cnPilot e502S
Outdoor Sector AP

IP67 802.11ac 30° Outdoor Narrow
Sector Access Point

Perfect for high density applications – stadiums, event coverage, public Wi-Fi in high noise environments, narrow aisle coverage in warehouses, and more – requiring cost-effective, controller managed WLAN access points

HIGHLIGHTS

Operational superiority - The e502S with an integrated sector antenna supports 256 max client associations, 16 SSIDs, WPA-2 encryption, Dynamic VLANs, DFS channels, Access control lists (ACL), and more. The 802.11ac e502S is the essential workhorse for today's demanding high density outdoor Wi-Fi networks.

High performance Wi-Fi network - All cnPilot's Enterprise access points (APs) support features like controller-less roaming, dynamic channel selection, automatic transmit power control, band steering, and more – essential features for easy Wi-Fi operations.

Mesh Rapidly setup multi-hop mesh networks either dedicating one radio (e.g.: 5 GHz) for mesh backhaul, or using both bands for client access at the same time.

Wireless Backhaul Integration – the aux PoE port on the e502S offers PoE out eliminating the need for a second power line – perfect for powering on a standard 802.3af camera, or powering on Cambium's PMP 450 or ePMP backhaul subscriber modules (SMs) for wireless backhaul enabled Wi-Fi hotspots.

Resilience - Dual on-board Active/Standby memory banks ensure higher availability. The e502S can store two versions of the software and if needed fall back to a working operational software, reducing the likelihood of site visits and increasing network up-time.

DESIGNED FOR THE OUTDOORS

- 802.11ac, 256 users, 16 SSIDs
- 30° coverage
- 23 dB front-back ratio
- Tx Power: 29 dBm
- Ant gain: 12.5/15.9 dBi
- UV rated IP-67
- Operating Temp: -30°C ~ +60°C
- Electrical heater for cold start
- Industrial grade components
- Packaged with wall mount brackets
- Special LTE coexistence filters
- Light weight ~ 1Kg

cnMAESTRO™ – WI-FI CONTROLLER

- Guest Access: Custom splash pages, vouchers, social login
- Zero-touch provisioning
- Inventory tracking
- Map location
- Monitoring: key stats, alarms
- mass (bulk) upgrade
- Integrated troubleshooting: Wi-Fi APs, clients & Cambium SMs
- Controller: Cloud or Virtual On-premises (NOC) controller
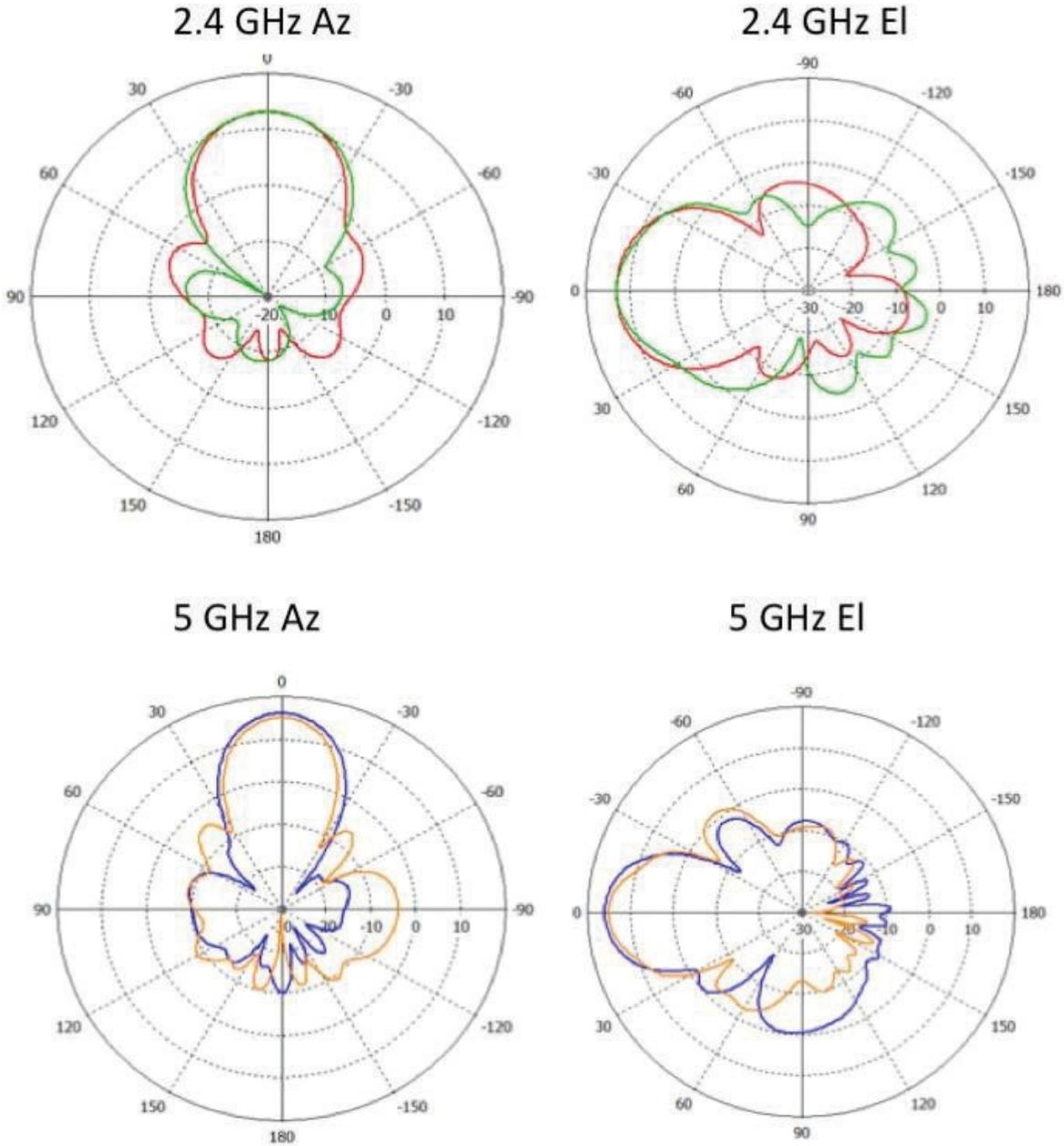
SPECIFICATIONS

Access Point Specifications

Standards	IEEE 802.11a/b/g/n/ac IEEE 802.11d/e/h/i/k/r/u/v/w Modulation: BPSK, QPSK, CCK, 16/64/256-QAM Radio modes : DSSS, OFDM	**Frequency Bands** *(Country-specific limits apply, some bands require DFS)*	2.400 to 2.2484 GHz 5.150 to 5.250 GHz 5.250 to 5.350 GHz 5.470 to 5.725 GHz 5.725 to 5.850 GHz
MIMO, Streams	2x2:2 MIMO	**Power Supply**	802.3af PoE Injector, or PoE switch. 802.3at or PoE+ if using PoE-Out Aux port.
Channel Width	20MHz, 40MHz, 80MHz	**Dimensions**	30 x 20.4 x 6.5 cm (11.8 x 8 x 2.55 Inch)
Concurrent Clients	256	**Weight**	1.3 Kg (2.8 lb)
SSIDs	16	**Operating Temperature**	-30°C to +60°C (-22°F to +140°F)
Antenna	Dual polarized, Omnidirectional, Integrated	**Operating Humidity**	up to 95% non-condensing
Transmit Power *(conducted total)*	2.4GHz : 29dBm 5GHz : 28dBm	**Power Consumed**	13W (max, without PoE-out) 8W (typical)
Antenna Gain	2.4GHz : 12.8dBi 5GHz : 16.9dBi	**Secure Mounting**	Kensington Key Slot
Max Data Rate	2.4GHz : 300Mbps 5GHz : 867Mbps	**Environment Rating**	IP67
LED	Two multi-color software controlled LEDs	**MTBF**	1,611,174 Hours
Interference Mgmt	Hardware LTE Filtering	**PoE-Out**	Aux Port supports Cambium and 802.3af modes
Ethernet Ports	Two auto-sensing auto MDIX Gigabit Ethernet (10/100/1000 Mbps) RJ45 Ports	**Reset Button**	Supported
Radio Features	Maximum ratio combining (MRC) Cyclic delay/shift diversity (CDD/CSD) Space-time blocking coding (STBC) Low-density parity check (LDPC) Packet Aggregation: A-MPDU, A-MSDU	**Certifications**	FCC, CE, IC, UL, EN60601-1-2 (Medical EMC), WEEE/RoHS compliance
Wi-Fi Alliance	Wi-Fi certified a,b,g,n,ac WPA2 – Enterprise, Personal WMM, Passpoint	**Mounting Options**	Wall and Pole mount bracket. Supports Poles with 1.5" and 3" Diameter.

Wi-Fi Features

Management Modes	cnMaestro cloud managed cnMaestro on-premises VM controller managed Autopilot (AP as controller) Standalone with AP GUI (http/https), CLI (telnet/ssh)	**Wireless Security**	WPA-TKIP, WPA2-AES, 802.11i WPA-PSK, WPA2-PSK, WPA2-Enterprise 802.1x Authentication with various EAP types (EAP-TLS, EAP-TTLS/MSCHAPv2, PEAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC, EAP-SIM, EAP-AKA, EAP-AKA', EAP-FAST) Protected Management Frames (802.11w)
RF Management	AutoRF automatically manages channel and power	**Dynamic SSID Service**	By time/date, by monitored host.
Guest Access Captive Portal	cnMaestro Controller Portal Integrates with 3rd party Guest Access Portals Built-in Portal on AP LDAP & RADIUS authentication Walled Garden with DNS whitelist Wireless as well as Wired devices supported.	**MAC Authentication**	On-AP MAC filtering list. On-Controller MAC filtering list. RADIUS MAC Authentication. MAC Authentication fallback to Captive Portal
Rate Limiting	Per-client, Per-WLAN static and dynamic rate limiting	**Firewall**	Layer-2, Layer-3, DNS ACL. DoS Attack Protection.
Client Isolation	On AP, Network-wide.	**3G/4G/LTE Offload**	Passpoint (Hotspot 2.0)
Fast Roaming	802.11r, Opportunistic Key Caching, Enhanced Roaming	**DHCP Relay**	Supported, with Option-82 customization
Airtime Mgmt	Airtime Fairness, Band Steering, Band Balancing	**NMS Monitoring**	SNMP v1, v2c, v3
AAA Support	RADIUS Authentication, Accounting, Dynamic Authorization (CoA, DM). Server failover, load-balancing	**Client APIs**	Client Presence/Location API DNS, NAT and TCP Connecting Logging
QoS	802.11e/WMM QoS. DSCP/ToS mapping.	**Time Synchronization**	Auto (from controller), NTP
Ethernet (L2) Services	802.1p/802.q, RADIUS assigned VLAN, VLAN per SSID, VLAN pooling. LLDP. IGMP Snooping (v1/v2/v3)	**Troubleshooting Tools**	Packet Capture, Spectrum Analyzer, Ping, Traceroute, Syslogs
Mesh	WDS Mesh with Single and Multiple radio hops.	**Traffic Tunnels**	L2TP, L2oGRE, PPPoE
Network Services	NAT, DHCP Server		

SPECIFICATIONS

2D Radiation Patterns

2.4 GHz Az

2.4 GHz El

5 GHz Az

5 GHz El

ORDERING INFORMATION: cnPILOT OUTDOOR e502S

Regulatory Model Number:	C000100P502A
Sales part #	Description
PL-502SYXXA-<US/EU/CA/IL/JP/EG/LK/RW>	Y = if this position has a "p", then that SKU includes a PoE Injector and localized AC line cord Y = if this position has a "X", then that SKU does not include a PoE Injector or AC line cord. YY will always be "00" XX = if this position has a two-digit country code, then a localized AC line cord is included for the specified country code The following countries require a unique two-digit regulatory country code appended to the part number: United States (US), Canada (CA), Europe (EU), Israel (IL), Egypt (EG), Sri Lanka (LK). For other certified countries, use the Rest of World (RW) two-digit country code

Discover more information on cnPilot at: http://community.cambiumnetworks.com/