



## GIGAHERTZ PLUS Connectorized

### POINT-TO-POINT MIMO HI-SPEED BACKHAUL

- Over the air data rates: 802.11 a/n (up to 300Mbps) with REAL 165Mbps aggregate throughput
- 5GHz—802.11a/n—5150-5250MHz, 5725-5825 Mhz
- SNMP V1, V2c, V3 Support
- Outstanding sensitivity with enhanced filtering
- Orthogonal Frequency Division Multiplexing (OFDM)
- Software Updates via HTTP.
- GPS-sync ready (hardware required: Memorylink Ultrasync-GPS-100C)
- Perfect for ISP backhaul, enterprise and municipal connectivity, IP video backhaul, leased line replacement and “last mile” dedicated connection solutions (TDM, IP or both)

# GIGAhertz PLUS™

## THE SMART CHOICE FOR 2x2 MIMO WIRELESS BACKHAUL

Designed to withstand the toughest environments, the Gigahertz Plus GHR5012PAE is the ideal MIMO IP backhaul alternative.

It is designed for operators faced with the challenge of minimizing both capital expenditure and operating expense. Optimized for Hi-Speed Outdoor Backhaul Links. Operating in the 5GHz unlicensed bands, it offers outstanding performance, and excels in the radio-dense environments that many of us face today. Gigahertz delivers REAL 165 Mbps aggregate; over the air peak of 300Mbps. This flexible, reliable IP backhaul radio delivers substantial cost savings compared licensed microwave, leased line alternatives, and other unlicensed products.

Backhaul is one of the largest expenses in operating a network, driving all carriers to look for new strategies. The Gigahertz Plus offers a compelling value proposition, with payback measured in months when compared to leased-line alternatives. It's ideal for carriers on a path to expansion and enhancement, with the scalability and flexibility to grow with the network.

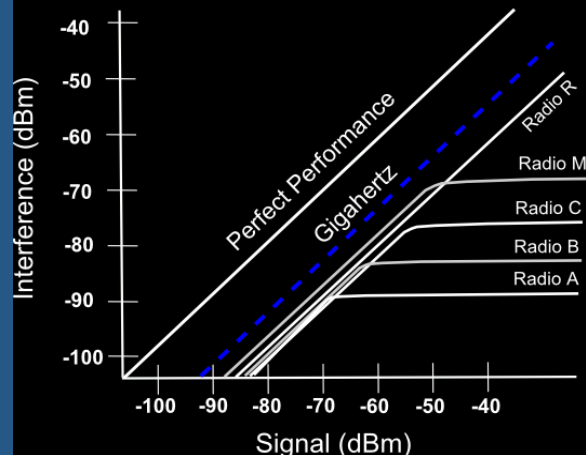
Unlike most competing unlicensed backhaul offerings, which were designed strictly for non-time-critical IP application, the Gigahertz Plus offers rock-solid timing, capacity, and reliability. This makes it ideal for the delivery of telephony and other time-critical traffic. When used in conjunction with Memorylink's Flanger™ TDM over IP multiplexer, it provides a uniquely cost-effective solution for both data and voice networks.

### GIGAHERTZ PLUS AT A GLANCE

Secure, reliable 2x2 MIMO point-to-point links over unlicensed 5GHz microwave

- Ultimate in performance : High throughput—Low latency
- GPS-sync ready
- Small, light and rugged wireless IP radio
- Single unit can be configured as either master or slave
- Easy to configure via an integrated web interface
- Integrated audio alignment indicator for easy installation
- Firmware optimized for synchronous point-to-point traffic
- ideally matched wireless link for Memorylink's Flanger™ series of TDM to IP multiplexers
- Rugged IP-67 rated waterproof aluminum housing
- Companion—14 dBi antenna available.
- Includes wall and pole mount hardware

### Performance In Interference



# GIGAHERTZ PLUS SPECIFICATIONS

## Specifications

### Radio Parameters

<b>Frequencies of operation</b>	IEEE 802.11 a/n MIMO 5150-5250MHz, 5725-5825 MHz
<b>Data Rates</b>	Legacy 802.11a(6-54Mbps), 802.11n (up to 300Mbps)
<b>Tx Channel Width Support</b>	20MHz, 40MHz
<b>Nominal Average Max Transmitter Output</b>	25 dBm
<b>Range (antenna dependant)</b>	over 50km
<b>Security</b>	802.11i with AES-CCM Encryption, 802.1x, 64/128 bit WEP
<b>Receiver Sensitivity</b>	-97dBm (@6Mbps) -84dBm(@52Mbps) -76dBm(@300Mbps)
<b>Maximum Sustainable Throughput</b>	165 Mbps (measured with iPerf)
<b>GPS-Sync Ready</b>	Sync over CAT5 with Memorylink UltraSync GPS-100C

### Data and Operational Parameters

<b>User Interfaces</b>	Local and remote Web interface, Command Line Interface via SSH (Secure Shell)		
<b>Physical Interfaces / Standards</b>			
<b>WAN (Power over CAT5)</b>	Ethernet - RJ45, waterproof quick disconnect		
<b>Antenna</b>	2x2 MIMO Operation - 2 x Waterproof 50 Ohm female type-N antenna connector		
<b>Ground</b>	Chassis ground screw terminal connector		
<b>Mounting Hardware</b>	Wall mount bracket, Pole-top bracket and u-bolts for up to 2" pole		
<b>Enclosure</b>	NEMA 67 rating (providing complete protection against ingress of dust[6] as well as protection against immersion in water[7]).		
<b>Ethernet</b>	IEEE 802.3, 802.3u (10/100), 802.11i		

### Environmental

Environmental		Physical	
<b>Operating Temperature</b>	-40°C to +60°C	<b>Housing</b>	Die Cast Aluminum
<b>Storage Temperature</b>	-40°C to +85°C	<b>Dimensions</b>	Height 5.9 in (151 mm) x Width 8.3in (211 mm)
<b>Humidity</b>	95% (non-condensing)		Depth 1.8in (45 mm)
<b>Passive Cooling</b>	No Fan	<b>Weight</b>	2.6 lbs (1.8 Kg) not incl. mounting hardware

### Power Parameters

Power Parameters		Model Numbers	
<b>Power</b>	12 - 56 volts	<b>Memorylink Part Number: GHR5012PAE</b>	
<b>Max cable length</b>	Ethernet standard : 328 feet (100 meters) on 24AWG STP Cat5 cable		
<b>Power Input</b>	7 watts (typical) 12 watts (maximum)		

### Regulatory

FCC Part 15, Subpart J, Class A - Radio: FCC , Industry Canada, CE  
 Restriction of Hazardous Substances - RoHS Directive 2002/95/EC Compliant

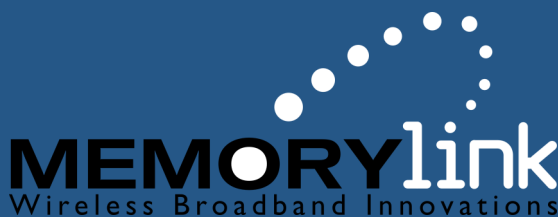
All Specifications are typical and subject to change without notice.



**Companion 14dBi Antenna x2. 2x2**  
 MIMO requires 2 antennas.  
 Memorylink part # ANT514

\* Legal regulations for specific frequencies vary - users are responsible for complying with their region's regulations.

Please check with your Memorylink distributor or check our website or call for part numbers.



590 Tollgate Rd. Ste B Elgin, IL 60123  
 847.259.9680 www.memorylink.com