AP550

Performance-optimized indoor 802.11ac Wave 2 Dual-Radio 4x4:4 MIMO access point for high capacity environments

AP550 is engineered for high performance in demanding environments, with data rates up to 3.46Gbps. AP550 features software defined radio that allows 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 Cooperative 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.

AP550 is a key component of the Aerohive Connect solution. Connect provides cloud-managed connectivity built on Aerohive's industry-first cooperative control Wi-Fi focused on optimizing speed and resilience. Connect is centrally managed from the cloud, allowing for simple, fast, and powerful management.

AEROHIVE CONNECT COMPONENTS

ENTERPRISE CONNECTIVITY

- 4x4 Wave 2 802.11ac technology with MU-MIMO capability and 4 spatial streams

- Software configurable radio for dual 5 GHz operation

- Built-in Bluetooth Low Energy for iBeacon/other beacon technologies

- IoT readiness with USB port

- PoE redundancy between the 2 Ethernet ports for high availability

- Trusted Platform Module (TPM) – Hardware-based key storage and encryption

- RF-IQ antenna and radio technology

CLOUD MANAGEMENT

- Network Device and Client Monitoring

- Global Search and Filter function

- Auto-Provisioning Tools for quick and easy deployment

- Network Health View

- Versatile RF Planning

- Guided Network Configuration Setup

- 802.1X and PSK Secured Networks

- Guest Access functionality with configurable Captive Web Portal

HIVECARE SUPPORT

- HiveCare Community Support: forum-based interactive support

- HiveCare Connect CallBack service *(optional)*

- Wide array of online resources and tools

PRODUCT SKUs

SKU	DESCRIPTION
AH-AP-550-AC-FCC	AP550 Indoor plenum rated, 2 radio 4x4:4 802.11a/b/g/n/ac Access Point, MU-MIMO, 2 10/100/1000 Ethernet ports, FCC regulatory domain, w/o power supply (Antennas sold separately)
AH-AP-550-AC-CAN	AP550 Indoor plenum rated, 2 radio 4x4:4 802.11a/b/g/n/ac Access Point, MU-MIMO, 2 10/100/1000 Ethernet ports, Canadian regulatory domain, w/o power supply (Antennas sold separately)
AH-AP-550-AC-W	AP550 Indoor plenum rated, 2 radio 4x4:4 802.11a/b/g/n/ac Access Point, MU-MIMO, 2 10/100/1000 Ethernet ports, World regulatory domain, w/o power supply (Antennas sold separately)

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

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

Radio Specifications—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

Radio Specifications—802.11n
• 2.4–2.5 GHz & 5.150–5.850 GHz Operating Frequency
• Rates (Mbps): MCS0–MCS31 (6.5Mbps - 600Mbps)
• 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

Radio Specifications—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

Included Mounting Options
• Wall Mount
• Ceiling Tile flush 15/16"

Mounting
• Desktop
• 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

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

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

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

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

Environmental Compliance
• UL2043

Power Specifications
• 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 PoE 20.0W, Max PoE 23.8W Typical DC 16.9W, Max DC 21.6W

Certifications
• WPA/WPA2
• Voice-Enterprise
• Passpoint

TRANSMIT POWER TABLE

2.4 GHZ	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

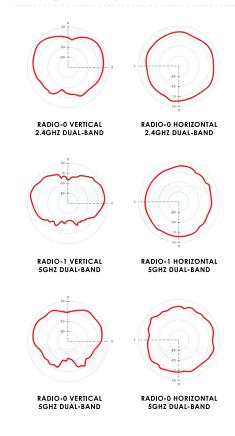| 5 GHZ	DATA RATE	POWER (dBm)
11a	6 Mbps	19
	36 Mbps	18
	48 Mbps	16
	54 Mbps	15
11n HT20	MCS7,15,23	15
	MCS6,14,22	16
	MCS5,13,21	18
	MCS0-4, 8-12, 16-20	19
11n HT40	MCS7,15,23	14
	MCS6,14,22	16
	MCS5,13,21	18
	MCS0-4, 8-12, 16-20	19
11ac VHT	256QAM@3/4 Code Rate	12
	256QAM@5/6 Code Rate	11

Note: Power shown is per transmit chain and is the maximum power that the radio is capable of. Power limits will be limited by local radio regulations.

RECEIVE SENSITIVITY TABLE

2.4 GHZ	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

5 GHZ	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

RADIO-0 VERTICAL
2.4GHZ DUAL-BAND

RADIO-0 HORIZONTAL
2.4GHZ DUAL-BAND

RADIO-1 VERTICAL
5GHZ DUAL-BAND

RADIO-1 HORIZONTAL
5GHZ DUAL-BAND

RADIO-0 VERTICAL
5GHZ DUAL-BAND

RADIO-0 HORIZONTAL
5GHZ DUAL-BAND

Aerohive
NETWORKS