

# WILIBOX 4-mini PCI CPU Board WBD-424S



The WBD-424S is a single board computer based on the Intel IXP 420 processor operating at 400 MHz. Embedded with 64 MB SDRAM and 8 MB flash, the WBD-424S is one of the most powerful boards on the market with the ability to support a variety of robust applications. This product integrates 4 type III Mini PCI slots allowing for custom-radio integration to provide an endless variety of configurability. In addition, the WBD-424S ships pre-loaded with the Wili-S software suite – a carrier-grade platform with an array of industry-leading security and management features not present on the market today.

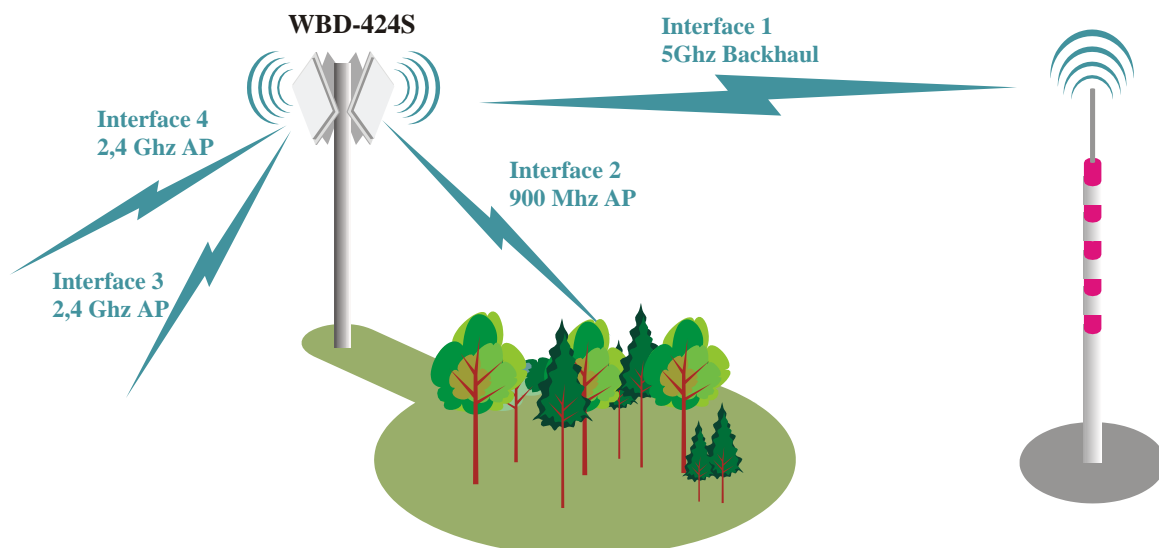
The WBD-424S is designed to work in an outdoor environment with 6 kV ESD protection, power over ethernet (9 to 48 V DC), LEDs to indicate power, LAN, and WLAN connectivity for each wireless interface. By integrating 4-mini PCI slots onto one PCB, the WBD-424S provides the ability to achieve functionality that would ordinarily require multiple devices, thus creating additional cost, physical space, and wiring concerns.



WBD-424S 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.

Of the multitude of options available with the WBD-424S, the following diagrams illustrate three of the most common operational configurations of the WBD-424S:

Figure 1. WBD-424S operating with one interface used as a 5 GHz backhaul, and the other three interfaces as APs operating on different frequencies. (useful for locations with mixed terrains and/or interference)



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Figure 2. WBD-424S operating with one interface used as a 5 GHz backhaul, and the other three interfaces as APs operating on the same frequency. (useful for providing blanket WIFI coverage)

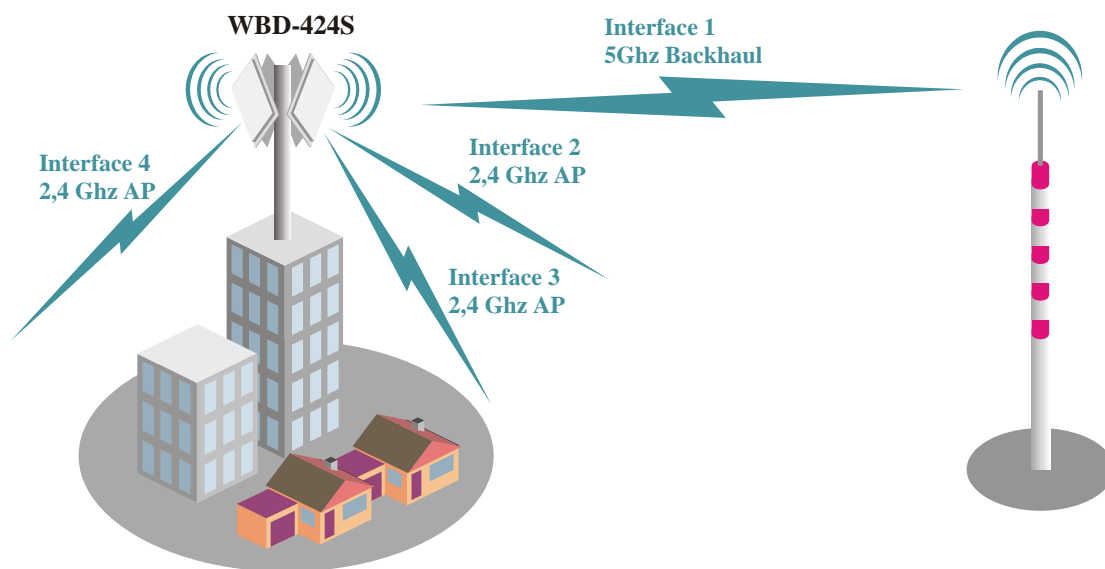
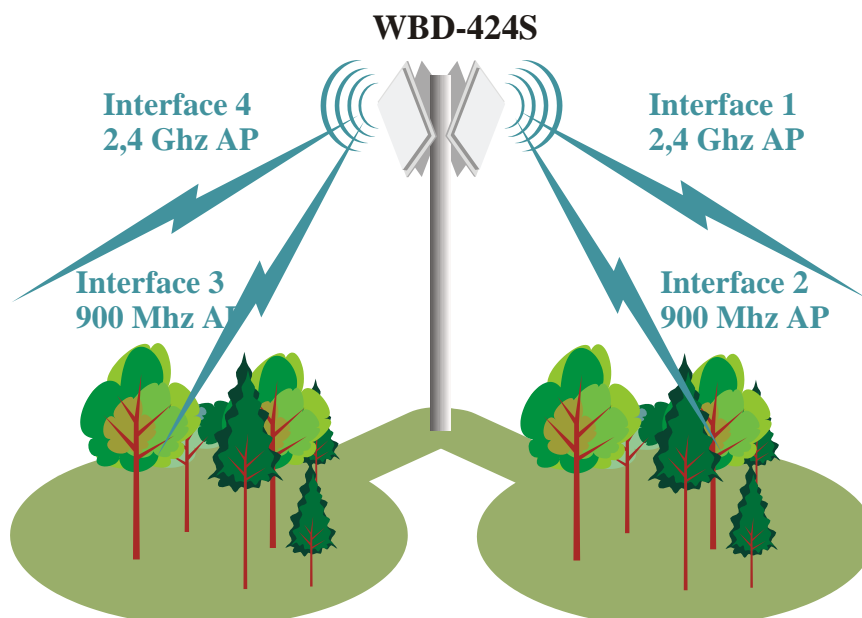
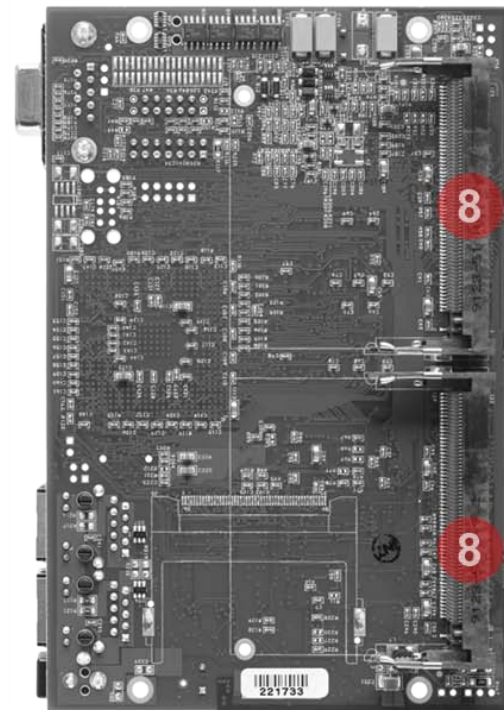
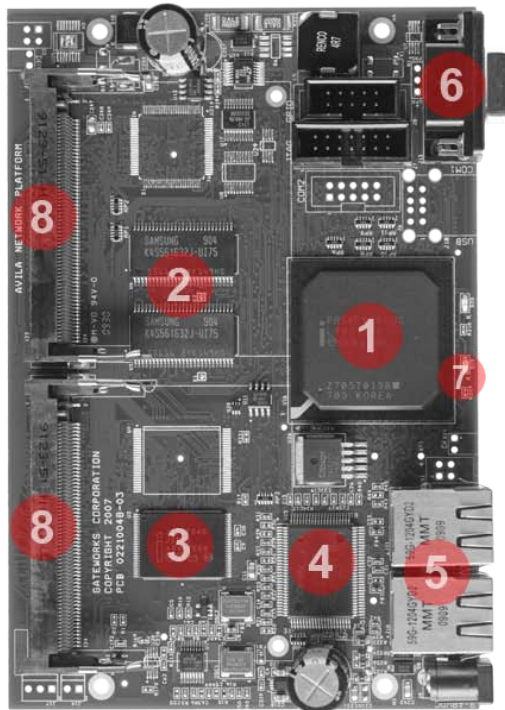


Figure 3. WBD-424S operating with all four interfaces in AP mode , 2.4 GHz and 900 MHz. (useful for blanket WIFI coverage in multi-terrain areas)



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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
I/O	2 x 10/100 TX Ethernet Ports RS-232 Serial Port

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