Extreme™
Customer-Driven Networking

Data Sheet

Expanded Capabilities

802.11 Wireless Sensor for Gap-free Security

Trust the AP 8533 to deliver best-in-class PCI compliance and security with Extreme 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 8533 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 8533 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.

BUILT ON BROADCOM®

ExtremeWireless™ WiNG 8533 Wave 2 Access Point

True 802.11ac Access Point with Eight Times the Capacity and Triple the Sensors

Product Overview

Ever-increasing demand to support more mobile devices and applications, as well as customer engagement, redefines the network year after year. Jump to the front of the line with the new ExtremeWireless WiNG AP 8533. This innovative access point features true 802.11ac Wave 2 capabilities and Extreme Triple Sensor technology to support your growing business and customer needs. Personalize the shopping experience with Bluetooth® Low Energy (BLE) beacons, secure the network from existing and new threat vectors, and deepen network visibility of applications running over your wireless LAN. With AP 8533's advanced capabilities, you can prevent "upgrade fatigue".

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 8533 supports hundreds of wireless clients and concurrent transmissions critical for any enterprise.

Unmatched Performance

Using the Integrated Deep Packet Inspection (DPI) engine, along with the ExtremeWireless Platform*, the AP 8533 tirelessly optimizes the network to extract every bit from the airwaves. From RF errors to key performance indicators, the AP 8533 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 8533 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 8533. The AP 8533 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	
802.11ac Capabilities	
• Quad radios (3 Wi-Fi radios + one Bluetooth® radio) • Band-unlocked Network Sensor for WIPS and Location Service • 4x4 MU-MIMO with 4 Spatial Streams • Auto-Selecting MU-MIMO supports 1 and 2 stream wireless clients • 20, 40, and 80 MHz Channels • Packet Aggregation (AMSDU, AMPDU) and RIFS • 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 500 associated client devices per access point and up to 16 BSSIDs per radio
Physical Characteristics	
Dimensions	8.25" x 8.25" x 1.8" 210mm x 210mm x 46mm
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	AP-8533-68SB30: internal antenna AP-8533-68SB3E: internal antenna AP-8533-68SB40; five RP SMA connectors; one RP-SMA dedicated for BT/BLE radio
Console	RJ45
User Environment	
Operating Temperature	32° F to 140° F/0° C to 50° C
Storage Temperature	40° F to 158° F/-40° C to 70° C
Operating Humidity	95% RH non-condensing
Electrostatic Discharge	Internal AP-8533-68SB30/3E: ESD to ±12KV air and ±8KV contact
Antenna Information	
Internal Antenna	Radio 1 (2.4GHz) : 5.2dBi Radio 2 (5.2GHz): 6.8 dBi Radio 3 (2.4GHz/5.2GHz): 4.9/5.9 dBi Radio 4 (2.4GHz): Integrated antenna with 7.7dBi
External Antenna	Radio 1, 2 : up to 10dBi Radio 3 (2.4GHz/5.2GHz) integrated antenna: 4.9/5.9 dBi Radio 4 (2.4GHz): dual-mode antenna option. Integrated antenna with 7.7dBi or optional external antenna up to 11dBi.

Product Features	
DC Power Specifications	
Operating Power	Max Power Consumption: 24W Typical Power Consumption: 12W
Maximum Radiated Transmit Power (RMS)*	
Internal Antenna	Radio 1, 2.4GHz band: 32.2dBm (1670 mW) Radio 2, 5.2GHz band: 32.8dBm (1915 mW) Radio 3, 2.4GHz/5.2GHz dual-band sensor: • 2.4GHz band: 25.9 dBm (389 mW) • 5.2GHz band: 22.9 dBm (195 mW) Radio 4: 13.7 dBm (23.4mW) with integrated antenna
External Antenna	Radio 1, 2.4GHz band: 34dBm (2524 mW) Radio 2, 5.2GHz band: 33dBm (2005 mW) Radio 3, 2.4GHz/5.2GHz dual-band sensor: • 2.4GHz band: 25.9 dBm (389 mW) • 5.2GHz band: 22.9 dBm (195 mW) Radio 4: 13.7 dBm (23.4mW) with integrated antenna or up to 17 dBm (50 mW) with 11dBi external antenna
Accessories	
Power	PWR-BGA48V45W0WW PD-9001GR-ENT
Mounting	KT-135628-01 BRKT-000147A-01
Radio Specifications	
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 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; In Nitro mode, radio 1 and 2 data rates can go up to 1000Mbps and 2166Mbps, respectively.
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: 4x4 with 4SS Radio 2: 5GHz: 4x4 with 4SS Radio 3: Dual-Band Sensor: 1x3 with 3SS Radio 4: Bluetooth radio with selectable single integrated antenna or external antenna
Conducted Radio Power	Up to 21dBm, depending on local regulatory restrictions, in 1dB increments
Operating Frequencies	2412 to 2472 MHz, 5180 to 5850 MHz
Networking	
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 and secure guest access (hotspot) with captive portal, IPSec, and RADIUS Server
QoS	WMM, WMM-UAPSD, 802.1p, Diffserv, and TOS. Role-based QoS with rule-based packet marking.
Certificates	
Wi-Fi Alliance® (WFA) certified 802.11 a/b/g/n/ac, Passpoint 2.0	
Regulatory	
Product Safety Certifications	UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS
Radio Approvals	FCC (USA), EU, TELEC
Approvals and Certifications	UL / cUL 60950-1, IEC / EN60950-1, UL2043, RoHS. FCC (USA), EU, TELEC, Medical EMC standard: EN/IEC 60601-1-2

Note: *Maximum ERIP may vary based upon deployed country.

Product Features	
Product SKU and Description	
AP-8533-68SB30-US	802.11ac Wave 2, Tri-Radio, dedicated sensor, BLE, internal antenna, 2xGE, US
AP-8533-68SB30-1-WR	802.11ac Wave 2, Tri-Radio, dedicated sensor, BLE, internal antenna, 2xGE, WR and EMEA
AP-8533-68SB40-US	802.11ac Wave 2, Tri-Radio, dedicated sensor, BLE, external antenna, 2xGE, US
AP-8533-68SB40-1-WR	802.11ac Wave 2, Tri-Radio, dedicated sensor, BLE, external antenna, 2xGE, WR and EMEA

Rx Sensitivity Table

					AP-8533-68SB30		AP-8533-68SB30
Mode	Rate/MCS	Spatial Stream	BW	Max TX Power (DBM)	AVG SENS ANT	Max TX Power (DBM)	AVG SENS ANT
2G Radio							
DSSS	1	-	20	21	-99	20	-98
DSSS	11	-	20	21	-99	20	-98
OFDM	54	-	20	17	-82	16	-81
802.11n	MCS0	4SS	20	20	-71	19	-95
802.11n	MCS0	4SS	40	20	-68	19	-92
802.11n	MCS31	4SS	20	16	-71	15	-70
802.11n	MCS31	4SS	40	16	-68	15	-67
5G Radio							
OFDM	6	-	20	20	-99	17	-96
OFDM	54	-	20	18	-86	15	-83
802.11ac	MCS9	4SS	20	20	-70	17	-67
802.11ac	MCS9	4SS	40	13	-67	10	-64
802.11ac	MCS9	4SS	80	13	-64	10	-61
Sensor Radio – 2G Mode							
DSSS	1	-	20	20	-99	20	-98
OFDM	54	-	20	17	-81	15	-80
802.11n	MCS0	3SS	20	20	-96	20	-95
802.11n	MCS0	3SS	40	20	-93	20	-92
802.11n	MCS23	3SS	20	16	-69	13	-68
802.11n	MCS23	3SS	40	13	-66	13	-65
Sensor Radio – 5G Mode							
OFDM	6	-	20	17	-99	20	-96
OFDM	54	-	20	15	-86	17	-83
802.11ac	MCS9	3SS	20	12	-67	13	-64
802.11ac	MCS9	3SS	40	12	-64	13	-61
802.11ac	MCS9	3SS	80	12	-61	13	-58