Cisco WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point

High-Performance, Ruggedized, and Highly Secure Business-Class Wireless-AC Connectivity for Outdoor Spaces

Highlights

- Provides cost-effective 802.11ac outdoor connectivity with speed up to 1.9Gbps
- Supports 3x3 multiple-input multiple-output (MIMO) technology with three spatial streams for maximum performance on both 2.4- and 5.0-GHz radios
- Outdoor-rated IP66 enclosure designed for challenging outdoor environments such as rain and extreme temperatures, as well surge protection support
- Dual Gigabit Ethernet LAN with Energy Efficient Ethernet and link aggregation support
- A captive portal helps enable highly secure guest access with customized roles and rights
- Single Point Setup requires no controller for easy, cost-effective deployment of multiple access points
- Works right out of the box with easy installation and a simple web-based configuration and wizard

Product Overview

Constant Wi-Fi access is becoming the norm in today's always-connected world, both for an increasingly mobile workforce and for consumers. Moreover, mobile devices and social media applications continue to grow and proliferate, putting tremendous pressure on wireless networks, especially in outdoor user environments such as outdoor business campuses, school campuses, pools, and other public settings.

To stay connected, people need dependable, business-class wireless access to network applications anytime, anywhere, whether they are indoors or outdoors. The Cisco® WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point is purpose-built to meet the demands of your outdoor spaces. The WAP571E access point offers a rugged housing built to handle anything from rain, snow, and even high or low temperatures.

The WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point provides a simple, cost-effective way to extend highly secure, high-performance mobile networking to outdoor spaces. It uses concurrent, dual-band radio for improved coverage and user capacity. The 3x3 multiple-input multiple-output (MIMO) technology with three spatial streams allows the access point to run at maximum performance in both the 5.0-GHz and 2.4-GHz frequency. Gigabit Ethernet LAN interfaces with Power over Ethernet (PoE) facilitates flexible installation and can reduce cabling and wiring costs. Intelligent quality-of-service (QoS) features let you prioritize bandwidth-sensitive traffic for voice over IP (VoIP) and video applications.

To provide highly secure guest access to visitors and other users, the WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point supports a captive portal with multiple authentication options and the ability to configure rights, roles, and bandwidth. A customized guest login page lets you present a welcome message and access details, and reinforces your brand with company logos.

WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Points are easy to set up and use, with an intuitive wizard-based configuration to get you up and running in minutes. An attractive design with flexible mounting options allows the access points to smoothly blend into any small-business environment.

To enhance reliability and safeguard sensitive business information, WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Points support both Wi-Fi Protected Access (WPA) Personal and Enterprise, encoding all your wireless transmissions with powerful encryption. In addition, 802.1X RADIUS authentication helps keep unauthorized users out.

Designed to scale smoothly as your organization grows, the access points feature controller-less Single Point Setup, which simplifies the deployment of multiple access points without additional hardware. With the WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point, you can extend business-class wireless networking to employees and guests anywhere in the business properties, with the flexibility to meet new business needs for years to come.

Figures 1 and 2 show the product's front and back panels, respectively.

Figure 1. Front Panel of the WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point

Figure 2. Back Panel of the WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point

Features

- Concurrent dual-band radio support up to 1.3 Mbps on a 5.0-Ghz radio and 600 Mbps on a 2.4-Ghz radio to make the most of capacity and coverage
- 3x3 MIMO with three spatial streams on both 5.0 GHz and 2.4GHz allows maximum performance
- Outdoor-rated IP66 enclosure designed for challenging outdoor environments, such as rain and extreme temperatures, as well surge protection support
- Single Point Setup, a controller-less technology, simplifies the deployment and management of multiple access points, without requiring additional hardware
- A two-Gigabit Ethernet LAN interface can enable a high-speed uplink to the wired network and link aggregation support to increase the overall bandwith between the two ports
- Robust security, including WPA2, 802.1X with RADIUS secure authentication, and rogue access point detection help protect sensitive business information
- Captive portal support facilitates highly secure, customized guest access with multiple rights and roles
- A simple installation and intuitive web-based configuration and wizard facilitate fast, simple deployment and setup in minutes
- Support for Power over Ethernet (PoE) allows for easy installation without expensive additional wiring
- Sleek design with multiple internal antennas and a versatile mounting kit allows for installation on a pole or a wall
- Intelligent quality of service (QoS) prioritizes network traffic to help keep critical network applications running at top performance
- Power-saving sleep mode and port control features help increase energy efficiency
- Workgroup Bridge mode lets you expand your network by wirelessly connecting to a second Ethernet network
- Support for IPv6 lets you deploy future networking applications and operating systems without costly upgrades
- A limited lifetime hardware warranty provides peace of mind

Specifications

Table 1 lists the specifications, package contents, and minimum requirements for the WAP571E access point.

Table 1. Specifications for the WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point

Specifications	Description
Standards	IEEE 802.11ac, 802.11a, 802.11n, 802.11g, 802.11b, 802.3af, 802.3u, 802.1X (security authentication), 802.1Q (VLAN), 802.1D (Spanning Tree), 802.11i (WPA2 security), 802.11e (wireless QoS), IPv4 (RFC 791), IPv6 (RFC 2460)
Ports	2 LAN Gigabit Ethernet autosensing
Cabling type	Category 5e or better
Antennas	Internal antennas optimized for installation on a wall
LED indicators	One LED
Operating system	Linux
Physical Interfaces	
Ports	2- 10/100/1000 Ethernet, with support for 802.3at at PoE support is only for 1 port and not 2 ports
Buttons	Reset button
LEDs	One multi-function LED
Physical Specifications	
Physical dimensions (W x D x H)	9.05 x 7.87 x 1.96 in. (230 x 200 x 50 mm)
Weight	2.97 lb or 1350g
Network Capabilities	
VLAN support	Yes
Number of VLANs	1 management VLAN plus 32 VLANs for SSIDs
802.1X supplicant	Yes
SSID-to-VLAN mapping	Yes
Auto-channel selection	Yes
Spanning tree	Yes
Load balancing	Yes
IPv6	Yes • IPv6 host support • IPv6 RADIUS, syslog, Network Time Protocol (NTP)
Layer 2	802.1Q-based VLANS, 32 active VLANS plus 1 management VLAN
Security	
WPA, WPA2	Yes, including Enterprise authentication
Access control	Yes, management access control list (ACL) plus MAC ACL
Secure management	HTTPS
SSID broadcast	Yes
Rogue access point detection	Yes
Mounting and Physical Security	
Multiple mounting options	Mounting bracket included for easy wall or pole mounting
Quality of Service	
QoS	Wi-Fi Multimedia and Traffic Specification (WMM TSPEC), client QoS
Performance	
Wireless throughput	Up to 1.9Gbps data rate (real-world throughput will vary)
Recommended user support	Up to 200 connective users, 50 active users per radio

Specifications	Description				
Multiple-Access Point Management					
Single Point Setup	Yes				
Number of access points per cluster	16				
Active clients per cluster	960				
Configuration					
Web user interface	Built-in web user interface for easy browser-based configuration (HTTP/HTTPS)				
Management					
Management protocols	Web browser, Simple Network Management Protocol (SNMP) v3, Bonjour				
Remote management	Yes				
Event logging	Local, remote syslog, email alerts				
Network diagnostics	Logging and packet capture				
Web firmware upgrade	Firmware upgradable through web browser, imported and exported configuration file				
Dynamic Host Configuration Protocol (DHCP)	DHCP client				
IPv6 host	Yes				
HTTP redirect	Yes				
Wireless					
Frequency	Dual concurrent radios (2.4 and 5 GHz)				
Radio and modulation type	Dual radio, orthogonal frequency division multiplexing (OFDM) IEEE 802.11a/n: OFDM (BPSK/QPSK/16QAM/64QAM/256AM) IEEE 802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)				
WLAN	802.11n/ac 3x3 MIMO with 3 spatial streams at 5 GHz and 2.4 GHz 21 for 20-MHz bandwidth; 9 for 40-MHz bandwidth; 4 for 80-MHz bandwidth 1 for 20-MHz bandwidth; 7 for 40-MHz bandwidth 802.11 dynamic frequency selection (DFS)				
Data rates supported	IEEE 802.11b: DSSS (1/2/5.5/11) IEEE 802.11g: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n: see the below table IEEE 802.11b: 12.94 MHz IEEE 802.11g: 24.49 MHz EEE 802.11n MCS0 (HT20): 27.44 MHz IEEE 802.11n MCS0 (HT40): 36.18 MHz IEEE 802.11b: 29.76 dBm IEEE 802.11g: 29.24 dBm IEEE 802.11n MCS0 (HT20): 29.25 dBm IEEE 802.11n MCS0 (HT40): 23.81 dBm				
Frequency band and operating channels	**Frequency Band**	**Channel No.**	**Frequency**	**Channel No.**	**Frequency**
	2400~2483.5MHz	1	2412 MHz	7	2442 MHz
		2	2417 MHz	8	2447 MHz
		3	2422 MHz	9	2452 MHz
		4	2427 MHz	10	2457 MHz
		5	2432 MHz	11	2462 MHz
		6	2437 MHz	-	-

<table>
<tr><th>Specifications</th><th colspan="4">Description</th></tr>
<tr><td></td><td>Frequency Band</td><td>Channel No.</td><td>Frequency</td><td>Channel No.</td></tr>
<tr><td></td><td rowspan="6">5150~5250 MHz Band 1</td><td>36</td><td>5180 MHz</td><td>44</td></tr>
<tr><td></td><td>38</td><td>5190 MHz</td><td>46</td></tr>
<tr><td></td><td>40</td><td>5200 MHz</td><td>48</td></tr>
<tr><td></td><td>42</td><td>5210 MHz</td><td>-</td></tr>
<tr><td></td><td>52</td><td>5260 MHz</td><td>60</td></tr>
<tr><td></td><td>54</td><td>5270 MHz</td><td>62</td></tr>
<tr><td></td><td rowspan="5">5250~5350 MHz Band 2</td><td>56</td><td>5280 MHz</td><td>64</td></tr>
<tr><td></td><td>58</td><td>5290 MHz</td><td>-</td></tr>
<tr><td></td><td>100</td><td>5500 MHz</td><td>112</td></tr>
<tr><td></td><td>102</td><td>5510 MHz</td><td>116</td></tr>
<tr><td></td><td>104</td><td>5520 MHz</td><td>132</td></tr>
<tr><td></td><td rowspan="5">5470~5725 MHz Band 3</td><td>106</td><td>5530 MHz</td><td>134</td></tr>
<tr><td></td><td>108</td><td>5540 MHz</td><td>136</td></tr>
<tr><td></td><td>110</td><td>5550 MHz</td><td>140</td></tr>
<tr><td></td><td>149</td><td>5745 MHz</td><td>157</td></tr>
<tr><td></td><td>151</td><td>5755 MHz</td><td>159</td></tr>
<tr><td></td><td rowspan="2">5725~5850 MHz Band 4</td><td>153</td><td>5765 MHz</td><td>161</td></tr>
<tr><td></td><td>155</td><td>5775 MHz</td><td>165</td></tr>
<tr><td>Transmitted output power</td><td colspan="4">2.4 GHz
• 802.11b: 20.0 +/- 1.5 dBm at CH6, all rates
• 802.11g: 20.0 +/- 1.5 dBm at CH6, 6 Mbps
• 802.11g: 17.0 +/- 1.5 dBm at CH6, 54 Mbps
• 802.11n(HT20): 20.0 +/- 1.5 dBm at CH6, MCS0
• 802.11n(HT20): 17.0 +/- 1.5 dBm at CH6, MCS7
• 802.11n(HT40): 16.0 +/- 1.5 dBm at CH6, MCS7
5 GHz UNII-1 (5150~5250 MHz)
• 802.11a: 22.0 +/- 1.5 dBm at 6 Mbps
• 802.11a: 22.0 +/- 1.5 dBm at 54 Mbps
• 802.11ac(HT20): 22.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT20): 14.0 +/- 1.5 dBm at MCS9
• 802.11ac(HT40): 21.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT40): 14.0 +/- 1.5 dBm at MCS9
• 802.11ac(HT80): 20.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT80): 14.0 +/- 1.5 dBm at MCS9
5 GHz UNII-2 (5250 - 5350 MHz)/UNII-2 Extended (5470 – 5725 MHz)
• 802.11a: 18.0 +/- 1.5 dBm at 6 Mbps
• 802.11a: 18.0 +/- 1.5 dBm at 54 Mbps
• 802.11ac(HT20): 18.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT20): 14.0 +/- 1.5 dBm at MCS9
• 802.11ac(HT40): 18.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT40): 14.0 +/- 1.5 dBm at MCS9
• 802.11ac(HT80): 14.0 +/- 1.5 dBm at MCS9
5 GHz UNII-3 (5725~5850 MHz)
• 802.11a: 22.0 +/- 1.5 dBm at 6 Mbps
• 802.11a: 22.0 +/- 1.5 dBm at 54 Mbps
• 802.11ac(HT20): 22.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT20): 14.0 +/- 1.5 dBm at MCS9
• 802.11ac(HT40): 21.0 +/- 1.5dBm @ MCS0
• 802.11ac(HT40): 14.0 +/- 1.5 dBm at MCS9
• 802.11ac(HT80): 20.0 +/- 1.5 dBm at MCS0
• 802.11ac(HT80): 14.0 +/- 1.5 dBm at MCS9</td></tr>
</table>

Specifications	Description
Wireless isolation	Wireless isolation between clients
External antennas	None
Internal antennas	6 Internal fixed PIFA antenna
Antenna gain in dBi	3.55 dBi for 5 GHz, 2.98 dBi for 2.4 GHz
Receiver sensitivity	**2.4 GHz** • 802.11b: -86 dBm at 11Mbps • 802.11g: -74 dBm at 54 Mbps • 802.11n(HT20): -71 dBm at MCS7 • 802.11n(HT40): -68 dBm at MCS7 **5 GHz** • 802.11a: -90 dBm at 6 Mbps • 802.11a: -75 dBm at 54 Mbps • 802.11ac(HT20): -63 dBm at MCS9 • 802.11ac(HT40): -60 dBm at MCS9 • 802.11ac(HT80): -58 dBm at MCS9
Wireless distribution system (WDS)	Yes
Fast roaming	Yes
Multiple SSIDs	16 per Radio
Wireless VLAN map	Yes
WLAN security	Yes
Wi-Fi Multimedia (WMM)	Yes, with unscheduled automatic power save
Operating Modes	
Access point	Access point mode, Wireless Domain Services (WDS) bridging, Workgroup Bridge mode
Environmental	
Power options	IEEE 802.3at/af Ethernet switch Peak power: 18 W ??
Compliance	Safety: • UL 60950-1 • CAN/CSA-C22.2 No. 60950-1 • IEC 60950-1 • EN 60950-1 Radio approvals: • FCC Part 15.247, 15.407 • RSS-210 (Canada) • EN 300.328, EN 301.893 (Europe) • AS/NZS 4268.2003 (Australia and New Zealand) EMI and susceptibility (Class B): • FCC Part 15.107 and 15.109 • ICES-003 (Canada) • EN 301.489-1 and -17 (Europe)
Operating temperature	-40° to 55°C (-40° to 131°F) with solar loading or -40 to 65°C (-40° to 149°F) without solar loading
Storage temperature	-50° to 70°C (-58 to 158°F)
Operating humidity	5% to 95% noncondensing
Storage humidity	5% to 90% noncondensing
System memory	256 MB RAM 128 MB flash

Specifications	Description
Package Contents	
• Cisco WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point • Wall and pole mounting kit • Quick-start guide • Ethernet network cable	
Minimum Requirements	
• Switch or router with PoE support • Web-based configuration: Java-enabled web browser	
Warranty	
Access point	Limited lifetime

Note: Depending on the part number (see table 1) one or more of the bands above may not be available in the product due to national regulations.

Note: Table 1 shows the maximum capability of the hardware. The transmit power may be reduced to comply with local regulatory requirements.

Ordering Information

Table 2 shows the product part numbers and descriptions to make ordering easier.

Table 2. Product Ordering Information

Part Number	Description
WAP571E-A-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (United States)
WAP571E-C-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (China)
WAP571E-E-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (Europe, EU region, United Kingdom, UAE, Turkey, South Africa)
WAP571E-K-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (Korea)
WAP571E-B-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (Canada, Argentina, Colombia, Mexico, Brazil)
WAP571E-H-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (HK, Thailand, Singapore, Philippines, Vietnam)
WAP571E-N-K9	WAP571E Wireless-AC/N Dual Radio Outdoor Wireless Access Point (Australia/New Zealand)

Cisco Limited Lifetime Warranty for Cisco Small Business Products

This Cisco Small Business product comes with a limited lifetime hardware warranty. Product warranty terms and other information applicable to Cisco products are available on the Cisco Warranty Listings webpage.

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This optional service offers affordable, three-year, peace-of-mind coverage. This subscription-based, device-level service helps you protect your investment and derive maximum value from Cisco Small Business products. Delivered by Cisco and backed by your trusted partner, this comprehensive service includes software updates, extended access to the Cisco Small Business Support Center, and expedited hardware replacement, should it be required.

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Cisco Capital can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital is available in more than 100 countries. Learn more.

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