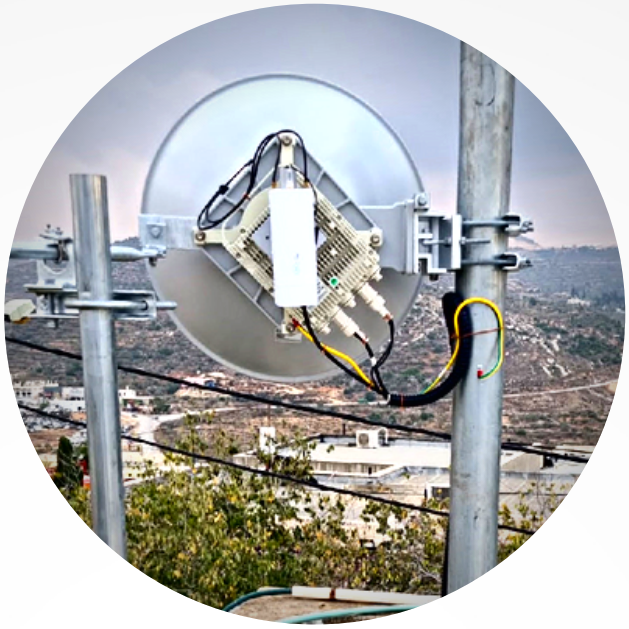
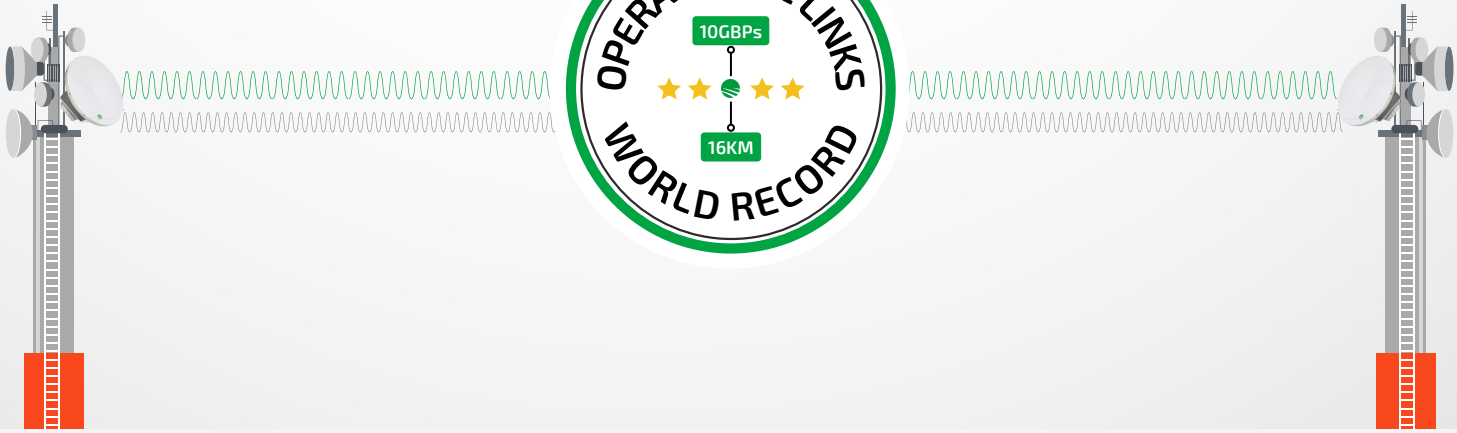
Siklu



ExtendMM™

LONGEST-REACH 10GBPS MULTIBAND SOLUTION

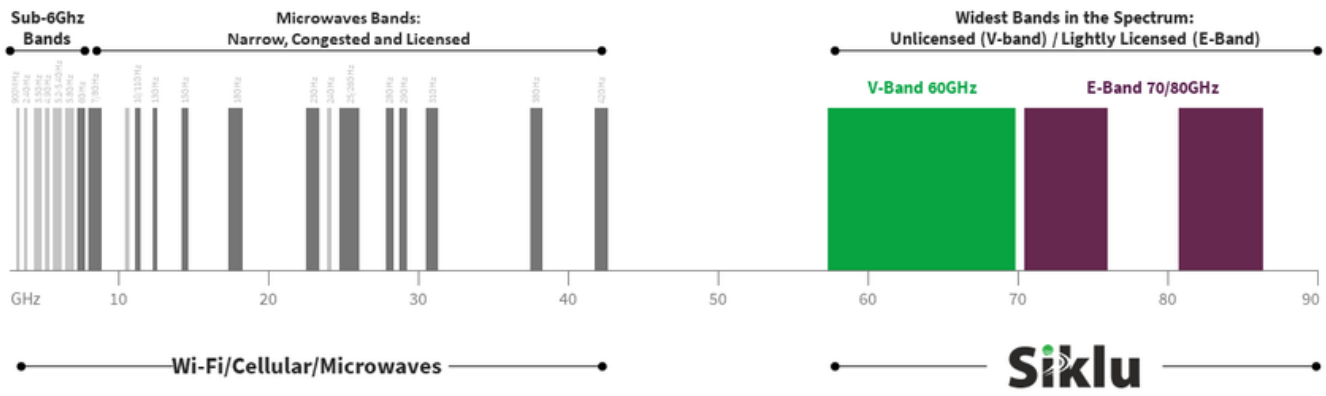
Vendor-Agnostic | Smallest Footprint | Lowest Power Consumption | Cost-effective
World's Most-Deployed Multi-band Solution Since 2014 | Unique Dual-band Antennas with 5GHz



What is ExtendMM™ and what does it offer?

ExtendMM™ is a complete 10Gbps @ 6 miles / 10km *(and farther)* solution comprised of:

- A powerful switch-over networking engine and integrated and easy-to-use single-click configuration, monitoring, and control
- A built-in switch means running a single cable to the combined dual-link solution
- Easy integration with your existing lower-band radio, which preserves your investment
- Siklu's dual-band 70/80GHz & 5GHz antennas (1ft / 2ft) support any connected third-party 5GHz radio.
- Efficient network design enabled by Siklu's SmartHaul™ Link Budget Calculator and WiNDE



How does Siklu's ExtendMM™ work?

Siklu's ExtendMM™ combines EtherHaul™ millimeter wave radios with a secondary radio operating at a lower frequency to create a high availability, all-weather, long-range connection. A single click in the EtherHaul™ web GUI turns the two radios into a fully-monitored, high-performance and long-distance multi-gigabit unified link. Multiple Gbps rates will be available over the interference-free mmWave EtherHaul™ link and the lower-frequency backup link will be activated automatically for the rare occasions when the mmWave link is not available due to weather conditions.

Minimum Requirements from your Backup Radio

Siklu's ExtendMM™ solution operates with any wireless PtP product which supports the Ethernet transparent-bridge mode and that can transport any type of layer 2 broadcast or multicast traffic

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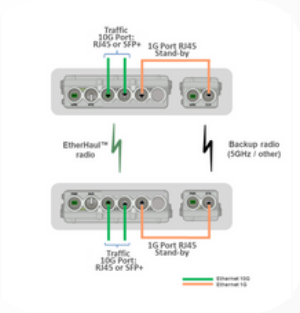
Unprecedented Ranges with ExtendMM

Introduced in 2014, Siklu's ExtendMM™ has become the world's most widely deployed mmWave multi-band solution, delivering multi-gigabit mmWave capacity at further distances and with higher reliability. Siklu's ExtendMM was the first to deliver 10Gbps operational links at 6 miles (10km) and today we have links reaching 10 miles (16km) at full capacity.

ExtendMM is a high-capacity and long-range solution that consists of multi-gigabit EtherHaul™ radios with enhanced software and a built-in switch that enables easy integration with any Ethernet-based third-party radio – making it a vendor-agnostic solution. Siklu also offers the option of a unique configuration that consists of dual-band 70/80GHz & 5GHz 1-ft and 2-ft antennas, which minimizes footprint and weight for easier site acquisition. Using Siklu's patented SmartHaul™ Apps (Link Budget Calculator), link design can take as little as one minute. This short process also will calculate predicted performance, which will enable you to immediately provide your customers with an SLA figure.

Adaptive modulation, advanced QoS and Security

When a significant rain event occurs, the adaptive capabilities enabled by ExtendMM are activated and the capacity is lowered to improve the link budget and maintain the mmWave link. If the EtherHaul™ capacity reaches a user-configured lowest capacity threshold, traffic is routed hitlessly by the built-in EtherHaul™ advanced QoS engine to the lower frequency radio in less than 50 ms. This feature assures the continuous delivery of high- priority traffic.



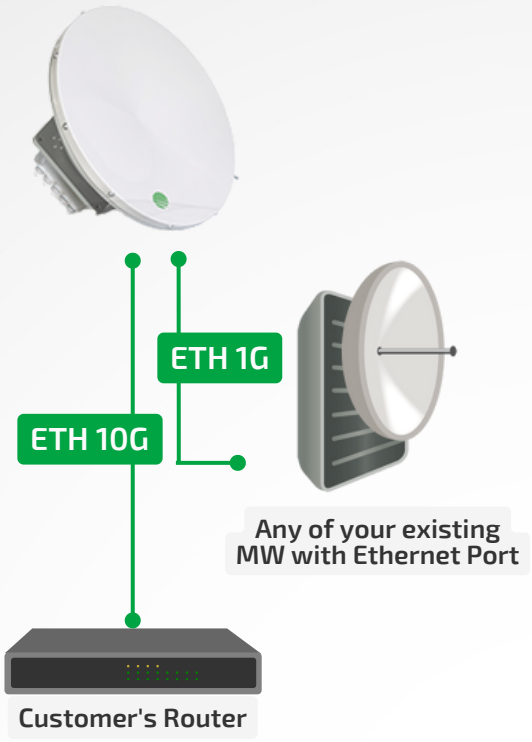
LINK ID | Siklu allows setting Link ID, separately for Tx and Rx path, which will prevent data transmission over the link if the correct ID is not provided

AES256 | Siklu implements AES encryption, 128 bit and 256 bit, to allow high-level encryption of the data and protect sensitive information

ACCESS | Preventing Denial of Service (DDoS) attacks and strengthening security with Access Lists for Host management access and ACL-based on IP

SYNC | synchronized transmission over the link that relies on N/A messages between the sides, meaning a single radio cannot intercept the signal.

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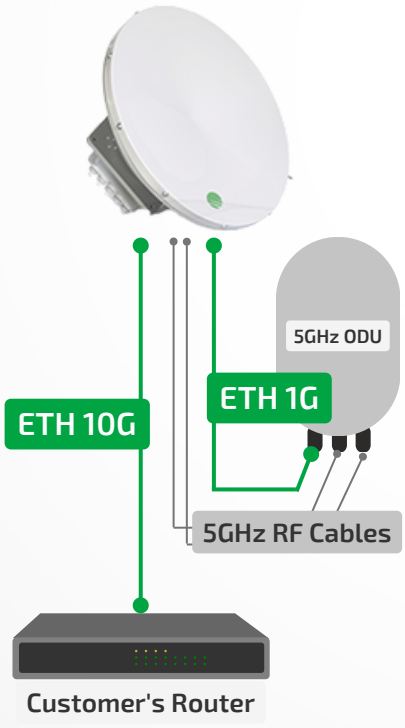


Your MW

+

ExtendMM 60GHz or 70/80GHz

Dual antennas vendor-agnostic multiband
Minimal CAPEX | Boost existing radios capacity with ease | Automatic backup control | Available with both 60GHz and 70/80GHz radios



Your 5GHz ODU

+

ExtendMM 70/80GHz + 5GHz

Single antenna vendor-agnostic multiband
70/80GHz ODU | Siklu's DL5 dual-band Antennas | 5GHz RF Cables | Automatic backup control | Works with any connectorized 3rd party 5GHz

For example, a Siklu EtherHaul Kilo radio can be combined using the ExtendMM software with a lower-band radio (for example, 5GHz) and a dual-band 2-foot antenna – and that's all it takes to go 10 Gbps at 6 miles (10 km), and farther, with 99.999% availability. You also will have the benefit of using the cost-effective, lightly licensed E-band spectrum. With a single click, it becomes possible to turn an EtherHaul™ Kilo product into a long-range link that delivers the capacity your network is demanding.

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EtherHaul Models Supporting ExtendMM



EtherHaul 600TX

Max Capacity: 1,000 Mbps Aggregated | 60GHz
Max Range at Full Capacity: 4.5km



EtherHaul 710TX

Max Capacity: 1,000 Mbps Aggregated | 70GHz
Max Range at Full Capacity: 17km



EtherHaul 1200FX

Max Capacity: 1,000 Mbps Full Duplex | 70/80GHz
Max Range at Full Capacity: 23km



EtherHaul 2500FX

Max Capacity: 2,000 Mbps Full Duplex | 70/80GHz
Max Range at Full Capacity: 27km



EtherHaul 8010FX

Max Capacity: 10,000 Mbps Full Duplex | 70/80GHz
Max Range at Full Capacity: 16km
Max Range at 5Gbps FD Capacity: 28km

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Why Siklu's ExtendMM™?

The E-Band spectrum is well suited for multi-gigabit capacity applications with rain being the principal impediment affecting range. While light rain affects link performance marginally, heavy rain can degrade link performance significantly. The greater the distance of the link, the greater the degree of attenuation. Therefore, Siklu created the only 70/80GHz vendor-agnostic dual-band solution to go along with your existing 5GHz radio.

Combining inexpensive lower-capacity and less-sensitive frequency bands such as 5 GHz with the EtherHaul™ Kilo product family delivers the best of both technologies, or **high-capacity and long range at an unbeatable $/Gb price.**

Ready to Extend and Expand Your Network?

Contact Siklu today for Pricing and a Bill of Materials!



marketing@siklu.com



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