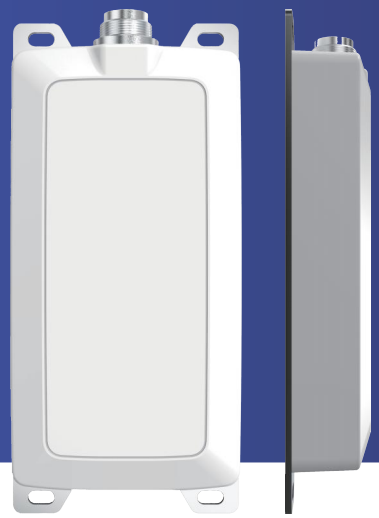
Satellite Data Transfer Unit



SAT DTU TD-3314G

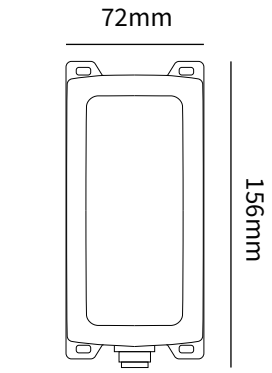
An M2M data relay device specially designed for integrated terrestrial-satellite network applications. Adopting industrial-grade design specifications, the complete unit has passed rigorous EMC tests. It reserves an RS485 communication interface and supports multiple software protocol standards including Modbus.

Satellite Data Transfer Unit

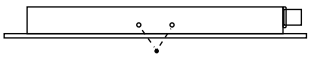
It can be widely used in various data collection and device control transmission scenarios across marine, terrestrial, and low-altitude domains.

Three core capabilities:

1. Blind-spot-free, low-power, highly reliable global data connectivity;
2. Supported by a one-stop SaaS platform for device management, data monitoring, remote control, and alert push notifications;
3. Already deployed at scale in the energy, maritime, logistics, mining, and emergency response industries—a proven and mature solution.



RS-485 Interface /
Power Supply Interface



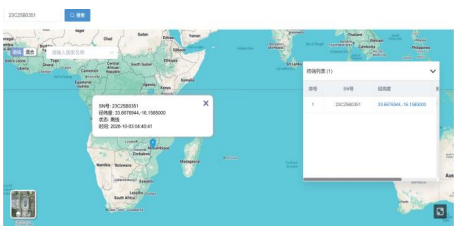
Signal Indicator Light /
Power Indicator Light

Application Scenarios











SpaceIoT

Product Features

- Global Coverage: Leveraging multiple satellites to provide users with seamless global coverage, ensuring signals are available everywhere.
- Two-Way Communication: Supports not only remote data upload to the server but also allows devices to receive commands and information from the server, enabling near-real-time two-way data exchange.
- Low Latency: Through optimization of communication protocols, communication latency is significantly reduced, meeting the needs of time-sensitive communication scenarios and ensuring timely data transmission and processing.
- Low Power Consumption: Adopts advanced low-power design to greatly reduce energy consumption while ensuring communication efficiency, ensuring long-term stable operation of the system.
- Safe and Stable: Equipped with robust security mechanisms, including encrypted communication and data integrity verification, ensuring the security and reliability of data transmission.
- Multi-protocol Support: Built-in multi-standard communication protocol stacks and industrial interfaces such as RS485/232/TTL, meeting the diverse IoT access needs of industrial users.
- Rapid Deployment: The installation and configuration process is simple and quick, requiring no complex setup or debugging. The product can be rapidly deployed to the site and put into use immediately.
- One-Stop SaaS Platform Solution: The product comes with a SaaS (Software as a Service) platform. Device management, data monitoring, remote control, and other functions can be performed through the SaaS platform, eliminating the need for additional development and maintenance of complex back-end systems, helping enterprise customers simplify management and O&M processes.

Performance Specifications

Performance Indicators	Detailed Specifications	Performance Indicators	Detailed Specifications
Product Dimensions	156 x 72 x 27 mm	**Two-Way Communication**	Support
Antenna	Built-in Antenna	**Typical Latency**	20s（within 100 bytes）
Hardware Interface	485/232/CAN/ACC/ADC	**Signal Strength**	< -117 dBm (Receiver Sensitivity)
Operating Voltage	DC 9~36 V	**Network Band**	RX: 1525-1559 MHz TX: 1626.5-1660.5 MHz
Power Consumption	Peak Current: 1.6A@12V Operating Current: 100mA@12V	**Communication Rate**	Uplink: 2 Kbps Downlink: 2 Kbps
Instantaneous Current	2.5 A	**Transmit Power**	⩽30dBm
Network Coverage	Global（excluding polar regions）	**GNSS**	GPS / GLONASS / Galileo E1/ BDS B1 B2
Communication Satellite	Inmarsat	**Environmental Characteristics**	Waterproof: IP67 Operating Temperature: -35 to 75°C Extended Temperature: -40 to 85°C

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