

MultiHaul™ PTMP Radio Datasheet



Multi-Gigabit Throughput in an Always-On Point-to-Multipoint Radio

MultiHaul™ is a PTMP multi-gigabit radio operating over millimeter waves. It brings the advantages of mmW – multi-gigabit capacity, immunity to interference and always-on reliability - to a cost effective small form factor PTMP solution. MultiHaul™ is a plug & play system designed to easily scale, taking advantage of patent-pending scanning antennas that auto-align links, as well as robust planning and management tools.

A Wide Range of Applications

- Security / Safe City Networks
- Gigabit to the Home
- Smart City
- Business Services
- Wi-Fi Backhaul

Physically Immune Narrow Beams

MultiHaul™ units operate over the millimeter wave spectrum using narrow beams. This confers several advantages including complete immunity to interference and network jamming, as well as high security. In contrast to wide-beam wireless systems that need to use multiple strategies to perform in dense areas, and are not successful 100% of the time, MultiHaul™ is inherently interference-free and secure under any circumstances because of its use of a unique combination of narrow beams and high frequencies.

An Ocean of Spectrum

The MultiHaul™ takes advantage of large millimeter wave spectrum and wide channels in order to bring multi-gigabit capacity to a PTMP system with a single Base Unit and up to 8 Terminal Units. With its extremely high reuse factor, the wide spectrum is available anywhere, even in dense urban areas and challenging deployment scenarios.

Ready-Set Go

The plug and play system is designed for an easy single person installation. The patent-pending scanning antenna automatically aligns with the Base Units. For buildings with difficult roof-top access, a single base unit needs to be installed on a roof to serve multiple locations. The Terminal Units can be located on building sides with no need for internal re-wiring of buildings to achieve net gigabit throughput.

Always-On Mission Critical Networks

When you can't afford to lose a video stream, critical safe city sensor data or any other mission critical data, you need to use a wireless network that's as reliable and secure as fiber. With maximal immunity to interference and hacker-proof links with embedded AES encryption, MultiHaul™ delivers a network you can count on.

Very Large Scale Planning and Optimization

MultiHaul™ is available with robust network planning and optimization tools that help system integrators and large operators scale their networks fast and with low overhead.

Fiber Quality with Wireless Flexibility

Siklu's millimeter wave radios successfully combine the capacity of fiber with the flexibility, speed of deployment and low TCO of wireless networks. That's what makes them the world's best-selling millimeter wave radios every year since 2011. They provide rock solid performance, even under severe weather conditions, in thousands of networks around the globe.



MultiHaul™ Specifications



The main specifications of the MultiHaul™ Base Units (BU) and Terminal Units (TU) are outlined in the following table. Some specific details are part number dependent, and identified at the part number level in the ordering documents.

| | | BU | TU |
|-------------------------------------|--|------------|--------------------------------------|
| Topologies | Point to Multi-point Point to Point | ✓ | ✓ |
| Built-in Antenna | Horizontal scanning: 90° Vertical beam-width: 20° | ✓ | ✓ |
| Frequency & Duplexing | 57-64GHz | ✓ | ✓ |
| Channels & width | 2 non-overlapping channels, 2160MHz wide | ✓ | ✓ |
| Modulation & Coding | 9 level of adaptive coding and modulation | ✓ | ✓ |
| Line Rate (PHY) | Line rate up to (Mbps) | 2300 | 2300 |
| Aggregate Throughput ⁽¹⁾ | Max capacity (Mbps), license dependent | 1800 | 1000 |
| System Gain (link budget) | 125dB (including antenna gain) | ✓ | ✓ |
| Typical reach | 800 - 1000 ft (250 - 300m) | ✓ | ✓ |
| Interfaces | Up to 3x RJ-45 100/1000 Base-T | - | ✓ |
| | 2x RJ-45 100/1000Base-T + 1x SFP (supports 1GbE & 2.5GbE) | ✓ | - |
| Terminal Units (TU) | Up to 8 Terminal Units | ✓ | - |
| Ethernet Features | IEEE 802.1d transparent bridging VLAN & VLAN stacking Jumbo frames | ✓ | ✓ |
| Security | AES 128-bits | ✓ | ✓ |
| Management & Provisioning | Zero-touch turn up; In-band, out-of-band management Web GUI (one-click configuration of local and remote units) & Embedded CLI SNMPv2/3, TACACS+, RADIUS | ✓ | ✓ |
| Conformance | Radio: FCC Part 15.255 EMC: FCC 47CFR.part 15 Safety: UL 60950 | ✓ | ✓ |
| Power Supply | PoE, 10W (IEEE 802.3af) without PoE-Out, 50W with PoE-Out (IEEE 802.3at+) | ✓ | ✓ |
| PoE-Out | ETH2: 26W, 802.3at ETH3: 13W, 802.3af | ✓ (SFP) | ✓ ⁽²⁾ ✓ ⁽²⁾ |
| Environmental | Operating Temperature: -22°F ÷ 131°F (-30°C ÷ 55°C); Optional -49°F ÷ 131°F (-45°C ÷ 55°C) Ingress Protection Rating: IP65 (optional IP67) | ✓ | ✓ |
| Dimensions (HxWxD) | 7.5 x 5.2 x 3.5 in. | ✓ | ✓ |
| Weight | 3 lbs. (including mounting kit) | ✓ | ✓ |

¹ Actual throughput varies with traffic patterns to/from the Terminal Units
² On units with 3 ports