKT-916-KIT	AP122, AP122X, AP130, AP200 series/AP500 series 9/16" ceiling mount brackets for recessed and flush ceiling tiles
AH-ACC-BKT-AC-KIT	AP122, AP122X, AP130, AP200 series/AP500 series 15/16" ceiling mount brackets for recessed and non-recessed ceiling tiles
AH-ACC-BKT-AC-WALL	AP122, AP122X, AP130/AP230/AP245X/AP250,AP550 wall mounting and 15/16" ceiling mount bracket
AH-ACC-BKT-SILINT-KT	AP122, AP122X, AP130,AP230/AP245X/AP250 ,AP550 Mounting bracket kit for Silhouette and Interlude ceiling types
AH-ACC-BKT-SU-KIT	AP122,AP122X,AP130,AP230,AP245X, AP250, AP550 Suspend Bracket Kit
AH-ACC-BKT-WP-KIT	Wall plate bracket kit for AP122, AP122X, AP130, AP230, AP245X, AP250,AP550 Includes the bracket and security screws
AH-ACC-INJ-30W-AU	30W PoE power injector with Australia/New Zealand power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X
AH-ACC-INJ-30W-EU	30W PoE power injector with EU power cord for AP122,AP122X,AP130, AP200 series,AP550,AP630,AP650 and AP650X

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