

## 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 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 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



### 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.

## Standalone and Controller-Ready

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

- Standalone operation
- Controller based leveraging ProximVision® Advanced

## Specifications

| 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<br>Radio #2: 802.11b/g/n  |           |                 |           |                 |  |                 |                 |                |              |
| RADIO & TX SPECS                       |  |           |                 |           |                 |  |                 |                 |                |              |
|  | 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 54Mbps     | Upto 300Mbps   |                 | Upto 54Mbps     | Upto 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 (Per=10 <sup>-6</sup> ) | MCS0: -89  | MCS0: -93 | MCS0: -94       | MCS0: -93 | MCS0: -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: -81   | 11 Mbps: -89 |
| OTHER                                  | Auto Channel Selection (ACS)<br>Dynamic Frequency Selection (DFS) based on radar signature                 |           |                 |           |                 | Auto Channel Selection (ACS)   |                 |                 |                |              |
| ANTENNA                                |  |           |                 |           |                 |  |                 |                 |                |              |
|  | Radio #1   |           |                 |           |                 | Radio #2   |                 |                 |                |              |
|  | Two N-type Connectors with built-in Surge Protection<br>Two 7 dBi, omni-directional antenna provided       |           |                 |           |                 | Two N-type Connectors with built-in Surge Protection<br>Two 5 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  |           |                 |           |                 |  |                 |                 |                |              |
| QoS                                    |  |           |                 |           |                 |  |                 |                 |                |              |
| PACKET CLASSIFICATION                  | 802.11e/WMM Enhanced Distributed Channel Access, 4 priority queues<br>802.1p priority, IPTOS               |           |                 |           |                 |  |                 |                 |                |              |
| HOTSPOT                                |  |           |                 |           |                 |  |                 |                 |                |              |
|  | Home Page Redirect with configurable URL and Domain based Walled Garden with wild card support Hotspot 2.0 |           |                 |           |                 |  |                 |                 |                |              |

| THROUGHPUT          |  |  |  |                      |
|---------------------|--|--|--|----------------------|
|                     | <b>Radio #1</b>  |  | <b>Radio #2</b>  |                      |
|                     | Up to 450 Mbps   |  | Up to 150 Mbps   |                      |
| 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               | 802.11d/802.11h Spectrum and Regulatory Features   |  |  |                      |
| POWER               | INPUT  |  | OUTPUT   |                      |
|                     | 36 to 57 VDC via Ethernet port1 (Power over Ethernet)  |  | 48 to 57 VDC - 25 Watt on Ethernet port2 (PoE – software controlled) |                      |
|                     | 12 VDC via Access port   |  | 12 VDC on Access port  |                      |
|                     | Power should not be provided simultaneously on both ports.   |  |  |                      |
| NETWORK             |  |  |  |                      |
| IP STACK            | IPv4 and IPv6 simultaneously   |  |  |                      |
| VLAN                | 802.1Q: Management VLAN. Transparent, Access and Trunk mode. Radius based VLAN assignment  |  |  |                      |
| POWER CONSUMPTION   |  |  |  |                      |
|                     | 16.5 Watt typical, 22.5 Watt maximum   |  |  |                      |
| ENVIRONMENTAL SPECS | OPERATING TEMPERATURE  | STORAGE TEMPERATURE                          | HUMIDITY - IP RATING   | WIND LOADING         |
|                     | -40° to 60°C<br>(-40° to 140° Fahrenheit)  | -50° to 70°C<br>(-58° to 158° Fahrenheit)    | 100% relative humidity - IP67  | 180 km/h (112.5 mph) |
| PHYSICAL SPECS      | DIMENSIONS PACKAGED  | DIMENSIONS UNPACKAGED                        | WEIGHT (PACKAGED)  | WEIGHT (UNPACKAGED)  |
| XP-10100-SUA        | 14.56 x 13.0 x 7.87 in<br>(370 x 331 x 200 mm)   | 9.84 x 8.66 x 2.83 in<br>(250 x 220 x 72 mm) | 10.91 lbs (4.95 kg)  | 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)<br>Canada: IC RSS 102 + RSS 111 + RSS 247<br>Europe: RED EN 301 489-1 + EN 301-489-17 + EN 300 328 + EN 301 893 + EN 302 502<br>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> <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 & WARRANTY     |  |  |  |                      |
|                     | >250 000 hours, 2-year warranty, ServPak Extended Support available.   |  |  |                      |