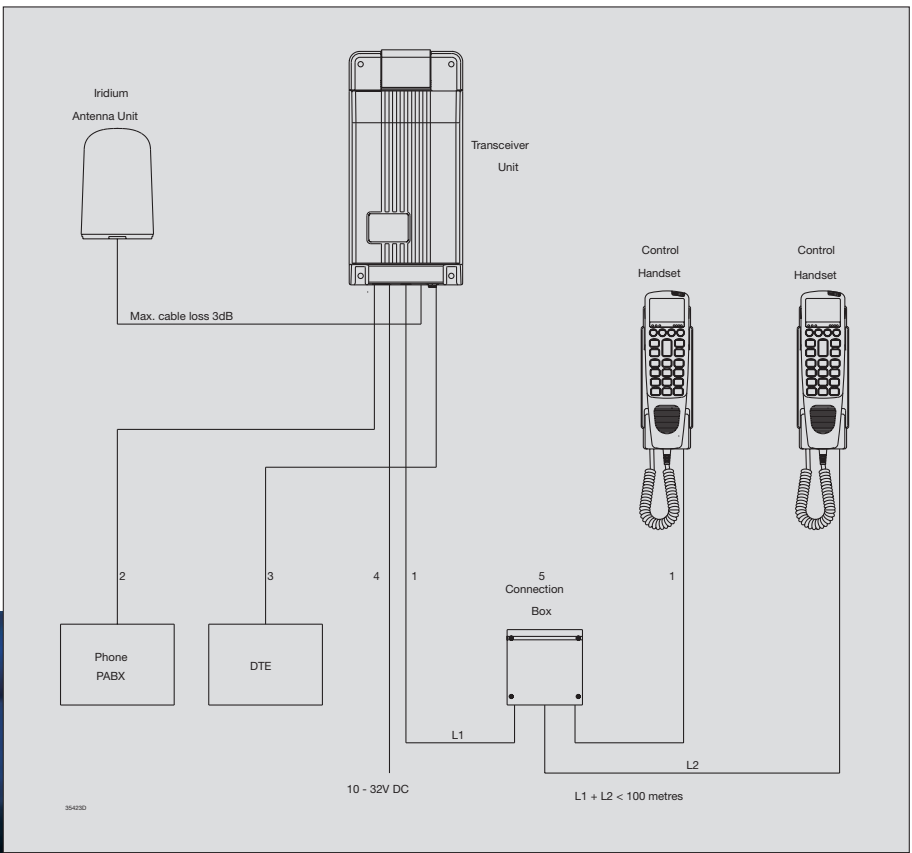


SKANTI Scansat-7701 Telephone System for Maritime Communication



Extended Scansat-7701 configuration

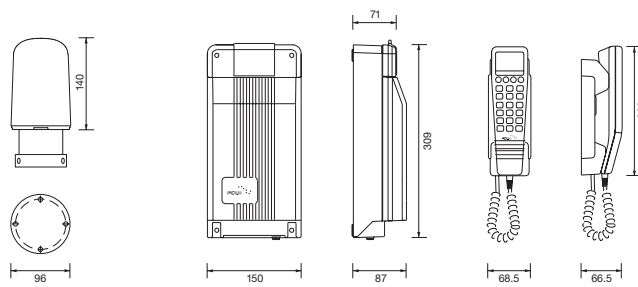


Innovating Communication
The SKANTI Scansat-7701 Iridium terminal offers tele- phone and data service through the only worldwide satellite system, allowing the user to communicate all over the globe, even in remote areas, both on land and at sea e.g. from the shipping company to its vessels and vice versa.

Technical Specifications

SPACE SEGMENT	
SATELLITES	66 (PLUS 6 IN-ORBIT BACKUP SATELLITES)
ORBITAL PLANES	6
ORBIT HEIGHT	780 KILOMETRES
INCLINATION OF THE ORBITAL PLANES	86.4 DEGREES
ORBITAL PERIOD	100 MINUTES, 28 SECONDS
SPOT BEAMS	48 PER SATELLITE

Dimensions in mm



Antenna Unit
IAU 7701
0.2 kg

Transceiver Unit
ITU 7701
1.9 kg

Control Unit
ICUH 7701
0.5 kg

General

Frequency Range
1616 – 1626.5 MHz (L-band)

Voice/Data Rate
2.4 kbit/s QPSK

Antenna

Helical, omni-directional 210°
(3 dB beam width)
Fibreglass radome Ø 96 mm

Link Margin
16 dB

Interface

Handset
600 Ω/4-wire RS485

Telephone/PABX
600 Ω/2-wire

Data
RS232

Position Information
NMEA 0183

Power Supply

DC
10–32 V

AC (Optional)
110–230 V (external power supply)

Consumption
25 W during communication
8 W stand-by

Environmental Conditions

Temperature
EME -35° C to +55° C

Rel. Humidity
Up to 95% at 40° C

Icing (Survival only)
Up to 25 mm of ice

Precipitation
Up to 100 mm/hour

Wind (Velocity)
Up to 100 knots

Vibration
IME: 2 – 50 Hz @ 1 g
EME: 4 – 33 Hz @ 1 g

Antenna Tracking Capability

Turn
Omni-directional antenna

Roll/Pitch
Up to +/- 20° from horizontal position

Yaw
Satellite elevation > 8°

SKANTI

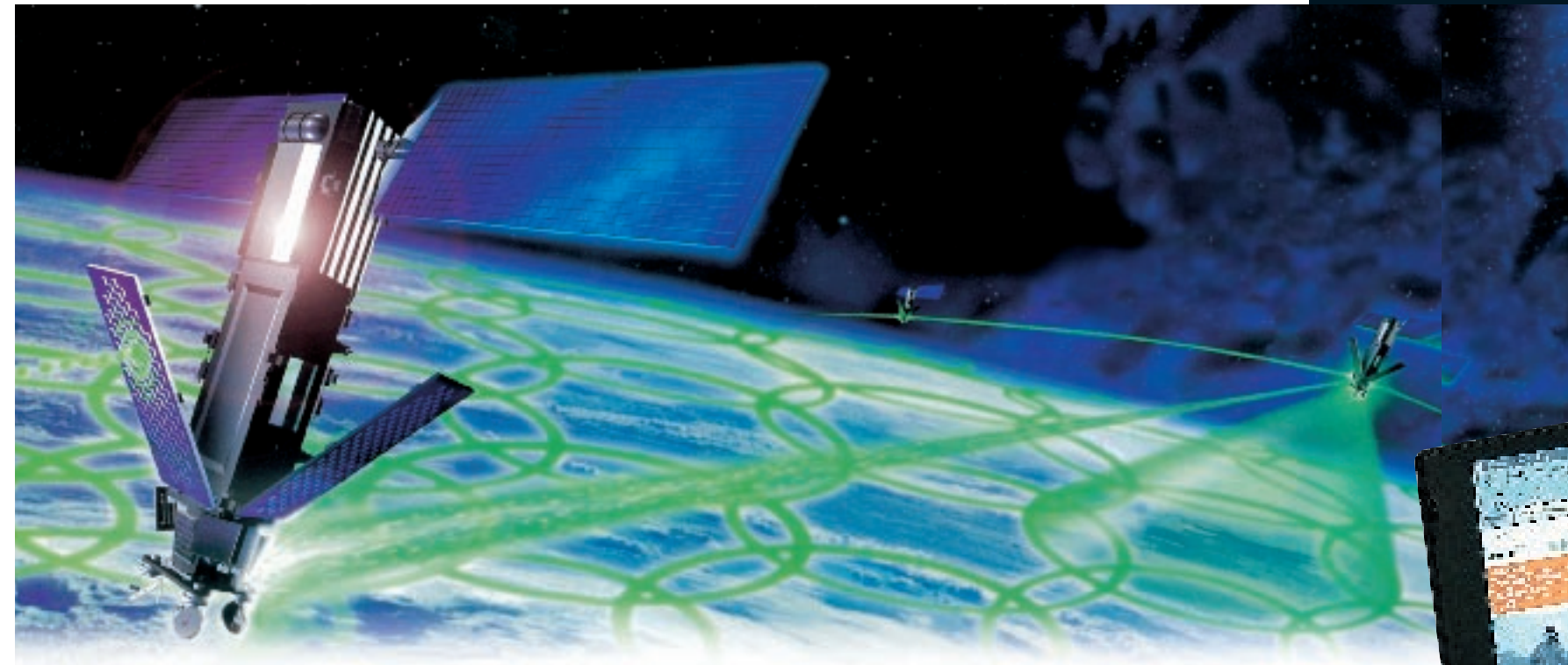
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The SKANTI® Scansat-7701 Iridium terminal offers worldwide satellite telephone and data services



The Iridium satellite telephone from SKANTI is designed for the harsh sea environment with professional mariners and serious yachtsmen in mind. The SKANTI Scansat-7701 Iridium terminal complies with all relevant international requirements.



The Iridium System

With 66 satellites forming a cross-linked grid in space, Iridium is the first low Earth-orbiting system for wireless telephone and data services. Only 780 km above Earth, these satellites work differently from those at a much higher orbit (36,000 km) in two major ways. First of all, they are close enough to receive the signals of a Iridium phone and secondly, they act as cellular towers in the sky – where wireless signals can move overhead instead of through ground-based cells.

The Iridium telephone system provides true global spot beam coverage for satellite telephones and it also offers unique cross-protocol roaming facilities for all existing telephone systems. No matter

where on the globe, the telephone can always “see” three satellites, ensuring good contact at all times and guaranteeing a clear signal irrespective of the distance between the communicating parties. This is why the Iridium system offers higher quality worldwide voice and data services than seen before for such small-size equipment.

The Scansat-7701 Iridium Terminal

The Scansat-7701 is a product in the range of high-quality, reliable and innovative communications products, which SKANTI is known for. The compact three-unit Scansat-7701 is easy to install and requires very little space. Designed for the harsh environment at sea, it is easily fitted on all types of vessels,

from leisure craft and fishing boats to tankers, cargo ships and other large vessels. The small Antenna Unit is easily installed outdoor, the Transceiver Unit below deck and the up to four intelligent Control Units Handset provide the opportunity to use the system from several places on board the vessel.

The Scansat-7701 Control Unit Handset (ICUH 7701) is an intelligent handset allowing the user to easily operate the system via a menu structure, and the text is easy to read in the 4-line and 12-character LCD display. The MMI (Man Machine Interface) is similar to that of a mobile phone and allows the user to control the system.

Small SIM-cards can easily be inserted in the SIM-card reader in the Transceiver Unit, and easily changed if several subscribers need to use the telephone.



Features

The Iridium system and the Scansat-7701 offer a wide range of services:

- 2.4 kbps data transmission and Iridium's 10 kbps compressed data service
- Direct connection for PABX or standard telephones
- Easy to install and requires a minimum of space
- Small and light-weight antenna with no moving parts
- Easy to use; works like a mobile phone

- Easily accessed SIM-card reader
- Low power consumption
- Specially designed and developed for the demanding environment at sea
- Built-in loudspeaker
- Up to four handsets
- Intelligent Man Machine Interface (MMI)
- Repeat call function
- Memory for up to 100 telephone numbers



Data Services

In addition to exceptional high-quality voice communications, the Scansat-7701 also offers 2.4 kbps data service as well as access to Iridium's 10 kbps compressed direct Internet service which allows the user to connect to the Internet from anywhere in the world. In fact the Scansat-7701 Iridium terminal provides the fastest satellite-based service for this type of equipment.

Maritime Iridium Terminal

The Scansat-7701 is designed for the harsh environment at sea and is tested according to ETSI EN 300 733, IEC 945 / EN 60 945 incl. EMC (CE mark of conformity).

Interface to PABX/PSTN

The ITU 7701 (Transceiver Unit) is the key-element of the system. This ruggedized unit includes an RJ11 port for interface to either a standard analogue telephone (according to IEC 300 001) or a PABX allowing all the telephones of the network to make use of the Iridium facilities.

