

AP-W6T10000C Access Point Datasheet

10 Gbps 4x4 MU-MIMO Three Radios Broadcom Chip Gigabit Wi-Fi 6 Access Point



Overview

The AP-W6T10000C Wi-Fi 6 (802.11ax) Access Point is a tri-band wireless Access Point that supports 4x4 MU-MIMO, and can simultaneously deliver services on the 2.4 GHz, 5 GHz and 2.4/5 GHz bands, support 2.4 GHz to 5 GHz switchover, achieving a maximum rate of up to 10 Gbps.

The AP complies with the 802.11ax, 802.11ac Wave2, 802.11ac Wave1, and 802.11n protocols. It adopts the hardware-independent tri-radio design and can provide a maximum wireless access rate of 10 Gbps, which breaks through the bottleneck in wireless performance.

With built-in smart antennas that enable signals to follow Stations (STAs), providing better coverage, the AP is ideal for high-density scenarios such as midsize and large enterprise offices, campus, stadium.

Benefits

- 802.11ax Standard, up to 10 Gbps
- Built-in 4x4 MIMO Antenna
- Max 1536 Client Connections
- Multi-gigabit Ports, 100/1000M/2.5G/5G Base-T
- 802.3af/at/bt PoE
- FAT/FIT AP

Key Features

Super Fast Wireless Access, Higher Energy Efficiency and Reliability

- **1024-QAM High-Speed Access**

The AP adopts the tri-band design and complies with the next-generation Wi-Fi standard 802.11ax. When the tri-band are all enabled, the AP can provide a maximum wireless access rate of 10 Gbps, bringing high-speed access experience.

- **OFDMA High-Density User Access**

The AP can conduct scheduling to allow multiple users to receive and send packets concurrently, reducing user competition and backoff, shortening the network delay, and improving network efficiency.

- **Spatial Reuse with BSS Color**

This technology implements channel reuse in high-density scenarios and greatly eases frequency interference in actual network deployment.

- **Environment Protection and Lower Power Consumption**

The AP incorporates various new energy saving technologies, including the single-antenna standby technology, dynamic MIMO power saving technology, enhanced automatic power saving transmission technology, and packet-based power control technology. With these technologies as well as high-performance power design, the AP is energy-efficient while providing high-speed wireless access service.

- **Intelligent Recognition Function**

The AP is capable of identifying smart mobile terminals (such as iOS and Android terminals) and PCs.

- **Intelligent Local Forwarding**

The AP integrates intelligent local forwarding technology and breaks through the bottleneck in the traffic of AC. The AC can be used to pre-configure the data forwarding mode for the AP. Then, this AP determines whether data needs to be forwarded by the AC based on the SSID name or user VLAN, or be sent to a wired network for data exchange.

- **Abundant QoS Policies**

The AP supports abundant QoS policies. It provides WLAN/AP/STA-based bandwidth limitation and supports Wi-Fi Multimedia (WMM) that defines priorities for different service data. The AP authentically implements timely and quantitative transmission of audio and video, and guarantees smooth application of multimedia services.

Comprehensive Security Protection and Ease of Use

- **Secure User Access**

The AP supports a wide range of user access authentication modes such as Web authentication, 802.1x authentication, MAC Address Bypass (MAB) authentication, and local authentication. Complying with the standard network access control standard, the AP strictly defines a set of network access control policies in terms of user access, authorization, host compliance check, network behavior monitoring, and network attack prevention. These control measures guarantee high network security for authenticated users.

- **Flexible Virtual AP Technology**

With the virtual AP technology, the AP supports up to 48 virtual APs, with each radio card supporting a maximum of 16 virtual APs. Network administrator can separately encrypt and isolate subnets or VLANs with the same SSID, and configure separate authentication mode and encryption mechanism for each SSID.

- **Comprehensive Wireless Security Protection**

Working with the AC, the AP is capable of offering a wide breath of wireless security protection features including the Wireless Intrusion Detection System (WIDS), RF interference tracking, rogue AP containment, anti-ARP spoofing, and DHCP protection. With these features, an authentically secure and reliable wireless network can be built for users.

All-in-One Design for Small Branch Offices

In small branch office scenarios, the AP not only serves as an AP to provide the wireless access service for the office area but also serves as a VPN gateway. This all-in-one design simplifies network deployment and saves building costs for users.

- **PPPoE**

The AP can function as a PPPoE client and connects to the Internet via PPPoE. Then, no gateway needs to be set up in the branch office area for Internet access.

- **NAT**

The AP supports the NAT function, which provides NAT service between the LAN in the branch office and the Internet.

- **IPSec VPN**

The AP can establish IPSec VPN tunnels between the branch office area and the headquarters to implement their LAN interconnection.

Flexible Device Management Modes

- **Flexible Switching Between Fit Mode and Fat Mode**

The AP supports flexible switching between the fat mode and fit mode. In fit mode, the AP can be used after installation with zero configuration. The sound remote management greatly improves the operation, administration, maintenance (OAM) efficiency for wireless networks.

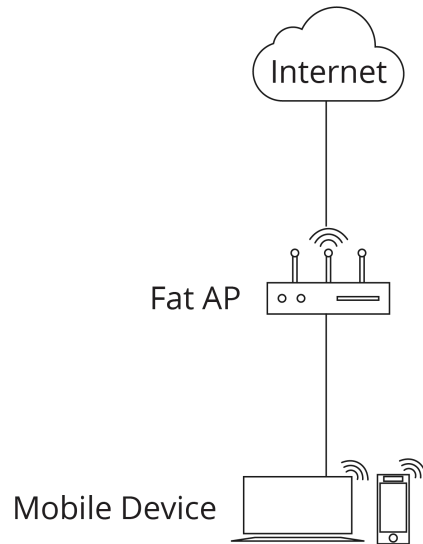
- **Web GUI Management**

The AP provides the AC and AP Web management GUI, on which O&M personnel can complete wireless configuration easily and manage the wireless network comprehensively. On the AC Web GUI, O&M personnel can manage the AP as well as STAs connected to the AP, and restrict the rates and network access behaviors of the STAs. With the GUI, O&M personnel can plan, manage, and maintain wireless networks conveniently.

Typical Networking

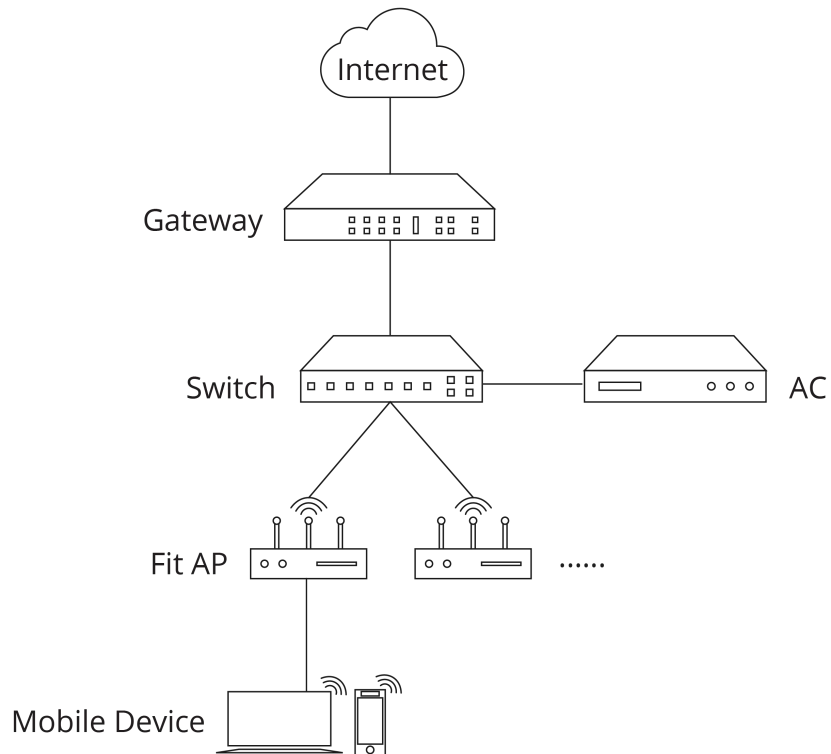
FAT AP

In the below networking, the AP-W6T10000C works as a fat AP to complete user access, authentication, data security, service forwarding, and QoS.



FIT AP

In the below networking, the AP-W6T10000C works as a fit AP to bearer bridge forwarding function, and the functions of user access, AP online, authentication, routing, AP management, security protocol, and QoS are completed by the AC.



Technical Specification

Wi-Fi 6 access point comes with advanced hardware architecture design. Here's a look at the details.

CHARACTERISTICS

AP-W6T10000C	
Ports	
Service Port	2x 100/1000M/2.5G/5G RJ45 (PoE); 1x 10/100/1000M RJ45;
Console Port	1
USB Port	USB 2.0 port
Key Components	
AP Chip	BCM49608
DRAM	1GB
Flash Memory	136MB
Radio Specifications	
2.4GHz Operating Bands	802.11b/g/n/ax: 2.4 GHz to 2.483 GHz
5GHz Operating Bands	802.11a/n/ac/ax: 5.150 GHz to 5.350 GHz, 5.47 GHz to 5.725 GHz, 5.725 GHz to 5.850 GHz (vary depending on different countries)
MIMO	2.4 GHz 11n: 2x2 MIMO, 5 GHz 11ax: 4x4 MIMO, 2.4GHz/5GHz 11ax: 4x4 MIMO
Spatial Streams	2.4 GHz: 2x2:2, 5 GHz:4x4:4, 2.4 GHz/5 GHz:4x4:4
Antenna	Integrated antenna design
Antenna Gain	
Coverage Radius	30m
Power	
Power Supply	Support 802.3bt (PoE+)/PoE++, compatible with 802.3af (PoE)/802.3at(PoE+)
Input Voltage (DC)	48 V, 50-60Hz
Power Consumption	<40W
Transmit Power	≤100mW (20dBm)
Adjustable Power	1dBm

CHARACTERISTICS

AP-W6T10000C	
Physical and Environmental	
Installation Mode	Ceiling/wall-mountable
Bluetooth	Bluetooth 5.0
Reset Button	Support
Dimensions (HxWxD)	2.11"x10.04"x10.04"(53.5x255x255mm)
Operating Temperature	-10°C to 50°C
Storage Temperature	-40°C to 70°C
Operating Humidity	5% to 95% (non-condensing)
Storage Humidity	5% to 95% (non-condensing)
Warranty	
Warranty	3 Years

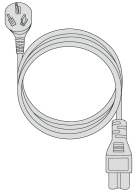
FEATURES

Functionality	Description
WLAN	<ul style="list-style-type: none"> • 802.11a/b/g/n/ac/ac Wave2/ax • Maximum throughput per AP: 10 Gbps • Radio 1: 2.4G 0.4 Gbps/Radio 2: 5G 4.8 Gbps/Radio 3: 2.4G 1.15Gbps, 5G 4.8Gbps • Maximum number of allowed concurrent STAs: 1536 • Recommended number of connected STAs: 150 • Virtual APs: A maximum of 48 virtual APs, with 16 per band • SSID hiding • Separate authentication mode, encryption mechanism, and VLAN attributes for each SSID • Remote Intelligent Perception Technology (RIPT) • Intelligent device recognition technology • Intelligent load balancing based on the number of STAs or traffic • STA limit: SSID-based STA limit, radio card-based STA limit • Bandwidth limit: STA/SSID/AP-based rate limit

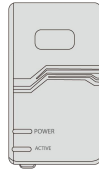
FEATURES

Functionality	Description
	<ul style="list-style-type: none"> • PSK and Web authentication • Data encryption: WPA (TKIP), WPA-PSK, WPA2 (AES), WEP (64/128 bits), WPA3 • SMS authentication • MAB authentication • Data frame filtering: Whitelist, static blacklist, dynamic blacklist
Security Features	<ul style="list-style-type: none"> • User isolation • Rogue AP detection and containment • Dynamic ACL assignment • RADIUS • CPU Protect Policy (CPP) • Network Foundation Protection Policy (NFPP)
Routing Switching	<ul style="list-style-type: none"> • IPv4 address: Static IP address or dynamic IP address obtained via DHCP • Multicast: Multicast-to-unicast conversion • PPPoE: PPPoE client • VPN: IPSec VPN • NAT: Support (including FTP ALG/DNS ALG)
Management and Maintenance	<ul style="list-style-type: none"> • Supported wireless LAN controller: AC-224AP Wireless Controller • Network management: Telnet, TFTP, Web • Wireless positioning: RBIS • Support SNMPV1, V2c, V3 (FAT&FIT AP mode) • Wireless marketing: WMC/MCP • Fault detection and alarm • Information statistics and logs • When the AP works in fit mode, it can be switched to fat mode via an AC • When the AP works in fat mode, it can be switched to fit mode through the local control port or Telnet mode

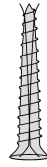
Accessories



Power Cord x1



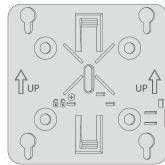
Power Injector x1



Screw x4



Screw Anchor x4



Mounting Bracket x1



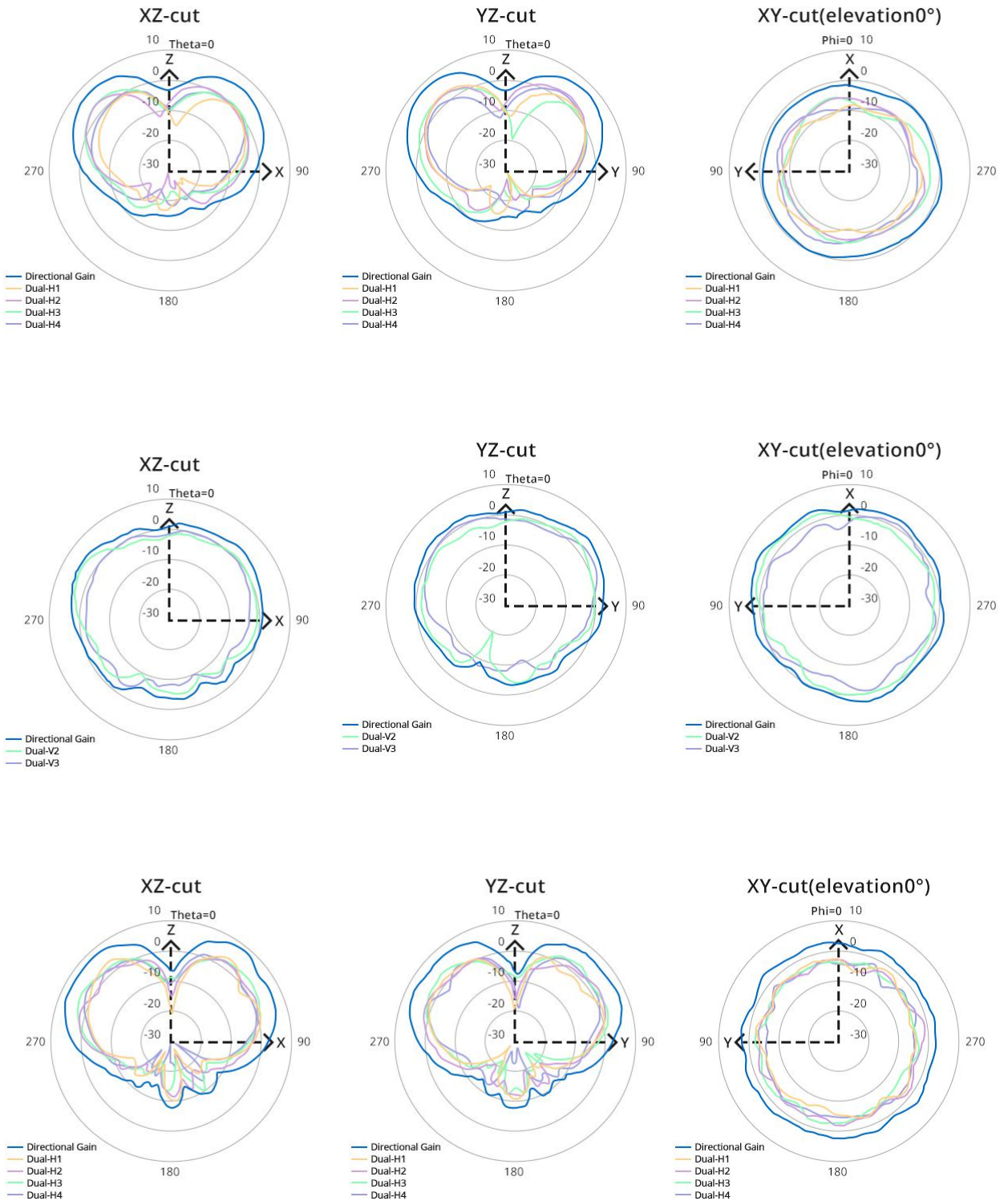
Hidden Lock's Key x1

Ordering Information

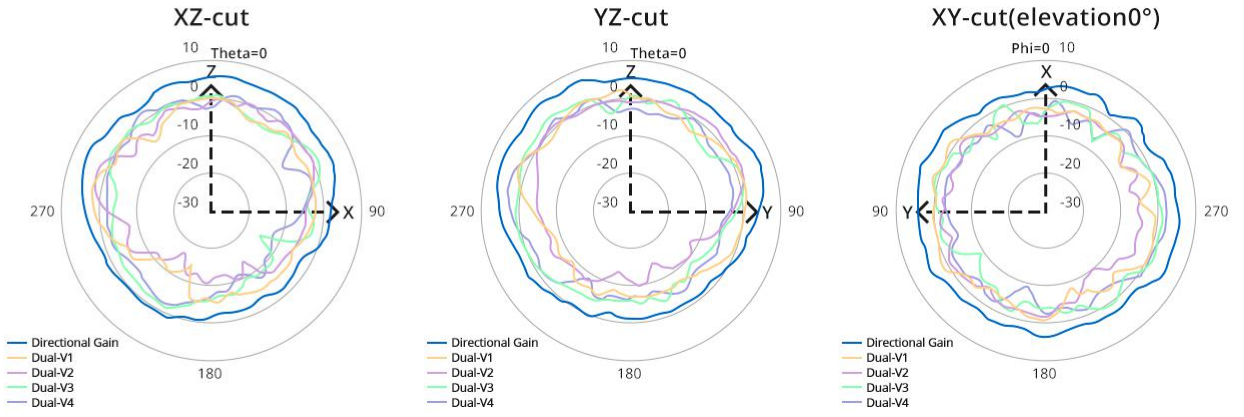
ID	Description
149655	1167Mbps 2x2 MU-MIMO Dual Radios Wireless Access Point
115392	1775Mbps 2x2 MU-MIMO Dual Radios Gigabit Access Point
108705	2400Mbps 2x2 MU-MIMO Dual Radios Gigabit Access Point
149657	2400Mbps 2x2 MU-MIMO Dual Radios Gigabit Outdoor Access Point
149657	2400Mbps 2x2 MU-MIMO Dual Radios Gigabit Outdoor Access Point
149657	2400Mbps 2x2 MU-MIMO Dual Radios Gigabit Outdoor Access Point
149656	3000Mbps 2x2 MU-MIMO Dual Radios Gigabit Access Point
115391	3267Mbps 2x2 MU-MIMO Three Radios Gigabit Access Point
115390	4134Mbps 2x2 MU-MIMO Quad-Band Broadcom Chip Gigabit Access Point
108707	6817Mbps 4x4 MU-MIMO Three Radios Gigabit Access Point
115389	10Gbps 4x4 MU-MIMO Three Radios Gigabit Access Point
141375	Wireless LAN Controller with 64 AP License
108708	Wireless LAN Controller with 224 AP License
149659	Wireless LAN Controller with 1152AP License

Note: AC-1004/AC-7072 can manage all APs on the website, except three Wi-Fi 5 APs: FS-AP733C, FS-AP1167C, FS-AP3000C; AC-224AP can manage all Wi-Fi 6 APs on the website, except three APs: AP-T565, AP-T567 and AP-N505.

Antenna Patterns



Antenna Patterns





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