Integrated Satellite Broadband Automatic Portable Terminal



1. Product Introduction

Equipped with a high-gain flat panel array antenna, this device adopts an integrated design that integrates all core satellite communication components including antenna, BUC, LNB, satellite modem, WIFI module, energy storage battery, and control display. Featuring convenient transportation and simple operation, it completely eliminates the drawbacks of traditional satellite portable stations such as bulky structure, scattered configuration and poor portability. With a concise appearance, stable structure and reliable performance, the equipment greatly improves the deployment efficiency and application experience of satellite communication terminals.

Designed with humanized interaction, the terminal supports one-click satellite alignment and one-click storage. No on-site assembly is required; the device can automatically start the satellite search process after deployment and complete satellite search and network access within a typical time of 2 minutes. It has an extremely low operation threshold. Staff without professional satellite communication background or relevant equipment operation experience can independently complete all operations including satellite alignment and network access only by referring to the user manual, making it highly adaptable to various rapid emergency deployment scenarios.





2. Application Fields

The terminal can stably carry various communication services such as high-definition video, voice calls and high-speed data transmission. It is widely applied in emergency communication and field operation scenarios including earthquake relief, power line emergency maintenance, flood control and drought resistance, and outdoor news collection. In ground network blind areas and areas without basic communication coverage, or scenarios requiring temporary dedicated communication networks, the device can quickly establish network connections to provide stable and reliable transmission links for various operational services. In addition, it can interconnect with airborne satellite communication equipment and provide dedicated and stable measurement and control links for UAV ground measurement and control stations.

3. Main Technical Parameters

No.	Parameter Item	Technical Specifications
1	Product Name	Integrated Satellite Broadband Automatic Portable Terminal
2	Product Model	N/A
3	Antenna Form	Flat Panel Array Antenna
4	Aperture Equivalent	0.6m
5	Antenna Efficiency	≥85%
6	Frequency Range	Downlink: 10.70~12.75GHz; Uplink: 13.75~14.50GHz

7	Polarization Mode	Linear Polarization
8	G/T Value	12dB/K
9	Antenna Gain	Receive: ≥36.6dBi@11.05GHz; Transmit: ≥36.8dBi@14.50GHz
10	Satellite Alignment Mode	Automatic satellite alignment, satellite level error ＜0.2dB
11	Alignment Time	2 minutes (typical value)
12	Adjustable Range	Azimuth: 0~90° adjustable; Pitch: 0~90° adjustable; Polarization: 0~90° adjustable
13	Satellite Modem	network management demodulation supports QPSK; forward and return carriers support BPSK, QPSK, 8PSK and 16APSK; maximum forward and return data rates ≥10Mbps
14	Matching BUC Power	16W
15	Power Supply Mode	250Wh lithium battery power supply, supporting hot-swap and hot replacement of batteries
16	Charging Configuration	Standard 220VAC power adapter, available for charging the device and spare batteries
17	Portable Dimension	820mm*480mm*500mm
18	Device Weight	14kg
19	Protection Grade	IP67

20	Operating Temperature	Standard: -20℃~+55℃; Low-temperature resistant battery version: -40℃~+55℃
21	Operating Humidity	5%~95%
22	System Power Consumption	250W
23	Network Interface	10/100Base-T Ethernet interface, WiFi
24	Software Control Functions	Supports satellite alignment mode switching, parameter configuration, real-time display of antenna status parameters and other functions