

# EtherHaul™ 600 Series



## Street-level gigabit V-band radios

### Typical Applications

- Safe/Smart City Networks
- Business Broadband
- Wi-Fi Hotspot Backhaul
- Gigabit to the Home (GTTH)
- Small Cell Backhaul

### 1 Gigabit Throughput on the Street

The EtherHaul™-600 series delivers future-proof capacity to any street level application. Operating over the unlicensed 60GHz band, the palm-sized radio provides predictable and reliable connectivity, and is easily installed on any kind of street furniture.

### No Interference – Reliable Operations

The unlicensed 60GHz V-band spectrum is uncongested, even in dense urban areas. Characterized by pencil thin beams, V-band radios guarantee no interference and high reliability. The EH-600 series has 11 non-overlapping full-capacity channels that are user selectable. In addition, the non-linear high attenuation of the 60GHz spectrum is utilized for optimal matching of link length and selected channel. This results in unmatched frequency reuse capabilities, making it the most scalable solution on the market for dense deployments.

### World's Smallest 60GHz Radio

The palm-sized radio simplifies site acquisition, and is quickly installed on any kind of street furniture. The single box solution incorporates an integrated antenna and a GbE switch, with PoE-in and dual PoE-out. Easily cascade radios and power external devices like video surveillance cameras and Wi-Fi access points.

### Easiest Installation & Management

Any installer can deploy the EH-600, no telco expertise necessary. Physical installation with out-of-the-box 8-levels of QoS aware Ethernet services typically takes just 15 minutes. Optional advanced configuration is available via an intuitive web GUI, while additional services may be remotely activated from a NOC. An IPERF integrated TCP and UDP load tester streamlines commissioning and troubleshooting.

### Robust & Future-Proof

The all-weather IP-67 sealed radio guarantees carrier-grade performance under even the harshest weather conditions. The combination of high capacity and low latency, along with the integrated switch and extra ports enables deployment in ring, mesh or extended cascading, with fewer aggregation units needed. The EH-600 also incorporates Hitless Adaptive Bandwidth Coding and Modulation for high availability.

### Field Proven Technology

EtherHaul™ is the world's bestselling millimeter wave radio. Tens of thousands of units have been deployed and are performing reliably in varying weather conditions all over the globe. The EH-600 incorporates Siklu's integrated all-silicon technology, which increases reliability while reducing size and cost. The result is a palm sized radio with a proven 90-year MTBF and an unbeatable price/throughput.

### Optional Asymmetric Capacity Optimization

Both T and TX models, with their unique TDD duplexing, allows you to set-up asymmetric capacity configuration. Match your upload/download rates to your application and optimize use of spectrum, reduce power requirements and lower both CAPEX and OPEX.

### Streamline Operations with Carrier Ethernet & Synchronization

The EH-600 has MEF-compliant integrated Carrier Ethernet switch that streamlines operations with configurable bandwidth-aware QoS, service management and OAM. For mobile operators, optional built-in synchronization with Sync-E and 1588v2 ensures smooth performance over packet based backhaul networks.

### Exceptional Value

With minimal deployment costs and virtually no maintenance, the EH-600 series minimizes Total Cost of Ownership (TCO) and provides a Return On Investment (ROI) often measured in months, providing an unbeatable price/Mb. A single part number supports both 57-64GHz and 64-66GHz sub-bands, reducing TCO further, while benefiting from extended range achievable with the 64-66GHz spectrum



# EtherHaul™ 600 Series Specifications



		EH-600TX	EH-600T
Frequency & Duplexing	57-66GHz, TDD	✓	✓
Channels	125/250/500MHz wide, 11 non-overlapping channels	✓	✓
Modulation & Adaptive rate	5 level of hitless adaptive bandwidth, coding and modulation - boost gain by up to 25dB	Up to QAM 64	Up to QAM 64
Throughput [Mbps]	Aggregated throughput up to	1000	1000
Link budget (BER=10 <sup>-6</sup> )	Including integrated 36dBi antenna gain	162dB	162dB
Interfaces	3xGbE copper ports	✓	✓
Ethernet features	IEEE 802.1d transparent bridging VLAN & VLAN stacking, 4K VLANs MEF 9, 14 and 21 compliant Ethernet services Smart Pipes Transparent Ports Mode Link aggregation: LAG and LACP (IEEE 802.3ad) Ethernet Ring Protection Switching: ITU-T G.8032 ERPS Link state propagation 16KB Jumbo frames Configurable QOS-aware forwarding 8 level H-QoS with multi mapping options: L2: 802.1p, VLAN id., L2½: MPLS EXP, L3: DSCP	✓	✓
Timing	Synchronous Ethernet and 1588v2 TC	-	✓
Encryption	AES 128-bit and 256-bit	✓	✓
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 Link OAM & Connectivity Fault Management (CFM): IEEE802.3ah & IEEE802.1ag; performance monitoring: ITU-T Y.1731 IPERF TCP/UDP capacity tester	✓	✓
Topologies	Ring, daisy-chain, mesh	✓	✓
Conformance	Radio: FCC Part 15.255, ETSI EN 302 217-3 & UK IR 2078 & IR 2000; EMC: USA FCC 47CFR, part 15 & ETSI EN 301 489; Safety: UL/EN 60950	✓	✓
Power supply	PoE+ (IEEE 802.3at), 26W without PoE-Out; up to 78W with PoE-Out	✓	✓
PoE-Out	Port 2 and Port 3 (IEEE 802.3at): 26W+26W / 13W+40W / 50W+0W	✓	✓
Environmental	Operating Temperature: -45° to +55°C (-49° to +131°F) Ingress Protection Rating: IP67	✓	✓
Dimensions	ODU + 0.5ft antenna: 5.9" x 6.1" x 3.5" (16.5 x 16.5 x 10cm)	✓	✓
Weight	ODU + 0.5ft antenna: 3.9 lbs. (1.8 kg)	✓	✓