

TT01 Specification



1. Product Overview

LOCOSYS TT01 product is a communication antenna designed for S-band, which is suitable for various wireless communication systems, including terrestrial mobile communication networks and satellite communication systems. Through carefully designed frequency band allocation, it is able to receive signals efficiently in the range of 2.17 to 2.2G and transmit signals stably in the range of 1.98 to 2.01GHz, ensuring smooth and reliable communication. The structure features a compact cylindrical design with a diameter of only 13.2mm and a length of 108mm, making it easy to install and integrate into a variety of communication devices. This compact size not only saves space, but also reduces the limitations on the overall design of the device and improves the flexibility of the system. The structure features a compact cylindrical design with a diameter of only 13.2mm and a length of 108mm, making it easy to install and integrate into a variety of communication devices.

Its sleek design and durable construction make it a versatile solution for various industries requiring reliable long-distance communication in challenging environments. TT01 antenna ensures seamless and stable connectivity for satellite communication applications.

2. Key Features

(1) Optimized Frequency Coverage:

- Uplink: 1980-2010 MHz
- Downlink: 2170-2200 MHz

Supports efficient data transmission and reception with precise frequency targeting.

(2) Compact and Robust Design:

The antenna features a lightweight, slim form factor, making it easy to integrate into portable devices, vehicles, or ground stations.

(3) High Signal Stability:

Engineered to provide stable, low-latency signals for real-time communication, even in remote or harsh environments.

(4) Wide Application:

Fully compatible with low-Earth orbit satellite systems, the antenna supports applications in disaster recovery, emergency communications, maritime operations, aerospace, and field deployments.

3. Applications

(1) Emergency and Disaster Communication:

Enables reliable satellite-based voice and data communication during natural disasters, power outages, or other crises when terrestrial networks fail.

(2) Maritime and Remote Connectivity:

Provides seamless internet access and communication solutions for offshore vessels, isolated islands, and remote regions where traditional networks are unavailable.

(3) Aerospace and UAV Integration:

Designed for use in Unmanned Aerial Vehicles (UAVs) and aircraft to facilitate communication with satellite systems during surveillance, mapping, or exploration missions.

(4) Field Operations:

Ideal for military, exploration, and scientific research teams working in rural or extreme environments requiring uninterrupted connectivity.

4. Advantages

- **Seamless Compatibility:** Fully optimized for TianTong satellite systems and other LEO networks.
- **High Reliability:** Maintains consistent communication signals in dynamic environments.
- **Portability:** Its compact size allows for easy transport and installation.
- **Cost-Effective:** A highly efficient solution for industries requiring affordable and high-performance satellite communication.

5. Conclusion

The TianTong Low-Earth Orbit Satellite Antenna is a cutting-edge product tailored to meet the demands of modern satellite communication. With its robust design, precise frequency coverage, and wide application range, it serves as an essential tool for industries reliant on reliable, real-time connectivity. Whether for emergency response, remote fieldwork, or aerospace operations, the TianTong antenna ensures you stay connected—anywhere, anytime.

6. Electrical specification

Frequency range (MHz)	1980-2010
	2170-2200
Gain (dBi)	3.0 MAX@1980-2010

	3.0 MAX@2170-2200
Antenna AR (dB)	≤3
VSWR	≤2
Polarization	LHCP
Port Impedance	50Ω
Connector type	SMA-J
Antenna size (mm)	Φ13*100
Antenna weight (g)	≤30
Operating temperature (°C)	-40~70
Storage temperature (°C)	-55~85

7. Product Size

