

## OSBRIDGE 5Gxt-Lite

High Capacity Medium Range  
Full Duplex Wireless Ethernet Bridge



### PRODUCT HIGHLIGHTS AND ADVANTAGES

- Licence Exempt ETSI and FCC 5 GHz Frequency – eliminates regulatory delays.
- 11 (ETSI), 4 (United Kingdom), 5 (USA), 236 (Unregulated Countries – frequency range from 4920 MHz to 6100 MHz) 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.
- Operational distance of up to 11 kilometers (7 miles).
- Up to 60 MBps Full Duplex TCP/IP speed (or up to 100 MBps Half Duplex TCP/IP speed) and up to 70,000 packets per second.
- Built in Spectrum Analyzer for optimal deployment and best possible performance in non licensed band.
- Next day deployment enables rapid service activation and payback.
- 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.
- Non-compromising security - over the air 128 bit key AES encryption.
- Compact integrated solution – easy to install and operate.



The OSBRIDGE 5Gxt-Lite, a member of OSBRIDGE 5Gxt products family, is a High Capacity and High Performance 5 GHz outdoor wireless bridge designed to provide secure and reliable point to point operation for Carriers, Internet Service Providers, Enterprises and Government organisations.



The OSBRIDGE 5Gxt-Lite is capable of supporting up to 108 Mbps over each of its two RF interfaces, equivalent to 60 Mbps Full Duplex Net Throughput<sup>2)</sup>, or 100 Mbps Half Duplex Net Throughput<sup>2)</sup>. The OSBRIDGE 5Gxt-Lite 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 5Gxt-Lite enable service providers to provide an effective PtP solution to a significantly higher subscriber base that would otherwise be inaccessible.

Using Features such as Packet Aggregation two OSBRIDGE 5Gxt-Lite devices operating as

bridge can handle up to 70000 packets per second. Combining high frequency reuse, selectable channel width with advanced interference management and immunity techniques, the OSBRIDGE 5Gxt-Lite bridges conserve valuable spectrum by allowing service provider to cover an extensive geographical area with a minimum number of channels.

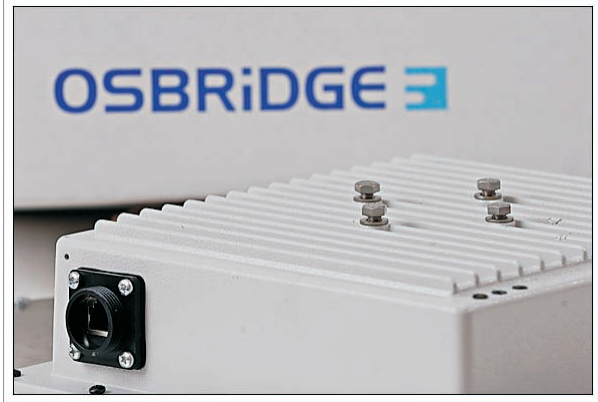
OSBRIDGE 5Gxt-Lite based on superior Intel® XScale IXP425 533MHz network processor easily outperforms other devices based on alternative chipsets. Intel® IXP425 network processor is a highly integrated, versatile single-chip processor that is used in a variety of products requiring network connectivity 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 5Gxt-Lite products are robust, IP65 rated, outdoor units, 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 (100 meters).

# Datasheet

## OSBRIDGE 5GXt-Lite



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	802.11a, OSBRIDGE modified Media Access Control

Radio	
Modulation Technique	BPSK, QPSK, 16QAM, 64QAM
Supported Frequencies (User Selectable)	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)
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 <sup>-5</sup>
Output Power	ETSI: ≤ 30 dBm EIRP OFCOM: ≤ 33 dBm EIRP FCC, Africa: ≤ 35 dBm EIRP
Transmit Power	User Selectable: Default, Half (-3 dBm), Quarter (-6 dBm), Eight (-9 dBm)
Bit Data Rate	54 Mbps    48 Mbps    36 Mbps    24 Mbps    18 Mbps    12 Mbps    9 Mbps    6 Mbps
Receive Threshold (including built-in antenna)	-90 dBm    -93 dBm    -98 dBm    -101 dBm    -105 dBm    -106 dBm    -108 dBm    -109 dBm

System	
Processor	Intel XScale IXP425 533 MHz Network Processor
Memory	64 MB RAM, 4 MB Flash
RF Modules	Atheros AR5006 with XR Technology

Security	
	Association Protocol – ESSID, AES with 128bit key length

Physical	
Dimensions	330 mm X 330 mm X 100 mm
Operating / Storage Temperature	-40°C - +70°C / -40°C - +85°C
Enclosure	AL IP65 Rated, Outdoor Mountable, Weather Protected
Antenna Radome	Plastic, UV Protected
Power Adapter	48V/0.4A DC, 802.3af Active Ethernet (Power over Ethernet injector included)
LEDs	3 – Power, Ethernet LAN Activity, Wireless Link Connection Status
Mounting	Adjustable 80 mm Pole Mounting with Horizontal and Vertical alignment

Antenna		
Built in – 18 dBi Dual Polarized Antenna	E-Plane	H-Plane

Operational Distance								
Bit Data Rate (Mbps)	54	48	36	24	18	12	9	6
Suggested Distance (meters) <sup>1)</sup>	1600	2100	3500	4400	4400	5400	7800	9500
Max Distance (meters) <sup>1)</sup>	2200	3000	4100	5000	6300	7800	11200	13600

Regulatory Compliance	
	CE mark, ETSI EN 301 893, FCC Part 15 Compliant

Warranty	
	One year, Limited

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.

## Contact Information:

