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## Cisco WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with PoE

# High-Performance, Easy-to-Deploy, and Highly Secure Business-Class Wireless-AC Connectivity

#### **Highlights**

- · Provides cost-effective 802.11ac connectivity with speed up to 1.2 Gbps
- Supports 2x2 multiple-input multiple-output (MIMO) technology with two spatial streams for maximum performance on both 2.4- and 5.0-GHz radios
- 5 Gigabit Ethernet LAN with Energy Efficient Ethernet
- Mounts directly to an electrical or data junction box
- · 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**

In today's dynamic business environment, employees are becoming more mobile and collaborative than ever. To stay productive, they need dependable, business-class access to network applications throughout the office. The Cisco<sup>®</sup> WAP361 Wireless-AC/N Dual Radio Wall Plate Access Points with Power over Ethernet (PoE) provide a simple, cost-effective way to extend highly secure, high-performance mobile networking to your employees and guests, so they can stay connected anywhere in the office regrdless of what mobile devices they use. This flexible solution lets you connect dozens of employees, and can scale to accommodate additional users and changing business needs.

The WAP361 access point uses a concurrent dual-band radio for improved coverage and user capacity. The 2x2 multiple-input multiple-output (MIMO) technology with two spatial streams allows the access point to run at maximum performance in both 5.0-GHz and 2.4-GHz frequencies. Gigabit Ethernet LAN interfaces with 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 WAP361 Wireless-AC/N 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.

WAP361 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 blend well into any small-business environment.

To enhance reliability and safeguard sensitive business information, WAP361 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 a WAP361 access point, you can extend business-class wireless networking to employees and guests anywhere in the office, with the flexibility to meet new business needs for years to come.

Figure 1 shows a typical wireless access point configuration. Figures 2, 3, and 4 show the product's front, back, and side panels, respectively.





Figure 2. Front Panel of the WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point





Figure 3. Back Panel of the WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point

Figure 4. Side Panel of the WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point



#### Features

- Concurrent dual-band radio support up to 867 Mbps on a 5.0-Ghz radio and 300 Mbps on a 2.4-Ghz radio to increase capacity and coverage
- 2x2 MIMO with two spatial streams on both 5.0 GHz and 2.4 GHz allows for maximum performance
- Single Point Setup, a controller-less technology, simplifies the deployment and management of multiple access points, without requiring additional hardware
- A 5-port Gigabit Ethernet LAN switch supports both PoE powered device (PD) and powered sourcing equipment (PSE) so that IP devices can be powered and the access point can be powered by the backbone switch
- 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
- Simple installation and an intuitive web-based configuration and wizard facilitate fast, simple deployment and setup in minutes
- · Support for PoE allows for easy installation without expensive additional wiring
- A sleek design with multiple internal antennas and a versatile mounting kit allows for mounts directly to an electrical or data junction box
- 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 to 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 WAP361 wireless access point. Table 2 outlines the RF performance.

Specifications	Description	
Standards	IEEE 802.11ac, 802.11n, 802.11g, 802.11b, 802.3af/at, 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)	
Cabling type	Category 5e or better	
Antennas	Internal antennas optimized for installation on a wall or ceiling	
Operating system	Linux	
Physical Interfaces		
Ports	5 - 10/100/1000 Ethernet, with support for 802.3af/at PoE, power port for AC adapter (not included)	
Power supply	802.3af/at PoE and external 48V/1.25A DC power adapter (not included)	
Buttons	Reset button	
Lock slot	Slot for Kensington lock	
LEDs	One multi-function LED	
Physical Specifications		
Physical dimensions (W x D x H)	6.5 x 4.33 x 1.8 in. (165 x 110 x 45.75 mm)	
Weight	1.06 lbs or 480 g	
Network Capabilities		
VLAN support	Yes	
Number of VLANs	1 management VLAN plus 16 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, 16 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	

Table 1. Specifications for the WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point

Specifications	Description	
Mounting and Physical Security		
Multiple mounting options	Mounting bracket included for easy mounting to junction box	
Physical security lock	Kensington lock slot	
Quality of Service		
QoS	Wi-Fi Multimedia and Traffic Specification (WMM TSPEC), client QoS	
Performance		
Wireless throughput	Up to 1.2-Gbps data rate (real-world throughput will vary)	
Recommended user support	Up to 128 connective users, 32 active users per radio	
Multiple-Access Point Management		
Single Point Setup	Yes	
Number of access points per cluster	8	
Active clients per cluster	240	
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 or 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, 16 QAM, 64 QAM) IEEE 802.11ac: OFDM (BPSK, QPSK, 16 QAM, 64 QAM, 256 QAM)	
WLAN	802.11n/ac 2x2 MIMO with 2 spatial streams at 5 GHz 2x2 MIMO with 2 spatial streams at 2.4 GHz 20-, 40-, and 80-Mhz channels for 802.11ac 20- and 40-Mhz for 802.11n PHY data rate up to 1.2 Gbps 802.11 Dynamic Frequency Selection (DFS)	
Data rates supported	<ul> <li>802.11a/b/g:</li> <li>54, 48, 36, 24, 18, 12, 9, 6, 11, 5.5, 2, and 1 Mbps</li> <li>802.11n: 6.5 to 300 Mbps</li> <li>20-MHz bandwidth: MCS 0-15 for supported data rates</li> <li>40-MHz bandwidth: MCS 0-15 for supported data rates</li> <li>802.11ac: 6.5 to 867 Mbps</li> <li>20-MHz bandwidth: MCS 0-9 for supported data rates</li> <li>40-MHz bandwidth: MCS 0-9 for supported data rates</li> <li>80-MHz bandwidth: MCS 0-9 for supported data rates</li> </ul>	

Specifications	Description	
Frequency band and operating	A Regulatory Domain:	C Regulatory Domain:
channels	<ul> <li>2.412 to 2.462 GHz; 11 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> </ul>	<ul> <li>2.412 to 2.462 GHz; 11 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> </ul>
Non-overlapping channels	<ul> <li>5.500 to 5.700 GHz; 8 channels</li> <li>5.745 to 5.825 GHz; 5 channels</li> <li>E Regulatory Domain: <ul> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> <li>5.500 to 5.700 GHz; 8 channels</li> </ul> </li> <li>Regulatory Domain: <ul> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.500 to 5.700 GHz; 4 channels</li> </ul> </li> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> </ul> <li>2.4 GHz <ul> <li>802.11b/g</li> <li>20 MHz: 3</li> <li>802.11n</li> <li>20 MHz: 3</li> </ul> </li>	<ul> <li>5.745 to 5.825 GHz; 5 channels</li> <li>K Regulatory Domain: <ul> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> <li>5.500 to 5.620 GHz; 7 channels</li> <li>5.745 to 5.805 GHz; 4 channels</li> </ul> </li> <li>J Regulatory Domain: <ul> <li>2.412 to 2.472 GHz; 13 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.180 to 5.240 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> <li>5.260 to 5.320 GHz; 4 channels</li> </ul> </li> <li>5.260 to 5.320 GHz; 4 channels</li> <li>5.260 to 5.700 GHz; 11 channels</li> </ul> 5 GHz <ul> <li>802.11a</li> <li>20 MHz: 21</li> <li>40 MHz: 9</li> <li>802.11ac</li> <li>20 MHz: 21</li> </ul>
		<ul> <li>40 MHz: 9</li> <li>80 MHz: 4</li> </ul>
Wireless isolation	Wireless isolation between clients	
External antennas	None	
Internal antennas	Internal fixed PiFA antenna	
Antenna gain in dBi	Maximum antenna gain of 4.35 dBi on 2.4 GH Maximum antenna gain of 3.96 dBi on 5 GHz	
Wireless distribution system (WDS)	Yes	
Fast roaming	Yes	
Multiple SSIDs	16	
Wireless VLAN map	Yes	
WLAN security	Yes	
Wi-Fi Multimedia (WMM)	Yes, with unscheduled automatic power saving	g
Operating Modes		
Access point	Access point mode, WDS Bridging, Workgrou	p Bridge mode
Environmental		
Power options	IEEE 802.3af/at Ethernet switch Cisco power injector: SB-PWR-INJ2-xx Cisco AC Adapter – SB-PWR-48V-xx (not inc PoE peak power: 19.2 W (with PSE load)	luded)
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)	

Specifications	Description
	<ul> <li>EN 300.328, EN 301.893 (Europe)</li> </ul>
	<ul> <li>AS/NZS 4268.2003 (Australia and New Zealand)</li> </ul>
	EMI and susceptibility (Class B):
	• FCC Part 15.107 and 15.109
	ICES-003 (Canada)
	• EN 301.489-1 and -17 (Europe)
Operating temperature	0° to 40°C (32° to 104°F)
Storage temperature	-20° to 70°C (-4° to 158°F)
Operating humidity	10% to 85% noncondensing
Storage humidity	5% to 90% noncondensing
System memory	256 MB RAM
	128 MB flash
Package Contents	
WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point	
Ceiling and wall mounting kit	
Quick-start guide	
Ethernet network cable	

#### Minimum Requirements

- Switch or router with PoE support, PoE injector, or AC power adapter
- Web-based configuration: Java-enabled web browser

#### Warranty

Access point

Limited lifetime

#### Table 2. Cisco WAP361 Wireless-AC/N Access Point RF Performance

	Maximum Transmit Power (dBm) Per Chain	Receiver Sensitivity (dBm) Per Chain	
2.4 GHz – 802.11b			
1 Mbps	16.0 +/- 1.0	-96.0	
11 Mbps	16.0 +/- 1.0	-89.0	
2.4 GHz – 802.11g			
6 Mbps	14.0 +/- 1.0	-92.0	
54 Mbps	14.0 +/- 1.0	-74.0	
2.4 GHz – 802.11n H	2.4 GHz – 802.11n HT20		
MCS0/8	14.0 +/- 1.0	-90.0	
MCS7/15	14.0 +/- 1.0	-74.0	
2.4 GHz – 802.11n H	2.4 GHz – 802.11n HT40		
MCS0/8	13.0 +/- 1.0	-87.0	
MCS7/15	13.0 +/- 1.0	-70.0	
5 GHz – 802.11a			
6 Mbps	16.0 +/- 1.0	-90.0	
54 Mbps	16.0 +/- 1.0	-76.0	
5 GHz – 802.11n HT	5 GHz – 802.11n HT20		
MCS0/8	15.0 +/- 1.0	-91.0	
MCS7/15	15.0 +/- 1.0	-74.0	
5 GHz – 802.11n HT40			
MCS0/8	15.0 +/- 1.0	-87.0	
MCS7/15	15.0 +/- 1.0	-70.0	

	Maximum Transmit Power (dBm) Per Chain	Receiver Sensitivity (dBm) Per Chain	
5 GHz – 802.11ac I	5 GHz – 802.11ac HT20		
MCS0	14.0 +/- 1.0	-91.0	
MCS8	14.0 +/- 1.0	-69.0	
5 GHz – 802.11ac l	5 GHz – 802.11ac HT40		
MCS0	14.0 +/- 1.0	-87.0	
MCS9	14.0 +/- 1.0	-64.0	
5 GHz – 802.11ac l	5 GHz – 802.11ac HT80		
MCS0	14.0 +/- 1.0	-86.0	
MCS9	14.0 +/- 1.0	-61.0	

**Note:** Table 2 shows the maximum capability of the hardware. The transmit power may be reduced to comply with local regulatory requirements.

#### **Ordering Information**

Table 3 shows the product part numbers and descriptions to make ordering easier.

Part Number	Description
WAP361	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with PoE
WAP361-A-K9	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with PoE (United States, Canada, Colombia, Mexico, Australia, New Zealand, Argentina, Brazil, Hong Kong, Philippines, Singapore)
WAP361-E-K9	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with PoE (EU Region, Saudi Arabia, Thailand, Vietnam, South Africa)
WAP361-C-K9	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with PoE (China, Malaysia, India, Chile)
WAP361-K-K9	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with Po E (Korea)
WAP361-J-K9	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with Po E (Japan)
WAP361-R-K9	WAP361 Wireless-AC/N Dual Radio Wall Plate Access Point with Po E (Russia and Egypt)
SB-PWR-48V-xx	48-Volt Power Adapter
SB-PWR-INJ2-xx	Gigabit Power over Ethernet Injector - 30 Watts

#### 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 Product Warranties webpage.

#### **Cisco Small Business Support Service**

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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