

# ORiNOCO® AP-9100R-TH

## 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 adapted to thailand regulation
- 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-TH ORINOCO® AP-9100R, MIMO 2x2, 802.11 ac + b/g/n dual radio outdoor Access Point matching Thailand regulation

**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 – 5.350 & 5.470 – 5.850					2.400 – 2.484						
		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		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	20 MHz	
TX POWER		MCS0: 16&23	MCS0: 16&23	MCS0: 16&23	MCS0: 16&23	MCS0: 16&23	6 Mbps: 16&23	MCS0/8: 15	MCS0/8: 15	6 Mbps: 15	1 Mbps: 15		
		MCS9: 16&21	MCS9: 16&22	MCS8: 16&23	MCS7: 16&22	MCS7: 16&23	54 Mbps: 16&23	MCS7/15: 15	MCS7/15: 15	54 Mbps: 15	11 Mbps: 15		
RX SENSITIVITY (BER=10 <sup>-6</sup> )		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, SNMP 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	
	16.5 Watt typical, 22.5 Watt maximum

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)

CERTIFICATIONS	
	USA: FCC 90Y + 15C + 15E (UNII 15.247); Canada: IC RSS 102 + RSS 111 + RSS 247 Europe: RED EN 301 489-1 + EN 301-489-17 + EN 300 328 + EN 301 893 + EN 302 502; Railway: EN 50155 + EN 50121 + EN 61373

PACKAGE CONTENTS	
<ul style="list-style-type: none"> <li>One ORINOCO® AP-9100R with four N-type surge protected connectors</li> <li>Two 2.4 GHz, 5 dBi omni antennas</li> <li>Two 5 GHz, 7 dBi omni antennas</li> <li>One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> </ul>	<ul style="list-style-type: none"> <li>One power injector and country specific power cord</li> <li>One Wall / Pole mounting kit</li> <li>One Grounding kit</li> <li>One Antenna alignment (RJ11) dongle</li> <li>One Quick Installation Guide</li> </ul>

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