

# StarAccess AC 2300

1.3 Gbps 3 x 3 MIMO AC Outdoor Wi-Fi  
Access Point



## OVERVIEW

StarAccess is a dual-band 2.4/5GHz 802.11ac/abgn WiFi Access Point that provides outdoor WiFi coverage at signaling rates up to 1.3 Gbps. StarAccess 2300 is designed for wide area WiFi coverage.

The StarAccess AC 2300 has significantly higher capacity and increased coverage capabilities over conventional Wi-Fi Access Points due to a number of factors working in concert. These factors are the MIMO diversity advantage; good output power and sensitive receive capability.

For connection into the network the two Gigabit Ethernet interfaces on the StarAccess AC 2300 can connect to a wired backbone.

EION StarAccess AC can be configured as a standalone access point, or as part of a group of APs managed by EION's Network Controller. With up to eight different SSIDs per AP, StarAccess AC products can form a powerful 3G/4G offload solution for service providers and enterprises.

The StarAccess AC 2300 base radio is packaged in an IP67 ruggedized enclosure suitable for all weather conditions. The specialized design of the finned enclosure allows for stable operation in high heat environments while the integrated vent plug protects electronics in high humidity conditions. The thick all-metal enclosure provides high EMI immunity for stable operation and secures communications in hostile environments.

## PRODUCT FEATURES

- Outdoor Wi-Fi AP supports dual-band operation in 2.4 GHz & 5.8 GHz
- 3 x 3 MIMO Technology, up to 1.3 Gbps
- IEEE 802.11ac compliant and Backward compatible with 802.11a/b/g/n
- Supports Spatial Multiplexing, Cyclic-Delay Diversity (CDD), Low-Density Parity Check (LDPC) Codes, Maximal Ratio Combining (MRC), Space Time Block Code (STBC)
- Supports IEEE 802.11d, e, h, i, k, r, v time stamp, and w standards
- Supports Dynamic Frequency Selection (DFS)
- 80, 40 & 20 MHz Channel Sizes
- NLOS Urban Coverage with OFDM Technology
- User Friendly Web-Based GUI
- SNMPv3 and Enterprise MIB for Advanced Network Management
- High Spectral Efficiency and Robust RF Network Performance
- Rugged Construction for All Weather Conditions
- Built-in ESD Protection with ESD/EMP Immunity, Power Surge POE Protection.

## ORDERING INFORMATION

<b>9160-00-23-00</b>	StarAccess AC 2.4/5.8 GHz, 3x3 MIMO, Ruggedized, Extended Range with 6 x N Type Connectors
<b>9160-00-23-10</b>	StarAccess AC 2.4/5.8 GHz, 3x3 MIMO, Ruggedized, with OMNI Antenna Pack
<b>9160-00-23-20</b>	StarAccess AC 2.4/5.8 GHz, 3x3 MIMO, Ruggedized, Extended Range with 6 x N Type Connectors (High Power)
<b>9160-00-23-30</b>	StarAccess AC 2300 2.4/5.8 GHz, 3x3 MIMO, High Power, Ruggedized, ER, with OMNI Antenna Pack

## RADIO SPECIFICATION

<b>Topology</b>	Standard Wireless LAN Topology (Multiple Modes Supported)						
<b>Frequency</b>	2.4 GHz and 5.8 GHz (Dual-Band in a single enclosure)						
<b>Channel Size</b>	20 MHz ; 40 MHz ; 80 MHz (5GHz Only)						
<b>Modulation</b>	OFDM : BPSK, QPSK, 16-QAM 64-QAM and 256-QAM						
<b>Signaling Rate</b>	Up to 1.3 Gbps						
<b>RF Connectors</b>	6 x N-type female antenna connector						
<b>Output Power</b>	5GHz Up to + 21 dBm (aggregated 26 dBm), 2.4 GHz Up to + 23 dBm (aggregated 28 dBm), configurable in 1dB steps ; High Power (optional) +27dBm (aggregated 32dBm)						
<b>Receiver Sensitivity</b> (BER = 10 <sup>-6</sup> ) +/- 2dB	<b>5 GHz</b>				<b>2.4 GHz</b>		
	<b>Modulation</b>	<b>20 MHz</b>	<b>40 MHz</b>	<b>80 MHz</b>	<b>Modulation</b>	<b>20 MHz</b>	<b>40 MHz</b>
	BPSK	-94 dBm	-91 dBm	-90 dBm	BPSK	-94 dBm	-93 dBm
	16-QAM	-82 dBm	-79 dBm	-76 dBm	16-QAM	-84 dBm	-82 dBm
	64-QAM	-70 dBm	-67 dBm	-64 dBm	64-QAM	-75 dBm	-72 dBm
	256-QAM	NA	-65 dBm	-61 dBm	256-QAM	NA	NA
<b>Duplexing Format</b>	Dynamic Time Division Duplex (TDD), Half-Duplex						
<b>Medium Access Control</b>	IEEE 802.11ac/abgn						
<b>Data Rate Selection</b>	Dynamic Adaptive Modulation per Link						

## NETWORK SPECIFICATIONS

<b>Network Connection</b>	2 x Gigabit Ethernet ports ; Auto MDI-X RJ45 10/100/1000 Mbps Ethernet
<b>Operational Mode</b>	Transparent Bridging (per OSI Layer2), Multicast
<b>Traffic Management</b>	Advanced QoS per user (Hotspot Mode), Standard WMM
<b>MAC Filtering and Firewall</b>	Filtering through Standard MAC address, Firewalls – Zones
<b>VLAN</b>	Data Tagging/Untagging, 802.1q transparency, VLAN Management; SSID to VLAN Mapping
<b>NAT</b>	1:N NAT configurable through CPE GUI
<b>DHCP</b>	DHCP Client , DHCP server for LAN devices when in NAT mode, PPPoE, L2TP
<b>Ipv6</b>	Ipv6 pass through in bridge mode
<b>Routes</b>	Add static Routes
<b>Operation Mode</b>	Standalone, Hotspot, EION AP Controller
<b>Enhanced Control</b>	<ul style="list-style-type: none"> <li>- Hotspot and Guest Portal Support</li> <li>- Powerful Network Diagnostic Utilities</li> <li>- Real-time Network Load Graphs</li> </ul>

## SECURITY

<b>Management Access</b>	Username and Password Compatible with all modern web browsers and Windows 7+ OS
<b>Encryption</b>	WEP (64, 128, 154), WPA1 (TKIP), WPA2 (CCMP – AES 128, CBC-MAC for headers).

## MANAGEMENT

<b>Management Access</b>	Over the Air & Wired over prioritized ports
<b>Remote Monitoring</b>	HTML Web-GUI, SNMP v3c (Set, Get and Traps with proprietary MIB) MIB files are available on request
<b>Installation Management</b>	Wireless Link Monitor and Diagnostic Tool; <ul style="list-style-type: none"> <li>Provides noise and RSSI signal levels as well as other statistical information</li> <li>Real-time view of available over the air bandwidth</li> <li>Real-Time Link Quality Metrics</li> <li>Built-in Spectrum Analyzer</li> </ul>
<b>Backup Configuration</b>	Save Radio Configuration to local PC
<b>Software Upgrade</b>	Over the Air or local, Web-based upgrade
<b>Services</b>	Auto Reboot, Ping Watchdog

## PHYSICAL, ELECTRICAL & ENVIRONMENTAL

<b>Power Consumption</b>	Typ. < 10 Watts
<b>Power Supply</b>	100-240V, 50/60 Hz AC; UL/CSA approved 48 Volt POE system; DC power options available. The included power supply includes one standard Gigabit Ethernet port for connection to LAN or local PC, and one PoE port for connection to the StarAccess equipment. Power supply is 10/100/1000 BaseT IEEE802.3af/at compliant with data rates up to 1 Gbps full duplex on both ports
<b>Temperature Range</b>	Operating: -20° C to +70° C Storage: -40° C to +90° C
<b>Relative Humidity</b>	Operating: 0% to 100% (condensing); Storage: Max. 90% (non-condensing)
<b>Mounting Bracket</b>	Pole mounting hardware included
<b>Enclosure</b>	Single Unit, Die Cast Metal NEMA 4x; IP67, Finned for heat dissipation
<b>Weight</b>	2.3 kg (External Connectors) 3.2 kg (With Antenna Pack)
<b>Dimensions</b>	229 mm × 191 mm × 76 mm
<b>Lightning Protection</b>	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)

## STANDARDS COMPLIANCE

<b>Weatherproofing</b>	IP67 when properly installed
<b>Materials Compliance</b>	RoHS/WEEE
<b>Certification</b>	CE, FCC & IC modular approvals

## BOX CONTENTS

<b>Each Box Contains the following items</b>	<ul style="list-style-type: none"> <li>StarAccess AC 3 x 3 MIMO Wireless Radio (Antenna Kit – if selected)</li> <li>48V PoE Injector</li> <li>Pole mounting bracket</li> <li>Quick Start Guide</li> </ul>
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