SkyWave

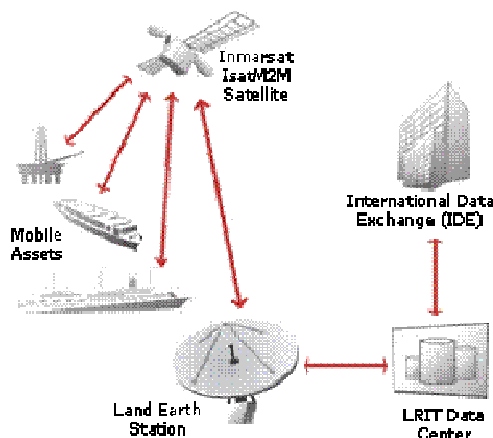# DMR-800LRIT: Long Range Identification and Tracking

Comply with international Long Range Identification and Tracking (LRIT) regulations with the DMR terminal's field-proven pedigree in ship security and vessel monitoring—at a cost that won't sink you.

LRIT regulations mandate that passenger ships, cargo ships of 300 gross tonnage or more and mobile offshore drilling units report identity, position and timestamp at both regular and configurable intervals, with compliance by December 31st, 2008.

While many field-installed Global Maritime Distress Safety System (GMDSS) terminals are capable of supporting LRIT, most will require retrofitting or a supplemental unit in order to comply with the LRIT regulation.

As a recognized Communications Service Provider (CSP), SkyWave provides reliable global coverage over the Inmarsat satellite constellation. The DMR-800LRIT terminal operates on SkyWave IsatM2M, a service based on enhancements to Inmarsat D+ and optimized for position and status reporting. It offers a compelling cost advantage in situations where existing GMDSS equipment requires upgrades or replacement.

Why DMR-800LRIT?

- **Fully compliant with International Maritime Organization (IMO) requirements** for Safety of Life At Sea (SOLAS) V/19-1 (Long Range Identification and Tracking).
- **Low cost alternative to retrofitting** if your existing terminal is not LRIT compliant, save up to 50% on up-front costs.
- **Stand-alone operation**, easy to install and does not require a crew interface, making compliance quick and painless.
- **Seamless transfer between Flags.** SkyWave's Versa automated provisioning system permits automated transfers between ASPs.
- **Easy to install** requiring only a power and ground connection with no complicated installation tools.

All the features and benefits of the DMR-800L, including:

- **Enhanced low-elevation performance for operation at sea.** The only IsatM2M terminal type-approved by Inmarsat to minus 20 degree elevation angle.
- **Global coverage** using the IsatM2M network and automated ocean region switching.
- **Extended operating temperature** range allows reliable deployment in some of the world's most demanding environments.
- **Over-the-air programming** enables remote reconfiguration of reporting frequency in full compliance with LRIT.

DMR-800LRIT Satellite Terminal

Physical

Size	• 160mm (diameter) x 100 mm (height)
Mass	• 765 g

Environmental

Operating Temperature	• -40℃ to +70℃
Storage Temperature	• -40℃ to +85℃
Humidity	• 95% Relative Humidity at +30℃
Dust & Water Ingress	• IP67/NEMA-4X
Vibration	• 5-20 Hz; 1.92 m2/s3 random noise • 20-500 Hz; -3dB octave random noise
Shock (survival)	• Half sine 6ms, 300 m/s^2

Electrical

Input Voltage	• 9 VDC to 32 VDC
Power Consumption (typical @ 22℃)	• Receive/tracking mode (GPS active): 0.91W • Transmit: 9 W
Mating Connector	• Conxall Mini-Con-X® 6282-8SG-3DC

Satellite Communications

Frequency	• Rx: 1525.0 to 1559.0 MHz • Tx: 1626.5 to 1660.5 MHz
EIRP	• 9 dBW max
Elevation Angle	• -20 to +90 degrees

GPS

Channels	• 16 channels; 1575.42 MHz
Acquisition Time	• Cold-start 41.5s; SuperSense® -148 dBm
Accuracy	• 3 m CEP; 5 m SEP

Certifications / Compliance

Satellite	• Inmarsat Type Approved
Regulatory	• IEC EN:60945 • FCC, RoHS, IC pending • CE0470 (R&TTE)
International Maritime Organization (IMO)	• Fully compliant with all IMO LRIT requirements as detailed in MSC.264(84)

Data Log

Capacity	• 320kB: Persistent storage of 140 days position history at 15 minute intervals

External Interfaces

Serial	• RS232: console interface • Password-protected access

Programming Capabilities

Script	• Pre-configured and secured for LRIT reporting

Satellite Messaging

From-Terminal	• LRIT standard report: o Position (2 second resolution) o Day of month o Time of day (1 minute resolution) • Configurable reporting frequency from 24 hours to 15 minutes • Current position response to over-the-air poll • Historical position retrieval via over-the-air query
To-Terminal	• Poll vessel for position • Reconfigure LRIT reporting frequency • Query previous historical position

Ordering Codes

SM200272-001	DMR-800LRIT • Terminal only; a DMR-800L pre-configured for LRIT
SM200267-001	DMR-800LRIT Kit – 20m cable • Includes a DMR-800L pre-configured for LRIT • Includes 20m, 2-wire, molded conductor cable
SM200267-002	DMR-800LRIT Kit – 50m cable • Includes a DMR-800L* pre-configured for LRIT • Includes 50m, 2-wire, molded conductor cable
SM200283	Pole Mount Kit for DMR-800LRIT • Order terminal separately

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Positioning technology provided by u-blox

About SkyWave Mobile Communications

SkyWave Mobile Communications designs and manufactures integrated D+/IsatM2M satellite terminals, dual-mode satellite/GPRS terminals and provides network services to enable dependable, low-cost, remote management, security and logistics solutions for fixed and mobile assets. SkyWave's products are designed for a broad range of industries including land mobile, marine, oil & gas, SCADA, government and defence.