

# cnPilot e510 Outdoor Omni

Gigabit IP67 802.11ac wave 2  
Outdoor Access Point



Enterprise grade 802.11 Wi-Fi access in outdoor high density networks. Ideal for 360 degree coverage in Public Wi-Fi, Hospitality, Education campus, Industrial and Enterprise.

## ENTERPRISE GRADE WI-FI

Part of the cnPilot family of Enterprise grade 802.11 access points, the e510 is RF aware and self-optimizing for the RF environment. Ideal for deploying Outdoor Wi-Fi as a public access service, or part of an extended enterprise network providing seamless roaming from indoor to outdoor without requiring controller interaction. Integrated troubleshooting tools provide remote access for packet capture, client statistics, operational and RF statistics, and RF scanning for interference, channel utilization, and noise floor scan.

## ENTERPRISE GRADE MESH

E510 features multi-hop MESH that puts flexibility into the hands of the network admin. Select the band to use for MESH (either 2.4 GHz or 5 GHz); and set whether clients can access the network on one or both bands. Auto-MESH discovers a Cambium MESH link with policy based secure access. Once adopted, cnMaestro provides the correct policy based provisioning rules for the access point.

## EXTENDED ENVIRONMENTAL SUPPORT

The e510 is shock and vibration certified when used with the rail mounting system. Ideal for industrial applications and manufacturing. Integrated cold start heater ensure operation in harsh environments.

## cnMAESTRO™ SINGLE PANE OF GLASS

All Cambium Networks enterprise 802.11 and broadband point to point and point to multi-point access points are supported by the cnMaestro controller.

## HIGH PERFORMANCE, OUTDOOR AP

- Quad core CPU
- 802.11ac wave2, multi-user MIMO, beam steering, VHT rates, airtime fairness
- 360 degree antenna coverage
- UV rated IP67 enclosure
- Shock and Vibration certified
- Operating temp: -40C - +65C
- Cold start heater
- Extended ESD and surge protection
- Industrial grade components
- LTE filter for unimpeded operation
- Light weight - less than 1100g

## cnMaestro Single Cloud Dashboard

- Resilient Cloud Controller for broadband, Ethernet, Wi-Fi
- Services delivery platform
- Managed service provider flows
- Private label branding
- Help desk troubleshooting tools
- True Zero-touch provisioning and zero-touch network RF automation
- Cloud delivered guest access portal with custom pages, vouchers, social login and paid services
- Device inventory reports
- Key metrics Dashboard
- Detailed reports
- Map location

# SPECIFICATIONS

## 802.11ac CAPABILITIES

802.11a/b/g/n/AC wave 2, 2x2:2:2, MIMO, MU-MIMO, VHT MCS rates, 16/64/256-QAM, HT20/40/80 MHz, Transmit Beam steering, Airtime Fairness. Packet Aggregation (AMSDU, AMPDU) RIFS, STBC, LDPC, MIMO Power Save, MRC. BPSK, QPSK, CCK, DSSS, OFDM. IEEE 802.11d/e/h/i/k/r/u/v/w

## ACCESS POINT SPECIFICATIONS

|                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <b>US-FCC</b><br>2400 – 2484 MHz, 5150 – 5250 MHz, 5725 – 5850 MHz                   |                                                                                            |
| <b>Industry Canada (ISED)</b><br>2400 – 2484 MHz, 5725 – 5850 MHz                    |                                                                                            |
| <b>EU-ETSI</b><br>2400 – 2484 MHz, 5470 – 5725 MHz (DFS)                             |                                                                                            |
| <b>ROW (individual country limits may apply)</b><br>2400 – 2500 MHz, 5150 – 5850 MHz |                                                                                            |
| Max Phy Rate                                                                         | 2.4 GHz radio: 400 Mbps<br>5 GHz radio: 867 Mbps                                           |
| Ethernet Ports                                                                       | One IEEE Gigabit Ethernet auto sensing                                                     |
| Antenna                                                                              | Integrated dual polarized, omni direction<br>8dBi (2.4GHz) 9dBi (5GHz)                     |
| Max EIRP                                                                             | 2.4 GHz: 32 dBm<br>5 GHz: 34.5 dBm<br>EIRP may be limited by individual country regulation |

|                        |                                                                                                                                                                                                                                                                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power                  | 802.3af or 802.3at Powered Device<br>Max 12.95w (802.3af)                                                                                                                                                                                                       |
| Physical Environmental | IP67 rated housing<br>Wind Resistance 224 kph 320mm x 215mm x 65mm 1100g<br>Kensington lock slot<br>Two multi-color status LEDs<br>-40C - + 65C ambient op temp<br>-40C - + 70C storage temperature 95% RH non-condensing<br>Overvoltage protection, category 1 |
| LTE Filter             | LTE bands 38, 40                                                                                                                                                                                                                                                |
| Certifications         | WiFi Alliance 80211a/b/g/n/ac,<br>Passpoint 2.0<br>FCC, ETSI, CE, EN 60601-1-2, IEC60950,<br>EN50121-1 Railway EMC EN50121-4 Railway Immunity<br>IEC 61373 Railway Shock & Vibration                                                                            |

## WLAN AND NETWORK SPECIFICATIONS

|                  |                                                                                                                                         |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Controller modes | Controller-less standalone<br>AutoPilot heterogeneous network<br>Cloud managed cnMaestro<br>On-premises cnMaestro VM                    |
| WLAN             | 256 clients, 16 SSIDs<br>WPA-TKIP, WPA2 AES, 802.1x<br>802.11w PMF<br>WPA2 (802.11i), WPA2 Enterprise<br>(802.1x/EAP), WPA PSK, Open    |
| Captive Portal   | Hosted on cnMaestro Controller<br>On-AP hosted guest portal<br>Redirect to HTTP/RADIUS<br>Server DNS logging                            |
| Authentication   | Hotspot 2.0/Passpoint 2.0<br>802.1x EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, EAP-TLS<br>MAC authentication to local database or external RADIUS |
| Accounting       | RADIUS accounting, multiple AAA                                                                                                         |
| Scheduled SSID   | On/off by day, week, time of day                                                                                                        |
| Guest Access     | Vouchers, Rate Limit, Splash page hosted on AP or cnMaestro<br>Client isolation per SSID, per network                                   |
| Data Limit       | Client rate limit per SSID                                                                                                              |
| QoS              | WMM                                                                                                                                     |

|                         |                                                                                                                                           |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Fast Roaming            | 802.11r, OKC, Enhanced roaming                                                                                                            |
| Mesh                    | Multi-hop, either band                                                                                                                    |
| Channel Selection       | autoTune: Manual, or automatic<br>Selectable off-channel scan                                                                             |
| Automatic Tx Power      | AutoRF: controller-less transmit power                                                                                                    |
| Network                 | NAT, NAT logging firewall, DHCP server L2, L3 or DNS based<br>access control VLAN Pooling, RADIUS attribute VID VLAN per<br>SSID per user |
| Band Steer Load Balance | Yes                                                                                                                                       |
| Tunnel                  | L2TP, L2oGRE, PPPoE                                                                                                                       |
| Tools                   | Remote Packet capture, Channel/noise/interference analyzer,<br>auto logging, ZapD performance test tool, rogue AP detection               |
| Services                | NTP, Syslog, SNMP traps, DNS proxy, auto-off on WAN failure                                                                               |
| APIs                    | RESTful management and statistics API Presence location<br>APIs                                                                           |

## SPECIFICATIONS

### ORDERING INFORMATION

|                |                                                                                                |
|----------------|------------------------------------------------------------------------------------------------|
| PL-E510X00A-US | cnPilot e510 Outdoor AP (FCC) 802.11ac wave 2, 2x2/2x2, 8 dBi, IP67                            |
| PL-E510X00A-CA | cnPilot e510 Outdoor AP (IC) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67                             |
| PL-E510X00A-EU | cnPilot e510 Outdoor AP (EU) 802.11ac wave 2, 2x2/2x2, 8 dBi, IP67                             |
| PL-E510X00A-RW | cnPilot e510 Outdoor AP (ROW) 802.11ac wave 2, 2x2/2x2, 8 dBi, IP67                            |
| PL-E510PUSA-US | cnPilot e510 Outdoor AP (FCC, US cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| PL-E510PUSA-CA | cnPilot e510 Outdoor AP (IC, US cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector      |
| PL-E510PEUA-EU | cnPilot e510 Outdoor AP (EU, EU cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector      |
| PL-E510PXXA-RW | cnPilot e510 Outdoor AP (ROW, No cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| PL-E510PEUA-RW | cnPilot e510 Outdoor AP (ROW, EU cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| PL-E510PUKA-EU | cnPilot e510 Outdoor AP (EU, UK cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector      |
| PL-E510PUKA-RW | cnPilot e510 Outdoor AP (ROW, UK cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| PL-E510PUSA-RW | cnPilot e510 Outdoor AP (ROW, US cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| PL-E510PINA-RW | cnPilot e510 Outdoor AP (ROW, India cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector  |
| PL-E510PCNA-RW | cnPilot e510 Outdoor AP (ROW, China cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector  |
| PL-E510PANA-RW | cnPilot e510 Outdoor AP (ROW, AUS/NZ cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector |
| PL-E510PBRA-RW | cnPilot e510 Outdoor AP (ROW, BR cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| PL-E510PARA-RW | cnPilot e510 Outdoor AP (ROW, AR cord) 802.11ac Wave 2, 2x2/2x2, 8 dBi, IP67, PoE Injector     |
| AX-E510RBKT-WW | Shock Mount for e510                                                                           |

*Not all SKUs are available at first release. Consult Cambium distributor for country availability*

### ABOUT CAMBIUM NETWORKS

Cambium Networks is a leading global provider of wireless connectivity solutions that strengthen connections between people, places and things. Specializing in providing an end-to-end wireless fabric of reliable, scalable, secure, cloud-managed platforms that perform under demanding conditions, Cambium Networks empowers service providers and enterprise, industrial and government network operators to build intelligent edge connectivity. Cambium Networks' commitment to continuous innovation in wireless access is demonstrated in the millions of radios deployed in thousands of networks that benefit communities around the world. Team members also contribute to social responsibility activities to serve the communities in which they live. Headquartered outside Chicago and with R&D centers in the U.S., U.K. and India, Cambium Networks sells through a range of trusted global distributors.

[www.cambiumnetworks.com](http://www.cambiumnetworks.com)

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