*cn*Pilot™ **E500**

802.11ac Gigabit outdoor Access Point

for Enterprise campuses, Public WiFi, Hospitality, Educational institutions, Industrial campuses or just about any demanding outdoor environment requiring cost-effective, controller managed WLAN Access Points

Highlights

Operational superiority - Supporting 256 max concurrent client associations, up to 16 SSIDs, WPA-2 encryption, Dynamic VLANs, DFS channels, Access control lists (ACL), zero touch provisioning and more, the 802.11ac E500 is the essential workhorse for demanding high density outdoor WiFi networks

High performance WiFi network - All *cn*Pilot's Enterprise Access Points (APs), including the E500 series support features like controller-less roaming, automatic channel scanning (ACS), band steering, pre-set scheduling of SSIDs RADIUS based dynamic rate limiting per SSID and more – all needed essential features for real world WiFi deployment

Mesh Rapidly setup multiple E500 APs via a mesh network with ability to dedicate one radio (for example 5 GHz) for mesh backhaul and use the other radio (2.4 GHz) for client access

Flexible Backhaul - All E500 APs come with two Gigabit Ethernet ports and the ability to configure one of the ports as *PoE out* – perfect for powering on any standard 802.3af equipment. When paired with Cambium's PMP450 or ePMP backhaul subscriber modules (SMs) for wireless backhaul, the E500 can also drive power to the backhaul module eliminating the need for a second power line
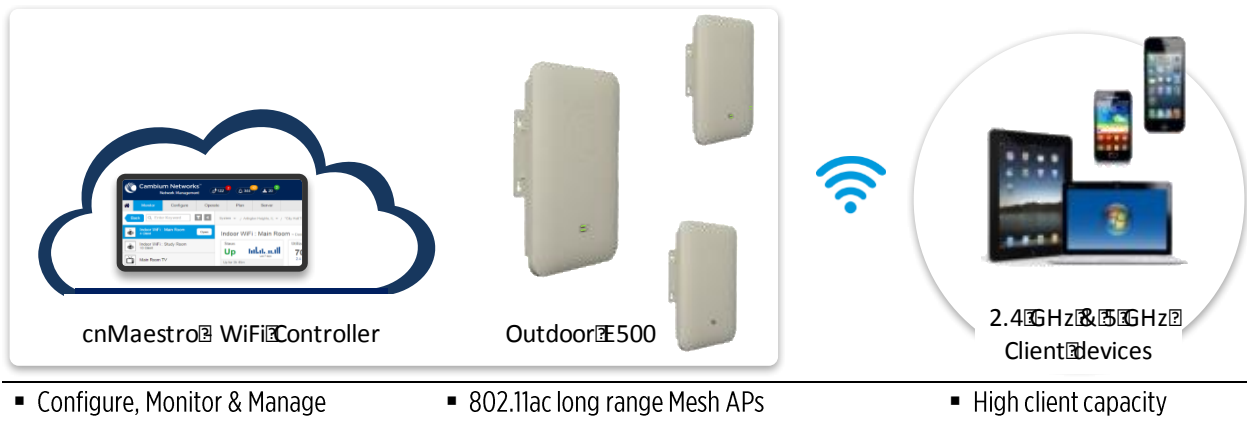
Designed for the outdoors

- 802.11ac with dual Gigabit ports
- UV rated IP-67 enclosure
- Operating Temp: -30°C ~ +60°C
- Electrical heater for cold start
- Rugged electrical surge & ESD protection Circuitry
- Flexible Wall mount or Pole mount bracket design
- Special LTE coexistence filter for enhanced interference rejection
- Light weight - 881g

*cn*Maestro - WiFi Controller

- Secure end to end management
- Zero-touch Provisioning
- Inventory tracking
- Map location
- Monitoring: key Stats, Alarms
- Mass (bulk) upgrade
- End-to-end Wireless troubleshooting
- Single-pane dashboard view - WiFi APs & Cambium SMs
- Available in Cloud or as On-premises (NOC) Virtual controller

A cnPilot E500 Wi-Fi Network

cnMaestro - WiFi Controller Outdoor E500 2.4 GHz & 5 GHz Client devices

- ▪ Configure, Monitor & Manage
- ▪ 802.11ac long range Mesh APs
- ▪ High client capacity

Access Point – Specifications

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FREQUENCY BANDS	2.4 GHz: 2.4 – 2.4835 GHz
	  Channels 1 – 13 (ETSI/CE),
	  Channels 1 – 11 (US)
	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	256
MAX RANGE	**Client**: 213 m (700 Ft); Actual range will vary based on local RF conditions & client capability. **Mesh**: 2.4 GHz: 3,000 m (9840 Ft.) 5 GHz: 1,500 m (4,900 Ft.)
MAX DATA RATES	1.01 Gbps
ETHERNET PORTS	Dual Gigabit Ethernet ports (2 x 10/100/1000Base-T)
ANTENNA	Dual polarized. 2x2 MIMO. Integrated Omni (360°) antenna
ANTENNA GAIN	5 dBi
POWER SUPPLY	56V/30W Gigabit passive PoE injector
POE OUT	Aux port: capable of 802.3af Power out or Canopy power (for supported Cambium ePMP or PMP450 SMs)
TRANSMIT POWER	29dBm @ 2.4GHz 28dBm @ 5 GHz
POWER CONSUMED	Typical: 8W Max: 12.95W (no auxiliary device connected)
DIMENSIONS (CM)	30 x 20.4 x 6.5 cm (without bracket)
WEIGHT	Without bracket: 881 g (0.88 Kg); with Bracket: 1,063 g (1.06 Kg)
OPERATING TEMPERATURE	-30°C ~ +60°C
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

WiFi Features

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WIFI DEPLOYMENT OPTIONS	Autonomous Stand-alone operation Cloud Managed On-premise controller
MESH	Standard 802.11 Meshing (Mesh) between cnPilot APs
HOTSPOT CAPTIVE PORTAL	Controller based Hotspot (on cnMaestro) Stand-alone mode AP based hotspot server. Also supports hotspot redirection to a 3rd party hotspot server
AUTHENTICATION	RADIUS based 802.1x including EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, EAP-TLS or Secure Web page portal based authentication
SCHEDULED SSID	Turn SSID ON/OFF on a daily/weekly/time of day basis
AAA	Authentication to RADIUS AAA per SSID (Active/Standby)
GUEST ACCESS	Yes
CLIENT DATA LIMITING	Uplink & Downlink rate limiting per SSID
ACCOUNTING	Yes. Supports RADIUS based accounting to multiple AAAs
SUBSCRIBER QOS	WMM
SUBSCRIBER HANDLING	Dynamic VLAN assignment from RADIUS server
CLIENT ISOLATION	Yes
FAST ROAMING	Controller-less fast roaming supported including 802.11r and Opportunistic Key Caching
AUTOMATIC CHANNEL SELECTION	Yes
NAT	Yes (Network Address Translation)
DHCP SERVER	Yes
FIREWALL	Yes
BAND STEERING & LOAD BALANCING	Yes. Steers 802.11n and 802.11ac clients towards the higher throughput 5 GHz band

cnMaestro WiFi Controller

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COMMON FRAMEWORK	Single-pane-of-glass common manager for Cambium's from which to manage the WiFi and wireless backhaul products
ON-BOARDING	Secure fast on-boarding
PROVISIONING	Easy zero touch virtual network provisioning Provision before install (pre-provision)
DEVICE INVENTORY	Inventory tracking
TROUBLE SHOOTING	Advanced troubleshooting views covering wireless backhaul (if present) and WiFi APs and Client devices all one single screen
INTUITIVE VIEWS	Map location Hierarchical Dashboard views
CLIENT INSIGHT	Shows client history with aggregate client manufacturer views
MONITORING & ALARMS	Alarms and events management – Critical/Major/Minor Key statistics graphs and *sticky* 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

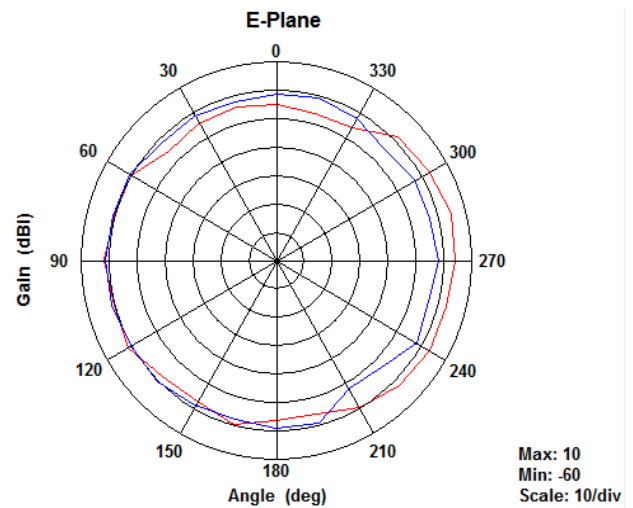# 2D Gain Patterns

2.4 GHz Azimuth (Horizontal) Gain Pattern
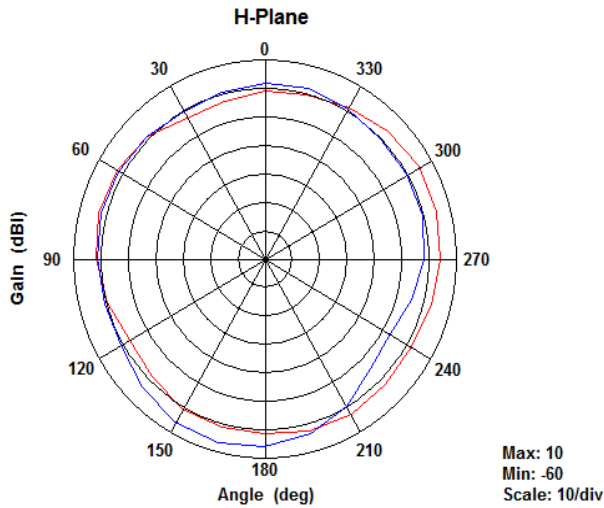
2.4 GHz Elevation (Vertical) Gain pattern
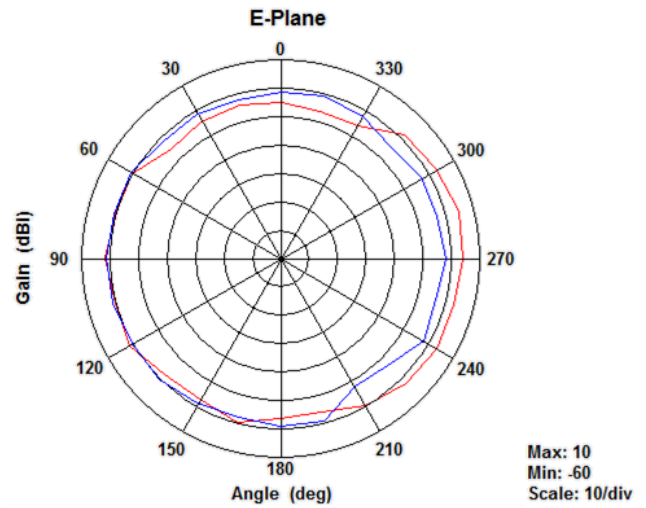
Notation 2.4 GHz: Red: Antenna 1 , Blue Antenna 2

5 GHz Azimuth (Horizontal) Gain Pattern
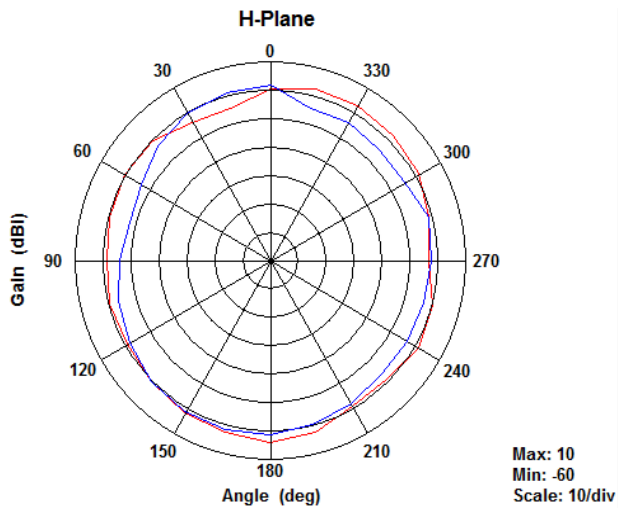
5 GHz Elevation (Vertical) Gain pattern

Notation: Red: Antenna 3, Blue Antenna 4

E500 Ordering Information

The cnPilot E500 (FCC) Outdoor 2x2 Integrated Gigabit 11ac Access Point with PoE Injector

Sales part #	Region
PL-E500INTA-US	FCC certified version
PL-E500INTA-EU	ETSI certified version for EU market. Available with UK country cord as well
PL-E500INTA-RW PL-E500INTA-XX	The Rest-of-the-world version (RW). Includes Power supply; no country cord. XX: Additional ROW models with power cords for EU, US, India, China, Brazil, Argentina, Australia, and New Zealand are available

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