



StarAccess AC 2200

867 Mbps 2 x 2 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 867 Mps. StarAccess 2200 is designed for wide area WiFi coverage.

The StarAccess AC 2200 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; increased output power and sensitive receive capability.

For connection into the network the two Gigabit Ethernet interfaces on the StarAccess AC 2200 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 2200 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
- 2 x 2 MIMO Technology, up to 867 Mbps
- 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, l, 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.
- Outdoor WiFi CPE with either a 5.8GHz or 2.4GHz integrated panel antennas

ORDERING INFORMATION

9160-00-22-00	StarAccess AC 2.4/5.8 GHz, 2x2 MIMO, Ruggedized, Extended Range with 4 x N Type Connectors
9160-00-22-10	StarAccess AC 2.4/5.8 GHz, 2x2 MIMO, Ruggedized, with OMNI Antenna Pack
9160-00-22-20	StarAccess AC 5.8 GHz WiFi CPE, 2x2 MIMO, IP67 ABS with Integrated 23 dBi Antenna
9160-00-22-30	StarAccess AC 2.4 GHz WiFi CPE, 2x2 MIMO, IP67 ABS with Integrated 19 dBi Antenna

NEW

RADIO SPECIFICATION

Topology	Standard Wireless LAN Topology (Multiple Modes Supported)						
Frequency	2.4 GHz and 5.8 GHz (Dual-Band in a single enclosure)						
Channel Size	20 MHz ; 40 MHz ; 80 MHz (5GHz Only)						
Modulation	OFDM : BPSK, QPSK, 16-QAM 64-QAM and 256-QAM						
Signaling Rate	Up to 867 Mbps						
RF Connectors	4 x N-type female antenna connector						
Output Power	5GHz Up to + 27 dBm (aggregated 30dBm), 2.4 GHz Up to + 23 dBm (aggregated 26 dBm), configurable in 1dB steps						
Receiver Sensitivity (BER = 10 ⁻⁶) +/- 2dB	5 GHz				2.4 GHz		
	Modulation	20 MHz	40 MHz	80 MHz	Modulation	20 MHz	40 MHz
	BPSK	-94 dBm	-93 dBm	-89 dBm	BPSK	-94 dBm	-93 dBm
	16-QAM	-86 dBm	-83 dBm	-78 dBm	16-QAM	-84 dBm	-82 dBm
	64-QAM	-71 dBm	-74 dBm	-71 dBm	64-QAM	-75 dBm	-72 dBm
256-QAM	N/A	-71 dBm	-68 dBm	256-QAM	NA	NA	
Duplexing Format	Dynamic Time Division Duplex (TDD), Half-Duplex						
Medium Access Control	IEEE 802.11ac / abgn						
Data Rate Selection	Dynamic Adaptive Modulation per Link						

NETWORK SPECIFICATIONS

Network Connection	2 x Gigabit Ethernet ports ; Auto MDI-X RJ45 10/100/1000 Mbps Ethernet
Operational Mode	Transparent Bridging (per OSI Layer2), Multicast
Traffic Management	Advanced QoS per user (Hotspot Mode), Standard WMM
MAC Filtering and Firewall	Filtering through Standard MAC address, Firewalls - Zones
VLAN	Data Tagging/Untagging, 802.1q transparency, VLAN Management; SSID to VLAN Mapping
NAT	1:N NAT configurable through CPE GUI
DHCP	DHCP Client , DHCP server for LAN devices when in NAT mode, PPPoE, L2TP
IPv6	IPv6 pass through in bridge mode
Routes	Add static Routes
Operation Mode	Standalone, Hotspot, EION AP Controller
Enhanced Control	<ul style="list-style-type: none"> - Hotspot and Guest Portal Support - Powerful Network Diagnostic Utilities - Real-time Network Load Graphs

SECURITY

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

MANAGEMENT

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

PHYSICAL, ELECTRICAL & ENVIRONMENTAL

Power Consumption	Typ. < 10 Watts
Power Supply	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
Temperature Range	Operating: -20° C to +70° C Storage: -40° C to +90° C
Relative Humidity	Operating: 0% to 100% (condensing); Storage: Max. 90% (non-condensing)
Mounting Bracket	Pole mounting hardware included
Enclosure	Single Unit, Die Cast Metal NEMA 4x; IP67, Finned for heat dissipation
Weight	2.2 kg (External Connectors) 3.1 kg (With Antenna Pack) 3.0 Kg (5.8 GHz Integrated Antenna) 5.0 Kg (2.4 GHz Integrated Antenna)
Dimensions	229 mm × 191 mm × 76 mm (2 x N-Type ER) 385 mm x 385 mm x 80 mm (Integrated Antenna – 5.x GHz 23 dBi) 410mm x 410mm x 30mm (Integrated Antenna 2.4 GHz 19dBi)
Lightning Protection	Integrated, Telcordia GR-1089 compliant (Meets IEC 61000-4-2/ 4-4)

STANDARDS COMPLIANCE

Weatherproofing	IP67 when properly installed
Materials Compliance	RoHS/WEEE
Certification	CE, FCC & IC Modular Approvals

BOX CONTENTS

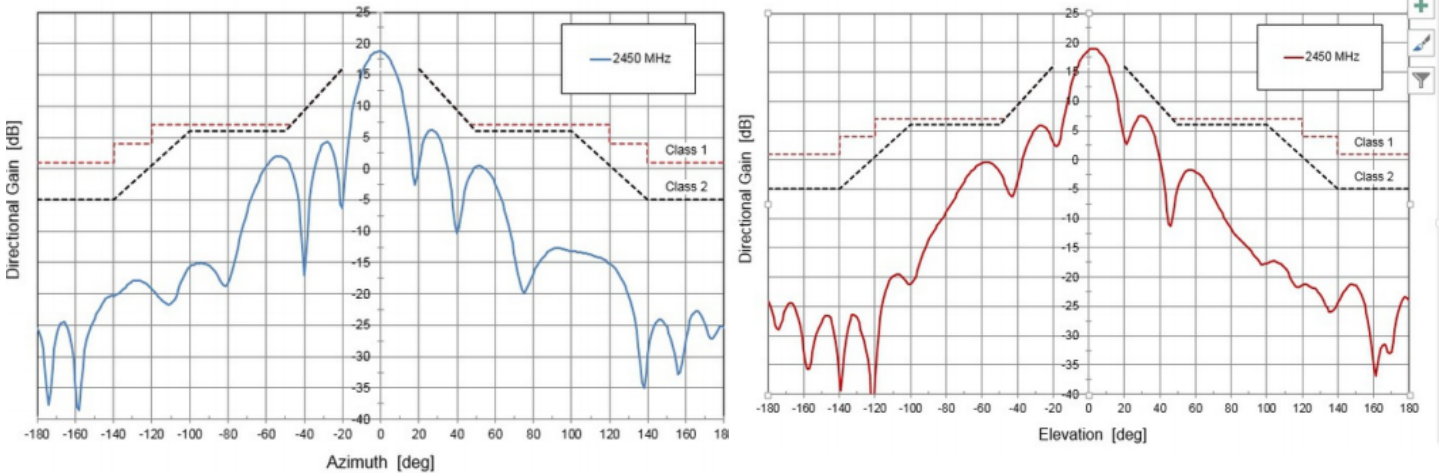
Each Box Contains the following items	<ul style="list-style-type: none"> StarAccess AC 2 x 2 MIMO Wireless Radio (Antenna Kit – if selected) 48V PoE Injector Pole mounting bracket Quick Start Guide
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INTEGRATED ANTENNA

The specifications below apply to the optional integrated antenna that is included with the StarAccess Radios. The unit can be purchased with 2x N-Type antenna connectors for use with an external antenna.

Gain	2 x 19 dBi	23 dBi
Radiation	Directional	Directional
Frequency Range	2.4 - 2.5 GHz	5.5 -6.2 GHz
Polarization	Dual – Polarization	Dual – Polarization
Azimuth-3dB Beam Width	Horizontal (Port 1): 20 degrees Vertical (Port 2): 20 degrees	Horizontal (Port 1): 9 degrees Vertical (Port 2): 9 degrees
Elevation-3dB Beam Width	Horizontal (Port 1): 20 degrees Vertical (Port 2): 20 degrees	Horizontal (Port 1): 9 degrees Vertical (Port 2): 9 degrees
Isolation	-40dB (Max)	-40dB (Max)
Front-to-Back Ratio	-25dB (Max)	-40dB (Max)
VSWR	Horizontal (Port 1): <1: 1.87 Vertical (Port 2): <1: 2.00	Horizontal (Port 1): <1: 1.5 Vertical (Port 2): <1: 1.5
Cross Polarization Isolation	-27dB (Max)	-30 dB (Max)
Side Lobe	< -12dB	< -12dB

INTEGRATED ANTENNA GAIN PLOT 19 dBi 2.4GHz



INTEGRATED ANTENNA POLAR PLOTS 23 dBi 5.x GHz

VERTICAL POLARIZATION

HORIZONTAL POLARIZATION

RF Patterns
Vertical Cut,
Typ.

RF Patterns
Horizontal
Cut, Typ.

RF Patterns
Vertical Cut,
Typ.

RF Patterns
Horizontal
Cut, Typ

