



ZEBRA

# AP 8432 – A True 802.11ac, Wave 2 Access Point

**DO MORE TODAY. ADD THE INTERNET OF THINGS TOMORROW.**

Imagine what your business could do with a wireless network up to eight times wider and faster. Now, picture having a WLAN that pushes contextual offers to customers, provides strategic-shaping analytics, and automatically wards off interference and security risks. As if that isn't enough, the unmatched benefits of Zebra's AP 8432 doesn't stop there. With built-in PoE-out (Power over Ethernet), it connects with any third-party Internet of Things network. Connect IP video cameras to count customers and reduce shrinkages; add wireless temperature sensors and more. All this can be achieved without the cost and complexity of competitive alternatives, which require multiple access points, cables, and Ethernet switch ports.



## HIGH-DENSITY NETWORK

Our true 802.11ac Wave 2 access point, along with the high-density optimization in WiNG 5, maximize the value of MU-MIMO. The AP 8432 supports hundreds of wireless clients and concurrent transmissions critical for any enterprise.

## EASY IoT ADOPTION

Zebra's AP 8432 seamlessly integrates IoT devices via the secondary Gigabit Ethernet port, providing full 802.3af power and IP connectivity. For advanced management of your IoT network, the AP 8432 can treat each port as a Layer-2 or Layer-3 interface, offering router services, IP firewalls and multiple packet forwarding modes.

## UNMATCHED PERFORMANCE

Using the Integrated Deep Packet Inspection engine (DPI), along with Zebra NSight™ Platform\*, the AP 8432 tirelessly optimizes the network. From RF errors to key performance indicators, the AP 8432 collects data to measure, monitor and secure application performance. Thanks to its intelligent distributed architecture – WiNG 5 – it can proactively adjust to deliver the fastest, most reliable experience. And that's not all. The AP 8432 works with Zebra's Azara

cloud to deliver unparalleled scalability and ease of deployment.

## UNRIVALED SCALABILITY FROM 1 TO CLOUD

With a modern, WiNG 5 distributed operating system, the AP 8432 offers four deployment modes to meet any requirement: standalone AP, virtual controller mode for creating networks up to 64 access points, NOC controllers scaling to 25,000 access points, or enjoy virtually unlimited scalability via Zebra's Azara cloud.

## EXPANDED CAPABILITIES WITH ZEBRA'S TRIPLE SENSOR TECHNOLOGY

Access more possibilities with the AP 8432. The AP 8432 has integrated three powerful sensors that optimize security, customer engagement and network performance.

### 1. 802.11 Wireless Sensor for Gap-free Security

Trust the AP 8432 to deliver best-in-class PCI compliance and security with AirDefense\*. Unlike other sensors that scan only part-time, this dedicated, dual-band 802.11ac sensor scans for rogue devices full time, eliminating the risk of being blindsided by them. Once a threat is detected, it is checked with an extensive security and network vulnerability signature database to proactively safeguard your network.

### 2. Two-in-One Bluetooth® Sensor

- **For Security and Location Services:** Monitor BT2.0 devices

in the environment using the AP 8432 and ADSP Security Appliance. Map BT2.0 devices, and analyze for potential security threats.

### • Communicate with Every Customer:

Due to its ubiquitous nature, Bluetooth is an excellent means to engage customers. The AP 8432 supports Apple iBeacon™ to communicate with a loyalty app on a customer's smartphone. Using Google Eddystone™, enterprises can send advertisements directly to shoppers, guests and conference attendees even without a loyalty app pre-installed. This makes it ideal for businesses to advertise their app-download pages, captive portals or site-specific information.

### 3. RF Spectrum Sensor

Maximize performance and visibility without compromise. Using the dedicated full-time RF spectrum sensor, you can monitor and identify RF interference without slowing down the throughput on the data radios.

## EXPERT SUPPORT

Reduce risk and lower your capital investment and operational costs with our support services. From planning to implementation to post-deployment, our experts will ensure every phase of your WLAN lifecycle is working at its peak, so you can too.

\* Sold separately

**THE AP 8432 – MULTIPLY YOUR CAPACITY AND CAPABILITIES**

FOR MORE INFORMATION, VISIT [www.zebra.com/ap8432](http://www.zebra.com/ap8432)

## SPECIFICATION SHEET

ZEBRA WAVE 2 AP SERIES: AP 8432

# AP 8432 Technical Specifications

### 802.11AC CAPABILITIES

Tri-radios (Dual WiFi radios plus Bluetooth®)
Band-unlocked radio for Data or Dual band 802.11 WIDS/WIPS and Location Service
4x4 MU-MIMO with 4 Spatial Streams
Auto Selecting MU-MIMO
20, 40 and 80 MHz Channels. 160MHz and 80MHz + 80MHz in a future release
Packet Aggregation (AMSDU, AMPDU) and RIFS
Legacy support 802.11a.b.g.n networks
MIMO Power Save (Static and Dynamic)
Advanced forward error correction coding: STBC, LDPC
802.11ac transmit beamforming
Maximal Ratio Combining (MRC)
NitroQAM provides up to 800 Mbps on 2.4GHz radio and up to 2166 Mbps on 5GHz radio
Support for up to 256* associated client devices per access point and up to 16 BSSIDs per radio

### USER ENVIRONMENT

<b>Operating Temp</b>	32° F to 140° F/0° C to 60° C
<b>Storage Temp</b>	40° F to 158° F/-40° C to 70° C
<b>Operating Humidity</b>	95% RH non-condensing
<b>Electrostatic Discharge</b>	ESD to ±12KV air and ±8KV contact

### ANTENNA GAIN INFORMATION

<b>Internal Antenna</b>	Radio 1: 2.4GHz: 3x3 with 3SS Radio 2: 5GHz: 4x4 with 4SS Radio 3: Bluetooth radio with integrated antenna
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### DC POWER SPECIFICATIONS

<b>Operating Power</b>	Max Power Consumption with 802.3af PoE out: 26W Max Power Consumption without PoE-out: 18.2W Typical Power Consumption without PoE-out: 10.3W
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### ACCESSORIES

<b>Power</b>	PWR-BGA48V45W0WW AP-PSBIAS-2P3-ATR
<b>Mounting</b>	KT-135628-01 BRKT-000147A-01

### REGULATORY

<b>Approvals and Certifications</b>	UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS. FCC (USA), EU, TELEC
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### CERTIFICATES

Wi-Fi™ Alliance (WFA) certified 802.11 a/b/g/n/ac, Passpoint 2.0 (certificates completed at General Product Availability)

### PRODUCT SKU AND DESCRIPTION

<b>AP-8432-680B30-XX</b>	Tri-Radio 802.11ac Wave 2 with internal antennas. 4x4:4 MU-MIMO
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### PHYSICAL CHARACTERISTICS

<b>Dimensions</b>	8.25" x 8.25" x 1.8" 210mm x 210mm x 24mm
<b>Weight</b>	3.0lbs, 1.27kg
<b>Mounting</b>	Included mounting bracket for flush mount or T-bar mount.
<b>LEDS</b>	System status: Green, Amber, Blue, White
<b>LAN Ethernet</b>	2x IEEE 802.3 Gigabit Ethernet auto-sensing
<b>Antenna Connectors</b>	Nine internal single band antennas. Eight for WLAN Data radios and one for Bluetooth®
<b>Console</b>	RJ45 serial port
<b>PoE out</b>	Supports 802.3af Powered Devices (PD) up to 15.4w
<b>USB</b>	A single 5W multi-purpose USB port.

### RADIO SPECIFICATIONS

<b>Wireless Medium</b>	DSSS, OFDM, MIMO, MU-MIMO
<b>Network Standards</b>	IEEE 802.11a/b/g/n/ac, 802.11d and 802.11i WPA2, WMM, WMM-UAPSD, L2TPv3, Client 802.11b/g: 1-54 Mbps 802.11a: 6-54 Mbps 802.11n: MCS 0-31 up to 600 Mbps; 802.11ac: MCS 0-9 up to 1.733 Gbps ;

<b>Operating Channels</b>	2.4 GHz band: channel 1-13 5.2 GHz band: channel 36-165 2412 to 2472 MHz, 5180 to 5850 MHz Channel availability depends on local regulatory restriction
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<b>Antenna Configurations</b>	•Radio 1: 2.4GHz: 3x3 with 3SS •Radio 2: 5GHz: 4x4 with 4SS •Radio 3: Dual Band Sensor: 1x3 with 3SS
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<b>Conducted Radio Power</b>	Up to 20dBm depending local regulatory restrictions, in 1dB increments
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<b>Operating Frequencies</b>	2412 to 2472 MHz, 5180 to 5850 MHz
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### NETWORKING

<b>Layer 2 and Layer 3</b>	Layer 3 routing, 802.1q, DynDNS, DHCP server/client, BOOTP client, PPPoE and LLDP
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<b>Security</b>	Stateful Firewall, IP filtering, NAT, 802.1x, 802.11i, WPA2, WPA Triple-Methodology Rogue Detection: 24x7 dual-band WIPS sensing, on-board IDS, captive portal, IPSec and RADIUS Server
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<b>QoS</b>	WMM, WMM-UAPSD, 802.1p, DiffServ and TOS. Role based QoS with rule based packet marking
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### MAXIMUM RADIATED TRANSMIT POWER (RMS)

<b>Internal Antenna</b>	•Radio 1 • 2.4GHz band: 30.2 dBm (1040 mW) • 5.2GHz band: 25.9 dBm (389 mW) •Radio 2: 5.2GHz band: 32.6dBm (1808 mW) •Radio 3: 13.7 dBm (23.4mW)
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\*4Q2016 Release - Support for up to 500 associated client devices per access point



## Rx Sensitivity Table

					AP-8432-68SB30
MODE	RATE/MCS	SPATIAL STREAM	BW	Max Tx power (dBm)	AVG SENS ANT
<b>2G RADIO</b>					
DSSS	1	-	20	20	-99
DSSS	11	-	20	20	
OFDM	54	-	20	17	-81
802.11n	MCS0	3SS	20	20	-93
802.11n	MCS0	3SS	40	20	-90
802.11n	MCS23	3SS	20	13	-76
802.11n	MCS23	3SS	40	13	-73
<b>5G RADIO</b>					
OFDM	6	-	20	20	-96
OFDM	54	-	20	17	-83
802.11ac	MCS9	3SS	20	13	-67
802.11ac	MCS9	3SS	40	13	-64
802.11ac	MCS9	3SS	80	13	-61
<b>SENSOR RADIO - 2G MODE</b>					
DSSS	1	-	20	20	-99
OFDM	54	-	20	17	-81
802.11n	MCS0	3SS	20	20	-93
802.11n	MCS0	3SS	40	20	-90
802.11n	MCS23	3SS	20	13	-76
802.11n	MCS23	3SS	40	13	-73
<b>SENSOR RADIO - 5G MODE</b>					
OFDM	6	-	20	20	-96
OFDM	54	-	20	20	-80
802.11ac	MCS9	3SS	20	13	-67
802.11ac	MCS9	3SS	40	13	-63
802.11ac	MCS9	3SS	80	13	-61



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