Overview

## **Aruba 530 Series Campus Access Points**

### Very High Wi-Fi 6 (802.11ax) Performance With Dual Radios And Green AP Energy Efficiency

Aruba Wi-Fi 6 access points provide high-performance connectivity for any organization experiencing growing numbers of IoT and mobility requirements. With a maximum aggregate data rate of 3.55 Gbps (HE80/HE40), the 530 Series deliver the speed and reliability needed for any enterprise.



**Aruba 530 Series Campus Access Points** 

### **Key Features**

- 3.55 Gbps of maximum throughput
- WPA3 and Enhanced Open security
- Built-in technology that resolves sticky client issues for Wi-Fi 6 and Wi-Fi 5 devices
- OFDMA and MU-MIMO for enhanced multi-user efficiency
- IoT-ready Bluetooth 5 and Zigbee support

#### Standard Features

### **IoT Platform Capabilities**

Like all Aruba Wi-Fi 6 APs, the 530 Series includes an integrated Bluetooth 5 and 802.15.4 radio (for Zigbee support) to simplify deploying and managing IoT-based location services, asset tracking services, security solutions and IoT sensors. This allows organizations to leverage the 530 Series as an IoT platform, which eliminates the need for an overlay infrastructure and additional IT resources.

### **Target Wake Time (TWT)**

Ideal for IoTs that communicate infrequently, TWT establishes a schedule for when clients need to communicate with an AP. This helps improve client power savings and reduces airtime contention with other clients.

### **Aruba Secure Infrastructure**

The Aruba 530 Series includes components of Aruba's 360 Secure Fabric to help protect user authentication and wireless traffic. Select capabilities include:

### **WPA3 And Enhanced Open**

Support for stronger encryption and authentication is provided via the latest version of WPA for enterprise protected networks.

Enhanced Open offers seamless new protection for users connecting to open networks where each session is automatically encrypted to protect user passwords and data on guest networks.

#### WPA2-MPSK

MPSK enables simpler passkey management for WPA2 devices – should the Wi-Fi password on one device or device type change, no additional changes are needed for other devices. Requires ClearPass Policy Manager.

#### **VPN Tunnels**

In Remote AP (RAP) and IAP-VPN deployments, the Aruba 530 Series can be used to establish a secure SSL/IPSec VPN tunnel to a Mobility Controller that is acting as a VPN concentrator.

### Trusted Platform Module (TPM)

For enhanced device assurance, all Aruba APs have an installed TPM for secure storage of credentials and keys, and boot code.

### Simple And Secure Access

To simplify policy enforcement, the Aruba 530 Series uses Aruba's policy enforcement firewall (PEF) feature to encapsulate all traffic from the AP to the Mobility Controller (or Gateway) for end-to-end encryption and inspection. Policies are applied based on user role, device type, applications, and location. This reduces the manual configuration of SSIDs, VLANs and ACLs. PEF also serves as the underlying technology for Aruba Dynamic Segmentation.

### **High-Density Connectivity**

Like the higher-end 550 Series AP, each 530 Series AP provides connectivity for a maximum of 1024 associated clients per radio (2048 in total). In real-world scenarios, the maximum recommended client density is dependent on environmental conditions.

### **Flexible Operation And Management**

A unique feature of Aruba APs is the ability to operate in either controllerless (Instant) or controller-based mode. In controllerless mode, one AP serves as a virtual controller for the entire network.

For optimized network performance, roaming and security, APs tunnel all traffic to a mobility controller for centrally managed traffic forwarding and segmentation, data encryption, and policy enforcement. Learn more in the ArubaOS datasheet. Available management solutions include Aruba Central (cloud-managed) or Aruba AirWave – a multi-vendor on-premises management solution.

For large installations across multiple sites, APs can be factory-shipped and can be activated with Zero Touch Provisioning

### **Standard Features**

through Aruba Central or AirWave. This reduces deployment time, centralizes configuration, and helps manage inventory.

# Warranty

**Aruba Limited lifetime warranty** 

**Configuration Information** 

Step 1:	Select AP Model	
•	Description	SKU
	535 Internal Antenna Access Points	
	Aruba AP-535 (EG) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ333A
	Aruba AP-535 (IL) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ334A
	Aruba AP-535 (JP) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ335A
	Aruba AP-535 (RW) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ336A
	Aruba AP-535 (US) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ337A
	535 Internal Antenna Access Points - TAA Models	
	Aruba AP-535 (EG) TAA Dual-Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ343A
	Aruba AP-535 (IL) TAA Dual-Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ344A
	Aruba AP-535 (JP) TAA Dual-Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ345A
	Aruba AP-535 (RW) TAA Dual-Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ346A
	Aruba AP-535 (US) TAA Dual-Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ347A
	534 External Antenna Access Points	
	Aruba AP-534 (EG) Dual Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ328A
	Aruba AP-534 (IL) Dual Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ329A
	Aruba AP-534 (JP) Dual Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ330A
	Aruba AP-534 (RW) Dual Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ331A
	Aruba AP-534 (US) Dual Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ332A
	535 Central Managed Internal Antenna Access Points	
	Aruba CM AP-535 (RW) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ336ACM
	Aruba CM AP-535 (US) Dual Radio 4x4:4 802.11ax Internal Antennas Unified Campus AP	JZ337ACM
	534 External Antenna Access Points - TAA Models	
	Aruba AP-534 (EG) TAA Dual-Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ338A
	Aruba AP-534 (IL) TAA Dual-Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ339A
	Aruba AP-534 (JP) TAA Dual-Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ340A
	Aruba AP-534 (RW) TAA Dual-Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ341A
	Aruba AP-534 (US) TAA Dual-Radio 4x4:4 802.11ax External Antennas Unified Campus AP	JZ342A
Notes:	For Internal Antennas add Mount Kit For External Antennas add Mount Kit and Antennas	

JW022A

# QuickSpecs

### **Configuration Information**

For 534 Series Std (Min 0 // max 1) User Selection (min 0 // max 1)

AP-ANT-MNT-4 AP-ANT-48 Azimuth and Elevation Adjustable Mount Kit JW021A

Notes: Compatible with antenna AP-ANT-48

AP-ANT-MNT-5 AP-ANT-45 Azimuth and Elevation Adjustable Mount Kit

Notes: Compatible with antenna AP-ANT-45

Step	3:	Select	Mountin	g kits
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For 534, 535 Series Std (Min 0 // max 99) User Selection (min 0 // max 99)

# Remarks Description Compatible with 534 and 535 AP models AP-MNT-MP10-A Campus AP mount bracket kit (10-pack) type A: suspended ceiling rail JZ370A

AP-MNT-MP10-B Campus AP mount bracket kit (10-pack) type B: suspended ceiling

rail

AP-MNT-MP10-C Campus AP mount bracket kit (10-pack) type B: suspended ceiling

Q9G69A

Q9G70A

AP-MNT-MP10-D Campus AP mount bracket kit (10-pack) type D: solid surface Q9G71A
AP-MNT-MP10-E Campus AP mount bracket kit (10-pack) type E: wall-box R1C72A

**Notes:** Qty 1 Mounting kits above should be selected for every 10 Access Points.

AP-MNT-A Campus AP mount bracket kit (individual) type A: suspended ceiling rail

R3J15A

RB MNT B Campus AP mount bracket kit (individual) type B: suspended seiling rail

R3J16A

AP-MNT-B Campus AP mount bracket kit (individual) type B: suspended ceiling rail R3J16A flat 15/16 flat 15/16

AP-MNT-C Campus AP mount bracket kit (individual) type C: suspended ceiling rail R3J17A profile 9/16 profile 9/16

AP-MNT-D Campus AP mount bracket kit (individual) type D: solid surface

R3J18A
AP-MNT-E Campus AP mount bracket kit (individual) type E: wall-box

R3J19A
AP-MNT-MP10-X Campus AP mount adapter kit (10-pack)

R3T20A

Compatible with 535C AP models

Aruba CM AP-MNT-A Campus AP mount bracket kit (individual) type A: flat rail 9/16 R3J15ACM rail 9/16

Aruba CM AP-MNT-MP10-A Campus AP mount bracket kit (10-pack) type A: flat rail 9/16 flat rail 9/16 JZ370ACM Aruba CM AP-MNT-B Campus AP mount bracket kit (individual) type B: flat rail 15/16 R3J16ACM

Aruba CM AP-MNT-B Campus AP mount bracket kit (individual) type B: flat rail 15/16 rail 15/16

Aruba CM AP-MNT-MP10-B Campus AP mount bracket kit (10-pack) type B: flat rail

15/16 flat rail 15/16
Aruba CM AP-MNT-C Campus AP mount bracket kit (individual) type C: profile rail

9/16 profile rail 9/16
Aruba CM AP-MNT-MP10-C Campus AP mount bracket kit (10-pack) type C: profile Q9G70ACM

Aruba CM AP-MNT-MP10-C Campus AP mount bracket kit (10-pack) type C: profile rail 9/16 profile rail 9/16

Aruba CM AP-MNT-D Campus AP mount bracket kit (individual) type D: solid surface surface

Aruba CM AP-MNT-MP10-D Campus AP mount bracket kit (10-pack) type D: solid surface solid surface

Aruba CM AP-MNT-E Campus AP mount bracket kit (individual) type E: wall-box wall-box

Aruba CM AP-MNT-MP10-E Campus AP mount bracket kit (10-pack) type E: wall-box wall-box

R1C72ACM

Q9G69ACM

R3J17ACM

R3J18ACM

Q9G71ACM

R3J19ACM

**Configuration Information** 

Aruba CM AP-MNT-MP10-X Campus AP mount adapter kit (10-pack)

R3T20ACM

Notes: Access Points do not include a Mount. Qty 1 Mount kits should be selected

### **Step 4: Add Powering Accessories (Optional)**

Notes: Add AC power cord

Most devices are PoE powered from switch so these are optional

If this Power Supply is selected, bring in (Min 1 // Max 1) Localized power cord based on the

Aruba Localization Menu

Compatible with 534 and 535 AP models

AP-POE-BTSR 1-Port Smart Rate 802.3bt 60W midspan injector R1C73A AP-AC2-48C 48V/50W AC/DC desktop style power adapter with type C connector R3K01A

Compatible with 535C AP models

Aruba CM AP-POE-BTSR 1-Port Smart Rate 802.3bt 60W midspan injector R1C73ACM Aruba CM AP-AC2-48C 48V/50W AC/DC desktop style power adapter with type C connector C connector

Select Three-Prong AC Power Cord For Injector Or AC Adapter

PC-AC-ARG AC power cord 250V/10A 1.8m C13 to IRAM 2073 JW113A PC-AC-AUS AC power cord 250V/10A 1.8m C13 to AS3112 JW114A PC-AC-BR AC power cord 250V/10A 1.8m C13 to NBR 14136 JW115A PC-AC-CHN AC power cord 250V/10A 1.8m C13 to GB2099 JW116A PC-AC-DEN AC power cord 250V/10A 1.8m C13 to AFSNIT 107-2-D1 JW117A PC-AC-EC AC power cord 250V/10A 1.8m C13 to CEE7/7 **JW118A** PC-AC-IN AC power cord 250V/6A 1.8m C13 to IS1293 JW119A PC-AC-IL AC power cord 250V/10A 1.8m C13 to SI32 JW120A PC-AC-IT AC power cord 250V/10A 1.8m C13 to CEI 23-50 JW121A

 PC-AC-JPN AC power cord 125V/12A 1.8m C13 to JISC 8303
 JW122A

 PC-AC-KOR AC power cord 250V/7A 1.8m C13 to KSC 8305
 JW123A

 PC-AC-NA AC power cord 125V/10A 1.8m C13 to NEMA 5-15P
 JW124A

PC-AC-TW AC power cord 125V/7A 1.8m C13 to CNS 10917 JW126A PC-AC-UK AC power cord 250V/10A 1.8m C13 to BS1363 JW127A

PC-AC-ZA AC power cord 250V/10A 1.8m C13 to SANS 164-1

PC-AC-SWI AC power cord 220V/10A 1.8m C13 to SEV 1011

JW128A

JW125A

### Step 5: Add Cosmetic Snap-on Cover (Optional)

For 535 Series Std (Min 0 // max 99) User Selection (min 0 // max 99)

Remarks Description SKU

Compatible with 535 AP model

AP-MNT-MP10-B1 Campus AP mount bracket kit (10-pack) type B1 - suspended R6T34A

ceiling rail thick 15/16

AP-535-CVR-20 20-pack for AP-535 White Non-glossy Snap-on Covers JZ368A

Notes: Kit contains 20 optional snap-on covers

Compatible with 535C AP model

Aruba CM AP-535-CVR-20 20-pk White Non-glossy Snap-on Covers JZ368ACM

**Notes:** Kit contains 20 optional snap-on covers

### Step 6. Select Antennas (AP-534 Only)

# **Configuration Information**

Qty	Interface(s)	Target Environment	Mounting	Description	SKU
4	1x RP-SMA male	Indoor	Direct- mount	AP-ANT-1W 2.4-2.5GHz (4dBi)/4.9-5.875GHz (6dBi) Hi Gain Dual-band	JW009A
4	1x RP-SMA male pigtail	Indoor	Direct, using pigtails	Omni-Dir Indoor Antenna AP-ANT-13B 2.4-2.5GHz (2.3dBi)/4.9- 5.9GHz (4.0dBi) Downtilt Smallest Omni-Dir Single Ant	JW001A
4	1x RP-SMA male pigtail	Indoor/outdoor	Direct, using pigtails	AP-ANT-19 2.4/5G Dual Band Omni-Dir 3dBi/6dBi Indr/Otdr RPSMA Cnctr Ant w/36in Intgrtd Cable	JW004A
4	1x RP-SMA male connector	Indoor	Direct- mount	AP-ANT-20W 2.4-2.5GHz (2dBi)/4.9- 5.875GHz (2dBi) Compact Omni-Dir DMt Indr White Antenna	JW011A
1	4x RP-SMA male pigtail	Indoor	Direct, using pigtails	AP-ANT-40 Dual Band Downtilt Omni 4dBi 4 Elmt MIMO Ceiling Mount 4xRPSMA Pigtail Antenna	JW017A
1	4x RP-SMA male pigtail	Indoor/outdoor	Direct, using pigtails	AP-ANT-45 Dual Band 90x90deg 5dBi 4 Element MIMO 4xRPSMA Pigtail Antenna	JW018A
1	4x RP-SMA male pigtail	Indoor/outdoor	Direct, using pigtails	AP-ANT-48 Dual Band 60x60deg 8.5dBi 4 Element MIMO 4xRPSMA Pigtail Antenna	JW019A

#### **Notes:**

AP-ANT-1W, and AP-ANT-20W are usually direct connect to the chassis AP-ANT-45,AP-ANT-48 ship with hardware for flush mount to a flat surface AP-514 has 4x RPSMA female, concurrent dual-band connections

#### Step 7: Add Other Accessories (optional)

For 535 Series Std (Min 0 // max 99) User Selection (min 0 // max 99)

# Remarks Description

Compatible with 535 AP model

AP-MOD-SERU Micro-USB TTL3.3V to RJ45 RS232 AP Console Adapter Module R6Q99A AP-CBL-SERU Micro-USB TTL3.3V to USB2.0 AP Console Adapter Cable JY728A

### Compatible with 535C AP model

Aruba CM AP-CBL-SERU AP console adapter cable for custom micro-USB console JY728ACM port console port

Notes: Single pack

SKU

### **Technical Specifications**

Band, rate	table Maximum transmit power (dBm) per	Receiver sensitivity (dBm) pe
<b></b>	transmit chain	receive chain
2.4GHz, 802.11b	1.00.100.1100	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1Mbps	18	-96
11Mbps	18	-88
2.4GHz, 802.11g		
6Mbps	18	-93
54Mbps	17	-75
2.4GHz, 802.11n H		,
MCS0	18	-93
MCS7	16	-75
2.4GHz, 802.11ax F		, , ,
MCS0	18	-92
MCS11	14	-62
5GHz, 802.11a	1 * *	, <u>JL</u>
6Mbps	18	-93
54Mbps	17	-75
5GHz, 802.11n HT2	· · · · · · · · · · · · · · · · · · ·	, · <del>·</del>
MCS0	18	-93
MCS7	16	-73
5GHz, 802.11n HT4		70
MCS0	18	-90
MCS7	16	-70
5GHz, 802.11ac VH	<u>'</u>	7.0
MCS0	18	-93
MCS9	16	-68
5GHz, 802.11ac VH	·	00
MCS0	18	-90
MCS9	16	-65
5GHz, 802.11ac VH	·	00
MCS0	18	-87
MCS9	16	-62
5GHz, 802.11ac VH		, <b>52</b>
MCS0	18	-84
MCS9	16	-59
5GHz, 802.11ax HE		
MCS0	18	-90
MCS11	14	-60
5GHz, 802.11ax HE	·	
MCS0	18	-87
MCS11	14	-57
5GHz, 802.11ax HE	·	, 01
MCS0	18	-84
MCS11	14	-54
5GHz, 802.11ax HE	· · · · · · · · · · · · · · · · · · ·	
MCS0	18	-81
MCS11	13	-51

## Wi-Fi Radio Specifications

- AP type: Indoor, dual radio, 5GHz and 2.4GHz 802.11ax 4x4 MIMO
- 5GHz radio: Four spatial stream Single User (SU) MIMO for up to 2.4Gbps wireless data rate with individual 4SS HE80 (or 2SS HE160) 802.11ax client devices, or with four 1SS or two 2SS HE80

### **Technical Specifications**

802.11ax MU-MIMO capable client devices simultaneously

- 2.4GHz radio: Four spatial stream Single User (SU) MIMO for up to 1,150Mbps wireless data rate
  with individual 4SS HE40 802.11ax client devices or with two 2SS HE40 802.11ax MU-MIMO
  capable client devices simultaneously
- Support for up to 1,024 associated client devices per radio (typical recommended limit for active clients is 200), and up to 16 BSSIDs per radio
- Supported frequency bands (country-specific restrictions apply):

2.400 to 2.4835GHz 5.150 to 5.250GHz 5.250 to 5.350GHz 5.470 to 5.725GHz 5.725 to 5.850GHz

- Available channels: Dependent on configured regulatory domain
- Dynamic frequency selection (DFS) optimizes the use of available RF spectrum
- Supported radio technologies:

802.11b: Direct-sequence spread-spectrum (DSSS)

802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM)

802.11ax: Orthogonal frequency-division multiple access (OFDMA) with up to 37 resource units (for an 80MHz channel)

Supported modulation types:

802.11b: BPSK, QPSK, CCK

802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM (proprietary extension)

802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM (proprietary extension)

802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

#### Other Interfaces

• E0, E1: HPE SmartRate port (RJ-45, maximum negotiated speed 5Gbps)

Auto-sensing link speed (100/1000/2500/5000BASE-T) and MDI/MDX 2.5Gbps and 5Gbps speeds comply with NBase-T and 802.3bz specific

2.5Gbps and 5Gbps speeds comply with NBase-T and 802.3bz specifications

POE-PD: 48Vdc (nominal) 802.3af/at/bt POE (class 3 or higher)

802.3az Energy Efficient Ethernet (EEE)

- Link aggregation (LACP) support between both network ports for redundancy and increased capacity
- POE power can be drawn from either port (single source, or set to prioritize) or both ports simultaneously (set to combine)
- DC power interface: 48Vdc (nominal, +/- 5%), accepts 1.35mm/3.5mm center-positive circular plug with 9.5mm length
- USB 2.0 host interface (Type A connector)

Capable of sourcing up to 1A / 5W to an attached device

Bluetooth Low Energy (BLE5.0) and Zigbee (802.15.4) radio

BLE: up to 8dBm transmit power (class 1) and -95dBm receive sensitivity

Zigbee: up to 8dBm transmit power and -97dBm receive sensitivity

Integrated vertically polarized omnidirectional antenna with roughly 30 degrees downtilt and peak gain of 3.1dBi (AP-535) or 5.0dBi (AP-534)

- Visual indictors (two multi-color LEDs): for System and Radio status
- Reset button: factory reset, LED mode control (normal/off)
- Serial console interface (proprietary, micro-B USB physical jack)
- Kensington security slot

### Wi-Fi Radio Specifications

- 802.11n high-throughput (HT) support: HT20/40
- 802.11ac very high throughput (VHT) support: VHT20/40/80/160

### **Technical Specifications**

- 802.11ax high efficiency (HE) support: HE20/40/80/160
- Supported data rates (Mbps):

802.11b: 1, 2, 5.5, 11

802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54

802.11n: 6.5 to 600 (MCS0 to MCS31, HT20 to HT40), 800 with 256-QAM

802.11ac: 6.5 to 1,733 (MCS0 to MCS9, NSS = 1 to 4, VHT20 to VHT160), 2,166 with 1024-QAM

802.11ax (2.4GHz): 3.6 to 1,147 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE40)

802.11ax (5GHz): 3.6 to 2,402 (MCS0 to MCS11, NSS = 1 to 4, HE20 to HE160)

- 802.11n/ac packet aggregation: A-MPDU, A-MSDU
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements):

2.4 GHz band: +24 dBm (18dBm per chain)

5 GHz band: +24 dBm (18 dBm per chain)

**Notes:** Conducted transmit power levels exclude antenna gain. For total (EIRP) transmit power, add antenna gain.

- Advanced Cellular Coexistence (ACC) minimizes the impact of interference from cellular networks
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic delay/shift diversity (CDD/CSD) for improved downlink RF performance
- Space-time block coding (STBC) for increased range and improved reception
- Low-density parity check (LDPC) for high-efficiency error correction and increased throughput
- Transmit beam-forming (TxBF) for increased signal reliability and range
- 802.11ax Target Wait Time (TWT) to support low-power client devices

#### Wi-Fi Antennas

- AP-534: Four (female) RP-SMA connectors for external dual band antennas (A0 through A3, corresponding with radio chains 0 through 3). Worst-case internal loss between radio interface and external antenna connectors (due to diplexing circuitry): 0.8dB in 2.4GHz and 1.3dB in 5GHz.
- AP-535: Four integrated dual-band downtilt omni-directional antennas for 4x4 MIMO with peak
  antenna gain of 3.5dBi in 2.4GHz and 5.4dBi in 5GHz. Built-in antennas are optimized for horizontal
  ceiling mounted orientation of the AP. The downtilt angle for maximum gain is roughly 30 degrees.

A mix of horizontally and vertically polarized antenna elements is used

Combining the patterns of each of the antennas of the MIMO radios, the peak gain of the combined, average pattern is 1.9dBi in 2.4GHz and 3.5dBi in 5GHz.

# **Environmental Specifications**

Operating conditions

Temperature: 0C to +50C / +32F to +122F Humidity: 5% to 93% non-condensing

AP is plenum rated for use in air-handling spaces

ETS 300 019 class 3.2 environments

Storage and transportation conditions

Temperature: -40C to +70C / -40F to +158F Humidity: 5% to 93% non-condensing

ETS 300 019 classes 1.2 and 2.3 environments

### Reliability

• Mean Time Between Failure (MTBF): 500,000hrs (57yrs) at +25C operating temperature.

### **Power Sources and Power Consumption**

The AP supports direct DC power and Power over Ethernet (POE; on port E0 and/or E1)

### **Technical Specifications**

- When POE power is supplied to both Ethernet ports, the AP can be configured to combine or prioritize power sources
- When both DC and POE power sources are available, DC power takes priority over POE
- Power sources are sold separately; see the ordering Information section below for details
- When powered by DC, 802.3bt (class 5) POE or 2x 802.3at (class 4) POE, the AP will operate without restrictions.
- When powered by 1x 802.3at (class 4) POE and with the IPM feature disabled, the AP will disable the USB port and disable the other Ethernet port
- In the same configuration but with IPM enabled, the AP will start up in unrestricted mode, but may
  dynamically apply restrictions depending on the POE budget and actual power. The feature
  restrictions and order can be programmed.
- Operating the AP with an 802.3af (class 3 or lower) POE source is not supported.
- Maximum (worst-case) power consumption:

DC powered: 29W

POE powered (802.3bt or dual 802.3at): 30W

POE powered (802.3at, IPM enabled): 25W

All numbers above are without an external USB device connected. When sourcing the full 5W power budget to such a device, the incremental (worst-case) power consumption for the AP is up to 6W (POE powered) or 6W (DC powered).

- Maximum (worst-case) power consumption in idle mode: 12W (POE) or 12W (DC)
- Maximum (worst-case) power consumption in deep-sleep mode: 3W (POE) or 3W (DC)

### **Regulatory Compliance**

- FCC/ISED
- CE Marked
- RED Directive 2014/53/EU
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- UL/IEC/EN 60950
- EN 60601-1-1, EN60601-1-2

For more country-specific regulatory information and approvals, please see your Aruba representative.

### **Regulatory Model Numbers**

AP-534: APIN0534AP-535: APIN0535

#### Certifications

- UL2043 plenum rating
- Wi-Fi Alliance:
  - Wi-Fi CERTIFIED a, b, g, n, ac
  - Wi-Fi CERTIFIED ax1
  - WPA, WPA2 and WPA3 Enterprise with CNSA option, Personal (SAE), Enhanced Open (OWE)
  - WMM, WMM-PS, Wi-Fi Vantage, W-Fi Agile Multiband
  - Wi-Fi Location<sup>2</sup>
  - Passpoint (release 2)
- Bluetooth SIG
- Ethernet Alliance (POE, PD device, class 4)

#### Notes:

<sup>&</sup>lt;sup>1</sup> Will require software update. Certification effort will be kicked off as soon as the Wi-Fi Alliance starts the program

<sup>&</sup>lt;sup>2</sup> Not available initially; will require a software upgrade

### **Technical Specifications**

### **Minimum Operating System Software Versions**

- ArubaOS
- Aruba InstantOS 8.5.0.0

#### **Additional Wi-Fi Features**

Each AP also includes the following standards-based technologies:

- Transmit beamforming (TxBF) increases signal reliability and range
- Passpoint Wi-Fi (Release 2) (Hotspot 2.0) offers seamless cellular-to-Wi-Fi carryover for guests
- Dynamic Frequency Selection (DFS) optimizes use of available RF spectrum
- Maximum Ratio Combining (MRC) improves receiver performance
- Cyclic Delay/Shift Diversity (CDD/CSD) provides greater downlink RF performance
- Space-Time Block Coding increases range and improved reception
- Low-Density Parity Check (LDPC) provides a high-efficiency error correction for increased throughput

### **Specifications - Hardware Variants**

- AP-534: External antenna models
- AP-535: Internal antenna models

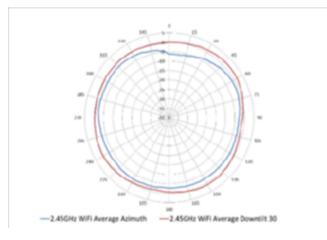
### **Mounting**

- A mounting bracket has been pre-installed on the back of the AP.
- This bracket is used to secure the AP to any of the mount kits (sold separately); see the ordering Information section below for details.

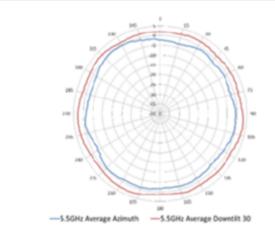
#### **Antenna Patterns**

#### **Horizontal Planes (Top View)**

Showing azimuth (0 degrees) and 30 degrees downtilt patterns (averaged patterns for all applicable antennas)



2.45GHz Wi-Fi (Antennas 1, 2, 3, 4)

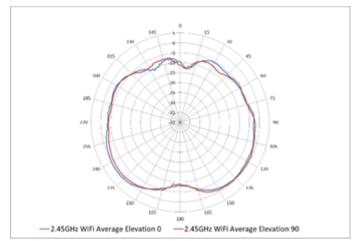


5.5GHz Wi-Fi (Antennas 1, 2, 3, 4)

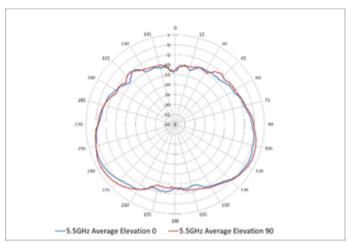
### **Vertical (Elevation) Planes (Side View, AP Facing Down)**

Showing side view with AP rotated 0 and 90 degrees (averaged patterns for all applicable antennas)

# **Technical Specifications**



2.45GHz Wi-Fi (Antennas 1, 2, 3, 4)



5.5GHz Wi-Fi (Antennas 1, 2, 3, 4)

# **Summary of Changes**

Date	Version History	Action	Description of Change
08-Sep- 2020	Version 6	Changed	Configuration Information section was updated. New SKUS were added. Obsolete SKUs were removed.
09-Dec- 2019	Version 5	Changed	Standard Features and Configuration Information sections were updated.
04-Nov- 2019	Version 4	Changed	Configuration Information section was updated. New SKUS were added
07-Oct- 2019	Version 3	Changed	Overview, Standard Features and Configuration Information sections were updated New SKUS were added
03-Jun- 2019	Version 2	Changed	Configuration Information section was updated.  New SKUs were added.
02-Apr- 2019	Version 1	New	New QuickSpecs

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