



Tsunami.GX 200

Wireless Point-to-Point Ethernet Bridge



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

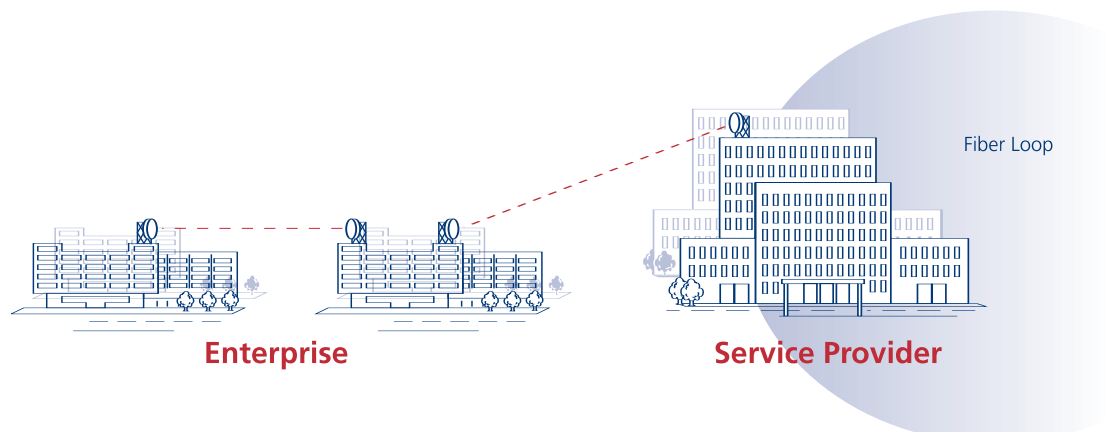
Because Tsunami bridges operate in license-exempt ISM frequency bands, they can be deployed quickly – eliminating the long lead times associated with leasing lines or trenching new fiber optic cable. This is especially useful in network redundancy and contingency planning.

- 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 200 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 | NON-OVERLAPPING FREQUENCY PAIRS | FCC EMISSION DESIGNATOR | THRESHOLD (BER=1X10 ⁻⁶) | OUTPUT POWER ¹ | SYSTEM GAIN | DISTANCE (MILES/KM) |
|-------------------------------------|--|---------------------------------|-------------------------|---|--|----------------------------------|---------------------|
| 5725-5850 MHz | 216 Mbps | 1 | 32M5G1D | ≥ -73dBm | ≥19 dBm | ≥92 dB | 20/32 ³ |
| SYSTEM | | | | POWER/ENVIRONMENT | | | |
| Configuration | Split-box: IDU, RF Unit | | | Input Voltage Range | | -20 to -60 Vdc or +20 to +60 Vdc | |
| Modulation | DSSS; 16 QAM | | | Power Consumption | | <70 Watts | |
| Frequency Stability | ±10 ppm | | | Power Connector | | 3-pin terminal block | |
| RF Attenuation Range ¹ | 15 dB | | | Operating Temperature | | | |
| Maximum Receive Signal | -25 dBm error free; 0 dBm no damage | | | IDU | 0°C to +50°C | | |
| Error Floor | <10 ⁻¹¹ | | | RF Unit | -30°C to +55°C | | |
| Latency (T1) ² , one-way | <300 µsec ±10% | | | Humidity | | | |
| Error Correction | Reed-Solomon | | | IDU | 95%, non-condensing | | |
| Security | 12 character Link ID (48 bits) | | | RF Unit | 100%, condensing | | |
| Regulatory Compliance | FCC Part 15.247; IC RS210 | | | Altitude | | up to 15,000 ft/5000 m | |
| FCC ID | H2B-US5358-GX1 | | | Wind Loading (RF unit) | | up to 110 mph/96 kts | |
| Industry Canada ID | 1856A-U5358GX1 | | | MTBF IDU | | >100,000 Hours | |
| DIGITAL LINE INTERFACES | | | | MTBF RF Unit | | >100,000 Hours | |
| Main Data Channel | | | | PHYSICAL DIMENSIONS | | | |
| No waysides enabled | 204 Mbps aggregate; 102 Mbps full duplex | | | IDU | RF Unit | | |
| T1/E1 wayside enabled | 204 Mbps aggregate; 102 Mbps full duplex | | | 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) | | |
| 2 T1 waysides enabled | 196 Mbps aggregate; 98 Mbps full duplex | | | Weight (lbs/kg) | 6.5/2.9 12.0/5.4 | | |
| 2 E1 waysides enabled | 196 Mbps aggregate; 98 Mbps full duplex | | | MECHANICAL | | | |
| 10/100 Base T | RJ-48 modular jack; Auto-sense MDI/MDI-X | | | RF Unit | | | |
| 100 Base FX | SC-Type, multi-mode Fiber | | | Antenna Port | Type-N female (outdoor RF cable not provided) | | |
| Compliance | IEEE 802.3 | | | IDU Port | TNC female | | |
| Wayside Data Channels | | | | Cable to IDU | LMR-240 or equiv. <100m; LMR-400 or equiv. <200m; LMR-600 or equiv. <300m | | |
| T1/E1 | DSX-1 (2 each) or CEPT-1 (2 each), software selectable RJ-48C modular jack | | | Mounting | | | |
| Compliance | | | | IDU | EIA rackmount, 19" or 23", 1RU | | |
| Maximum Packet Size | 1536 bytes | | | RF Unit | EIA rackmount, 19" or 23", 1RU, or outdoor pole mount | | |
| T1 E1 | ANSI-1987-T1, CCITT G.823 G.703 | | | Pole Mount Bracket (optional) | | | |
| AUXILIARY INTERFACES | | | | FREQUENCY PLANS | | | |
| Orderwire (DTMF) | RJ-11, 100 addresses | | | A: 5745/5830 MHz | | | |
| VF | 8 pin modular jack, 4-wire 0dBm @ 600 ohm, balanced | | | ORDERING INFORMATION | | | |
| Aux Data (serial) | 8 pin modular jack, EIA-561 19.2kbps, selectable, DCE | | | 66768 | Low Band Terminal | | |
| FAULT AND CONFIGURATION MANAGEMENT | | | | 66769 | High Band Terminal | | |
| Network Management | SNMP v2c (MIB II, Proxim enterprise MIBs), embedded HTML server, Telnet, VT-100 terminal | | | ACC-GX-RF-2 | Optional RF Unit Outdoor Mounting Kit | | |
| Far End Management | Via NMS (gateway address, subnet mask), front panel display | | | 201-31075-1 | Optional AC Adapter 110/220 VAC with cable and connector | | |
| Physical Interfaces | | | | Call for details | ServPak 24x7 Enhanced Service and Support contracts (1yr-3yr) | | |
| NMS 1 | 10/100BaseT, RJ-45, auto-sense | | | SHIPPING CONFIGURATION | | | |
| NMS 2 | 10/100BaseT, RJ-45, auto-sense | | | Tsunami.GX 200 IDU (Indoor Unit); ISM Low Band or High Band RF Unit; IDU Indoor Rack Management Kit; ACC-GX-RF-1 RF Unit Indoor Mounting Kit (includes 12" IDU to RFU TNC-to-TNC cable); Quick Install Guide; CD-User Documentation | | | |
| 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 | | | | | | |

For detailed technical specifications, please go to http://www.proxim.com/products/bwa/point/tsunami/tsunami_gx_200/techspecs.html

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