



ORiNOCO® OR-1100 Central Outdoor Router

Dual-slot Central Outdoor Router for Wireless Communications with Satellite Routers



The ORiNOCO OR-1100 Central Outdoor Router is the intelligent core of point-to-multipoint configurations. The dual-slot unit can communicate with up to 128 satellites, via the sophisticated Adaptive Dynamic Polling protocol. RADIUS-based bandwidth throttling, a new feature, enables Wireless Internet Service Providers (WISPs) to maximize revenue through intelligent Mega bit per second (Mbit/s) management.

The intelligent base for point-to-multipoint applications

The dual-slot OR-1100 Central Outdoor Router is the intelligent core of point-to-multipoint wireless networks. The OR-1100 serves as the base for communications with several remote outdoor routers, such as the ORiNOCO OR-1000, OR-500 and the OR-Client. The dual-slot architecture allows the OR-1100 to operate as a central outdoor router supporting satellites. This second slot can also be used to serve as IEEE 802.11b local Access Point (WiFi™ cell).

Powerful control with Adaptive Dynamic Polling protocol

The Adaptive Dynamic Polling protocol switches between standard CSMA/CA (contention based) operation and "round-robin polling" based on the network load sensed. In polling-mode, the OR-1100 issues polls; and the remote outdoor routers, will not transmit unless they are polled. The particular polling protocol addresses the "Hidden Node syndrome" created by CSMA/CA.

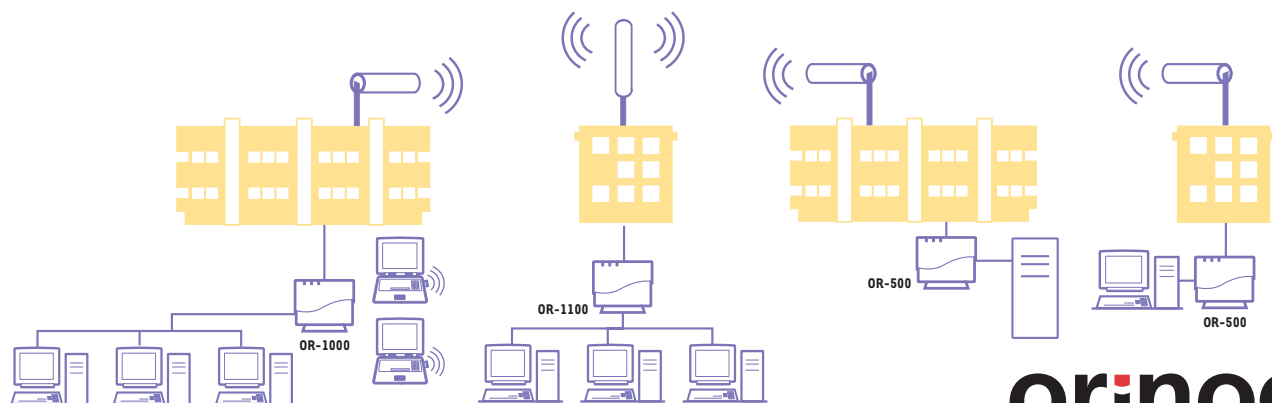
Intuitive bandwidth management and high-level security

The OR-1100 is equipped with powerful base station features, such as RADIUS-based bandwidth

throttling, RADIUS-based authentication, spanning tree, MAC address-based Access Control Table, 64-bit WEP encryption and 128-bit encryption.

ORiNOCO OR-1100 FEATURES

- Dual-slot outdoor router
- WEP 64 and 128 RC4-encryption
- 10/100 Mbit/s Ethernet support
- Second slot can be used as WiFi™ cell, backhaul repeater or for connectivity with another 64 satellites
- Adaptive Dynamic Polling protocol
- Transparent bridge
- IP routing (RIP2 compliant)
- RADIUS-based authentication and bandwidth throttling
- Spanning tree protocol and algorithm
- Range up to 16.3 miles in FCC configurations (24 dBi antenna + 15 dBm output power)
- Range up to 7 kilometers in ETSI configurations (14 dBi antenna + 8 dBm output power)
- No governmental frequency licensing required



ORiNOCO OR-1100 Specifications

INTERFACE

Ethernet Interface	Ethernet 10/100 Base-T (RJ-45)
Wired LAN protocol	IEEE 802.3 (CSMA/CD)
Wireless Interface	2 PCMCIA slots for ORiNOCO PC cards

RADIO CHARACTERISTICS

Frequency Channels	2.4 – 2.497 GHz			
Modulation Technique	Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK)			
Spreading	CCK 11 – Chip Barker Sequence			
Media Access Protocol	Adaptive Dynamic Polling (TurboCELL)			
Nominal Output Power	8 dBm (ETSI, FR) or 15 dBm (FCC)			
Bit Error Rate (BER)	Better than 10 ⁻⁵			
Data Rate	11 Mb/s	5.5 Mb/s	2 Mb/s	1 Mb/s
Typical Receiver	- 82 dBm	- 87 dBm	- 91 dBm	- 94 dBm
Delay Spread	65 ns	225 ns	400 ns	500 ns

PHYSICAL SPECIFICATIONS

Dimensions (H x W x L)	261 mm x 185 mm x 50 mm (10.2 in x 7.3 in x 2 in)
Weight	1.75 Kg (3.86 lb)

ENVIRONMENTAL SPECIFICATIONS

Operating	0°C to 40°C
Storage	-10°C to 50°C
Humidity	20 – 80 % relative humidity

POWER SUPPLY

Types	AU, UK, US/JP, EU
Voltages	Integrated module: Autosensing 100/240 VAC 50/60 Hz; 0.2 A, support of Active Ethernet

LED'S

4	Power, Ethernet LAN Activity, Wireless LAN Activity Slot A and Slot B
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MANAGEMENT

ORiNOCO Manager software, SNMP MIB II compliant

WARRANTY

12 months (parts and labor)

MTBF

150,000 hours (without wireless card), 75,000 hours (with wireless card) based on workload of 8760 hours/year continuous operation, within operating conditions

DISTANCE FCC AND NON REGULATED CONFIGURATIONS

Antennas		24 dBi	14 dBi	12 dBi	10 dBi	7 dBi
24 dBi	(1 Mb/s)	26.2 km / 16.3 mi	19.0 km / 11.8 mi	17.3 km / 10.7 mi	15.8 km / 9.7 mi	14.1 km / 8.8 mi
	(2 Mb/s)	24.5 km / 15.2 mi	16.9 km / 10.5 mi	15.4 km / 9.6 mi	14.1 km / 8.8 mi	12.0 km / 7.5 mi
	(5.5 Mb/s)	21.8 km / 13.5 mi	14.4 km / 8.9 mi	13.1 km / 8.1 mi	12.0 km / 7.5 mi	10.2 km / 6.3 mi
	(11 Mb/s)	19.4 km / 12.0 mi	12.8 km / 8.0 mi	11.2 km / 7.0 mi	10.2 km / 6.3 mi	8.7 km / 5.4 mi
14 d Bi	(1 Mb/s)	N/A	12.0 km / 7.5 mi	10.9 km / 6.8 mi	9.5 km / 5.9 mi	8.1 km / 5.0 mi
	(2 Mb/s)	N/A	10.2 km / 6.3 mi	9.3 km / 5.8 mi	8.1 km / 5.0 mi	6.6 km / 4.1 mi
	(5.5 Mb/s)	N/A	8.7 km / 5.4 mi	7.6 km / 4.7 mi	6.6 km / 4.1 mi	5.5 km / 3.4 mi
	(11 Mb/s)	N/A	7.1 km / 4.4 mi	6.1 km / 3.8 mi	5.5 km / 4.4 mi	4.0 km / 2.5 mi

DISTANCE ETSI AND FRANCE CONFIGURATIONS

Antennas		24 dBi	14 dBi	12 dBi	10 dBi	7 dBi
14 dBi	(1 Mb/s)	N/A	7.0 km / 4.3 mi	6.9 km / 4.3 mi	5.5 km / 3.4 mi	4.0 km / 2.5 mi
	(2 Mb/s)	N/A	5.0 km / 3.1 mi	4.9 km / 3.0 mi	4.0 km / 2.5 mi	2.7 km / 1.7 mi
	(5.5 Mb/s)	N/A	3.5 km / 2.2 mi	3.5 km / 2.2 mi	2.7 km / 1.7 mi	1.9 km / 1.2 mi
	(11 Mb/s)	N/A	2.5 km / 1.6 mi	2.5 km / 1.6 mi	2.0 km / 1.2 mi	1.4 km / 0.9 mi

OR-1100 PACKAGE CONTENTS

- 1 x OR-1100
- 1 x CD-ROM (incl. OR-Manager software)
- 1 x Power supply
- 1 x Installation/Instruction guide



The Standard For
Wireless Fidelity

Wi-Fi is a trademark of the Wireless Ethernet
Compatibility Alliance, Inc.

Windows and Windows Me are registered
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More information on ORiNOCO products:

www.oringowireless.com

www.proxim.com

