Revolutionary solutions for LEO and MEO satellite tracking

Cobham SATCOM – Land Tracker Antennas

Next generation gateway antenna systems | **Optimizing economics and operations**

COBHAM

Transforming the land tracker segment from the ground up to maximize the return on your investment

FULLY INTEGRATED PLATFORM

Enabling advantages from procurement and installation to operation and support, all Cobham SATCOM Land Tracker Antennas are uniquely delivered as a complete, integrated system, featuring radome, antenna controller, feeds and customer specific RF (BUC and LNB) as well as built-in auto-tracking.

ROBUST AND RESILIENT

Capable of withstanding hurricane force winds, Cobham SATCOM radomes are an integral aspect of the robustness of the overall system design. With minimal loss in RF performance, our radomes provide complete protection in extreme conditions, ensuring high up-time and reducing operational expenditure due to damage or loss of service in extreme conditions.

LOW-POWER CONSUMPTION

Our proprietary system is a radical departure from standard tracking antenna technology and offers significant financial and environmental benefits across the board. We have created cutting-edge 3-Axis inertial balanced technology to stabilize the entire system, which results in effortless tracking and very low power when compared to more traditional X/Y platforms.

SIMPLIFIED INSTALLATION

Unlike traditional ground stations which can take months to build, a satellite gateway based on Cobham SATCOM Land Tracker Antennas can be installed and operational in days. Even the largest models require only minimal civil works for the foundation and cabling infrastructure. The result is easy and fast deployment at a fraction of the cost of standard systems.

Earth Observation and New Space

Cobham SATCOM has played a role in the development of EO and New Space through its proven TRACKER series of cost-effective, easily configured, and highly reliable satellite tracking systems.

TRACKER systems are in wide-scale operation and have become a leading choice for:

- Mission-critical satellite search and rescue organizations
- Marine traffic and monitoring services
- Earth Observation and imagery companies
- Emerging satellite IoT and M2M providers

Emerging satellite IoT and M2M providersEmerging satellite IoT and M2M providers •

TRACKER systems are modular and easily configurable, whether receive only or transmit/receive, in the widely used S/X band or other single or dual-band combinations.

The protective radome shields the antenna from all environmental conditions and yields higher tracking accuracy and throughput, with industry-leading reliability.

Systems are delivered pre-configured and pre-tested, with simple software tools and standard interfaces, allowing quick installation and connection to the user network.

High reliability, ease and flexibility of installation, and the proprietary balanced low-power tracking system ensure uninterrupted operation at a significantly lower total cost of ownership than other systems.

Systems are delivered with a full warranty, backed by Cobham SATCOM's 24/7 customer service and global support network, with optional installation and tailored support services.

Welcome to the most advanced fully integrated gateway antenna systems available for the satellite tracking ground segment.

Welcome to predictability, dependability, and significant cost savings.

Unified Gateway Technology

Created using antenna technology and design philosophy perfected by Cobham SATCOM over the course of two decades, the highly innovative Land Tracker Antenna range optimizes satellite network operation and economics.

Our inertial balanced antenna system technology is a revolutionary platform which enables Satellite Network Operators to significantly reduce the land segment capital cost as well as the operational overhead for the entire life of a system.

Cobham SATCOM solutions come prepared for any environment and any external influence. It's fully integrated and easy to install. It consumes less power and demands less maintenance than any other available solution.

Lower Carbon Footprint

By cutting power consumption, Cobham SATCOM Land Tracker Antennas lower the environmental impact of the satellite communications industry.

Streamlining Operations & Cost

While focused investment and innovation is enabling a new era of global communication based on lower-cost CubeSat and SmallSat spacecraft, the overall system economics of a contemporary satellite network is highly dependent on efficiencies in the ground segment.

Cobham SATCOM Land Tracker Antennas lower the total cost of ownership by significantly reducing power consumption, delivering tangible savings on deployment and maintenance as well as introducing new environmental efficiencies that will grow in importance over the next few decades.

90%

TYPICAL POWER CONSUMPTION SAVINGS PER ANTENNA

Traditional X/Y land tracking antennas require substantial foundations (up to 15ft deep) to support the operational wind loading requirements. Reducing costs dramatically, our inertial balanced technology inside the radome allows Cobham SATCOM Land Tracker Antennas to be installed on a rebar reinforced concrete pad typically only 12 inches deep. Our smaller systems will even deliver flawless operation on a simple compacted gravel footing.

87%

REDUCTION IN INFRASTRUCTURE CAPITAL OUTLAY

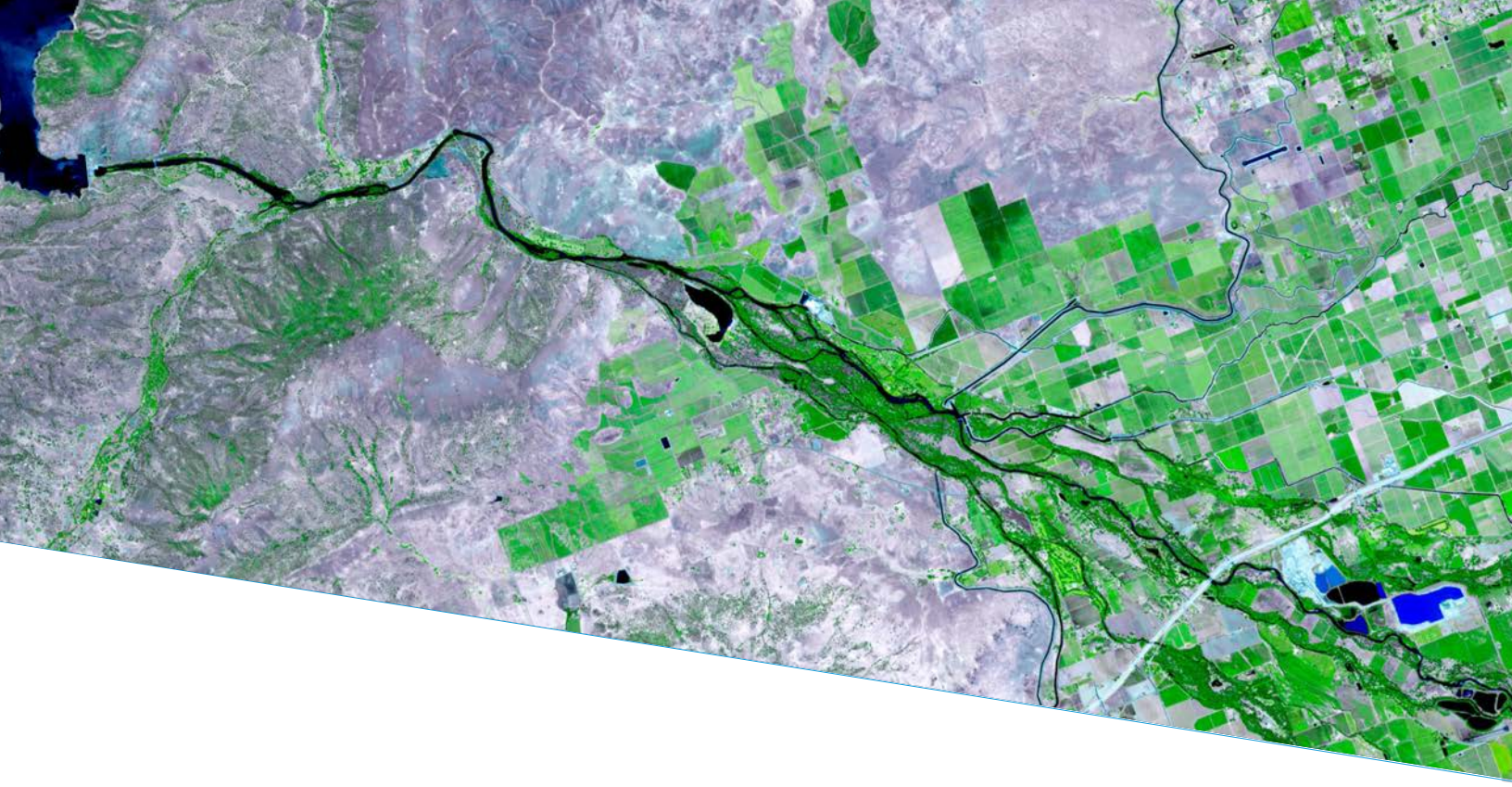
All Cobham SATCOM Land Tracker Antennas consume just 200 Watts of power (excluding RF) regardless of size (from 65 cm to 6 mm). Other gateway antennas in the market can consume up to 5000 Watts. This level of reduced power consumption is a game changer for satellite constellation owners, as it significantly reduces the total cost ownership over the life of the network operation, which can span decades.

From 65 cm to 6 m

The Portfolio

The life-time cost savings facilitated by Cobham SATCOM Land Tracker Antennas supports established network operators and venture-funded start-ups to deliver even more competitive high-throughput satcom services using satellite constellations in any orbitand on diverse radio frequencies.

Antenna Size	UHF	L-S	C	C/X	X	X/S	Ku/X	Ku	Ka	Q	V	E	Triband
cm 65								x	x				
1m								x	x				
1.6m			x					x	x		x	x	
2.4m		x	x		x	x	x	x	x				x
3.7m	x		x		x	x			x	x			
4m	x		x		x	x			x	x			
6m			x	x	x	x			x				
Flat panel 65cm-Ka-band									x				



Communications Gateways

A new approach to gateways and landing stations - scalable, easily implemented and supported, and cost-effective. TRACKER Gateways have been selected by multiple LEO/MEO constellation operators based on proven performance and reliability, robust design suitable for all environments, low total cost of ownership, and Cobham SATCOM's ability to meet demanding implementation schedules.

Modular and easily configured, TRACKER Gateway terminals are available in a range of sizes and in single or dual frequency bands. Three-axis tracking with protective radome allows operation in the harshest environments and ensures accurate tracking at all times, with optimum signal quality, uninterrupted passes, low power consumption, and high reliability.

TRACKER is a versatile and scalable platform, initially chosen to validate early LEO and high altitude balloon projects, and later selected for multiple commercial roll-outs. Whether high speed communications, data transfers, or IoT and M2M links - TRACKER has become the most cost-effective and dependable choice for business-critical, carrier-grade gateways and landing stations.

TRACKER - Any Orbit, Any Band, Anywhere

Manufacturing & Logistics

With thousands of new satellites being prepared for launch, the need for high performance, robust and cost-effective gateway technology is accelerating fast. Cobham SATCOM has scaled its global manufacturing and logistics capabilities to meet this growth, ensuring that Land Tracker Antenna orders can be produced and delivered according to demand.

Support

Cobham SATCOM Land Tracker Antennas are an all-in-one solution with all components integrated in the radome itself. This results in industry-leading Mean Time Between Failures, which means fewer engineer visits are required. Additionally, the simplified overall system architecture streamlines many standard maintenance tasks so that they can be completed in less than an hour, while service issues can be handled remotely, enabling further lifetime cost savings.

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