

Smartellite™ Dynamic

Ka-band



Satellite Terminal for On-the-Move IoT Connectivity



hiSky's Smartellite™ Dynamic Ka terminal is part of a unique line of satellite terminals that features innovative technology, enabling portable itinerant operations or fully mobile operations, for various applications in the IoT field. The terminals are FCC & CE certified, lightweight, easy to mount, install, pair and operate.

The Smartellite™ Dynamic Ka terminal is a low-cost, compact satellite device with unique state-of-the-art design & technology, designed to be used by your driving workforce.

The terminal comprises an electronically steerable phased array antenna and a built-in modem, providing a mountable, single-unit solution, which independently & seamlessly directs communication through Ka-band frequencies over GEO satellites.

This exceptional ground terminal is a part of hiSky's agile IoT network, enabling on-the-move satellite services according to our customer's applicational needs. hiSky's agile IoT network, provides an easy-to-use, cloud-based platform enabling data backhaul for actionable insights from anywhere on the planet.

The terminal offers hybrid connectivity introducing automatic Satellite & LTE switching capabilities. Its default mode is LTE connectivity, but as soon as the terminal leaves cellular range, it automatically transfers all communication to satellite, ensuring that users will always be connected and able to communicate, even in the most challenging environments.

This terminal, designed to meet the requirements of both LEO and GEO satellites, have the unique ability to switch between them for Low Data Rate (IoT & MSS services) and for High Data Rate (Broadband) applications, guaranteeing a future-proofed solution that will correlate with the market's connectivity demands.

Features

- > Automatic satellite acquisition with electronically steered, phased array antennas eliminating the vehicle's movement from effecting connectivity.
- > Optional - Hybrid connectivity Satellite & LTE
- > Enables all vehicle and human connectivity over satellite through one device:
 - **Vehicle telemetry:**
location & tracking | predictive maintenance
geofencing and routing | CANBUS telematics
 - **Human communication from any smartphone:**
voice calls | chat | PTT | SOS alerts

Applications

hiSky's Smartellite™ network meets a growing demand for IoT connectivity across all remote industries:



Fleet Management



Construction & Demolition



Emergency Services



Government



Agriculture



Maritime



Mining

Agile IoT Network

hiSky's open architecture enables easy integration with any device or application provider that suits your business needs, and integrates with any existing network to complement your coverage in all rural areas worldwide.

User-side Component:

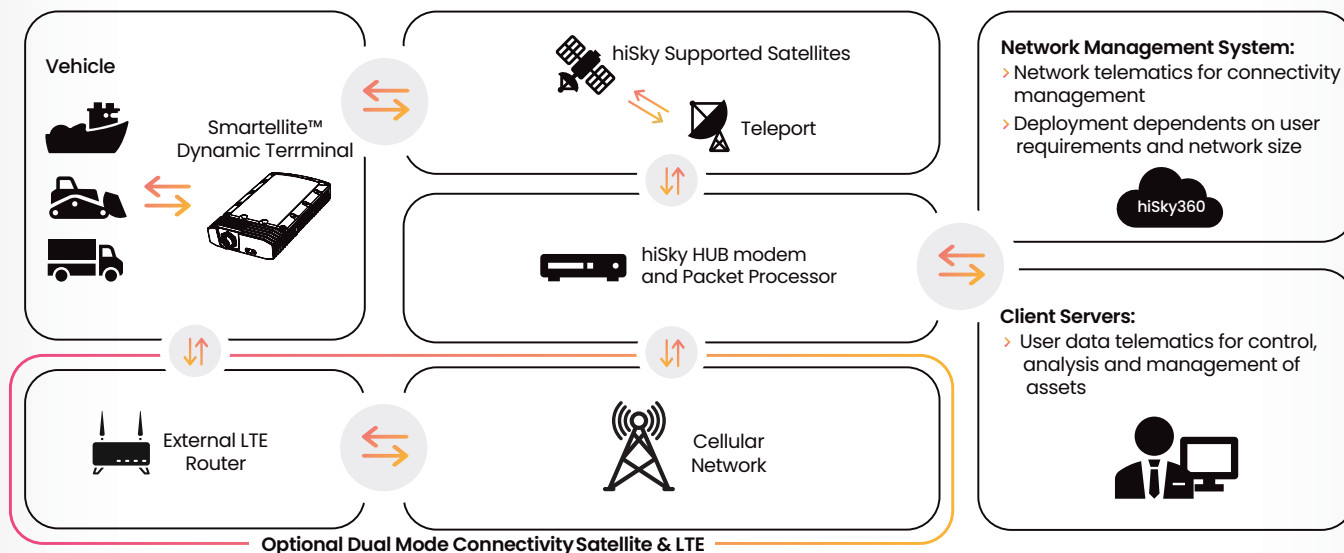
- > Terminals receiving data from the end-user device/application

Satellite Component:

- > Based on satellite provider and required operational coverage

Management Component:

- > Data routing divided into network management and applicational data



Specifications

Frequency range	TX: 27.5~30GHz RX: 17.7~20.2GHz
Data capabilities	Typical Data Burst Rates GEO: 7-100kbps Typical data rate LEO: 0.5-4Mbps
EIRP	20 dBW @ 0deg scan 17.5 dBW @ 60deg scan
Gain	20 dBi @ 0deg scan 17.5 dBi @ 60deg scan
Noise figure	3dB
Polarization for TX & RX	RHCP, LHCP, V, H, Electronically controlled
Dimensions H / W / D	42 / 244 / 141 mm 1.65 / 9.6 / 5.55 inches
Weight	1.4Kg/3.08lbs
User interface	One LED (Status), 1 Reset Button
Certifications	CE, FCC

Modem Specifications

Modulations	BPSK, QPSK, 8PSK
FEC	1/3, 5/12, 1/2, 2/3
Sensitivity	EB/N0<1.5dB@1/3

Environmental Conditions

Operational Temperature	-20°C to +55°C / -4°F to +131°F
Dust and water ingress	IP67
Vibration	SAE J1455
Salt spray	SAE J1455

Power

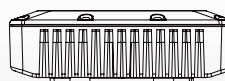
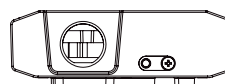
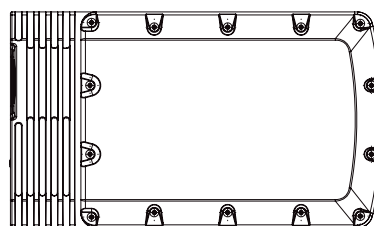
DC input range	12-24 VDC Pin Connector
Power consumption (typical)	Standby: <8W, Tx & Rx: <36W

Interfaces

Circular connector 19 pin	DC, Ethernet, Serial - 232/485, Wake up I/O
Wireless	BLE, WiFi

Accessories

- 19 pin interface cable
- Pole/Wall mounting kit
- Car magnets mounting kit



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