

# AP22 Spec Sheet



# INTRODUCTION

## 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
- Third 1x1 radio for dedicated RF and WIPS scanning
- 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)

1 – AP22 is L2 device and requires a Cradlepoint router with a NetCloud Manager subscription. (The AP should be able to be deployed with basic functionality without a Cradlepoint router.)

2 – Requires NetCloud Manager

## SPECIFICATIONS

### 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 1.811h 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

## BUSINESS-GRADE MODEM SPECIFICATIONS

### WiFi Radio Specification:

- DBDC 2x2 802.11a/b/g/n/ac Wave 2 (MU MIMO, 256 QAM)
- 3rd 1x1 802.11ac switchable radio for WIDS/WIPS
- 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-2e (5.470-5.725 GHz)
    - U-NII-3 (5.7225-5.825 GHz)

### Supported Data Rates:

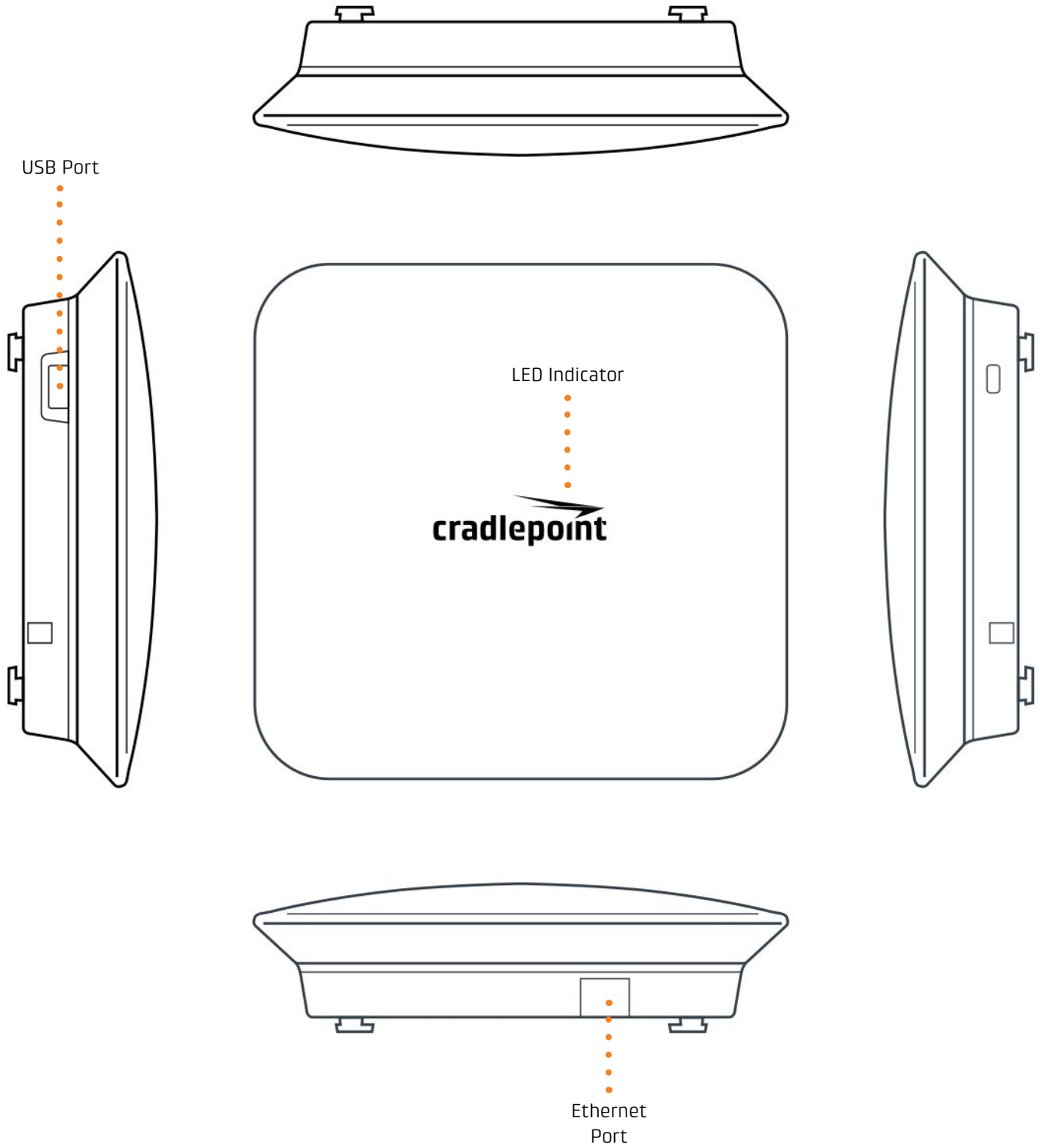
- 802.11n/ac: 6.5Mbps – 173.4Mbps (20MHz)
- 13.5Mbps – 400Mbps (40MHz)
- 29.3Mbps – 867Mbps (80MHz)
- 802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
- 802.11b: 11, 5.5, 2 and 1 Mbps
- 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps
- Beam forming
- Band steering

### WiFi (Standards-based):

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

# HARDWARE

## TOP & SIDES

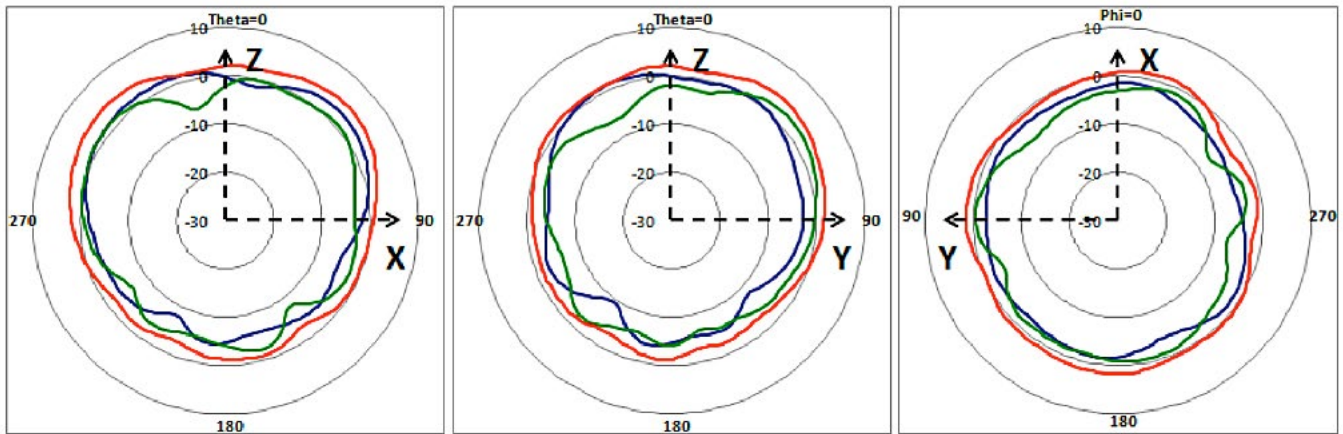


## ANTENNA RADIATION PATTERNS

### 2x2 RADIO ANTENNA PATTERN - ANTENNA 1-2

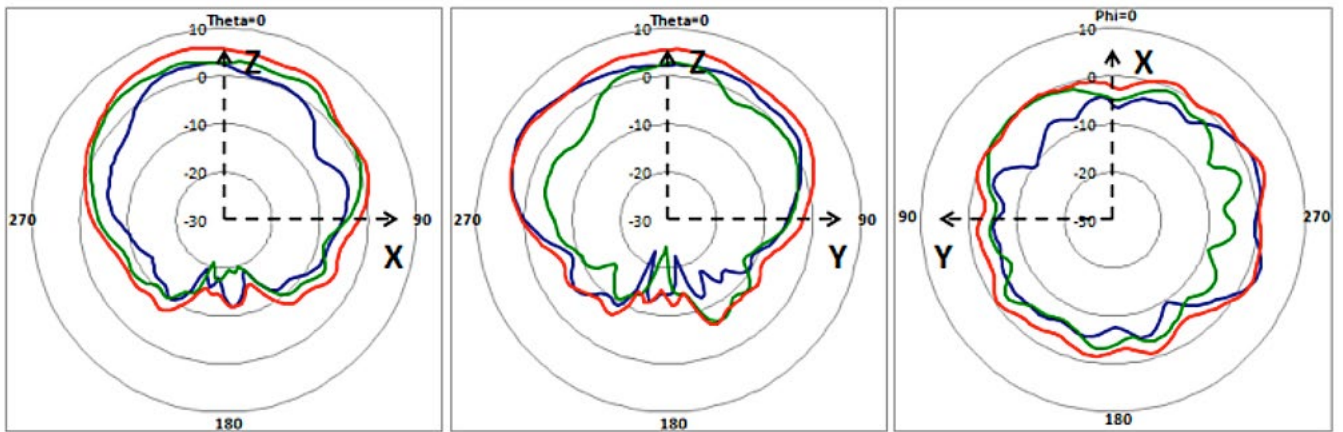
#### 2.4GHz

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



#### 5 GHz

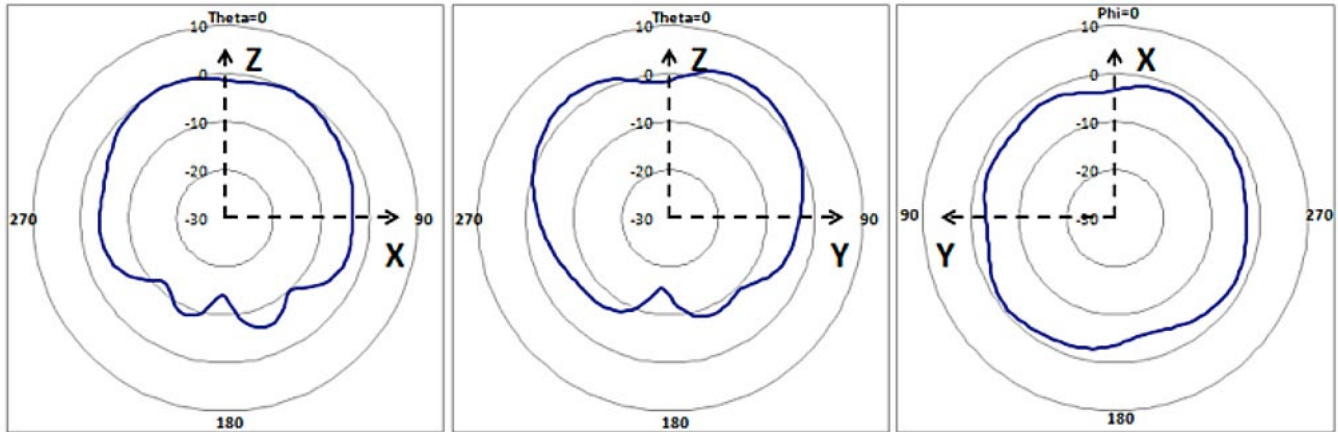
Radiation Pattern for ANT. 1(green) & 2 (blue) for 5550MHz; (red is directional gain)



1x1 RADIO ANTENNA PATTERN - ANTENNA 3

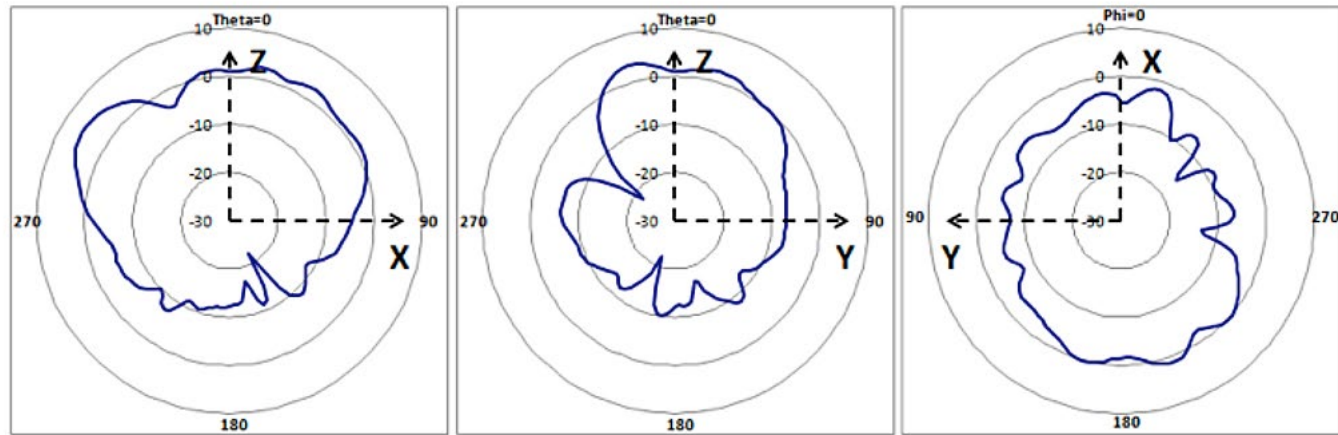
**2.4 GHz**

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


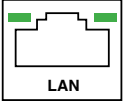


**5 GHz**

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



## LEDS

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

## SUPPORT & WARRANTY

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

- NetCloud Solution 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 Solution Package subscription

The AP22 includes a minimum three-year hardware warranty when purchased from an authorized Cradlepoint Partner.