

# **Key Specifications**

- Full featured Wi-Fi 6, 6 Stream AP
- 4x4:4 5GHz Radio + 2x2:2 2.4 GHz Radio
- Up to 0.6 Gbps throughput for 2.4 GHz radio
- Up to 2.4 Gbps throughput for 5 GHz radio
- · Additional 2x2 dual band radio for dedicated RF and WIPS scanning
- Industrial grade, IP67 compliant exterior to withstand outdoor weather conditions
- 6 RP-SMA external connectors to support a variety of external antenna choices
- 20/40/80/160 MHz channel width support
- 5 Gigabit + 1 Gigabit Ethernet ports
- Support for UL/DL MU-MIMO
- Support for UL/DL OFDMA
- PoE+ support
- · Integrated BLE
- · TPM for secure storage

# **Key Features**

- · Distributed Data Plane architecture
- · Zero-touch deployment through automatic cloud activation and configuration
- Cloud or on premises management plane options
- Operating modes for dedicated access, dedicated security or dual mode
- Support for up to 8 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
- · Application visibility through layer 7 deep packet inspection
- · Automated device access logging
- Patented Marker PacketsTM technology for rogue AP detection and classification
- · Wired VLAN monitoring for "No-WiFi" zone enforcement
- Third party analytics integration with realtime data transfer
- · Versatile 3rd radio for WIPS, Scanning and Client Connectivity Tests
- Self-healing wireless mesh networking

# **Aesthetic Design and High Performance**

Arista C-230E is an enterprise-grade, 6 stream Wi-Fi 6 AP with dual concurrent 5 GHz and 2.4 GHz band radios supporting 4 stream 802.11 a/n/ac/ax, 2 stream 802.11 b/g/n/ax and data rates of up to 2.4 Gbps and 0.6 Gbps, respectively. It also has a 2.4GHz Bluetooth Low Energy (BLE) radio.

### C-230E Capabilities

C-230E provides Gen 2 Wi-Fi 6 performance improvements to deliver higher capacity and more efficient use of the available spectrum. It provides industry leading user experience and throughput in high density environments. Uplink/ Downlink OFDMA channelization allocates bandwidth more efficiently across client devices to provide a better user experience. The ability to serve multiple clients simultaneously through UL/DL MU-MIMO further improves system capacity and user experience.

C-230E is ideal for critical, high-density networks serving a high volume of diverse clients and applications. Common deployment scenarios include large schools, large remote offices, auditoriums, meeting rooms, and enterprise campuses.

### Arista CloudVision® Managed Wi-Fi

The C-230E is an Arista CloudVision CUE managed platform. Available as a cloud service or on prem management platform, CloudVision CUE 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.

### Versatile, multipurpose 3rd Radio

C-230E comes with a versatile multipurpose 2x2:2 dual band 802.11ac third radio that provides:

- Industry leading, continuous WIPS
- · Better RRM decisions from continuous spectral visibility
- Network availability and performance assurance by On-demand and scheduled client connectivity test



Arista C-230E

**Data Sheet** 

#### Access

C-230E provides Wi-Fi networks that require less time and resources to deploy and maintain compared to traditional devices, resulting in significant cost savings.

- · Plug and play provisioning using either Cloud or On-premise deployments Arista Access Points take less than two minutes to activate and configure after connecting to the cloud
- Support for up to eight individual SSIDs per radio providing maximum flexibility in network design
- Network controls like NAT, Firewall and QoS implemented at the Access Point, ensuring faster and more reliable networks
- Continuous scanning of all 2.4 GHz and 5 GHz channels by a dedicated 2x2 third radio provides a dynamic, 360-degree view of the RF environment to assist in RF optimization and client handling
- · Network availability and performance assurance using the third radio as a client to conduct on-demand and scheduled connectivity and performance tests
- 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 5 GHz channel for optimal throughput
- · Smart load balancing distributes load evenly across neighboring APs to optimize the use of network resources
- · Arista Wi-Fi's distributed data 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

C-230E offers complete visibility and control of the wireless airspace ensuring network integrity while actively protecting users without manual intervention.

- C-230E is equipped with industry leading fully integrated wireless intrusion prevention capabilities
- · Multifunction third radio provides uninterrupted spectrum scanning or client emulation for always on security coverage alongside dedicated 2.4G/5G client radios.
- Arista's patented Marker Packets<sup>TM</sup> help accurately detect roque access points on any network while minimizing false positives
- Third radio used as a dedicated security sensor for 24x7x365 scanning and automated over-the-air (OTA) prevention
- Deterministic rogue AP detection and prevention by monitoring all WiFi and non-WiFi VLANs.
- · Over-the-air 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-WiFi networks for complete network rogue detection and prevention

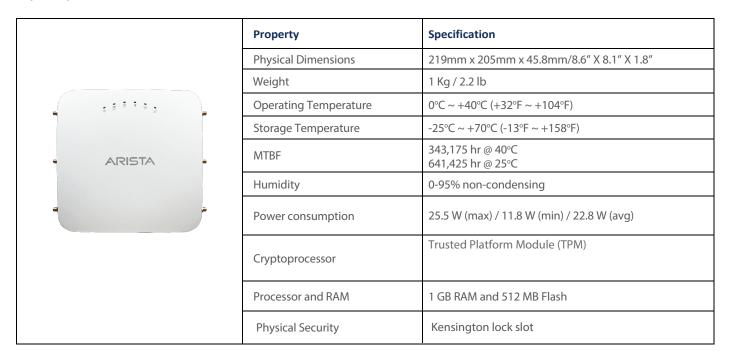
#### **Analytics**

The C-230E collects telemetry on connected and unconnected WiFi clients and supports immersive quest network experiences that help Arista's customers develop and reinforce the relationship with their end customers.

- · Reports of customer footfall, demographic, loyalty and other analytics provide insightful and actionable information.
- Supports proximity marketing programs that trigger when certain devices are present, which includes automatic messaging vis MMS in-browser notifications and real time notifications sent to 3rd party systems that alert to the presence of enrolled devices.



# **Physical Specifications**



_	Port	Description	Connector Type	Speed/Protocol
	Power	12V DC	5.5 mm overall di- ameter / 2.1 mm center pin hole	N/A
t:	LAN1	5 GbE, PoE+ compliant PoE, MACsec capable*	RJ-45	100M/1G/2.5G/5G Ethernet Recommended cabling - CAT6
	LAN2	1 GbE	RJ-45	100M/1G Ethernet Recommended cabling - CAT6
	Console	Establish 'config shell' terminal session via serial connection	RJ-45	<ul> <li>RS 232 Serial (115200 bits per second)</li> <li>Data bits:8; Stop bits: 1</li> <li>Parity: None</li> <li>Flow Control: None</li> </ul>
	USB	USB 2.0 port	USB Type-A	Future use
	Reset	USB 2.0 Reset to factory default settings port	Pin hole push button	Hold down and power cycle the device to reset

<sup>\*</sup> MACsec capabilities will be activated via a future software update.

**Data Sheet** 

# **Operational Specifications**

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Input Power	12V DC (5.5mm overall diameter/2.1mm center pin hole) PoE+  • Full function PoE  • USB off • Both 5Ghz & 2.4GHz limited to 2x2 operation • Tx power reduced by 6dB for both radios
Number of Radios	2 access radios; one 2x2:2 2.4GHz and one 4x4:4 5GHz radio for simultaneous dual band access. 1 multi-function 2x2 radio for continuous WIPS and client connectivity tests
Max Clients Supported	768 (256 clients on 2.4 GHz radio, 512 clients on 5 GHz radio)
MU-MIMO	4X4 on 5GHz radio and 2X2 on 2.4GHz radio
Number of Spatial Streams	4 for 5GHz radios, 2 for 2.4GHz radio, 2 for multipurpose radio
Maximum EIRP	29dBm on 5GHz radio (max) and 26dBm on 2.4GHz radio (max) <sup>1</sup>
80+80MHz Non-Contiguous Channel Bonding	No
Bandwidth Agility	Yes
3G/4G Macro and Small Cells Interference Mitigation	Yes
Frequency Bands <sup>2</sup>	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)
Dynamic Frequency Selection	Supported in compliance to all latest amendments from FCC, CE, IC, TELEC, KCC, NCC and ANZ regarding certifications.

# **WiFi Specifications**

IEEE 802.11a/n/ac/ax			
Frequency Band	Scanning	Tra	ansmission
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
5GHz Band	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 / OFDMA	OFDM / OFDMA	
Peak Data Rates	Up to 2.4 Gbps		
Antenna	External with RPSMA female typ	pe connectors	

 $<sup>^{\</sup>rm 1}$  Max EIRP will be restricted to Country/Regulatory domain limits  $^{\rm 2}$  The frequency ranges are restricted to Country/Regulatory domain limits

**Data Sheet** 

IEEE 802.11b/g/n/ax			
Francisco de Daniel	Scanning	Transmission	
Frequency Band	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
2.4GHz Band	2400 ~ 2483.5 MHz	2400 ~ 2473.5 MHz	2400 ~ 2483.5 MHz
Modulation Type	DSSS / OFDM / OFDMA		
Peak Data Rates	Up to 0.6 Gbps		
Antenna	External with RPSMA female type connectors		

# **Receive Sensitivity**

5GHz

Mode	Rate	Sensitivity (dBm)
002.11-	6 Mbps	-93
802.11a	54 Mbps	-76
11n UT20	MCS 0	-94
11n_HT20	MCS 7	-76
11n UT40	MCS 0	-91
11n_HT40	MCS 7	-73
11ac VHT20	MCS 0	-94
11ac_VHT20	MCS 8	-72
11ac_VHT40	MCS 0	-91
	MCS 9	-68
11ac_VHT80	MCS 0	-88
	MCS 9	-65
11ax_HE20	MCS 0	-94
TTdX_FE20	MCS 11	-65
11ax_HE40	MCS 0	-91
	MCS 11	-62
11ax_HE80	MCS 0	-88
TTUX_TTLOU	MCS 11	-59

# 2.4GHz

Mode	Rate	Sensitivity (dBm)
802.11b	1 Mbps	-98
802.110	11 Mbps	-90
902.114	6 Mbps	-93
802.11g	54 Mbps	-77
11n HT20	MCS 0	-95
11n_HT20	MCS 7	-76
11n_HT40	MCS 0	-91
	MCS 7	-73
11av HE20	MCS 0	-94
11ax_HE20	MCS 11	-65
11ax_HE40	MCS 0	-91
Παλ_ΠΕ+Ο	MCS 11	-62



# **Aggregate Transmit Power**

### 5GHz

Mode	Rate	Power (dBm)
000 44-	6 ~ 18 Mbps	29
802.11a	24 ~ 54 Mbps	29
902 115 UT20	MCS 0 ~ 4	29
802.11n_HT20	MCS 5 ~ 7	29
902 115 UT10	MCS 0 ~ 4	29
802.11n_HT40	MCS 5 ~ 7	29
	MCS 0 ~ 4	29
802.11ac_VHT20	MCS 5 ~ 7	29
	MCS 8 ~ 9	29
	MCS 0 ~ 4	29
802.11ac_VHT40	MCS 5 ~ 7	29
	MCS 8 ~ 9	28
	MCS 0 ~ 4	29
802.11ac_VHT80	MCS 5 ~ 7	29
	MCS 8 ~ 9	28
	MCS 0 ~ 4	29
902 11av HE20	MCS 5 ~ 7	29
802.11ax_HE20	MCS 8 ~ 9	29
	MCS 10- 11	28
	MCS 0 ~ 4	29
902 11ov HE40	MCS 5 ~ 7	29
802.11ax_HE40	MCS 8 ~ 9	28
	MCS 10- 11	28
	MCS 0 ~ 4	29
902 11av HE90	MCS 5 ~ 7	28
802.11ax_HE80	MCS 8 ~ 9	28
	MCS 10 ~ 11	28

### 2.4GHz

Mode	Rate	Power (dBm)
802.11b	1 ~ 11 Mbps	26
902.11a	6 ~ 18 Mbps	26
802.11g	24 ~ 54 Mbps	26
902 115 HT20	MCS 0 ~ 4	26
802.11n_HT20	MCS 5 ~ 7	26
902 11p UT40	MCS 0 ~ 4	26
802.11n_HT40	MCS 5 ~ 7	26
	MCS 0 ~ 4	26
902 11ov HE20	MCS 5 ~ 7	24
802.11ax_HE20	MCS 8 ~ 9	24
	MCS 10 ~ 11	24
	MCS 0 ~ 4	26
802.11ax_HE40	MCS 5 ~ 7	24
	MCS 8 ~ 9	23
	MCS 10 ~ 11	23



# Regulatory Specifications RF and Electromagnetic Compatibility (EMC)

Data	Shee
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Country	Certification
USA	FCC Part 15.247, 15.407, 15B
Canada	ICES-003, RSS-247, RSS-102
Europe	EN 300 328, EN 300 440, EN 301 893, EN 301 489, EN 55024, EN 55032, EN 55035 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.

 $<sup>\</sup>hbox{``For complete country certification records, please visit the site: $https://www.arista.com/en/support/product-certificate} \\$ 

### **Safety & Environmental**

Country	Certification
USA, Canada	UL/cUL 62368, UL 2043
European Union (EU)	EN 62368, RoHS
China	GB/T 26125 RoHS
Taiwan	CNS 14336, CNS 15663 RoHS

### **Ordering Information**

#### **Access Point**

Part Number	Description
AP-C230E	C-230E 4x4 + 2x2 tri radio 802.11ax (WiFi 6) access point with external antenna connectors. Antennas not included.
AP-C230E-SS-3Y	C-230E 4x4 + 2x2 tri radio 802.11ax (WiFi 6) access point with external antenna connectors. Includes 3 year cloud service. Antennas not included.
AP-C230E-SS-5Y	C-230E 4x4 + 2x2 tri radio 802.11ax (WiFi 6) access point with external antenna connectors. Includes 5 year cloud service. Antennas not included.

#### **Mounting Options**

For details of mounting options, see the Access Points Mounting Brackets Guide

#### **Power**

Part Number	Description
PWR-AP-W4	Universal AC power supply for C-230E, 12VDC, 3.3A

#### **External Antennas**

For details of compatible antennas, see Antenna Selection Guide

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