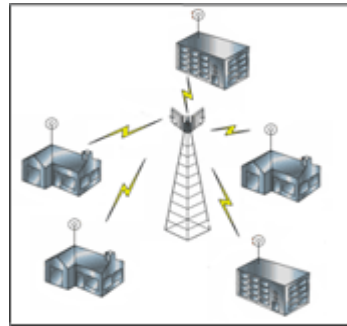


Product Highlights and Advantages



The OSBRIDGE 5XL, a member of OSBRIDGE products family, is a high performance 5GHz outdoor wireless client and point to point bridge, designed to provide secure and reliable point to multipoint operation for Carriers, Internet Service Providers, Business Enterprises and Government organisations.



The OSBRIDGE 5XL is capable of operating as wireless router or multi-mac bridge to OSBRIDGE wireless bridges and standard 802.11a Access Points, supporting up to 25 Mbps Net Throughput over its air interface. The OSBRIDGE 5XL 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 latest technology based on Atheros® AR5006XS Radio Modules. These inherent advantages of the OSBRIDGE 5XL enable service providers to provide an effective PtP or PtP solution to a significantly higher subscriber base that would otherwise be inaccessible.



Using Features such as Packet Aggregation two OSBRIDGE 5XL devices operating as Point to Point bridges can handle up to 10000 packets per second. Combining high frequency reuse, selectable channel width with advanced interference management and immunity techniques, the OSBRIDGE 5XL bridges conserve valuable spectrum by allowing service provider to cover an extensive geographical area with a minimum number of channels.

While operating with OSBRIDGE 5G base station the OSBRIDGE 5XL device can be configured to utilize proprietary polling protocol that overrides shortages of the standard 802.11a mode. OSBRIDGE proprietary WPM (Wireless Polling MAC) is a full featured TDMA/TDD protocol implementation on top of Atheros® AR5006XS hardware, using Packet Aggregation, Adaptive Polling Algorithm and disabling of the CSMA Backoff Mechanism.



WPM provides link adaptation technology and improves bandwidth, robustness, and overall performance for each subscriber.

Software features such as bridging, routing, NAT routing, CPE and PtP Bridge modes, SNMP, web management, advanced QOS, DHCP client/server, firewall, PPPoE client, high grade encryption, port forwarding, remote syslog and built in troubleshooting utilities make the OSBRIDGE 5XL the most flexible and cost effective broadband wireless CPE platform available today.

All OSBRIDGE 5XL products are robust outdoor units, that are built to perform in difficult climatic environments and withstand even the harshest weather conditions. Built in passive Power over Ethernet system allows only one ethernet cable to be used for both data and power transmission for up to 200 feet (60 meters).

- Licence Exempt ETSI and FCC 5GHz Frequency – eliminates regulatory delays.
- 11 (ETSI), 4 (United Kingdom), 13 (USA), 236 (Unregulated Countries) non-overlapping channels allows many units to be deployed in the same area.
- User selectable channel width – 5 MHz, 10 MHz, 20 MHz or 40 MHz for scalable deployment and interference resiliency.
- Up to 25 MBps TCP/IP speed and up to 10000 packets per second.
- Next day deployment enables rapid service activation and payback.
- Cost effective alternative to leased lines.
- Outstanding software features: bridging, routing, NAT routing, CPE and PtP Bridge modes, SNMP, web management, advanced QOS, DHCP client/server, firewall, PPPoE client and high grade encryption.
- Backward compatible with other vendors 802.11a compliant devices.
- Optimal cost / performance ratio: highly cost efficient solution.
- Dynamic Frequency Selection (DFS) complies with ETSI EN 301 893 and OFCOM regulations to allow co-existence with Radar systems.
- Robust outdoor architecture: ensures unprecedented range and reliability, minimizes RF cable loss connecting to antenna thus providing outstanding performance and communication distance.
- Superior Atheros XR™ AR5006XS powered OFDM radio – enables NLOS (near line of sight) operation in dense urban environments.
- Non-compromising security - over the air 128 bit key AES encryption.
- Compact integrated solution – easy to install and operate.



OSBRIDGE

OSBRIDGE 5XL Technical Specifications



Interface								
Ethernet Interface	100 base-T Ethernet (RJ-45) with PoE							
Wired LAN Protocol	IEEE 802.3 (CSMA/CD)							
Wireless Interface	OFDM, TDD							
Wireless LAN Protocol	IEEE 802.11a, Atheros 802.11a Turbo, WPM (Wireless Polling MAC)							
Radio								
Supported Frequencies <small>(User Configurable)</small>	Europe (ETSI): 5500-5700 MHz (11 channels) with DFS (Dynamic Frequency Selection) USA (FCC): 5745-5825 MHz (5 channels) UK (OFCOM FWA): 5735-5835 MHz (4 channels) with DFS (Dynamic Frequency Selection) Africa&Asia (OTHER): 4920-6100 MHz (236 channels, 5MHz step)							
Modulation Technique	BPSK, QPSK, 16QAM, 64QAM							
Channel Width	User Selectable – 802.11a: 20 MHz, 10 MHz or 5 MHz, 802.11a Turbo: 40 MHz							
Bit Error Rate (BER)	Better than 10 ⁻⁵							
Output Power <small>(at N-Female connector)</small>	OSBRIDGE 5XL				OSBRIDGE 5XL-HP			
	≤ 19 dBm				≤ 25 dBm			
Bit Data Rate	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
Receive Threshold	-72 dBm	-75 dBm	-80 dBm	-83 dBm	-87 dBm	-88 dBm	-89 dBm	-91 dBm
System								
Processor	ADM5120 175MHz MIPS 4Kc Processor with Embedded Cache							
Memory	2MB NOR FLASH, 16MB SDRAM							
RF Module	Atheros AR5006 with XR Technology							
Software								
Operational Modes	Access Point Client, Infrastructure Client, PtP Bridge, WPM Client							
Security	Association Protocol – ESSID/BSSID, WEP 40/128, WPA, WPA2, AES							
Features	Bridge, Router, NAT Router, PPPoE Client, Port Forwarding, Firewall, QOS, DHCP Server							
Management	WEB Interface, SNMPv2, CLI							
Physical								
Dimensions	180 mm X 250 mm X 125 mm							
Operating / Storage Temperature	-40°C - +70°C / -40°C - +85°C							
Enclosure	IP65 Rated, UV Protected, Outdoor Mountable, Weather Protected							
Power Adapter	15V / 1.2A DC (OSBRIDGE 5XL) or 16V/2.2A DC (OSBRIDGE 5XL-HP), Passive Ethernet (Power over Ethernet injector included)							
LEDs	3 – Power, Ethernet LAN Activity, Wireless Activity							
Mounting	Adjustable Pole Mounting							
Antenna								
	N-Female connector for external antenna, 50 Ω							
Operational Distance ¹⁾								
Bit Data Rate ²⁾	54 Mbps	48 Mbps	36 Mbps	24 Mbps	18 Mbps	12 Mbps	9 Mbps	6 Mbps
OSBRIDGE 5XL (assuming 23dBi antennas)	3200 m.	4300 m.	5900 m.	7200 m.	9100 m.	11200 m.	16000 m.	19500 m.
OSBRIDGE 5XL-HP (assuming 23dBi antennas)	6400 m.	8600 m.	11800 m.	14400 m.	18200 m.	22400 m.	32000 m.	39000 m.
Regulatory Compliance								
	CE mark, ETSI EN 301 893 Compliant, FCC Part 15 Compliant							
Warranty								
	One year, Limited							

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¹⁾ Distance may vary depending on several factors including, but not limited to, interference, obstacles and fresnel zone clearance.

²⁾ Actual throughput may vary depending on several factors including, but not limited to, signal strength, interference, obstacles and fresnel zone clearance.