

## Long Range Outdoor Wireless Access Point WAP-400

**WiBorne WAP-400 offers 2.5/3.5/4.9/5 GHz Dual Radio High Power Routing Access Point or Backhaul**



Antennas may be varied

The WAP-400 is specially designed for point-to-multipoint applications to provide an easy solution for connecting many locations through wireless. It includes second wireless interface for backhaul to a primary distribution hub such as a WAP-400 access concentrator. The Wireless Access Point delivers Internet service to your clients' network. You can use this package to provide high data rates and superior throughput for data-intensive, line-of-sight applications. Multiple sites can share a single, high-speed connection to the Internet. The feature rich radio firmware allows you to apply the most advanced firewall, NAT, bandwidth shaping, and other technologies to create a smart and manageable network. It is possible to set a WEP/WPA/WPA2 private key for each client and choose whether to authenticate him and whether to forward frames received from him back to the wireless infrastructure (in order to allow/disallow communication between clients of wireless network). Spanning Tree Bridging and Mesh-WDS are available for all connected APs and clients in the same SSID group.

This is a complete outdoor wireless solution with two wireless interfaces – use one as an Access Point and one as a backhaul. Combine with the antennas and pigtail connectors of your choice for a customized solution. A waterproof enclosure and PoE injector are included in this package, so you can install the unit next to antennas and provide power by standard UTP Ethernet cable.

### Features:

- 2 Atheros AR5004+ Radio Modules standard, option for 400mW 2.4GHz AR5006 radios or 400mW 5.8GHz AR5004 radios
- Superior radio performance with radio sensitivity up to -94dBm
- X86 architecture processor, 64 or 128MB DSRAM
- One to two 10/100 Ethernet Port(s)
- NEMA 6 Aluminum Outdoor Case
- PoE Power supply with 120 VAC to 12VDC 1 A standard, 90-240VAC to 15VDC 1.2A option
- Firewall and NAT with stateful packet filtering
- QoS by IP/ protocol / subnet / ports, HTB, PCQ
- Authentication: PPTP, PPPoE, L2TP, WPA, access control, MSCHAPv1/v2, RADIUS, MPPE encryption
- DHCP server/client/relay, multiple DHCP networks
- High Availability with VRRP
- UPnP, NTP, SNMP
- Cisco Discovery Protocol (CDP)
- Monitoring and accounting for traffic, firewall
- IPsec – AH/ESP IKE with 3DES, AES-128/192/256
- 2.5/3.5/4.9/5 GHz, WDS (wireless distribution service), Mesh-WDS, Nstreme and Nstreme2 protocols, AP bridging
- Bridge: spanning tree protocol; multiple bridge interfaces; bridge firewalling, MAC NATting
- Client statistics (current signal level/quality, rate TX/RX, bytes TX/RX, radio rate)
- 40 and 128 bit WEP and WPA support
- Routing for RIP, BGP, OSPF, static routing
- VLAN: 802.1q, multiple VLANs; VLAN bridging
- Console/Terminal/SSH/Telnet/Web/Windows
- Neighbor Discovery; ping; traceroute; bandwidth test; ping flood; packet sniffer; Dynamic DNS update tool
- Layer 2 connectivity: bridge, synchronous, Asynchronous, ISDN, and SDSL
- Proxy: FTP & HTTP caching proxy server; HTTPS proxy, DNS and HTTP proxying, DNS entries, caching lists, access control lists.

## ***The WAP-400 Packet Processing Platform***

The WAP-400 is a medium capacity wireless routing platform which is ideal for customer premise or neighborhood repeater applications. The router provides cost-effective, high-performance and secure service for connecting and setting up multiple WLAN architectures. It supports policy-based routing and sophisticated data rate management and you can use it as a stateful inspection firewall to ensure security of your network. In addition, the firmware performs HotSpot and VPN router functions and supports many popular tunnel standards like PPTP, L2TP and IPSec security protocol.

### ***Hardware Features:***

- 266 MHz NSC SC1100 system on a chip CPU (Intel Pentium MMX architecture)
- 64 or 128MB SDRAM SoDIMM
- 2 Mbit Flash BIOS on board
- Compact Flash 64MB with firmware license installed
- one 10/100 Mbps Ethernet using the NSC DP83816 (DP83815 driver compatible)
- two MiniPCI type IIIA and IIIB
- one Serial port with DB9 connector
- power LED, Mini UPS LED, 4 user LED
- CPU area temp, PCI area temp, LM87 health monitor chip area temp
- CPU core, +3.3v, +5v, +12v voltage monitor
- LCD out header
- six GPIO pins
- watchdog controller
- Power over Ethernet 802.3af compliant with broad input voltage
- onboard power jack 7-18v DC in
- board size 105 mm x 215 mm (4.13 inch by 8.46 inch)
- weight 209 g (7.4 oz)
- operating temperature in enclosed case 0°C to +50°C
- 70% operational relative humidity (non-condensing)

### ***Die-Cast Aluminum, NEMA 6 rating***

Designed to withstand the toughest environments, the WAP-400 outdoor enclosure is a small, light, yet very solid wireless outdoor enclosure. The WAP-400 is rated NEMA 6 providing complete protection against ingress of dust as well as protection against immersion in water. The WAP-400 comes in 3 configurations: 1, 2, or 4 N-Type connectors, plus 1 to 2 RJ45 quick disconnect. Power over Ethernet (PoE) supported.

### ***Thermal Characteristics***

- Enclosure Seal Operating temperature -60C to 230C
- Heat Trap: +6.5 Celsius under full sun (~100,000 Lux)
- Temperature raise using a 5-10Watt heat source (WAP-400 + radio board): +5.5 Celsius