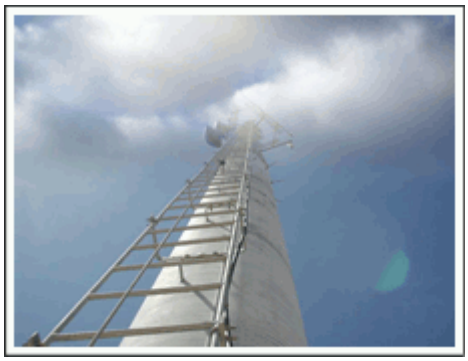
OSBRiDGE 900M
High Performance Outdoor Wireless Access Point

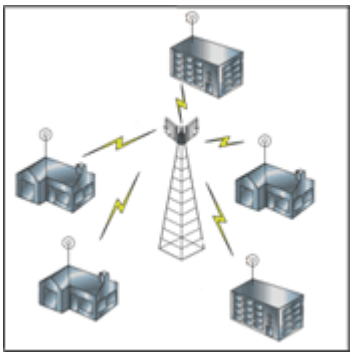
Product Highligts and Advantages

- License Exempt FCC 900 MHz Frequency - eliminates regulatory delays.
- Up to 4 non-overlaping channels allows many units to be deployed in the same area.
- User Selectable channel width – 5 MHz, 10 MHz, or 20 MHz for scalable deployment and interference resiliency.
- Next day deployment enables rapid service activation and payback.
- Up to 25 Mbps of effective TCP/IP throughput per sector in 20 MHz channel mode, while proprietary polling protocol enhancements assure effective and robust transmission ranges of up to 30 miles.
- Cost effective alternative to leased lines.
- Optimal cost / performance ratio: highly cost efficient solution.
- Robust outdoor architecture: ensures unprecedented range and reliability, minimizes RF cable loss connecting to antenna thus providig outstanding performance and communication distance.
- Superior Atheros XR™ AR5004/Ubiquiti SR9 powered OFDM radio – enables NLOS (non line of sight) operation in dense urban environments.
- Non-compromising security - over the air 128bit key AES encryption.
- Compatible with other vendors 802.11 compliant devices based on Ubiquiti SR9 radio.

The OSBRiDGE 900M, a member of OSBRiDGE products family, is a high performance 900MHz outdoor wireless Access Point designed to provide secure and reliable point to multipoint operation for Carriers, Internet Service Providers, Business Enterprises and Government organisations.

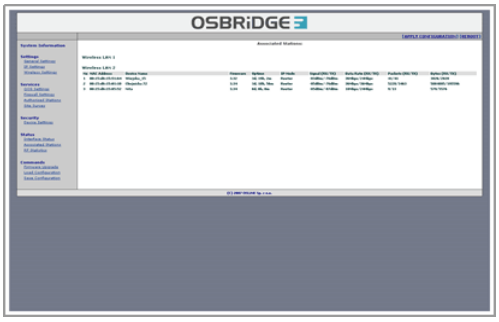


The OSBRiDGE 900M is capable of supporting up to 54 Mbps over its air interface, equivalent to 25 Mbps Net Throughput. The OSBRiDGE 900M leverages both robust outdoor technologies and Orthogonal Frequency Division Multiplexing (OFDM) modulation in the same product - with features such as Forward Error Correction coding, used to combat multi-path and noisy environments, the product operates seamlessly and efficiently in challenging environments with stable throughput. The system also features advanced algorithms for automatic selection of modulation schemes to maximize the data rate and improve spectral efficiency using technology based on Atheros® AR5004/Ubiquiti SR9 Radio Module. These inherent advantages of the OSBRIDGE 900M enable service providers to implement an effective PtMP solution to a significantly higher subscriber base that would otherwise be inaccessible.



The OSBRiDGE 900M system can handle many concurent wireless subscribers per cell, whether they're spread out or live in densely populated neighborhoods. Combining high frequency reuse, selectable channel width with advanced interference management and immunity techniques, the OSBRiDGE 900M system conserves valuable spectrum by allowing the service provider to cover an extensive geographical area with a minimum number of channels. As bandwidth and subscriber needs increase, network operators can easily add channels or new sectors within the cell. Operators can also economically deploy additional cells to extend the service capacity and coverage footprint.

While operating with OSBRiDGE 900MHz CPE devices (900XL) the OSBRiDGE 900M Access Point can be configured to utilize proprietary polling protocol that overrides shortages of the standard 802.11 mode. OSBRiDGE proprietary WPM (Wireless Polling MAC) is a full featured TDMA/TDD protocol implementation on top of Atheros® AR5004/Ubiquiti SR9 hardware, using Packet Aggregation, Adaptive Polling Algorithm and disabling of the CSMA Backoff Mechanism. WPM also provides link adaptation technology and improves bandwidth, robustness, and overall performance for each subscriber.



OSBRiDGE 900M based on superior Intel XScale® IXP4xx processor easily outperforms other devices based on alternative chipsets. Intel® IXP4xx network processor is a highly integrated, versatile single-chip processor that is used in a variety of products that require network connectivity and high performance to run their unique software applications. Each processor combines a high-performance Intel XScale® core with additional Network Processor Engines (NPEs) to achieve unmatched packet processing performance.

All OSBRiDGE 900M products are robust, IP65 rated, outdoor units, that are built to perform in difficult climatic environments and withstand even the harshest weather conditions. Built in 802.3af compliant Power over Ethernet system allows only one ethernet cable to be used for both data and power transmission for up to 305 feet.

OSBRiDGE

OSBRiDGE 900M
Outdoor Base Station

Wired Interface													
Ethernet Interface		100 base-T Ethernet (RJ-45) with PoE											
Wired LAN Protocol		IEEE 802.3 (CSMA/CD)											
Wireless Interface		N Female Connector for external 50 Ohm Antenna											
Wireless LAN Protocol		User Configurable - IEEE 802.11 or WPM (Wireless Polling MAC)											
RF Interface													
Supported Frequencies		922 MHz – Channel Width: 5, 10 MHz 917 MHz – Channel Width: 5, 10, 20 MHz 912 MHz – Channel Width: 5, 10, 20 MHz 907 MHz – Channel Width: 5, 10 MHz											
Modulation Technique		BPSK, QPSK, 16QAM, 64QAM											
Channel Width		User Selectable – 20 MHz, 10 MHz or 5 MHz											
Bit Error Rate (BER)		Better than 10^{-5}											
Output Power		+28dBm, Transmit Power Control (TPC) - 4 User Selectable Power Levels (full, half, quarter, eight)											
Bit Data Rate (Mbps)	20 MHz Channel	54	48	36	24	18	12	11	9	6	5.5	2	1
	10 MHz Channel	27	24	18	12	9	6	5.5	4.5	3	2.75	1	0.5
	5 MHz Channel	13.5	12	9	6	4.5	3	2.75	2.25	1.5	1.37	0.5	0.25
Receive Threshold (dBm)		-71	-74	-83	-83	-87	-88	-90	-91	-88	-91	-92	-93
System													
Processor		Intel XScale IXP4xx Network Processor											
Memory		32MB RAM, 4MB Flash											
RF Module		Atheros AR5004 / Ubiquiti SR9 Radio Interface											
Software													
Operational Modes		Access Point, WPM Base											
Security		Association Protocol – ESSID/BSSID, WEP 40/128, TKIP, AES											
Features		Bridge, Router, Router, Firewall, QOS											
Management		WEB Interface, SNMPv2											
Physical													
Dimensions		280 mm X 180 mm X 60 mm											
Operating / Storage Temperature		-40ºC - +70ºC / -40ºC - +85ºC											
Enclosure		IP65 Rated, UV Protected, Outdoor Mountable, Weather Protected											
Power Adapter		48V/0.4A DC, 802.3af Active Ethernet (Power over Ethernet injector included)											
LEDs		2 – Power, Ethernet LAN											
Mounting		Flexible Mast Mounting											
Antenna													
		N Female Connector for external antenna (50Ω)											
Throughput Per Sector													
Channel Width		20 MHz				10 MHz				5 MHz			
Measured TCP/IP Throughput [2]		25 Mbps				13 Mbps				6 Mbps			
Operational Distance													
Bit Data Rate (Mbps)		54	48	36	24	18	12	9	6	11	5.5	2	1
Distance (miles, 11dBi antenna on each end) [1]		5	7	13	18	29	33	41	45	36	37	51	63
Regulatory Compliance													
		FCC Part 15 Compliant											
Warranty													
		One Year, Limited											

Contact Information:

OSLiNK Sp. z o.o.
ul. Jana Pawła II 6C
89-604 Chojnice
Poland

tel. +48-52-3962500
fax. +48-52-3962501
sales e-mail: sales@osbridge.com
technical enquiries: support@osbridge.com
http://www.osbridge.com

[1] Distance may vary depending on several factors including interference, obstacles and fresnel zone clearance.
[2] Actual througput may vary depending on several factors including signal strength, interference, obstacles and fresnel zone clearance.

ARM POWERED