

LINKPlanner

Easy and Accurate Link Planning Tool

LINKPlanner Quick Look

- Engineer a highly reliable wireless link even in challenging environments
- Plan an entire project including point-to-point and point-to-multipoint products
- Perform calculations for both licensed and unlicensed products
- Automatically load path terrain profiles and environmental factors, such as rain fade



Predictable Performance. Shorter Installation Time.

Wireless network operators are constantly looking at how to reduce the total cost of ownership of the network in order to increase their return on investment. Keeping costs down starts with selecting the right equipment with the correct configuration for the desired performance and reliability. Cambium Networks has developed the LINKPlanner tool to simplify the design of these networks whether they are point-to-point (PTP) or point-to-multipoint (PMP). By designing the network with predictable performance up-front, the cost of procurement, installation, configuration, and ongoing support can be minimized.

Optimize Your Needs.

Designed for use with our PTP and PMP solutions, LINKPlanner allows you to easily and quickly design networks for optimal deployment and cost effectiveness. As a cloud version, LINKPlanner is a free, easy-to-use link design tool that can be accessed at <https://lp.cambiumnetworks.com>.

Features:

- Plan and optimize a single link or multiple links simultaneously.
- Display a comprehensive overview of your entire wireless network via Google Earth™ mapping service.
- Conduct “what if” scenarios based on geography, distance, antenna height, and transmit power and instantly see the effects on performance.
- Generate reports that validate projected performance and serve as time-saving deployment guidelines.
- Create a bill of materials for PMP and PTP networks, including accessories.
- Plan multi-sector towers and multi-tower networks assigning subscriber modules (SM) to the best access point (AP).
- Export a list of SMs and associated modulation modes to the [Cambium Capacity Planning](#) tool.

Supported Products:

PTP	PMP
cnReach™	cnRanger™
cnWave™ 60 GHz	cnReach
ePMP™ Series	cnWave 28 GHz
PTP 450 Series	cnWave 60 GHz
PTP 550/550E	ePMP Series
PTP 670/700	PMP 450 Series
PTP 820/850	PTP 670/700 HCMP

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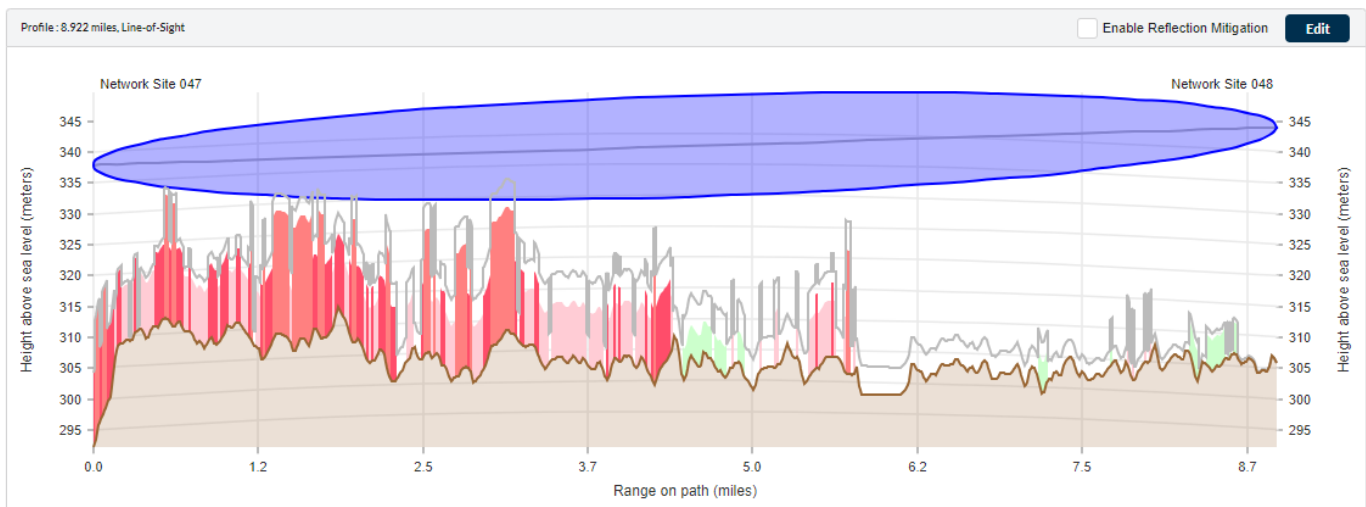
LINKPlanner performance reports give confidence that your chosen system will meet your needs and provide installers with configuration guidelines that enable them to quickly deploy the network. Thousands of Cambium customers have obtained accurate link performance projections using the LINKPlanner tool.

LINKPlanner in Action

The first step in link design is to enter information about the sites you want to connect. The recommended method to insert sites into a project is to import the latitude and longitude information from sources such as Google Earth mapping service.

LINKPlanner then automatically imports a path profile to which you can add additional obstructions to accurately model the environment.

By modifying system characteristics, such as antenna type and height, you can obtain the optimal configuration to achieve the performance you need to meet your throughput and availability requirements. You'll also see projected system gain margin and path loss for the link.



Path profile with clutter and obstructions.

Advanced Link Budget Calculations

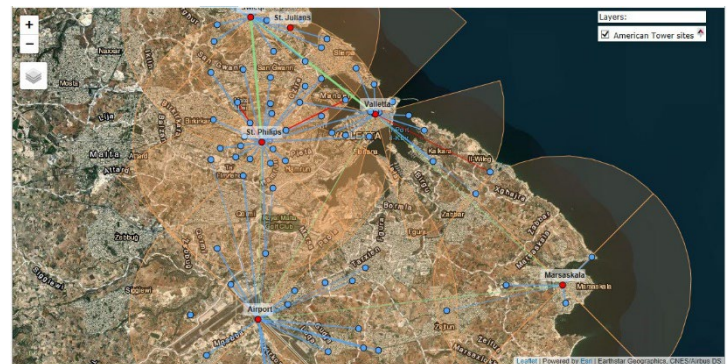
Aggregate IP Throughput	413.12 Mbps
Lowest Mode Available	100.0000%
System Gain Margin	30.03 dB
Free Space Path Loss	119.62 dB
Gaseous Absorption Loss	0.04 dB
Excess Path Loss	0.00 dB
Total Path Loss	119.65 dB

Performance to AP–Airport

Predicted Receive Power	-75 dBm ± 7 dB
Maximum Usable Mode	MCS-11 (16 QAM 0.5)

Performance to Swieqi

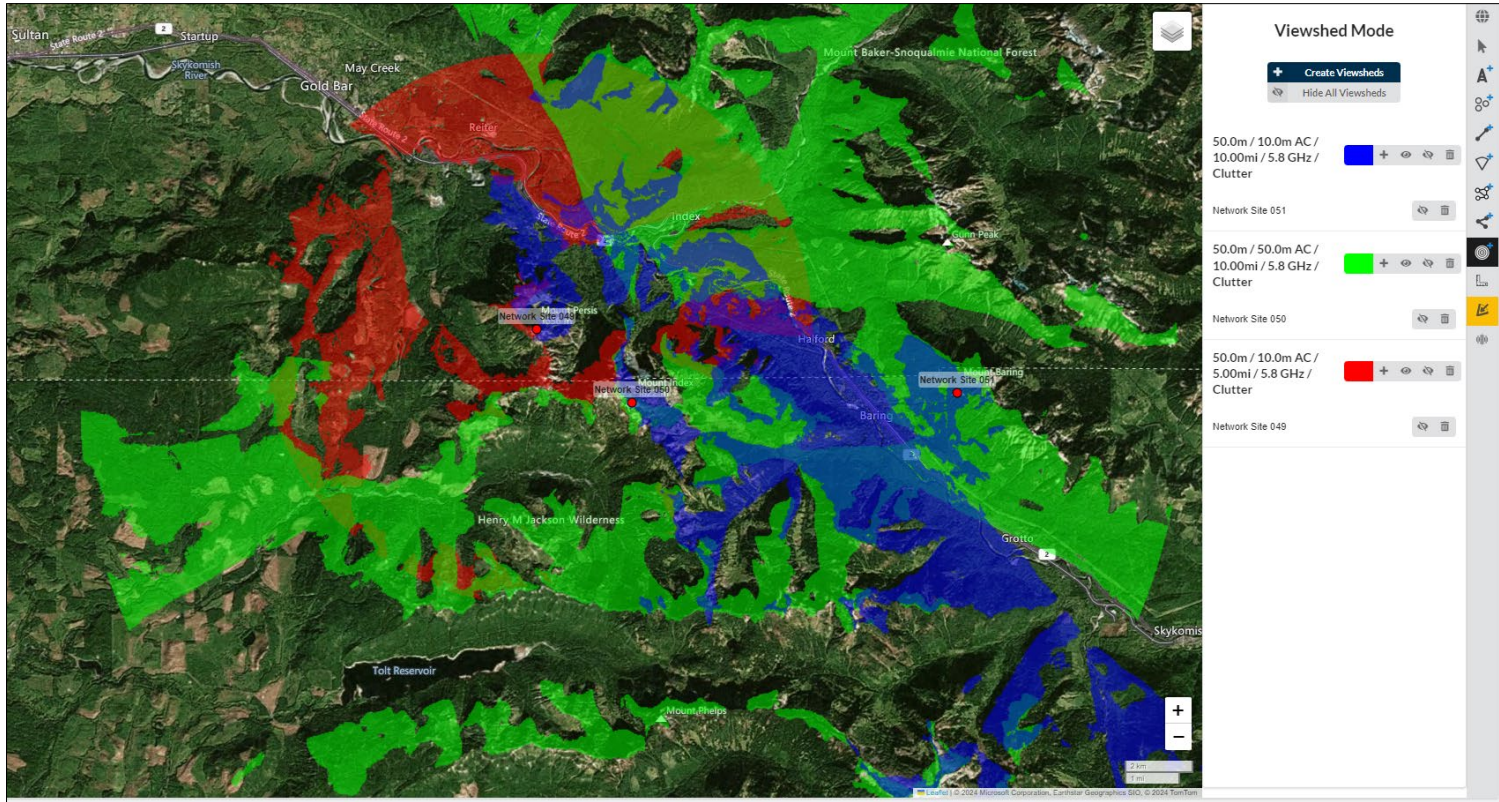
Predicted Receive Power	-47 dBm ± 5 dB
Mean IP Predicted	188.84 Mbps
Mean IP Required	150.0 Mbps
% of Required IP	126%
Minimum IP Required	100 Mbps
Minimum IP Availability Required	99.9900%
Minimum IP Availability Predicted	99.9990%



Online network view.

While LINKPlanner projections have proven to be extraordinarily accurate, such precision depends on obtaining accurate and complete path data. Based on the path data provided, LINKPlanner reports can predict after-deployment performance and provide your installers with the information they need to successfully install the links in your network.

LINKPlanner



Viewsheds allow you to see all line-of-site locations in a given area. You define the tower height and the height of the subscriber..

Access LINKPlanner
<https://lp.cambiumnetworks.com>

ABOUT CAMBIUM NETWORKS

Cambium Networks enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences and device connectivity with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We make connectivity that just works.

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