

# Cranberry Cardinal Series Wireless Access Point

## CN-AP1002



### Highlights

✓ **CN-AP1002 dual band Concurrent (2.4GHz/5 GHz) Wireless Access point**

The Wireless Access Point can operate in both the 2.4 GHz band and the 5 GHz band concurrently or in either the 2.4GHz or the 5 GHz band if concurrent band use is not desired.

✓ **Robust Security**

WPA/WPA2, 802.1x with RADIUS, Rogue AP detection

✓ **Multiple BSSIDs**

The multiple BSSID feature allows to configure up to 8 SSIDs for each radio (a total of 16) on CN-AP1002 access point and assign different configuration settings to each SSID. All the configured SSIDs are active and the network devices can connect to the access point by using any of these SSIDs.

### Overview

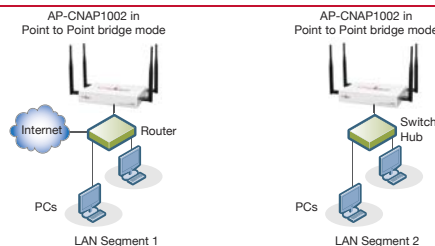
The CN-AP1002 Dual-Band 802.11n Wireless Access Point is the basic building block of a wireless LAN infrastructure. It provides connectivity between Ethernet wired networks and radio-equipped wireless notebook systems, desktop systems, print servers, and other devices.

The Cranberry CN-AP1002 is a high performance, dual-band 802.11n access-point for the Small and Medium Business (SMB) segment. It supports 802.11n connectivity for applications demanding high bandwidth and QoS, such as voice and video over Wi-Fi and concurrent operation in the 2.4 GHz and 5 GHz frequency bands for maximum performance and application flexibility.

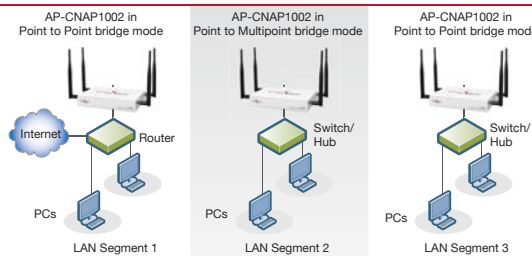
The CN-AP1002 is extremely simple to set up and can be managed via an intuitive Web-based GUI, CLI, or SNMP. The access point supports IEEE 802.3af Power-over-Ethernet (PoE) and external DC power for flexible placement options.

CN-AP1002 provides robust, business-class security features including WPA/WPA2, 802.1x with RADIUS, MAC address control, and rogue AP detection. It also supports multiple operational modes including AP, bridge, and simultaneous AP/bridge modes. With its capability to operate in different modes, the CN-AP1002 can provide wireless access to an entire small office or can be added to an existing SMB network as a cost-effective way to expand wireless coverage.

#### Point-to-Point



#### Point-to-Multipoint



## Key Features and Standards

Dual Band Concurrent Multiple Operating Modes:	<ul style="list-style-type: none"><li>• The Wireless Access Point operates in both 2.4 GHz and 5GHz frequency bands.</li></ul>
Wireless Access Point	<ul style="list-style-type: none"><li>• Operates as a standard 802.11a/b/g/n access point.</li></ul>
Point-to-Point Bridge	<ul style="list-style-type: none"><li>• In this mode, the CN-AP1002 only communicates with another bridge-mode wireless access point (with or without clients). Network authentication should be used to protect this communication.</li></ul>
Point-to-Multi-Point Bridge	<ul style="list-style-type: none"><li>• Select this mode only if this CN-AP1002 is the “Master” for a group of bridge-mode wireless access points. The other bridge-mode wireless access points send all traffic to this “Master”, and do not communicate directly with each other. Network Authentication should be used to protect this traffic.</li></ul>
Standards Compliance	<ul style="list-style-type: none"><li>• Access Point complies with the IEEE 802.11a/b/g/n standards for Wireless LANs.</li></ul>
Full WPA and WPA2 Support	<ul style="list-style-type: none"><li>• WPA and WPA2 enterprise-class strong security with RADIUS and certificate authentication as well as dynamic encryption key generation. WPA-PSK and WPA2-PSK pre shared key authentication without the overhead of RADIUS servers but with all of the strong security of WPA.</li></ul>
Upgradeable Firmware	<ul style="list-style-type: none"><li>• Firmware is stored in a flash memory and can be upgraded easily, using only your Web browser/CLI/SNMP.</li></ul>
Rogue AP Detection	<ul style="list-style-type: none"><li>• The Rogue AP detection feature shows a list of unknown APs to the administrator.</li></ul>
Access Control	<ul style="list-style-type: none"><li>• The Access Control MAC address filtering feature can ensure that only trusted wireless stations can use the CN-AP1002 to gain access to LAN network.</li></ul>
Hidden Mode	<ul style="list-style-type: none"><li>• The SSID is not broadcast, assuring only clients configured with the correct SSID can connect.</li></ul>
Secure Telnet Command Line Interface	<ul style="list-style-type: none"><li>• The secure Telnet command line interface enables easy scripting of configuration of multiple CN-AP1002s across an extensive network via the Ethernet interface.</li></ul>
Configuration Backup	<ul style="list-style-type: none"><li>• Configuration settings can be backed up to a file and restored.</li></ul>
Autosensing Ethernet Connection	<ul style="list-style-type: none"><li>• Connects to 10/100/1000 Mbps IEEE 802.3 Ethernet networks.</li></ul>
LED Indicators	<ul style="list-style-type: none"><li>• Power/Test, LAN speed, LAN activity, and wireless activity for each radio mode are easily identified.</li></ul>
Wireless Multimedia (WMM) Support	<ul style="list-style-type: none"><li>• Supports WMM QoS (Wireless Multimedia prioritization)</li><li>• Supports WMM Power Save</li></ul>
Multiple BSSIDs	<ul style="list-style-type: none"><li>• Supports 8 Multiple BSSID. Each BSSID is mapped to a VLAN. When a Access Point is connected to a wired network and a set of wireless stations, it is called a Basic Service Set (BSS). The Basic Service Set Identifier (BSSID) is a unique identifier attached to the header of packets sent over a WLAN that differentiates one WLAN from another when a mobile device tries to connect to the network.</li></ul>
DHCP server and client support	<ul style="list-style-type: none"><li>• DHCP provides a dynamic IP address to PCs and other devices upon request. The CN-AP1002 can act as a client and obtain information from DHCP server; it can also act as a DHCP server and provide network information for wireless clients.</li></ul>
SNMP Support	<ul style="list-style-type: none"><li>• Support for Simple Network Management Protocol (SNMP) Management Information Base (MIB) management. Supports MIB I, MIB II, 802.11 MIB and Proprietary Configuration MIB.</li></ul>
802.1Q VLAN (Virtual LAN) Support	<ul style="list-style-type: none"><li>• A network of computers that behave as if they are connected to the same network even though they actually may be physically located on different segments of a LAN.</li><li>• VLANs are configured through software rather than hardware, which makes them extremely flexible. VLANs are very useful for user/host management, bandwidth allocation and resource optimization.</li></ul>

# Technical Specifications

SOFTWARE	
<b>AP Modes</b>	<ul style="list-style-type: none"> <li>• Access Point mode</li> <li>• Point-to-point mode</li> <li>• Point-to-Multipoint mode</li> </ul>
<b>Wireless Security</b>	<ul style="list-style-type: none"> <li>• WEP</li> <li>• WPA</li> <li>• WPA2</li> <li>• IEEE 802.1x RADIUS Authentication</li> <li>• EAP TLS</li> <li>• TTLS</li> <li>• PEAP</li> <li>• SSH</li> <li>• MAC Access Control</li> <li>• Rogue AP Detections</li> </ul>
<b>VLAN</b>	<ul style="list-style-type: none"> <li>• 802.1Q VLAN (Virtual LAN) Support</li> </ul>
<b>QoS</b>	<ul style="list-style-type: none"> <li>• WMM based QoS support</li> </ul>
<b>Bridging</b>	<ul style="list-style-type: none"> <li>• 802.11D and Spanning Tree</li> </ul>
<b>System Software Upgrade</b>	<ul style="list-style-type: none"> <li>• TFTP upgrade</li> <li>• FTP upgrade</li> <li>• HTTP upgrade</li> </ul>
<b>IP Address Management</b>	<ul style="list-style-type: none"> <li>• Static DHCP client</li> <li>• DHCP server</li> <li>• DNS resolution</li> </ul>
<b>SNMP</b>	<ul style="list-style-type: none"> <li>• SNMP v1 and v2c</li> <li>• SNMPv3 users</li> <li>• SNMPv3 groups</li> <li>• SNMPv3 trap targets</li> <li>• SNMPv3 trap filters</li> <li>• SNMP agent</li> </ul>
<b>MIB support</b>	<ul style="list-style-type: none"> <li>• 802.11b/g MIB</li> <li>• 802.11n MIB</li> <li>• Enterprise MIB</li> <li>• Ethernet MIB</li> <li>• Bridge MIB</li> </ul>
<b>Network Management</b>	<ul style="list-style-type: none"> <li>• GUI, Telnet, SSH, Syslog, CLI and SNMP</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>• Event Logging</li> <li>• Remote Syslog</li> <li>• Console display and clear</li> <li>• Web display and clear</li> </ul>
<b>System Clock</b>	<ul style="list-style-type: none"> <li>• Manual date and time setting</li> <li>• Time zone</li> <li>• Daylight saving</li> <li>• NTP support</li> </ul>
<b>System Information</b>	<ul style="list-style-type: none"> <li>• System configuration</li> <li>• Wireless configuration</li> <li>• Wireless client status</li> </ul>

HARDWARE	
<b>Ethernet</b>	<ul style="list-style-type: none"> <li>• Support for 10/100/1000 Ethernet MACs (RJ45)</li> </ul>
<b>Console Access</b>	<ul style="list-style-type: none"> <li>• RS232C based console access</li> </ul>
<b>Frequency Band</b>	<ul style="list-style-type: none"> <li>• 2.4 GHz and 5 GHz</li> </ul>
<b>Modulation Technology</b>	<ul style="list-style-type: none"> <li>• OFDM with BPSK, QPSK, 16 QAM, 64 QAM; DBPSK, DQPSK, CCK</li> </ul>
<b>Hardware Encryption</b>	<ul style="list-style-type: none"> <li>• 64-bits, 128- and 152-bits WEP, AES, TKIP data encryption</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>• FLASH memory interfaces</li> </ul>
<b>Supported Data Rates</b>	<ul style="list-style-type: none"> <li>IEEE 802.11g                             <ul style="list-style-type: none"> <li>• 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 38, 54, &amp; 108 Mbps (Auto-rate capable)</li> </ul> </li> <li>IEEE 802.11ng                             <ul style="list-style-type: none"> <li>Data Rates for Channel Width=20MHz and Guard Interval=short (400ms)                                     <ul style="list-style-type: none"> <li>• Best = 7.2, 14.4, 21.7, 28.9, 43.3, 57.8, 65, 72.2, 14.44, 28.88, 43.33, 57.77, 86.66, 115.56, 130, &amp; 144.44 Mbps</li> </ul> </li> <li>Data Rates for Channel Width=20MHz and Guard Interval=long (800ms)                                     <ul style="list-style-type: none"> <li>• Best = 6.5, 13, 19.5, 26, 39, 52, 58.5, 65, 13, 26, 39, 52, 78, 104, 117, &amp; 130 Mbps</li> </ul> </li> <li>Data Rates for Channel Width=40MHz and Guard Interval=short                                     <ul style="list-style-type: none"> <li>• Best = 15, 30, 45, 60, 90, 120, 135, 150, 30, 60, 90, 120, 180, 240, 270, &amp; 300 Mbps</li> </ul> </li> <li>Data Rates for Channel Width=40MHz and Guard Interval=long                                     <ul style="list-style-type: none"> <li>• Best = 13.5, 27, 40.5, 54, 81, 121.5, 135, 27, 54, 81, 162, 216, 243, &amp; 270 Mbps</li> </ul> </li> </ul> </li> </ul>
<b>Antenna</b>	<ul style="list-style-type: none"> <li>• Four dual band 5dBi dipole antennas</li> </ul>
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>• PoE (802.3af switch)</li> <li>• 12VDC, 2A adaptor</li> </ul>
CERTIFICATION/STANDARDS	
<b>FCC ID</b>	<ul style="list-style-type: none"> <li>• XZB-MAXR7202</li> </ul>
<b>Regulatory Certification</b>	<ul style="list-style-type: none"> <li>• uL/CuL</li> </ul>
<b>IEEE</b>	<ul style="list-style-type: none"> <li>• 802.11b, 802.11g, 802.11d, 802.11e, 802.11h, 802.11i, 802.11j, 11n, 802.11n, 802.11a</li> </ul>
ENVIRONMENTAL	
<b>Temperature</b>	<ul style="list-style-type: none"> <li>• Operating temperature: 0 to 50° C</li> </ul>
<b>Humidity</b>	<ul style="list-style-type: none"> <li>• Operating humidity: 5-95%, non-condensing</li> </ul>
PHYSICAL	
<b>Dimensions (LxWxH)</b>	<ul style="list-style-type: none"> <li>• 200 x 139 x 35 mm (7.9 x 5.5 x 1.4 in)</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>• 0.94 kgs</li> </ul>

## Ordering Information

Part No.	Description
CN-AP1002	Dual-band 802.11n Wireless Access Point



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