ORiNOCO ® AP-8100

ORiNOCO ® Wireless LAN

Proxim Wireless' industry-leading ORiNOCO ® wireless LAN products deliver standards-based, enterprise-class 802.11 a/b/g/n networking functionality and the industry's best performance, security and return on investment (ROI).

This portfolio includes:

- **ORiNOCO® Client Products –**
  Ultimate performance and flexibility for connecting to any Wi-Fi® network

- **ORiNOCO® Access Points –**
  Enterprise-class 802.11 a/b/g/n APs with Quality of Service (QoS) support and mesh capabilities

- **ORiNOCO® Wi-Fi Mesh –**
  Outdoor and indoor Wi-Fi mesh for service providers and metro area WLANs

- **ProximVision ES Wireless Network Management System –**
  Centralized wireless network management software for rapid network deployment, advanced security, mobility and system-wide visibility.

Proxim Wireless is a global provider of wireless systems that deliver the quadruple play. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, mesh, point-to-multipoint and point-to-point products are available through our extensive global channel networks.

Proxim introduces the all new ORiNOCO® AP-8100, combining compact design with breakthrough speeds of 300 Mbps and incredible flexibility.

The ORiNOCO® AP-8100 is a high performance, very reliable 2x2 MIMO access point with 20 dBm dual –chain aggregate Transmission power. It features incredible performance of 300 Mbps aggregate throughput and unparalleled flexibility. In addition, Proxim's new 802.11n access point has been developed by combining ergonomics and cutting edge design that simplifies installation and deployment.

Organizations of all sizes encompassing Small and Medium Enterprises, Health Care, Governments and Public safety departments, can achieve higher performance than their existing wired and wireless LANs while avoiding High OPEX and CAPEX, deployment challenges and additional network planning. The primary advantages of 802.11n compliant products are significantly higher throughput and longer range.

High Performance

Proxim's ORiNOCO® AP-8100 products enable enterprises of all size to finally unwire the wired LAN by providing greater performance than existing Ethernet networks.

- High throughput with dual radio rates of 300+300Mbps
- No need to run new cable to add stations to a LAN
- 7x the throughput of existing typical WLANs
- High reliability for quad play applications

Unparalleled flexibility and convenience with Centralized Management

The ProximVision ES network management system supports the ORiNOCO® AP-8100 giving network architects unparalleled flexibility.

- Rapid Network Deployment – ProximVision ES automates configuration processes for faster, more efficient deployment of Proxim Wireless networks.
- Mobile Configuration Capabilities – ProximVision ES gives network managers a mobile option for exhaustive device configuration with a software-based tool.
- Greater Ease of Use and Upgradability – ProximVision ES can support a greater number of APs than competitively priced solutions and provides the simplest path to configuration and upgrade.

Highly Secure

Proxim's ORiNOCO® AP-8100 provide 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 device scan providing list of devices surrounding AP-8100.
- Secure management (https/SSL, telnet/SSH and SNMPv3) preventing unwanted configuration change.
- Kensington Lock protecting against product theft.
- Fire resistant enclosure matching plenum installation requirement

Cost-effective

Proxim's ORiNOCO® AP-8100 solution drastically reduces the cost of WLAN deployments

- With the added range and throughput, deployments now cost only a fraction of today's 802.11a/b/g networks when deployed to achieve the same capacity
- AP-8100 provides two times the range of standard 802.11a/b/g APs ensuring enhanced signal strength to hard-to-reach clients in the office, which simplifies deployment

Reduced Cost of Upgrading

Proxim's ORiNOCO® AP-8100 overcomes the deployment challenges and the associated costs of competitive 802.11n products by eliminating the need for forklift upgrades, additional wiring, or additional network planning.

- Because Proxim does not require costly WLAN controllers, AP-8100 networks can cost effectively scale to meet increasing bandwidth demands in the future
- ORiNOCO 802.11n APs are the only APs on the market that are completely 802.3af compliant in all configurations, which avoids the cost of additional wiring or power injectors as required by 802.3at compliant Aps
- 8100 APs utilize a very convenient mounting hardware enabling simple swap out of old APs and making upgrades a snap

PRODUCT MODELS					
ORiNOCO AP-8100	ORiNOCO® AP-8100, MIMO 2x2, 802.11 a/n + b/g/n dual radio Access Point				
INTERFACES					
WIRED ETHERNET	One auto MDI-X RJ45 10/100/1000Mbps Ethernet				
WIRELSS PROTOCOL	One 802.11b/g/n radio One 802.11a/n radio				
RADIO & TX SPECS					
		Radio 1 (802.11b/g/n)		**Radio 2 (802.11a/n)**	
MIMO	2x2 MIMO				
MODULATION		OFDM with BPSK, QPSK, QAM16 and QAM64 / DSSS			
FREQUENCY		2.400 – 2.484 GHz		5.150 – 5.850 GHz	
		(Subject to Country Regulations)			
CHANNEL SIZE		40 MHz and 20 MHz channel bandwidths			
DATA RATE		6.5 – 300 Mbps for 802.11n mode (MCS 0 to 15) 6 – 54 Mbps for 802.11a/g mode (BPSK, QPSK, 16-QAM and 64-QAM) 1 – 11 Mbps for 802.11b mode (DBPSK, DQPSK and CCK)			
TX POWER		Up to 17 dBm (single Tx chain), Up to 20 dBm (two Tx Chain)			
				Up to 15 dBm (two Tx chain) under FCC 5.4 – 5.7 GHz	
TX POWER CONTROL		0 – 22 dB, in 1 dB steps.			
RX SENSITIVITY (BER=10^{-6})		802.11b	802.11g		802.11a
	BPSK	-93 dBm	-90 dBm		-90 dBm
	CCK or 64QAM	-90 dBm	-75 dBm		-75 dBm
		802.11n 40MHz	802.11n 20MHz	802.11n 40MHz	802.11n 20MHz
	MCS 0/8	-86 dBm	-87 dBm	-86 dBm	-87 dBm
	MCS 7/15	-66 dBm	-70 dBm	-66 dBm	-70 dBm
ANTENNA	PIFA High Efficiency	3 dBi peak		4 dBi peak	
MANAGEMENT					
REMOTE	Telnet and SSH, Web GUI and SSL, TFTP, SNMP v1, v2c and v3				
OTHER	Syslog, and SNTP				
SECURITY					
ENCRYPTION	WEP, TKIP and AES, based on 802.11i standard				
AUTHENTICATION	Internal MAC Address Control List, Pre-Shared Key and 802.1x (Radius based)				
WIRELESS					
AP-AP COMMUNICATION	WDS with STP loop avoidance				
RF ENVIRONMENT	Rogue Scan				
NETWORK					
DHCP	Client and Server				
QoS	Wireless Multimedia Extensions, based on 802.11e EDCA standard				
VLAN	802.1Q: Management VLAN. Transparent, Access and Trunk mode. Radius based VLAN assignment				
ELECTRICAL					
POWER OVER ETHERNET	802.3af/at compliant				
POWER ADAPTER	110/220 V AC - 50/60 Hz (input), 12 V DC - 1.25 A (output)				
CONSUMPTION	7 Watt average, 12 Watt peak				
ENVIRONMENTAL					
TEMPERATURE					
OPERATING	0º to 45ºC (32º to 113º Fahrenheit)				
STORAGE	-40º to 70ºC (-40º to 158º Fahrenheit)				
HUMIDITY	5 to 95 % relative humidity (non-condensing)				
PHYSICAL					
DIMENSIONS					
PACKAGED	13x8.5x2.17 in (300x216x55 mm)				
UNPACKAGED	6.69 x 6.69 x 1.74 in. (170 x 170 x 44.1 mm)				
WEIGHT					
PACKAGED	1.7 lbs (0.770 kg)				
UNPACKAGED	0.75 lbs) (0.340 kg)				
SAFETY STANDARDS	UL 60950-1, plenum rated (ATX 200 material)				
MTBF	Over 100k Hours				
PACKAGE CONTENTS	■ One ORiNOCO® AP-8100 unit ■ One power adapter ■ One Wall/Ceiling mounting kit ■ One Quick Installation Guide				
WARRANTY	1-year on parts and labor; ServPak Extended Support available				

APPLICATIONS

- **Small and Medium Enterprise –** Enable office workers to be mobile while delivering greater throughput performance than at their desks
- **Healthcare –** High resolution image files can be transferred with safety and higher speeds than wired networks
- **Security and Surveillance –** High definition IP-surveillance cameras for monitoring city streets, airports, bridges, seaports, transportation hubs, offices and warehouses
- **Education –** High-speed broadband access solutions for Schools, Universities and other Education institutions

For detailed technical specifications, please go to http://proxim.com/products/enterprise-wireless-lan-wi-fi-mesh/orinoco-ap-8100