



TSM 305 TRANSPORTABLE MULTIBAND SATELLITE TERMINAL

The Multiband Satellite Terminal TSM 305 is a tri-band multi-channel terminal providing communications capability for Strategic and Tactical field operations.

The TSM 305 can be easily packed and transported by vehicle or aircraft. Set-up and operation in the field is achieved in a short time, generally under 1 hour.

The TSM 305 is equipped with a tactical fully non-blocking digital switch providing high flexibility and enhanced features such as: saturation routing, auto-adaptive subscriber search, switch management, subscriber reconfiguration, etc.

It allows worldwide access to C and Ku band Domestic and International satellites for Data, Voice and Trunking applications, as well as X band for military satellites.

An advanced Monitor and Control System (MCS) provides local and remote control and monitor functions for the whole Terminal. A user-friendly Graphical Inter face allows the Operator to configure the terminal, set carriers and frequency bands, and continuously monitor equipment status.

MAIN FEATURES

- Tri-band capability: C, X and Ku
- Single interchangeable Feed and LNA
- 2.1m integrated Antenna (C, X, Ku) and 1.5m Flyaway Antenna (Ku)
- Capable of simultaneous operation with Integrated and Flyaway Antennas
- Easy acquisition and tracking using GPS receiver, electronic compass and inclinometer, software controlled by Antenna Control Unit (ACU)
- Satellite Specifications compliance Integrated Antenna:
 - C band: Intelsat (Std H2)
 - X band: Sicral, Nato, DSCS, Skynet, Syracuse
- Ku band: Eutelsat (Std M), Intelsat (Std E1).
- Satellite Specifications compliance Flyaway Antenna:
 - Ku band: Eutelsat (Std M), Intelsat (Std K2)
- Satellite Link capacity: up to two 2 Mbps links
- Transportable: Mounted on 4WD vehicle with loading capability on Chinook CH47 transport helicopter
- Easy and Quick Deployment
- Satellite Access: FDMA/PAMA
- Very fast satellite band change (a few minutes)
- Automatic Redundancy for TWTA and converters

- GPS-based Frequency Reference
- Windows-based Management and Control System
- Analogue/Digital Voice/Data user interfaces
- Eurocom Optical Link interfaces for Voice, Fax, Data and Video services

TECHNICAL SPECIFICATIONS

Terminal characteristics (integrated antenna)

| Parameters | All Bands | C Band | X Band | Ku Band |
|--------------------------------------|-----------|------------------|-----------------|-------------------|
| Tx Frequency | | 5.85 - 6.425 GHz | 7.9 - 8.4 GHz | 14.0 - 14.5 GHz |
| Tx Antenna Gain at flange feed (Low) | | 40 dBi | 42.6 dBi | 47.0 dBi |
| EIRP (saturated) | | 63.2 dBW | 66.6 dBW | 69.1 dBW |
| Rx Frequency | | 3.625 - 4.2 GHz | 7.25 - 7.75 GHz | 10.95 - 12.75 GHz |
| Rx Antenna Gain at LNA input (Low) | | 35.7 dBi | 41.7 dBi | 45.3 dBi |
| G/T (LNA Temp.) | | 16.7 dB/K (40K) | 20.7 dB/K (55K) | 25.2 dB/K (70K) |
| Azimuth Range | ± 70° | | | |
| Elevation Range | 10° ÷ 85° | | | |

Terminal characteristics (flyaway antenna)

| | |
|---------------------------|-------------------|
| Parameters | 1.5 meter antenna |
| Tx Frequency | 14.0-14.5 GHz |
| Tx Antenna Gain (Midband) | 45.5 dBi |
| EIRP (saturated) | 60.9 dBW (40W) |
| Rx Frequency | 10.95 - 12.75 GHz |
| Rx Antenna Gain (Midband) | 43.2 dBi |
| G/T (LNA Temp.) | 21.3 dB/K (85K) |

TSM 305 terrestrial user interfaces

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|---|
| 5 off BCA Analogue channels |
| 5 off V.10 Data channels |
| 2 off 64 - 2048 kbps V11 links |
| 1 off Multimode fibre 50/125 Optical link carrying: |
| - 1 off 512 - 2048 kbps Eurocom D/1 |

Environmental characteristics

| Parameters | Performances |
|-----------------------------------|--|
| Full Weight (vehicle and pallet) | 5000 Kg (max.) |
| Pallet Weight | 2000 Kg (max.) |
| Power Dissipation | 10 kW (max) |
| Number of cases for the flyaway | 8 of various sizes |
| Flyaway weight | 250 Kg |
| Set Up Time (2 trained operators) | 60 minutes |
| Temperature Range | -30 - +45° C |
| Sustained wind | 45 mph (operational) 100 mph (stowed) |

For more information please email infomarketing@selex-es.com

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