AP-W6D2400C Access Point Datasheet

2400Mbps 2x2 MU-MIMO Dual Radios Broadcom Chip Gigabit Wi-Fi 6 Access Point

Overview

The Wi-Fi 6 (802.11ax) Access Point (AP) supports 2 x 2 MU-MIMO, and can simultaneously deliver services on the 2.4 GHz and 5 GHz bands, support 2.4 GHz to 5 GHz switchover, achieving a maximum rate of up to 2400Mbps in dual-5 GHz bands.

With built-in smart antennas that enable signals to follow Stations (STAs), providing better coverage, the AP is ideal for high density indoor scenarios such as small and medium enterprises (SMEs), education institutions. cafés, and entertainment venues.

Benefits

- 802.11ax Standard, up to 2400Mbps
- Built-in 2x2 MIMO Antenna
- 2.4G + 5G or 5G + 5G
- Max 1024 Client Connections
- Multi-gigabit Port
- 802.3af PoE
- Managed via Airware Cloud/WLAN Controller/ Security Gateway or Operate Alone

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Key Features

Wi-Fi 6 Technology

- **1024-QAM High-speed Access**

The AP adopts the dual radios design and 2.4G+5G is recommended. With the next-generation 802.11ax for 5G, the maximum access rate can reach 2400Mbps.

- **OFDMA High-density User Access**

The AP supports OFDMA of 802.11ax, which divides the WLAN channel into a plurality of narrower subchannels, with each user occupying one or more subchannels. By scheduling multiple users to receive and send packets concurrently via the AP, user competition and back-off can be reduced, thereby reducing network latency and improving network efficiency.

- **Bi-Directional MU-MIMO**

Compared with the previous Wi-Fi 5 (802.11ac) with only downlink MU-MIMO support, Wi-Fi 6 supports both uplink and downlink MU-MIMO (multi-user, multiple-input and multiple-output). Therefore, the AP can connect clients simultaneously, significantly improving the wireless performance and experience.

- **TWT (Target Wake Time)**

Target wake time (TWT) is used to help minimize contention between clients and reduce the amount of time a client in power save mode to be awake. Energy consumption is reduced by up to 70% of the battery consumption, thereby improving battery life.

- **Spatial Reuse with BSS Color**

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

- **Industry-leading Local Forwarding Technology**

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

- **Secure User Access**

The AP supports a wide range of authentication methods such as web, 802.1x, PPSK (one-time dynamic password for staff), voucher/access code, user account, and social authentication. Complying with the standard network access control, it offers a set of control policies in terms of user access, authorization, equipment compliance check, network behavior monitoring, network attack prevention, etc. All these control features guarantee high network security for authenticated users.

- **Virtual AP Technology**

With the virtual AP technology, the AP supports up to 32 ESSIDs. Network administrator can separately encrypt and isolate VLANs or subnets of the same SSID, thereby enabling specified authentication mode and encryption mechanism for each SSID.

- **Comprehensive Wireless Protection**

Working with the AC, the AP offers a breadth of security features including WIDS (Wireless Intrusion Detection System), RF interferenc tracking, rogue AP contait, nmenanti-ARP spoofing, DHCP protection and beyond for all-around security protection.

Hybrid Management

- **Flexible Management Options**

All APs support hybrid management mode. Either deployed as standalone AP (Fat mode) or managed AP (Fit mode), the AP will detect the operation mode automatically without extra effort on firmware upgrade.

- **Web and CLI Management Interface**

The AP provides both web and command-line interface (CLI) for the AP and wireless controller, suitable for application in different scenarios. CLI design allows the networking professionals to perform fast troubleshooting, bulk configuration import or modification. Web GUI management should be perfect for the majority of general scenarios to plan, operate and maintain the wireless network without the need of customization.

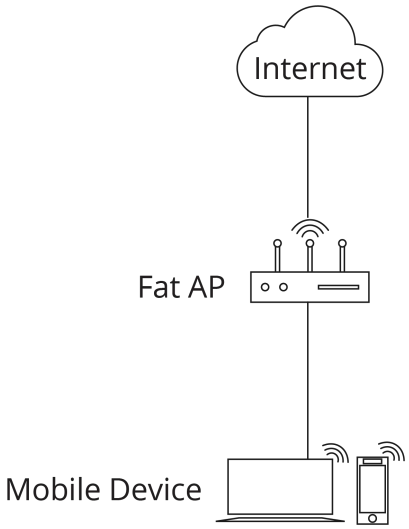
- **Airware Cloud Management**

The AP supports cloud delivery, cloud operations, cloud inspection, and cloud diagnosis.

Typical Networking

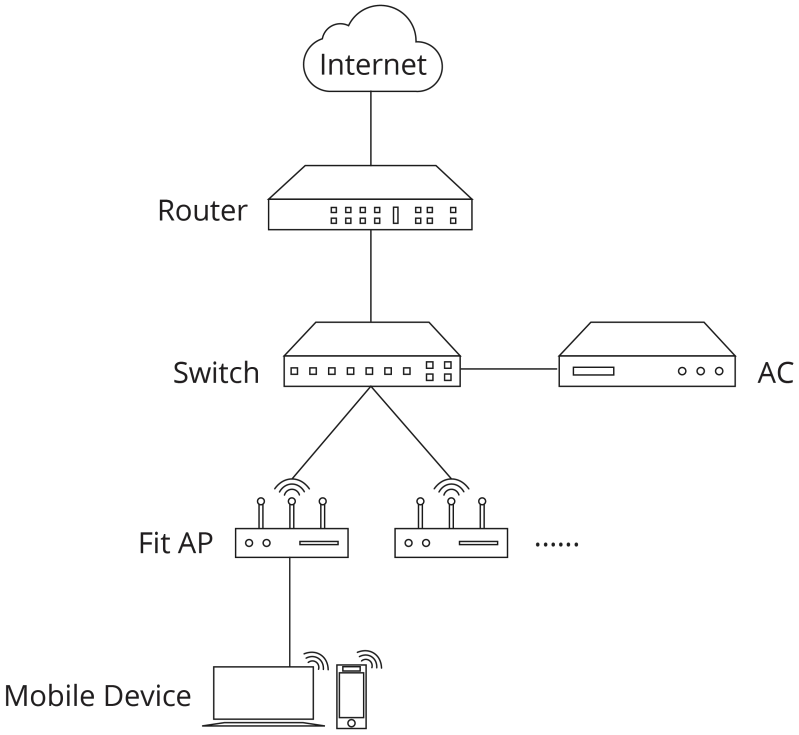
FAT AP

In the below networking, the AP-W6D2400C works as a fat AP to complete user access, authentication, data security, service forwarding, and QoS.



FIT AP

In the below networking, the AP-W6D2400C 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-W6D2400C
Ports	
Service Port	1x10/100/1000 Mbps RJ45 (PoE)
Console Port	1
Key Components	
AP Chip	Broadcom BCM47622
DRAM	256MB
Flash Memory	128MB
Radio Specifications	
2.4GHz Operating Bands	802.11b/g/n: 2.4G-2.483GHz;
5GHz Operating Bands	802.11a/n/ac/ax: 5.150-5.350GHz, 5.47-5.725GHz, 5.725-5.850GHz (vary depending on different countries)
MIMO	2.4G 11ax/5G 11ax: 2x2 MIMO, 5G 11ax: 2x2 MIMO
Spatial Streams	2.4GHz: 2x2:2, 5GHz 2x2:2
Antenna	Integrated antenna design
Antenna Gain	2.4G: 3dBi, 5G: 3dBi
Coverage Radius	15~20m
Power	
Power Supply	802.3af PoE; DC 48V/0.3 A
Power Consumption	<12.95W
Transmit Power	≤100mw (20dBm)
Adjustable Power	1dBm
Physical and Environmental	
Installation Mode	Ceiling/wall-mountable
Bluetooth	Bluetooth 5.0
Reset Button	Support

CHARACTERISTICS

	AP-W6D2400C
IP Rating	IP41
Dimensions (HxWxD)	1.02"x6.02"x7.59" (26x153x193mm)
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

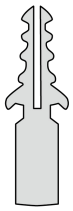
FEATURES

Functionality	Description
WLAN	• 802.11a/b/g/n/ac/ac Wave2/ax • Maximum throughput (5G+5G mode) per AP: 2400Mbps • Radio 1: 5G low band 1200Mbps, Radio 2: 5G high band 1200Mbps • Maximum throughput (2.4G+5G mode) per AP: 1774Mbps • Radio 1: 2.4G 574Mbps, Radio 2: 5G 1200Mbps • Maximum clients per AP: 1024 • Recommended number of connected STAs: 64 • BSSID capacity: Up to 32 • SSID hiding • 5G Priority (Band Steering) • Configuring the 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 users or traffic • STA control: SSID/radio-based • Bandwidth control: STA/SSID/AP-based bandwidth control

FEATURES

Functionality	Description
Security	• Data encryption: WPA (TKIP), WPA-PSK, WPA2 (AES), WEP (64/128 bits), WPA3 • PSK and web authentication • PPSK authentication: Require wireless controller • 802.1x authentication • PEAP authentication • Data frame filtering: Whitelist, static/dynamic blacklist • User isolation • Rogue AP detection and countermeasure • Dynamic ACL assignment • RADIUS • CPU Protection Policy (CPP) • Network Foundation Protection Policy (NFPP)
IP	• IPv4 and IPv6 address • Multicast routing: Multicast to unicast conversion • DHCP service: DHCP Snooping, Option 82, Server, Client
Management and Maintenance	• Supported wireless LAN controller: AC-224AP/ AC-1004/ AC-7072 Wireless Controller • Management protocol: Telnet, SSH, TFTP, Web • Wireless Intelligent AI Optimization Service (WIS) • SNMPV1, V2c, V3 • Syslog / Debug • 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 • Support Airware cloud for AP/AC centralized management to solve problems efficiently and remotely, skip going onsite

Accessories



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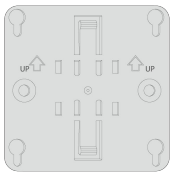
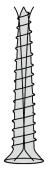


Mounting Bracket x1

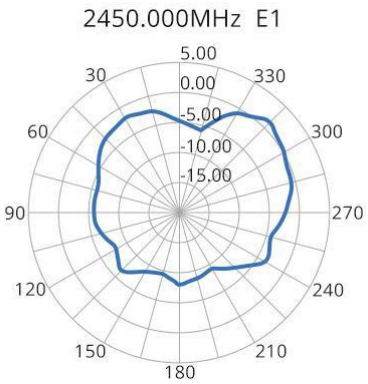


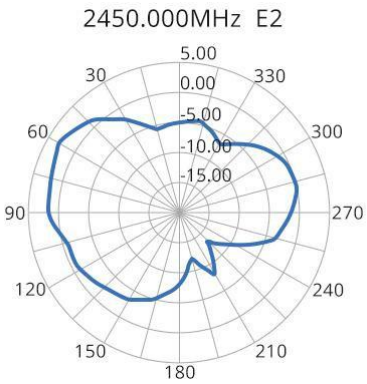
Screw x2

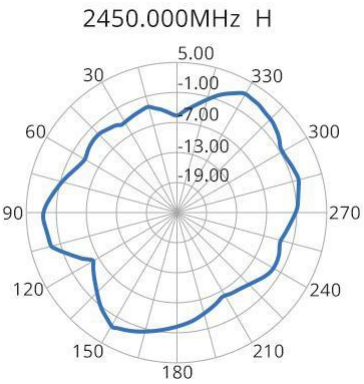
Ordering Information

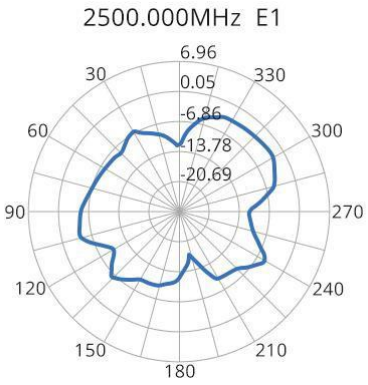
ID	Description
108705	2400 Mbps 2x2 MU-MIMO Dual Radios Gigabit Access Point
149657	2400 Mbps 2x2 MU-MIMO Dual Radios Gigabit Outdoor Access Point
149658	2400 Mbps 2x2 MU-MIMO Dual Radios Gigabit Outdoor Access Point
149656	3000 Mbps 2x2 MU-MIMO Dual Radios Gigabit Access Point
115389	10 Gbps 4x4 MU-MIMO 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 1152 AP License

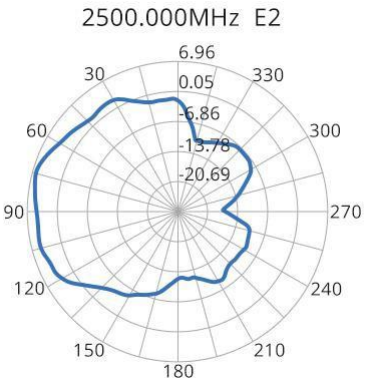
Antenna Patterns

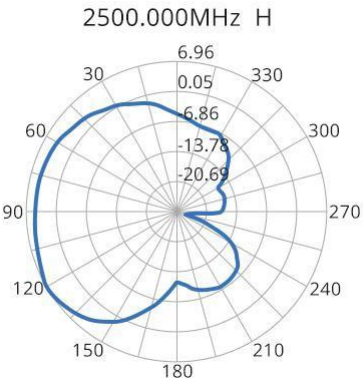


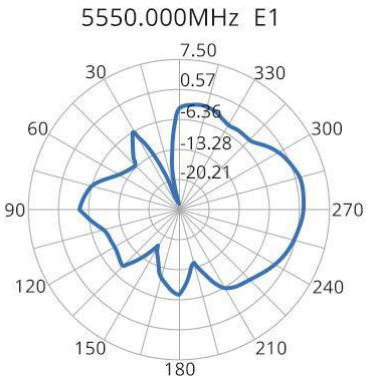


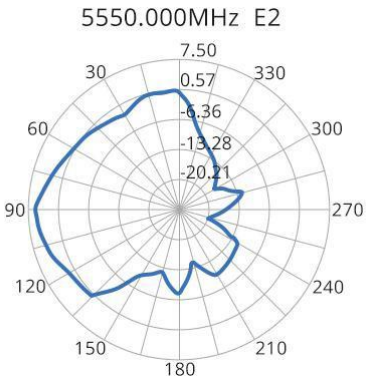


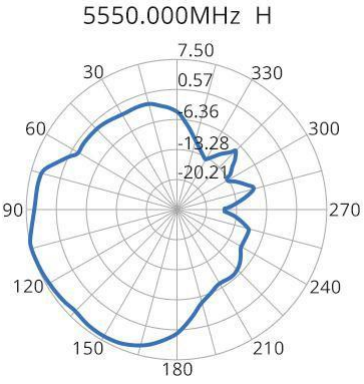












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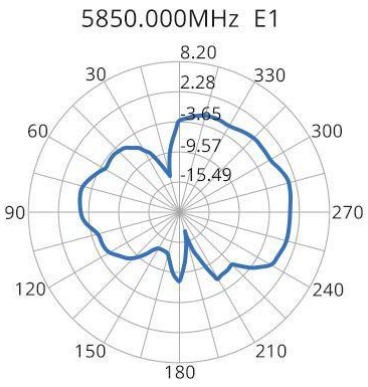

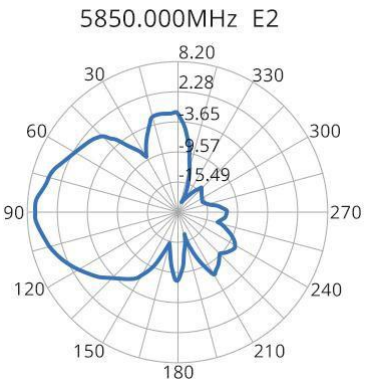

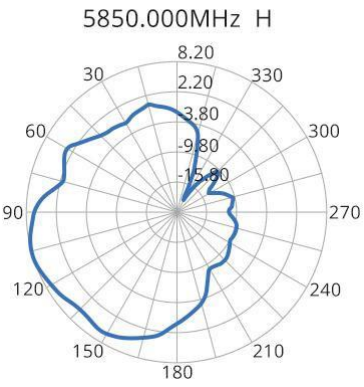

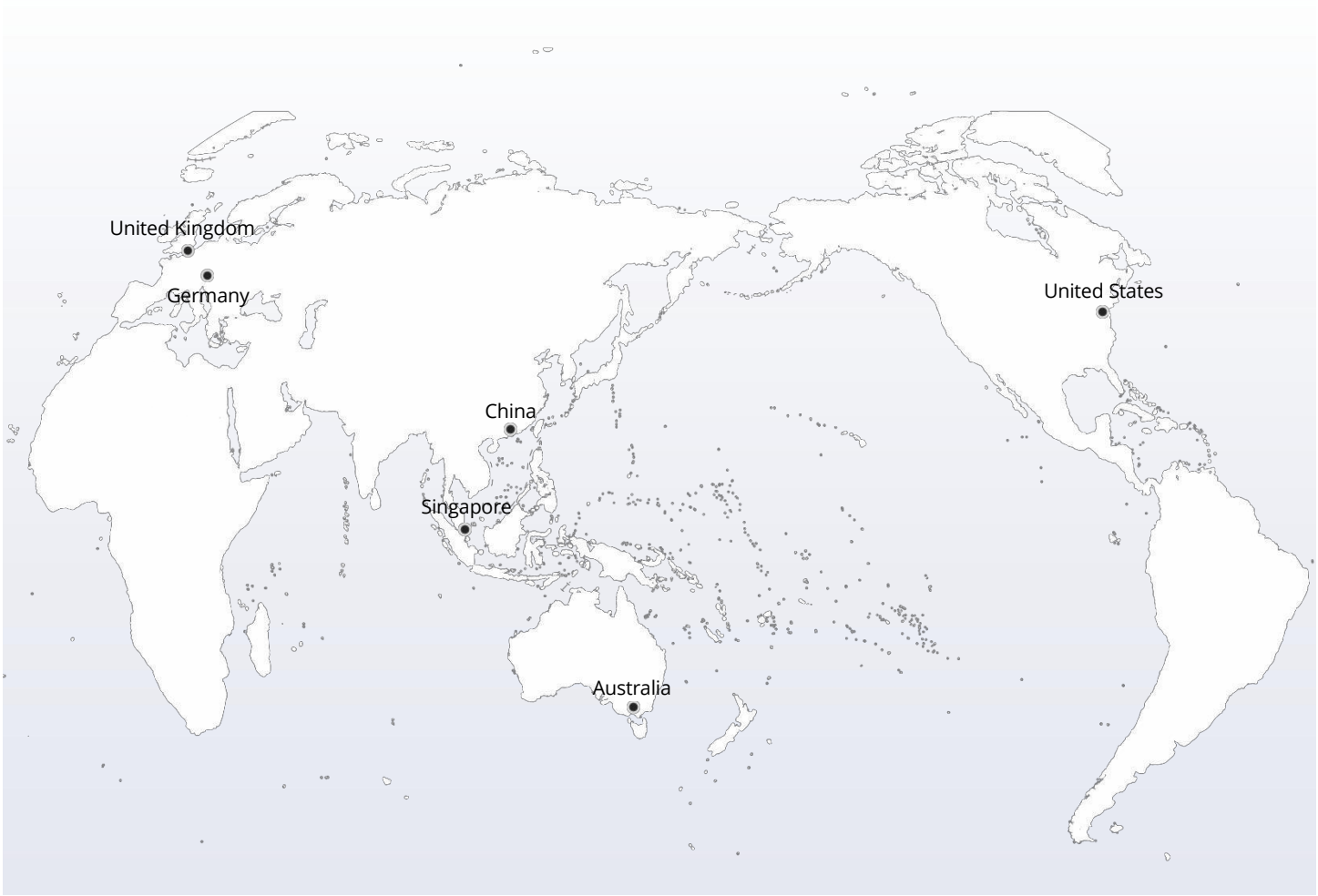

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