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 uptime. Standard 3 year Warranty included, for peace of mind.

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-FiAPs, clients & Cambium SMs
- Controller: Cloud or VirtualOn-premises (NOC) controller
## SPECIFICATIONS

### Access Point Specifications

| Standards | IEEE 802.11a/b/g/n/ac  
| Modulation: BPSK, QPSK, CCK, 16/64/256-QAM  
| Radio modes: DSSS, OFDM |
| Frequency Bands | 2.400 to 2.4284 GHz  
| (Country-specific limits apply, some bands require DFS)  
| 5.150 to 5.250 GHz  
| 5.250 to 5.350 GHz  
| 5.470 to 5.725 GHz  
| 5.725 to 5.850 GHz  
| Power Supply | 802.3af PoE Injector, or PoE switch.  
| 802.3at or PoE+ if using PoE-Out Aux port. |
| Channel Width | 20MHz, 40MHz, 80MHz  
| Concurrent Clients | 256  
| SSIDs | 16  
| Antenna | Dual polarized, Omnidirectional, Integrated  
| Transmit Power | 2.4GHz : 29dBm  
| (conducted total) | 5GHz : 28dBm  
| Antenna Gain | 2.4GHz : 12.8dB  
| 5GHz : 16.9dB |
| Max Data Rate | 2.4GHz : 300Mbps  
| 5GHz : 867Mbps |
| LED | Two multi-color software controlled LEDs |
| Interference Mgmt | Hardware LTE Filtering |
| Ethernet Ports | Two auto-sensing auto MDIX Gigabit Ethernet  
| (10/100/1000 Mbps) | RJ45 Ports |
| 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 |
| Wi-Fi Alliance | Wi-Fi certified a,b,g,n,ac  
| WPA2 – Enterprise, Personal  
| WMM, Passpoint |
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### Wi-Fi Features

| Management Modes | cnMaestro cloud managed  
| cnMaestro on-premises VM controller managed  
| Autopilot (AP as controller)  
| Standalone with AP GUI (https), CLI (telnet/ssh) |
| RF Management | AutoRF automatically manages channel and power |
| 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. |
| Rate Limiting | Per-client, Per-WLAN static and dynamic rate limiting |
| Client Isolation | On AP, Network-wide. |
| Fast Roaming | 802.11r, Opportunistic Key Caching, Enhanced Roaming |
| Airtime Mgmt | Airtime Fairness, Band Steering, Band Balancing |
| AAA Support | RADIUS Authentication, Accounting, Dynamic Authorization (CoA, DM). Server failover, load-balancing |
| QoS | 802.11e/WMM QoS. DSCP/ToS mapping. |
| Ethernet (L2) Services | 802.1p/802.q, RADIUS assigned VLAN, VLAN per SSID, VLAN pooling. LLDP, IGMP Snooping (v1/v2/v3) |
| Mesh | WDS Mesh with Single and Multiple radio hops. |
| Network Services | NAT, DHCP Server |
| 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) |
| Dynamic SSID Service | By time/date, by monitored host. |
| MAC Authentication | On-AP MAC filtering list.  
| On-Controller MAC filtering list.  
| RADIUS MAC Authentication. |
| MAC Authentication fallback to Captive Portal |
| 3G/4G/LTE Offload | Passpoint (Hotspot 2.0) |
| DHCP Relay | Supported, with Option-82 customization |
| NMS Monitoring | SNMP v1, v2c, v3 |
| Client APIs | Client Presence/Location API  
| DNS, NAT and TCP Connecting Logging |
| Time Synchronization | Auto [from controller], NTP |
| Troubleshooting Tools | Packet Capture, Spectrum Analyzer, Ping, Traceroute, Syslogs |
| Traffic Tunnels | L2TP, L2oGRE, PPPoE |
### ORDERING INFORMATION: cnPilot OUTDOOR e502S

<table>
<thead>
<tr>
<th>Regulatory Model Number</th>
<th>C000100P502A</th>
</tr>
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<tbody>
<tr>
<td>Sales part #</td>
<td>Description</td>
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| PL-502SYXXA-<US/EU/CA/IL/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/

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