SPACE

LIGHTWEIGHT X-BAND NAVAL SATCOM TERMINAL

Satellite communications, earth observation, navigation and positioning and control stations

indracompany.com

LIGHTWEIGHT X-BAND NAVAL SATCOM TERMINAL

Indra's most versatile and advanced naval SATCOM terminal ready for all kinds of ships

Introduction

The TNX-50 lightweight SATCOM terminal is the state-of-the-art and the most versatile member of the Indra's family of naval military SATCOM terminals.

Through the most advanced and largely proven three axis stabilized antenna, the TNX-50 allows the user to maintain reliable and secure communications in any ship.

Terminal overview

Various RF power levels are available to suit any particular user need.

A modular architecture of outdoor and indoor set of equipments provides a flexible configuration that enables the installation in any type of small and medium size ships, like corvettes, patrol boats...

Highlights

- Automatic satellite location and tracking
- Asymmetrical and bidirectional communications
- Different modems can be integrated in the TNX-50 terminal depending on the end user needs
- Different access methods are supported (FDMA, TDMA or CDMA)
- Local and remote monitoring and control through the Indra's M&C software (Genius)
- Security available through customer furnished crypto devices
- Safety systems: emergency off, switch off, mute functions

Characteristics

TERMINAL CAPABILITIES	
Traffic	Voice/Fax, data, Internet
Data rate	Up to 2 Mbps
FUNCTIONAL CHARACTERISTICS	
Antenna size	1.5 m
Stabilization	Three axis
Azimuth movements	Unlimited
Elevation movements	-15° to +115°
Cross level (inclined 30°)	+/- 35°
Standard SSPA power	125 W
Radome dimensions	80.8" (diameter) x 93.3" (height)
TECHNICAL PERFORMANCES	
Transmission frequency band	7.9-8.4 GHz
Reception frequency band	7.25-7.75 GHz
Transmission gain	40.5 dBi at 8.2 GHz
Reception gain	39.5 dBi at 7.5 GHz
Intermediate frequency	70 MHz, 140 MHz, L band
SUPPORTED SHIP MOTIONS	
Roll	± 20° with 8-12 sec period
Pitch	± 10° with 6-12 sec period
Yaw	± 8° with 5-50 sec period
Turning rate	Up to 12°/sec
Headway	Up to 50 knots

Options

TNX 50 terminal can be installed in a dual configuration placing the antennas on the two most suitable positions to allow the best combined unblocked satellites coverage.

The Dual Antenna Arbitrator unit must be installed below deck. This unit receives the information from the ACUs and manages the switching between the antennas.

ISO 9001:2000

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