

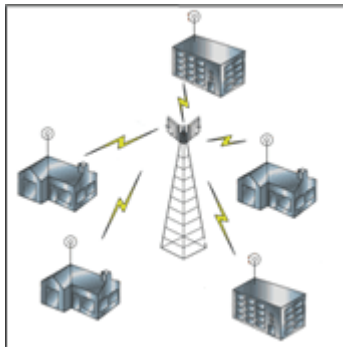
Product Highlights and Advantages



- Licence Exempt ETSI and FCC 5GHz Frequency – eliminates regulatory delays.
- 11 (ETSI), 4 (United Kingdom), 13 (USA) and 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.
- Next day deployment enables rapid service activation and payback.
- Up to 70 Mbps of effective TCP/IP throughput per sector in 40 MHz channel mode, while proprietary 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.
- 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 128bit key AES encryption.
- Compatible with other vendors 802.11a compliant devices.

The OSBRIDGE 5GL, a member of OSBRIDGE products family, is a high performance 5GHz 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 5GL is capable of supporting up to 108 Mbps over its air interface, equivalent to 70 Mbps Net Throughput²⁾. The OSBRIDGE 5GL 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

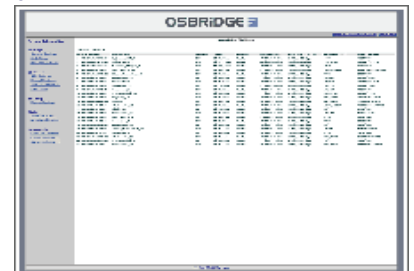


environments, the product operates seamlessly and efficiently in challenging environments with stable throughput. The system also features advanced algorithms for automatic selection of modulation schemes to maximize the data rate and improve spectral efficiency using latest technology based on Atheros® AR5006XS Radio Modules. These inherent advantages of the OSBRIDGE 5GL enable service providers to provide an effective PtMP solution to a significantly higher subscriber base that would otherwise be inaccessible.

Each OSBRIDGE 5GL system can handle many 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 5GL 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 CPE devices family (5XLi, 5GX) the OSBRIDGE 5GL 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 also provides link adaptation technology and improves bandwidth, robustness, and overall performance for each subscriber.



OSBRIDGE 5GL based on superior Intel XScale IXP422 processor clocked at 266MHz easily outperforms other devices based on alternative chipsets. Intel® IXP422 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 5GL 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 5GL Datasheet



Wired Interface

| | |
|-----------------------|--|
| Ethernet Interface | 100 base-T Ethernet (RJ-45) with PoE |
| Wired LAN Protocol | IEEE 802.3 (CSMA/CD) |
| Wireless Interface | One N Female Connector for external Antenna, 50 Ω |
| Wireless LAN Protocol | User Configurable - IEEE 802.11a or WPM (Wireless Polling MAC) |

Radio - Two Wireless Interfaces

| | | | | | | | | | |
|--|--|------|-----|-----|------------------------|-----|-----|------|-----|
| Supported Frequencies <small>(Depending on User configurable Regulatory Domain)</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, 5 MHz step) | | | | | | | | |
| Modulation Technique | BPSK, QPSK, 16QAM, 64QAM | | | | | | | | |
| Channel Width | User Selectable – 802.11a: 20 MHz, 10 MHz, 5 MHz or 40 MHz (802.11a Turbo) | | | | | | | | |
| Bit Error Rate (BER) | Better than 10 ⁻⁵ | | | | | | | | |
| Output Power | OSBRIDGE 5GL | | | | OSBRIDGE 5GL-HP | | | | |
| | + 19 dBm | | | | +25 dBm | | | | |
| Bit Data Rate (Mbps) | 20 MHz Channel | 54 | 48 | 36 | 24 | 18 | 12 | 9 | 6 |
| | 10 MHz Channel | 27 | 24 | 18 | 12 | 9 | 6 | 4.5 | 3 |
| | 5 MHz Channel | 13.5 | 12 | 9 | 6 | 4.5 | 3 | 2.25 | 1.5 |
| Receive Threshold (dBm) | | -73 | -76 | -81 | -84 | -88 | -89 | -90 | -92 |

System

| | |
|------------|--|
| Processor | Intel XScale IXP422 266MHz Network Processor |
| Memory | 32MB RAM, 4MB Flash |
| RF Modules | One Atheros AR5006X 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 | -40°C - +70°C / -40°C - +85°C |
| Enclosure | Aluminium, 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 Pole Mounting |

Dedicated Antenna

| | |
|--------------|--|
| S5-14 | Sector Antenna, Vertical Polarization, 14dBi, 90°/6° H/V |
|--------------|--|

Operational Distance

| | | | | | | | | |
|---|---------|---------|---------|---------|---------|---------|--------|--------|
| Bit Data Rate | 54 Mbps | 48 Mbps | 36 Mbps | 24 Mbps | 18 Mbps | 12 Mbps | 9 Mbps | 6 Mbps |
| OSBRIDGE 5GL (distance in meters) | 5100 | 5700 | 6500 | 7100 | 7600 | 8500 | 9600 | 11500 |
| OSBRIDGE 5GL-HP (distance in meters) | 10200 | 11400 | 13000 | 14200 | 15200 | 17000 | 19200 | 23000 |

Regulatory Compliance

CE Mark, ETSI EN 301 893 Compliant, FCC Part 15 Compliant, RoHS Compliant

Warranty

One Year, Limited

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¹⁾ Distance may vary depending on several factors including interference, obstacles and fresnel zone clearance.

²⁾ Actual throughput may vary depending on several factors including signal strength, interference, obstacles and fresnel zone clearance.