Key Specifications

- Up to 450 Mbps for 2.4 GHz radio
- Up to 1.3 Gbps for 5 GHz radio
- 802.11ac Wave 1 support
- 3x3 MIMO with three spatial streams per radio
- Max 120 clients per radio; dependent upon use-cases
- IP67 compliant exterior to withstand outdoor weather conditions
- Six integrated omnidirectional antennas
- 20/40/80 MHz channel width support
- 2x Gigabit Ethernet port
- Full operational capacity with 802.3at PoE
- Vertical wall or pole mounting support
- WMM compliant

Key Features

- 100% controller-free
- Ruggedized for any outdoor coverage requirements
- Internal antenna support makes installation fast and error-free
- Zero-touch deployment through automatic cloud activation and configuration
- Self-healing wireless mesh networking
- Cloud-defined operating modes for dedicated access, dedicated security or dual-mode
- Support for up to eight distinct SSIDs per radio integrated firewall, traffic shaping, QoS and BYOD controls per SSID
- Dynamic RF optimization through smart steering, band steering and optimal channel selection
- Third party analytics integration for real-time data transfer

Cost Effective Outdoor Wi-Fi

The Arista O-90 is a ruggedized enteprise-grade 3x3 MIMO 802.11ac outdoor access point 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 1.3 Gbps and 50 Mbps, respectively.

Why Choose the O-90?

The 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 WiFi deployments.

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

Arista Cloud Managed WiFi

The O-90 is managed by the Aristacloud managed platform which enables a complete workflow for wireless access, security and engagement. It leverages a purpose-built cloud architecture to produce enterprise-grade wireless networks for every application required, and ensures high reliability through an approach that is automated, scalable, secure and cost effective.

What really matters

The future of WiFi requires intelligent, self-reliant access points that support high-performing, highly reliable networks without the need of antiquated controllers. This approach removes the complexity, instability and high costs associated to enterprise WiFi today.

Arista O-90

Access

The O-90 creates WiFi networks that require less time and resources to deploy and maintain compared to traditional devices, resulting in significant cost savings.

- Aristaaccess points take less than two minutes to activate and configure after connecting to the cloud
- Support for up to eight individual SSID's per radio allows for maximum flexibility in network design
- Network controls like NAT, Firewall and QoS occur at the access point level, ensuring faster and more reliable networks
- Persistent scanning through background scanning of all 802.11 channels increases insight and data to assist in RF optimization and client handling
- Smart steering addresses sticky client issues by automatically pushing clients with low speeds to a closer access point
- Band steering manages channel occupancy, pushing clients to the 5GHz channel for optimal throughput
- Access points continue to broadcast and support wireless networks even if their connection with the cloud is interrupted

Security

The O-90 offers complete visibility and control of the wireless airspace that keeps the integrity of the network in check and actively protects users without manual intervention.

- Every Arista access point is equipped with the industry's only fully integrated wireless intrusion prevention capabilities
- Runs complete spectrum scans while simultaneously serving wireless clients through background scanning
- Mojo's patented Marker Packets™ are used to accurately detect access points on any network with the fewest false positives in the industry
- VLAN monitoring enables a virtual connection to non-WiFi networks for complete network rogue detection and prevention
- Automatic prevention combines over-the-wire and over-the-air techniques to keep unauthorized clients off the network and authorized clients on it
- Access points continue to scan for wireless threats and enforce security policy even if their connection with the cloud is interrupted

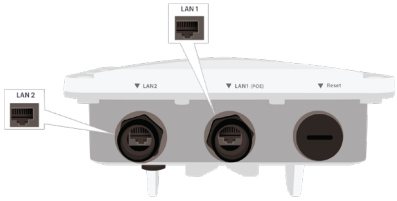
Engagement

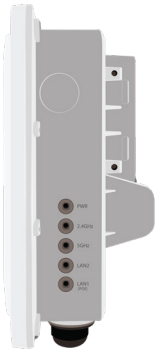
The O-90 collects massive amounts of data and supports immersive guest network experiences that develops and reinforces the relationship between them and the brand.

- Persistent scanning of all 802.11 channels results in a comprehensive list of active wireless clients across the enterprise
- Choice statistics like location, duration, distance from access point and time of day are stored locally for every active wireless client
- Choice statistics like session duration, total data transfer up and down, data rate, smart device type and top-level domain are stored locally for every active connection
- Real-time notifications sent to third party systems that alert to the presence of enrolled devices
- Enables proximity marketing programs that trigger when certain devices are present
- Triggers automatic messaging via MMS, in-browser notifications and more

Physical Specifications

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
Max power consumption	19 W (max) / 11 W (min) / 16 W (avg)





Port	Description	Connector Type	Speed/Protocol
LAN1	Gigabit Ethernet port that enables the device to connect to the wired LAN and communicate with the AristaCloud or Server. This port is also used to power the device using the 802.3at Power over Ethernet Plus (PoE+) standard.	IP67 rated weath-erproof 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 device to reset

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 ~ 2483.5 MHz	2400 ~ 2473.5 MHz	2400 ~ 2483.5 MHz
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 with peak gain up to 8dBi		

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 ~ 5.825 GHz	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 1.3 Gbps (MCS 0-23) with automatic rate adaptation		
Antenna	Integrated modular high efficiency PIFA omnidirectional antenna with peak gain up to 11dBi		

Maximum Transmit Power

For 2.4 GHz

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

For 5 GHz

Transmitter	Target Power(dBm)
802.11a	
6 ~ 24 Mbps	24
36 Mbps	23
48 Mbps	22
54 Mbps	22
802.11n HT20	
MCS 0,8,16	24
MCS 1,2,9,10,17,18	23
MCS 3,4,5,11,12,13,19,20,21	22
MCS 6,14,22	21
MCS 7,15,23	20
802.11n HT40	
MCS 0,8,16	23
MCS 1,2,9,10,17,18	22
MCS 3,4,5,6,11,12,13,14,19,20,21	21
MCS 7,15,22	20
MCS 23	19
802.11ac VHT20/VHT40	
MCS 0,1,2	23
MCS 3,4,5	22
MCS 6	21
MCS 7	20
MCS 8	18
MCS 9	17
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

Country-Wise Max Transmit Powers (dBm)

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

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

Receive Sensitivity

For 5 GHz

MCS Index	Receive Sensitivity
802.11a (legacy)	
6 Mbps	-91
36 Mbps	-78
48 Mbps	-75
54 Mbps	-73
802.11n HT20 (legacy)	
MCS 0,8	-91
MCS 1,9	-88
MCS 2,10	-85
MCS 3,11	-81
MCS 4,12	-77
MCS 5,13	-74
MCS 6,14	-72
MCS 7,15	-71
802.11n HT40	
MCS 0,8	-87
MCS 1,9	-85
MCS 2 ,10	-82
MCS 3,11	-78
MCS 4,12	-74
MCS 5,13	-70
MCS 6,14	-69
MCS 7,15	-68
802.11ac 256QAM VHT80	
MCS 0	-84
MCS 1	-82
MCS 2	-79
MCS 3	-75
MCS 4	-71
MCS 5	-67
MCS 6	-66
MCS 7	-65
MCS 8	-60
MCS 9	-58

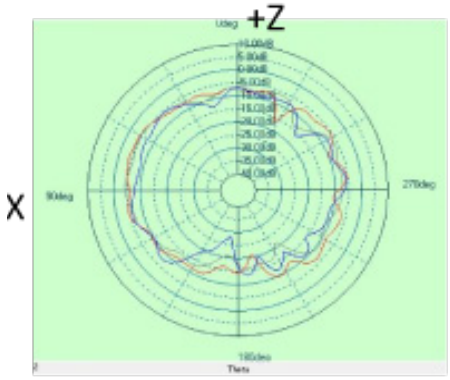
For 2.4 GHz

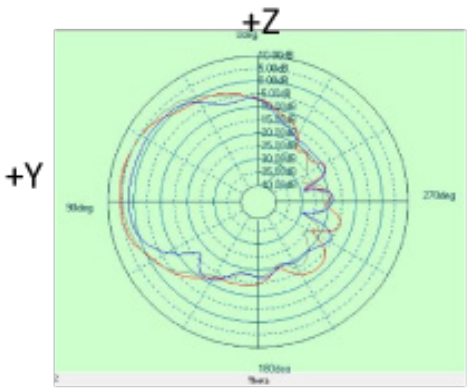
MCS Index	Receive Sensitivity
802.11b	
1 Mbps	-94
11 Mbps	-86
802.11g	
6 Mbps	-90
24 Mbps	-81
36 Mbps	-78
48 Mbps	-74
54 Mbps	-73
802.11n HT20	
MCS 0,8	-90
MCS 1,9	-87
MCS 2,10	-84
MCS 3,11	-80
MCS 4,12	-77
MCS 5,13	-73
MCS 6,14	-71
MCS 7,15	-69
802.11n HT40	
MCS 0,8	-86
MCS 1,9	-84
MCS 2,10	-81
MCS 3,11	-77
MCS 4,12	-74
MCS 5,13	-70
MCS 6,14	-68
MCS 7,15	-66

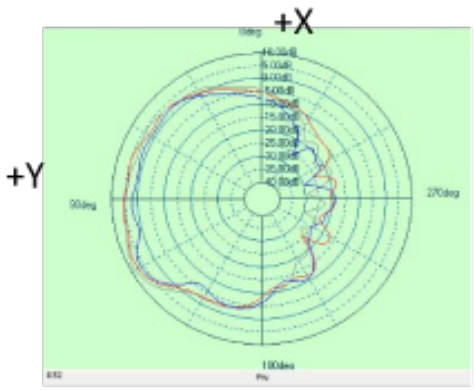
Internal Antenna Radiation Patterns

5 GHz

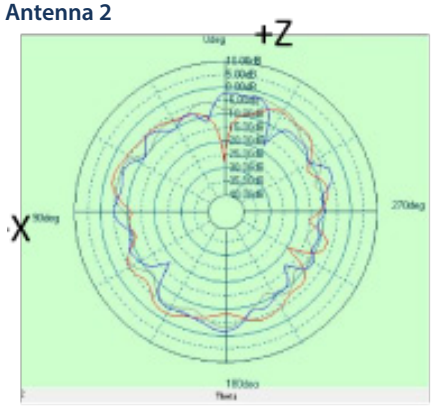
Antenna 1

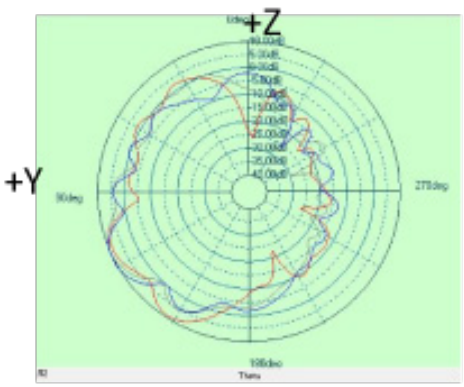


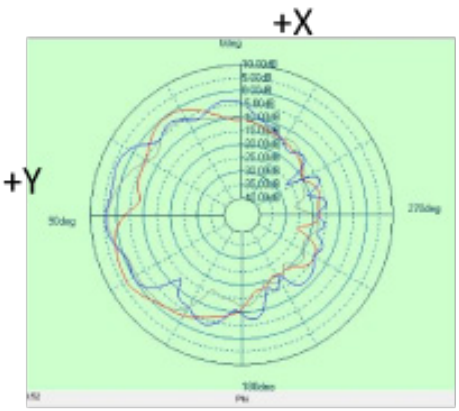




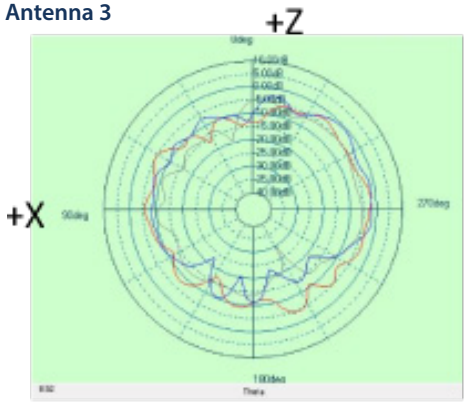
Antenna 2

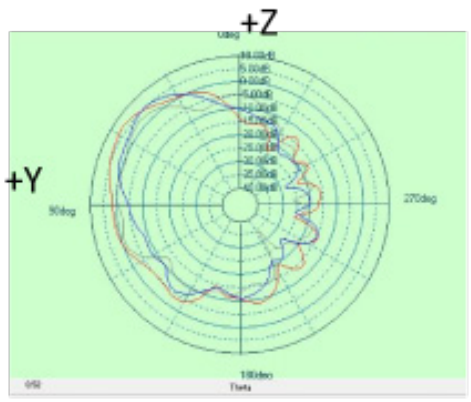


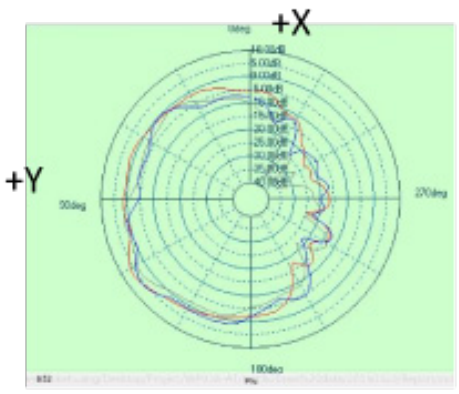




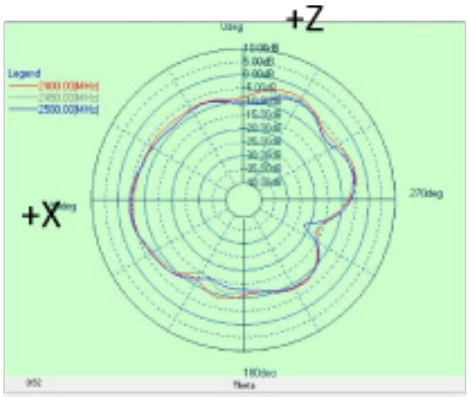
Antenna 3

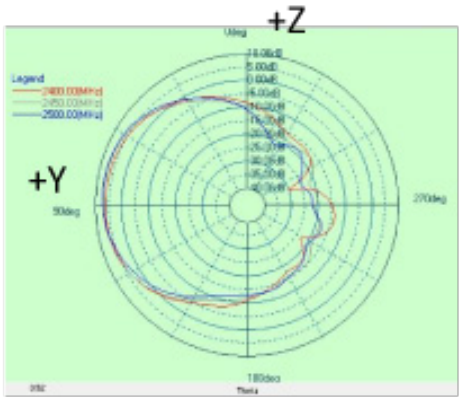


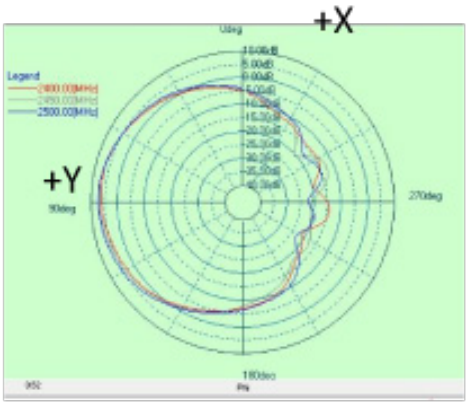




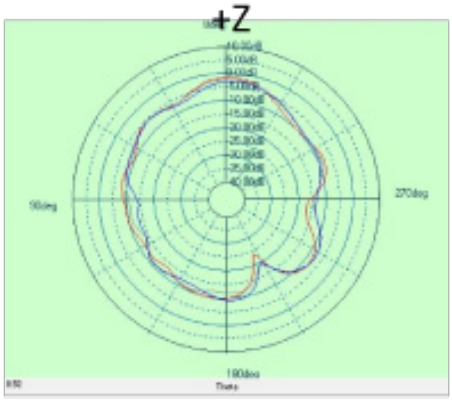
2 .4 GHz Antenna 2

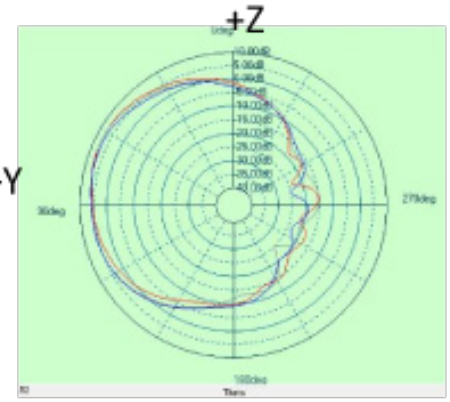


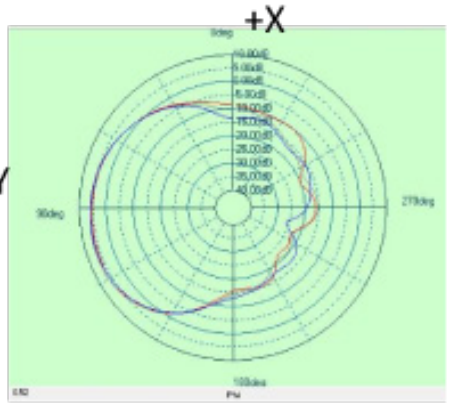




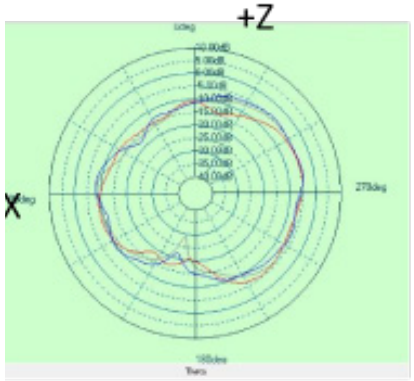
2.4 GHz Antenna 1

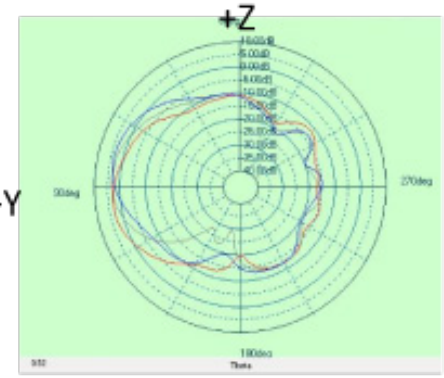


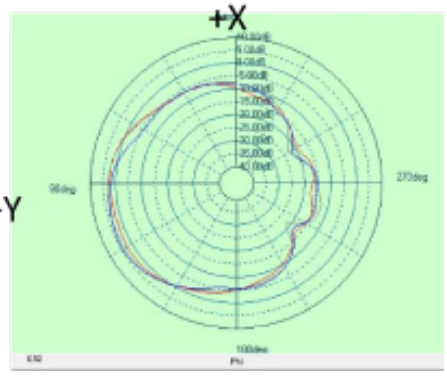




2.4 GHz Antenna 2







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

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