



QuickBridge.11 (2454-R, 5054-R & 5054-R-LR)

## 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
- **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.

## Cost Effective Solution for Quick Return on Investment

The Tsunami QuickBridge.11 family operates in the unlicensed frequency spectrums of 2.4 GHz and 5 GHz (5.15 to 5.95 inclusive (and to 6.08 GHz with LR)) and comes complete with a set of accessories to ease outdoor installations. As the most cost-effective point-to-point solution from Proxim, any deployment will enjoy a quick return on investment.

- Suitable for the service provider, municipal and education markets
- Certified for deployments in the Americas, Europe, Asia, and Australia
- Designed with the same high quality and reliability that are synonymous with all Proxim Tsunami wireless bridges
- High Power version for extended range (5054-R-LR)

## Complete “Hop-In-A-Box” Allows Unprecedented Ease of Installation

Tsunami QuickBridge.11 bundles are the easiest-to-install family of broadband wireless bridges on the market. Requiring no training or wireless experience, they can be installed within hours. Each solution includes everything needed to set up a link right out of the box.

- Hop-in-a-box solution includes two radios with integrated antennas, mounting hardware, power injectors and documentation
- Pre-configured software defaults and easy to use graphical user interface eliminate guess work during installation
- Audible tones ensure antennas are properly aligned

## Industry Leading Co-Location Capability

Expand your own service coverage area or co-locate a service within another service provider’s existing area – it’s never been easier. All Tsunami QuickBridge.11 models support 5/ 10/ 20MHz channels designed to mitigate radio interference in unlicensed frequency spectrums.

- 5 MHz channel increases the number of non-overlapping channels from 20 to 80+ in the 5 GHz band and from 3 to 13 in the 2.4 GHz spectrums
- With the high number of non-overlapping channels, products can be used as high-bandwidth CPE (customer premise equipment) within a limited coverage area
- Less likely to offend neighboring wireless systems

## Synergy with Tsunami MP.11 Point-to-Multipoint Systems

Maximum synergy is realized when deployed in conjunction with Tsunami MP.11 point-to-multipoint wireless systems. With the same proven platforms, both products are designed to deliver an equal experience.

- Using the integrated antennas also used in the MP.11, the QuickBridge.11 produces the same radio characteristics
- Same ruggedized enclosures allow the use of common accessories, resulting in reduced inventory and preservation of investments
- Identical CLI and graphical software interfaces reduce training costs, and accelerate installation and troubleshooting

## Advanced Security Protects Privacy

QuickBridge.11 implements tiered security layers for the most secure outdoor communication in the unlicensed frequency spectrum.

- Proxim’s Wireless Outdoor Routing Protocol (WORP) prevents snooping common to Wi-Fi systems
- Advanced encryption protects over-the-air transmission via AES
- Radio mutual authentication eliminates unauthorized use of the system by rogue Subscriber Units and man-in-the middle attacks
- Password protection of all remote management methods

<b>PRODUCT MODELS</b>	
2454-QB-XX	Tsunami QuickBridge.11 Model 2454-R Bundle
5054-QB-XX	Tsunami QuickBridge.11 Model 5054-R Bundle
5054-QB-LR	Tsunami QuickBridge.11 Model 5054-R-LR Bundle
<b>PERFORMANCE &amp; SCALABILITY</b>	
INTEGRATED ANTENNA	Model 5054-R(-LR) includes an integrated 23-dBi antenna; Model 2454-R includes an 18-dBi antenna
EXTREME OPERATING TEMPERATURE	Rated for -33° to 60° Celsius or -27.5° to 140° Fahrenheit, the system can be deployed outdoors in hot or cold climates
<b>MOST FLEXIBLE FREQUENCY &amp; CO-LOCATIONS SUPPORT</b>	
MOST FLEXIBLE SPECTRUM SELECTION	2.4 – 2.497 GHz; 5.15, 5.25 – 5.35 GHz; 5.47 – 5.725 GHz; 5.725 – 5.85 GHz (including 5.8 GHz for UK licensed spectrum) 5.85 - 5.95 GHz, 5.15 - 6.08 GHz
TRI-BAND 5 GHz SUPPORT (5.25/5.47/5.725/5.85/5.95)	With software selectable frequencies, Model 5054-R can be deployed globally. Operators using 5.25 and 5.725, 5.85, 5.95 GHz frequency can reduce spare inventories
5MHz CHANNEL SUPPORT	Increase the number of non-overlapping frequency plans to 80+ in 5 GHz and 13 in 2.4 GHz
10 MHz CHANNEL	Increase the number of frequency plans to 40+ non-overlapping in 5 GHz and 13 overlapping in 2.4 GHz
<b>SECURE &amp; EASY TO MANAGE</b>	
HIGHLY SECURE COMMUNICATION	Unlike the 802.11a/b/g standards, as a proprietary protocol, WOPR eliminates the possibilities of unauthorized snooping
INTER-RADIO AUTH	Mutual authentication embedded in WOPR protocol mitigates man-in-the-middle attacks
STRONGEST ENCRYPTION	Over the air transmission is encrypted using 128-bit AES
FLEXIBLE BANDWIDTH	Bi-directional bandwidth rate limiting allows service providers to offer tiered services; service can be provisioned instantly from the central office, without costly truck rolls
REMOTE MANAGEMENT	Supports flexible and secure remote management via Telnet, SNMP and web interfaces, with password protections
ANTENNA ALIGNMENT TOOL	Audible tone, visual aids via LEDs, and CLI with running statistics displaying real-time signal strength ease antenna installation
COMPREHENSIVE STATION STATISTICS	Unit and group statistics are available for monitoring, planning and management of a wireless network
<b>INTERFACES</b>	
WIRED ETHERNET	10/100Base-TX Ethernet (RJ-45)
WIRELESS PROTOCOL	WOPR
<b>RADIO &amp; TRANSMISSION SPECS</b>	
MODULATION METHOD	OFDM
FREQUENCY BANDS	
MODEL 5054-R	Americas (FCC): 5.25-5.35 GHz (15 channels) Americas (FCC): 5.725-5.850 GHz (21 channels) Europe (ETSI): 5.47-5.725 GHz (46 channels) Europe (Russia): 5.15-5.950 GHz (82 channels) Europe (Licensed in the UK): 5.725-5.850 GHz (21 channels)
MODEL 2454-R	Americas (FCC): 2.4-2.4835 GHz (13 channels) Europe (ETSI): 2.4-2.4835 GHz (13 channels) Japan (MCK): 2.4-2.497 GHz (14 channels)
MODEL 5054-R-LR	Americas (FCC): 5.25-5.35 GHz (15 channels) Americas (FCC): 5.725-5.850 GHz (21 channels) Europe (ETSI): 5.47-5.725 GHz (46 channels) Europe (Russia): 5.15-6.08 GHz (82 channels) Europe (Licensed in the UK): 5.725-5.850 GHz (21 channels)
DATA RATE	54, 48, 36, 24, 18, 12, 9, 6, 4.5, 3, 2.25, 1.5 Mbps
<b>PHYSICAL SPECS</b>	
DIMENSIONS	
PACKAGED	22.5 x 15.5 x 14.75 in (571 x 394 x 375 mm)
UNPACKAGED	12.6 x 12.6 x 3.5 in (320 x 320 x 89 mm)
WEIGHT	
PACKAGED	35 lbs (15.9 kg)
UNPACKAGED	6 lbs (2.72 kg)
<b>ENVIRONMENTAL SPECS</b>	
TEMPERATURE	
OPERATING	-33° to 60°C (-27.5° to 140° Fahrenheit)
STORAGE	-55° to 80°C (-41° to 176° Fahrenheit)
HUMIDITY	
OPERATING	Max 100% relative humidity (non-condensing)
STORAGE	Max 100% relative humidity (non-condensing)
WATER AND DUST PROOF	IP67
<b>ELECTRICAL (POWER INJECTOR)</b>	
INPUT	Voltage 110 to 250 VAC
OUTPUT	Current 420mA at 48V
POWER CONSUMPTION	Maximum 20 Watt
POWER OVER ETHERNET	Via RJ-45 Ethernet interface port
<b>MANAGEMENT</b>	
LOCAL	RS-232 serial (RJ11 and DB-9)
REMOTE	Telnet, Web GUI, TFTP
SNMP	SNMPv1/v2; MIB-II ; Ethernet-like MIB; Bridge; MIB; 802.3MAU; 802.11 MIB; Private MIB; ORINOCO MIB; RFC 1157; RFC 1213; RFC 1643; RFC 1493; RFC 2668
<b>MTBF AND WARRANTY</b>	100,000 hours; 1-year on parts and labor
PACKAGE CONTENTS	<ul style="list-style-type: none"> <li>■ Tsunami QuickBridge.11 Model 2454-R, 5054-R, or 5054-R-LR Radios with Integrated Antennas (Qty 2)</li> <li>■ Sets of wall/ pole mounting brackets (Qty 2)</li> <li>■ Power Injectors for 2454-R and 5054-R (Qty 2)</li> <li>■ Country Specific Power Cords (Qty 2)</li> <li>■ Ethernet Cable Weather-Proof Plugs (Qty 2)</li> <li>■ Documentation</li> <li>■ Software CD-ROM</li> </ul>
<b>CPN INFO</b>	5054-QB-LR-US, 5054-QB-LR-WD, 5054-QB-US, 5054-QB-EU, 5054-QB-UK, 2454-QB-US-WORLD
<b>RELATED PRODUCTS</b>	TsunamiMP.11 2454-R, 5054-R, 5054-R-LR, ORINOCO Outdoor Mesh AP- 4000MR(-LR) and AP-4900MR-LR, Power Over Ethernet (PoE) Spare Power DC Injector for TsunamiMP.11 or QB.11 (-R model ONLY) (P/N #: 69823), ServPak for Enhanced Support, Worldwide Extended Warranty

## APPLICATIONS

- Backhaul to a Central POP**  
 Avoid expensive installation and recurring charge of a second wireline backhaul to a remote virtual POP
- Leased Line Redundancy**  
 Eliminate recurring DS-3 leased line charges with one time installation charge of a QuickBridge.11 link
- Repeater**  
 Extend distance or overcome path blockage by adding point to point hops
- High-bandwidth Last Mile Access**  
 Use QuickBridge.11 to deliver TLS (Transparent LAN Services) to corporate parks
- Inter-POP Redundancy**  
 Avoid downtimes caused by a wireline backhaul failure by adding a QuickBridge.11 link as inter-POP redundancy

For detailed technical specifications, please go to <http://proxim.com/products/ptpwireless-backhaul/tsunamir-quickbridge11-series>

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