Narrative of Experimental Use

MOST (**MO**bile **S**atellite **T**erminal) is a patented technology that meets the unique challenges of ground and airborne vehicles broadband satellite GEO communication. MOST enable low profile antenna swept volume. MOST combines transmission, reception and polarization tracking capabilities with advanced stabilization system, making it possible to build compact, low profile antennas that are suitable for various mobile platforms. Utilizing the MOST solution will enable service providers a higher quality uplink and downlink, where the technology was designed to pin point the emerging Satellite On-The-Move (SOTM) connectivity demands.

MOST is designed for land vehicles, sea vessels, and airborne platforms to maintain unprecedented low profile and lightweight to ensure minimum downgrade to existing platform performance housed within the antenna swept volume. Efficient architecture of the electronic units enables maximum flexibility of antenna operational modes with a simple and quick installation, essentially providing mobile locations to establish a high bit-rate satellite data link (uplink and downlink).

Main Features

Low profile ODU to minimize wind drag
Standard Sat-Com IF-TX, IF-RX, for maximum network flexibility transmission and reception.
Standard Sat-com IDU replaceable hardware.
Azimuth continues 360° tracking, elevation wide angle tracking to enable consistent global coverage.
Best signal polarity axis tracking.
Simplicity and low cost, with ability to operate in extreme conditions

RF Features

Linear or circular polarization
High Power – SSPA
Ku / Ka compatibility
Compatibility with most OEM modems

Tracking System

Complete INS on-board
Combined INS & signal strength tracking

Pedestal

1” height
Heavy duty 500kg load
Rotary joint, slip rings, encoder, bearing and mount are all horizontal assembly

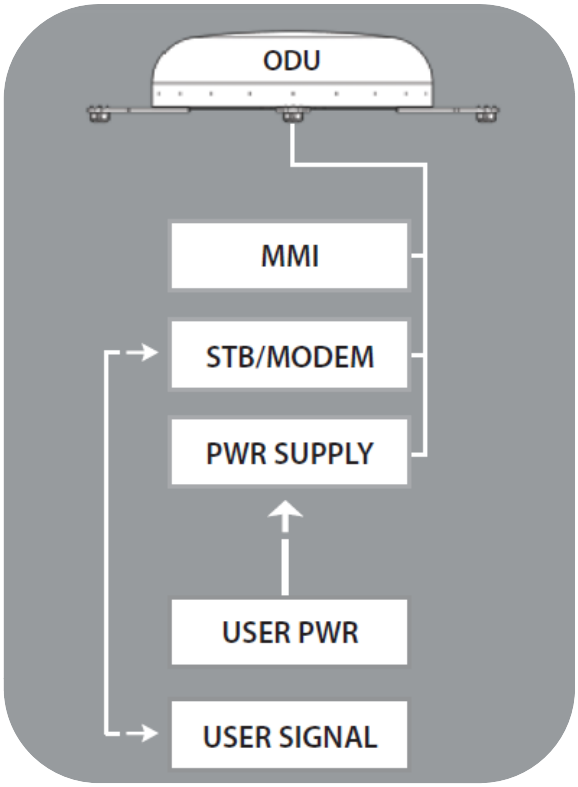
Antenna

Shaped reflectors
Casagrin configuration
1:4 aspect ratio

General Specifications

1.1 Antenna

- *Frequency Range Tx…….. 13.75GHz-14.5GHz and 27.5GHz-30.0GHz*
- *IF Frequency ……950-2150MHz*
- *Uplink Data Rate……..≤2MB*
- *Downlink Data Rate……..≤8Mb*
- *Antenna Gain……30 dBRx , 32 dBTx*
- *G/T……10.9dB Per deg. K*
- *EIRP UPL……47dBW*
- *Polarization……Linear, Adjustable*



1.2 Pedestal

- *Azimuth……360° Adjustable*
- *Elevation..... 15°-80°*
- *Polarization..... 180° Continuous*
- *Angular velocity.....AZ= 60°/S, EL= 110°/S*
- *Angular acceleration.....AZ= 45°/S², EL= 45°/S²*
- *Tracking accuracy.....0.4°*

1.3 Assembly

- *Input power..... 12-36VDC or 48VDC*
- *Power Consumption .....600W Overall*
- *ODU Weight.....32Kg*
- *ODU Size .....Diameter 98cm, Height 24cm*
- *ODU-IDU.....One cable connection*