

## ORiNOCO<sup>®</sup> AP- 9200R, a Dual Radio 802.11ac wave2 Access Point Designed for Outdoor Use



ORiNOCO<sup>®</sup> AP-9200R takes advantage of Proxim's expertise in both Wi-Fi and outdoor systems to deliver a dual radio 802.11ac wave2 Access Point ready for outdoor use. ORiNOCO<sup>®</sup> AP-9200R features one 2.4 GHz MIMO 3x3:3 and one 5 GHz MU-MIMO 4x4:4 radio delivering up to 2 Gbps aggregate data rate and unparalleled flexibility. In addition, it benefits from the weatherproofed design of Proxim Tsunami<sup>®</sup> products.

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 wave2 Advantage: multiple user simultaneous access, significantly higher throughput and longer range.

### High Performance

ORiNOCO<sup>®</sup> AP-9200R products enable enterprises of all size to extend their LAN outdoor while providing greater performance to their existing Ethernet networks.

- High performance with dual radio rates of 1733 + 450 Mbps
- High power radio delivering up to 27 dBm (4 RF) at 5 GHz and up to 26 dBm (3RF) at 2.4 GHz
- High reliability for quad play applications
- Dual IPv4 and IPv6 stacks for transparent evolution to tomorrow networks.

### Highly Secure

ORiNOCO<sup>®</sup> AP-9200R provides enterprise class security to ensure full protection of sensitive information

- 802.11i 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 enclosure with surged protect ethernet port

### Easy to Deploy

ORiNOCO<sup>®</sup> AP-9200R is a Fit Access Point operating on its own

- High performance CPU locally managing traffic and QoS
- Bluetooth Low Energy interface for easy configuration via Proxim BlueConnect smartphone application (Android and iOS)

### Unparalleled Flexibility and Convenience with Centralized Management

ProximVision<sup>®</sup> Advanced supports ORiNOCO<sup>®</sup> 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

#### About Proxim Wireless

Proxim Wireless is a pioneer and global leader in advanced Wi-Fi, point to point, and point to multipoint outdoor wireless systems that deliver high performance and high availability communications.

With over 30 years of wireless experience, Proxim is recognized for its unparalleled reliability, superior performance and drive for innovation.

## Advanced Features

ORINOCO® AP-9200R is packed with features.

- Multi-SSID with VLAN allocation, plus Ethernet port access and trunk mode
- 802.11e QoS
- Public HotSpot integration with Home Page redirect and Walled Garden.
- HotSpot 2.0 to automatically discover and seamlessly authenticate to public Wi-Fi

## Specifications

PRODUCT MODELS										
AP-9200R	ORINOCO® AP-9200R, MU-MIMO 4x4 w2, dual radio, connectorized outdoor Access Point						903-00035 AP-9200R-US 903-00936 AP-9200R-WD			
INTERFACES										
WIRED ETHERNET	One auto MDI-X RJ45 10/100/1000Mbps Ethernet									
WIRELESS PROTOCOL	<b>Radio #1:</b>					<b>Radio #2:</b>				
	802.11a/n/ac w2					802.11b/g/n				
RADIO & TX SPECS										
	<b>Radio #1</b>					<b>Radio #2</b>				
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	4x4:4		4x4:4		N/A	3x3:3		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 1733 Mbps		Upto 600 Mbps		Upto 54Mbps	Upto 450 Mbps		Upto 54 Mbps	Upto 11 Mbps	
	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	20 MHz	40 MHz	20 MHz	20 MHz	20 MHz
TX POWER	MCS0: 18	MCS0: 20	MCS0: 21	MCS0: 20	MCS0: 21	6 Mbps: 21	MCS0: 20	MCS0: 21	6 Mbps: 21	1 Mbps: 21
	MCS9: 14	MCS9: 15	MCS8: 16	MCS7: 16	MCS7: 17	54 Mbps: 19	MCS7: 117	MCS7: 18	54 Mbps: 18	11 Mbps: 20
RX SENSITIVITY (Per=10 <sup>-6</sup> )	MCS0: -84	MCS0: -86	MCS0: -89	MCS0: -86	MCS0: -89	6 Mbps: -86	MCS0: -88	MCS0: -91	6 Mbps: -91	1 Mbps: -93
	MCS9: -59	MCS9: -62	MCS8: -67	MCS7: -67	MCS7: -72	54 Mbps: -72	MCS7: -69	MCS7: -72	54 Mbps: -74	11 Mbps: -89
OTHER	Auto Channel Selection (ACS) Dynamic Frequency Selection (DFS) based on radar signature					Auto Channel Selection (ACS)				
THROUGHPUT										
	<b>Radio #1</b>					<b>Radio #2</b>				
	Up to 810 Mbps					Up to 190 Mbps				
ANTENNA										
	<b>Radio #1</b>					<b>Radio #2</b>				
	Four RP-SMA Connectors Four 7 dBi, omni-directional antenna provided					Three RP-SMA Connectors Three 7 dBi, omni-directional antenna provided				
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									
WIRELESS										
AP-AP COMMUNICATION	WDS with STP loop avoidance									
RF ENVIRONMENT	Spectrum analyzer									
OTHER	802.11h Spectrum and Transmit Power Management Extensions									

<b>QoS</b>				
PACKET CLASSIFICATION	802.11e/WMM Enhanced Distributed Channel Access, 4 priority queues 802.1p priority, IPTOS			
<b>HOTSPOT</b>				
	Home Page Redirect with configurable URL and Domain based Walled Garden with wild card support Hotspot 2.0			
<b>MANAGEMENT</b>				
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	802.11d / 802.11h Spectrum and Regulatory Features			
<b>POWER</b>				
	802.3af/at Compliant			
<b>NETWORK</b>				
IP STACK	IPv4 and IPv6 simultaneously			
VLAN	802.1Q: Management VLAN. Transparent, Access and Trunk mode. Radius based VLAN assignment			
<b>POWER CONSUMPTION</b>				
	27 W typical, 30 W max			
<b>ENVIRONMENTAL SPECS</b>	<b>OPERATING TEMPERATURE</b>	<b>STORAGE TEMPERATURE</b>	<b>HUMIDITY - IP RATING</b>	<b>WIND LOADING</b>
	-30° to 55°C (-22° to 131° Fahrenheit)	-50° to 70°C (-58° to 158° Fahrenheit)	100% relative humidity – IP67	180 km/h (112.5 mph)
<b>PHYSICAL SPECS</b>	<b>DIMENSIONS PACKAGED</b>	<b>DIMENSIONS UNPACKAGED</b>	<b>WEIGHT (PACKAGED)</b>	<b>WEIGHT (UNPACKAGED)</b>
	310 x 226 x 98 mm (12.2 x 8.9 x 3.85 in)	170 x 217 x 56 mm (6.7 x 8.55 x 2.2 in)	3.00 kg (6.61 lbs)	1.20 kg (2.65 lbs)
<b>SAFETY STANDARDS</b>				
	UL/IEC/EN 62386-1			
<b>CERTIFICATIONS</b>				
USA	FCC part 15B class B (EMC), part 15C (Bluetooth + 2.4 GHz radio) and part 15E (5 GHz radio)			
Canada	RSS-247 issue 2, RSS-102 issue 5, ICES-003 issue 7			
Europe	RED EN 301 489-1 + EN 301 489-17 + EN 300 328 + EN 301 893 + EN 302 502			
<b>PACKAGE CONTENTS</b>				
	<ul style="list-style-type: none"> <li>• One ORiNOCO® AP-9200R with seven RP-SMA connectors</li> <li>• Four 5 GHz, 7 dBi omni antennas</li> <li>• Three 2.4 GHz, 7 dBi omni antennas</li> <li>• One M25 weather proofing cable gland</li> <li>• One power injector and country specific power cord</li> <li>• One full axis mounting kit</li> <li>• One Grounding kit</li> <li>• One Quick Installation Guide</li> </ul>			
<b>MTBF &amp; WARRANTY</b>				
	>250 000 hours, 2-year warranty, ServPak Extended Support available.			