
High performance dual-band 802.11n Wireless AP WF-122 Product Datasheet

VERSION 6.0

February, 2018

Partnership for the Next Generation Broadband CPE

www.cigtech.com

Notice:

CIG have the sole right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice, CIG has the final interpretation.

■ Overview

WF-122 is a dual band 2x2 MIMO indoor Wi-Fi AP, which is designed for high-density deployments in large offices, schools, hospitals and hotels that require premium performance. Having perfect compatibility, WF-122 works with most wireless terminals to builds a high capacity Wi-Fi network.

WF-122 can provide up to 600Mbps high throughput. The enhanced TX power and receive sensitivity make it deliver the high throughput and reliable coverage required by the most demanding business applications. WF-122 supports multiple operation modes, including AP, AP WDS and WDS Bridge. The flexible applications can meet the requirements in different scenarios.

WF-122 centralized management by integration with 3rd party controller or cloud management systems. It is convenient to remotely manage and monitor the APs. Multiple separate SSIDs help to control the access to the network. With the QoS policy, the service with high priority can be assured for the good experience. The 802.1x and Web authentication provide the enhanced security for the system.



WF-122

■ Key Features and Benefits

1. Dual band 2x2 MIMO radio

WF-122 is compliant with IEEE 802.11 a/b/g/n standard (MIMO 2x2). Utilizes 802.11 standard speeds, up to 300 Mbps on the 2.4 GHz frequency band and up to 300 Mbps on the 5GHz frequency band. It finds the most efficient path to a Wireless client device and locks onto it delivering throughput speeds ideal for media streaming, online gaming, and large file transfers. The WF-122 has perfect compatible with most wireless terminals, including the wireless adapter, the notebook, the phone, etc.

2. All-in-one Integrated AP

The integrated FAT AP software package provides complete functionalities for quick deployments. The functions include, QoS, Web authentication, MAC authentication, MAC ACL, Portal Integration, VLAN, IGMP, NTP, etc. It can meet the requirements of the various applications.

3. 3rd party integration: Open platform

WF-122 supports centralized management by integration with 3rd party controller or cloud management systems. The management data between WF-122 and the access controller is encrypted. The APs are zero configurations, before connecting to the AC. By creating the different service templates, it is easy for the manager to configure many APs in a short time. It is possible for the manager to manage WF-122 from anywhere, modifying the configurations, upgrading the software, rebooting the AP, and monitoring the AP status by the alarms or system logs.

4. Multiple operation modes

WF-122 supports multiple operation modes, including AP, AP WDS and WDS Bridge. Working in the AP mode, WF-122 provides the high capacity wireless access. By enabling the AP WDS for the radio, WF-122 can support the client with WDS to access. WDS Bridge mode on 5GHz radio and AP mode on 2.4GHz radio make it possible to establish the mesh network.

5. Prioritizes Applications and Maintains Quality of Experience

Advanced QoS (Quality of Service) prioritizes bandwidth intensive applications like HD video and gaming or bandwidth sensitive applications like VoIP telephone calls. The bandwidth limitation based on the SSID/Role helps to control the access for the different users, for example, the SSID/Role for the guest access will get less bandwidth and more bandwidth is guaranteed for the SSID/Role for the staff access.

6. Multiple SSIDs

WF-122 supports up to 32 SSIDs, 16 SSIDs for each radio. And these SSIDs are isolated. That means, it is possible to create multiple SSIDs for different users, the guest, the staff and the administrator. And the clients accessing to different SSIDs are forbidden to visit each other. The private information is protected very well. Based on each SSID, it can apply the different QoS policy and authentication method. With WF-122, it is convenient for the customer to classify the access roles. Support up to 256 users access.

7. Industry-Standard Security

WF-122 supports multiple security methods, WEP, WPA/WPA2-PSK, 802.1x Authentication (PEAP, EAP/SIM), MAC Authentication and Web Authentication. Denial of accessing by MAC ACL makes your business network safe from intruders or from malicious software attacks from the Internet.

8. Easy Installation

WF-122 is designed with indoor industry standard. And the operation temperature is 0°C to +45°C. It can be installed in most outdoor environments to support broadband access services for wired or wireless users. For example, it can be placed on a wall or on the ceiling.

■ Specification

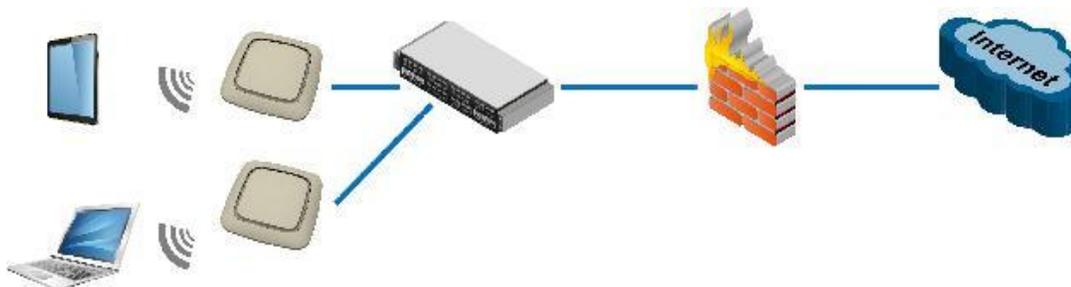
Item	WF-122
Dimension (W x D x H)	160mm x 160mm x 40mm
Weight	< 1KG
Installation	Ceiling mounting or wall mounting
LEDs	RUN/ ETH/ 2.4G/ 5G
Interface	1 x GE(uplink) & PoE Interface 1 x Console 1 x Reset Button 1 x External DC power input (12VDC)
Input Voltage	+ 12V/1A 802.3af PoE (PD)
Power Consumption	< 12W
Environmental Specification	
Operating Temperature	0°C ~ +45°C
Operating Humidity (non-condensing)	5% ~ 95%
Dustproof and Waterproof	GB 4208-2008: IP30, IEC60529:2001
Safety	RoHS 2011/65/EU compliant ; WEEE 2002/96/EC recyclable materials requirements FCC compliant UL certificate

Item	WF-122										
Chipset											
SoC	AR9344										
Wi-Fi Chipset	AR9582 (5G 2X2 802.11 an)										
Flash	512KB nor flash + 128MB NAND flash										
DDR	128MB DDR2 memory (2pcs 16bit x 32MB)										
Wi-Fi Interface											
Operating frequency	2.4G radio:2.4000GHz~2.4835GHz										
	5G radio:5.150~5.250,5.250~5.350,5.470~5.725, 5.725~5.850 GHz										
Maximum Transmit power	2.4G radio:18dBm per chain										
	5G radio:18dBm per chain										
Data Rate	802.11b: 1, 2, 5.5, and 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48 and 54Mb/s 802.11n: MCS0~MCS15										
Receive Sensitivity	802.11b: -86dBm@1Mbps -86dBm@11Mbps										
	802.11g: -86dBm@6Mbps -73dBm@54Mbps										
	802.11n: -86dBm@MCS0/8 -69dBm@MCS7/15										
	802.11a: -86dBm@6Mbps -73dBm@54Mbps										
Antenna Pattern (Built-in Antennas)	<table border="1"> <tbody> <tr> <td>Frequency(MHz)</td> <td>2400 ~ 2500</td> <td>5150 ~ 5850</td> </tr> <tr> <td>Polarization</td> <td>Vertical</td> <td>Vertical</td> </tr> <tr> <td>Gain(dBi)</td> <td>3 +</td> <td>3+</td> </tr> </tbody> </table>		Frequency(MHz)	2400 ~ 2500	5150 ~ 5850	Polarization	Vertical	Vertical	Gain(dBi)	3 +	3+
Frequency(MHz)	2400 ~ 2500	5150 ~ 5850									
Polarization	Vertical	Vertical									
Gain(dBi)	3 +	3+									

Notice:

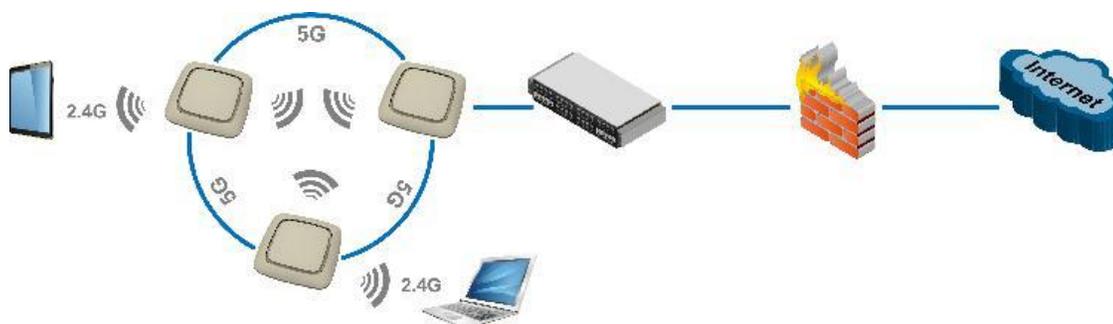
CIG have the sole right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice, CIG has the final interpretation.

■ Application Scenario



■ Indoor coverage as stand-alone AP

As a stand-alone Wi-Fi AP, WF-122 supports up to 32 SSIDs (16 SSIDs for each radio) with enhanced high-performance and high capacity. It is a good fit for small to medium sized corporate wireless LAN network.



■ Wireless Mesh Network

By enable the WDS Bridge on 5GHz radio, WF-122 can establish the mesh with each other. On 2.4G Hz radio, it provides the wireless coverage for the area. And the different clients accessing to different APs can visit each other or visit the Internet by the wireless mesh network.

■ Contact Information

Cambridge Industries USA Inc.

2445 Augustine Dr., 6th FL.

Santa Clara, CA 95054

Tel: +1(408)606-2200

Email: nasales@cigtech.com

CIG Shanghai Co., Ltd.

5/F, Building 8, 2388 ChenHang Road

Shanghai, China 201114

Tel: +86-21-8023 3300

Email: sales@cigtech.com

www.cigtech.com