

Galtronics Multibeam Antennas for Stadiums & Venues - Whitepaper

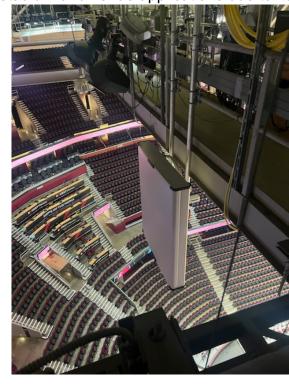
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Originally launched in 2021, Galtronics saw an opportunity to create a patented panel based multibeam antenna which is perfect for stadium and venue applications due to its

high stable beam count. This means the antenna can support high density high traffic usage cleanly. Before Galtronics launched its multibeam line, the only alternative was large lens-based globe like antennas. There is now an effective alternative in the market for stadium owners, wireless carriers, and 3PO's.

In fact, Galtronics Multibeams are approved and used by all three major US carriers, all major Canadian carriers, have been deployed in Mexico ahead of the World Cup, and have been sold across Europe due to their combination of high performance and light weight at a reasonable price.

Galtronics Multibeam antennas, particularly in the context of hyper-directional applications, offer several **competitive advantages** that make them stand out in stadiums and arenas:



1. Smaller Form Factor

 Galtronics multibeam antennas are designed to be more compact than traditional lens-based solutions. In terms of weight, panel multibeams typically weigh ~50% of similar globe antennas. This enables easier installation in space-constrained environments while minimizing structural stress in stadiums, arenas, and venues where size and weight matter.

2. Cost Efficiency

 Compared to globe-like multibeam solutions, Galtronics often provides more affordable options without compromising performance that can significantly lower the total cost of ownership for Wireless Operators, Third Party Operators, and



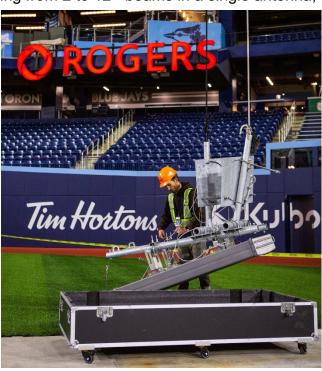
venue owners. At a recent NBA stadium deployment, the use of Galtronics Multibeams saved the 3PO \$700,000 in upfront cost while deliverable comparable performance to what was expected from the competitor's round lens solution.

3. Beam Count

 Galtronics multibeam antennas provide cover all major carrier LTE and 5G frequencies. With beam counts ranging from 2 to 12+ beams in a single antenna,

there are multiple available options for stadiums and venues to deliver high capacity to their guests.

Stable beams matter when your customers expect an always on high quality cellular experience. As an example, a major Canadian carrier deployed Galtronics multibeams in Rogers Centre and BC Place ahead of the 2024 Taylor Swift Eras Tour. At the Rogers Centre alone, 7.4 terra bytes (TB) of data were used by fans. Galtronics multibeams were a major component, particularly for the field level audience to have an amazing data experience during the concert.



With 30 released products and a roadmap of dozens more antennas coming, Galtronics is committed to providing cost effective options to stadiums and venues that deliver amazing capacity and throughput.

4. Aesthetic and Deployment Flexibility

 Galtronics antennas can blend well into environments, helping with aesthetics, zoning, and permitting. Multibeams provide the ability to be painted or wrapped. They have been painted to match a black ceiling in an arena and wrapped to blend into the structural environments such as a brick wall – all without sacrificing incredible RF performance.





5. Proven

- Galtronics has been in the antenna business for over 45 years. Approved by all major US, Canadian, and Mexican wireless carriers, Galtronics has delivered quality for the long term. Moreover, Galtronics products have been used by the world's largest 3PO's, tower companies, and European wireless carriers.
- With hundreds of deployments, Galtronics Multibeams are a proven technology that delivers tangible results. They have been deployed in NFL, NBA, MLB, World Cup, and major college sports arenas as well at various concert halls and large performance venues.

6. Not A One Stop Shop

 Unlike competitors, Galtronics has been a leader in stadium antennas with decades of deployments supporting stadiums. Galtronics provides best in class RF solutions for stadiums and arenas with panel, directional, and concealed antennas in addition to its broad Multibeam portfolio.



Sample Deployments:



80,000 fans at a Harry Styles concert in Europe covered by Galtronics Multibeams



Deployed in Times Square for New Years Eve 2025 by a major US Wireless Carrier



Two tier 1 US carriers deployed Galtronics Multibeam and Stadium antennas at a major SEC football stadium.