ORiNOCO® QB-9100 Series

Access Point with built-in Backhaul

Proxim introduces the ORiNOCO® Quickbridge® 9100, the first wireless solution that combines a 2.4 GHz Access Point and 5 GHz Backhaul

ORiNOCO® Quickbridge® 9100 takes advantage of Proxim's expertise in both Wi-Fi and long haul point-to-point systems to deliver a 2.4 GHz 802.11n Access Point with a built-in 5 GHz high capacity backhaul solution.
With dual radio support, one for Wi-Fi and one for high capacity backhaul the , ORiNOCO ® QB-9100 is ideal for Carriers who need wireless backhaul for their 3G/4G small cell and can have the backhaul and Wi-Fi offload in a single unit ORiNOCO® QB-9100 also offers new capability to Video Protection or ITS network by providing operators with secure Wi-Fi access to information from the unit while in the field, on standard Wi-Fi devices.

ORiNOCO® Quickbridge® 9100 leverages the benefits of OFDM, MIMO radio innovations and Proxim's proprietary Wireless Outdoor Routing Protocol (WORP®) to provide wireless performance in excess of 4G or Wi-Fi based backhaul products today

World Class Performance

- 802.11b/g/n Access Point that delivers 300 Mbps data rate
- Point-to-Point Backhaul that delivers 866 Mbps data rate at distances of over 5 miles (8 km)
- Very low latency of 2 to 3 ms to support voice and video applications over long distances
- Dual IPv4 and IPv6 stack for transparent evolution to tomorrow networks
- Built-in feature rich network protocols for bridging, routing and gateway functionality

Highly Secure

- Implements AES encryption and Radius authentication for secure outdoor wireless communications
- Secure management (SSL, SSH and SNMPv3) preventing unwanted configuration changes

Advanced Features

- Features dual Gigabit Ethernet ports with PoE out to power other devices such as surveillance cameras or additional radios
- Supports Deep packet inspection to create unique and sophisticated service rules and tiered service classes with ease
- Compatibility with LACP switches for link aggregation
- Built in spectrum analyzer to scan frequency bands for interference, and select a channel appropriately

Carrier-Grade Backhaul

- Features Ethernet ports with IEEE 1588v2 synchronization and support for Jumbo frames.
- HotSpot2.0 rev2, allowing seamless roaming between cellular network and Wi-Fi access. (via future firmware release)

Unparalleled Flexibility and Convenience with Centralized Management

- ProximVision® Advanced supports ORiNOCO® QB-9100 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

Specifications: ORiNOCO® QB-9100 Series

PRODUCT MODELS

QB-9100	ORiNOCO® QB-9100, MIMO 2x2, 802.11g/n AP with link, 867 Mbps, MIMO 2x2, Type-N Connectors
QB-9150	ORiNOCO® QB-9150, MIMO 2x2, 802.11g/n AP with link, 867 Mbps, MIMO 2x2, 22 dBi panel

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: WORP®	- Radio #2: 802.11b/g/n (Remote end only)

RADIO

	Radio #1			Radio #2 (Remote end only)			
FREQUENCY	5.150 – 5.925 GHz (Subject to Country Regulations)			2.400 – 2.484 (Subject to Country Regulations)			
				802.11n		802.11g	802.11b
MIMO	2x2:2			2x2:2		N/A	N/A
MODULATION	OFDM BPSK - QAM256			OFDM BPSK - QAM64		OFDM BPSK-QAM64	DSSS DBPSK-CCK
DATA RATE	Up to 866 Mbps			Up to 300Mbps		Up to 54Mbps	Up to 11Mbps
	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	20 MHz	20 MHz
TX POWER	MCS0: 28	MCS0: 28	MCS0: 29	MCS0/8: 26	MCS0/8: 26	6 Mbps: 26	1 Mbps: 26
	MCS9: 21	MCS9: 22	MCS8: 25	MCS7/15: 20	MCS7/15: 21	54 Mbps: 22	11 Mbps: 26
RX SENSITIVITY (BER=10^{-6})	MCS0: -89	MCS0: -93	MCS0: -94	MCS0/8: -88/90	MCS0/8: -92/91	6 Mbps: -93	1 Mbps: -93
	MCS9: -68	MCS9: -71	MCS8: -74	MCS7/15: -72/69	MCS7/15: -74/72	54 Mbps: -77	11 Mbps: -89
OTHER	Dynamic Channel Selection (DCS) based on interference detection Dynamic Frequency Selection (DFS) based on radar signature Automatic Transmit Power Control (ATPC) with EIRP limit support			Automatic Channel Selection (ACS)			

ANTENNA

	Radio #1	Radio #2 (Remote end only)
QB-9100	Two N-type Connectors with built-in Surge Protection	Two N-type Connectors with built-in Surge Protection
QB-9150	Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna	Two N-type Connectors with built-in Surge Protection

SECURITY

	Radio #1	Radio #2 (Remote end only)
ENCRYPTION	AES 128	802.11i Wireless Security with AES-128, TKIP or WEP
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication	Enterprise (Radius based) or Pre-Shared Key
802.1X SUPPORT		PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-TTLS, EAP-AKA

QOS

	Radio #1	Radio #2 (Remote end only)
Packet Classification Capabilities	Asymmetric UL/DL CIR (committed) and MIR (maximum) information rate per service flow with Best Effort and Real Time Polling Services 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType	802.11e Enhanced Distributed Channel Access 802.1p priority, IPTOS

THROUGHPUT

Radio #1	Radio #2 (Remote end only)
Up to 633 Mbps @ 80 MHz	Up to 150 Mbps

MANAGEMENT

REMOTE	Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3
SNMP	SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2790, RFC-2571, RFC-3412, RFC-3414, Private MIB
OTHER	Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer

SYNCHRONIZATION

IEEE 1588v2 Ethernet Synchronization

NETWORK

	Radio #1	Radio #2 (Remote end only)
MODES	Bridging (support LACP through external switches), Routing (RIP v2 and IP tunneling)	Access Point
IP STACK	IPv4 and IPv6 simultaneously	
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs	
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging	

POWER

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

POWER CONSUMPTION

Local end: 17 Watt typical, remote end 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 (Local / Remote end)
PACKAGED (per unit)	QB-9100	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	9.92 lbs (4.5 kg) / 10.91 lbs (4.95 kg)
	QB-9150	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	10.91 lbs (4.95 kg) / 11.90 lbs (5.4 kg)
UNPACKAGED (per unit)	QB-9100	9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)	4.20 lbs (1.9 kg) / 5.07 lbs (2.3 kg)
	QB-9150	12 x 12 x 3.40 in (305 x 305 x 85 mm)	5.30 lbs (246 kg) / 6.17 lbs (2.8 kg)

SAFETY STANDARDS

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

PACKAGE CONTENTS

- One ORiNOCO® QB-9100 link with two (local) / four four (remote) N-type surge protected connectors
  Or One ORiNOCO® QB-9150 link with integrated 22 dBi panel antenna (local and remote)
  plus Two N-type surge protected connectors (remote only)
- Two power injector and country specific power cord
- Two Connector weatherproofing kit (Includes all recommended weatherproofing material)
- Two 2.4 GHz, 5 dBi omni antennas
- Two Grounding kit
- One Antenna alignment (RJ11) dongle
- One Quick Installation Guide
- Two Wall / Pole mounting kit

MTBF and WARRANTY

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