

## cnPilot e600 Indoor

Gigabit 802.11ac Wave 2 Dual Band 4x4 Indoor Wi-Fi Access Point



Stay on top of the latest standards with the high-powered, Gigabit speed, beamforming, Multi-user MIMO (MU-MIMO) 802.11ac wave 2 e600 access point with a 4x4 antenna array. From the classroom to the mall, cnPilot <sup>™</sup> e600 Indoor is perfect for applications that demand high capacity, range, and/or support high user density.

#### **CONTROLLER MANAGED + AUTONOMOUS**

Managed by Cambium's cnMaestro<sup>™</sup> cloud controller or On-premises controller, the cnPilot e600 management includes:

- Zero touch onboarding and configuration
- Inventory tracking & Monitoring
- Mass Configuration & Upgrade
- Dashboard views with alarms
- Troubleshooting
- Hierarchical device organization

#### CONTROLLER-LESS ROAMING. POWERFUL SIMPLICITY

The e600 supports seamless roaming for up to 2,048 clients without needing a controller in the network! Hotspot portal hosting on the AP itself offers controller-less simplicity.

#### MONETIZE: VOUCHERS. SOCIAL LOGIN

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Monetize your Wi-Fi service with cnMaestro's Guest Access capabilities that support splash page hosting, social login, temporary access vouchers, and payment gateway. These features, along with the ability to create time, rate and volume-limited traffic profiles – make the e600 ideal for Education Campus, hotels, high density locations, coffee shops, campgrounds, and office guest Wi-Fi.

#### SERVICE AWARE WLANS FOR BETTER USER EXPERIENCE

Make sure that every connection to an access point is successful. When service to a critical resource such as an external Gateway or AAA is down, the e600 can turn off the impacted SSIDs, enabling client devices to redirect to a functional, neighboring access point.

#### INDOOR/OUTDOOR WI-FI MESH. FLEXIBILITY

Indoor meshing across multiple e600s or with any other Cambium Indoor/Outdoor Enterprise AP, offers a convenient option to wirelessly expand Wi-Fi coverage anywhere.

#### COVERAGE, CAPACITY. SPEED

The plenum-rated e600, packs a max transmit power of 28 dB, and supports 4x4:4 MU-MIMO on 5GHz – offering more flexibility than ever for both coverage and capacity. Throughput management via Airtime fairness, increased performance by AutoRF, and higher client device speeds from band steering ensure your network can adapt to dynamic client behaviors.

#### HIGH DENSITY, HIGHLY AVAILABLE

A capacity of 512 concurrent client associations and 16 SSIDs, along with dual on-board Active/Standby memory banks, ensure the e600 combines high density with high availability.

### LICENSE-FREE HIGH PERFORMANCE. ONE LOW PRICE.

Including a free controller and requiring no AP management license fees, the 802.11ac wave 2 e600 is one of the most competitively priced 4x4 access points.

#### WARRANTY

Limited Lifetime warranty (5 years)

#### **SPECIFICATIONS**

Access Point Sp	ecifications		
Standards	IEEE 802.11a/b/g/n/ac Wave2	Frequency Bands	2.400 to 2.2484 GHz
	IEEE 802.11d/e/h/i/k/r/u/v/w	(Country-specific limits	5.150 to 5.250 GHz
	Modulation: BPSK, QPSK, CCK, 16/64/256-QAM	apply, some bands require DFS. DFS operation subject	5.250 to 5.350 GHz
	Radio modes : DSSS, OFDM	to regulatory approvals.	5.470 to 5.725 GHz
		Check release notes for any region-specific details)	5.725 to 5.850 GHz
MIMO, Streams	2.4GHz : 2x2:2 MU-MIMO	Power Supply	802.3at PoE Injector, or PoE+ switch. 12V DC.
	5GHz : 4x4:4 MU-MIMO		802.3af supported with 17dBm radio power
Beamforming	Supported	Dimensions	18.0 x 18.0 x 4.2 cm (7.1 x 7.1 x 1.65 Inch)
Channel Width	20MHz, 40MHz, 80MHz	Weight	558 g (1.2 lb)
Concurrent Clients	512	Operating Temperature	0°C to +50°C (+32°F to +122°F)
SSIDs	16	Operating Humidity	10% to 95% non-condensing
Transmit Power (conducted total)	2.4GHz : 24dBm 5GHz : 28dBm	Power Consumed	17.2W (max)
Antenna Gain	2.4GHz : 5.25dBi 5GHz : 6dBi	LED	Tri-color software controlled LED
Max Data Rate	2.4GHz : 400Mbps 5GHz : 1733Mbps	Secure Mounting	Kensington Key Slot
Antenna	Dual linear-polarized, Omnidirectional, integrated	MTBF	1,025,801 hrs at 50°C, 2,828,686 hrs at 25°C
Bluetooth	Bluetooth BLE Radio, 3.9dBi antenna.	USB	USB 2.0 Port
Ethernet Ports	Two auto-sensing Gigabit Ethernet (10/100/1000 Mbps)	Reset Button	Supported
Radio Features	Maximum ratio combining (MRC)	Certifications	FCC, CE, IC, UL,
	Cyclic delay/shift diversity (CDD/CSD)		EN60601-1-2 (Medical EMC),
	Space-time blocking coding (STBC)		UL2043 Plenum
	Low-density parity check (LDPC)		WEEE/RoHS compliance
	Packet Aggregation: A-MPDU, A-MSDU		
Wi-Fi Alliance	Wi-Fi certified a,b,g,n, ac	Mounting Options	Wall and Ceiling mount bracket. Desktop optic
	WPA2 – Enterprise, Personal		T-Bar bracket supporting: 14mm, 24mm, 38mr
	WMM, Passpoint		
Wi-Fi Features			
Management	cnMaestro cloud managed	Wireless Security	WPA-TKIP, WPA-AES, WPA2-TKIP, WPA2-AES
Modes	cnMaestro on-premises VM controller managed		WPA-PSK, WPA2-PSK, WPA2-Enterprise, 802.1
	Autopilot (AP as controller) Standalone with AP GUI (http/https), CLI (telnet/ssh)		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)
RF Management	AutoRF automatically manages channel and power	Dynamic SSID Service	By time/date, by monitored host.
Guest Access	cnMaestro Controller Portal.	MAC Authentication	On-AP MAC filtering list.
Captive Portal	Integrates with 3 <sup>rd</sup> party Guest Access Portals.		On-Controller MAC filtering list.
	Built-in Portal on AP.		RADIUS MAC Authentication.
	LDAP & RADIUS authentication.		MAC Authentication fallback to Captive Portal
	Walled Garden with DNS whitelist.		
	Wireless and Wired Clients supported.		
Rate Limiting	Per-client, Per-WLAN static and dynamic rate limiting	Firewall	Layer-2, Layer-3 and DNS ACLs. DoS protection
Client Isolation	On AP, Network-wide.	3G/4G/LTE Offload	Passpoint (Hotspot 2.0)
Fast Roaming	802.11r, Opportunistic Key Caching, Enhanced Roaming	DHCP Relay	Supported, with Option-82 customization
Airtime	Airtime Fairness, Band Steering, Band Balancing	NMS Monitoring	SNMP v1, v2c, v3
AAA Support	RADIUS Authentication, Accounting, Dynamic Authorization (CoA, DM). Server failover, load-balancing	Client APIs	Client Presence/Location API DNS, NAT and TCP Connecting Logging
QoS	802.11e/WMM QoS. DSCP/ToS mapping.	Time Synchronization	Auto (from controller), NTP
Ethernet (L2) Services	802.1p/802.q, RADIUS assigned VLAN, VLAN per SSID, VLAN pooling. LLDP. IGMP Snooping (V1/V2/V3).	Troubleshooting Tools	Packet Capture, Spectrum Analyzer, Ping, Traceroute, Syslogs
Mesh	WDS Mesh with Single and Multiple radio hops.	Traffic Tunnels	L2TP, L2oGRE, PPPoE
Network Services	NAT, DHCP Server	3G/4G/LTE Backhaul	Supported with USB-LTE Dongles.
		Data Rates (Mbps)	802.11a: 6,9,12,18,24,36,48,54 802.11b/g: 1,2,5.5,6,9,11,12,18,24,36,48,54

802.110/g: 1,2,3.5,6,9,11,12,18,24,36,48,5 802.11n (2.4GHz): 6.5 to 400 802.11ac (5GHz): 6.5 to 1733

#### cnMaestro Controller and Network Manager

Flexible Installation	Cloud, Virtual Machine both supported.	
Network Mgmt	Centralized Configuration, Statistics, Events, Firmware	
Hierarchical Views	Network topology mapped to sites and floors	
Floor Plans	Upload custom floor plans and map APs	
RESTful APIs	Interface with external systems	

# Integrated Guest Portal Customizable Splash Pages SMS OTP Authentication Payment Gateways Support Voucher based authentication Social Login

#### THE ADAPTIVE cnPILOT NETWORK

#### OVER-THE-AIR

AirTime fairness Client (Zap compatible) perf testing

Guest access limits Client location API

per AP

VLAN pooling

Outdoors: Power CPEs



#### Multi-hop mesh *autoPilot* controller Controller-less roaming autoRF dynamic Tx power control guest access Location APIs

cnPILOT APS

AP FEATURES

USER TRAFFIC OPTIONS

Local breakout (LBO) External GW tunneling – L2TP, L2oGRE, PPoE

VLAN pooling and per VLAN per SSID tagging



#### CONTROLLER: CLOUD OR

ON-PREMISES (NOC)

NOC: Setup controller to tunnel user traffic

Monitor, configure, upgrade all APs

User access: Data with limits





#### **ORDERING INFORMATION**

The cnPilot e600 indoor 802.11ac wave 2 access point is available in models with and without PoE injectors. Regulatory model number (common to all skus) : cnPilot™ e600 indoor

#### **PART NUMBERS**

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
PL-E600PANA-RW	cnPilot e600 (ROW with AUS/NZ cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PBRA-RW	cnPilot e600 (ROW with Brazil cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
PL-E600PARA-RW	cnPilot e600 (ROW with Argentina cord) 802.11ac Wave 2, 4x4, AP with PoE Injector
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-E600X00A-JP	cnPilot e600 Indoor (Japan) 802.11ac wave 2, 4x4, AP
PL-E600X00A-IL	cnPilot e600 Indoor (Israel) 802.11ac wave 2, 4x4, AP
PL-E600X00A-LK	cnPilot e600 Indoor (Sri Lanka) 802.11ac wave 2, 4x4, AP
PL-E600X00A-CA	cnPilot e600 Indoor (Canada) 802.11ac wave 2, 4x4, AP
PL-E600X00A-EG	cnPilot e600 Indoor (Egypt) 802.11ac wave 2, 4x4, AP
PL-E600PJPA-JP	cnPilot e600 Indoor (Japan, Japan Type A cord) 802.11ac wave 2, 4x4, AP with PoE Injector
PL-E600PILA-IL	cnPilot e600 Indoor (Israel, Israel Type H cord) 802.11ac wave 2, 4x4, AP with PoE Injector
PL-E600PINA-LK	cnPilot e600 Indoor (Sri Lanka, India Type D cord) 802.11ac wave 2, 4x4, AP with PoE Injector
PL-E600PUSA-CA	cnPilot e600 Indoor (Canada, US Type B cord) 802.11ac wave 2, 4x4, AP with PoE Injector
PL-E600PEUA-EG	cnPilot e600 Indoor (Egypt, Europe Type C cord) 802.11ac wave 2, 4x4, AP with PoE Injector
N000000L034A	PoE Gigabit Injector for cnPilot e600, 30W Output at 56V

AX-12VDCXXA-WW 12V/3.3A DC power supply (without cord)

Discover more information on cnPilot at: http://community.cambiumnetworks.com/