



## 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)

# TSM 305

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

TERMINAL CHARACTERISTICS (FLYAWAY ANTENNA)	
Parameters	
Tx Frequency	14.0 to 14.5GHz
Tx Antenna Gain (Midband)	45.5dBi
EIRP (saturated)	60.9dBW (40W)
Rx Frequency	10.95 to 12.75GHz
Rx Antenna Gain (Midband)	43.2dBi
G/T (LNA Temp.)	21.3dB/K (85K)

TSM 305 TERRESTRIAL USER INTERFACES	
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)	5000Kg (max.)
Pallet Weight	2000Kg (max.)
Power Dissipation	10 kW (max)
Number of cases for the flyaway	8 of various sizes
Flyaway weight	250Kg
Set Up Time (2 trained operators)	60 minutes
Temperature Range	-30°C to +45°C
Sustained wind	45mph (operational) 100mph (stowed)