

OSBRIDGE 5NXt-60

Ultra Long Range Outdoor Wireless MiMO Ethernet Bridge



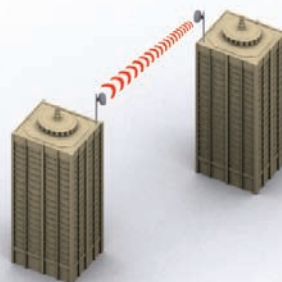
PRODUCT HIGHLIGHTS AND ADVANTAGES

- Licence Exempt ETSI and FCC 5 GHz Frequency – eliminates regulatory delays.
- 11 (ETSI), 4 (United Kingdom), 5 (USA), 236 (Unregulated Countries) non-overlapping channels allows many units to be deployed in the same area.
- User selectable channel width – 20, 18, 16, 14, 12, 10, 5 or 40 MHz for scalable deployment and interference resiliency.
- **Superior interference immunity** allow efficient operation in even extremely noisy areas.
- Over **90 Mbps Full Duplex real TCP/IP speed**, up to **300 Mbps raw data rate** and over **40,000 packets per second**.
- Built in **High Gain Dual Polarized Dish Antenna** for ultra long range high speed operation.
- Next day deployment enables rapid service activation and payback.
- Cost effective alternative to leased lines.
- Outstanding software features: bridging, routing, SNMP, VLAN management, WEB Management and high grade encryption.
- 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 metal enclosure and UV protected integrated antenna radome: ensures unprecedented reliability and years of operation.
- Superior Atheros XSPAN AR9xxx 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.
- Built-in Software Spectrum Analyzer helps selecting proper channel for best performance.
- Compact integrated solution – easy to install and operate.



The **OSBRIDGE 5NXt-60**, the newest member of OSBRIDGE 5N products family, is a **Ultra Long Range High Performance 5GHz MiMo** outdoor wireless bridge designed to provide secure and reliable point to point operation for Carriers, Internet Service Providers, Business Enterprises and Government organisations.

to maximize data rate and improve spectral efficiency. These inherent advantages of the **OSBRIDGE 5NXt-60** enable service providers to offer an effective **PtP** solutions to a significantly higher subscriber base, at very high effective speeds, in high interference areas, that would otherwise be inaccessible or very hard to reach.



Using Features such as Packet Aggregation two **OSBRIDGE 5NXt-60** bridges operating in Point to Point mode handle over 40,000 packets per second. Combining high frequency reuse, selectable channel width with advanced interference management and immunity techniques, the **OSBRIDGE 5NXt-60** save valuable RF spectrum by allowing service provider to cover an extensive geographical area with a minimum number of channels.

The **OSBRIDGE 5NXt-60** is capable of operating as w multi-mac ethernet L2 bridge to another **OSBRIDGE 5NXt-60**, supporting over **90 Mbps TCP/IP Full Duplex Net Throughput** (up to 100 Mbps Half Duplex) over its air interface and up to **300 Mbps Raw Datarate**. The **OSBRIDGE 5NXt-60** leverages both robust outdoor technologies and Orthogonal Frequency Division Multiplexing (OFDM) modulation with **2Tx2Rx Atheros XSPAN MiMo Technology** - with features such as Forward Error Correction coding, the product operates seamlessly and efficiently in challenging and **high noise environments with stable throughput**. The system also features advanced algorithms for automatic selection of modulation schemes and antenna chains

OSBRIDGE 5NXt-60 software features such as bridging, routing, Point to Point Bridge mode, VLAN Management, SNMP, Packet Aggregation, Built-in Spectrum Analyzer, WEB GUI Management, high grade encryption and built in troubleshooting utilities make this device one of the most flexible and cost effective broadband wireless platforms available today.

All **OSBRIDGE 5NXt-60** products are robust outdoor units, built to perform in difficult climatic environments and withstand even the harshest weather conditions. Built in passive 802.3af Power over Ethernet system allows only one ethernet cable to be used for both data and power transmission for up to 305 feet.

Datasheet

OSBRIDGE 5NXt-60



Interface

Ethernet Interface	100 base-T Ethernet (RJ-45) with PoE
Wired LAN Protocol	IEEE 802.3 (CSMA/CD)
Wireless Interface	OFDM
Wireless LAN Protocol	IEEE 802.11a/n, 802.11a/n Turbo

Radio

Supported Frequencies (User Configurable)	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, HT20, HT40								
Channel Width	User Selectable – 40 MHz, 20 MHz, 18 MHz, 16 MHz, 14 MHz, 12 MHz, 10 MHz, 5 MHz								
Output Power									
	FCC, Africa:	≤ 60 dBm EIRP							
	OFCOM:	≤ 36 dBm EIRP							
	ETSI:	≤ 30 dBm EIRP							
Bit Data Rate (40 MHz channel, 2 Streams, GI=1)	300 Mbps	270 Mbps	240 Mbps	180 Mbps	120 Mbps	90 Mbps	60 Mbps	30 Mbps	
Receive Threshold (including built-in antenna)	-113 dBm	-115 dBm	-117 dBm	-121 dBm	-124 dBm	-127 dBm	-129 dBm	-132 dBm	

System

Processor	Atheros MiPS 24Kc 680 MHz Processor Core
Memory	4MB FLASH, 32MB SDRAM
RF Module	Atheros 2Tx2Rx XSPAN MiMO

Software

Operational Modes	Point to Point Bridge Master, Point to Point Bridge Slave
Security	Association Protocol – ESSID/BSSID, WEP 40/128, WPA, WPA2, TKIP, AES
Features	Bridge, Router, VLAN Management, Packet Aggregation, Spectrum Analyzer
Management	WEB Interface, SNMPv2

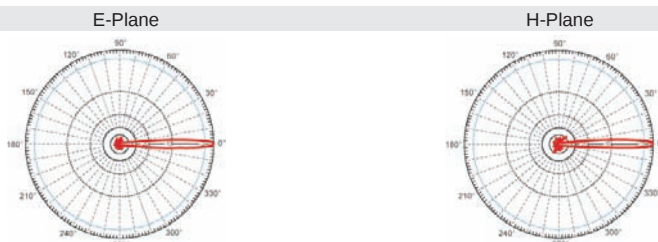
Physical

Dimensions	640 mm X 640 mm X 360 mm
Operating / Storage Temperature	-40°C - +80°C / -40°C - +85°C
Enclosure	Outdoor IP65 Rated, Antenna Radome UV Protected, Weather Protected
Power Adapter	48V / 0.4A DC, Passive Ethernet (Power over Ethernet Injector included)
LEDs	2 – Power, Ethernet LAN Activity
Mounting	Adjustable Pole Mounting

Antenna

Type	≤ 34dBi Dual Polarized Parabolic Dish Antenna with Radome
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Built-in Antenna Patterns



Operational Distance

Bit Data Rate (40 MHz channel, 2 Streams, GI=1)	300 Mbps	270 Mbps	240 Mbps	180 Mbps	120 Mbps	90 Mbps	60 Mbps	30 Mbps
OSBRIDGE 5NXt-60 (distance in meters)	28320	36300	42200	50400	59700	66300	74900	86500

Regulatory Compliance

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

Warranty

Two years, Limited

Contact Information:

OSBRIDGE