



# Tsunami Multipoint Wireless Point-to-Multipoint System



## APPLICATIONS

- Last mile access
- Extending VoIP service to remote sites
- Leased line replacement
- Fast service deployment into multi-tenant, rural areas
- Campus networking

## Cutting-Edge Technology Delivers Carrier-Class Performance

The Tsunami Multipoint wireless Ethernet system delivers cutting-edge technology built on over twenty years of wireless innovation at Proxim. Advanced features deliver reliable, cost-effective alternatives to legacy leased lines, while delivering superlative network performance. The combined throughput and reliability make the Tsunami Multipoint systems perfect for high-performance campus networks, and densely populated last mile Internet access. Proxim point-to-multipoint innovation includes:

- Patented Active Interference Rejection (AIR) technology, which uses a pre-processing filter to nullify interference in the 5.8 GHz band
- Proxim's finely honed wireless transmission protocol, which delivers 200% better throughput than competitors, achieved through protocol efficiency gains
- Specialized traffic prioritization algorithms and VLAN functionality, enabling latency-sensitive application performance
- Unique Ethernet plus power technology, combining power and network connections into a single Cat5 link
- Connections engineered with true carrier-class 99.995% reliability

## Simplify Operations and Cost-structure

Tsunami Multipoint dramatically simplifies the installation and maintenance of high-performance network links. These results translate into a quick payback period relative to leased lines, and have many direct cost-saving benefits.

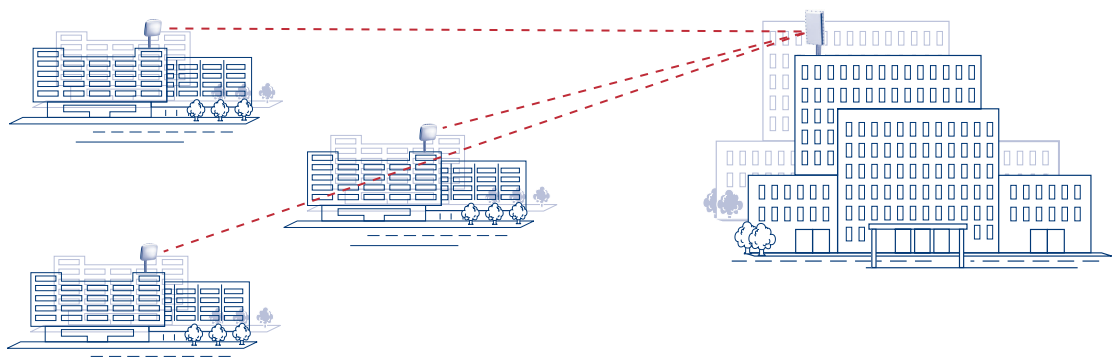
- Private infrastructure eliminates recurring monthly leases and bypasses telephone tolls

- Outdoor weatherized Subscriber Unit allows system maintenance without entering the subscriber's building
- Single cable design eliminates installation labor and expense
- Antenna connectors facilitate coverage area "shaping" and reduce initial infrastructure costs
- Audible tones guide directional positioning, allowing one-person installation
- Remote SNMP management proactively detects issues
- Unlicensed band operation eliminates regulatory delays and fees/costs

## Unrivaled Performance Trounces Competition

Performance, capacity and scalability are critical concerns in designing business networks. Whether it's expanding service footprint or connecting buildings on a new campus, system performance dictates the success of critical applications. Tsunami Multipoint offers:

- Industry-leading 60 Mbps and 20 Mbps over-the-air transmission rates
- Unrivaled 54 Mbps and 18 Mbps throughput rates – 200% higher than closest competitor
- 99.99%+ effective interference prevention, yielding superior performance in high-density areas
- Base Station Unit support for 1000+ Subscribers Units, scaling to network and subscriber demand
- 6 miles/10km range, easily linking sites and extending VoIP functionality



## Tsunami Multipoint Specifications

	MODEL	MODEL NUMBER	AGGREGATE THROUGHPUT	THRESHOLD (BER=1X10 <sup>-6</sup> )	OUTPUT EIRP	ACTIVE INTERFERENCE REJECTION (A.I.R)
Base Station Unit (BSU)	60 Mbps	301-40400-65	17, 25.5, 34, 51 Mbps	-77 dBm	36 dBm	
	20 Mbps	301-40400-25	17 Mbps	-89 dBm	36 dBm	
	60 Mbps	301-40400-65R	17, 25.5, 34, 51 Mbps	-77 dBm	36 dBm	✓
	20 Mbps	301-40400-25R	17 Mbps	-89 dBm	36 dBm	✓
Subscriber Unit (SU)	60 Mbps	301-40100-652	17, 25.5, 34, 51 Mbps	-89, -81, -77 dBm	35 dBm	
	20 Mbps	301-40100-252	17 Mbps	-89 dBm	35 dBm	
<b>SYSTEM</b>						
Operating Frequency Range		5725-5825 MHz				
Radio Access Method		TDMA				
Duplexing		Time Division Duplex (TDD)				
Integrated Antenna: BSU/SU		18 dBi (60° x 6°)/20 dBi (10° x 10°)				
Max Subscriber Units/BSU		1,023				
Distance/Capacity Limits (clear line of site/over the air)		60 Mbps at 3 miles/5 kilometers; 20 Mbps at 6 miles/10 kilometers				
Frequency Channels		4 non-overlapping, 6 available				
Regulatory Compliance		FCC Part 15.400 (U-NII); FCC Part 15.247 (ISM) 20 Mbps only; Industry Canada RSS210				
<b>STANDARDS COMPLIANCE AND INTERFACES</b>						
Ethernet Interface		10/100BaseT				
Ethernet Connector		RJ45 female				
SU indoor-outdoor cable		RJ45 (outdoor) & DIN (indoor) over Category-5 cable				
BSU indoor-outdoor cable		Weatherproof RJ45 connectors over Category-5 cable				
Standards Compliance		IEEE 802.1d Bridging Mode; IEEE 802.1q transparent VLAN tagging				
<b>CONFIGURATION AND MANAGEMENT</b>						
Base Station Unit Configuration		Via Ethernet				
Subscriber Unit Configuration		Automatic				
Management		Via optional SNMP Toolkit (p/n 501-40400-ST)				
Security		Authentication, IP/MAC Filtering				
Software Upgrades		Over-the-air Subscriber Unit reprogramming; Downloadable Base Station Unit reprogramming				
<b>POWER/ENVIRONMENT</b>						
Electrical:						
Base Station Unit		+48 Volts DC, 1 Amp				
Subscriber Unit		+28 Volts DC, 0.6 Amps				
Base Station Unit Power Brick		100–240 Volts AC, 50/60 Hz				
Subscriber Unit Power Brick		110 or 220 Volts AC				
Operational Temperature		-25°–55° C (BSU and SU only)				
Humidity		5%–100%, condensing				
MTBF		Base Station Unit: 75,000 hours; Subscriber Unit: 100,000 hours				
FCC		Part 15/Class B				
<b>PHYSICAL DIMENSIONS</b>			<b>SIZE (W x H x D)</b>		<b>WEIGHT</b>	
SU (Outdoor Unit)		10.5 x 10.5 x 6.8 in/26.5 x 26.5 x 17.4 cm			10 lbs/4.5 kg	
SU Power Brick (Indoor Unit)		3.6 x 5.1 x 2.6 in/9.2 x 13 x 6.7 cm			2.7 lbs/1.2 kg	
BSU (Outdoor Unit)		10.2 x 24 x 6.6 in/25.9 x 61 x 16.8 cm			20 lbs/9 kg	
BSU Power Brick (Indoor Unit)		3.7 x 7.1 x 2.5 in/9.5 x 18 x 6.3 cm			1.5 lbs/0.7 kg	
<b>MOUNTING (INSTALLATION)</b>						
Base Station Unit		Pole Mount, 1.75–2.75 in dia.				
Subscriber Unit		Pole Mount, 1.25–1.75 in dia.				
<b>WIND LOADING</b>						
Maximum operational wind speed		50m/s (112mph)				
Maximum survivable wind speed		90m/s (200mph)				
<b>WARRANTY</b>						
1-year limited parts and labor						
Service Packs available for priority technical assistance						

## About Proxim

Proxim Corporation is a global leader in wireless networking equipment for Wi-Fi and broadband wireless networks. The company provides its enterprise and service provider customers with wireless solutions for the mobile enterprise, public hot spots, security and surveillance, last mile access, metropolitan area networks and voice and data backhaul.

# Tsunami Multipoint with External Antenna Connector

	MODEL	MODEL NUMBER	AGGREGATE THROUGHPUT	THRESHOLD (BER=1X10 <sup>-9</sup> )	OUTPUT POWER
Base Station Unit (BSU)	60 Mbps	301-40400-65C	17, 25.5, 34, 51 Mbps	-77 dBm	17 dBm
Subscriber Unit (SU)	60 Mbps	301-40100-652C	17, 25.5, 34, 51 Mbps	-89, -81, -77 dBm	17 dBm

## SYSTEM

Operating Frequency Range	5725-5825 MHz
Radio Access Method	TDMA
Duplexing	Time Division Duplex (TDD)
Max Subscriber Units/BSU	1,023
Distance/Capacity Limits (clear line of site/over the air)	60 Mbps at 4 miles/6.9 kilometers; 20 Mbps at 6 miles/10 kilometers
Frequency Channels	4 non-overlapping, 6 available
Regulatory Compliance	FCC Part 15.400 (U-NII); Industry Canada RSS210

## STANDARDS COMPLIANCE AND INTERFACES

Ethernet Interface	10/100BaseT
Ethernet Connector	RJ45 female
SU indoor-outdoor cable	RJ45 (outdoor) & DIN (indoor) over Category-5 cable
BSU indoor-outdoor cable	Weatherproof RJ45 connectors over Category-5 cable
External Antenna Connector	Standard -N Female
Standards Compliance	IEEE 802.1d Bridging Mode; IEEE 802.1q transparent VLAN tagging

## CONFIGURATION AND MANAGEMENT

Base Station Unit Configuration	Via Ethernet
Subscriber Unit Configuration	Automatic
Management	Via optional SNMP Toolkit (p/n 501-40400-ST)
Security	Authentication, IP/MAC Filtering
Software Upgrades	Over-the-air Subscriber Unit reprogramming; Downloadable Base Station Unit reprogramming

## POWER/ENVIRONMENT

Electrical:	
Base Station Unit	+48 Volts DC, 1 Amp
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Base Station Unit Power Brick	100-240 Volts AC, 50/60 Hz
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Humidity	5%-100%, condensing
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	SIZE (W x H x D)	WEIGHT
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## MOUNTING (INSTALLATION)

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Subscriber Unit	Pole Mount, 1.25-1.75 in dia.

## WIND LOADING

Maximum operational wind speed	50m/s (112mph)
Maximum survivable wind speed	90m/s (200mph)

## WARRANTY

1-year limited parts and labor
Service Packs available for priority technical assistance

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