

TeraBridge 5845

### High-Capacity Wireless Backhaul

Proxim Wireless offers extremely reliable, secure and easily-deployed solutions for interconnecting corporate and telecommunications networks. This portfolio includes:

- **GigaLink®** – Alternative to fiber, up to a Gigabit speed
- **Lynx.GX®** – Cellular voice and data backhaul, up to DS3 interface
- **Tsunami.GX®** - Carrier-class IP Ethernet bridge for voice and data backhaul for service providers and enterprise applications
- **TeraBridge™** – Ethernet backhaul or traditional telecommunications converged voice and data networks
- **QuickBridge®** – Complete “hop-in-a-box” Ethernet bridge for campus and small business networks

**Proxim Wireless** is a global provider in scalable broadband wireless networking. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, mesh, point-to-multipoint and point-to-point products are available through our extensive global channel network.

### Highest Link Reliability

Proxim’s TeraBridge is point-to-point, high capacity, all outdoor radios optimized for backhaul of Ethernet or traditional telecommunications converged voice and data networks. They feature license-free radio operation in the ISM 5 GHz band with a choice of either DS3 or 10/100 Base-T digital interfaces. The field-proven TeraBridge series is one of the most reliable license-free wireless solutions available today. Full duplex operation with near-zero latency ensures reliable operation and unlimited consecutive point-to-point links. With a range of up to 40 miles, the TeraBridge 5845 takes the TeraBridge family to unprecedented distances and opens a whole new range of applications.

### Unprecedented Cost Effectiveness

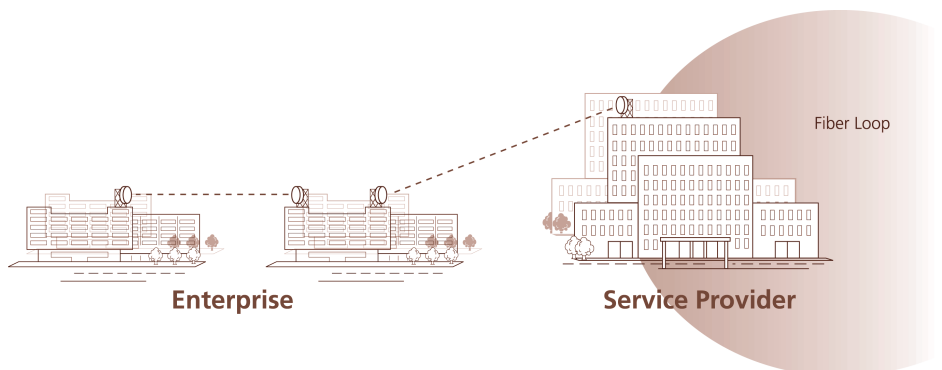
Proxim’s full-duplex TeraBridge systems enable customers with truly affordable broadband wireless solutions for today’s last-mile applications. Since they work in the license-free 5 GHz bands, there are no spectrum licenses to purchase and no expensive trenching required – enabling you to provide connectivity at a price point that won’t dramatically impact CapEx and OpEx budgets.

### Superior Design and Performance

Proxim’s TeraBridge 5845 is ideal high-capacity solutions for Wireless Internet Service Provider’s Networks, cellular operators needing to upgrade and expand their networks, telecom carriers looking to add capacity to their networks, and for private enterprises wanting to enhance Internet access throughout their networks.

### Key Features

- TeraBridge 5845: 5.8 GHz ISM Band full-duplex Radio for Links up to 40 Miles
- Frequency Division Duplexing (FDD) Operation
- Up to three channels per frequency band, software selectable
- Very Low Latency Performance
- 1x Telco-rated DS3 interface, with an additional 1Mbps full-duplex wayside channel available, or 2x 10/100 Base-T Ethernet interfaces
- 45 Mbps actual payload throughput each way (90Mbps aggregate)
- SNMP compliant and Web Browser Management for easy and intelligent installation/management
- All-weather outdoor unit with an extended temperature range of -33° to + 60°C



# TeraBridge 5845

## Technical Specifications

<b>TERABRIDGE 5845</b>	
<b>PRODUCT MODELS</b>	
604-900002-001	TeraBridge, 5.8 GHZ, 45 Mbps full-duplex, DS-3
604-900003-001	TeraBridge, 5.8 GHZ, 45 Mbps full-duplex, 100/100
<b>SYSTEM SPECS</b>	
FREQUENCY BANDS	5845: ISM: 5.725-5.825 GHz
FREQUENCY RANGE	Full Duplex in the 5,725-5,825 MHz (5845)
CAPACITY OPTIONS	<ul style="list-style-type: none"> <li>• 1x Telco-rated DS-3 interface (DSX-3, per Bellcore GR-499-CORE), with an additional 1 Mbps full-duplex wayside channel available</li> <li>• 1x 10/100 Base-T Ethernet (per IEEE 802.3), switched, auto-negotiate</li> <li>• 1x 10/100 Base-T Ethernet (per IEEE 802.3), switched, auto-negotiate or user-selectable speed and duplicity</li> </ul>
CHANNEL BANDWIDTH	16 MHz
CHANNEL CENTER	
5845 FREQUENCIES	Channel 1 Tx-5.737 GHz / Rx-5.797 GHz Channel 2 Tx-5.745 GHz / Rx-5.805 GHz Channel 3 Tx-5.753 GHz / Rx-5.813 GHz
EXT ANTENNA CONNECTOR	50 ohm, N-Type Female
<b>DIGITAL INTERFACE - DS-3 VERSION</b>	
TYPE	1 x DS3 per GR-499-CORE and 2 x 10/100 Base-T Ethernet per IEEE 802.3
OVER-THE-AIR DATA RATE	44.736 Mbps Full-Duplex, and 1 Mbps Full-Duplex wayside channel for Ethernet traffic
LINE CODE	B3ZS, all DS3 applications supported
INTERFACE	75 ohms unbalanced Coaxial Connections
CONNECTORS	TNC (75 ohms)
<b>DIGITAL INTERFACE - ETHERNET VERSION</b>	
TYPE	2 x 10/100 Base-T Ethernet per IEEE 802.3
OVER-THE-AIR DATA RATE	45 Mbps, Full Duplex
MAX CABLE LENGTH	300 feet (100 meters)
<b>TRANSMITTER</b>	
OUTPUT POWER (CONFIGURABLE)	5845: +16 dBm (MAX)
TRANSMIT ATTENUATION	1 - 30 dB adjustable below maximum power
FREQUENCY STABILITY	+/- 5 ppm
MODULATION	16 QAM
<b>RECEIVER</b>	
TYPE	Double Heterodyne
BER/SENSITIVITY	10 <sup>-6</sup> -78 dBm or better, including Forward Error Correction (FEC)
MAX RF INPUT LEVEL	-35 dBm
UNFADED BER	Typically better than 10 <sup>-10</sup>

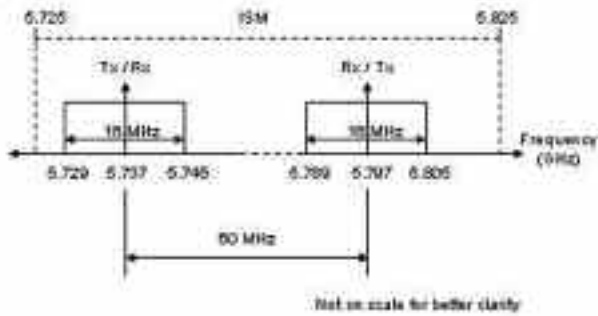
<sup>1</sup> For systems deployed outside the United States, i.e., not constrained by FCC rules and regulations, the maximum output power of a TeraBridge 5345 can be set to +10 dBm. However, customers must comply at all times with their local rules and regulations set by the regulatory boards of their respective countries in regards to the maximum allowed transmit power coming out of an intentional RF emitter device such as the TeraBridge.

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MAX RF INPUT LEVEL	-35 dBm
UNFADED BER	Typically better than 10 <sup>-10</sup>
FREQUENCY STABILITY	+/- 5 ppm
ADJACENT CHANNEL REJECTION	>/= 40 dB (RF bandwidth of </= 16 MHz)
<b>NETWORK MGMT</b>	
SNMP	MIB-II Support and Private Functions
EMS/NMS SUPPORT	Standard SNMP-based EMS, NMS, or Web Browser User Interface
CRAFT INTERFACE	RS-232 CLI
<b>STATUS INDICATORS AND DIAGNOSTICS</b>	
EXT LED INDICATORS	Power/Local Alarm, RF Link, DS3 Input, Ethernet Link x 2
ALARMS	DS3 LOS, AIS, Radio TX, Radio RX, BER Threshold
STATUS	NMS IP Addresses, BER, TX Power, Receive Signal Level, Loopback Test Status, DS3 Input, Ethernet Input
CONFIG COMMANDS	NMS IP Address, TX Power, TX Mute, Frequency, RSL, BER Alarm, Loopback Tests
DIAGNOSTIC TESTING FEATURES	Radio/Local/Remote Loopback, Pseudo AIS
PERFORMANCE MONITORING	Receive Signal Strength Indicator (RSSI)
<b>POWER</b>	
INPUT VOLTAGE RANGE	+/- 48 VDC (+/- 21-60 VDC), 100-240 VAC (external power supply)
POWER CONSUMPTION	30 Watts maximum
<b>ENVIRONMENTAL</b>	
TEMPERATURE RANGE	-27° to +140° F (-33° to +60° C)
ALTITUDE	15,000 ft (4,500 meters)
HUMIDITY	Outdoor, all-weather enclosure (100%, non-condensing)
<b>MECHANICAL</b>	
DIMENSIONS	12.0 x 12.0 x 4.0 in (305 x 305 x 98 mm)
WEIGHT	11 lbs (5.0 kg)
<b>FCC CERTIFICATION</b>	
	<b>5845</b> OEWCX-DS3-58G FCC Part 15.247 Subpart C (ISM certification)
<b>WARRANTY</b>	
<b>PACKAGE CONTENTS</b>	Complete Hop: <ul style="list-style-type: none"> <li>• TeraBridge High Band Radio (Qty 1)</li> <li>• TeraBridge Low Band Radio (Qty 1)</li> <li>• Power Supply Kit (Qty 2)</li> <li>• Mounting Kit (Qty 2)</li> <li>• Documentation</li> </ul>
<b>RELATED PRODUCTS</b>	
	TeraBridge Ethernet or DS-3 Cable Kits (include cables for complete link), Lightning Protectors for TeraBridge Link, Extended Warranty, ServPak (US/CAN only)

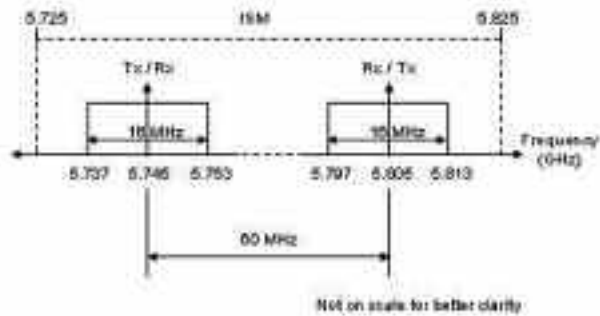
## APPLICATIONS

- Point-to-point Wireless Bridge
- Enterprise LAN and PBX extension
- WAN connection redundancy
- ISP remote POP
- ISP direct customer connections using point-to-point
- Multipoint backhaul at DS-3 performance
- Extension of an existing fiber network

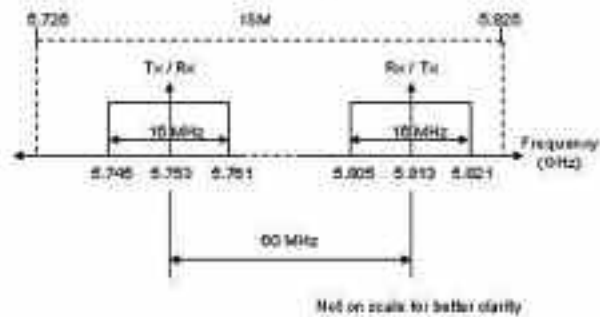
**Channel 1 Low / High Bands**



**Channel 2 Low / High Bands**



**Channel 3 Low / High Bands**



For detailed technical specifications, please go to [www.proxim.com/products/bwa/point](http://www.proxim.com/products/bwa/point)

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