

OrBeam Ka-Band

Electronically Steerable Antenna (ESA)

Revolutionizing Connectivity Across Platforms and Orbits

Introducing Orbit Communication Systems' Ka-Band Electronically Steerable Antenna (ESA), designed to provide unparalleled connectivity for variety of mobile platforms. Our Ka-Band ESA leverages cutting-edge technology to deliver high-speed, reliable communications across multiple platforms and orbits.

Key Features

- **Multi-Orbit Capability:** Seamlessly connects with GEO, MEO, and LEO satellites, ensuring continuous and reliable communication.
- **Multi-Platform Integration:** Ideal for use on aircraft, maritime vessels, and land vehicles, providing versatile connectivity solutions.
- **Reduced Power Consumption:** By utilizing Orbit Patent Pending architecture, the OrBeam introduce reduced power consumption by having less elements and yet maintaining state of the art performance. The reduction of power consumption compared to other technologies is imperial to reducing operational costs and installations costs
- **High Performance:** Achieves exceptional G/T and EIRP values, ensuring robust and high-speed data transmission.
- **Electronically Steered:** Fully electronic with no moving parts, offering enhanced reliability and reduced maintenance.
- **Modular Design:** Allows scalable solutions tailored to specific customer needs, optimizing performance and cost-efficiency.
- **Multi Beam:** To enable Make-Before-Break operations, OrBeam supports 2 simultaneous beams on the Rx path



Applications

Commercial Aviation: High-speed in-flight connectivity for passengers and crew.

Maritime: Robust connectivity for vessels, ensuring seamless communication at sea.

Land Mobility: Reliable communication for vehicles.

Specifications Multi-Orbit Performance Antenna

Frequency	Transmit 27.5 – 31 GHz, Receive 17.7 – 21.2 GHz
Polarization	Electronically selectable (RHCP/LHCP/H/V)
EIRP	42 dBW at 45° elevation
G/T	7.7 dB/K at 45° elevation