

An aerial photograph of a container ship's deck, showing rows of white and red shipping containers stretching towards the horizon under a clear sky.

SAT-201i-LRIT

long range identification
and tracking

The SAT-201i-LRIT is designed to fully comply with the IMO's mandatory SOLAS V/19-1, Long Range Identification & Tracking (LRIT) Regulations. These regulations state that vessels over 300 gross tonnes - venturing in international waters - must send a minimum of six messages a day to their designated flag authority, identifying:

- Ship ID
- Ship position
- Date and time of the ship position

All vessels must have compliant equipment installed by their first radio survey in 2009.

SAT-201i-LRIT is the lowest cost stand-alone solution available today, ideal for those vessels that either do not have compliant equipment or the cost of upgrading existing equipment is prohibitive. The equipment utilizes the Inmarsat IsatM2M protocol which is one of the most cost-effective satellite services on the market and therefore ensures complete compliance at the lowest cost for both the vessel operator and the Flag State.

SAT-201i-LRIT is pre-configured out-of-the-box ready for LRIT operation and includes the satellite modem, mounting bracket and a 20m cable – everything you need for a successful installation. There are no hidden extras.

The SAT-201i-LRIT terminals have the lowest profile on

Why the SAT-201i-LRIT?

- Fully compliant with the SOLAS V19.1 regulations for Long Range Identification & Tracking (LRIT)
- Proven technology
- Lowest cost standalone solution available today – no hidden extras
- Easy to install
- Low profile for discreet installation
- Inmarsat IsatM2M protocol
- Seamless global coverage across all ocean regions

the market, making them ideal for discreet maritime installations where security is paramount.

Unlike other satellite systems, SAT-201i-LRIT will automatically roam between geostationary satellites, allowing complete, seamless and uninterrupted global coverage across all ocean regions of the world.

Satamatics have been successful in the maritime market for many years, providing solutions to both the commercial and private sectors. All of our maritime solutions are easy to install and are fully certified for marine environments.

specification



SAT-201i-LRIT Product code A121B01

Physical

Dimensions	112 mm x 45.75 mm (diameter x height)
Weight	350g

Environmental

Temperature	-40C to +70C (requires special cable below -25C)
Marine	Climatic, Shock & Vibration EN60945: 2002
Ingress Protection	IP66 (with glands tightened onto appropriate size cable)

Power Supply Requirements

Supply Voltage	10V to 32V 'smoothed' DC
Power Consumption (typical @ 12V)	
Receive (incl. GPS)	1.5W
Transmit	6W

Compass Safe Distance

Complies with EN60945: 2002 Clause 11.2	
To SAT-201i modem	10.5 cm

Communication

Frequency Range	
Transmit	1626.5 MHz to 1660.5 MHz
Receive	1525.0 MHz to 1559.0 MHz
GPS	1575.42 ± 1.0 MHz
Elevation Angle	0° to 90°
Transmitter	
EIRP	0 - 9dBW
Modulation	2 level FSK, 256Hz tone spacing
Tx burst duration	2s or 8s

Receiver

G/T	≥ -25dB/K at EL = 30°
Modulation	32-ary FSK, 32Hz tone spacing
User data rate	~36 bits per second

GPS

Technology	SiRFStar III
Sensitivity	-159dBm (Tracking)
Channels	20
Time To First Fix (Typical)	
Cold start	<35s
Hot start	<1s (GPS was off for less than 2 hours)
Accuracy (SA Off)	
Position (CEP, 2D)	2.5m (Typical)
Dynamic Capability	
Maximum update rate	1s

Control & Monitoring

Interface	Asynchronous serial RS232
Baud rate	9600 bps
Parity/data bits/stop bits	N,8,1

Certification

Inmarsat Type Approved
FCC Compliant
EN60945
CE

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