

# cnPilot e700 Outdoor Omni

Gigabit IP67, 802.11ac wave 2,  
8 dBi Outdoor Access Point

Standards-based beam forming for superior outdoor Wi-Fi



## COST-EFFECTIVE, CONTROLLER-MANAGED WLAN ACCESS POINTS FOR:

- Enterprise and industrial campus
- Higher Education campus
- Hospitality
- Public Wi-Fi

**Operational superiority** IP67 weather resilient Outdoor Access Point (AP) with 512 max concurrent client associations, 16 SSIDs, WPA-2 encryption, Meshing, Dynamic VLANs, DFS channels, Access control lists (ACL), zero touch provisioning and more – the 802.11ac wave2 powered e700 is perfect for today’s demanding high density outdoor Wi-Fi networks.

**High performance Wi-Fi** Standards based beamforming, on 5 GHz over a 4x4 Tx/Rx antenna array, can steer beams to the target client device delivering superior performance under high interference RF environments in both downlink and uplink\* directions. Enterprise grade controller-less roaming, dynamic channel selection, automatic transmit power control, and more such cnPilot platform features ensure a high grade superior Wi-Fi network

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

**Wireless Backhaul Integration** Roll out Wi-Fi networks rapidly with Cambium’s wireless backhaul powered from the aux PoE Out port on the e700 eliminating the need for a second power line. The aux PoE Out port can also power an 802.3af camera when security monitoring is needed near the hotspot



**Resilience** Dual on-board Active/Standby memory banks ensure higher availability. The e700 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

*\*For client devices supporting 802.11ac wave2 standards*

## DESIGNED FOR THE OUTDOORS

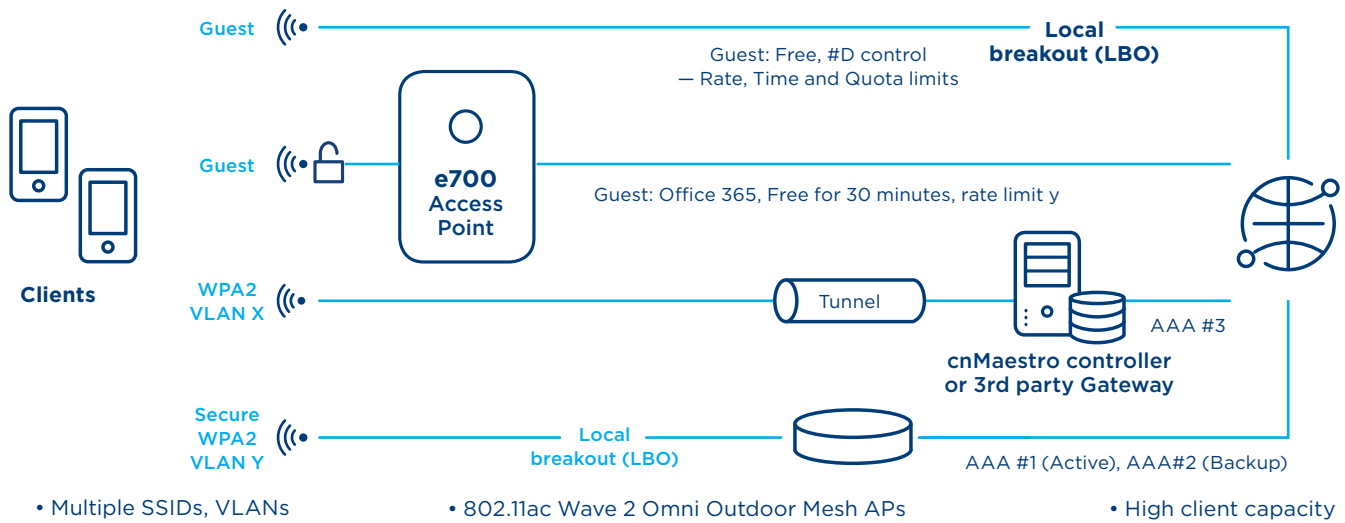
- 802.11ac, 512 users, 16 SSIDs
- Omni antenna
- UV rated IP-67 enclosure
- Max Operating Temp range: -40°C ~ +65°C
- Operating humidity : 10% to 95%
- Electrical heater for cold start
- Ruggedized; ESD protection, Industrial grade
- Packaged with wall mount brackets
- Special LTE resilience filtering
- 315 x 215 x 66 mm | 3.174 lbs (1700 gms)

## 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
- Available in Cloud or as On-premises (NOC) Virtual controller

**1** CLOUD      **2** LOCAL CONTROLLER      **3** autoPILOT

**Multiple SSIDs (16), Multiple VLANs**



**SPECIFICATIONS**

**ACCESS POINT SPECIFICATIONS**

|                        |   |
|------------------------|---|
| Frequency Bands        | 2.4 GHz: 2.4 – 2.4835 GHz<br>Channels 1 – 13 (ETSI/CE),<br>Channels 1 – 11 (US)<br>5 GHz: 5.15 – 5.85 GHz     |
| SSID Security          | WPA-2 (802.11i): WPA2-Enterprise (802.1x/EAP) & WPA2-Preshared-keys, Open                                     |
| Max SSIDs              | 16  |
| Max Concurrent Clients | 512   |
| Max Data Rates         | 2.4 GHz: 300 mbps. 5 GHz: 867 Mbps. Max combined rate: 1.16 Gbps  |
| Ethernet Ports         | Dual Gigabit Ethernet ports (2 x 10/100/1000Base-T)   |
| Antenna                | Dual polarized. 2x2 MIMO. Integrated Omni (360°) antenna  |
| Antenna Gain           | 8 dBi (2.4 GHz and 5 GHz)   |
| Power Supply           | 56V/30W Gigabit passive PoE injector  |
| POE Out                | Aux port: capable of 802.3af out or Canopy power (for supported Cambium ePMP or PMP450 SMs)                   |
| Transmit Power         | 25 dBm @ 2.4GHz<br>28 dBm @ 5 GHz   |
| Power Consumed         | Typical: 8W Max: 12.95W (no auxiliary device connected)   |
| Dimensions (cm)        | 315 x 215 x 66 mm (without bracket)   |
| Weight                 | 3.174 lbs (1700 gms) without bracket  |
| Operating Temperature  | -40°C - +65°C (when aux PoE out port is not used)      or      -40°C - +60°C* (when aux PoE out port is used) |
| Operating Humidity     | 10% - 95%   |
| Mounting Options       | Pole mount bracket (included) or wall-mount (with included bracket or without)                                |
| LTE Co-Existence       | Special filter for rejecting interference on 2.4 GHz from adjacent LTE bands 38, 40                           |
| Physical Security      | Kensington Lock bracket   |
| Visual Status          | Two (2) multi-color LEDs indicating Access Point & cnMaestro connectivity status                              |

# SPECIFICATIONS

## WI-FI FEATURES

|                         |   |                                  |  |
|-------------------------|---|----------------------------------|--|
| Controller modes        | <ul style="list-style-type: none"> <li>Autonomous Controller-less operations (E.g.: roaming)</li> <li>Cloud Managed</li> <li>On-premise virtualized controller</li> </ul>                 | Mesh                             | Multi-hop meshing  |
| Secure WLAN             | WPA-TKIP, WPA2 AES, 802.1x<br>802.11w (Protected Management Frames)   | ACS: Automatic Channel Selection | autoTune: Autonomous dynamic off-channel scans w/o disconnecting clients. Periodic scans and scheduled scanning  |
| Hotspot 2.0             | Passpoint supported   | Automatic Tx Power Control       | autoRF: Autonomous controller-less transmit power control  |
| Captive Portal          | <ul style="list-style-type: none"> <li>cnMaestro Controller</li> <li>Redirection to external RADIUS</li> <li>Stand-alone AP based</li> <li>Server DNS logging</li> </ul>                  | NAT                              | Yes  |
| Authentication          | <ul style="list-style-type: none"> <li>RADIUS based 802.1x including EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, and EAP-TLS</li> <li>MAC auth (local database or External RADIUS server)</li> </ul> | DHCP Server                      | Yes  |
| Accounting              | Yes. Supports RADIUS based accounting to multiple AAAs  | Firewall                         | Yes. NAT logging   |
| Scheduled SSID          | Turn SSID ON/OFF on a daily/weekly/time of day basis  | ACL, DNS-ACL                     | Yes. L2, L3 or DNS based access control  |
| Guest Access            | <ul style="list-style-type: none"> <li>Yes. With Active Directory Integration</li> <li>Vouchers</li> <li>Rate limiting</li> <li>Splash page creation on cnMaestro</li> </ul>              | Band Balancing                   | Yes  |
| VLAN                    | VLAN pooling, Dynamic VLAN from RADIUS server. VLAN per SSID per user   | Tunneling                        | <ul style="list-style-type: none"> <li>L2TP</li> <li>L2oGRE</li> <li>PPPoE</li> </ul>  |
| Data Limiting           | Dynamic rate limiting of client traffic per SSID  | Tools                            | <ul style="list-style-type: none"> <li>Packet capture</li> <li>Sniffer</li> <li>Open source ZapD compliant performance test tool</li> <li>IP connectivity</li> <li>Auto logging</li> <li>Wi-Fi analyzer</li> </ul>   |
| Subscriber QoS          | WMM   | Services                         | <ul style="list-style-type: none"> <li>NTP server config</li> <li>Syslog servers</li> <li>SNMP traps support</li> <li>DNS proxy</li> <li>cnPilot's dependent resource state awareness feature (ADRES) turns SSID ON/OFF based on underlying resource connectivity state</li> </ul> |
| Client Isolation        | Yes   | APIs                             | Presence Location APIs   |
| Controller-less Roaming | Yes. 802.11r, Opportunistic Key Caching supports Enhanced roaming. Disconnect for sticky clients  | Certifications                   | FCC, ETSI, CE<br>EN 60601-1-2 (Medical EMC)  |
| Airtime Fairness        | Yes   |                                  |  |

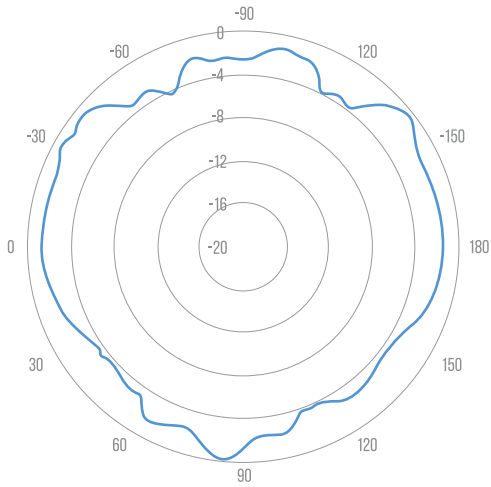
## cnMAESTRO WI-FI CONTROLLER

|                     |  |
|---------------------|--|
| Common Manager      | Single pane of glass: Controller for Wi-Fi and network manager for ePMP and PMP wireless backhaul products   |
| On-Boarding         | Secure zero touch fast on-boarding   |
| Provisioning        | Easy zero touch virtual network provisioning<br>Provision before install (pre-provision)   |
| Device Inventory    | Inventory tracking   |
| Troubleshooting     | ezDetect: Advanced end to end troubleshooting of WiFi Access Point and Client devices on one single screen. Extends to Wireless backhaul (PTP), Wi-Fi Hotspot & Clients. Includes Packet capture and Wireless Analyzer functions |
| Intuitive Views     | Map location . Hierarchical Dashboard views  |
| Client Insight      | Client history with client manufacturer view   |
| Monitoring & Alarms | Alarms and events management – Critical/Major/Minor<br>Key statistics graphs and <i>sticky</i> alarm summary display   |
| Configuration       | GUI based configuration or template based configuration options  |
| Software Upgrade    | Bulk upgrade with ability to upgrade multiple WiFi APs   |
| Multiple Admins     | Multiple admin provisioning per account  |
| Guest Portal        | Customizable portal with session controls by Time, Rate and Bytes. Social login, SMS Auth, Vouchers  |

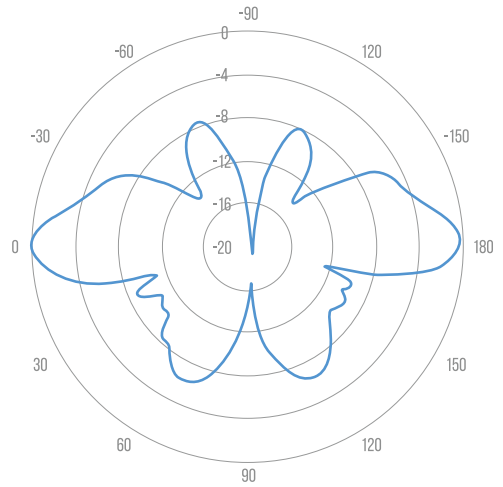
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## 2D Gain Patterns

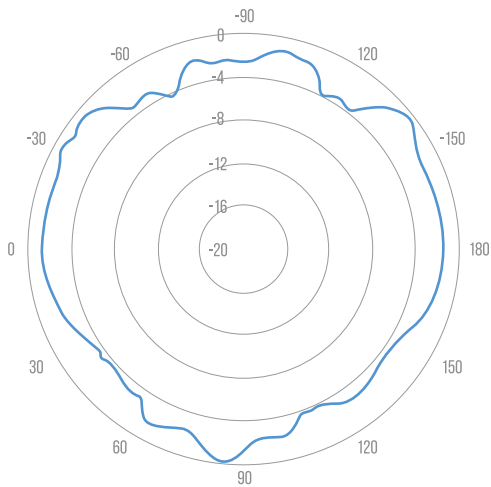
2.4 GHz Azimuth (Horizontal) Gain Pattern



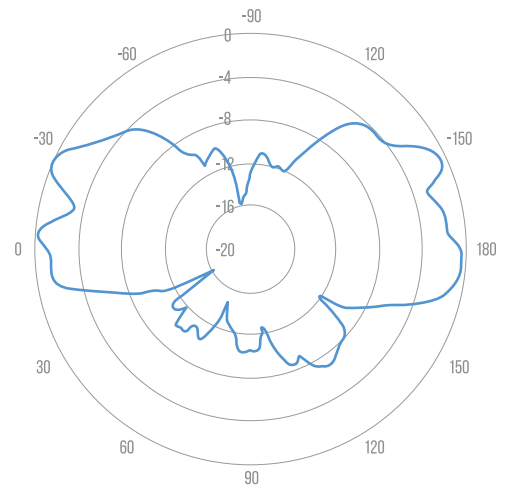
2.4 GHz Elevation (Vertical) Gain pattern



5 GHz Azimuth (Horizontal) Gain Pattern



5 GHz Elevation (Vertical) Gain pattern



### ORDERING INFORMATION: cnPILOT OUTDOOR E502S

Regulatory Model Number (common to all SKUs): cnPilot e700 Outdoor

Sales part #

Region

PL-E700PXXA-<US/EU/ROW>

e700 for US, EU or RoW with PoE injector. XX = US, EU, IN (India), UK (The United Kingdom), AN (Australia & NZ), CN (China), BR (Brazil) etc.

PL-E700NPSA-<US/EU/ROW>

e700 without a PoE-In injector

Discover more information on cnPilot at: [community.cambiumnetworks.com/](https://community.cambiumnetworks.com/)