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

cnMaestro READY
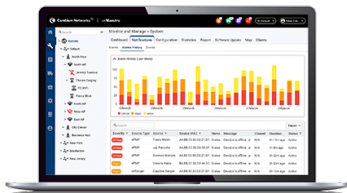
CLOUD-MANAGED ACCESS

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.

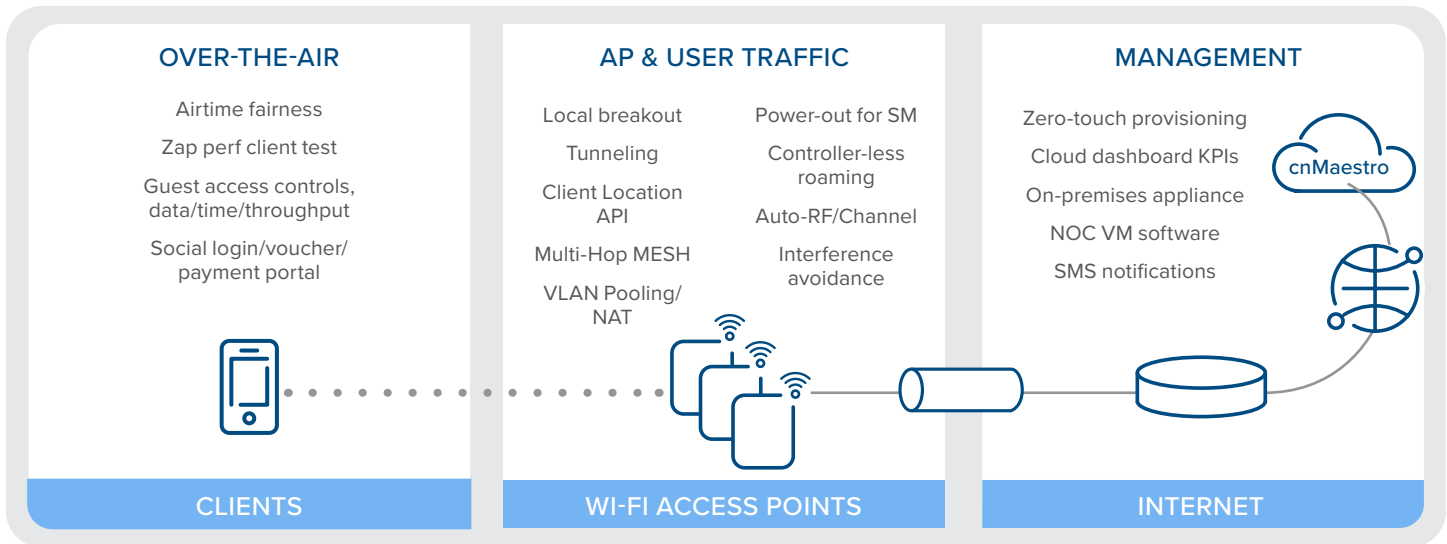# cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

Access Point Specifications

	e410	e600
US-FCC **ISED Canada** **EU-ETSI** **ROW**	Ch 1-11, 36-48, 149-157 Ch 1-11, 36-48, 149-157 Ch 1-13, 32-48, 159-165 Ch 1-13, 32-48, 159-165	Ch 1-11, 36-48, 149-157 Ch 1-11, 36-48, 149-157 Ch 1-13, 32-48, 159-165 Ch 1-13, 32-48, 159-165
Radios	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
Wi-Fi	802.11 a/b/g/n/ac	802.11 a/b/g/n/ac
SSID Security	WPA2 (802.11i), WPA2 Enterprise (802.1x/EAP), WPA PSK, Open	
Max PHY Rate	**2.4 GHz radio:** 400 Mbps **5 GHz radio:** 867 Mbps	**2.4 GHz radio:** 400 Mbps **5 GHz radio:** 1700 Mbps
Ethernet	Three IEEE Gigabit Ethernet auto sensing	
Antenna	Internal omni-directional **2.4 GHz:** 4 dBi **5 GHz:** 4.29 dBi	Internal omni-directional **2.4 GHz:** 4.5 dBi **5 GHz:** 4.25 dBi
Max EIRP	**2.4 GHz:** 25 dBm **5 GHz:** 25 dBm (EIRP limited by country regulations)	**2.4 GHz:** 27.5 dBm **5 GHz:** 27.25 dBm (EIRP limited by country regulations)
WLAN	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
Power	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
Mounting	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
Dimensions	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)
Weight	384 g (0.85 lb)	400 g (0.88 lb)
LEDs	Single Tri-color LED (amber, blue, green)	Single Tri-color LED (amber, blue, green)
Ambient Operation Temperature	0°C to 50°C (32°F to 122°F)	0°C to 50°C (32°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°C to 158°F)	-40°C to 70°C (-40°C to 158°F)
Humidity	95% RH non-condensing	95% RH non-condensing
Certifications	Wi-Fi Alliance 802.11 a/b/g/n/ac, Passpoint 2.0 FCC, ETSI, CE, EN 60601-1-2, IEC60950 Ul2043	Wi-Fi Alliance 802.11 a/b/g/n/ac, Passpoint 2.0 FCC, ETSI, CE, EN 60601-1-2, IEC60950 Ul2043

cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

Management

Adaptive cnPilot Network

OVER-THE-AIR

Airtime fairness

Zap perf client test

Guest access controls, data/time/throughput

Social login/voucher/ payment portal

CLIENTS

AP & USER TRAFFIC

Local breakout

Tunneling

Client Location API

Multi-Hop MESH

VLAN Pooling/ NAT

Power-out for SM

Controller-less roaming

Auto-RF/Channel

Interference avoidance

WI-FI ACCESS POINTS

MANAGEMENT

Zero-touch provisioning

Cloud dashboard KPIs

On-premises appliance

NOC VM software

SMS notifications

cnMaestro

INTERNET

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 Availabilty	Critical network resource monitor with automatic shutdown maintains device connectivity

cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

WLAN And Network Specifications

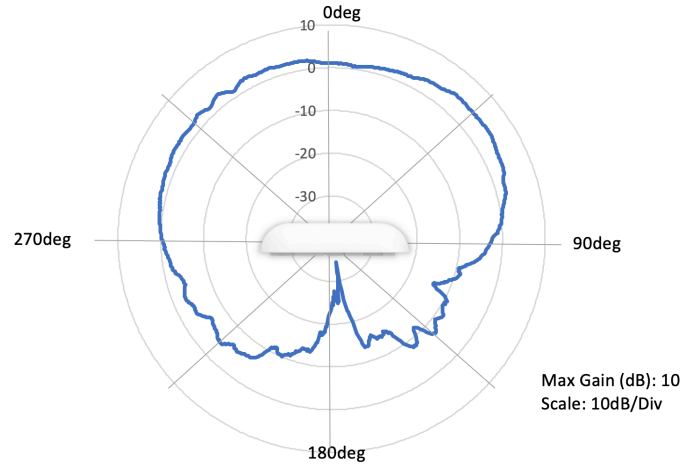|			
Authentication Encryption	802.1x EAP-SIM/AKA/AKA'/FAST, EAP-PEAP, EAP-TTLS, EAP-TLS/MSCHAPv2, PEAPv0/PEAPv1 MAC authentication to local database (on AP, on Controller) or external RADIUS. MAC auth fallback to guest portal	**Network**	NAT, NAT logging firewall, DOS protection, L2/L3/DNS ACL, DHCP 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)
Scheduled WLAN	On/off by day, week, time of day	**Band Steer Load Balance**	Yes
QoS	802.11e/WMM QoS. DSCP/ToS mapping	**Tunnel**	L2TP, L2oGRE, PPPoE
VLAN	802.11Q, max 4096	**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
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		

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

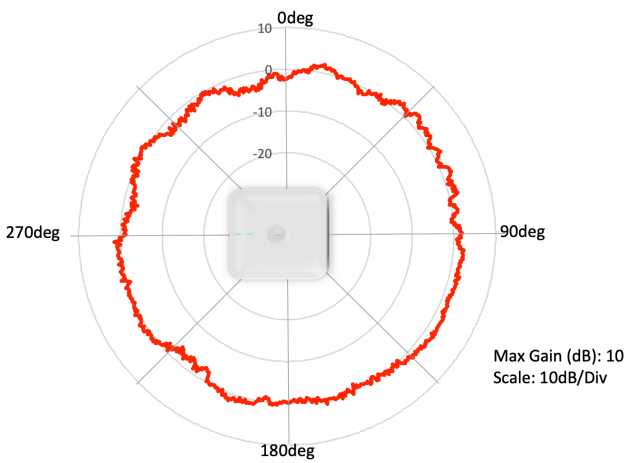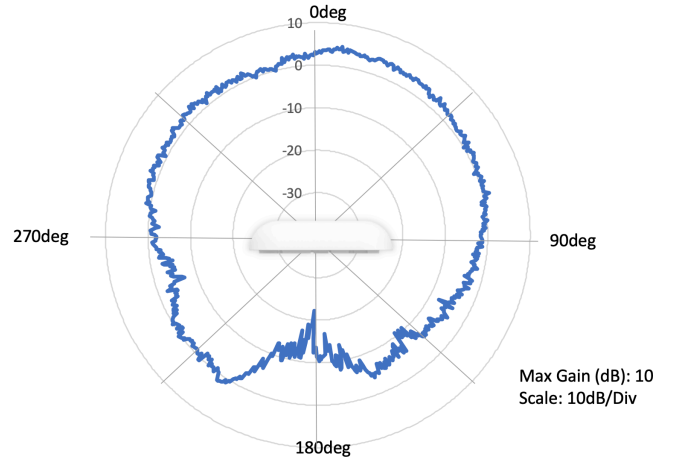## Antenna Patterns - e410
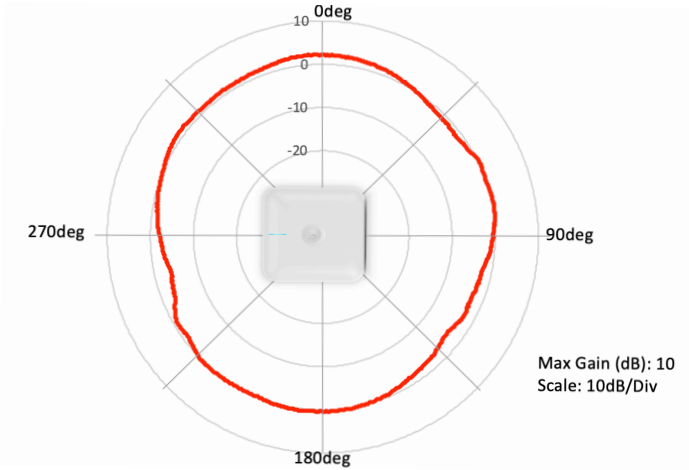
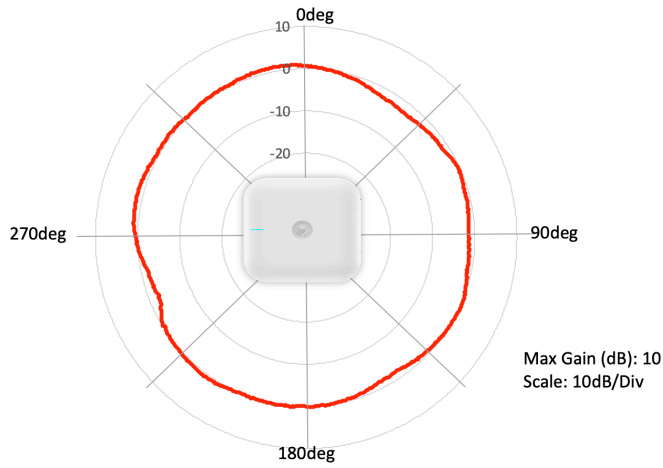2.4 GHz Azimuth

2.4 GHz Elevation

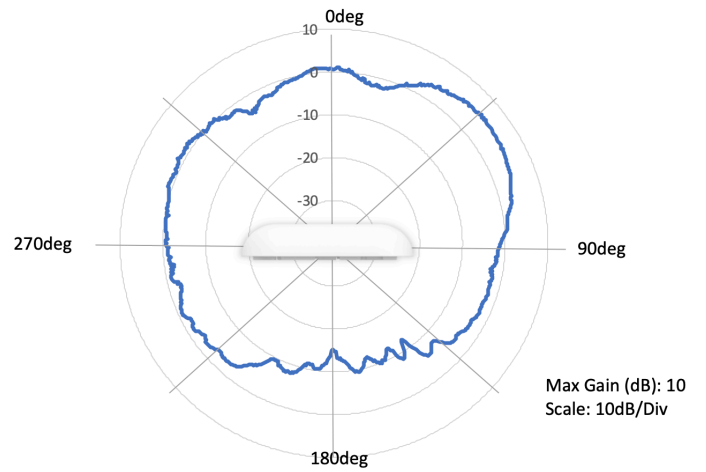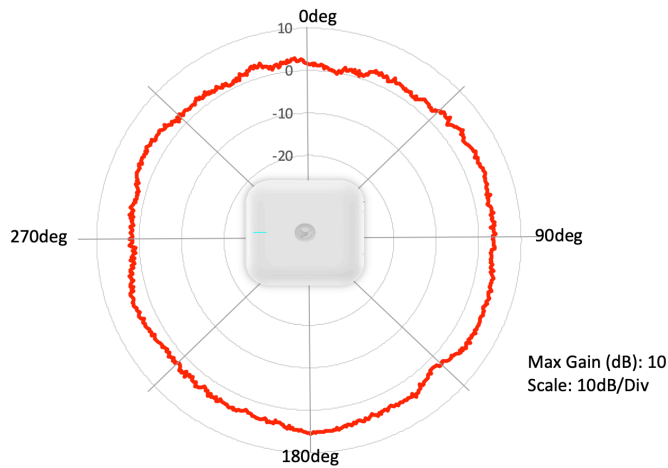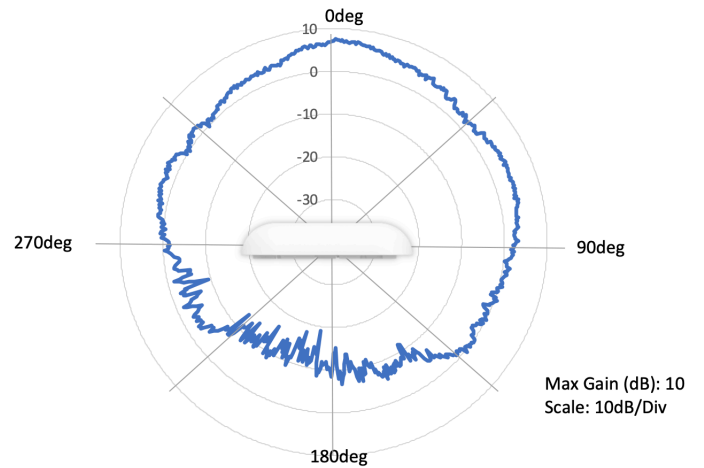5 GHz Azimuth

5 GHz Elevation

cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

Antenna Patterns - e600

Max Gain (dB): 10
Scale: 10dB/Div

2.4 GHz Azimuth

Max Gain (dB): 10
Scale: 10dB/Div

2.4 GHz Elevation

Max Gain (dB): 10
Scale: 10dB/Div

5 GHz Azimuth

Max Gain (dB): 10
Scale: 10dB/Div

5 GHz Elevation

cnPilot™ e410 and e600 Indoor Wi-Fi Access Points

e410

e600

e410 Ordering Information	
PL-E410X00A-US	cnPilot e410 Indoor (FCC) 802.11ac Wave 2, 2x2, AP
PL-E410X00A-EU	cnPilot e410 Indoor (EU) 802.11ac Wave 2, 2x2, AP
PL-E410X00A-RW	cnPilot e410 Indoor (ROW) 802.11ac Wave 2, 2x2, AP
PL-E410PUSA-US	cnPilot e410 Indoor (FCC, US cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PEUA-EU	cnPilot e410 Indoor (EU, EU cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PXXA-RW	cnPilot e410 Indoor (ROW, No cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PEUA-RW	cnPilot e410 Indoor (ROW with EU cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PUKA-EU	cnPilot e410 (EU with UK country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PUKA-RW	cnPilot e410 (ROW with UK country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PUSA-RW	cnPilot e410 (ROW with US country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PINA-RW	cnPilot e410 (ROW with India country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PCNA-RW	cnPilot e410 (ROW with China country cord) 802.11ac Wave 2, 2x2, AP with PoE Injector
PL-E410PANA-RW	cnPilot e410 (ROW with AUS/NZ cord) 802.11ac Wave 2, 2x2, with PoE Injector
PL-E410PBRA-RW	cnPilot e410 (ROW with Brazil cord) 802.11ac Wave 2, 2x2, with PoE Injector
PL-E410PARA-RW	cnPilot e410 (ROW with Argentina cord) Wave 2, 2x2, 802.11ac with PoE Injector
N000000L034A	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	
PL-E600X00A-US	cnPilot e600 Indoor (FCC) 802.11ac Wave 2, 4x4, AP
PL-E600X00A-EU	cnPilot e600 Indoor (EU) 802.11ac Wave 2, 4x4, AP
PL-E600X00A-RW	cnPilot e600 Indoor (ROW) 802.11ac Wave 2, 4x4, AP
PL-E600PUSA-US	cnPilot e600 Indoor (FCC, US cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PEUA-EU	cnPilot e600 Indoor (EU, EU cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PXXA-RW	cnPilot e600 Indoor (ROW, No cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PEUA-RW	cnPilot e600 Indoor (ROW with EU cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PUKA-EU	cnPilot e600 (EU with UK country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PUKA-RW	cnPilot e600 (ROW with UK country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PUSA-RW	cnPilot e600 (ROW with US country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PINA-RW	cnPilot e600 (ROW with India country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PCNA-RW	cnPilot e600 (ROW with China country cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
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PL-E600PBRA-RW	cnPilot e600 (ROW with Brazil cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
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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.

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