

Memorylink Gigahertz GHR5000

Internet Service Provider – Unwired, LLC



CASE STUDY

GIGA hertz™

ABOUT GIGAHERTZ

- 54Mbps OFDM Wireless Ethernet Bridge
- 5GHz—Quad band UNII-1, UNII-2, UNII-3 and UNII-4 (ISM) with full 802.11h, DFS2 support.
- Outstanding sensitivity with enhanced filtering
- User-selectable data rates; 6, 9, 12, 18, 24, 36, 48 and 54
- Orthogonal Frequency Division Multiplexing (OFDM)
- Perfect for ISP backhaul, enterprise and municipal connectivity, IP video backhaul, leased line replacement and “last mile” dedicated connection solutions (TDM, IP or both)

Quad-Band Wireless Backhaul Cuts Through the 5GHz Clutter with Excellent Ping Times, Signal Reliability

Even before Memorylink’s new 5GHz Ethernet bridge radio was available publicly, it couldn’t have come at a better time for Larry Barnes, owner of Unwired, LLC, www.unwired-isp.com, an Internet Service provider serving western Lake County in northern Illinois.

One weekend in March 2010, Unwired’s main backhaul link went down due to a hardware failure. The link, which transmitted data across both 5.2GHz and 5.8GHz, connected one radio on the roof of a condominium in Mundelein to the other radio on a 240-foot tower in Hawthorn Woods, about five miles away. The outage was affecting Unwired’s newly installed customer base.

It was one of those frustrating moments for an ISP owner. “I had a set of 5.7GHz radios in stock so I put them up. We soon found that the noise floor was too high and we couldn’t get any throughput” said Barnes. He called Memorylink, which sent two engineers to Mundelein to demonstrate its new Gigahertz GHR5000 radio that the company was about to introduce into the wireless broadband market.



MEMORYlink
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“Because our radio can go anywhere from 5.2GHz to 5.8GHz, we felt it would be an asset to Unwired in this critical situation,” said Kevin Kroc, Memorylink’s Manager of Technical Solutions. “We mounted a pair with Unwired’s antennas and set them in the 5.5 GHz range and they’ve been running solid ever since.”

GHR5000 is a 5GHz quad-band, point-to-point OFDM wireless Ethernet bridge that is capable of transmitting continuous throughput of 54Mbps. The Gigahertz radio is capable of operating in the UNII-2 and the UNII-3 bands that require 802.11h and DFS2. Unlike most competing unlicensed backhaul offerings, which are designed strictly for non-time-critical IP application, the GHR5000 offers rock-solid timing, capacity, and reliability. This makes it ideal for the delivery of telephony and other time-critical traffic.

For Barnes, this was the first time Unwired was going to deploy a Memorylink product. “I wasn’t sure how it would work,” said Barnes. “Since the deployment, the signal is excellent (-62dBm) and the ping times are the best I’ve ever seen. Best of all, we’ve never lost the link.”

The quad-band GHR5000 operates in the UNII-1, UNII2, UNII-3 and UNII-4 (ISM) bands. It is an ideal backhaul solution for carriers on a path to expansion and enhancement, with the scalability and flexibility to grow with the network. “The price points on these radios offer a compelling value proposition and would be a great enhancement for ISP backhaul, enterprise and municipal connectivity, IP video backhaul, leased line replacement and last mile dedicated connection solutions (TDM, IP or both),” said Barnes.



About Memorylink

Memorylink is a leader in the development of wireless voice, video, and data technologies, delivering innovative solutions in a cost-effective, reliable, and simple fashion. Memorylink’s portfolio of products, which now includes IP radios, add functionality and performance improvement to wireless networks with solutions for T1/E1 connectivity, including PCS and PBX backhaul and network optimization. These products, which can be integrated with most major manufacturer’s radio and telecom equipment, provide major advantages in rural areas and in developing countries where the availability of wired infrastructure is limited.

Important URLs

- <http://www.memorylink.com>
- <http://www.unwired-isp.com>



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