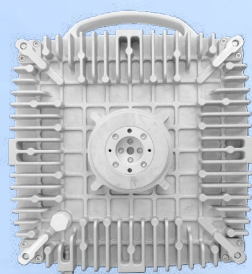


Tsunami[®] GX-824



Product Snapshot

The GX-824 series is a carrier-grade 24 GHz unlicensed point to point microwave backhaul solution that delivers up to 1.8 Gbps.

With a capacity of up to 900 Mbps full duplex (1.8 Gbps aggregate), hitless ACM, and modulation schemes up to 1024QAM, the GX-824 offers an excellent alternative to 60 and 80 GHz millimeter wave links when high performance over a greater distance is needed.

- 3.5 to 112 MHz channels
- Up to 900 Mbps
[660 Mbps in the USA and Canada]
- 1.8 Gbps for 2+0 configuration
[1.32 Gbps for the USA and Canada]
- Two Gigabit Ethernet + one SM/MM fiber interface
- Modulation type QPSK to 1024 QAM
- Hitless adaptive coding & modulation

Ethernet

- QoS support (VLAN p-bit / DSCP / port priority)
- Full support of VLAN and QinQ (802.1Q, 802.1ad)
- Two independent Ethernet lines through radio link
- All-Outdoor design with 1, 2, 3 or 4 foot antennas (30, 60, 90 or 120 cm)
- Ethernet port auto shutdown if the radio link is lost

Management

- Dedicated GX-824 Manager
- SNMP protocol
- WEB interface
- Command line interface
- Independent diagnostic channel
- System configuration 1+0, 1+1 or 2+0

Applications

- Local / Metropolitan / Wide area networks
- IPTV distribution
- Multimedia applications
- Service Provider Backhaul

Specifications

PRODUCT MODELS

GX-824-SM-LNK-A30	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + SM Fiber, 1 ft – 30 cm antenna	PN: 952-00315
GX-824-MM-LNK-A30	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + MM Fiber, 1 ft – 30 cm antenna	PN: 952-00316
GX-824-SM-LNK-A60	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + SM Fiber, 2 ft – 60 cm antenna	PN: 952-00317
GX-824-MM-LNK-A60	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + MM Fiber, 2 ft – 60 cm antenna	PN: 952-00318
GX-824-SM-LNK-A90	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + SM Fiber, 3 ft – 90 cm antenna	PN: 952-00319
GX-824-MM-LNK-A90	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + MM Fiber, 3 ft – 90 cm antenna	PN: 952-00320
GX-824-SM-LNK-A120	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + SM Fiber, 4 ft – 120 cm antenna	PN: 952-00321
GX-824-MM-LNK-A120	Tsunami GX-824 Link, 920 Mbps FD, Gigabit Eth + MM Fiber, 4 ft – 120 cm antenna	PN: 952-00322

INTERFACES

ETHERNET	Two Gigabit Ethernet 1000Base-T (RJ45) Auto MDIX ports with 10k jumbo frame support One Optic Fiber 1000Base-SX / 1000Base-LX / 1000Base-BX port
MANAGEMENT	Diagnostic channel with Ethernet / RS-232 interface Antenna alignment voltage (BNC)
ANTENNA (ODU)	Integrated with the ODU

RADIO & TX SPECS

MODULATION	QPSK, 8PSK, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 1024QAM with Hitless adaptive coding & modulation (ACM)
FREQUENCY BANDS	Frequency Range 24.000 to 24.250GHz [24.050 to 24.250 in the USA and Canada]
CHANNEL BANDWIDTH	Wideband support. Configurable from 3.5 to 112 MHz [3.5 to 80 MHz for the USA and Canada]
TX POWER	From -27 to +5 dBm
TX POWER CONTROL	Automatic Transmit Power Control (ATPC)

	40 MHz				20 MHz			
TX POWER (dual RF)	MCS0: 28 dBm				MCS0: 29 dBm			
	MCS9: 22 dBm				MCS9: 25 dBm			
RX SENSITIVITY (Per=10%)	MCS0: -93 dBm				MCS0: -94 dBm			
	MCS9: -71 dBm				MCS9: -74 dBm			
THROUGHPUT (RFC 2544)	Up to 324 Mbps				Up to 134 Mbps			
OTHER	Dynamic Channel Selection (DCS) based on interference detection, Dynamic Frequency Selection (DFS) based on radar signature, Automatic Transmit Power Control (ATPC) with EIRP limit support							
	Channel Size (MHz)	3.5 MHz	7 MHz	14 MHz	28 MHz	56 MHz	80 MHz	112 MHz
RX SENSITIVITY	QPSK	-94	-91	-88	-85	-83	-81	-79
	8PSK	-91	-88	-85	-81	-79	-77	-75
	16QAM	-88	-85	-82	-78	-76	-75	-73
	32QAM	-84	-82	-79	-75	-73	-71	-69
	64QAM	-81	-79	-76	-72	-70	-68	-66
	128QAM	-78	-76	-73	-69	-67	-65	-63
	256QAM	-75	-73	-70	-66	-64	-62	-60
	512QAM	-71	-70	-67	-64	-60	-58	-56
	1024QAM	-68	-68	-63	-60	-57	-54	-52
ERROR CORRECTION	Reed-Solomon FEC and Convolutional Interleaver							
FREQUENCY STABILITY	< 10 ppm							

MANAGEMENT

LOCAL	RS-232 interface
REMOTE	Proprietary GX-824 Manager, telnet (CLI)
SNMP	SNMP v1, Enterprise MIB
OTHER	Spectrum analyzer

SECURITY

ENCRYPTION	AES 256 bits
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ANTENNAS OPTION

1 foot – 30 centimeters, 35.5 dBi
2 foot – 60 centimeters, 41 dBi
3 foot – 90 centimeters, 44 dBi
4 foot – 120 centimeters, 46 dBi

QoS

4 queues based on physical port, 802.1p tag or IP DiffServ

POWER

POWER INPUT	48 VDC (support from 36 to 72 VDC)
MAX POWER CONSUMPTION	Up to 27 W

NETWORK

MODES	
CONFIGURATION SCHEME	1+0, 1+1 SD/FD (protected) or 2+0 (true aggregate)
THROUGHPUT CAPACITY	D900 Mbps full duplex (1800 Mbps true aggregate) [660 Mbps full duplex (1320 Mbps true aggregate) in the USA and Canada]
LATENCY	< 90 μ s @ 900 Mbps
VLAN	802.1Q (4096 VLAN IDs) and QinQ

ENVIRONMENTAL SPECS	OPERATING TEMPERATURE	RELATIVE HUMIDITY	IP RATING	WIND LOADING
	-31 to +131 °F (-35 to +55°C)	100%	IP65	70 Mph (112 km/h) Operational, 125 Mph (200 km/h) Survival

PHYSICAL SPECS

DIMENSIONS	5.2 x 10 x 11.8 in. (133 x 255 x 301 mm)
WEIGHT	11.2 lbs (5.1 kg) without antenna

PACKAGE CONTENTS

- Two Tsunami® GX-824 ODU
- Two antennas
- Two Mounting Kits
- One Quick Installation Guide

OPTIONS

GX-824-PSU-ACDC	110 – 220 VAC to -48 VDC Power Supply Unit for GX-824	PN: 949-00130
GX-824-POEINJ	Surge Protected PoE injector (-48 VDC input) for GX-824	PN: 949-00131
GX-824-CAP-SM	SM Fiber weatherproofing cap for GX-824	PN: 949-00136
GX-824-CAP-MM	MM Fiber weatherproofing cap for GX-824	PN: 949-00137

MTBF & WARRANTY

2 year parts and labor. ServPak Extended Support available

ABOUT PROXIM WIRELESS:

Proxim Wireless is a global leader in advanced wireless broadband and WiFi solutions that deliver high performance and high availability communications. Celebrating 40 years of pioneering wireless solutions, Proxim is recognized for unparalleled reliability, superior performance, and drive for innovation.

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