



WAP900

WiFi Access Point

WAP900 is a 2.4GHz 802.11b/g WiFi access point and long range 900MHz mesh router that provides secure local access for WiFi enabled computers. Data is relayed between access points utilizing a mesh network with a 900MHz broadband radio and omni directional antenna. The fully integrated system makes it possible to deploy broadband networks over large areas on a permanent or temporary basis.

Where there are trees and dense foliage the 900MHz signals will provide much longer range than WiFi based mesh radio systems. Additionally, the long-range propagation characteristics of these frequencies significantly reduce the total number of WAP900 units required and therefore the total deployment costs. The 900MHz radio enhanced by the use of dynamic channel coding, and modulation optimizations automatically adapts to varying radio propagation conditions. This advanced radio technology greatly increases the network resiliency compared to WiFi based mesh network systems.

Utilizing the standard high gain omni-directional antenna, radio connections of up to three miles between units are routinely achieved. When extended range connections of up to 20 miles are required, the directional antenna option provides an unprecedented mesh network performance capability. The standard mounting hardware provides for installation on poles or towers.

The mesh router features a data throughput optimizing, proactive, mesh routing protocol that forms and controls the mesh network. This new mesh routing protocol is called Radio Optimized Routing Protocol (RORP). The protocol incorporates hardware and software features that dynamically monitor the current network configuration and status to deliver optimal data throughput.

The low latency mesh network provides an ideal solution for data intensive real-time applications. The secure WPA2 and EAP encryption functions as well as the web based authentication, ensures users are authorized to join the network while AES encryption secures the system.

For More Information:

FEATURES

- 900MHz broadband mesh radio
- 2.4GHz 802.11g access point
- Integrated antennas
- Auto configuring and optimizing
- Directional antenna option
- Weatherproof enclosure
- Universal mounting capability

MANAGEMENT

- Auto discover and self configure.
- Web based remote management
- Dynamic system updates
- WiFi gateway connections
- Optional wired gateway

SECURITY

- RADIUS support
- 802.1x, TKIP, EAP, WPA/2
- AES mesh encryption
- VPN compatible
- SNMP, SSL, SSH, HTTPS standards
- MAC access filtering and control



WAP900

Applications

Agriculture
Asset management
Boat marinas
Construction sites
Emergency services
Entertainment events
Internet service
Outdoor networks
Portable networks
Private networks
Public safety
Recreational events
Remote storage
Research networks
RV parks
Security monitoring
Sports events
Telemetry
Temporary networks
Video Networks
VoIP Networks
Car Dealership Lots

Technical Specifications

Wireless

- Wireless Standards: IEEE 802.11a/b/g
- Frequency Bands:
 - 902-928MHz, ISM (FCC authorized frequencies)
 - 2.4 - 2.462GHz
- Access Point Data Rates: 6, 9, 12, 18, 24, 36, 48, 54 (Mbps)
- Wireless Medium: 802.11b/g – OFDM, DSSS channel coding
- Modulation: 802.11b/g – compatible modes
- Operating Channels: 802.11b/g (FCC authorized channels)

Electrical

- Input Voltage: 6-12VDC
- Power consumption 13W, maximum

Protection Circuits

- Antenna lightning protection
- Automatic power protection and data retention

Environmental

- Operating Temperature: -40°C to +55°C
- Storage Temperature: -45°C to +85°C
- Humidity: 10% to 90% non-condensing
- Weather Rating: Weatherproof
- Wind Survivability: >100 mph

Physical

- 12" high x 16" wide x 5" deep (without mounting hardware and antennas)
- Weight: 10.5 lbs
- NEMA rated outdoor enclosure
- Roof mount and pole mounting hardware included

Security

- Authentication: 802.1x support, including RADIUS client, EAP, PEAP-TTLS, WPA2
- Encryption: IEEE 802.11i and AES

Remote Management

- Web, and SNMP v3, 2c, SSL interfaces
- Supports DHCP, Telnet, SSL, SSH, HTTP, HTTPS
- FTP secure file transfer, storage and retrieval with system update features
- Multiple VLAN, SSID support

Approvals

- FCC CFR47 Part 15, Class A
- NEMA rated for outdoor use

Warranty

- One year parts and labor