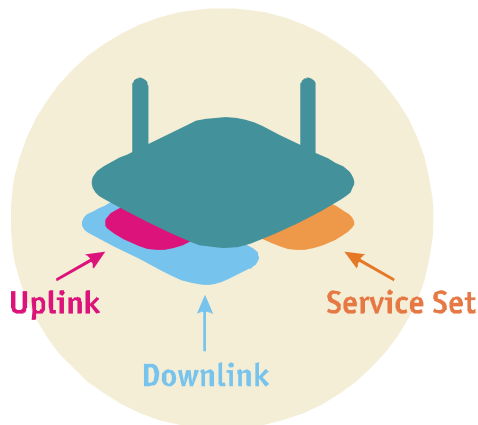


# WILIGEAR dual-radio CPU board WBD-212



## Dual Radio



WILIGEAR dual-radio CPU board WBD-212 is designed to build access points and repeaters, perfect for creation and extension of wireless local area networks. It is compatible with all devices working on 802.11a or 802.11 b/g modes. The dual radio architecture separates Mesh Set traffic (also called Service Set) from the edge access traffic (also called uplink and downlink), increasing capacity compared to single radio mesh architectures. The first wireless network interface (operating on 5 GHz frequency) is dedicated for mesh backbone connectivity while the other wireless interface (operating on 2.4 GHz frequency) forms a single radio 802.11 access point for wireless access service provisioning. WBD-212 is driven by WILI-MESH, which is a secure, QoS capable, portable Linux based OSI layer 2 wireless mesh networking software platform, which targets enterprise,

campus, as well as WISP networks, covering significant areas with wireless internet access. It has all the latest features including the ability to form self-healing and self-configuring mesh architecture, as well as the ability to interface with independent monitoring and configuration software systems. Hardware stability, extended functionality and competitive price make this device an attractive solution for wireless mesh network integration.

## Specifications

### Wireless

Wireless standards and modulation	IEEE 802.11a (OFDM) IEEE 802.11b/g (DSSS; OFDM)
Wireless frequency range	4.90 - 5.85GHz 2.400 - 2.483GHz
Data rates	802.11g: 54, 48, 36, 24, 18, 12, 9, 6Mbps 802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps
Supported frequency bandwidths	40 MHz (Turbo), 20 MHz, 10 MHz (Half rate), 5 MHz (Quarter rate)
Output Power at antenna connector	0-20 dBm Adjustable max. TX power 20 dBm (IEEE 802.11g) 20 dBm (IEEE 802.11a)
Sensitivity	-85 dBm @ 6Mbps (802.11a), -65 dBm @ 54Mbps (802.11a), -91 dBm @ 1Mbps (IEEE 802.11g), -84 dBm @ 11Mbps (IEEE 802.11g), -65 dBm @ 54 Mbps (IEEE 802.11g),
Antenna	1x dual band 5.5dBi 1x single band (g) 5.5dBi

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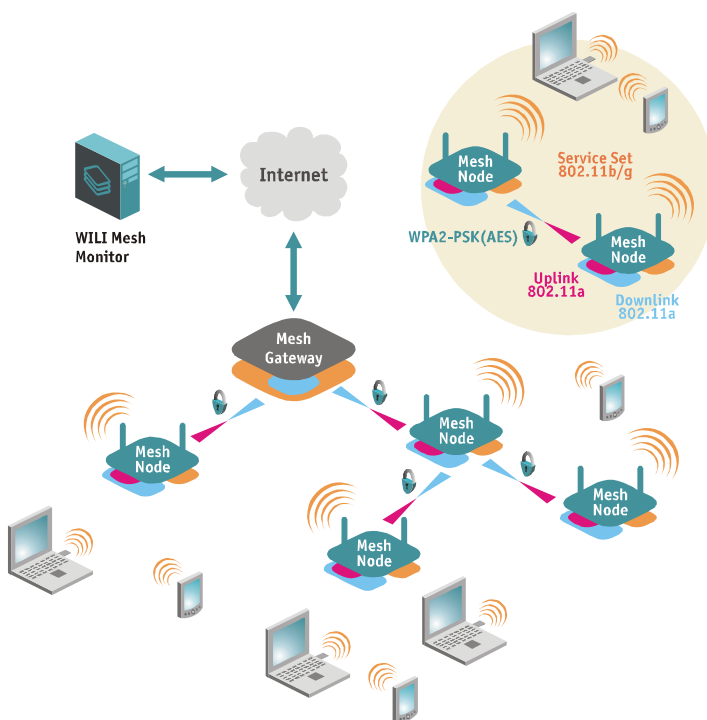


## Specifications

### Hardware

Interface	1 LAN 10/100BaseT Mbps RJ-45 1x WLAN 802.11a 1x WLAN 802.11b/g
Environmental specifications	IP 65, -40 to +55C
Humidity	10-90% relative non-condensing humidity
Power consumption	15W max
Power supply	Power over Ethernet with inserter 48VDC
Mount options	Mast mountable
Dimensions	180mm x 165mm x 50mm (W x H x O)
Weight	1.0 kg
Warranty	1 year

## Features



- OSI layer 2 wireless mesh, auto discovery and dynamic configuration of new network nodes
- Provides infrastructure for multiple branded wireless services with diverse security policies
- Multiple 802.11 radio modules for low latency, high bandwidth applications
- Industry standard WPA2 (AES) protocol provides security for intra-mesh traffic
- Preservation of 802.1Q and 802.1P tags in intra-mesh transport
- 802.11e wireless QoS support for services and intra-mesh data transfers
- Platform independent graphical mesh monitoring software
- Remote Configuration Management System (RCMS) support

The scheme outlines dual radio Mesh-mini network structure