



## EtherHaul™-600 Small Cell Wireless Backhaul

### Small Size at a Small Price

Stepping up to the challenge, Siklu has leveraged its disruptive all-silicon radio technology to design the EtherHaul-600, a very small, all-outdoor small cell backhaul product that enables rapid deployment anywhere, from street lamps to rooftops. Operating in the 57-66 GHz license-exempt band, the EtherHaul-600 provides gigabit Ethernet throughputs that future-proof the backhaul network. The EtherHaul-600 is designed to reduce Total Cost of Ownership (TCO) as well as unit cost and boasts extremely low power consumption and plug and play installation paving the way to the mass deployment of small cells.

### Heterogeneous Networks Deployed to Meet Exponential Bandwidth Growth

Mobile operators are facing exponentially increasing demand for data with the explosion of smartphone use. Between 2011 and 2015, global mobile traffic is expected to grow 26-fold (source: Cisco VNI forecast), with connection speeds increasing significantly and the majority of traffic devoted to data and video. To cope with this capacity crunch, operators are deploying 3G and 4G-LTE macrocells. However, an additional capacity boost is required, particularly in dense urban areas.

To achieve this, carriers are increasingly deploying 4G-LTE mobile networks in multi-layered macro-cell / small-cell architectures, also referred to as heterogeneous networks, where the "traditional" macro-cells provide the coverage and an underlay of small-cells is deployed to provide high-capacity hot spots.

### Small Cells at Street Level Installations

The small-cells will be installed at the street level - on street lights, lamp poles, and building walls - so they are as close as possible to the mobile broadband consumers. Consequently, the small-cells and associated backhaul equipment are required to be "invisible" with a very small form factor that blends naturally into the street level environment.

### Exponential Growth in Cell Deployment

Thousands of small cells will be deployed to provide the required capacity boost in a typical highly populated metropolitan area. Consequently, both the small-cells and the associated backhaul network must be at an unprecedentedly low cost. Total cost of operation (TCO) must be lowered significantly as well, through reduced power consumption and ease of installation.





## 57-66 GHz Optimal Spectrum for Small Cell Backhaul

The 57-66 GHz frequency band provides numerous advantages for small cell wireless backhaul. This frequency band has ample bandwidth availability and can provide high-capacity gigabit throughputs. In addition, the natural propagation characteristics of this spectrum produce very high interference immunity that results in high channel reuse and easy and quick frequency planning and allocation. Use of a license-exempt frequency band not only saves spectrum costs but also can result in very small form factor products, designed for quick and simple installation in the various street level environment scenarios.

### The EtherHaul-600: Invisible All-Outdoor Small Cell Backhaul

Leveraging its disruptive all-silicon radio technology, Siklu has designed the EtherHaul-600, an ultra-small, all-outdoor small cell backhaul product that enables rapid deployment anywhere, from street lamps to rooftops. Operating in the 57-66 GHz license-exempt band, the EtherHaul-600 provides scalable gigabit throughputs, allowing operators to meet the capacity needs of today and future-proof the backhaul network.

The EtherHaul-600 offers extremely low power consumption and plug-and-play installation into an operator's Self Organizing Network (SON) with a full suite of integrated networking capabilities. As a result of Siklu's innovative all-silicon design, equipment costs are dramatically reduced to a fraction of other millimeter wave solutions. This represents a key stepping stone to the mass deployment of small cells.

### EtherHaul-600 Product Highlights:

- Carrier-grade wireless product designed for small-cell mobile backhaul applications
- Operation in the 57-66 GHz license-exempt band for fast and quick frequency planning and acquisition
- Ultra-small form factor that blends naturally into the street-level environment, allowing quick and flexible site acquisition
- Quick and simple installation with flexible installation options and fast alignment (optional: self-alignment installation tool)
- Scalable gigabit throughput future proofs the backhaul network
- Full suite of integrated networking capabilities for seamless, plug-and-play integration into the SON
- Green design, with extremely low power consumption



## About Siklu

Siklu has been committed to reducing the cost of high capacity wireless backhaul solutions since 2008. The company's success centers on an innovative silicon-based design of the millimetric wave radio system and components that has resulted in the lowest cost millimeter wave systems available. The EtherHaul radios deliver gigabit speeds over the millimetric wave spectrum and are ideal for urban wireless backhaul of macro, micro and small cells. Serving providers around the world, Siklu Communication is based near Tel Aviv, Israel.

