OpenSync^{TM} Wi-Fi7

DeskPod AP WF–710G

Product Datasheet

VERSION1.1

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www.actiontec.com

■ Overview

The WF-710G is a tri-band Wi-Fi 7 device specifically designed to extend Wi-Fi network connectivity for homes and businesses. It is built with the latest 802.11be chipset design, providing advanced features and capabilities for enhanced wireless performance.

The WF-710G integrates with OpenSync™ Control Plane, a framework launched by Plume. OpenSync™ provides streamlined device discovery, configuration, control and remote management through the Plume Cloud.

With the WF-710G, users can leverage Plume HomePass and WorkPass functionality. Plume HomePass and WorkPass offer a self-configuring, self-healing, and self-managing Wi-Fi network experience. These features streamline the setup process, automatically optimize network performance, and ensure seamless connectivity throughout the home or workplace.

The WF-710G dynamically selects reliable Wi-Fi paths and enables seamless handoffs for end users. It interoperates with other OpenSync™ devices, like the Plume Wi-Fi 7 products for enhanced network performance.

With up to nearly 10Gbps aggregate throughput, WF-710G is one of the best performing Wi-Fi 7 Plume routers/extenders in the market. It supports 802.11ax/802.11be on all Wi-Fi radio bands including 2.4G, 5G and 6G.

The WF-710G meets the requirements for high-speed real-time traffic and high-bandwidth entertainment, including 4K video, video game streaming, and VR. It is designed to deliver smooth and reliable performance for demanding applications and activities that require significant network bandwidth.

The integration OpenSync™ greatly enhances the user experience for both network operators and end users by providing streamlined device management and advanced control capabilities.
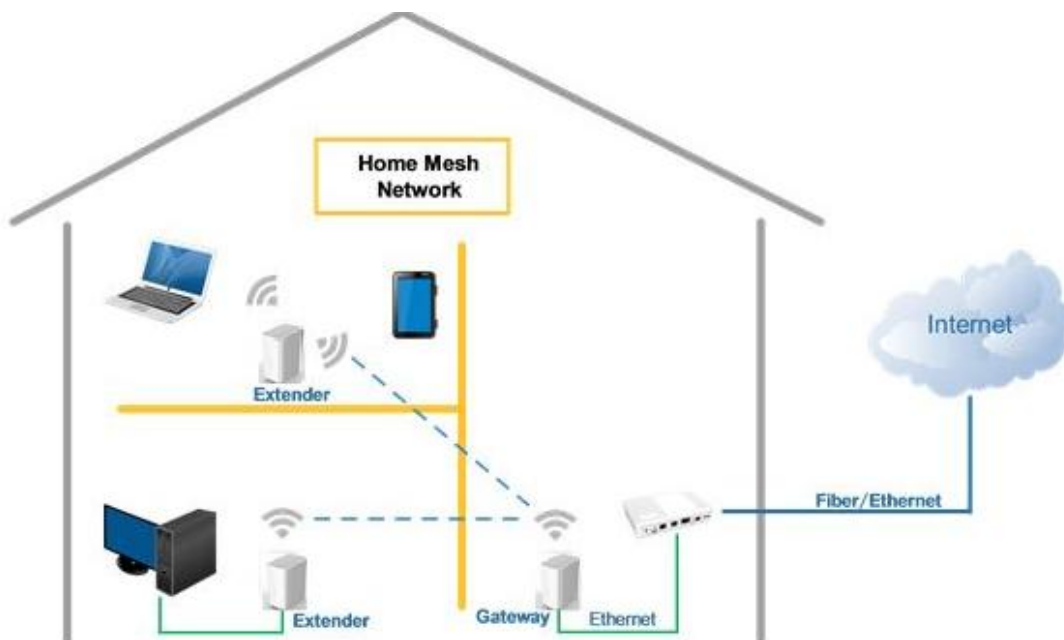
■ Key Features

- Desktop placement
- 2.4GHz 802.11b/g/n/ax/be, 2x2, 20/40MHz
- 5GHz 802.11a/n/ac/ax/be, 4x4, 20/40/80/160MHz
- 6GHz 802.11a/ax/be, 4x4, 20/40/80/160/320MHz
- WPA2/WPA3 PSK Security
- BLE 5.1
- Integrated antennas
- 1 x 10GbE WAN/LAN
- 1 x 2.5GbE LAN
- 1 x Status LED (multi-color)
- 1x DC jack with AC power adapter
- OpenSync™ certification(On going)
- Integrated with Plume Cloud Management and the Plume Mobile Management Applications

■ Configuration Scenario

Three WF-710Gs can form a Wi-Fi mesh network, with one WF-710G configured as the Gateway and the other two configured as Wi-Fi Extender (See the picture below).

■ Software Features

Category	Features

Network	Bridge Mode
	   - DHCP Client
	   - Backhaul with 2.4G/5G/6G Wi-Fi/Ethernet

	Router Mode
	   - IPv4/IPv6
	   - NAT
	   - WAN DHCP Client
	   - LAN DHCP Server
	   - DNS Server
	   - DHCP Reservation
	   - UPnP
	   - Port Forwarding
	   - Backhaul with Ethernet

	IGMP Snooping/Proxy
Wi-Fi	2.4GHz bandwidth: 20/ 40MHz, 5GHz bandwidth: 20/40/80/160MHz 6GHz bandwidth: 20/40/80/160/320MHz
	802.11 k/ v/ r
	Band Steering
	Channel Scan
	DFS
	SSID Broadcast
	WPA2/WPA3 PSK Security
	uAPSD
Mobile App Management	Device Discovery
	Add/Delete the Device
	Configure SSID
	Configure Password
	Auto Upgrade
	Antivirus
LED	**Solid Green**: Power On.
	Blue Blinks: Connecting to the Cloud.
	OFF: Connected to the Cloud.
	Blue Double Blinks: Network Optimization or Device Locating

Category	Features

Cloud Management	Network Topology Display
	   - Device connected
	   - Client accessed
	   - Channel
	   - Backhaul type

	Location-Based Network SSID
	WPA2/WPA3 PSK Security
	Client Freeze
	Motion Detection
	Device Information - Status - Online time - IP address - MAC address - Firmware version - Channel
	Client Information - Status - Online time - IP address - MAC address - Channel

	Network Statistics Report
	   - Bandwidth usage
	   - RSSI
	   - Channel congestion
	   - Event
	  -Other metrics/indicators

	Other Utilities
	   - Reboot device
	   - Remote software/firmware update
	   - Network performance test

■ Technical Specifications

Item	Description
System Hardware Spec	
Dimension	190mm (L) x 138mm (W) x 80mm (D)
Weight	650g
Installation	Desktop
LEDs	1x Status LED (multi-color)
Ethernet Interface	1 x 10GbE RJ45 WAN 1 x 2.5GE RJ45 LAN
Flash	256MB NAND Flash
DDR	1GB DDR4 RAM
Input Voltage	12V@3A DC input
Power consumption	Average 36W
Temperature	Operation: -5°C ~ +40°C Storage: -40°C ~ +70°C
Operating Humidity	5% ~ 95% (non-condensing)
Elevations	86kPa ~ 106kPa Altitude
Dustproof and Waterproof	IP30
	• FCC • ETL

Item	Description
Certificate &Compliance	• CE • RoHS 2011/65/EU Compliant (RoHS 10 Compliant, No Pb)
MTBF	> 300,000 Hours Telcordia SR-332: Reliability Prediction Procedures for Electronic Equipment, Issue 3, Method 1, Case 3. This is based on a GB/GC (Ground Benign, Controlled) environment with a steady state condition at a 25ºC ambient temperature. It does not account for software failures.
AFR	AFR (Annualized Failure Rate) < 1.5% (in continuous operation)

Wi-Fi Spec

Operating Frequency	2.4G:2.4000GHz~2.4835GHz
	5G: 5.150~5.250, 5.250~5.350, 5.470~5.725, 5.725~5.835 GHz
	6G: 5.945~7.125GHz
	BLE : 2.400GHz~2.500GHz
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~MCS7 802.11ac: MCS0 ~ MCS9 802.11ax: MCS0~MCS11 802.11be: MCS0~MCS13
Typical Receive Sensitivity (per chain @ antenna interface)	2.4G:

2.4G:

Bandwidth	Rate	Sensitivity(dBm)
11n	MCS0-HT40	-90
	MCS7-HT40	-71
11ac	MCS0-VHT40	-90
	MCS9-VHT40	-66
11ax	MCS0-HE40	-89
	MCS11-HE40	-61
11be	MCS0-EHT40	-89
	MCS13-EHT40	-54

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Item	Description
	5G: 	Bandwidth	Rate	Sensitivity(dBm)
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11n	MCS0-HT40	-89
	MCS7-HT40	-69
11ac	MCS0-VHT160	-83
	MCS9-VHT160	-59
11ax	MCS0-HE160	-83
	MCS11-HE160	-55
11be	MCS0-EHT160	-83
	MCS13-EHT160	-48	 **6G:** 	Bandwidth	Rate	Sensitivity(dBm)
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11a	6M	-91
	54M	-74
11ax	MCS0-HE160	-82
	MCS11-HE160	-54
11be	MCS0-EHT160	-82
	MCS13-EHT160	-48
	MCS0-EHT320	-79
	MCS13-EHT320	-45	
Antenna Pattern (Built-in Antennas)		Antenna#	2.4G Single-band	5G single-band	6G single-band	BLE
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Frequency(MHz)	2.4G	5G	6G	2.4G
Efficiency	>70%	>70%	>65%	>60%
Peak Aggregated Realized Gain [dBi]	>3	>3	>3	>3	

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■ Federal Communications Commission (FCC) Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

● Reorient or relocate the receiving antenna.

● Increase the separation between the equipment and receiver.

● Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

● Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

FCC regulations restrict operation of this device to indoor use only. The operation of this device is prohibited on oil platforms, cars, trans, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10000 feet. Operation of transmitters in the 5.925-7.125

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GHz band is prohibited for control of or communications with unmanned aircraft systems.

■ Contact Information

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