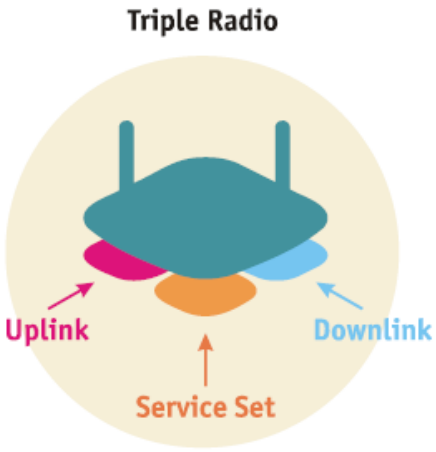
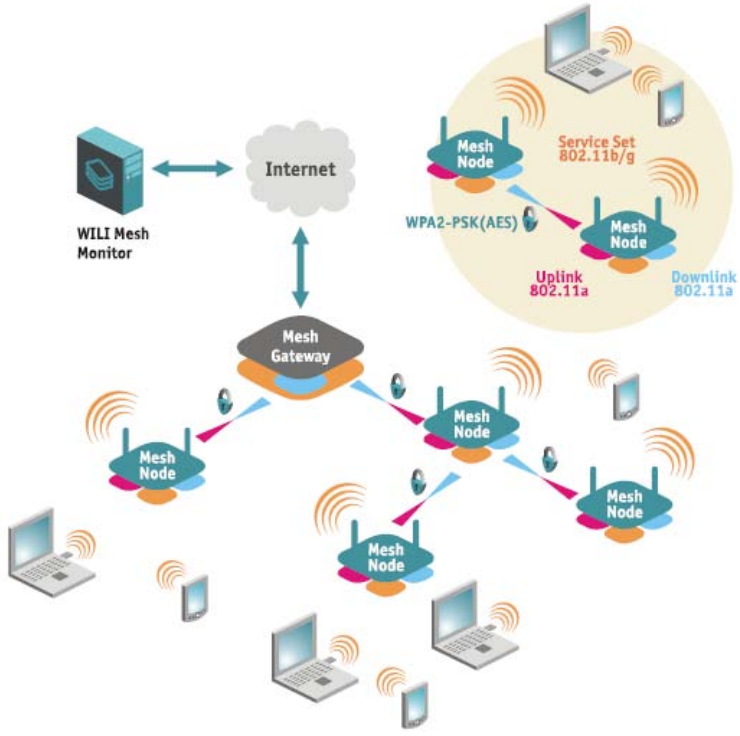
WILIGEAR 4 mini-PCI CPU board for mesh
WBD-424M



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-424M 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. board computer based on the

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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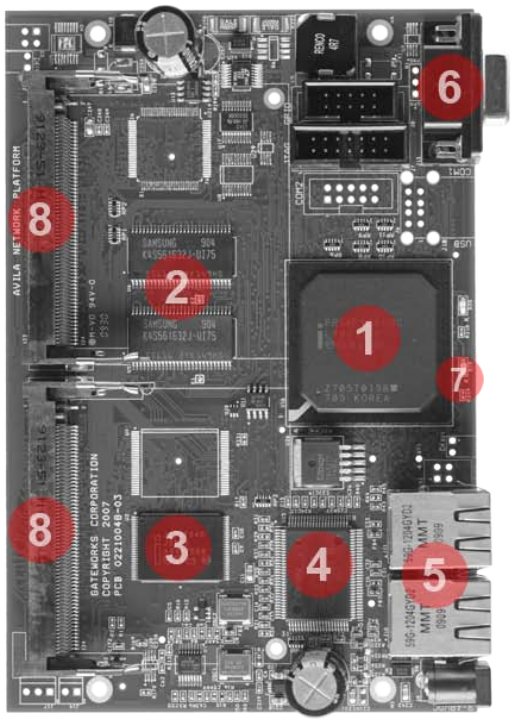

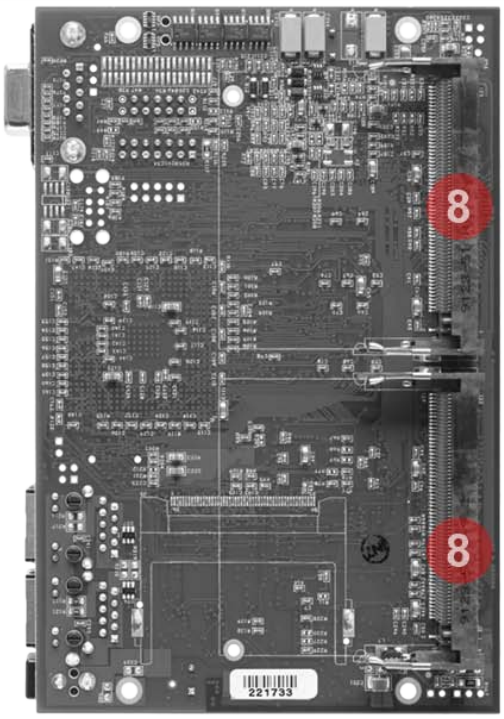

1. Intel® IXP® 420, 400 MHz
2. 64 MB SDRAM
3. 8 MB
4. 10/100 Dual-Port Fast Ethernet PHY
5. 2 x 10/100 TX Ethernet Ports
6. RS-232 Serial Port
7. Power LED
8. Type III Mini-PCI socket

Specifications

Electrical	
Input	PoE, 9-48 VDC
Output	Pass-thru PoE power for daisy chaining devices
Mechanical	
Dimensions	102 mm X 152 mm X 30 mm / 4.0 inch X 6.0 inch X 1.2 inch
Weight	142 g / 0.313 lb

Environmental	
Operating parameters	
Temperature	-30°C to +70°C
Humidity	20% to 90% (non-condensing)
Storage parameters	
Temperature	-40°C to +85°C
Humidity	5% to 95% (non-condensing)

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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

FIRMWARE FACTORY

WBD-424M 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.