ORiNOCO® AP-4900M
Public Safety Broadband Wireless Solutions

APPLICATIONS

- **Emergency services**
  Real-time computer-aided-dispatch on the move. Mobile office, voice, live-streaming video, and data connectivity for responder vehicles.

- **Metro Wi-Fi & 4.9 GHz public safety**
  Simultaneous 4.9 GHz Public Safety access and 2.4 GHz Metro Wi-Fi coverage on a single, dual-radio platform.

Highest-Performance Access Point Delivers Scalability for Large 4.9 GHz and Wi-Fi Deployments

Supporting both 4.9 GHz public safety and 2.4 GHz metropolitan Wi-Fi networks through dual 4.9/2.4 GHz radios, the ORiNOCO AP-4900M Access Point delivers the versatility and feature robustness required by today's demanding emergency response and metro Wi-Fi applications. The AP-4900M delivers unparalleled enterprise-scale security, management and QoS features, and is pre-configured with quad mode for best-in-class performance and flexibility in large deployments. The AP-4900M is perfect for large production public safety and metro Wi-Fi networks.

- Dual-radio, multi-band mesh system
- Quad-mode (4.9 GHz, 802.11a, 802.11b, and 802.11g) and dual radio AP-to-AP communication for deployment in large or hard-to-reach areas
- Unique scalability – external antenna connector for increased transmit distance, and maximum system gain on baseband radio for repeating configurations
- Twice the memory of competing APs, ensuring software upgrade capacity
- Industry-leading throughput with 802.11g and 802.11a/4.9 GHz operation, and new Super Mode
- New level of intrusion detection and prevention
- Sophisticated hotspot interfaces with RADIUS integration
- Pre-standard IEEE 802.11e quality of service support for latency-sensitive applications

Proactive Security Measures to Protect Your Network

ORiNOCO access points support the latest security standards, including IEEE 802.11i and AES encryption, and add proactive security measures.

- IEEE 802.1x mutual authentication
- Dynamic per-user, per-session rotating keys
- Rogue Access Point and client identification
- Secure management interfaces: SNMPv3, SSL and SSH
- Intra-cell blocking to prevent client-to-client snooping

Easy to Deploy and Manage

Ease of deployment and integration with the wired network are critical factors in a successful, profitable wireless LAN rollout. ORiNOCO access points excel with key capabilities that simplify WLAN deployment.

- Tools to speed installation and optimization: automatic channel selection, adjustable transmit power, external antenna connectors
- ORiNOCO Mesh Creation Protocol for maximum coverage, flexibility, reliability, and lowest infrastructure costs.
- Wireless repeating functionality in areas without Ethernet wiring
- Remote management via SNMP, HTTP and Telnet
- Extensive RADIUS accounting support
- Powerful group configuration, software updates and automatic alerts via Wavelink Mobile Manager

Reliable by Design

- Robust features for enterprise, public access – compared to consumer grade APs
- Automatic reconfiguration of security policy in the event of power loss
- Dual firmware image support – for rollback in the event of software or configuration change problems
- IEEE 802.3af Power-over-Ethernet, plenum rating, built-in Kensington lock and external antenna connectors
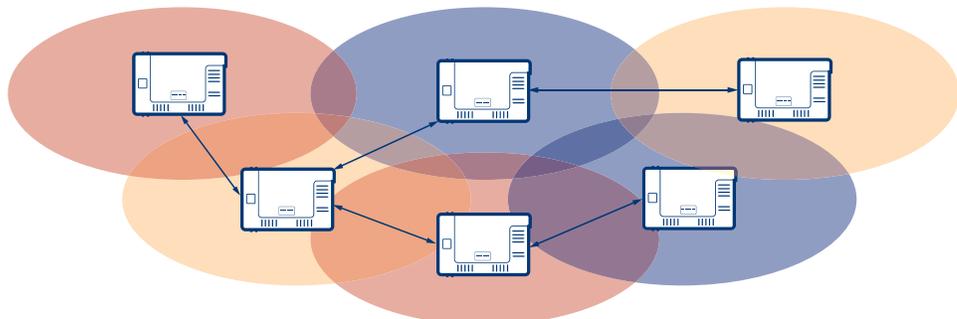
The ORiNOCO Mesh Creation Protocol uses one radio for simultaneous mesh backhaul and Wi-Fi coverage and the other radio for Wi-Fi coverage.

ORiNOCO AP-4900M Specifications

ADDITIONAL FEATURES

Quad-mode 802.11b, 802.11g, 802.11a, and 4.9 GHz support	Pre-configured simultaneous 802.11b/g and 4.9 GHz support. May also be configured to support simultaneous 802.11b/g and 802.11a
Field upgradeable	Software upgradeable to support new standards
ORiNOCO Mesh Creation Protocol	AP mesh networking allows quick installation, expanded network coverage, and self-healing capabilities for maximum network reliability.
IEEE 802.11i and AES encryption	Highest authentication and encryption methods including mutual authentication, message integrity check (MIC), per-packet keys initialization vector hashing and broadcast key rotation
Intrusion Detection and Prevention	Detects, alerts, and stops unauthorized rogue Access Points and clients in the 2.4, 4.9, and 5 GHz bands[1]
Secure Management Interfaces	SNMPv3 and SSL protect against unauthorized AP changes via the management interface
Multiple VLAN Support with different security settings	Up to 16 separate VLANs per radio, each able to support multiple different authentication and encryption algorithms simultaneously
Auto configuration via DHCP	Ensures new APs automatically receive correct configuration and prevents security vulnerabilities with deliberate resets
Central management and configuration	Allows centralized management of AP settings including group updates of firmware[1]
Assured Software Upgrades	Guarantees new AP configuration file is valid before deleting current image - dual image support
Quality of Service	Draft IEEE 802.11e along with 802.1p and 802.1q improve performance of video and voice applications
High Output Power	+20 dBm for 802.11b, +18 dBm for 802.11g, 802.11a, and 4.9 GHz
Transmit Power Control	Supports settable transmit power levels to adjust coverage cell size
Automatic Channel Selection	Simplifies installation by choosing best possible channel upon installation
RADIUS Support	Extensive RADIUS Accounting support, intra-cell blocking to prevent client-to-client snooping, multiple VLAN support with different security modes
Super Mode	Delivers greater than 30 Mbps throughput for ORiNOCO and Atheros-based clients while simultaneously compatible with non-Atheros clients
Designed for Metro 4.9 GHz & Wi-Fi	AP-to-AP communication for extension of wireless LAN to areas without Ethernet wiring (parking lots, long corridors, etc) for 802.11b, 802.11g, 802.11a, and 4.9 GHz public safety
Advanced Filtering Capabilities	IEEE 802.1d bridging with static MAC address filtering, network protocol filtering, Proxy ARP, multicast/broadcast storm threshold filtering,TCP/UDP port filtering, intra-cell traffic filtering, and Spanning Tree support
IEEE 802.3af and AC Power	Decreases installation costs up to $1000 per AP when Power over Ethernet is available
Integrated diversity 2.4 and 5 GHz antennas with horizontal and vertical polarization	Delivers optimum coverage in any mounting position and excellent performance in high multipath environments
External antenna connectors for 802.11b/g, 802.11a, and 4.9 GHz	Allows use of shaped and higher gain antennas to design for most efficient AP placement
Plenum rated	Meets safety and insurance requirements when installed in air spaces

INTERFACE

Wired Ethernet	10/100 base-T Ethernet (RJ-45)
Wireless Ethernet	1 integrated 802.11b/g radio and 1 integrated 802.11a/4.9 GHz radio
RS-232	Unit configuration

HARDWARE SPECIFICATION

Memory	32 MB SDRAM; 8 MB Flash

PHYSICAL SPECIFICATIONS

Dimensions	11.375 x 9.25 x 2.75 in (29 x 23.5 x 7 cm)
Weight	2.05 lbs (0.93 kg)

ENVIRONMENTAL SPECIFICATIONS

Temperature	Operating	0°C to 55°C
	Storage	-10°C to 70°C
Humidity	Operating	95% (non-condensing)
	Storage	95% (non-condensing)

POWER SUPPLY

Types	Integrated module Autosensing 100/240 VAC; 50/60 Hz IEEE 802.3af Active Ethernet for power over Ethernet

LEDS

Type:	Power, Ethernet LAN Activity Wireless 802.11b/g Activity Wireless 802.11a/4.9 GHz activity

MANAGEMENT

- SNMPv1, SNMPv2c and secure SNMPv3 management
- Standard & ORiNOCO traps
- ORiNOCO MIB, Etherlike MIB, 802.11 MIB, Bridge MIB, MIB-II
- TFTP support
- Telnet CLI, Serial Port CLI (no proxy required)
- HTTPS (SSL) server for secure web-based management
- WaveLink Mobile Manager for group management (not included)
- Syslog
- DHCP Server and Client

WARRANTY

1 year (on parts and labor)

PACKAGE CONTENTS

- AP-4900M quad mode access point with built-in 802.11b/g and 802.11a/4.9 GHz radios
- Power supply and support for Active Ethernet and IEEE 802.3af
- Software and documentation
- Cable cover and mounting bracket

RELATED PRODUCTS

Wavelink Mobile Manager, Ekahau Site Survey and RF Prediction Software, ORiNOCO 11a/b/g ComboCard, Dual Band Range Extender Antenna

[1] In conjunction with Wavelink Mobile Manager

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