

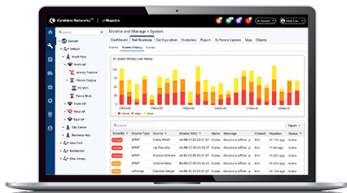
# cnPilot™ e410, e600 Indoor Wi-Fi Access Points

## 802.11ac Wave 2 Indoor Wi-Fi Access Points

Designed to scale from small enterprises to K12 schools, the e410 and e600 feature an easy-to-install integrated bracket and is enterprise grade 802.11ac Wave 2. e410 and e600 share a common industrial design for repeatable and predictable installation in any enterprise or business. Both access points (AP) can be managed by cnMaestro cloud, on-premises cnMaestro, a private datacenter or as a standalone AP.

### QUICK LOOK:

	e410	e600
<b>802.11 a/b/g/n/ac Wave 2</b>	✓	✓
<b>5 GHz / 2.4 GHz streams</b>	<b>2x2 / 2x2</b>	<b>4x4 / 2x2</b>
<b>Gigabit Ethernet</b>	<b>1</b>	<b>2</b>



### CLOUD-MANAGED ACCESS

cnMaestro™ provides end-to-end cloud Dashboard for Wi-Fi, Ethernet, and fixed wireless broadband:

- Zero-touch onboarding
- Inventory tracking & monitoring
- Mass configuration & upgrade
- Dashboard views with alarms
- Troubleshooting
- Hierarchical device organization

cnMaestro Essential cloud management is included at no additional cost. No setup fee, no license, and no recurring cost.

### CONTROLLER-LESS ROAMING, POWERFUL SIMPLICITY

cnPilot e410 and e600 include controller-less distributed intelligence for seamless roaming and enhanced roaming for up to 1,000 devices. cnMaestro management provides end-to-end visibility and zero-touch provisioning across thousands of sites.

### MONETIZE: VOUCHERS. SOCIAL LOGIN

A hotspot portal can be designed in the cloud and distributed to each site's access point with a single touch. Wi-Fi hotspot capabilities support splash page hosting, social login, temporary access vouchers, and multiple credit card payment gateways. Control time, rate and data volume traffic profiles.

### HIGH CAPACITY AND RELIABILITY

Airtime fairness, standardized beamsteering, and MU-MIMO increase network capacity while automatic RF management monitors performance and optimizes the network to avoid interference. Detailed network statistics, utilization graphs, and integrated troubleshooting ensure service is always on.

## cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

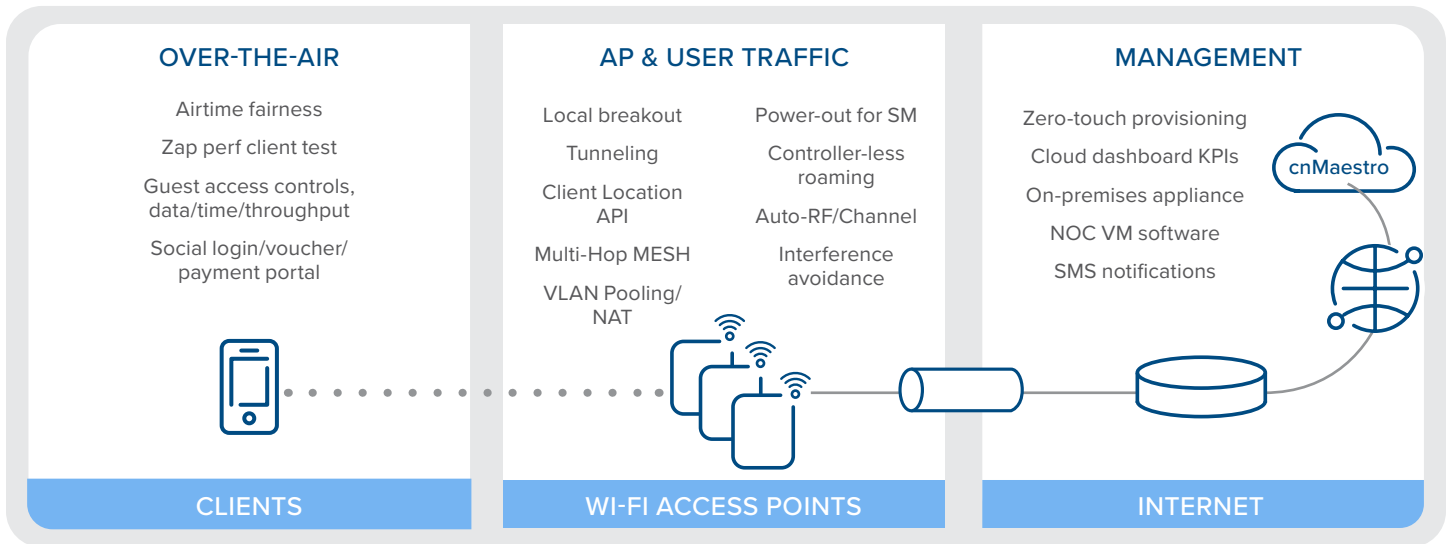
### Access Point Specifications

	<b>e410</b>	<b>e600</b>
<b>US-FCC</b>	Ch 1-11, 36-48, 149-157	Ch 1-11, 36-48, 149-157
<b>ISED Canada</b>	Ch 1-11, 36-48, 149-157	Ch 1-11, 36-48, 149-157
<b>EU-ETSI</b>	Ch 1-13, 32-48, 159-165	Ch 1-13, 32-48, 159-165
<b>ROW</b>	Ch 1-13, 32-48, 159-165	Ch 1-13, 32-48, 159-165
<b>Radios</b>	1 x 5 GHz radio (802.11 a/n/ac Wave 2), 2x2 1 x 2.4 GHz (802.11 b/g/n), 2X2 SU-MIMO / MU-MIMO: 2 streams	1 x 5 GHz radio (802.11 a/n/ac Wave 2), 4x4 1 x 2.4 GHz (802.11 b/g/n), 2x2 SU-MIMO / MU-MIMO: 4 streams
<b>Wi-Fi</b>	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
<b>SSID Security</b>	WPA2 (802.11i), WPA2 Enterprise (802.1x/EAP), WPA PSK, Open	
<b>Max PHY Rate</b>	<b>2.4 GHz radio:</b> 400 Mbps <b>5 GHz radio:</b> 867 Mbps	<b>2.4 GHz radio:</b> 400 Mbps <b>5 GHz radio:</b> 1700 Mbps
<b>Ethernet</b>	Three IEEE Gigabit Ethernet auto sensing	
<b>Antenna</b>	Internal omni-directional <b>2.4 GHz:</b> 4 dBi <b>5 GHz:</b> 4.29 dBi	Internal omni-directional <b>2.4 GHz:</b> 4.5 dBi <b>5 GHz:</b> 4.25 dBi
<b>Max EIRP</b>	<b>2.4 GHz:</b> 25 dBm <b>5 GHz:</b> 25 dBm (EIRP limited by country regulations)	<b>2.4 GHz:</b> 27.5 dBm <b>5 GHz:</b> 27.25 dBm (EIRP limited by country regulations)
<b>WLAN</b>	256 clients, 16 SSIDs WPA-TKIP, WPA2 AES, 802.1x, 802.11w PMF	512 clients, 32 SSIDs (16 per radio) WPA-TKIP, WPA2 AES, 802.1x, 802.11w PMF
<b>Power</b>	802.3af or 802.3at powered device Typical load: 9 W 2.1 mm 12 VDC barrel connector	802.3af or 802.3at powered device Typical load: 12 W, Max: 22 W 2.1 mm 12 VDC barrel connector
<b>Mounting</b>	Desktop, Wall mount, included T-bar mount 14 mm x 24 mm x 38 mm (0.55 in x 0.94 in x 1.5 in) Ceiling Tile mount included Kensington lock slot	Desktop, Wall mount, included T-bar mount 14 mm x 24 mm x 38 mm (0.55 in x 0.94 in x 1.5 in) Ceiling Tile mount included Kensington lock slot
<b>Dimensions</b>	170 mm x 170mm x 41 mm (6.69 in x 6.69 in x 1.61 in)	180 mm x 180 mm x 42mm (7.09 in x 7.09 in x 1.65 in)
<b>Weight</b>	384 g (0.85 lb)	400 g (0.88 lb)
<b>LEDs</b>	Single Tri-color LED (amber, blue, green)	Single Tri-color LED (amber, blue, green)
<b>Ambient Operation Temperature</b>	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
<b>Storage Temperature</b>	-40°C to 70°C (-40°C to 158°F)	-40°C to 70°C (-40°C to 158°F)
<b>Humidity</b>	95% RH non-condensing	95% RH non-condensing
<b>Certifications</b>	Wi-Fi Alliance 802.11 a/b/g/n/ac, Passpoint 2.0 FCC, ETSI, CE, EN 60601-1-2, IEC60950 UI2043	Wi-Fi Alliance 802.11 a/b/g/n/ac, Passpoint 2.0 FCC, ETSI, CE, EN 60601-1-2, IEC60950 UI2043

## cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

### Management

#### Adaptive cnPilot Network



Cambium cnMaestro uses a distributed intelligence architecture with a cloud-first cnMaestro management and edge-intelligent access points that self-optimize for the RF environment. cnMaestro and cnPilot access points provide automatic RF management and seamless roaming, with a cloud-first, multi-site management for up to 10,000 devices and hundreds of thousands of connected clients. cnMaestro delivers single pane-of-glass management for Cambium broadband fixed wireless, cnMatrix Ethernet switches, enterprise-grade Wi-Fi access points and service provider residential routers.

**Interfaces** HTTP / HTTPS web interface, SSL, Telnet  
SNMP V1, V2, V3  
Syslog, SNMP traps, NTP

**Deployment** cnMaestro Cloud, cnMaestro on-premises,  
Standalone AP

**Services** Monetized, cloud-managed guest portal with  
design tools

**APIs** RESTful management and statistics API  
Presence location API  
Splunk WebSocket integration, WebSocket  
DNS, NAT, TCP connection log

**Captive Portal** Hosted on cnMaestro Controller  
On-AP hosted guest portal  
Redirect to HTTP/RADIUS external portal/  
authentication  
Active Directory integration, Google, Facebook,  
Office 365 integration  
Data rate, time duration, data throughput limit  
Server DNS logging

**Hotspot 2.0** Hotspot 2.0/Passpoint 2.0

**Accounting** RADIUS accounting, load balancing AAA servers,  
Dynamic Authorization COA, DM

**Service Availability** Critical network resource monitor with automatic  
shutdown maintains device connectivity

## cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

### WLAN And Network Specifications

**Authentication Encryption** 802.1x EAP-SIM/AKA/AKA'/FAST, EAP-PEAP, EAP-TTLS, EAP-TLS/MSCHAPv2, PEAPv0/PEAPv1  
 MAC authentication to local database (on AP, on Controller) or external RADIUS.  
 MAC auth fallback to guest portal

**Scheduled WLAN** On/off by day, week, time of day

**QoS** 802.11e/WMM QoS. DSCP/ToS mapping

**VLAN** 802.11Q, max 4096

**Fast Roaming** 802.11r, OKC, Enhanced roaming

**Mesh** Multi-hop (3), either band

**Channel Selection** Auto RF: manual or automatic

**Auto TX Power** Auto RF: automatically adjust max transmit power

**Network** NAT, NAT logging firewall, DOS protection, L2/L3/DNS ACL, DHCP server, DHCP Relay option 82  
 LLDP, IGMP v1, v2, v3  
 VLAN Pooling, RADIUS attribute VID  
 VLAN per SSID, per user  
 Integrated WIDS (wireless intrusion detection)

**Band Steer Load Balance** Yes

**Tunnel** L2TP, L2oGRE, PPPoE

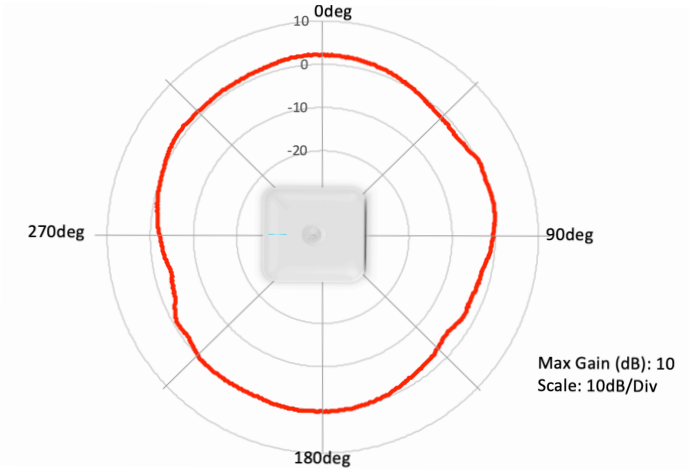
**Network and RF Management Tools** Out-of-band RF spectrum analysis, radio self test network assurance, RF monitor with chn/noise/interference, wired and wireless remote packet capture, auto logging, ZapD performance tool, rogue AP detection, ultralow power mode, honeypot control

### Standards

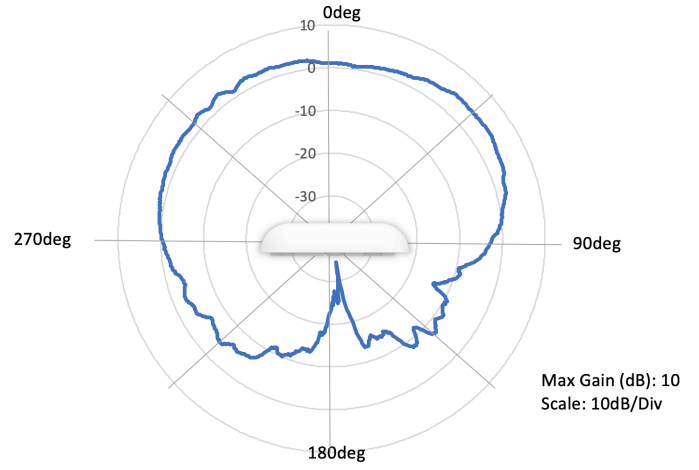
**Wi-Fi Protocols** VHT MCS rates, 256-QAM, HT20/40/80 MHz  
 Transmit beamsteering, Airtime Fairness, Packet Aggregation (AMSDU, AMPDU) RIFS, STBC, LDPC  
 MIMO Power Save, MRC

## cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

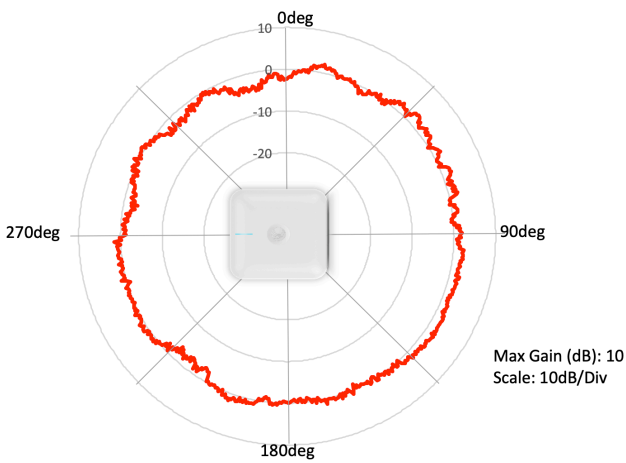
### Antenna Patterns - e410



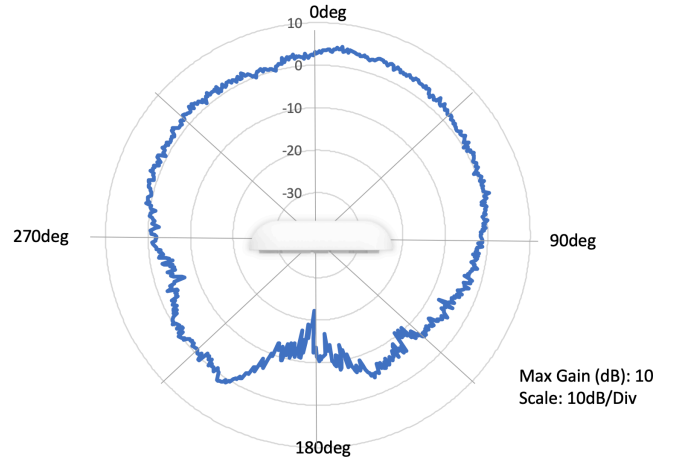
2.4 GHz Azimuth



2.4 GHz Elevation



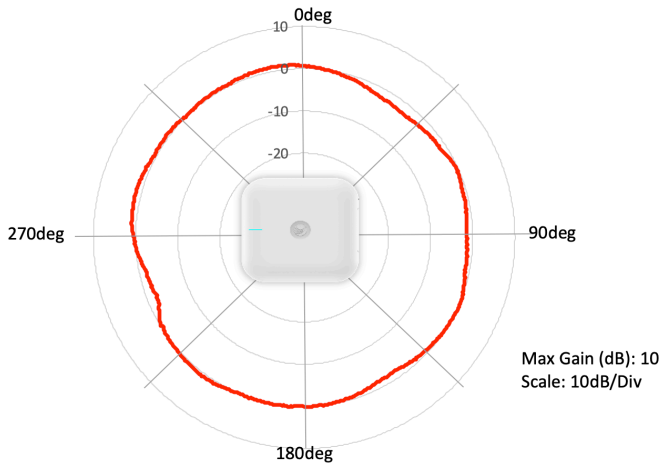
5 GHz Azimuth



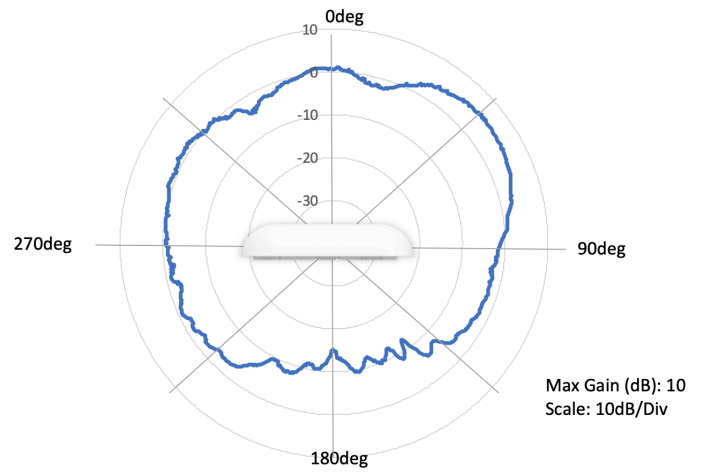
5 GHz Elevation

# cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

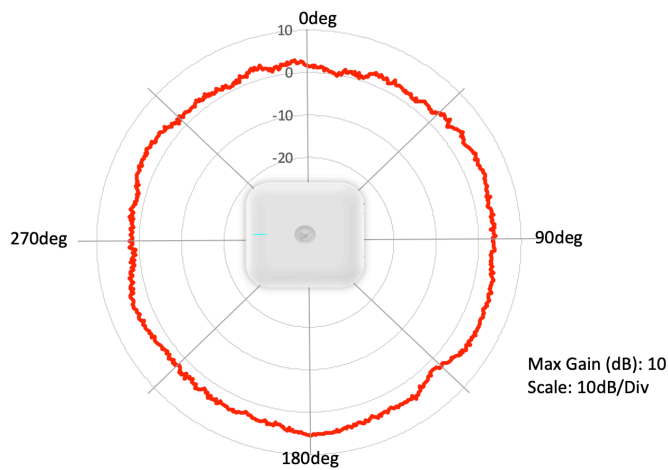
## Antenna Patterns - e600



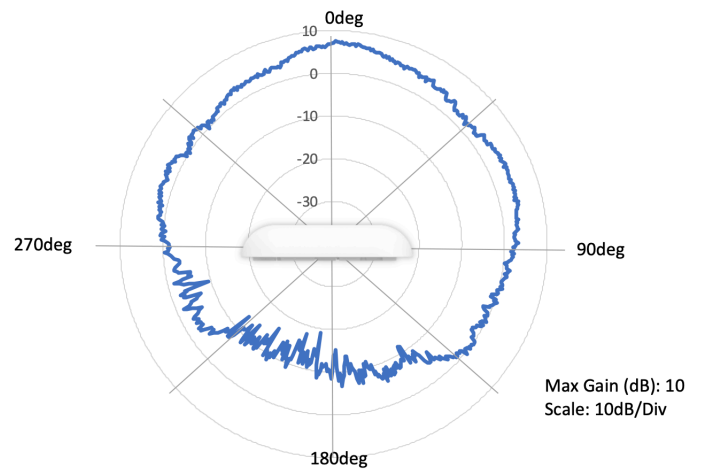
2.4 GHz Azimuth



2.4 GHz Elevation



5 GHz Azimuth



5 GHz Elevation

## cnPilot™ e410 and e600 Indoor Wi-Fi Access Points


**e410**

**e600**

### e410 Ordering Information

<b>PL-e410X00A-US</b>	cnPilot e410 Indoor (FCC) 802.11ac Wave 2, 2x2, AP
<b>PL-e410X00A-EU</b>	cnPilot e410 Indoor (EU) 802.11ac Wave 2, 2x2, AP
<b>PL-e410X00A-RW</b>	cnPilot e410 Indoor (ROW) 802.11ac Wave 2, 2x2, AP
<b>PL-e410PUSA-US</b>	cnPilot e410 Indoor (FCC, US cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PEUA-EU</b>	cnPilot e410 Indoor (EU, EU cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PXXA-RW</b>	cnPilot e410 Indoor (ROW, No cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PEUA-RW</b>	cnPilot e410 Indoor (ROW with EU cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PUKA-EU</b>	cnPilot e410 (EU with UK country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PUKA-RW</b>	cnPilot e410 (ROW with UK country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PUSA-RW</b>	cnPilot e410 (ROW with US country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PINA-RW</b>	cnPilot e410 (ROW with India country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PCNA-RW</b>	cnPilot e410 (ROW with China country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
<b>PL-e410PANA-RW</b>	cnPilot e410 (ROW with AUS/NZ cord) 802.11ac Wave 2, 2x2, with PoE Injector
<b>PL-e410PBRA-RW</b>	cnPilot e410 (ROW with Brazil cord) 802.11ac Wave 2, 2x2, with PoE Injector
<b>PL-e410PARA-RW</b>	cnPilot e410 (ROW with Argentina cord) Wave 2, 2x2, 802.11ac with PoE Injector
<b>N000000L034A</b>	Power supply, 30 W, 56 V, RJ45 – Gbps support. C5 AC port. AC line cord sold separately

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

## cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

### e600 Ordering Information

<b>PL-e600X00A-US</b>	cnPilot e600 Indoor (FCC) 802.11ac Wave 2, 4x4, AP
<b>PL-e600X00A-EU</b>	cnPilot e600 Indoor (EU) 802.11ac Wave 2, 4x4, AP
<b>PL-e600X00A-RW</b>	cnPilot e600 Indoor (ROW) 802.11ac Wave 2, 4x4, AP
<b>PL-e600PUSA-US</b>	cnPilot e600 Indoor (FCC, US cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PEUA-EU</b>	cnPilot e600 Indoor (EU, EU cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PXXA-RW</b>	cnPilot e600 Indoor (ROW, No cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PEUA-RW</b>	cnPilot e600 Indoor (ROW with EU cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PUKA-EU</b>	cnPilot e600 (EU with UK country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PUKA-RW</b>	cnPilot e600 (ROW with UK country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PUSA-RW</b>	cnPilot e600 (ROW with US country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PINA-RW</b>	cnPilot e600 (ROW with India country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PCNA-RW</b>	cnPilot e600 (ROW with China country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PANA-RW</b>	cnPilot e600 (ROW with AUS/NZ cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PBRA-RW</b>	cnPilot e600 (ROW with Brazil cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>PL-e600PARA-RW</b>	cnPilot e600 (ROW with Argentina cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
<b>N000000L034A</b>	Power supply, 30 W, 56 W, RJ45 – Gbps support. C5 AC port. AC line cord sold separately

### ABOUT CAMBIUM NETWORKS

Cambium Networks empowers millions of people with wireless connectivity worldwide. Its wireless portfolio is used by commercial and government network operators as well as broadband service providers to connect people, places and things. With a single network architecture spanning fixed wireless and Wi-Fi, Cambium Networks enables operators to achieve maximum performance with minimal spectrum. End-to-end cloud management transforms networks into dynamic environments that evolve to meet changing needs with minimal physical human intervention. Cambium Networks empowers a growing ecosystem of partners who design and deliver gigabit wireless solutions that just work.