About Proxim Wireless

Proxim Wireless is a pioneer and global leader in advanced Wi-Fi, point to point, and point to multipoint outdoor wireless systems that deliver high performance and high availability communications. With over 30 years of wireless experience, Proxim is recognized for its unparalleled reliability, superior performance and drive for innovation.

Ultra high performance backhaul delivering up to 1.8 Gbps

Tsunami® GX-824, is a very high throughput, extremely reliable and cost-effective, all outdoor unlicensed point-to-point (PtP) microwave solution operating in the 24 GHz band. With its capacity up to 900 Mbps full duplex (1.8 Gbps aggregate), hitless ACM and modulation schemes up to 1024QAM, Tsunami® GX-824 brings new dimension to microwave links market and can be used as adequate alternative to 60 and 80 GHz millimeter wave links.

Features

- 24 GHz Unlicensed Frequency bands
- 3.5 to 112 MHz channels
- Transmission capacity up to 900 Mbps [660 Mbps in the USA and Canada due to regulatory constraints]; 1.8 Gbps for 2+0 configuration [1.32 Gbps for the USA and Canada]
- Two Gigabit Ethernet + one SM/MM fiber interfaces
- Jumbo packets up to 10,240 Bytes
- Modulation type QPSK to 1024 QAM
- Hitless adaptive coding & modulation
- Forward error correction (FEC)
- Automatic TX power control (ATPC)
- All-Outdoor design with 1, 2, 3 or 4 foot antennas (30, 60, 90 or 120 cm)
- Full overvoltage protection of ODU unit

Applications

- Local / Metropolitan / Wide area networks
- IPTV distribution
- Multimedia applications
- Last miles

Management

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

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
- Ethernet port shutdown when the radio link is bad

Surge Protected PoE Injector - GX-824-POEINJ

- Full overvoltage protection
- DIN rail or rack mount compatible
- Compact 1U rack unit for 3 injectors
- GX-824-POEINJ surge protected PoE injector and GX-824-PSU-ACDC 48 VDC power supply are not included in with link (to be ordered separately)
Specifications

PRODUCT MODELS | PART NUMBERS
--- | ---
GX-824-SM-LNK-A30 | 952-00315
GX-824-MM-LNK-A30 | 952-00316
GX-824-SM-LNK-A60 | 952-00317
GX-824-MM-LNK-A60 | 952-00318
GX-824-SM-LNK-A90 | 952-00319
GX-824-MM-LNK-A90 | 952-00320
GX-824-SM-LNK-A120 | 952-00321
GX-824-MM-LNK-A120 | 952-00322

INTERFACES

ETHERNET
Two Gigabit Ethernet 1000Base-T (RJ45) Auto MDIX ports with 10k jumbo frame support

MANAGEMENT
One Optic Fiber 1000Base-SX / 1000Base-LX / 1000Base-BX port

ANTENNAS (ODU)
Antenna alignment voltage (BNC)

INTEGRATED WITH THE ODU

RADIO & TX SPECS

MODULATION
QP5K, 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]
Wideband support. Configurable from 3.5 to 112 MHz [3.5 to 80 MHz for the USA and Canada]

CHANNEL BANDWIDTH
From -27 to +5 dBm

TX POWER
Automatic Transmit Power Control (ATPC)

TX POWER CONTROL

RX SENSITIVITY

<table>
<thead>
<tr>
<th>Rate</th>
<th>3.5 MHz</th>
<th>7 MHz</th>
<th>14 MHz</th>
<th>28 MHz</th>
<th>56 MHz</th>
<th>80 MHz</th>
<th>112 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>QPSK</td>
<td>-94</td>
<td>-91</td>
<td>-88</td>
<td>-85</td>
<td>-83</td>
<td>-81</td>
<td>-79</td>
</tr>
<tr>
<td>8PSK</td>
<td>-91</td>
<td>-88</td>
<td>-85</td>
<td>-81</td>
<td>-79</td>
<td>-77</td>
<td>-75</td>
</tr>
<tr>
<td>16QAM</td>
<td>-88</td>
<td>-85</td>
<td>-82</td>
<td>-78</td>
<td>-76</td>
<td>-75</td>
<td>-73</td>
</tr>
<tr>
<td>32QAM</td>
<td>-84</td>
<td>-82</td>
<td>-79</td>
<td>-75</td>
<td>-73</td>
<td>-71</td>
<td>-69</td>
</tr>
<tr>
<td>64QAM</td>
<td>-81</td>
<td>-79</td>
<td>-76</td>
<td>-72</td>
<td>-70</td>
<td>-68</td>
<td>-66</td>
</tr>
<tr>
<td>128QAM</td>
<td>-78</td>
<td>-76</td>
<td>-73</td>
<td>-69</td>
<td>-67</td>
<td>-65</td>
<td>-63</td>
</tr>
<tr>
<td>256QAM</td>
<td>-75</td>
<td>-73</td>
<td>-70</td>
<td>-66</td>
<td>-64</td>
<td>-62</td>
<td>-60</td>
</tr>
<tr>
<td>512QAM</td>
<td>-71</td>
<td>-70</td>
<td>-67</td>
<td>-64</td>
<td>-60</td>
<td>-58</td>
<td>-56</td>
</tr>
<tr>
<td>1024QAM</td>
<td>-68</td>
<td>-65</td>
<td>-63</td>
<td>-60</td>
<td>-57</td>
<td>-54</td>
<td>-52</td>
</tr>
</tbody>
</table>

ERROR CORRECTION

Reed-Solomon FEC and Convolutional Interleaver

FREQUENCY STABILITY
< 10 ppm

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

MANAGEMENT

LOCAL
RS-232 interface

REMOTE
Proprietary GX-24 Manager, telnet (CLI)

SNMP
SNMP v1, Enterprise MIB

OTHER
Spectrum analyzer

SECURITY

ENCRYPTION
AES 256 bits

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

NETWORK

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

THROUGHPUT CAPACITY
900 Mbps full duplex

LATENCY

VLAN

POWER

POWER INPUT
48 VDC (support from 36 to 72 VDC)

MAX POWER CONSUMPTION
Up to 27 W
<table>
<thead>
<tr>
<th>ENVIRONMENTAL SPECS</th>
<th>OPERATING TEMPERATURE</th>
<th>RELATIVE HUMIDITY</th>
<th>IP RATING</th>
<th>WIND LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-31 to +131 °F</td>
<td>100%</td>
<td>IP65</td>
<td>70 Mph (112 km/h) Operational, 125 Mph (200 km/h) Survival</td>
</tr>
<tr>
<td></td>
<td>(-35 to +55°C)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>OPTION</th>
<th>PART NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>GX-824-PSU-ACDC</td>
<td>949-00130</td>
</tr>
<tr>
<td>GX-824-POEINJ</td>
<td>949-00131</td>
</tr>
<tr>
<td>GX-824-CAP-SM</td>
<td>949-00136</td>
</tr>
<tr>
<td>GX-824-CAP-MM</td>
<td>949-00137</td>
</tr>
</tbody>
</table>

**MTBF & WARRANTY**

2 year parts and labor. ServPak Extended Support available

© 2020 Proxim Wireless Corporation. All rights reserved. Proxim is a registered trademark and the Proxim logo and Tsunami® are trademarks of Proxim Wireless Corporation. All other trademarks mentioned herein are property of their respective owners. Specifications are subject to change without notice.