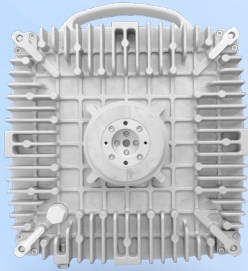


Tsunami[®] GX-824



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

Applications

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

Management

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

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 | |
| | 1024QAM | -71 | -70 | -67 | -64 | -60 | -58 | -56 | |
| 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 |
|------------|--------------|

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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