AP 7562 802.11AC ACCESS POINT

BLAZING 802.11AC WI-FI SPEED AND THROUGHPUT IN YOUR MOST CHALLENGING OUTDOOR ENVIRONMENTS — ALL AT A LOW COST

If you need to provide wireless network access in outdoor areas, you not only need an access point built for the outdoors, you also need the power and performance of 802.11ac to handle today's bandwidth-heavy applications, but cost has been an issue — until now.

Introducing the AP 7562 802.11ac outdoor access point from Zebra Technologies, purpose-built to meet the demands of your outdoor spaces. On the outside, the AP 7562 offers a rugged housing built to handle anything from rain, snow and hurricane-force winds to sub-zero temperatures. On the inside, you get all the power you need to provide high-performance, seamless, reliable and secure wireless access for even the densest user populations.

The 802.11ac radio provides four times the bandwidth of 'n' for blazing speed, regardless of whether users are viewing schematics, placing a video call or accessing information in a business applications. The 802.11n radio ensures backward compatibility with all your existing user devices. The advanced WiNG 5 operating system provides the advanced brainpower required to create a "fully network-aware" WLAN, where all the infrastructure in your WLAN works together to determine the most efficient route for every transmission. Self-healing, automatic failover and site survivability ensure superior network uptime — even if the backhaul connection is lost. And if you need sensor capability, the AP 7562 can meet just about any business need — a single AP 7562 can function as both a sensor and an access point for maximum cost-efficiency, or as a dedicated sensor for the most robust sensing functionality.

The AP 7562 — delivering superior Wi-Fi performance in all of your outdoor spaces .

INNOVATIVE ADVANCED FEATURES FOR OUTDOOR OPERATION

Highest performance wireless speeds with 3X3 MIMO and 256 QAM modulation
3 spatial streams plus 256 QAM modulation support on both the 2.4 GHz and 5 GHz radios deliver the maximum throughput needed to support virtually any enterprise application, including voice and HD video; works in conjunction with beamforming to boost range.

Dual radio 802.11ac/802.11n
Provides an easy upgrade path to 5th generation 1.3 Gbps Wi-Fi for unmatched performance and capacity, with continuing support for all existing Wi-Fi client devices (2.4 GHz/5 GHz).

Outdoor rated IP67 diecast aluminum enclosure
Designed to withstand wind, rain and extreme temperatures.

Gap-free security
Protects your network 24x7x365 with integrated security features.

MeshConnex™ on both data radios
Creating a Mesh network on both radios allows automatic failover for superior uptime and survivability.

Backhaul detection
If the AP 7652 loses the backhaul connection, it self forms and self heals into a mesh router in the network, eliminating any disruption in wireless connectivity.

Radio Share and Off-Channel Scan
Enables a single AP 7562 to perform double duty as an access point and a sensor.

Load balancing, pre-emptive roaming and rate scaling
Increases reliability and resilience of the wireless network to support mission critical applications.

Blazing 802.11ac speed for unmatched performance on all of your applications

802.11ac technology builds on 802.11n, delivering up to four times the bandwidth through new technology advancements. 3X3 Multiple-Input Multiple-Output (MIMO) allows 3-spatial streams of data to be sent simultaneously to a single mobile device, substantially improving bandwidth efficiency and utilization. 256 QAM modulation gives the 802.11ac radio an additional performance boost, and works hand-in-hand with MIMO technology to boost the bandwidth of the 802.11n radio to 802.11ac speeds. Since 802.11ac operates only in the 5 GHz band, interference from 2.4 GHz devices is finally eliminated — from Bluetooth® headsets to microwave ovens. The result? Your WLAN can support an unprecedented number of users and applications — including voice and video — allowing you to confidently deploy Bring Your Own Device (BYOD) initiatives and empower new workgroups with mobility.

Easy migration to 5th generation 802.11ac Wi-Fi

The dual radio AP 7562 provides the simplest path to next generation Wi-Fi. The 802.11ac radio readies you to support new 5 GHz mobile devices, while the 802.11n radio ensures support for all existing mobile devices — including 2.4 GHz clients. The radios work together to allow you to migrate to 802.11ac at your own pace — without the high cost of "rip and replace".

Superior availability

While the AP 7562 can be adopted by a Zebra wireless controller for remote control and management, it can also function as a standalone access point. Even if an adopted AP 7562 loses its connection to the wireless controller due to a wired network or T1/E1 line backhaul problem, your users can stay connected.

Protect your network and your data with gap-free security

The AP 7562 secures all your wireless transmissions, ensuring compliance with the government or industry regulations your business may be subjected to — from PCI in retail to HIPAA in healthcare. Your network is protected every second of every day with comprehensive integrated security features that include layer 2-7 stateful packet filtering firewall, AAA RADIUS services, a VPN gateway and location-based access control.

More robust wireless connections

The AP 7562 provides your users with a more robust wireless connection than ever before, thanks to improved beamforming. Beamforming creates the most efficient path for data transmission between an access point and a mobile device. Until today, the transmitting beamformer worked alone to define this path. Now, the receiver also assists, a process known as sounding.

The result is a stronger connection and faster data transmission, improving application throughput and performance, as well as mobile device battery power.

Flexible WIPS sensor support

You choose how you want to implement sensing to support AirDefense Network Assurance features. While you can always choose to deploy an AP 7562 as a dedicated sensor, Radio Share and Off-Channel Scan features work hand-in-hand to allow either or both radios to carry client data and act as a sensor, providing dual-band sensing without adding cost.

Voice, locationing and guest access

Support for Voice-over-wireless LAN (VoWLAN) quality of service (QoS) ensures toll quality calls, even with many simultaneous calls on a single access point. In addition, you can leverage locationing services to locate and track people and assets, as well as control network and application access. And with the ability to prevent access to unauthorized networks, sites and applications, you can easily provide hotspot and guest access.

Superior scalability

The AP 7562 can be adopted by our controllers for easy centralized management, allowing you to easily add capacity as your business grows. No matter how many access points and controllers you need or where in the world they are located, you can deploy, monitor, troubleshoot and manage them all from a single location.

Patented MeshConnex™ protects network performance and uptime

As the leader in outdoor mesh networks, Zebra puts over 200 patents to work for you in our AP 7562 access points. Our unique routing engine, MeshConnex™, ensures superior uptime and site survivability, along with the highest possible data rate in challenging outdoor environments — at all times. MeshConnex™ dynamically senses weak or failing signals, securely moves mobile users to alternate APs and boosts signal power to automatically fill RF holes and ensure uninterrupted mobile user access. And since mesh eliminates the need to install fiber and wires between buildings, on campus grounds and in business parks and large outdoor areas, the cost and complexity of your WLAN is reduced.

Support services bring our expertise, right to your door

Reduce risk, lower your capital investment and reduce operational costs with from-the-manufacturer support services. Our family of services can help you get and keep your WLAN up and running at peak performance by providing the assistance you need at every phase of network lifecycle — from planning and implementation to post-deployment everyday support.

THE ZEBRA DIFFERENCE — THE ADVANCED WiNG 5 OPERATING SYSTEM

WiNG 5 distributes intelligence and control to every piece of infrastructure in your WLAN — the wireless controllers as well as all access points, including the AP 7562. Now, all AP 7562 access points work in concert with all WLAN infrastructure to determine the fastest and most efficient routing of every transmission, based on factors such as user, location, application and available wired and wireless resources. Traffic no longer needs to travel to a central controller, dramatically reducing the load on the wired network and virtually eliminating the typical bottlenecks and chokepoints in a centralized WLAN.

WiNG FEATURE HIGHLIGHTS

- **802.11r Fast Roaming:** Supports fast roaming between access points for mobile clients.
- **Roaming Assistance:** Enables a sticky-free client WLAN network and improves network performance.
- **SMART-RF:** Allows the WLAN to automatically and intelligently adapt to changes in the RF environment to protect performance and eliminate unforeseen gaps in coverage. Senses potential interference from Wi-Fi and non Wi-Fi sources (such as faulty antennas and neighboring access point failures) and automatically adjusts channels and power as needed.
- **Smart Load Balancing:** Distributes clients evenly across access points and bands, improving overall network performance.

AP 7562 Technical Specifications

802.11AC CAPABILITIES

- Dual radios; supports 256-QAM
- 3X3 MIMO with 3 Spatial Streams
- 20, 40 and 80 MHz Channels
- 1.9 Gbps data rates on dual concurrent radio operations
- Packet Aggregation (AMSDU, AMPDU)
- Reduced Interface Spacing
- 802.11 DFS
- MIMO Power Save (Static and Dynamic)
- Advanced forward error correction coding: STBC, LDPC
- 802.11ac transmit beamforming
- Maximal Ratio Combining (MRC)

PHYSICAL CHARACTERISTICS

Dimensions	9.0 in. L x 10.0 in. W x 2.6 in. H 22.8 cm L x 25.4 cm W x 6.6 cm H
Weight	5.6 lbs./2.54 kg
Housing	Outdoor IP67 rated, die-cast aluminum, corrosion resistant enclosure, salt, fog, rust ASTM B117
Available mounting	KT-147407-01 Outdoor Mounting KT-147407-02 Outdoor Stainless Steel Mounting
LEDs activity indication	2 top mounted LEDs; activity indication
LAN Ethernet	2x IEEE 802.3 Gigabit Ethernet auto-sensing
Antenna	See Antenna Guide for antennas
Antenna connectors	6 N-Type connectors
Console port	Outdoor rated RJ45 console port

USER ENVIRONMENT

Operating temp.	-40° F to 140° F/-40° C to 60° C
Storage temp.	-40° F to 185° F/-40° C to 80° C
Operating humidity	85% RH non-condensing
Electrostatic discharge	15kV, 8kV contact
Operating altitude	8,000 ft. at 54 °F/12 °C
Storage altitude	30,000 ft. at 82 °F/28 °C
Wind rating	150 mph
Operational shock	IEC60721-3-4, Class 4M3, MIL STD 810F
Vibration	IEC60721-3-4, Class 4M3
Shock and vibration	ETSI 300-19-2-4 spec T41.E 4M3

POWER SPECIFICATIONS

Operating voltage	36-57 VDC
Operating current	354mA at 48V in 802.3at
Integrated PoE support	802.3at, 802.3af

CERTIFICATIONS

Wi-Fi Alliance (WFA) certified 802.11 a/b/g/n/ac

NETWORKING SPECIFICATIONS

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
Quality of Service (QoS)	WMM, WMM-UAPSD, 802.1p, Diffserv and TOS

RADIO SPECIFICATIONS

Wireless medium	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM) and Spatial Multiplexing (MIMO)
Network standards	IEEE 802.11a/b/g/n/ac, 802.11d and 802.11i WPA2, WMM, WMM-UAPSD, L2TPv3, Client VPN, MESH (released in a future version of WiNG), Captive Portal server
Data rates supported	802.11b/g: 1,2,5.5,11,6,9,12,18,24,36,48 and 54 Mbps 802.11a: 6,9,12,18,24,36,48, and 54 Mbps 802.11n: MCS 0-23 up to 450 Mbps; Turbo mode (256 QAM) on 2.4 GHz band up to 600 Mbps 802.11ac: MCS 0-9 up to 1.3 Gbps
Operating channels	2.4 GHz band: channel 1 through channel 13 5.2 GHz band: channel 36 through channel 165 * Channel availability depends on local regulatory restriction
Antenna configuration	3x3 MIMO (transmit/receive on all three antennas)
Transmit power adjustment	1 dB increment
Operating frequencies	2412 to 2472 MHz, 5180 to 5850 MHz

REGULATORY

Product safety certifications	UL / cUL 60950-1, IEC / EN60950-1, RoHS
Radio approvals	FCC (USA), EU, TELEC

MAXIMUM CONDUCTED TRANSMIT POWER*

	1 Antenna Tx Power	2 Antennas Tx Power	3 Antennas Tx Power
External Antennas (AP-7562-67040-xx)			
2.4 GHz Band	21 dBm	24 dBm	25.7 dBm
5 GHz Band	20 dBm	23 dBm	24.7 dBm

* Maximum EIRP may vary based upon the deployed country

ACCESSORIES

Mounting Bracket (KT-147407-01); Stainless Steel Mounting Bracket (KT-147407-02) (pending release); Extension Mounting Kit (KT-150173- 01); IP66 Outdoor Rated 802.3 at Power Injector (AP-PSBIAS-7161-xx); external antenna options (see WLAN Antenna Guide for external antenna options)

WARRANTY

One (1) year on AP7562; 30 days on accessories; 90 days on software

THE AP 7562 — BLAZING AND AFFORDABLE OUTDOOR 802.11AC WIRELESS SPEED.

FOR MORE INFORMATION, VISIT WWW.ZEBRA.COM/AP 7562 OR ACCESS OUR GLOBAL CONTACT DIRECTORY AT WWW.ZEBRA.COM/CONTACTUS

AP 7562 Receiver Sensitivity

802.11B (CCK)			
-98	@	1	Mbps
-94	@	2	Mbps
-93	@	5.5	Mbps
-90	@	11.0	Mbps
802.11G (NON HT20)			
-95	@	6	Mbps
-95	@	9	Mbps
-95	@	12	Mbps
-93	@	18	Mbps
-90	@	24	Mbps
-86	@	36	Mbps
-82	@	48	Mbps
-81	@	54	Mbps
802.11A (NON HT20)			
-95	@	6	Mbps
-95	@	9	Mbps
-95	@	12	Mbps
-93	@	18	Mbps
-90	@	24	Mbps
-86	@	36	Mbps
-82	@	48	Mbps
-81	@	54	Mbps
2.4 GHZ: 802.11N (HT20)			
-95	@	MCS	0
-93	@	MCS	1
-91	@	MCS	2
-88	@	MCS	3
-86	@	MCS	4
-81	@	MCS	5
-79	@	MCS	6
-78	@	MCS	7
-94	@	MCS	8
-91	@	MCS	9
-89	@	MCS	10
-85	@	MCS	11
-82	@	MCS	12
-78	@	MCS	13
-76	@	MCS	14
-75	@	MCS	15
-93	@	MCS	16
-90	@	MCS	17
-88	@	MCS	18
-84	@	MCS	19
-81	@	MCS	20
-76	@	MCS	21
-75	@	MCS	22
-73	@	MCS	23

NOTE: Receiver sensitivity is represented with a 0 dBi antenna.

5 GHZ: 802.11N (HT20)			
-96	@	MCS	0
-94	@	MCS	1
-92	@	MCS	2
-90	@	MCS	3
-89	@	MCS	4
-81	@	MCS	5
-80	@	MCS	6
-78	@	MCS	7
-95	@	MCS	8
-92	@	MCS	9
-90	@	MCS	10
-86	@	MCS	11
-83	@	MCS	12
-78	@	MCS	13
-77	@	MCS	14
-75	@	MCS	15
-94	@	MCS	16
-91	@	MCS	17
-88	@	MCS	18
-85	@	MCS	19
-82	@	MCS	20
-77	@	MCS	21
-76	@	MCS	22
-74	@	MCS	23
5 GHZ: 802.11N (HT40)			
-94	@	MCS	0
-92	@	MCS	1
-89	@	MCS	2
-85	@	MCS	3
-86	@	MCS	4
-79	@	MCS	5
-77	@	MCS	6
-75	@	MCS	7
-92	@	MCS	8
-89	@	MCS	9
-86	@	MCS	10
-83	@	MCS	11
-80	@	MCS	12
-76	@	MCS	13
-74	@	MCS	14
-72	@	MCS	15
-91	@	MCS	16
-88	@	MCS	17
-85	@	MCS	18
-82	@	MCS	19
-79	@	MCS	20
-75	@	MCS	21
-73	@	MCS	22
-71	@	MCS	23

2.4 GHZ: 802.11AC			
MCS Index	Spatial Streams	VHT20	VHT40
0	1	-95	-94
8	1	-72	-72
0	2	-93	-90
8	2	-68	-67
0	3	-93	-91
8	3	-69	-67

5 GHZ: 802.11AC (VHT80)				
MCS Index	Spatial Streams	VHT20	VHT40	VHT80
0	1	-97	-94	-90
8	1	-70	-71	-68
0	2	-93	-90	-86
8	2	-68	-66	-63
0	3	-94	-90	-87
8	3	-68	-67	-63
9	3	-65	-65	-61