

AirTight O-90

Outdoor 802.11ac access point

Cost Effective, High Speed Wi-Fi

The AirTight O-90 is a ruggedized dual band, dual concurrent 3x3:3 MIMO 802.11ac outdoor AP with dual concurrent 5 GHz and 2.4 GHz band radios supporting 802.11a/n/ac, 802.11b/g/n, three spatial streams, and data rates of up to 1.3Gbps and 450 Mbps, respectively.

The AirTight O-90 is ideal for delivering high performance in harsh or outdoor environments such as schools and universities, outdoor sections of hotel and enterprise campuses, warehouses, manufacturing yards, stadiums and sports arenas, malls, public hotspots, and other municipal Wi-Fi deployments.

It can also be used to cost-effectively extend the range of Wi-Fi access in areas where it is not practical to rollout Ethernet cables, and to implement point-to-point or backhaul mesh Wi-Fi links to interconnect buildings or campuses, while simultaneously providing Wi-Fi access to users.

The AirTight O-90 removes the security tradeoffs often associated with upgrading to 802.11ac with the industry's only fully integrated 11ac wireless IPS capabilities. With AirTight's industry leading wireless intrusion prevention system (WIPS) technology built-in, the O-90 can also operate as a dual radio, dual concurrent overlay WIPS sensor for 24/7 protection from all types of wireless threats or provide Wi-Fi access with background WIPS on both radios.

The O-90 AP can monitor 2000 active wireless devices, providing the scalability required to support the increasing density and diversity of Wi-Fi devices associated with the Internet of Things.

The device can be powered on using PoE+ (802.3at).

Ruggedized, Weather-Proof Design

The O-90 comes with an industrial-grade IP67 compliant enclosure that makes it dustproof and waterproof. It can withstand extreme weather conditions and other harsh environments, while providing reliable performance. The O-90 utilizes internal antennas.

Software Configurable Operation

Customers can choose from multiple modes of operation:

- **Dual AP:** 5 GHz 802.11ac access on one radio and in 2.4 GHz 802.11n on the other radio
- **Dual AP with Background WIPS:** 5 GHz 802.11ac access on one radio and in 2.4 GHz 802.11n on the other radio with background wireless monitoring in both bands
- **Dedicated Overlay WIPS:** Dedicated 24/7 wireless threat protection for both 5 GHz and 2.4 GHz bands to protect any wired or wireless network

KEY FEATURES

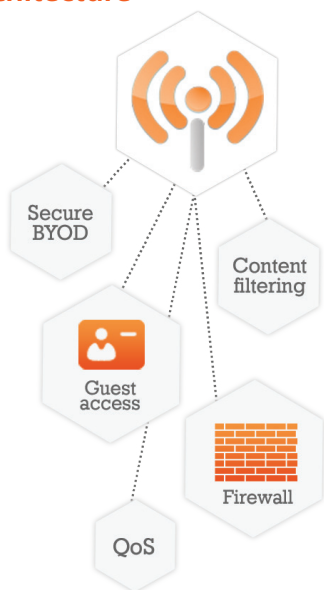
- ◊ Dual band, dual concurrent radio 3x3:3 MIMO 802.11ac Wi-Fi
- ◊ Up to 450 Mbps for Radio 1
- ◊ Up to 1.3 Gbps for Radio 2
- ◊ Both radios operate at full capacity using 802.3at PoE+
- ◊ 365/24/7 dual band protection from wireless threats as a WIPS sensor or background WIPS scanning in AP mode
- ◊ Multiple SSIDs and VLANs per AP
- ◊ Integrated firewall, traffic shaping, QoS controls, and spectrum load balancing per SSID
- ◊ Multiple guest access options with captive portal and walled garden support
- ◊ Wi-Fi analytics and performance monitoring
- ◊ Support for wireless mesh networking



Mesh Networking

The O-90 is mesh capable. O-90 is fully functional when powered with IEEE 802.3at PoE+ and can be deployed at locations where data cables or power lines cannot be drawn all the way to the AP. And concurrent 802.11a/b/g/n/ac operation enables simultaneous support for a mix of mobile devices and applications, e.g., Wi-Fi access to end users on 2.4 GHz and backhaul mesh Wi-Fi link on 5 GHz.

Controller-less “Intelligent Edge” Architecture



AirTight's next generation controller-less architecture eliminates the cost, complexity, and inefficiency of traditional controller-based WLAN solutions. Instead of making APs tunnel data traffic to the central controller and rely on it for availability of many Wi-Fi and WIPS functionalities, AirTight APs switch data locally and are capable of operating independently – in a “stand-alone” mode even if the connectivity to the management server is lost, e.g., if the WAN link to the Cloud goes down.

Purpose-built and plug-and-play AirTight APs provide WLAN intelligence at the edge of the network.

- Multiple SSIDs and VLANs per AP
- Built-in firewall, DNS-based content filtering, traffic shaping, and QoS controls per SSID
- Guest access with customizable captive portal and walled garden
- Social Wi-Fi and analytics
- BYOD policy enforcement with automatic

device fingerprinting and onboarding

- Support for wireless mesh network

Plug-n-Play Deployment; Centrally Managed



AirTight APs automatically connect and synchronize with the AirTight server whether hosted onsite or in the Cloud, enabling true plug-and-play deployment at remote locations in minutes without the need for local configuration or IT support. Whether using 10 APs or 10,000 APs, the entire deployment can be managed from a single HTML5 console.

Stay Secure with Industry's Top Rated WIPS



Consistently rated at the top, AirTight is the only WIPS vendor to ever receive Gartner's highest “Strong Positive” rating for Wireless LAN IPS. The AirTight WIPS is powered by several patented techniques to accurately and automatically detect, block and locate wireless threats before they compromise your network.

AirTight O-90 can provide background WIPS monitoring while providing Wi-Fi access or it can also be converted into a dedicated WIPS sensor providing 24/7 protection against wireless threats.

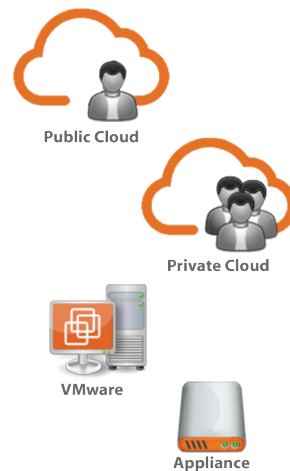
- Patented Marker Packet™ techniques for accurate Rogue AP detection
- 24/7 monitoring of up to 100 VLANs
- Most comprehensive protection from all

types of wireless threats, including Rogue APs, Soft APs, Honeypots, Wi-Fi DoS, Ad-hoc networks, Client misassociations, and Mobile hotspots

- Reliable over-the-air and on-wire prevention in real time
- Accurate location tracking
- Equally effective with or without managed LAN switch infrastructure

Capex or Opex; Onsite or Cloud

AirTight's robust cloud architecture is infinitely scalable and on-premise deployment options include virtual servers and appliances that easily integrate with your existing network. AirTight provides different pricing models including full OpEx, full CapEx or a combination to meet your budget. All features are included without any licensing costs.

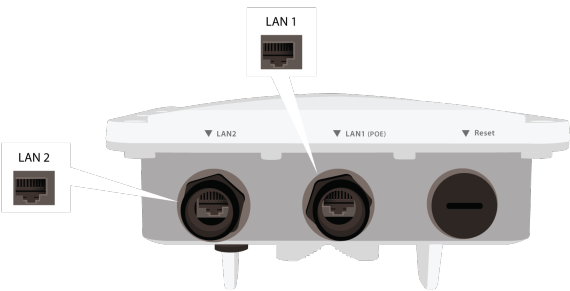


Physical Specifications



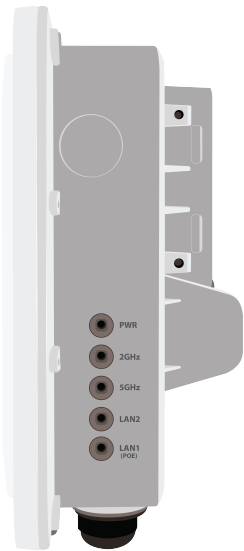
Front View

Property	Specification
Physical Dimensions	210 mm x 210 mm x 67 mm
Weight	3.22 lb. (1.46 kg)
Operating Temperature	-20°C to 55°C (-4°F to 131°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% non-condensing



Bottom View

Port	Description	Connector Type	Speed/Protocol
LAN1	Gigabit Ethernet port that enables the device to connect to the wired LAN and communicate with the AirTight Cloud or Server. This port is also used to power the device using the 802.3at Power over Ethernet Plus (PoE+) standard.	IP67 rated weatherproof RJ-45	10/100/1000 Mbps Gigabit Ethernet 802.3at PoE+
LAN2	Gigabit Ethernet port that can be used for wired extension of an SSID	IP67 rated weatherproof RJ-45	10/100/1000 Mbps Gigabit Ethernet
Reset	Reset to factory default settings	Push button	Hold down an power cycle the sensor to reset



Side View

Wi-Fi Specifications

Frequency, Modulation, and Data Rates

IEEE 802.11b/g/n			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	2400 ~ 2483.5Mhz	2400 ~ 2473.5Mhz	2400 ~ 2483.5Mhz
Modulation Type	DSSS, OFDM		
Data Rates	Up to 450 Mbps (MCS 0-23) with automatic rate adaptation		
Antenna	Integrated modular high efficiency PIFA omnidirectional antenna		

IEEE 802.11a/n/ac			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47~ 5.725 GHz 5.725~ 5.825 GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.725~ 5.82 5GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47~ 5.725 GHz
Dynamic Frequency Selection	DFS and DFS2		
Modulation Type	OFDM		
Data Rates	Up to 450 Mbps (MCS 0-23) with automatic rate adaptation		
Antenna	Integrated modular high efficiency PIFA omnidirectional antenna		

Maximum Transmit Power

For 2.4GHz

Transmitter	Target Power(dBm)
802.11b	
1 ~ 2 Mbps	24
5.5 ~ 11 Mbps	24
802.11g	
6 ~ 24 Mbps	24
36 Mbps	23
48 Mbps	22
54 Mbps	22
802.11n HT20	
MCS 0,8,16	24
MCS 1,2,3,4,5,9,10,11,12,13,17,18,19,20,21	23
MCS 6,7,14,15,22,23	22
802.11n HT40	
MCS 0,1,2,3,4,5,8,9,10,11,12,13,16,17,18,19,20,21	23
MCS 6,7,14,15,22	22
MCS 23	21

Note: The actual transmit power will be the lowest of:

- Value specified in the Device Template
- Maximum value allowed in the regulatory domain
- Maximum power supported by the radio

Country-Wise Max Transmit Powers (dBm)

Countries	2.4GHz	5Ghz
Australia	20	23
Canada	30	23
Israel	20	20
Japan	20	20
UAE	20	17
USA	20	23

For 5GHz

Transmitter	Target Power(dBm)
802.11a	
6 ~ 24 Mbps	24
36 Mbps	23
48 Mbps	22
54 Mbps	22
802.11n HT20	
MCS 0	24
MCS 1,2	23
MCS 3,4,5	22
MCS 6	21
MCS 7	20
802.11n HT40	
MCS 0	23
MCS 1,2	22
MCS 3,4,5,6	21
MCS 7	20
802.11ac VHT20/VHT40	
MCS 0,1,2	23
MCS 3,4,5	22
MCS 6	21
MCS 7	20
MCS 8	18
802.11ac VHT40	
MCS 0,1,2	23
802.11ac VHT80	
MCS 0,1,2	22
MCS 3,4,5	21
MCS 6	20
MCS 7	19
MCS 8	17
MCS 9	16

Receive Sensitivity

For 5GHz

MCS Index	Receive Sensitivity
802.11a (legacy)	
6Mbps	-91
36Mbps	-79
48Mbps	-75
54Mbps	-73
802.11n HT20 (legacy)	
MCS 0	-91
MCS 1	-88
MCS 2	-85
MCS 3	-81
MCS 4	-77
MCS 5	-73
MCS 6,7	-71
802.11n HT40	
MCS 0	-88
MCS 1	-85
MCS 2	-82
MCS 3	-78
MCS 4	-75
MCS 5	-72
MCS 6	-70
MCS 7	-68
MCS 8	-64
MCS 9	-62
802.11ac 256QAM VHT80	
MCS 0	-84
MCS 1	-81
MCS 2	-80
MCS 3	-74
MCS 4	-72
MCS 5	-68
MCS 6	-66
MCS 7	-64
MCS 8	-60
MCS 9	-59

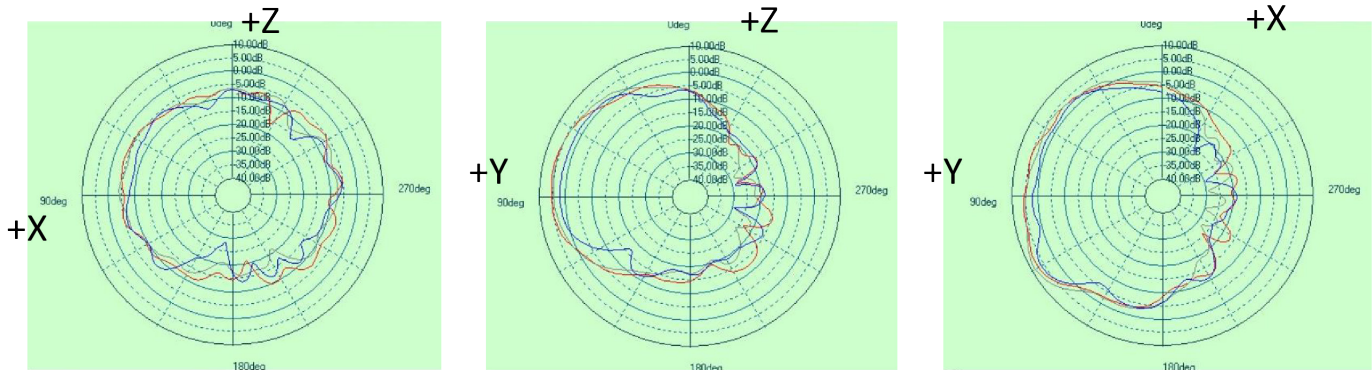
For 2.4GHz

MCS Index	Receive Sensitivity
802.11b	
1Mbps	-97
11Mbps	-89
802.11g	
6Mbps	-93
24Mbps	-84
36Mbps	-80
48Mbps	-76
54Mbps	-74
802.11n HT20	
MCS 0	-92
MCS 1	-89
MCS 2	-86
MCS 3	-82
MCS 4	-79
MCS 5	-75
MCS 6	-73
MCS 7	-72
802.11n HT40	
MCS 0	-89
MCS 1	-86
MCS 2	-84
MCS 3	-80
MCS 4	-76
MCS 5	-72
MCS 6	-70
MCS 7	-68

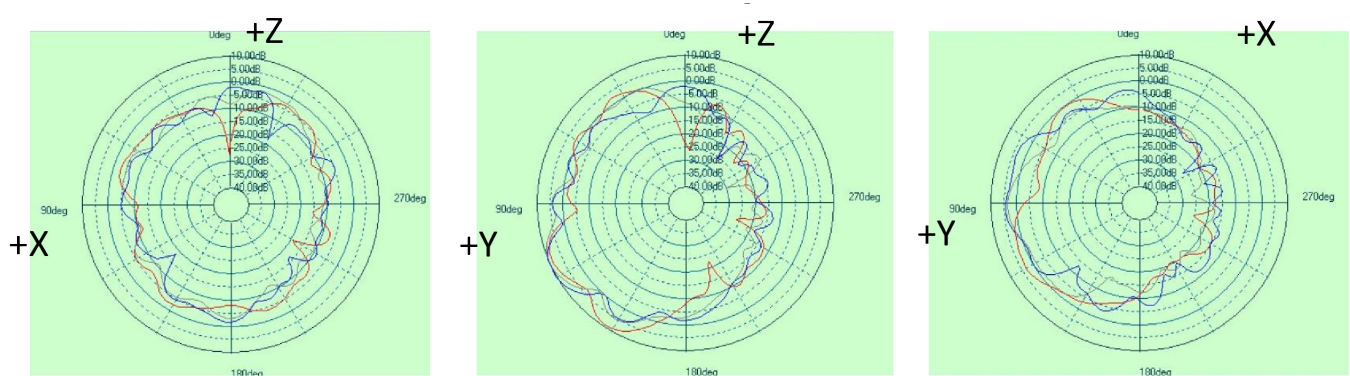
Internal Antenna Radiation Patterns

5 GHz

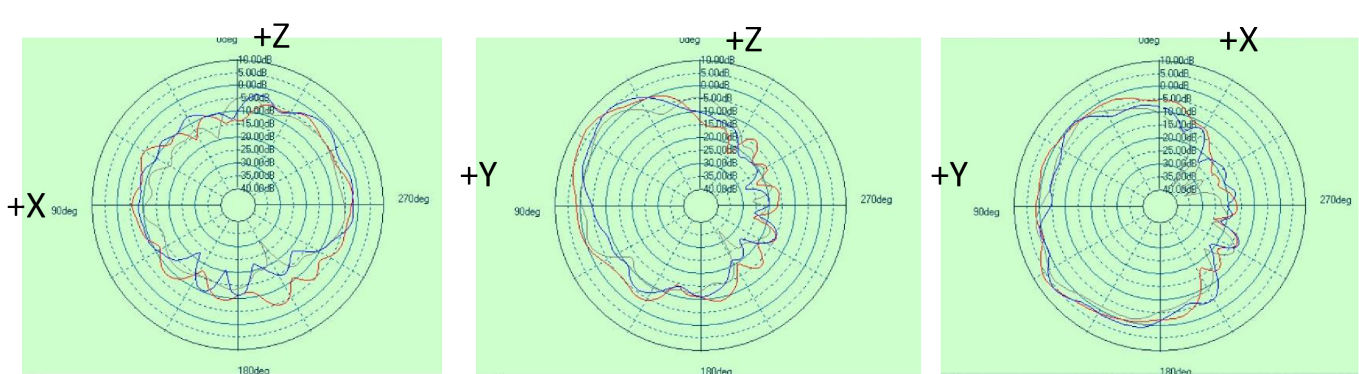
Antenna 1



Antenna 2

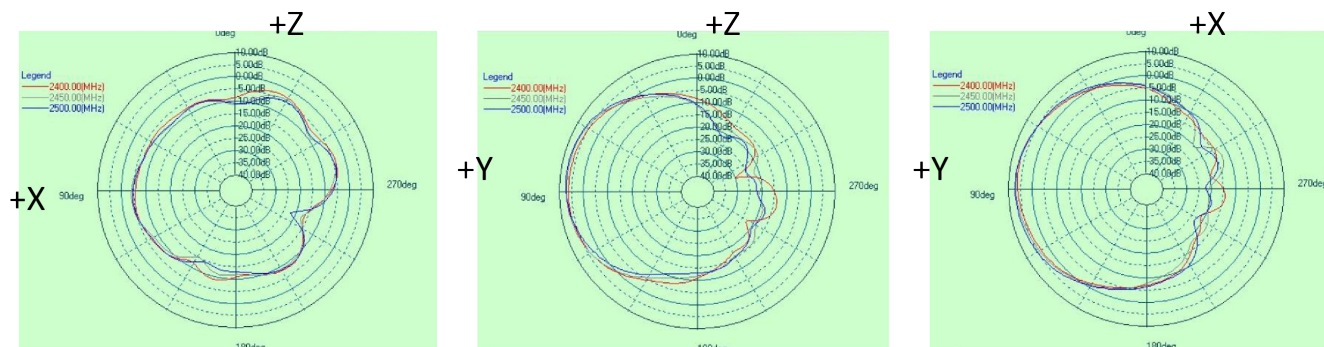


Antenna 3

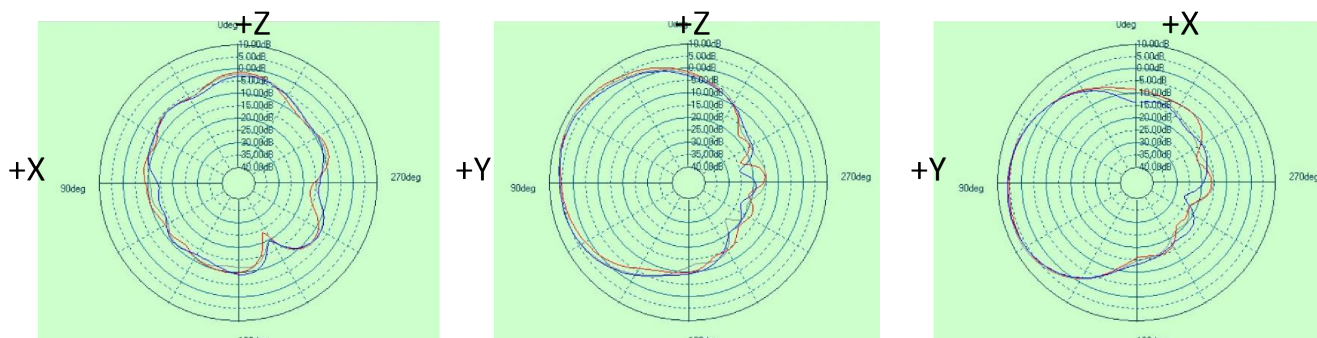


2.4 GHz

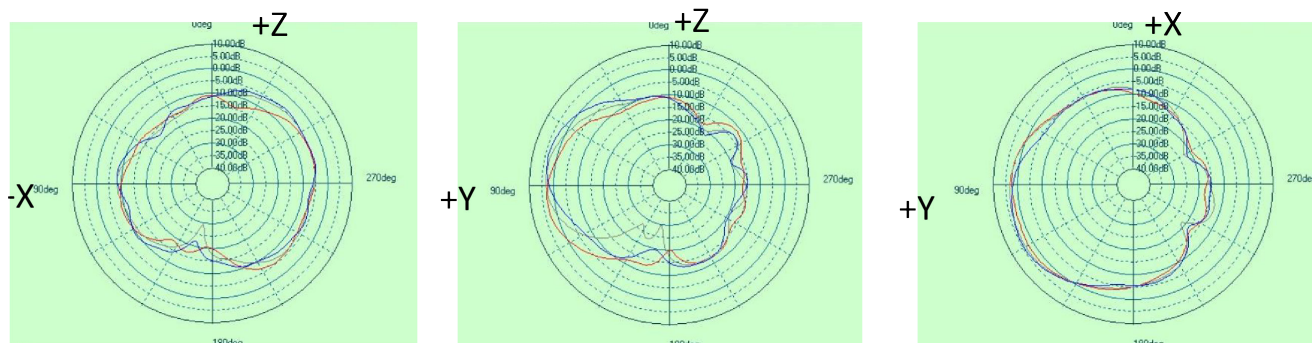
Antenna 1



Antenna 2



Antenna 3



Security

Access Point Mode:

- WPA/WPA2 (802.11i) with TKIP or AES-CCMP encryption and PSK or 802.1x authentication
- Integrated WIPS background wireless scanning and Rogue AP prevention

WIPS Sensor Mode:

- Dedicated dual-band WIPS scanning for complete 24/7 protection from wireless threats

Regulatory Specifications

RF and Electromagnetic

Country	Certification
USA	FCC Part 15.247, 15.407
Canada	IC
Europe	CE EN300.328, EN301.893 Countries covered under Europe certification: Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Iceland, Luxembourg, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Slovakia, Slovenia, Switzerland, The Czech Republic, UK.

Safety

Country	Certification
USA	UL 60950
Canada	cUL 60950
European Union (EU)	EN 60950, RoHS



Comprehensive Cloud-Managed Wi-Fi

AirTight Networks, Inc.
339 N. Bernardo Avenue #200, Mountain View, CA 94043
T +1 (877) 424-7844 T (650) 961-1111 F (650) 961-1169
www.airtightnetworks.com | info@airtightnetworks.com

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