

# Wi-Fi Extender DeskPod WF-808 **Product Datasheet** VERSION3.2 Partnership for the Next Generation Broadband Solution

Notice:



### Overview

WF-808 product is designed to extend Wi-Fi network connectivity at home. With WF-808, the customer can set up a smart Wi-Fi home network, which provides self-configuring, self-healing and self-managing capabilities. It dynamically selects the most reliable Wi-Fi channel and path, enables fast and seamless handoffs for end-users.

WF-808 supports dual-band 802.11ac. 2.4G radio supports 2x2 802.11b/g/n MIMO. 5G radio supports 4x4 802.11a/n/ac MIMO. It can provide up to 2Gbps aggregate Wi-Fi access speed. WF-808 can meet the requirements for the high-speed real traffic and entertainment, such as HD video, video game and VR.

WF-808 integrates Opensync<sup>™</sup> control plane launched by Plume. Opensync<sup>™</sup> creates a multi-industry, open service curation, delivery, management and support framework. WF-808 is able to operate on Plume cloud just like any Plume product. This allows for curation, rapid and scalable delivery, comprehensive back office management, and enhanced support of cloud-based services to the consumer.

End-users add WF-808 to their Plume account using only the Plume Mobile App, it is also managed by the Plume Mobile App, making it much easier for the end-users to set up their Wi-Fi network.



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## Key Features

- Desktop placement
- 2.4GHz 2x2 802.11b/g/n
- 5GHz 4x4 802.11a/n/ac
- WPA/WPA2-PSK(AES)
- BLE 5.0
- 6 x Integrated Wi-Fi antennas
- 1 x Integrated BLE antennas
- 1 x GE RJ45 LAN
- 1 x Status LED (multi-color)
- 1 x AC/ DC power supply
- Supports Opensync<sup>™</sup> control plane
- Integrated with Plume Cloud management
- Integrated with Plume mobile management application (Android and iOS)

Please download HomePass App using the following Plume QR code:

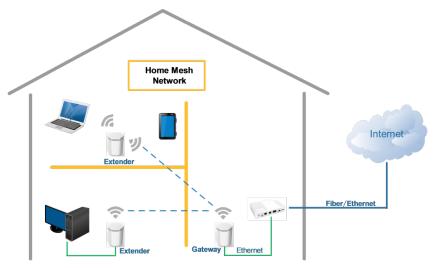


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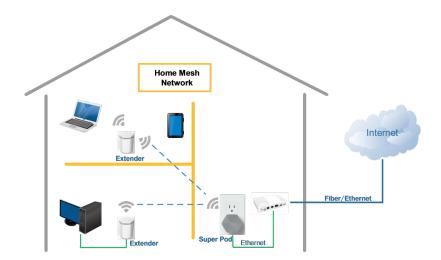


# Application Scenario

 Three WF-808s set up the mesh network. One operates as the gateway and the other two as Wi-Fi extender.



 WF-808 interoperates with Plume SuperPod to set up the mesh network. SuperPod works as the gateway and WF-808 works as the Wi-Fi extender.



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# Software Features

| Category            | Features   |  |  |  |
|---------------------|--|--|--|--|
| Network             | Bridge Mode<br>- DHCP Client<br>- Backhaul with 2.4G/ 5G Wi-Fi/ Ethernet   |  |  |  |
|                     | Router Mode<br>- IPv4<br>- NAT<br>- WAN DHCP client<br>- LAN DHCP server<br>- DNS server<br>- DHCP reservation<br>- uPNP<br>- Port forwarding<br>- Backhaul with Ethernet<br>IGMP Snooping |  |  |  |
|                     | 2.4GHz bandwidth: 20/ 40MHz, 5GHz bandwidth: 20/40/80MHz   |  |  |  |
| Wi-Fi               | 802.11 k/ v/ r   |  |  |  |
|                     | Band steering  |  |  |  |
|                     | Channel scan   |  |  |  |
|                     | DFS  |  |  |  |
|                     | SSID broadcast   |  |  |  |
|                     | WPA/WPA2 PSK security  |  |  |  |
|                     | uAPSD  |  |  |  |
| Cloud<br>Management | Network topology display<br>- Device connected<br>- Client accessed<br>- Channel<br>- Backhaul type  |  |  |  |
|                     | Network optimize   |  |  |  |
|                     | Network SSID based on the location   |  |  |  |
|                     | WPA/WPA2 PSK security  |  |  |  |
|                     | Freeze client  |  |  |  |
|                     | Device information<br>- Status<br>- Online time<br>- IP address<br>- MAC address<br>- Firmware version<br>- Channel  |  |  |  |

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|                          | Client information<br>- Status<br>- Online time<br>- IP address<br>- MAC address<br>- Channel |  |  |  |
|--------------------------|---|--|--|--|
|                          | Network statistic chart<br>- Bandwidth usage<br>- RSSI<br>- Channel congestion<br>- Event     |  |  |  |
|                          | Utilities<br>- Reboot device<br>- Upgrade remotely<br>- Speed Test (under development)        |  |  |  |
|                          | Device discovery  |  |  |  |
|                          | Add/ Delete the device  |  |  |  |
| Mobile App<br>Management | Configure SSID  |  |  |  |
|                          | Configure password  |  |  |  |
|                          | Auto upgrade  |  |  |  |
|                          | Antivirus (under development)   |  |  |  |
|                          | Green Solid: Device power on.   |  |  |  |
| LED                      | Blue Blinks: Device is connecting to the Cloud.   |  |  |  |
|                          | OFF: Device has been connected to the Cloud.  |  |  |  |
|                          | Blue Double Blinks: Network optimization in progress or locate device.                        |  |  |  |

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# Specification

| ltem                        | WF-808   |  |  |  |
|-----------------------------|--|--|--|--|
| Dimension (D x H)           | 82mm (Diameter) × 100mm (High)   |  |  |  |
| Weight                      | 280g   |  |  |  |
| Installation                | Desktop placement  |  |  |  |
| LEDs                        | 1x Status LED (multi-color)  |  |  |  |
| Interface                   | 1 x GE RJ45 LAN<br>1 x DC jack, support USB type-C DC 5V in  |  |  |  |
| Input Voltage               | +5V/ 3A  |  |  |  |
| Power consumption           | consumption < 10W  |  |  |  |
| Environmental Specific      | ation  |  |  |  |
| Temperature                 | Operation: 0°C ~ +40°C<br>Storage: -40°C ~ +85°C   |  |  |  |
| Operating Humidity          | 5% ~ 95% (non-condensing)  |  |  |  |
| Elevations                  | 86kPa ~ 106kPa altitude  |  |  |  |
| Dustproof and<br>Waterproof | IP20   |  |  |  |
| Safety                      | <ul> <li>The device compliances with:</li> <li>IEC 62368-1:2014 (Second Edition)+A11: 2017</li> <li>UL 62368-1, 2nd Ed, 2014-12-01 (Audio/video, information and communication technology equipment Part 1: Safety requirements)</li> <li>CAN/CSA C22.2 No. 62368-1-14, 2nd Ed (Audio/video, information and communication technology equipment Part 1: Safety requirements)</li> <li>FCC</li> </ul> |  |  |  |

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| ltem   | WF-808   |  |  |  |  |  |
|--|--|--|--|--|--|--|
|  | <ul> <li>CE</li> <li>RoHS 2011/65/EU compliant (RoHS 10 compliant, no Pb)</li> </ul>   |  |  |  |  |  |
| Reliability  |  |  |  |  |  |  |
| MTBF   | > 300,000 Hours<br>Telcordia SR-332, Reliability Prediction Procedures for Electronic Equipment,<br>Issue 3, Method 1, Case 3, GB/GC (Ground Benign, Controlled) environment,<br>25°C ambient temperature. Steady state, not including software failure. |  |  |  |  |  |
| AFR  | AFR (Annualized Failure Rate) < 1.5% (in continuous operation)   |  |  |  |  |  |
| Chipset  |  |  |  |  |  |  |
| Wi-Fi SoC  | MT7621A MIPS1004Kc (880MHz, Dual- Core)  |  |  |  |  |  |
| Flash  | 128MB NAND flash   |  |  |  |  |  |
| DDR  | 256MB DDR3 Ram   |  |  |  |  |  |
| Wi-Fi Interface  |  |  |  |  |  |  |
| Operating frequency  | 2.4G radio:2.4000GHz~2.4835GHz   |  |  |  |  |  |
| operating inequency  | 5G radio:5.150~5.250,5.250~5.350,5.470~5.725, 5.725~5.850 GHz  |  |  |  |  |  |
| Maximum Transmit   | 2.4G radio: 17dBm@MCS0, 15dBm@MCS15  |  |  |  |  |  |
| power (per chain)  | 5G radio:19dBm@MCS0; 16dBm@MCS9  |  |  |  |  |  |
| Data Rate  | 802.11b: 1, 2, 5.5, and 11Mbps<br>802.11g: 6, 9, 12, 18, 24, 36, 48, and 54Mbps<br>802.11a: 6, 9, 12, 18, 24, 36, 48 and 54Mb/s<br>802.11n: MCS0~MCS15<br>802.11ac: MCS0 ~ MCS9  |  |  |  |  |  |
| Receive Sensitivity 802.11g: -90dBm@6Mbps<br>-74dBm@54Mbps |  |  |  |  |  |  |

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| ltem                                   | WF-808                     |         |                     |          |        |              |  |  |  |
|--|----------------------------|---------|---------------------|----------|--------|--------------|--|--|--|
|  | <u>802.11n:</u>            |         |                     |          |        |              |  |  |  |
|  |                            | HT20    |                     | HT40     |        |              |  |  |  |
|  | MCS0/8/1                   | 6 -90dE | ßm                  | -87dBm   |        |              |  |  |  |
|  | MCS7/15                    | -71dE   | ßm                  | -68dBm   |        |              |  |  |  |
|  | 802.11a: -90dBm@6Mbps      |         |                     |          |        |              |  |  |  |
|  | -74dBm@54Mbps<br>802.11ac: |         |                     |          |        |              |  |  |  |
|  |                            |         |                     |          |        |              |  |  |  |
|  |                            | VHT20   | VHT                 | 40 VHT80 |        | 80           |  |  |  |
|  | MCS0                       | -90dBm  | -87d                | Bm       | -84dBm |              |  |  |  |
|  | MCS8                       | -67dBm  |                     | /        | /      |              |  |  |  |
|  | MCS9                       | 1       | -61d                | Bm       | -58dBm |              |  |  |  |
| Antenna Pattern<br>(Built-in Antennas) | Frequency(MHz)             |         | 2400 ~ 2500         |          | 4940 ~ | 5850         |  |  |  |
|  | Polarization               |         | Vertical/Horizontal |          |        | l/Horizontal |  |  |  |
|  | Gain(dBi)                  |         | >3                  |          | >3     |              |  |  |  |



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