



NetCloud Services for Branch



AP22 Spec Sheet



Cradlepoint AP22 Access Point is sold as part of an all-inclusive branch networking package.

NetCloud Packages for branch include:

- WiFi Access Points for small branch offices
- A NetCloud Service Plan tailored for branch networking and set for a specific term
- 24x7 support and limited lifetime warranty

What to Buy

Description	Part Numbers
U.S.	
— NetCloud Essentials for Branch Access Points (Prime) with AP22	BCx-0A22-0U0
Canada	
— NetCloud Essentials for Branch Access Points (Prime) with AP22	BCx-0A22-0C0
Europe (EU)	
— NetCloud Essentials for Branch Access Points (Prime) with AP22-EU	BCx-0A22-0W0
Asia-Pacific (Australia, New Zealand, Singapore)	
— NetCloud Essentials for Branch Access Points (Prime) with AP22-AP	BCx-0A22-0W0

x = 1, 3, or 5 years

NetCloud Essentials packages and plans contain all the features and capabilities required for a broad range of branch applications. Essentials Packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty.

For additional capabilities, a **NetCloud Advanced** upgrade can be added to the NetCloud Essentials Package at any time.

See additional details of what is included in the Essential and Advanced NetCloud software: cradlepoint.com/branch-networks

For more details on the AP22 Access Point, included with the NetCloud Packages for branch, see below.

What's in the Box

- Semi-compact wireless access point designed for the commercial distributed branch market
- Mounting brackets and screws
- Quick Start Guide with warranty information

Key Features

- Up to 300 Mbps for 2.4GHz radio
- Up to 876 Mbps for 5GHz radio
- 802.11ac Wave 2 support
- 2x2 MU-MIMO with 2 spatial streams per radio
- 3 integrated omni-directional antennas
- Full operational capacity with 802.3af PoE
- Wall and ceiling mounting support

WiFi

- 802.11 2x2 DBDC ac wave 2 2.4 GHz and 5 GHz
- Up to 124 connected devices per radio
- 4 SSIDs per radio
- WPA2 Enterprise
- QoS—WMM/802.11e/802.1p
- VLAN 802.1Q

Management

- Data rate management utilizes Cradlepoint NetCloud Manager (NCM)
 - Configuration & management
 - Firmware update via NCM
 - Basic Network/Group Configuration templates
- Zero-touch deploy when a Cradlepoint router is within the network
 - Uses Stream for auto-connect to NCM
 - Minimum Auto Provisioning when connected to Cradlepoint router
- Unique configurations per SSID with inheritance
- Hidden SSID support
- Basic Site Survey
- Basic Analytics
- SNMP
- CLI Management (SSH)—basic troubleshooting & connect to NCM
- AP Location Tracking via router (LLDP)

Security

- WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i
- 802.1x with RADIUS for WPA2-Enterprise
- WEP
- Rogue AP Indicator
- MAC Address Filtering
- Advanced Security Mode (local user management only)
- Per-Client Web Filtering
- Network Availability Scheduling
- Content Filtering (basic)

Specifications

The following features are delivered through the NetCloud Service.

WiFi:

- Dual-band concurrent 2x2 802.11a/b/g/n/ac wave 2 (Multi-user MIMO, 256 QAM)
- Spatial streams:
 - Single-User MIMO: up to 2 streams
 - Multi-User MIMO: up to 2 streams
- Channels: 20MHz, 40MHz, 80MHz
- Max Power Output: 20-27 dBm for 2.4GHz and 5GHz

Port: 1x Gigabit Ethernet port, 1 USB 2.0

Temperature: -10 °C to 50 °C (14 °F to 122 °F) operating

Humidity (non-condensing):

- 10% to 90% operating
- 5% to 95% storage

Power: 802.3af PoE

WiFi Power (FCC):

- (2.4 GHz band): 27 dBm
- (5.0 GHz band): 27 dBm

Size: 6.49d x 6.49w x 1.81h inches (165mm x 165mm x 46mm)

Weight: 6 oz (175 g)

Certifications:

- PTCRB, FCC, IC, WFA, ETSI
- Safety: UL/CUL
- Materials: WEEE, RoHS, RoHS-2, California Prop 65

Accessories

- PoE Injector (sold separately)
 - Line Cords for PoE injectors (powers AP22)
 - US Part Number: 170732-000
 - EU Part Number: 170733-000
 - AU Part Number: 170733-001
 - UK Part Number: 170733-002

Enterprise-Class WiFi Radio Specifications

WiFi Radio Specification:

- DBDC 2x2 802.11a/b/g/n/ac Wave 2 (MU MIMO, 256 QAM)
- One 10/100/1000 Ethernet port
- One USB 2.0 ports:
- Power: 802.3af Power over Ethernet port)
- Antennas: 3 integrated internal antennas
- Industry Standards & Certs: FCC, WFA, ETSI
- Frequencies supported:
 - 2.4 GHz (2412 – 2472 MHz)
 - 5 GHz
 - U-NII-1 (5.150-5.250 GHz)
 - U-NII- 2a (5.250-5.350 GHz) North America Only
 - U-NII-2c (5.470-5.725 GHz) North America Only
 - U-NII-3 (5.7225-5.825 MHz)

Supported Data Rates:

- 802.11n/ac: 6.5Mbps – 173.4Mbps (20MHz)
- 13.5Mbps – 400Mbps (40MHz)
- 29.3Mbps – 867Mbps (80MHz)
- 802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
- 802.11b: 11, 5.5, 2 and 1 Mbps
- 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps

- Beam forming
- Band steering

WiFi (Standards-based):

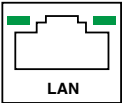
- 802.11k – Radio Resource Management - Client load balancing
- 802.11r – Fast Roaming
- 802.11v – Wireless Network Management

Support & Warranty

The AP22 is only sold as a component of NetCloud Packages.

- NetCloud Packages include support for the full subscription term.
- All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they are under a NetCloud Service Plan.

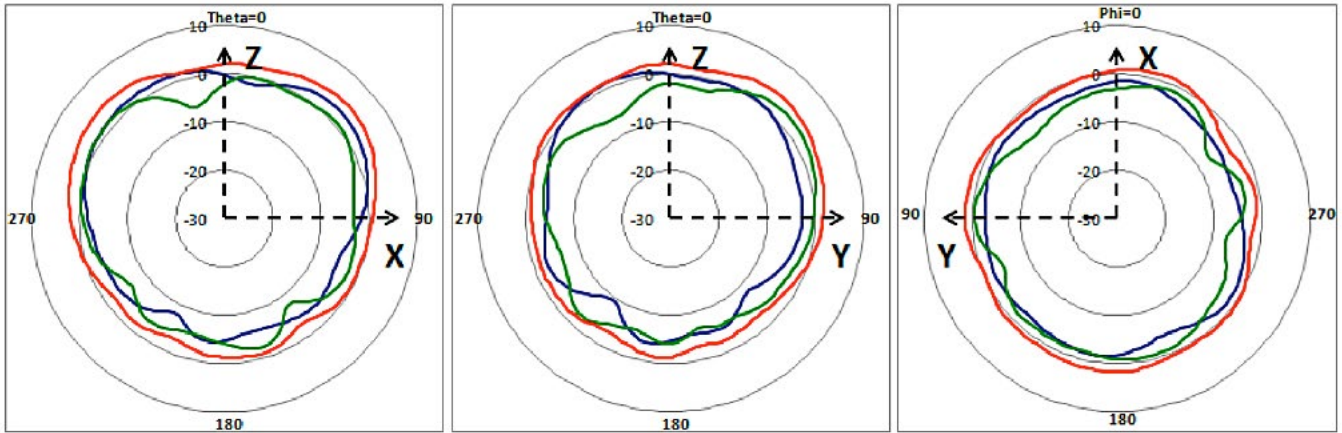
LEDs

Indicator	Behavior
	<p>Power:</p> <ul style="list-style-type: none"> — Green = Powered ON. — Pulsing Green = Booting kernel — Green Fade to White = Fully booted — White = Working properly — Red = No connectivity — Pulsing Red = Assigning IP Address — Pulsing Amber = Firmware update in process — Orange = Attention — Blinking Blue = Resetting
	<p>LAN:</p> <ul style="list-style-type: none"> — Speed (left-hand LED) — Link/Activity (Right-hand LED)

Antenna Radiation Patterns

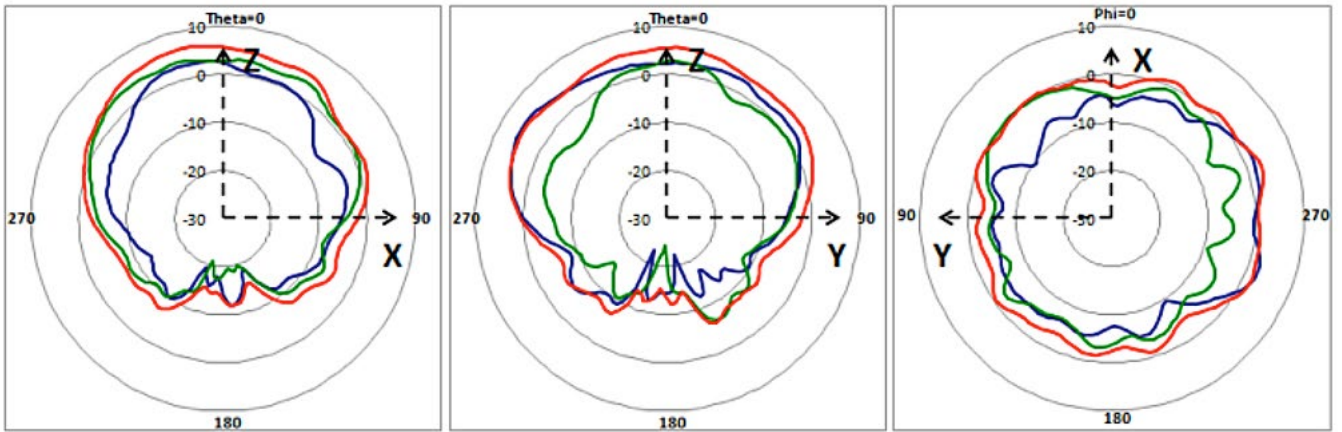
2x2 Radio Antenna Pattern - Antenna 1-2

2.4GHz



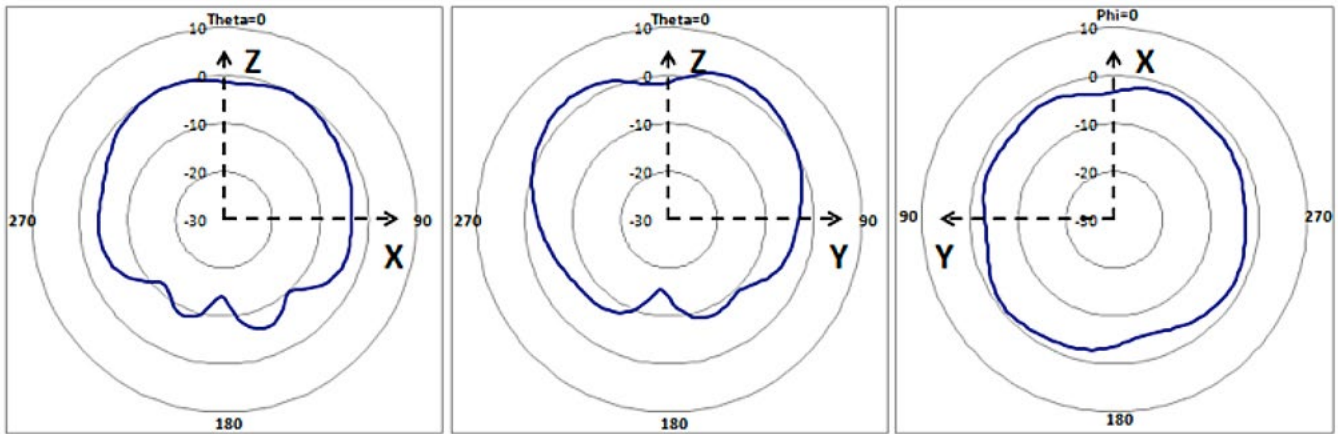
Radiation Pattern for ANT. 1(green) & 2 (blue) for 2450MHz; (red is directional gain)

5 GHz



Radiation Pattern for ANT. 1 (green) & 2 (blue) for 5550MHz; (red is directional gain)

1x1 Radio Antenna Pattern - Antenna 3

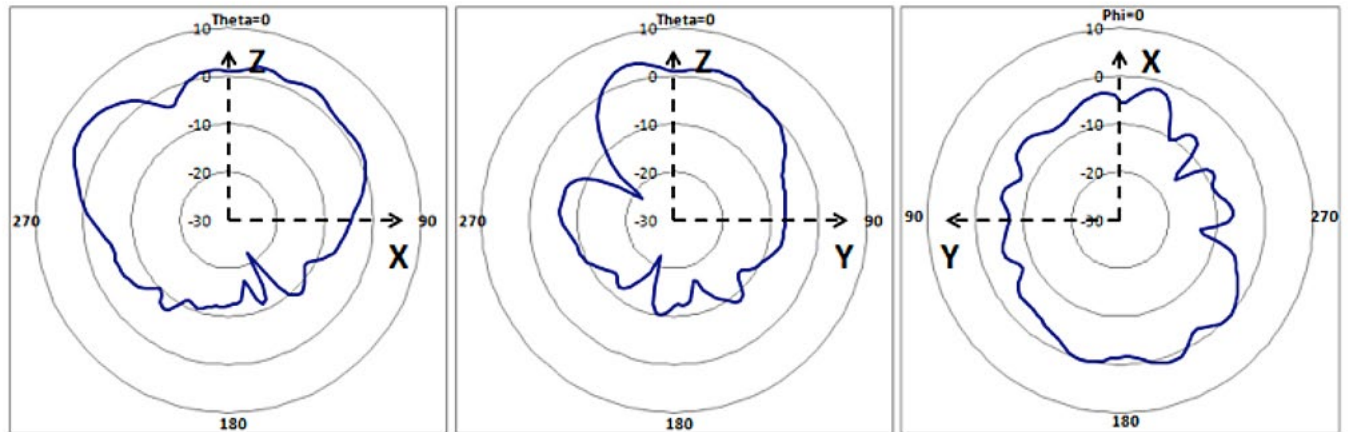


2.4 GHz

Radiation Pattern for ANT. 3 (blue) for 2450MHz

5 GHz

Radiation Pattern for ANT. 3 (blue) for 5550MHz



Hardware

Top & Sides

