Key Specifications

- Wi-Fi 6E, 6 stream wall plate AP
- Tri-band access radios: 2x2:2 6GHz + 2x2:2 5GHz + 2x2:2 2.4GHz
- Up to 574 Mbps throughput for 2.4GHz radio, 1.2 Gbps throughput for 5GHz radio and 2.4 Gbps for 6GHz radio
- Integrated antennas
- 20/40/80/160 MHz channel width support
- Support for MU-MIMO and OFDMA
- 1x2.5 Gigabit Ethernet PoE ports and 3x1 Gigabit Ethernet Ports
- PoE++ support for full functionality and PoE+ support with reduced functionality
- Wall mounting
- BLE radio/ ZigBee*
- TPM for secure storage

Key Features

- Distributed Control Plane architecture and Flexible Data Plane
- Zero-touch deployment through automatic cloud activation and configuration
- Cloud or on-premises management plane options
- Operating modes for dedicated access or dual mode
- AI/ML driven diagnostics and troubleshooting
- Integrated firewall, traffic shaping, QoS and BYOD controls per SSID
- Dynamic RF optimization through smart steering, band steering and power control
- Application visibility through layer 7 deep packet inspection
- Automated device access logging
- Patented Marker PacketTM technology for rogue AP detection and classification
- Wired VLAN monitoring for "No-WiFi" zone enforcement
- Third party analytics integration with real- time data transfer
- Self-healing wireless mesh networking

High capacity, High performance and Investment protection

Arista W-318 is a high-end Wi-Fi 6E enterprise grade wall plate access point featuring concurrent 6GHz, 5GHz and 2.4GHz 2 stream 802.11ax operation and integrated IoT support.

Featuring Wi-Fi 6E, W-318 provides maximized wireless performance for highbandwidth, ultra low-latency applications and IoT connectivity. With local Eth/ PoE ports, port authentication and secure tunneling, W-318 makes a perfect fit for small offices and in-room use.

W-318 Capabilities

The W-318 provides best value amongst high-performing, modern wall plate access points designed for cost conscious organizations that require the best performance and security. Utilizing the latest Wi-Fi 6E technologies, Uplink/ Downlink OFDMA, Uplink/Downlink MU-MIMO coupled with 2 spatial streams in all operating bands , the W-318 delivers exceptional performance even in challenging environments. W-318 is perfect for medium density environments looking for the high performance and advanced features of current access points without the high cost. Common deployment scenarios include schools/colleges/ universities, distributed remote offices, small meeting rooms and hotel guest rooms.

Arista CloudVision® Managed Wi-Fi

The W-318 is an Arista CloudVision Wi-Fi managed platform. Available as a cloud service or on-premises management platform, CloudVision Wi-Fi leverages a purpose built cloud architecture delivering cloud grade analytics and automation to enterprise Wi-Fi networks. CloudVision ensures high reliability, scalability, security and cost effectiveness.

Arista W-318

**** Hardware is capable of ZigBee. Software support will be provided in future upgrades.***

Access

W-318 is a building block of a self-driving Wi-Fi network , powering AI/ML based continued adaptations, saving time and resources resulting in significant cost savings and increased satisfaction.

- Plug and play provisioning using either Cloud or On-premises deployments - Arista Access Points take less than two minutes to activate and configure after connecting to the cloud
- Network controls like NAT, Firewall and QoS implemented at the Access Point, ensuring faster and more reliable networks
- Smart steering addresses sticky client issues by automatically pushing clients with low data rates to a better access point
- Band steering manages channel occupancy, pushing clients to the 5GHz and 6GHz channels for optimal throughput
- Smart load balancing distributes load evenly across neighbouring APs to optimize the use of network resources
- Arista Wi-Fi's distributed control plane architecture continues to serve users and secure the network even if connection with the management plane is interrupted
- Interference avoidance from LTE/3G small/macro cells/CBRS in commonly used TDD/FDD frequency bands

Security

W-318 offers complete visibility and control of the wireless airspace ensuring network integrity while actively protecting users without manual intervention.

- W-318 is equipped with industry leading fully integrated wireless intrusion prevention capabilities
- Arista's patented Marker Packets™ help accurately detect rogue access points on any network while minimizing false positives
- Deterministic rogue AP detection and prevention by monitoring all Wi-Fi and non-Wi-Fi VLANs
- OTA and on-the-wire prevention techniques assure automatic and reliable threat prevention to keep unauthorized clients and rogue APs off the network without impacting authorized connections
- Access Points autonomously scan for wireless threats and enforce security policy even if disconnected from the cloud management plane
- VLAN monitoring enables a virtual connection to non-Wi-Fi networks for complete network rogue detection and prevention

Analytics

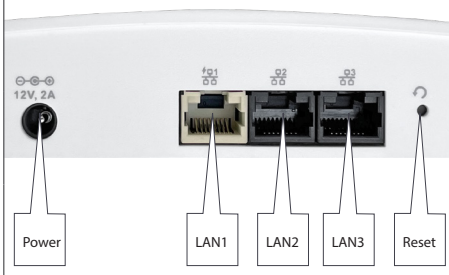
W-318 provides real-time telemetry by granular state streaming and Cognitive Analytics provides correlation analysis and trend analysis using predictive algorithms across wireless and wired networks. Compliance and Risk analysis is supported by continuous assessment and report of deviations.

Physical Specifications

Front View

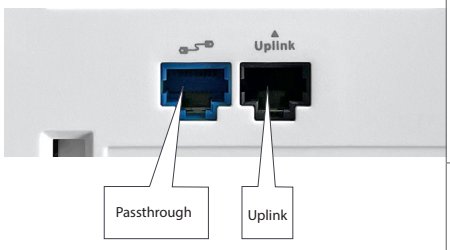
Property	Specification
Physical Dimensions	190.7mm x 133.0 mm x 32.0 mm / 7.5″ x 5.2″ x 1.3″
Weight	0.54 Kg / 1.19 lb
Operating Temperature	0°C ~ +45°C (+32°F ~ +113°F)
Storage Temperature	-40°C ~ +70°C (-40°F ~ +158°F)
MTBF	419,223 @ 25 °C 233,930 @ 45 °C
Humidity	0-95% non-condensing
Power consumption	39 W (max)
Processor and RAM	2 GB RAM and 1 GB Flash
Physical security	Kensington lock slot

Bottom View



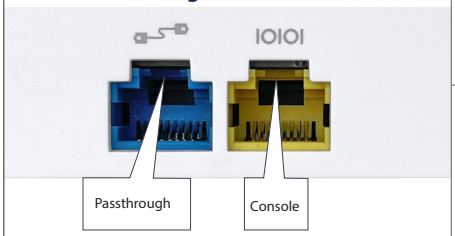
Port	Description	Connector Type	Speed/Protocol
Power	12V DC	5.5mm overall diameter / 2.1mm center pin hole	N/A
LAN1 (PSE)	GbE port that can be used for wired extension for an SSID; also acts as PoE PSE.	RJ-45	10/100/1000/2500 Mbps Gigabit Ethernet. Recommended cabling - CAT6
LAN2/ LAN3	GbE port that can be used for wired extension for an SSID.	RJ-45	10/100/1000 Mbps Gigabit Ethernet. Recommended cabling - CAT6
Reset	Reset to factory default settings.	Pin hole push button	Let the AP boot up fully, ensure that all the LEDs are ON. Press the reset button for 15 seconds.

Back View



Pass through Port	The pass-through port is used to plug a device into another wired port that is available on the wall where the AP is installed. The pass-through port at the rear of the device and pass-through port on the right side of the device are internally connected	RJ-45	
Uplink (PD)	2.5 GbE port, PoE++ compliant PoE, MACsec capable*	RJ-45	

Right View



Console	Establish 'config shell' terminal session via serial connection	RJ-45	RS232 Serial (115200 bps) Data bits:8; Stop bits: 1 Parity: None Flow Control: None
Pass through Port	The pass-through port at the rear of the device and pass-through port on the right side of the device are internally connected	RJ-45	

Left View

USB	USB 3.0 port	USB Type-A	For future use

** MACsec capabilities will be activated via a future software update.*

Operational Specifications

Input Power	12V DC, 2A, (5.5mm overall diameter/2.1mm center pin hole) • PSE functionality off PoE++ (48VDC, 0.6A) • Full function PoE+ • PSE functionality off • USB off • Max EIRP[1] limited to 23.1 dBm at 6 GHz, 21.4 dBm at 5 GHz, 22.3 dBm at 2.4 GHz
Number of Radios	3 access radios; 2x2:2 2.4GHz, 2x2:2 5GHz and 2x2:2 6GHz radio for simultaneous tri-band access. 1 BLE radio
Max Clients Supported	1280 (256 clients on 2.4 GHz radio, 512 clients on 5 GHz radio and 512 clients on 6 GHz radio)
Number of Spatial Streams	2 each per access radio
Maximum EIRP	26.1 dBm on 6 GHz, 24.4 dBm on 5 GHz, and 25.3 dBm on 2.4 GHz (max)[1]
Bandwidth Agility	No
3G/4G Macro and Small Cells Interference Mitigation	Yes
Frequency Bands[2]	2.4-2.4835 GHz, 5.15-5.25 GHz; (UNII-1), 5.25-5.35 GHz, 5.47-5.6 GHz, 5.650-5.725 GHz (UNII-2), 5.725-5.85 GHz (UNII-3), 5.925 GHz – 6.425 GHz (UNII-5), 6.425 GHz - 6.525 GHz (UNII-6), 6.525 GHz – 6.875 GHz (UNII-7), 6.875GHz - 7.125 GHz (UNII-8)
Dynamic Frequency Selection	TBD

[1] Max EIRP will be restricted to Country/Regulatory domain limits
[2]The frequency ranges are restricted to Country/Regulatory domain limits

Wi-Fi Specifications

IEEE 802.11ax			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
6GHz	5.925 GHz – 6.425 GHz 6.425 GHz - 6.525 GHz 6.525 GHz – 6.875 GHz 6.875GHz - 7.125 GHz	5.925 GHz – 6.425 GHz 6.425 GHz - 6.525 GHz 6.525 GHz – 6.875 GHz 6.875GHz - 7.125 GHz	5.925 GHz – 6.425 GHz
Modulation Type	OFDM / OFDMA		
Peak Data Rate	2.4 Gbps		
Antenna	Integrated modular high efficiency PIFA antenna 2x2 (peak gain: 5.2 dBi)		

IEEE 802.11a/n/ac/ax			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
5GHz	5.15 - 5.25 GHz 5.47 - 5.725 GHz 5.725 - 5.825 GHz	5.15 - 5.25 GHz 5.725 - 5.825 GHz	5.15 - 5.25 GHz 5.47- 5.725 GHz
Modulation Type	DSSS / OFDM / OFDMA		
Peak Data Rate	1.2 Gbps		
Antenna	Integrated modular high efficiency PIFA antenna 2x2 (peak gain: 5.86 dBi)		

IEEE 802.11b/g/n/ax			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
2.4GHz	2.4 – 2.4835 GHz	2.4 – 2.4735 GHz	2.4 – 2.4835 GHz
Modulation Type	DSSS / OFDM / OFDMA		
Peak Data Rate	574 Mbps		
Antenna	Integrated modular high efficiency PIFA antenna 2x2 (peak gain: 4.44 dBi)		

Receive Sensitivity

For 6GHz

Mode	Rate	Sensitivity (dBm)
Legacy	64 Mbps	-95
	54 Mbps	-77
11ax HE20	MCS 0	-93
	MCS 11	-66
11ax HE40	MCS 0	-90
	MCS 11	-63
11ax HE80	MCS 0	-87
	MCS 11	-59
11ax HE160	MCS 0	-84
	MCS 11	-57

For 2.4GHz

Mode	Rate	Sensitivity (dBm)
11g	6 Mbps	-91
	54 Mbps	-74
11n HT20	MCS 0	-91
	MCS 7	-72
11n HT40	MCS 0	-89
	MCS 7	-69
11ax HE20	MCS 0	-92
	MCS 11	-61
11ax HE40	MCS 0	-88
	MCS 11	-60

For 5GHz

Mode	Rate	Sensitivity (dBm)
Legacy	6 Mbps	-90
	54 Mbps	-73
11n HT20	MCS 0	-90
	MCS 7	-70
11n HT40	MCS 0	-87
	MCS 7	-68
11ac VHT20	MCS 0	-90
	MCS 8	-66
11ac VHT40	MCS 0	-87
	MCS 9	-63
11ac VHT80	MCS 0	-84
	MCS 9	-60
11ax HE20	MCS 0	-91
	MCS 11	-60
11ax HE40	MCS 0	-87
	MCS11	-58
11ax HE80	MCS 0	-85
	MCS 11	-54

Maximum EIRP

For 5GHz

Mode	Rate	Power (dBm)
11a	6 Mbps	24.1
	54 Mbps	20.4
11n HT20	MCS 0	23.8
	MCS 7	20.4
11n HT40	MCS 0	22.8
	MCS 7	20.4
11ac VHT20	MCS 0	24.4
	MCS 8	19.4
11ac VHT40	MCS 0	22.8
	MCS 9	19.4
11ac VHT80	MCS 0	23.3
	MCS 9	18.9
11ax HE20	MCS 0	23.2
	MCS 11	18.4
11ax HE40	MCS 0	22.5
	MCS 11	18.4
11ax HE80	MCS 0	22.5
	MCS 11	17.8

For 6GHz

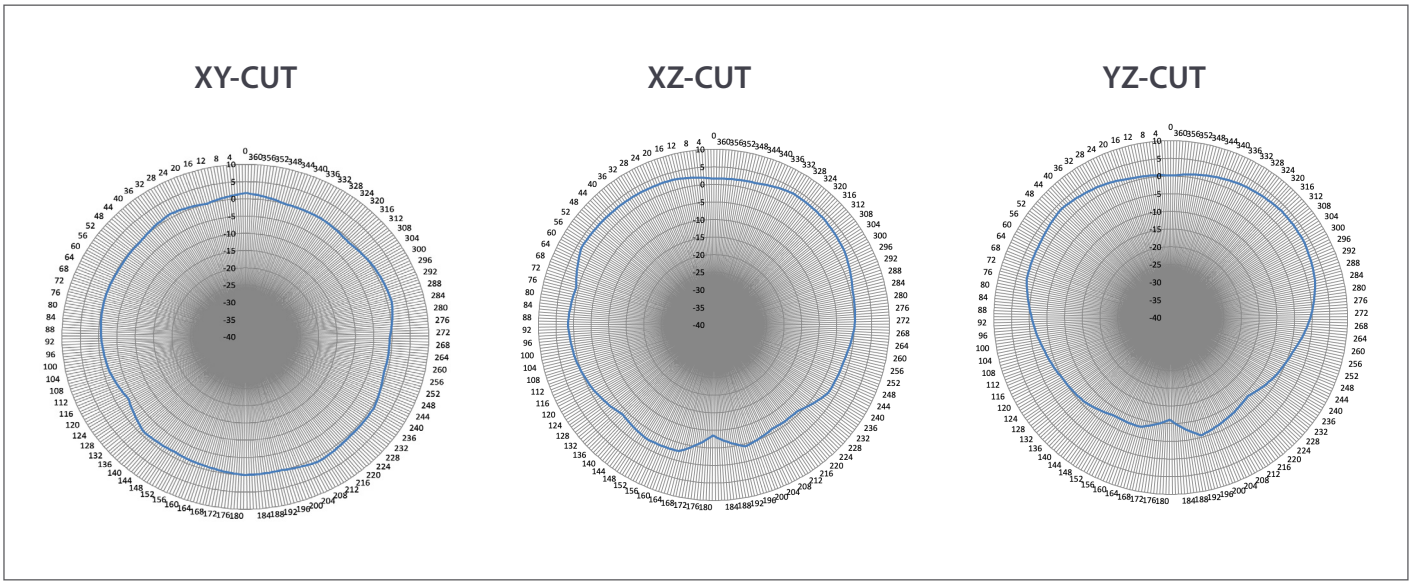
Mode	Rate	Power (dBm)
11ax HE20	MCS 0	25.1
	MCS 11	20.6
11ax HE40	MCS 0	24.4
	MCS 11	20.3
11ax HE80	MCS 0	24.9
	MCS 11	21.2
11ax HE160	MCS 0	26.1
	MCS 11	18.9

For 2.4GHz

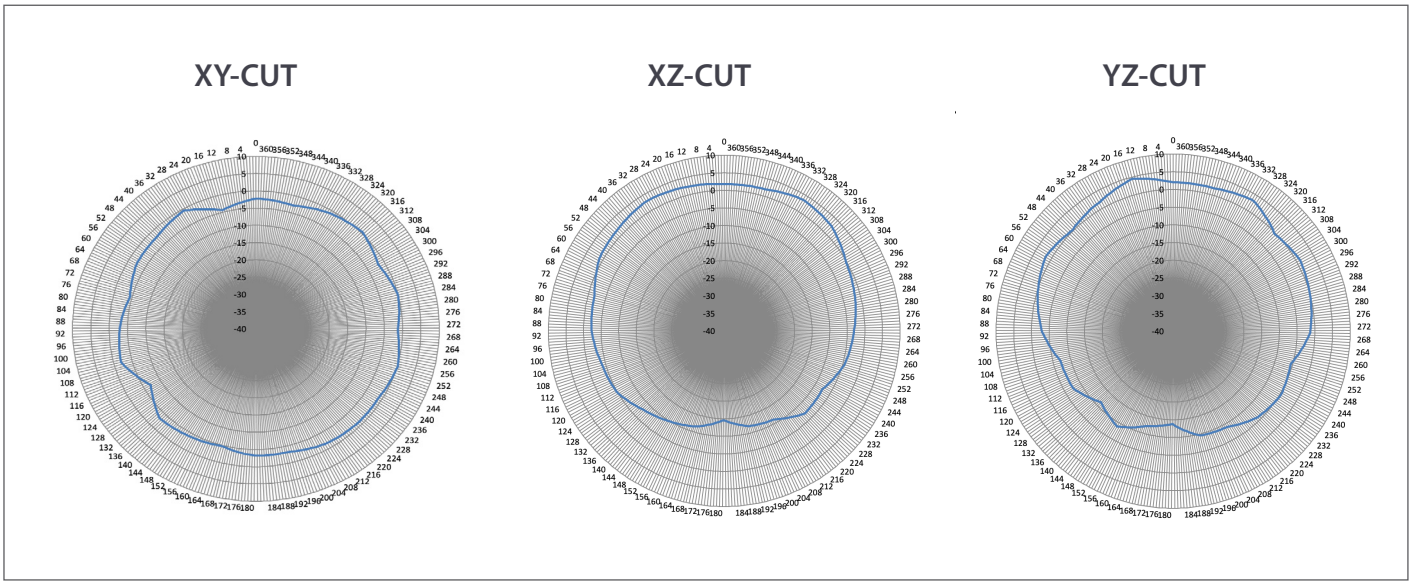
Mode	Rate	Power (dBm)
11b	1 Mbps	23.5
	11 Mbps	24.5
11g	6 Mbps	24.8
	54 Mbps	21.0
11n HT20	MCS 0	25.3
	MCS 7	20.2
11n HT40	MCS 0	24.0
	MCS 7	20.0
11ax HE20	MCS 0	24.1
	MCS 11	18.7
11ax HE40	MCS 0	24.1
	MCS 11	18.1

Radiation Pattern

Radio 1:
2.4GHz

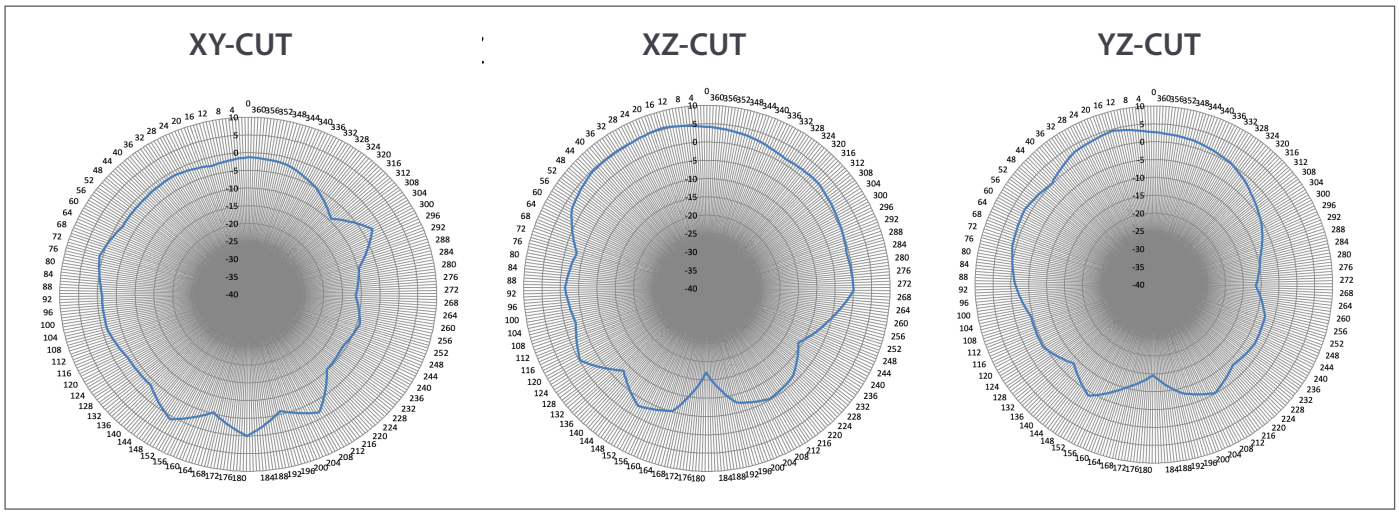


Radio 2:
5GHz

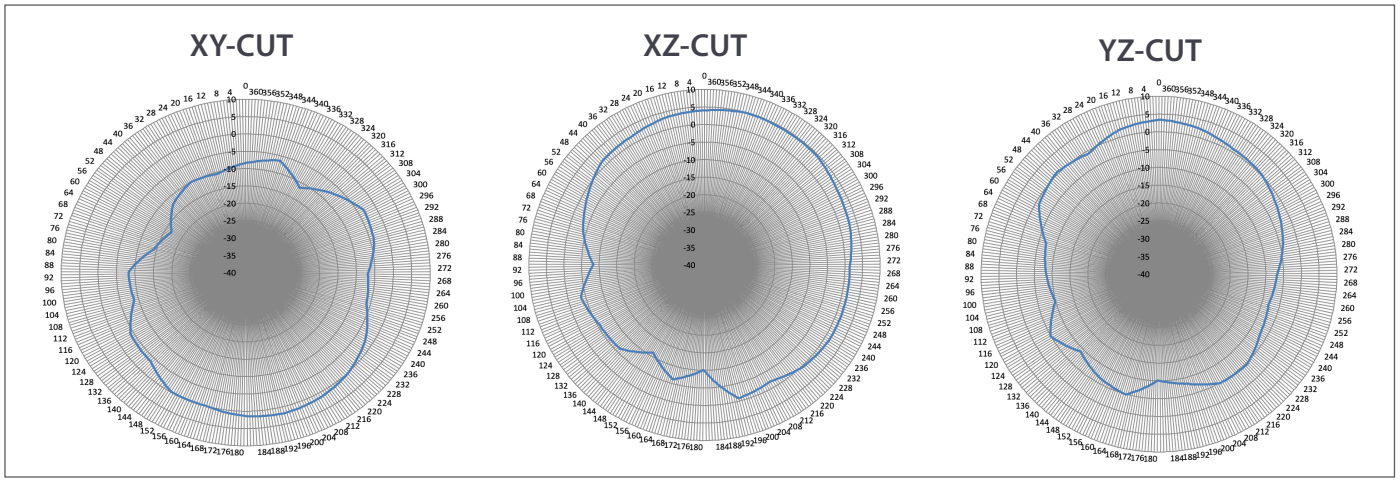


Radiation Pattern

Radio 3:
6GHz



Radio 4:
BLE



Regulatory Specifications

RF and Electromagnetic Compatibility (EMC)

Country	Certification
USA	FCC Part 15.247, Part 15.407, 15B
Canada	RSS-102, RSS-210, RSS-247, RSS-248, ICES-003 Issue 07
Europe	EN 300 328, EN 300 440, EN 301 893, EN 62311, EN 50385, EN 301 489-1, EN 301 489-17, Draft EN 303 687, EN 55032, EN 55035, EN 18031-1:2024, CISPR 35, CISPR 32. Countries covered under Europe certification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

*For complete country certification records, please visit the site: https://www.arista.com/en/support/product-certificate

Safety & Environmental

Country	Certification
USA/Canada	UL62368-1, 3rd Edition; CAN/CSA C22.2 No 62368-1:19
European Union (EU)	EN 62368: 2014
Taiwan	CNS 15663 RoHS, CNS 15598-1
International	IEC 62368-1: 2018

Ordering Information

Access Point

Part Number	Description
AP-W318	W-318 tri-band 2x2 Wi-Fi 6E wall plate access point with internal antennas
AP-W318-RW	W-318 tri-band 2x2 Wi-Fi 6E wall plate access point with internal antennas, desk stand, and power adapter (PWR-AP-W4)
AP-W318-SS-5Y	W-318 AP with 5 years bundled Cognitive Cloud SW subscription
AP-W318-SS-3Y	W-318 AP with 3 years bundled Cognitive Cloud SW subscription
AP-W318-RW-SS-5Y	W-318-RW AP with 5 years bundled Cognitive Cloud SW subscription
AP-W318-RW-SS-3Y	W-318-RW AP with 3 years bundled Cognitive Cloud SW subscription

Mounting Options

Wall Mount	Stand Mount

Power

Part Number	Description
PWR-AP-W4	Universal AC power supply for W-318 and W-318-RW, 12VDC, 3.3A (included with AP-W318-RW)

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