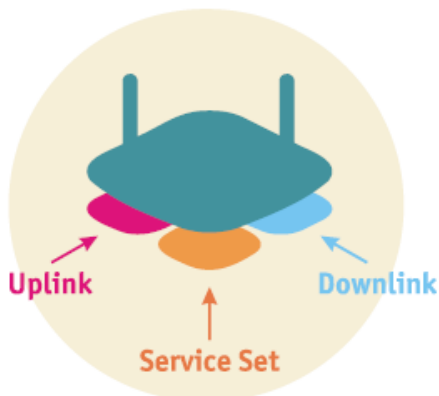


WILIGEAR 4 mini-PCI CPU board for mesh WBD-324M



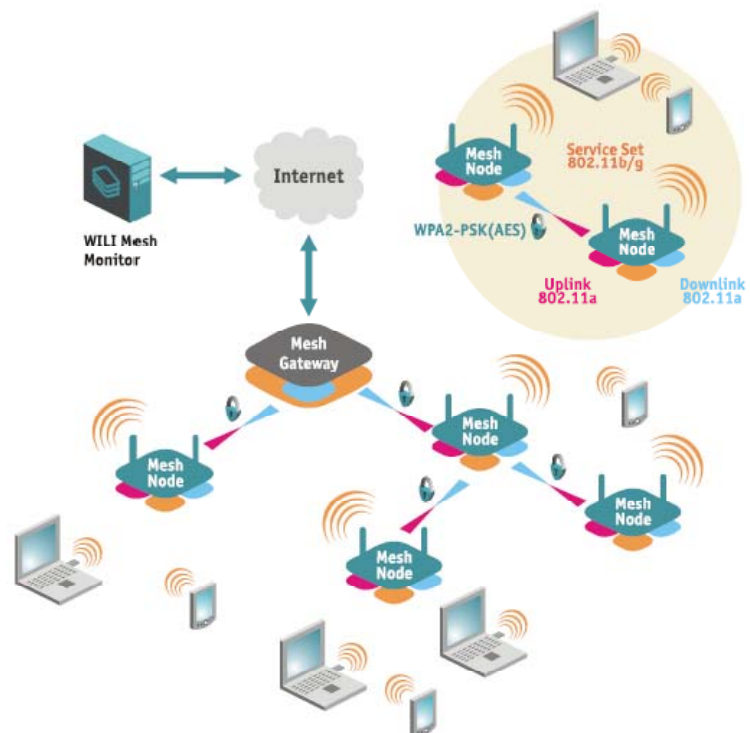
Triple Radio



WILIGEAR 4 mini-PCI board for mesh is designed to work as a gateway, access point or as a repeater and is perfect for building and extending wireless local area networks. It is compatible with all devices working on 802.11 a/b/g mode. Three-radio Mesh Node splits all the functions of a Mesh Node onto separate radios, thus the Uplink, Downlink and the Service Set functions each operate at dedicated frequencies (usually 802.11a for Uplink and Downlink, and the 802.11b/g for the client access Service Set). The effect of this architecture is to eliminate interference within the Mesh itself by increasing the throughput across Mesh structure. WBD-324M 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,

WISP networks covering significant areas with wireless internet access. It has all the latest features including self-healing and self-configuring mesh nodes with independent monitoring and configuration software systems. Additionally it delivers low latency for very demanding applications like video surveillance networks. Hardware stability, extended functionality and good price make this product attractive solution for building of wireless mesh networks.

The figure on the right describes the Mesh network created with WILI-MESH devices equipped with three physical radio interfaces. For the best performance, each physical radio interface should be dedicated to separate WILI-MESH components: Uplink, Downlink and Service Set. Such Mesh structure provides separate Mesh Set and access service functionality on separate radio modules. Dynamically managed channels provide non-interference for all the radio. Triple radio nodes provide the best performance while two radio modules are configured to act as Uplink and Downlink (backhaul), and the third one provides service to wireless clients.



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Specifications

Electrical		Other	
Input	PoE, 12-48 VDC	Compact flash socket Watchdog timer Push button reset	
Output	Pass-thru PoE power for daisy chaining devices	Environmental	
Mechanical		Operating parameters	
Dimensions	180 mm X 130 mm X 30 mm / 7.08 inch X 5.12 inch X 1.18 inch	Temperature	-30°C to +60°C
Weight	190 g / 0.418 lb	Humidity	10% to 90% (non-condensing)
Processor	Intel® IXP® 425	Storage parameters	
Memory	64 MB SDRAM	Temperature	-40°C to +85°C
Flash	16 MB (with external compact flash port for additional capacity)	Humidity	5% to 95% (non-condensing)
I/O	2 x 10/100 TX Ethernet Ports RS-232 Serial Port		

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
- Attractive and easy to use GUI (graphical user interface)
- Platform independent graphical mesh monitoring software WILI-Scout
- Remote Configuration Management System (RCMS) support



WBD-324M is Firmware Factory compatible and customers can have their own firmware images created in an online firmware factory. Rebrand and reconfigure your GUI and configuration files, go online, load them on an online firmware factory mechanism and have your firmware built in a few minutes.