

# ExtremeWireless™ WiNG 8432 Wave 2 Access Point

Do More Today. Add the Internet of Things Tomorrow with a True 802.11ac Access Point

## EXPANDED CAPABILITIES

### 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.

### 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.

### 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 throughput on the data radios.



## Product Overview

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 the ExtremeWireless WiNG AP 8432 don'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 competitor 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 ExtremeWireless WiNG 5, maximizes the value of MU-MIMO. The AP 8432 supports hundreds of wireless clients and concurrent transmissions critical for any enterprise.

### EASY IOT ADOPTION

The ExtremeWireless WiNG 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 (DPI) engine, along with the Extreme 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—ExtremeWireless WiNG 5—it can proactively adjust to deliver the fastest, most reliable experience.

## 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: stand-alone AP, virtual controller mode for creating networks of up to 64 access points, NOC controllers scaling to 25,000 access points.

## EXPANDED CAPABILITIES WITH EXTREME'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.

## 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.

## Specifications

PRODUCT FEATURES	
<b>802.11AC CAPABILITIES</b>	
<ul style="list-style-type: none"> <li>Tri-radios (Dual Wi-Fi® radios plus Bluetooth*)</li> <li>Band-unlocked radio for Data or Dual-band 802.11 WIDS/WIPS and Location Service</li> <li>4x4 MU-MIMO with 4 Spatial Streams</li> <li>Auto-Selecting MU-MIMO</li> <li>20, 40, and 80 MHz Channels. 160MHz and 80Mhz + 80MHz in a future release</li> <li>Packet Aggregation (AMSDU, AMPDU) and RIFS</li> <li>Legacy support 802.11a.b.g.n networks</li> </ul>	<ul style="list-style-type: none"> <li>MIMO Power Save (Static and Dynamic)</li> <li>Advanced forward error correction coding: STBC, LDPC</li> <li>802.11ac transmit beamforming</li> <li>Maximal Ratio Combining (MRC)</li> <li>NitroQAM provides up to 800 Mbps on 2.4GHz radio and up to 2166 Mbps on 5GHz radio</li> <li>Support for up to 500* associated client devices per access point and up to 16 BSSIDs per radio</li> </ul>
<b>PHYSICAL CHARACTERISTICS</b>	
Dimensions	8.25" x 8.25" x 1.8" 210mm x 210mm x 24mm
Weight	3.0lbs, 1.27kg
Mounting	Included mounting bracket for flush mount or T-bar mount
LEDs	System status: Green, Amber, Blue, White
LAN Ethernet	2x IEEE 802.3 Gigabit Ethernet auto-sensing
Antenna Connectors	Nine internal single band antennas Eight for WLAN Data radios and one for Bluetooth
Console	RJ45 serial port
PoE Out	Supports 802.3af Powered Devices (PD) up to 15.4w
USB	A single 5W multi-purpose USB port
<b>USER ENVIRONMENT</b>	
Operating Temperature	32° F to 140° F/0° C to 60° C
Storage Temperature	40° F to 158° F/-40° C to 70° C
Operating Humidity	95% RH non-condensing
Electrostatic Discharge	ESD to ±12KV air and ±8KV contact
<b>ANTENNA GAIN INFORMATION</b>	
Internal Antenna	Radio 1: 2.4GHz: 3x3 with 3SS Radio 2: 5GHz: 4x4 with 4SS Radio 3: Bluetooth radio with integrated antenna
<b>DC POWER SPECIFICATIONS</b>	
Operating Power	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

PRODUCT FEATURES	
<b>ACCESSORIES</b>	
Power	PWR-BGA48V45W0WW AP-PSBIAS-2P3-ATR
Mounting	KT-135628-01 BRKT-000147A-01)
<b>RADIO SPECIFICATIONS</b>	
Wireless Medium	DSSS, OFDM, MIMO, MU-MIMO
Network Standards	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
Operating Channels	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 restrictions
Antenna Configuration	Radio 1: 2.4GHz: 3x3 with 3SS Radio 2: 5GHz: 4x4 with 4SS Radio 3: Dual Band Sensor: 1x3 with 3SS
Conducted Radio Power	Up to 20dBm depending on local regulatory restrictions, in 1dB increments
Operating Frequencies	2412 to 2472 MHz, 5180 to 5850 MHz
<b>NETWORKING</b>	
Layer 2 and Layer 3	Layer 3 routing, 802.1q, DynDNS, DHCP server/client, BOOTP client, PPPoE, and LLDP
Security	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
QoS	WMM, WMM-UAPSD, 802.1p, Diffserv, and TOS. Role-based QoS with rule-based packet marking
<b>MAXIMUM RADIATED TRANSMIT POWER (RMS)</b>	
Internal Antenna	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)
<b>REGULATORY</b>	
Approvals and Certifications	UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS, FCC (USA), EU, TELEC, Medical EMC standard: EN/IEC 60601-1-2
<b>CERTIFICATES</b>	
Wi-Fi Alliance® (WFA) certified 802.11 a/b/g/n/ac, Passpoint 2.0	
<b>PRODUCT SKU AND DESCRIPTION</b>	
AP-8432-680B30-XX	Tri-Radio 802.11ac Wave 2 with internal antennas. 4x4:4 MU-MIMO
* WING 5.8.5 or later	

## 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	1	-	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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