AP 630

Enterprise-Grade 4x4, 4-stream, 802.11ax Access Point with Integrated Antennas

AEROHIVE®
NETWORKS

The AP630 is designed for high performance environments, combining the latest in Wi-Fi standards (IEEE 802.11ax technology) with Aerohive's software defined network architecture and HiveManager network management system. Powered by HiveOS and the innovative distributed Cooperative Control architecture, AP630 brings the best of capacity and advanced high-efficiency 802.11ax technology. In addition, the integrated BLE radio and a USB interface in the access point opens up a multitude of deployment use-cases in IoT and proximity/location-oriented services.

The **AP630** 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 stability and unbridled performance, complimenting the 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 solution from Aerohive. Working in tandem with Aerohive's 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 trouble-shooting, 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 multitude of advanced features and capabilities that enhance network management, security and visibility.

Radio Specifications

Wireless Frequency Range

- USA: 2.400 ~ 2.483 GHz, 5.15 ~ 5.35 GHz, 5.47 ~ 5.725 GHz, 5.725 ~ 5.85 GHz
- Europe: 2.400 ~ 2.483 GHz, 5.15 ~ 5.35 GHz, 5.47 ~ 5.725 GHz
- Japan: 2.400 ~ 2.497 GHz, 5.15 ~ 5.35 GHz, 5.47 ~ 5.725 GHz
- China: 2.400 ~ 2.483 GHz, 5.725 ~5.85 GHz

Channel Support

802.11 b/g/n/ax

- US/Canada: 11 (1 ~ 11)
- Major European country: 13 (1 ~ 13)
- France: 4 (10 ~ 13)
- Japan: 11b: 14 (1~13 or 14th), 11g: 13 (1 ~ 13)
- China: 13 (1 ~ 13)

802.11 a/n/ac/ax

- US/Canada: 24 non-overlapping channels (36,40,44,48,52,56,60,64;100,104,108, 112,116,120,124,128,132,136,140; 149,153,157,161,165)
- Europe: 19 non-overlapping channel (36,40,44,48,52,56,60,64;100,104,108,112, 116,120,124,128,132,136,140)
- Japan: 19 non-overlapping channels (36,40,44,48,52,56,60,64;100,104,108,112, 116,120,124,128,132,136,140)
- China: 5 non-overlapping channels (149,153,157,161,165)

Modulation Technology

802.11 Legacy a/b/g

- DSSS (DBPSK, DQPSK, CCK) OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- DSSS (Direct Sequence Spread Spectrum) with DBPSK (Differential Binary Phase Shift Keying 1 Mbps), DQPSK (Differential Quaternary Phase Shift Keying 2 Mbps), and CCK (Complementary Code Keying 5.5 & 11 Mbps), and OFDM (Orthogonal Frequency Division Multiplexing with BPSK for 6, 9 Mbps. QPSK for 12, 18 Mbps; 16QAM for 24, 36 Mbps; 64QAM for 48, 54 Mbps)

802.11n

- OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

802.11ac

- OFDM (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM)

802.11ax

- OFDMA (1024-QAM)

Mounting

- Wall or ceiling mount

Interfaces

- •2x 10/100/1000 Gigabit Ethernet
- USB support for future IoT use cases
- Console port for CLI access
- Built in BLE for iBeacon and beacon management applications

Radios

- Dual Radio AP, 2.4 GHz and 5 GHz, simultaneous dual band
- 2.4 GHz, 802.11b/g/n/ax, 4x4
- 5 GHz, 802.11 a/n/ac/ax, 4x4
- 160 MHz, 1024-QAM supported

PoE

- 802.3at (PoE+)
- Typical: 15.4 W; Max: 17.82 W

Environmental

- Operating Temperature: 0 to 40° C
- Storage Temperature: -40 to 70° C
- Humidity: 10 to 95%
- MTBF: >500,000 Hours @ 25° C *(estimate)*
- RoHS: -2 Compliant

Power Consumption

- 802.3af Input: Typical 11.3 W, Max 12.4 W
- 802.3at Input: Typical 23.6 W, Max 24.9 W

Physical

- Dimensions: 205mm x 205mm x 37mm
- Weight: 2.53lb (1.15kg)

Antenna

- 4x Dual Band, Omni directional antenna plus 1x Bluetooth Antenna

Peak Antenna Gain:

- 2.4 GHz Omni Directional, gain 4.8 dBi
- 5 GHz Omni Directional, gain 5.2 dBi
- Bluetooth Omni Directional, gain 4.2 dBi

Power and Sensitivity Tables (2.4 GHz)

Power - 2.4 GHz

CHANNEL	DATA RATE	POWER (dBm)
11b	1,2,5.5,11 Mbps	18
11g	54 Mbps	15
	48 Mbps	16
	36 Mbps	17
	6 Mbps	18
HE20	MCS0,1,2	18
	MCS3	17
	MCS4,5	16
	MCS6,7	15
	MCS8,9	14
	MCS10,11	12
HE40	MCS0,1,2	18
	MCS3	17
	MCS4,5	16
	MCS6,7	15
	MCS8,9	14
	MCS10,11	12

Receive Sensitivity - 2.4 GHz

CHANNEL	DATA RATE	SENSITIVITY
11b	1 Mbps	-99
	11 Mbps	-90
11g	6 Mbps	-96
	36 Mbps	-84
	48 Mbps	-80
	54 Mbps	-78
HE20	MCS0	-95
	MCS1	-91
	MCS2	-89
	MCS3	-86
	MCS4	-83
	MCS5	-79
	MCS6	-77
	MCS7	-76
	MCS8	-72
	MCS9	-70
	MCS10	-67
	MCS11	-64
HE40	MCS0	-92
	MCS1	-89
	MCS2	-86
	MCS3	-84
	MCS4	-80
	MCS5	-76
	MCS6	-75
	MCS7	-73
	MCS8	-70
	MCS9	-68
	MCS10	-64
	MCS11	-62

Power - 5 GHz

CHANNEL	DATA RATE	POWER (dBm)
11a	54 Mbps	18
	48 Mbps	18
	36 Mbps	19
	6 Mbps	20
HE20	MCS0,1,2	20
	MCS3,4	19
	MCS5,6	18
	MCS7,8	17
	MCS9	16
	MCS10	15
	MCS11	14
HE40	MCS0,1,2	19
	MCS3,4,5	18
	MCS6,7,8	17
	MCS9	16
	MCS10	15
	MCS11	14
HE80	MCS 0,1,2	19
	MCS 3,4,5	18
	MCS 6,7,8	17
	MCS 9	16
	MCS 10	15
	MCS 11	14
HE160	MCS 0,1,2	19
	MCS 3,4,5	18
	MCS 6,7,8	17
	MCS 9	16
	MCS 10	15
	MCS 11	14

Receive Sensitivity - 5 GHz

CHANNEL	DATA RATE	SENSITIVITY
11a	6 Mbps	-94
	36 Mbps	-83
	48 Mbps	-79
	54 Mbps	-77
HE20	MCS0	-94
	MCS1	-91
	MCS2	-88
	MCS3	-86
	MCS4	-82
	MCS5	-78
	MCS6	-77
	MCS7	-75
	MCS8	-71
	MCS9	-69
	MCS10	-66
	MCS11	-63
HE40	MCS0	-92
	MCS1	-88
	MCS2	-86
	MCS3	-83
	MCS4	-80
	MCS5	-76
	MCS6	-74
	MCS7	-73
	MCS8	-69
	MCS9	-67
	MCS10	-63
	MCS11	-60

CHANNEL	DATA RATE	SENSITIVITY
HE80	MCS0	-88
	MCS1	-85
	MCS2	-83
	MCS3	-80
	MCS4	-77
	MCS5	-73
	MCS6	-71
	MCS7	-69
	MCS8	-66
	MCS9	-64
	MCS10	-60
	MCS11	-57
HE160	MCS0	-85
	MCS1	-82
	MCS2	-80
	MCS3	-77
	MCS4	-74
	MCS5	-70
	MCS6	-68
	MCS7	-66
	MCS8	-63
	MCS9	-61
	MCS10	-57
	MCS11	-54

Radiation Patterns – Azimuth & Elevation

Azimuth - 2.4 GHz
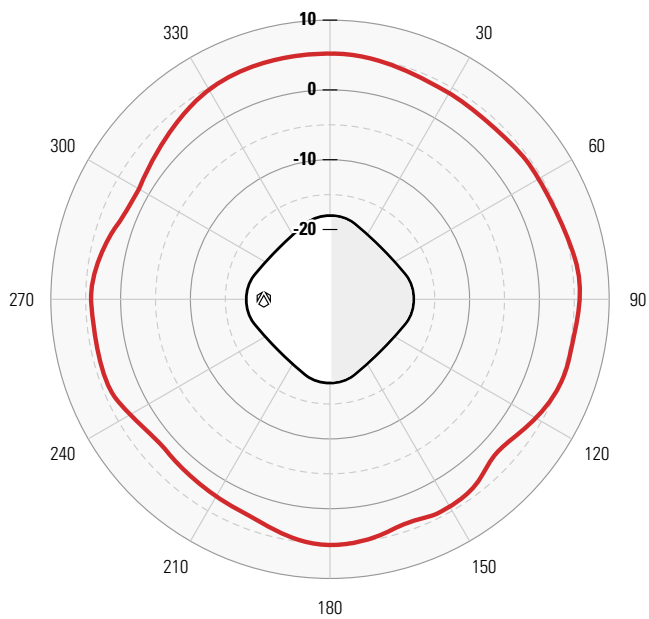
Elevation - 2.4 GHz
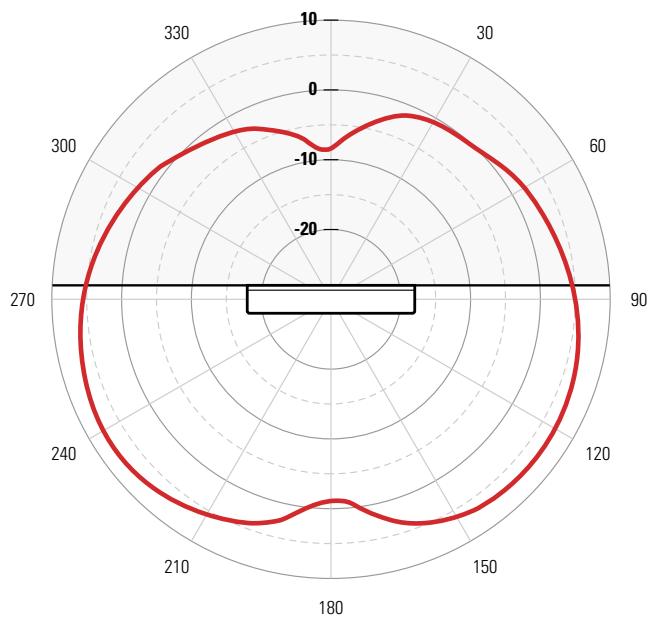
Azimuth - 5 GHz
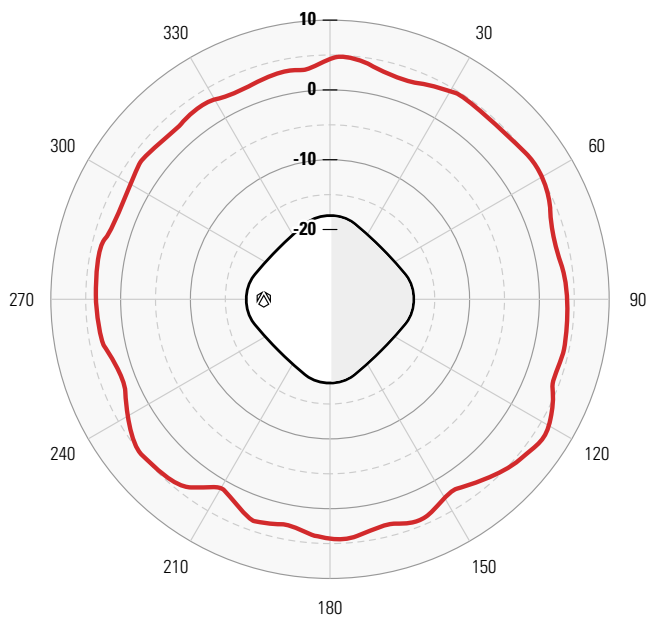
Elevation - 5 GHz
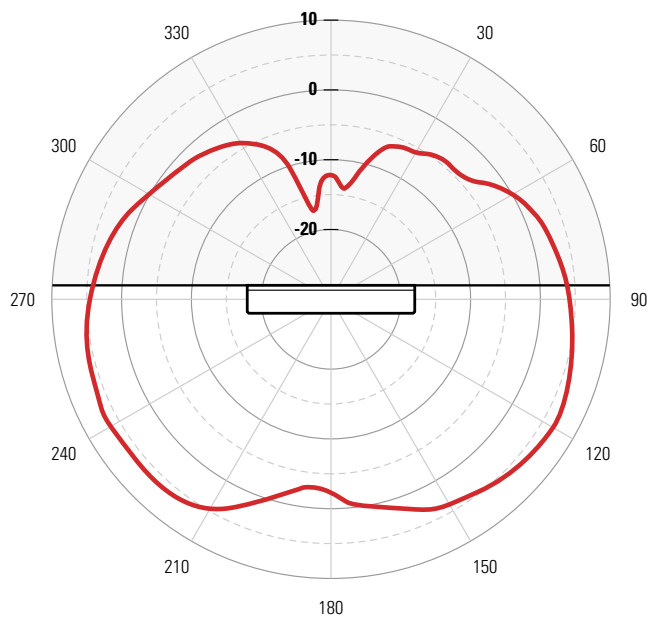
AP630 - SKUs

SKU	DESCRIPTION
AH-AP-630-AX-XX	AP630 Indoor plenum rated AP, dual radio 4x4:4 802.11ac/ax AP, 2 x 1GE port, with internal antennas. Includes HiveManager Connect and HiveCare Community. (Regulatory Domains available: FCC, CE, W (World), CAN (Canada))

AP630 - 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-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