**cnPilot e700 Outdoor Omni**

**Gigabit IP67, 802.11ac wave 2, 8 dBi**

Outdoor Wi-Fi Access Point

Standards-based beam forming for superior outdoor Wi-Fi

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

- Enterprise and industrial campus
- Hospitality
- Higher Education campus
- 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 supports both Cambium-PoE as well as standard 802.3af, so can power a 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. Standard 3 year warranty included, for peace of mind.

**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 : up to 95%
- Electrical heater for cold start
- Ruggedized; ESD protection, Industrial grade
- Packaged with wall mount brackets
- Special LTE resilience filtering

**cnMAESTRO™ – Wi-Fi CONTROLLER**

- Guest Access: CustomSplash pages, Vouchers, Social login
- Zero-touch Provisioning
- Inventory tracking
- Map location
- Monitoring: key Stats, Alarms
- Mass (bulk) upgrade
- RESTful APIs
- Reporting Framework
- Integrated troubleshooting: Wi-Fi APs, Clients & Cambium SMs
- Available in Cloud or as On- premises (NOC) Virtual controller
## SPECIFICATIONS

### Access Point Specifications

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<th>Specification</th>
<th>Details</th>
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| **Standards**            | IEEE 802.11a/b/g/n/ac Wave2.  
IEEE 802.11d/e/h/.../v/w  
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 |
| **MIMO, Streams**        | 2.4GHz : 2x2:2 MU-MIMO  
5GHz : 4x4:4 MU-MIMO |
| **Beamforming**          | Supported |
| **Channel Width**        | 20MHz, 40MHz, 80MHz |
| **Concurrent Clients**   | 512 |
| **SSIDs**                | 16 SSIDs |
| **Transmit Power**       | 2.4GHz : 25dBm  
5GHz : 28dBm (conducted total) |
| **Antenna Gain**         | 2.4GHz : 8dBi  
5GHz : 8dBi |
| **Max Data Rate**        | 2.4GHz : 400Mbps  
5GHz : 1733Mbps |
| **Antenna**              | Dual linear-polarized, Omni directional, integrated |
| **Bluetooth**            | Bluetooth 4 BLE Radio. |
| **Ethernet Ports**       | Two auto-sensing Gigabit Ethernet (10/100/1000 Mbps) |
| **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  
WMK, Passpoint |
| **NAT, DHCP Server**     | IPv4/IPv6 Stateless  
Dynamic DNS, Hostname Ping, Traceroute, System Logs |
| **VLAN Pooling**         | 802.1Q VLAN, VLAN per SSID, VLAN per SSID, VLAN per SSID  
LLDP, IGMP Snooping (v1/v2/v3) |
| **Captive Portal**       | cnPilot™ e700 Outdoor Omni |
| **Guest Access Portals** | Server failover  
By time/date, by monitored host. |
| **Client Isolation**     | Autoprovisioned, Session Limiting, Traffic Tunnels  
MAC Address Binding  
DHCP Relay  
DNS  
NTP  
SNMP  
RADIUS  
Client Presence/Location API  
Dynamic DNS  
Traffic Tunnels (L2TP, L2oGRE, PPPoE)  
DHCP Relay  
NMS Monitoring  
Client APIs  
RADIUS MAC Authentication  
MAC Authentication fallback to Captive Portal |
| **Rate Limiting**        | Per-client, Per-WLAN static and dynamic rate limiting  
On AP, Network-wide. |
| **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 |
| **Power Supply**         | 802.3at PoE Injector, or PoE+ switch. 12V DC.  
802.3af with 17dBm radio power per chain |
| **Dimensions**           | 31.5 x 21.6 x 6.6 cm (12.04 x 8.5 x 2.59 Inch) |
| **Weight**               | 1700 gm (3.74 lb) |
| **Operating Temperature**| -40°C to +65°C (-40°F to +149°F) |
| **Operating Humidity**   | up to 95% non-condensing |
| **Power Consumed**       | 17.2W (max), without PoE-out |
| **LED**                  | Two Multi-color software controlled LEDs |
| **Secure Mounting**      | Kensington Key Slot, Torx Screw mounting. |
| **MTBF**                 | 304,721 hrs at 65°C, 2,283,737 hrs at 25°C |
| **Environment rating**   | IP67 |
| **PoE-Out**              | Aux Port supports Cambium and 802.3af modes |
| **Reset Button**         | Supported |
| **Certifications**       | FCC, CE, IC, UL, ETSI  
EN 60601-1-2 (Medical EMC),  
WEEE/RoHS compliance,  
3C, CB, NEMKO ICQ, RABIA,  
EN55022, VDE0821,  
EMC, CE, FCC, CB, RoHS  
EN60601-1-2 (Medical EMC),  
WEEE/RoHS compliance |
| **Mounting Options**     | Wall and Pole mount bracket.  
Pole size supported: 38.1mm to 76.2mm. |
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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 (http/https), CLI (telnet/ssh) |
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<td><strong>RF Management</strong></td>
<td>AutoRF automatically manages channel and power</td>
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</table>
| **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** | By time/date, by monitored host.  
On-Controller MAC filtering list.  
RADIUS MAC Authentication.  
MAC Authentication fallback to Captive Portal |
| **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) |
| **Rate Limiting** | Per-client, Per-WLAN static and dynamic rate limiting  
On AP, Network-wide. |
| **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 |
| **Troubleshooting Tools** | Packet Capture, Spectrum Analyzer,  
Ping, Traceroute, Syslogs |
| **Traffic Tunnels** | L2TP, L2oGRE, PPPoE |
| **Firewall** | Layer-2, Layer-3, DNS ACLs. DoS attack protection |
| **3G/4G/LTE Offload** | Passband (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 |

### Wi-Fi Alliance

- cnMaestro cloud managed
- cnMaestro on-premises VM controller managed
- Autopilot (AP as controller)
- Standalone with AP GUI (http/https), CLI (telnet/ssh)
SPECIFICATIONS

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 e700

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

<table>
<thead>
<tr>
<th>Sales part #</th>
<th>Region</th>
</tr>
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</table>
| PL-E700YXXA-<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/

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