

## ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)



Product Name: ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)

Manufacturer: Zyxel

Model Number: WAC6503D-S-EU0101F

ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)

The ZyXEL WAC6503D-S is a smart antenna access point that has industry-leading RF output power and sensitivity combine to offer greater coverage and performance over traditional networks, making Zyxel's WAC6500 Series the ultimate one-to-one AP upgrade choice

**ZyXEL WAC6503D-S Key Features**

- Dual-band 2.4 GHz and 5 GHz 802.11ac Wireless Access Point
- Ideal for high-density and interference-laden indoor environments
- Advanced IEEE 802.11ac delivers up to 1.75 Gbps combined data rates
- Industry-leading receive sensitivity as low as -102 dBm
- APFlex™, DCS and tool-less bracket design streamline deployment
- Zyxel One Network is supported

As well as Zyxel Smart Antenna technology, the WAC6500 Series includes several other new features including the innovative APFlex™, tool-less mounting bracket, and many other software enhancements such as the Zyxel One Network utilities, making the WAC6500 a complete product designed to streamline network installation and speed deployment for the best possible WiFi experience.

Breakthrough Smart Antenna technology for any environment

The WAC6500 Series of 802.11ac APs delivers industry leading performance, thanks in part to its innovative Smart Antenna design. Featuring more than 700 optimized antenna patterns, the Zyxel Smart Antenna continuously calculates the ideal physical-layer path for each individual client. This feature not only offers the best possible signal by shaping to various patterns, but it also mitigates interference from other wireless clients. The WAC6500 Series's ultra-fast capabilities makes it perfect for delivering premium performance in interference-laden environments, such as conference rooms, airports, educational facilities and other high-density venues. And the series's enhanced adaptability further simplifies one-to-one AP replacement.

Best-in-class coverage and performance

In a WiFi market crowded with 802.11ac APs, the WAC6500 Series stands out with regard to performance and coverage due to its unique RF design. The AP's three-stream hardware configuration provides power of up to 30 dBm while providing unequalled receive sensitivity as low as -102 dBm. The Zyxel Smart Antenna doubles the WAC6500 Series's performance over conventional internal antennas, and performs three times (3x) better than legacy 802.11n APs.

Easy and instant deployment with APFlex™, DCS, and tool-less bracket design

Zyxel APFlex™ eases installation by resolving the managed/standalone AP mode configuration, automatically integrating into the network environment with or without Dynamic Host Configuration Protocol (DHCP), eliminating the need for pre-installation preparation. Other helpful features include Dynamic Channel Selection (DCS), avoid the interference of cochannel and overlapping channel at initialization. In addition to software solutions, the WAC6500 Series's simplifies installation through creative design features. For example, the universal and tool-less bracket design allows for flexible ceiling track mounting without the need for special tools. From software to hardware, the WAC6500 Series makes setup and operation fast and simple.

ZyXEL WAC6503D-S Technical Specifications

Model

• 802.11ac Dual Radio Smart Antenna 3x3 Access Point

## ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)

### Main Design

• Wireless frequency: 2.4 and 5 GHz  
• Radio: 2

### RF Specifications

• 2.4 GHz (IEEE 802.11 b/g/n)

• USA (FCC): 2.412 to 2.462 GHz  
• Europe (ETSI): 2.412 to 2.472 GHz  
• Taiwan (TW): 2.412 to 2.462 GHz

• 802.11n/ac premium features:

• 3x3 Multiple-Input Multiple-Output (MIMO) with three spatial streams  
• Maximal Ratio Combining (MRC)  
• 20-, 40- and 80-MHz channels  
• Packet aggregation: A-MPDU (Tx/Rx), A-MSDU (Tx/Rx)  
• Cyclic Delay Diversity (CSD) support  
• Maximum Likelihood Demodulation (MLD) support  
• Low Density Parity Check (LDPC) support

• Typical transmit output power (Conducted):

• FCC 11b/g: 29  
• FCC 11b/n: 29  
• FCC 11a: 30  
• FCC 11n/a (ac): 30  
• EU 11b/g: 15  
• EU 11g/n: 15  
• EU 11a: 23  
• EU 11n/a (ac): 23

• Number of antenna: 6 embedded smart antenna  
• Antenna gain: 4 dBi @2.4 GHz, 6 dBi @5 GHz  
• Support data rate:

• 802.11a/g: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps  
• 802.11b: 1, 2, 5.5 and 11 Mbps  
• 802.11n: up to 300 Mbps in MCS15 (40 MHz)  
• 802.11ac: up to 866 Mbps in MCS9 (80 MHz)

• Min. Rx sensitivity up to -102 dBm

### Interfaces

• Number of 10/100/1000M LAN: 2  
• Console port: RJ-45 serial  
• PoE: Yes  
• 17.04W

## ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)

### WLAN Features

- ✓ WLAN maximum throughput: Up to 900 Mbps
- ✓ Mesh AP (By license): Yes
- ✓ Mesh AP for multiple SSID with VLAN: Yes
- ✓ Fast roaming: Pre-authentication, PMK caching and 802.11r/k/v

### Wireless Security

- ✓ WEP: Yes
- ✓ WPA/WPA2-PSK: Yes
- ✓ WPA/WPA2-Enterprise: Yes
- ✓ EAP types: EAP-TLS, EAP-TTLS, EAPPEAP, EAP-FAST, EAP-AKA and EAP-SIM
- ✓ IEEE 802.1X: Yes
- ✓ Number of SSID: 16
- ✓ Web authentication: Yes
- ✓ MAC filtering: Yes
- ✓ Layer-2 isolation: Yes
- ✓ RADIUS authentication: Yes
- ✓ Microsoft AD authentication: Yes
- ✓ LDAP authentication: Yes
- ✓ MAC authentication: Yes
- ✓ Rogue AP detection
- ✓ Rogue AP containment

### Network

- ✓ IPv6 host: Yes
- ✓ VLANs: Yes
- ✓ DHCP client: Yes

### QoS

- ✓ WMM (WiFi certified): Yes
- ✓ WMM power save: Yes
- ✓ DiffServ marking: Yes

### Management

- ✓ ZON Utility
- ✓ Discovery of Zyxel switches, APs and gateways
- ✓ Centralised and batch configurations :

- ✓ IP Configuration
- ✓ Device locating
- ✓ Password configuration
- ✓ IP renew
- ✓ Web GUI access
- ✓ device reboot
- ✓ firmware upgrade

- ✓ Smart Connect

## ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)

- Neighbour device discovery
- One-click remote management access to the neighboring Zyxel devices

### Zyxel AP configurator:

- Batch AP configuration
- Batch AP firmware upgrade
- Batch AP profile backup

### Zyxel wireless optimiser:

- WiFi AP Planning
- WiFi coverage detection
- Wireless health management

- Standalone AP mode: Yes
- Managed AP mode: Yes
- CLI: Yes
- Web UI: Yes
- SNMP: v2c/v3

### Others

- Plenum rating: Yes
- Kensington lock support: Yes
- Input power: DC input: 12VDC 2A; PoE: 802.3at compliant (Power adapter is sold separately)
- MTBF (hr): 1,202,489

### Standard Compliance

#### Ethernet:

- IEEE 802.3
- IEEE 802.3u
- IEEE 802.11ab
- IEEE 802.3au
- IEEE 802.3az
- IEEE 802.3at

#### PoE: IEEE 802.3at

#### WLAN:

- 802.11b: DBPSK, DQPSK, CCK
- 802.11a: BPSK, QPSK, 16-QAM, 64-QAM
- 802.11ac: BPSK, QPSK, 64-QAM, 256-QAM

### Certifications

## ZyXEL WAC6503D-S 802.11ac 3x3 Smart Antenna AP (no PSU)

• Radio: FCC Part 15C, FCC Part 15E, ETSI EN 300 328, EN 301 893, LP0002  
• EMC: FCC Part 15B, EN 301 489-1, EN 301 489-17, EN55022, EN55024, EN61000-3-2/-3, EN60601-1-2, BSMI CNS13438  
• Safety EN 60950-1, IEC 60950-1, BSMI CNS14336-1

### Physical Specifications

• Item:

• Dimensions (WxDxH) (mm/in.): 236 x 227 x 62/ 9.28 x 8.95 x 2.43Z  
• Weight: 982/2.17

• Packaging:

• Dimensions (WxDxH) (mm/in.): 308 x 323 x 127/ 12.13 x 12.72 x 5.00  
• Weight (g/lb.): 1743/3.85

• Included accessories:

• Ceiling mount plate  
• Mounting screws

### Environmental Specifications

• Operating environment:

• Temperature: 0&deg;C to 50&deg;C/ 32&deg;F to 122&deg;F  
• Humidity 10% to 90% (non-condensing)

• Storage environment:

• Temperature -40&deg;C to 70&deg;C/ -40&deg;F to 158&deg;F  
• Humidity 10% to 90% (non-condensing)

**Price: £581.59**