

OPTIMIZE YOUR DAS NETWORK DESIGNS NOW

Your future self will thank you!

Design a highly efficient and budget-friendly Distributed Antenna System (DAS) that maximizes performance while minimizing costs.

Expand your focus from price and availability to performance

Most passive devices in a DAS network are chosen based on price, availability, or habit. However, selecting the right type of device based on performance significantly affects the design quality and installation costs. This is especially important with the introduction of new technologies for the latest frequency bands, such as 5G, CBRS, and C-band. Component losses directly influence how well each branch or sector can distribute signal strength and quality. The greater the loss per device, the more branches will be necessary for adequate coverage.

Lower DAS project costs and improve the success rate of quotes

Choosing subpar or unsuitable products raises the risks to network performance and costs, both now and in the future. Get it right the first time with Microlab.



Guaranteed Specifications

Are your vendor's components guaranteed to meet or exceed the specifications in their documents?



Design with Confidence

Are the specifications for your vendor's products consistently listed in all documentation (iBwave, datasheets, etc.)?



Expert Services and Support

Are you ready to lower costs and risks with expert reviews of designs, product choices, as well as suggestions for cost-cutting and future-proofing?



Custom Solutions

Sometimes, you need more than just off-the-shelf products. Wouldn't it be great to have a vendor that provides custom assemblies and integrated solutions?

A Case Study: Microlab Versus the Competition



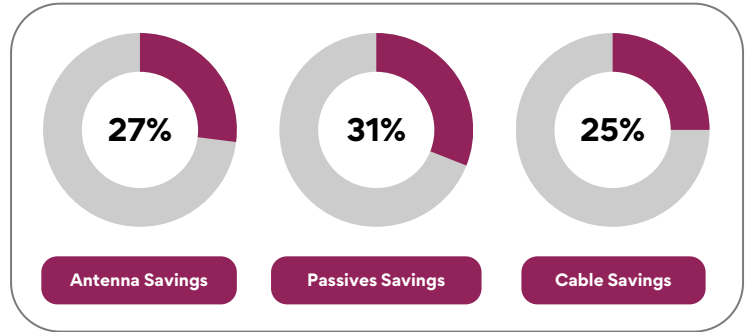
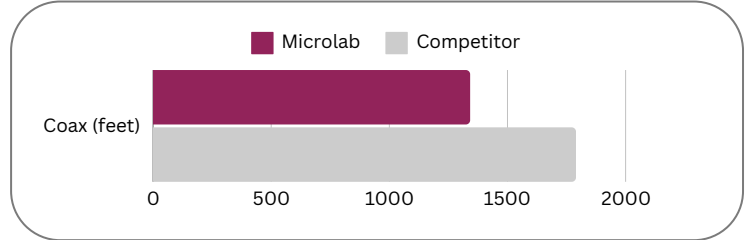
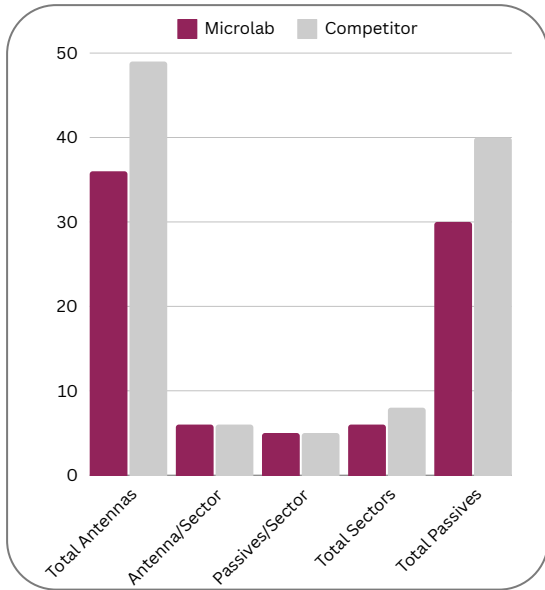
Using iBwave software, we developed a comprehensive network architecture that meets the performance specifications outlined by the client or Mobile Network Operator (MNO). With this software, we conducted a side-by-side comparison of passive RF devices from Microlab and a leading competitor.

- A small wireless system with (4) Directional Couplers in series and (1) 2-way splitter.
- The insertion loss of each Directional Coupler and 2-way splitter has a cascading effect on the total passive losses.
- **1.27dB more loss** can lead to **13 (36%) more antennas** and more equipment needed.

Network Losses	C-Band	C-Band
	Competitor B	Microlab
15dB Directional Coupler, dB	0.35	0.14
10dB Directional Coupler, dB	0.65	0.45
8dB Directional Coupler, dB	1.05	0.84
6dB Directional Coupler, dB	1.50	1.25
2-Way Wilkinson, dB	4.20	3.80
Cable Losses, dB	10.00	10.00
Antenna, dB	0.00	0.00
Total Passive Losses, dB	17.75	16.45
		1.27dB less loss

Radio Output Power	43 dBm	43 dBm
Antenna Coverage Area	Competitor B	Microlab
Desired RSSI, dBm	-50	-50
Body Loss, dB	-10	-10
FSPL Target, dB	65.26	66.53
Target Distance, m	10.99	12.72
Area (Circular), m ² /ft ²	379.52/4085.2	508.44/5472.8
Improvement		+34% more coverage per antenna
Sample Building	Competitor B	Microlab
Coverage Area, m ² /ft ²	18,250/196,443	18,250/196,443
Antennas Needed	46	36
		Competition uses 36% more antennas

***Conclusion: Choosing Microlab resulted in ~28% savings overall**



This calculation does not include potential installation savings, which could significantly increase the figures. Contact our technical team for a detailed review.

Unlock your potential savings today—reach out to us for a free site analysis!

While the overall cost of passive components in a network is relatively low compared to the costs of active products and installation, it's important to consider their impact on the total deployment costs for your network. This consideration can significantly affect your next project bid. By understanding your design criteria and making accurate estimations, you can calculate how the addition of antennas, feeder cables, and other ancillary items will quickly increase the overall network costs. **Will these added expenses make you less competitive in the bidding process?**



THE FULL STORY

WATCH WEBINAR