# MULTIHAUL™ TG TERMINAL UNIT T261

# Mini Form Factor for Terragraph deployments

The MultiHaul™ TG system marks the release of Siklu's 3rd generation point to multipoint 60GHz products, this one with Terragraph certification. The TG network solution consists of Nodes operating over millimeter waves in a redundant mesh topology which also connect to Terminal Units (TU). The T261, Siklu's mini TG TU, communicates to a MultiHaul TG Distribution Node using the TG protocol, acting as an end point in a fully meshed MH TG topology. The T261 is Siklu's latest TG TU and incorporates several features from its predecessors. The T261 is a compact and aesthetic Terminal Unit for the single-family home and other applications requiring gigabit performance in an easy to install form factor.

### A Wide Range of Applications

- Fixed 5G Wireless Access, Gigabit to the Home, the MDU and the Enterprise
- Wi-Fi Hotspot Backhaul
- Security / Safe City Networks
- Smart City Business Services, Municipal networks

### Small but Powerful

There can be no doubt that the smaller the TU is, the more options customers have for deployment. Typically, in wireless systems, going smaller means sacrificing performance. With the T261 Siklu has broken new ground delivering the full Gigabit in a form factor that is dramatically impressive with its smaller size.

## 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 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 TG delivers a network you can count on. With the mesh topology there are built in redundant paths for traffic if an outage occurs in a given link.

# Simple Integrated Future-safe Terminal Unit

Wireless infrastructure should be simple, and future proof. Organizations want to quickly deploy a single box across the target neighborhood, knowing that they have options to meet the interface requirements of any application. With a built-in software configured ethernet switch, the T261 Terminal Unit can address all your small form factor applications.

#### 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 is what makes them the world's best-selling millimeter wave radios every year since 2011. They provide rock solid performance, even in very dense networks or under severe weather conditions, in thousands of networks around the globe.

## Highly Secure and Physically Immune Beams

The narrow beamwidth confers several advantages including immunity to interference and network jamming. In contrast to wide-beam wireless systems that need to use multiple strategies to perform in dense areas. Multiple subscribers and services can be connected with complete isolation based on physical port, VLAN ID and/or a Terminal Unit.

#### Ready Set Go

The plug and play TU is designed for an easy single person installation. The patent-pending scanning antennas automatically aligns with serving Node(s). And with autoconnect no laptop or mobile device needed, the T261 allows plug and play deployment in a very short time.











60GHz Terminal Unit Radio - specifications

The main specifications of the MultiHaul TG T261 are outlined in the following table.

Topologies	Point to Multi-point, L2 SDN Mesh
Frequency & Duplexing	57-66GHz, TDD/TDMA, 4 channels.
Channel Bandwidth, Modulation & Adaptive Coding, TPC	2160MHz, BPSK to QAM16, up to 10 levels of hitless adaptive bandwidth, coding, and modulation – boost gain by over 29dB.  Automatic Transmit Power Control (ATPC).
Radio OTA Rate (over the air) / Throughput	OTA up to 4,600Mbps / Throughput up to 1 Gbps symmetric.
System Gain (link budget)	RF2 enabled, up to 128.5dB (Node to TU, including RF2 antenna gain). Please refer to Siklu SmartHaul™ Link Budget Calculator ( <a href="Ibc.siklu.com">Ibc.siklu.com</a> ) for radio link performance models.
Self-alignment scanning, mechanical adjustment	Horizontal scanning: 90°, Vertical scanning: ±12° / vertical elevation adjustment ±20°.
Network synchronization	To N36x/N265 nodes
Interface (data + power)	1x RJ-45 1GbE with PoE-In.
<b>Ethernet Features</b>	IEEE 802.1d transparent bridging, Provider bridge - VLAN & VLAN stacking.
Security	AES 128-bits OTA, GUI over HTTPS, CLI over SSH, IP-less operation.
Management & Provisioning	In-band, IP-less management, Web GUI (one-pane configuration of local and remote units) & Embedded CLI, NETCONF, SNMP.
Conformance	Radio: US FCC 47 CFR Part 15.255; EN 303 722, EMC: US FCC 47 CFR Part 15; EN 301 489, Safety: UL/IEC 62368-1; UL/IEC 60950-22.
Terragraph	Terragraph certified.
Power Supply	PoE-In (IEEE 802.3af/802.3bt class 3 or passive), 12.5W.
Environmental	Operating Temperature: -4° ÷ +131°F (-20° ÷ +55°C); Ingress Protection Rating: IP67.
Dimensions	$4.3 \times 6.2 \times 2$ in. / $108 \times 157 \times 52$ mm. (W x H x D), mounting kit not included.
Weight	3.4 lbs. / 1.7 Kg.
In the Box	Terminal unit with attached gland and mounting kit, metallic bands, indoor PoE power supply with AC cable, Quick Start Guide.



