cn**Pilot** 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

US-FCC
2400 – 2484 MHz, 5150 – 5250 MHz, 5725 – 5850 MHz

Industry Canada (ISEDC)
2400 – 2484 MHz, 5725 – 5850 MHz

EU-ETSI
2400 – 2484 MHz, 5470 – 5725 MHz (DFS)

ROW (individual country limits may apply)
2400 – 2500 MHz, 5150 – 5850 MHz

Max Phy Rate	2.4 GHz radio: 400 Mbps 5 GHz radio: 867 Mbps
Ethernet Ports	One IEEE Gigabit Ethernet auto sensing
Antenna	Integrated dual polarized, omni direction 8dBi (2.4GHz) 9dBi (5GHz)
Max EIRP	2.4 GHz: 32 dBm 5 GHz: 34.5 dBm EIRP may be limited by individual country regulation

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

WLAN AND NETWORK SPECIFICATIONS

Controller modes	Controller-less standalone AutoPilot heterogeneous network Cloud managed cnMaestro On-premises cnMaestro VM
WLAN	256 clients, 16 SSIDs WPA-TKIP, WPA2 AES, 802.1x 802.11w PMF WPA2 (802.11i), WPA2 Enterprise (802.1x/EAP), WPA PSK, Open
Captive Portal	Hosted on cnMaestro Controller On-AP hosted guest portal Redirect to HTTP/RADIUS Server DNS logging
Authentication	Hotspot 2.0/Passpoint 2.0 802.1x EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, EAP-TLS 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 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 Selectable off-channel scan
Automatic Tx Power	AutoRF: controller-less transmit power
Network	NAT, NAT logging firewall, DHCP server L2, L3 or DNS based access control VLAN Pooling, RADIUS attribute VID VLAN per SSID per user
Band Steer Load Balance	Yes
Tunnel	L2TP, L2oGRE, PPPoE
Tools	Remote Packet capture, Channel/noise/interference analyzer, 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 APIs