



Tsunami™

1000BaseSX Wireless Gigabit Ethernet Bridge



Cost-Effective Gigabit-Speed Capacity

The Tsunami wireless Gigabit Ethernet bridge is the world's first 1000BaseSX system to provide wireless gigabit point-to-point connectivity while preserving native IP. Tsunami Gigabit meets the ever-growing demand for greater WAN/MAN bandwidth at a significantly lower cost than fiber solutions.

Tsunami Gigabit is an ideal alternative to multiple T1s or fiber-optic cable and can be used to extend or provide redundancy to existing fiber networks.

Tackle Your Toughest Bandwidth Problems

Tsunami wireless Gigabit Ethernet bridges deliver carrier-class wireless solutions that meet critical connectivity needs for:

- Enterprise IT managers building out their private networks by creating WAN/MAN connectivity for building-to-building and campus-to-campus locations
- Service providers extending fiber networks to create new connections for “last-mile” or remote access requirements
- Internet Service Providers expanding the network backbone to establish new points of presence (POP)

About the Tsunami Product Family

The Tsunami family of Ethernet bridges provides wireless solutions that meet the growing demand for transparent and reliable high-speed network interconnectivity.

In addition to Tsunami 1000BaseSX, the world's first license-exempt Gigabit Ethernet bridge, the Tsunami product line includes:

Tsunami 10BaseT, a cost-effective, high-capacity alternative to multiple wireline T1 connections.

Tsunami 100BaseT/F, offering wireless Fast Ethernet connectivity for data communications at full-duplex 100BaseT/F speeds.

PRODUCT HIGHLIGHTS

Highest Capacity Available

- Removes network bandwidth bottlenecks
- Native IP is preserved throughout the system with direct connections to Gigabit switches

Easily Installed and Operational the Next Day

- License-exempt, eliminating delays from regulatory approvals
- Faster to deploy than new fiber
- Eliminates schedule delays due to new fiber right-of-way issues

Accelerates and Maximizes Return on Investment

- Faster payback compared to trenching new fiber or multi-year lease contracts
- Gigabit Ethernet connectivity at half the cost of an OC-3 connection

Carrier-Class Reliability

- Meets or exceeds traditional Telco wireline standards
- Eliminates line cuts inherent with wireline networks
- Longer distances and highest reliability due to superior system gain

KEY FEATURES

- License-exempt in many countries
- 430 Mbps full-duplex data capacity
- Four wayside T1 channels included
- Frequency ranges: 5250-5350 MHz and 5725-5825 MHz (U-NII Band)
- Compliant with key industry standards
- Network management through SNMP or HTTP
- Works with VPN (IEEE 802.1Q) for virtual LAN compatibility
- Built-in loopback, far-end monitoring, and private telephone network orderwire
- 2-year warranty

Product Specifications

PRODUCT	MODEL NUMBER	FREQUENCY BAND	DATA CAPACITY (FULL DUPLEX)	VOICE CAPACITY	CHANNEL PLAN	THRESHOLD (BER=1X10 ⁻⁶)	OUTPUT POWER (MINIMUM)	SYSTEM GAIN	DISTANCE (MILES/KM)
Tsunami 480	27900-G1	5250-5350 MHz and 5725-5825 MHz	430 Mbps	4 x T1	1 (A)	-73 dBm	+10 dBm +15 dBm	83 dB	< 7/11

System

Frequency Band (Dual)	5250-5350 MHz and 5725-5825 MHz
Aggregate Capacity	872 Mbps
Data Capacity	430 Mbps Full Duplex
Voice Capacity	4 x T1
Antenna Connector	Two (2) N-Type female
Output Power (5.8 GHz)	+15 dBm
(5.3 GHz)	+10 dBm
RF Attenuation Range	16 dB, minimum
Receiver Threshold	-73 dBm, BER=1x10 ⁻⁶ , min.
System Gain	83 dB
Maximum Receive Level	-20 dBm, error-free
Latency	<500 μs
Regulatory Compliance	US: FCC Part 15.407, Class A Canada: IC RSS-210

Data Interface

Gigabit Ethernet Interface	1000BaseF(SX)
Connector	SC
Compliance	IEEE 802.3d, 802.3z, 802.1q

Telco Interface

Interface	DSX-1
Connector	RJ-48C female
Compliance	ANSI T1-102-1987

Auxiliary Connections

Orderwire Handset	2-wire, RJ-11
VF Orderwire Bridge	600 ohm, balanced, 4-wire, 0 dBm, DB9
Configuration Port	RS-232, DB9 Software download
Network Management (NMS)	10/100BaseT/F (HTTP, SNMP)
Aux. Data Port (Clear Service Channel)	RS-232/RS-422, 19.2k baud, DB9
Alarm Port	2 ea. Form C, 6 ea. TTL, DB9
Test Points	Output power, near- and far-end RSL
Wayside Channels	4 x T1 (DSX-1)

Power/Environment

DC Power	±37 to ±63 Volts, <250 Watts
Optional AC Adapter	100-250 Volts, 50-60 Hz
Power Connector	6-pin barrier strip, plug-in
Operational Temperature	
Indoor Unit	0° to +50° C
Outdoor Unit	-30° to +65° C
Humidity	0 to 95% non-condensing
Altitude	15,000 feet/4572 meters, maximum

Physical

Indoor Unit	
Size (WxHxD)	17.2 x 3.5 x 14.5 inches (2RU) 43.7 x 8.9 x 36.8 cm
Weight	11 lbs/5 kg
Outdoor Unit	
Size (WxHxD)	9 x 13 x 5 inches 22.9 x 33 x 12.7 cm
Weight	20 lbs/9 kg

Mounting (Installation)

EIA Rack Mount	19-inch/48.2 cm, 2-rack unit height (mounting brackets supplied)
----------------	--