ORiNOCO® AP-9100R

Outdoor 802.11ac Access Point

Proxim introduces the ORiNOCO® AP- 9100R, a dual radio 802.11ac Access Point designed for outdoor use

ORiNOCO® AP-9100R takes advantage of Proxim's expertise in both Wi-Fi and outdoor systems to deliver a dual radio 802.11ac Access Point ready for outdoor use. ORiNOCO® AP-9100R features MIMO 2x2:2 performance with an aggregate data rate of 1166 Mbps and unparalleled flexibility. In addition, it benefits from the robust and IP67 weatherproofed design of Proxim Tsunami® products with unique features such as dual gigabit Ethernet ports with controllable PoE in and out. Organizations of all sizes encompassing Carriers, Small and Medium Enterprises, Health Care, Governments and Public safety departments, can achieve higher performance than their existing wired and wireless LANs thanks to 802.11ac advantage: significantly higher throughput and longer range.

World Class Performance

ORiNOCO® AP-9100R products enable enterprises of all size to extend their LAN outdoor while providing equivalent performance to their existing Ethernet networks.

- High throughput with dual radio rates of 866 + 300 Mbps
- High power radio delivering up to 28 dBm (2 RF) at 5 GHz
- Twice the throughput of existing typical WLANs
- High reliability for quad play applications
- Dual IPv4 and IPv6 stacks for transparent evolution to tomorrow networks

Highly Secure

ORiNOCO® AP-9100R provides enterprise class security to ensure full protection of sensitive information.

- 802.11i/WPA2™ based security with AES 128 encryption and 802.1x Radius based authentication
- Rogue scan listing surrounding devices
- Secure management (SSL / TLS1.2, SSH and SNMPv3) preventing unwanted configuration changes
- IP67 rated metal enclosure and surged protect ethernet and antenna ports

Advanced Features

ORiNOCO® AP-9100R is packed with features.

- Dual Gigabit Ethernet ports with PoE out to power other devices such as surveillance cameras or additional radios
- Multi-SSID with VLAN allocation, plus Ethernet port access and trunk mode
- 802.11e/WMM® QoS
- Public HotSpot integration with Home Page redirect and Walled Garden.
- HotSpot 2.0 to automatically discover and seamlessly authenticate to public Wi-Fi networks

Unparalleled Flexibility and Convenience with Centralized Management

ProximVision® Advanced supports ORiNOCO® devices giving network architects unparalleled flexibility and control of the units.

- Rapid Network Deployment: automates configuration processes for faster, more efficient deployment of Proxim Wireless networks
- Advanced Configuration Capabilities: gives network managers an option for exhaustive device configuration with a software-based tool
- Greater Ease of Use and Upgradability: supports a greater number of devices than competitively priced solutions and provides the simplest path to configuration and upgrade

Standalone and Controller-Ready

ORiNOCO® AP-9100R offers the advantages of both architectures:

- Standalone operation
- Controller based leveraging ProximVision® Advanced

PRODUCT MODELS

AP-9100R	ORiNOCO® AP-9100R, MIMO 2x2, 802.11 ac + b/g/n dual radio outdoor Access Point

INTERFACES

WIRED ETHERNET	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet - Port #1 with PoE in & Data - Port #2 with PoE out & Data
WIRELESS PROTOCOL	- Radio #1: 802.11a/n/ac - Radio #2: 802.11b/g/n

RADIO

	Radio #1					Radio #2			
FREQUENCY	5.150 – 5.925 GHz (Subject to Country Regulations)					2.400 – 2.484 (Subject to Country Regulations)			
	802.11ac	802.11n		802.11a	802.11n		802.11g	802.11b
MIMO	2x2:2	2x2:2		2x2:2	2x2:2		N/A	N/A
MODULATION	OFDM BPSK-QAM256	OFDM BPSK-QAM64		OFDM BPSK-QAM64	OFDM BPSK - QAM64		OFDM BPSK-QAM64	DSSS DBPSK-CCK
DATA RATE	Upto 866 Mbps	Upto 300 Mbps		Upto 54 Mbps	Upto 300Mbps		Upto 54Mbps	Up to 11Mbps

	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	20 MHz	40 MHz	20 MHz	20 MHz	20 MHz
TX POWER	MCS0: 28	MCS0: 28	MCS0: 29	MCS0: 28	MCS0: 29	6 Mbps: 29	MCS0/8: 26	MCS0/8: 26	6 Mbps: 26	1 Mbps: 26
	MCS9: 21	MCS9: 22	MCS8: 25	MCS7: 22	MCS7: 25	54 Mbps: 27	MCS7/15: 20	MCS7/15: 21	54 Mbps: 22	11 Mbps: 26
RX SENSITIVITY (BER=10^{-6})	MCS0: -89	MCS0: -93	MCS0: -94	MCS0: -93	MSS0: -94	6 Mbps: -94	MCS0/8: -88/90	MCS0/8: -92/91	6 Mbps: -93	1 Mbps: -93
	MCS9: -68	MCS9: -71	MCS8: -74	MCS7: -75	MCS7: -77	54 Mbps: -80	MCS7/15: -72/69	MCS7/15: -74/72	54 Mbps: -77	11 Mbps: -89
OTHER	Auto Channel Selection (ACS) Dynamic Frequency Selection (DFS) based on radar signature						Auto Channel Selection (ACS)			

THROUGHPUT

Radio #1	Radio #2
Up to 450 Mbps	Up to 150 Mbps

ANTENNA

Radio #1	Radio #2
Two N-type Connectors with built-in Surge Protection Two 7 dBi, omni-directional antenna provided	Two N-type Connectors with built-in Surge Protection Two 5 dBi, omni-directional antenna provided

MANAGEMENT

REMOTE	Telnet and SSH, Web GUI and SSL/TLS1.2, TFTP, SNMPv3
SNMP	SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2790, RFC-2571, RFC-3412, RFC-3414, Private MIB
OTHER	Syslog, SNTP and local time

NETWORK

IP STACK	IPv4 and IPv6 simultaneously
VLAN	802.1Q: Management VLAN. Transparent, Access and Trunk mode. Radius based VLAN assignment

WIRELESS

AP-AP COMMUNICATION	WDS with STP loop avoidance
RF ENVIRONMENT	Spectrum analyzer
OTHER	802.11d/802.11h Spectrum and Regulatory Features

SECURITY

AUTHENTICATION	Enterprise/802.1x, Personal/ PSK (Pre Shared Key) or Open plus Internal MAC Address Control List
802.1X SUPPORT	PEAP, LEAP, EAP-TLS, EAP-TTLS, EAP-SIM, EAP-AKA, EAP-FAST
ENCRYPTION	802.11i/WPA2 and WPA Wireless Security with AES-128, TKIP or WEP

QoS

PACKET CLASSIFICATION	802.11e/WMM Enhanced Distributed Channel Access, 4 priority queues 802.1p priority, IPTOS

HOTSPOT

Home Page Redirect with configurable URL and Domain based Walled Garden with wild card support Hotspot 2.0

POWER

INPUT	OUTPUT
36 to 57 VDC via Ethernet port1 (Power over Ethernet) 12 VDC via Access port Power should not be provided simultaneously on both ports.	48 to 57 VDC - 25 Watt on Ethernet port2 (Power over Ethernet – software controlled) 12 VDC on Access port

POWER CONSUMPTION

23 Watt typical

ENVIRONMENTAL SPECS

OPERATING TEMPERATURE	-40° to 60°C (-40° to 140° Fahrenheit)
STORAGE TEMPERATURE	-50° to 70°C (-58° to 158° Fahrenheit)
HUMIDITY - IP RATING	100% relative humidity - IP67
WIND LOADING	180 km/h (112.5 mph)

PHYSICAL SPECS

	DIMENSIONS	WEIGHT
PACKAGED (per unit)	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	10.91 lbs (4.95 kg)
UNPACKAGED (per unit)	9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)	5.07 lbs (2.3 kg)

SAFETY STANDARDS

UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)

PACKAGE CONTENTS

- One ORiNOCO® AP-9100R with four N-type surge protected connectors
- Two 2.4 GHz, 5 dBi omni antennas
- Two 5 GHz, 7 dBi omni antennas
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- One power injector and country specific power cord
- One Wall / Pole mounting kit
- One Grounding kit
- One Antenna alignment (RJ11) dongle
- One Quick Installation Guide

MTBF and WARRANTY

>250 000 hours, 2-year warranty, ServPak Extended Support available.