



Tsunami.GX 32

Wireless Point-to-Point Ethernet Bridges



APPLICATIONS

- Enterprise LAN and PBX extension
- WAN connection redundancy
- ISP remote POP
- ISP direct customer connections using point-to-point
- Affordable multipoint backhaul
- Extension of an existing fiber network

Fast, Cost-Effective Extension of IP Networks

Proxim's Tsunami™.GX is a full-duplex point-to-point wireless Ethernet bridge with an innovative split-box design. This latest generation of high-capacity wireless bridges is designed to reduce the expense of extending IP networks and to simplify installation. Secure wireless technology significantly reduces total cost of ownership and speeds deployment, while a split-box design adds installation flexibility. The Tsunami.GX also provides best-in-class system performance with native IP interfaces by eliminating the overhead associated with T1/E1-to-Ethernet connections.

- Perfect for data and data/voice network backhaul applications and for replacing, extending or backing up leased lines
- Indoor-only installation facilitates quick maintenance and easier upgrades
- Indoor/outdoor installation improves system gain and reduces total cost of ownership

Easily Manage and Troubleshoot Your Wireless Network

Tsunami.GX bridges offer sophisticated, preventative management tools to simplify network maintenance and eliminate downtime. Advanced diagnostic tools identify and isolate potential issues before they impact the network.

- Standards-based SNMP management and web-based GUI simplifies remote management and integrates easily into existing software platforms
- Built-in spectrum analyzer and an alarm log facilitate RF planning and post-deployment tuning

Greater than leased line speeds with the Ease of Ethernet

Backed by more than 20 years of wireless design

innovation, Proxim's Tsunami wireless bridge family easily and affordably enables network extension, redundancy and backhaul. Tsunami wireless bridges eliminate fiber installation costs and leased line fees to bring you the capacity of more than eight leased lines with the TCO of Ethernet.

- High capacity for bandwidth-intensive applications such as PBX extension, data backhaul and critical link redundancy
- No expensive recurring leased line costs
- Superior system gain ensures consistent, high quality network operation

Deploy in Days

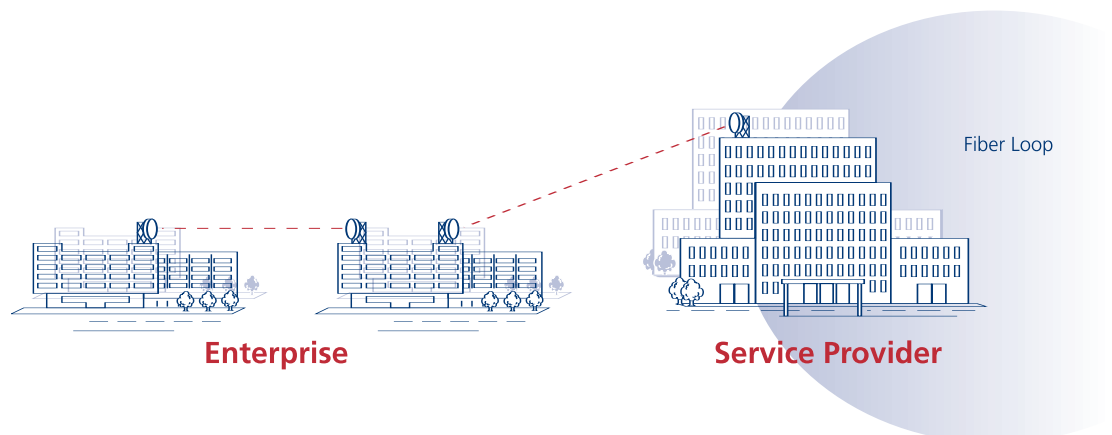
Because Tsunami bridges operate in license-exempt ISM frequency bands, they can be deployed quickly – eliminating the long lead times associated with leasing lines or trenching new fiber optic cable. This is especially useful in network redundancy and contingency planning.

- Rapid device deployment and flexible re-deployment
- ISPs maintain business continuity, even in severe conditions
- Enterprises minimize costly business application downtime

Reliable and Secure

A wireless alternative to a wired network yields quality as well as flexibility. Proxim's Tsunami bridges offer the highest security and reliability available in networking today.

- Over 99.999% reliable RF transmission
- Meets or exceeds wired network security
- Proprietary encryption methods ensure secure data transmission



Tsunami.GX 32 Specifications

About Proxim Wireless

Proxim Wireless is a global leader in networking equipment for Wi-Fi and broadband wireless networks. Proxim provides solutions for enterprise applications, last mile access, municipal broadband networks, and cellular backhaul. Product families include ORiNOCO and TeraStar Wi-Fi products; Tsunami, TeraBridge, Gigalink, and TeraOptic Ethernet bridges, and Lynx point-to-point digital radios.

Proxim Wireless Corporation
2115 O'Neil Drive
San Jose, CA 95131

tel: 800.229.1630
tel: 408.731.2700
fax: 408.731.3675

www.proxim.com

FREQUENCY	DIGITAL CAPACITY ¹	NON-OVERLAPPING FREQUENCY PAIRS	FCC EMISSION DESIGNATOR	THRESHOLD (BER=1X10 ⁻⁶)	OUTPUT POWER	SYSTEM GAIN	DISTANCE (MILES/KM)
5725-5850 MHz	32 Mbps 24 Mbps	3 2	13M4G7D	≥85 dBm ≥86 dBm	≥23.5 dBm	≥109.5 dB, 112 dB typ. ≥108.5 dB, 111 dB typ.	42/68 44/71
SYSTEM							
Configuration	Split-box: IDU, RF Unit						
Modulation	DSSS; QPSK						
Frequency Stability	±10 ppm						
RF Attenuation Range ¹	20 dB						
Maximum Receive Signal	-20 dBm error free; 0 dBm no damage						
Error Floor	<10 ⁻¹¹						
Latency (T1) ² , one-way	325 µsec ±10%						
Error Correction	Reed-Solomon						
Security	12 character Link ID (48 bits)						
Regulatory Compliance	FCC Part 15.247; IC RS210						
FCC ID	H2B-S58-GX1						
Industry Canada ID	1856A-U5358GX1						
DIGITAL LINE INTERFACES							
Main Data Channel ⁴							
3-Channel Mode	32 Mbps aggregate; 16 Mbps full duplex						
2-Channel Mode	24 Mbps aggregate; 12 Mbps full duplex						
10/100 Base T	RJ-45 modular jack; Auto-sense MDI/MDI-X						
10/100 Base FX	SC-Type, multi-mode Fiber						
Compliance	IEEE 802.3						
Wayside Data Channels							
T1/E1	DSX-1 (2 each) or CEPT-1 (2 each), software selectable RJ-48C modular jack						
Compliance							
Maximum Packet Size	1536 bytes						
T1	ANSI-1987-T1, CCITT G.823						
E1	G.703						
AUXILIARY INTERFACES							
Orderwire (DTMF)	RJ-11, 100 addresses						
VF	8 pin modular jack, 4-wire 0dBm @ 600 ohm, balanced						
Aux Data (serial)	8 pin modular jack, EIA-561 19.2kbps, selectable, DCE						
FAULT AND CONFIGURATION MANAGEMENT							
Network Management	SNMP v2c (MIB II, Proxim enterprise MIBs), embedded HTML server, Telnet, VT-100 terminal						
Far End Management	Via NMS (embedded router, gateway address, subnet mask), front panel display						
Physical Interfaces							
NMS 1	10/100BaseT, RJ-45, auto-sense						
NMS 2	10/100BaseT, RJ-45, auto-sense						
Configuration (serial)	EIA-574, 9600bps, 9-pin Sub-D, DTE						
External Alarm Interface							
Connector	9-pin Sub-D female						
Outputs	2 Form C Relays (Major, Minor)						
Inputs	2 TTL with internal pull-ups						
POWER/ENVIRONMENT							
Input Voltage Range						-20 to -60 Vdc or +20 to +60 Vdc	
Power Consumption						<70 Watts	
Power Connector						3-pin terminal block	
Operating Temperature							
IDU						0°C to +50°C	
RF Unit						-30°C to +55°C	
Humidity							
IDU						95%, non-condensing	
RF Unit						100%, condensing	
Altitude						up to 15,000 ft/5000 m	
Wind Loading (RF unit)						up to 110 mph/96 kts	
MTBF IDU						>100,000 Hours	
MTBF RF Unit						>100,000 Hours	
PHYSICAL DIMENSIONS							
						IDU	RF Unit
Size (in/cm)						17.2 X 10.9 X 1.72 (43.6 X 27.6 X 4.4)	14.1 X 10.9 X 1.72/ (35.8 X 27.6 X 4.4)
Weight (lbs/kg)						6.5/2.9	12.0/5.4
MECHANICAL							
RF Unit							
Antenna Port						Type-N female (outdoor RF cable not provided)	
IDU Port						TNC female	
Cable to IDU						LMR-240 or equiv. <100m; LMR-400 or equiv. <200m; LMR-600 or equiv. <300m	
Mounting							
IDU						EIA rackmount, 19" or 23", 1RU	
RF Unit						EIA rackmount, 19" or 23", 1RU, or outdoor pole mount	
Pole Mount Bracket (optional)							
SELECTABLE NON-OVERLAPPING FREQUENCY PLANS							
2-Channel Mode						A: 5734 / 5819 MHz B: 5756 / 5841 MHz	
3-Channel Mode						A: 5731.5 / 5816.5 MHz B: 5745.0 / 5830.0 MHz C: 5758.5 / 5843.0 MHz	
ORDERING INFORMATION							
64765						Low Band Terminal	
64766						High Band Terminal	
ACC-GX-RF-2						Optional RF Unit Outdoor Mounting Kit	
201-31075-1						Optional AC Adapter 110/220 VAC with cable and connector	
Call for details						ServPak 24x7 Enhanced Service and Support contracts (1yr-3yr)	
SHIPPING CONFIGURATION							

¹ Output power is specified at zero attenuation

² Does not include air latency of approximately 5.4 µsec/mile

³ RF Unit installed outdoors with 6ft. parabolic antenna, 99.995% one-way RF Link availability, average climate/terrain, no multipath reflection. Assumes FCC regulations for EIRP

⁴ No Waysides enabled

For detailed technical specifications, please go to http://www.proxim.com/products/bwa/point/tsunami/tsunami_gx_32/techspecs.html