



**Indoor Mesh Access Point (AP-4900M)**

## ORiNOCO Wireless LAN

Proxim Wireless' industry-leading ORiNOCO® wireless LAN products deliver standards-based, enterprise-class 802.11a/b/g/n networking functionality and the industry's best performance, security and return on investment (ROI).

This portfolio includes:

- **ORiNOCO Client Products** – *Ultimate performance and flexibility for connecting to any Wi-Fi® network*
- **ORiNOCO Access Points** – *Enterprise-class 802.11 a/b/g/n APs with Quality of Service (QoS) support and mesh capabilities*
- **ORiNOCO Wi-Fi Mesh** – *Indoor Wi-Fi mesh for service providers and metro area WLANs*
- **ProximVision ES Wireless Network Management System** – *Centralized wireless network management software for rapid network deployment, advanced security, mobility and system-wide visibility*

**Proxim Wireless** is a global pioneer of end-to-end broadband wireless systems that deliver the quadruple play of video, voice, data and mobility. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, Wi-Fi Mesh, WiMAX and point-to-point wireless backhaul products are available through our extensive global channel networks.

## High Capacity Mesh Access Points Deliver Flexible, Scalable, and Reliable Data, Voice and Video for Large Public Safety 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, ORiNOCO Public Safety Wi-Fi Mesh delivers the versatility and feature robustness required by today's demanding emergency response and Wi-Fi applications. Delivering unparalleled enterprise-scale security, management and Quality of Service (QoS) features, the access points are preconfigured with tri-mode support for best in class performance and flexibility in large public safety deployments. Offering a cost-effective, scalable mesh solution, ORiNOCO Public Safety Wi-Fi Mesh Series consists of indoor form factors. The AP-4900M indoor access point's small form factor enables installation in a building or a vehicle trunk.

- The ORiNOCO Mesh Creation Protocol (OMCP) enables mesh backhaul and Wi-Fi coverage on one radio, while the second radio is used exclusively for Wi-Fi coverage
- Industry-leading throughput with 802.11g and 4.9 GHz simultaneous operation
- Robust RADIUS accounting and authorization interface enables detailed subscriber usage tracking
- WMM/802.11e draft Quality of Service support for data, voice, and video

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## Proactive Security Measures to Protect Your Network

ORiNOCO access points support the highest security standards, including IEEE 802.11i and AES encryption, and add proactive security measures to prevent attacks.

- Intra-cell blocking and traffic redirection to prevent subscriber-to-subscriber attacks
- Broadcast bandwidth throttling prevents broadcast attacks
- IEEE 802.1x mutual authentication with dynamic per-user, per-session rotating keys
- Rogue access point detection and notification
- Secure management interfaces: SNMPv3, SSL and SSH
- Dynamic per-user, per-session rotating keys

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## Easy to Deploy and Manage

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

- Self-forming and self-healing ORiNOCO Mesh Creation Protocol automatically routes traffic through the best path as mesh access points are added or removed from the network
- Tools to speed installation and optimization: automatic channel selection, adjustable transmit power, external antenna connectors
- Remote management via SNMP, HTTP and Telnet

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## Reliable by Design

With over 25 years of experience in the design and manufacture of wireless LANs, Proxim Wireless understands that enterprises require the same uptime and reliability in a wireless network as in a wired network. ORiNOCO mesh access points offer:

- Robust features for Wi-Fi and enterprise applications
  - 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
  - Power-over-Ethernet support
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Performance and Scalability	
ORiNOCO Mesh Creation Protocol (OMCP)	Self-forming/self-healing dual-radio wireless mesh backhaul for industry leading throughput and availability
Tri-mode 802.11b, 802.11g and 4.9 GHz Support	Pre-configured, simultaneous 802.11b, 802.11g, 4.9 GHz support
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
Rogue AP and Client Detection	Detects and alerts unauthorized rogue Access Points and clients in both the 2.4 and 4.9 GHz bands
Secure Management Interfaces	SNMPv3, SSL and SSH 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 different authentication and encryption algorithms simultaneously
Multiple BSSID Support	Up to 4 Basic Service Set identifiers (BSSIDs) per radio
Auto Configuration via DHCP	Ensures new APs automatically receive correct configuration and prevents security vulnerabilities with deliberate resets
Assured Software Upgrades	Guarantees new AP image is valid before deleting current image
Quality of Service (QoS)	Draft IEEE 802.11e along with 802.1p and 802.1q improve performance of video and voice applications
Transmit Power Control	Supports selectable transmit power levels to adjust coverage cell size
Automatic Channel Selection	Simplifies installation by choosing best possible channel upon installation
RADIUS Support	Extensive RADIUS Authentication Accounting support
Super Mode	Delivers greater than 30 Mbps throughput for ORiNOCO and Atheros-based clients while simultaneously compatible with non-Atheros clients
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 to prevent client-to-client snooping
Near Line of Sight Capable	Line of sight and near line of sight connectivity extends deployment flexibility in rural as well as high-density urban areas

ORiNOCO AP-4900M	
<b>PRODUCT MODELS</b>	8670M-PS-US ORiNOCO AP-4900M Tri-mode, Mesh Access Point
<b>RADIO &amp; TRANSMISSION</b>	
RADIO	• Dual Radio Access Point with two 802.11a/b/g radios
RADIO CONFIGURATIONS	• 1 x 802.11b/g • 1 x 802.11a
MODULATION METHOD	• OFDM, DSSS for 802.11b and 802.11g • OFDM for 802.11a
FREQUENCY BAND	2.412 to 2.462 GHz, 5.25 to 5.35GHz, 5.85 to 6.08 GHz, 4.94 to 4.99 GHz (FCC Only)
<b>TRANSMIT POWER</b>	
802.11g	+18dBm
802.11a	+18dBm
802.11b	+20dBm
<b>INTERFACES</b>	
ANTENNA CONNECTOR	External antenna connectors 802.11b/g and 802.11a/4.9GHz
ANTENNAS	Integrated diversity 2.4 and 4.9/5 GHz antennas with horizontal and vertical polarization
ETHERNET	10/100Base-T Ethernet (RJ-45)
<b>PHYSICAL</b>	
<b>DIMENSIONS</b>	
UNPACKAGED	11.375 x 9.25 x 2.75 in (288.9 x 235 x 69.9 mm)
PACKAGED	7.1 X 4.75 X 1 in (180.3 x 121 x 25 mm)
<b>WEIGHT</b>	
PACKAGED	2.05 lbs (0.93 kg)
UNPACKAGED	0.65 lbs (0.29 kg)
<b>ENVIRONMENTAL</b>	
TEMPERATURE	0° to 55°C (Operating) -20° to 85°C (Storage)
HUMIDITY	Max 95% relative humidity (non-condensing)
<b>ELECTRICAL</b>	
POWER SUPPLY	110/240 VAC, 50/60 Hz (input), 5V 3A (output) power adapter
POE (OPTIONAL)	802.3af
POWER CONSUMPTION	10 Watts (Max)
LEDS	Four indicators indicate: Power, Ethernet LAN Activity, Wireless 802.11b/g Activity, Wireless 802.11a Activity
<b>MANAGEMENT</b>	
LOCAL	RS-232 Serial Port; DB9 Female
REMOTE	DHCP, Telnet, HTTP, TFTP, BootP, SNMPv1/v2c/v3; ORiNOCO MIB, Etherlike MIB, 802.11 MIB, Bridge MIB, MIB-II
SECURE	SSH, SNMPv3, HTTPS
MTBF AND WARRANTY	100,000 hours; 1-year on parts and labor
PACKAGE CONTENTS	<ul style="list-style-type: none"> <li>• (1) AP-4900M tri-mode access point</li> <li>• (1) AC Power adapter and support for Active Ethernet and IEEE 802.3af (AE injector purchased separately)</li> <li>• (1) Cable cover and Ceiling/Wall mounting Plate</li> <li>• (1) Installation CD-R</li> </ul>

## APPLICATIONS

- Hotspots**  
 Video and high-speed broadband access solutions for municipalities, public access and local businesses
- Enterprise**  
 Enable office workers to be mobile while delivering greater throughput performance than at their desks
- Healthcare**  
 High resolution image files can be transferred with safety and higher speeds than wired networks

For detailed technical specifications, please go to <http://proxim.com/products/enterprise-wireless-lan-wi-fi-mesh/orinoco-public-safety-wi-fi-mesh>