

## DMR-200D SkyWave D+ / IsatM2M Terminal

### Product Overview

SkyWave's DMR-200 series D+/IsatM2M terminals set the industry standard for reliable burst-messaging satellite communications with low total cost of ownership. SkyWave's D+ and IsatM2M networks operate over Inmarsat's high quality international satellite constellation. SkyWave provides the networks of choice for mobile or stationary asset security and management applications anywhere in the world.

The DMR-200D comprises a high degree of integration to minimize cost and complexity of the overall solution. Built-in satellite transceiver and antenna, GPS receiver, digital and analog inputs/outputs and a variety of firmware-based options are all housed in a compact, environmentally sealed package. Application configuration and customization are provided by a versatile developer toolkit and API.

Terminals ship ready for operation on either the SkyWave D+ or IsatM2M network. All existing D+ terminals can be simply and easily upgraded to operate on the SkyWave IsatM2M service.

### Applications

GPS reporting enables asset tracking for vehicles, equipment, or containers for security and fleet management. Tracking capabilities are enhanced with built-in support for sensors and actuators to monitor conditions and provide added features such as automatic door or engine locking. The terminal's low profile makes it inconspicuous and ideal for both commercial and stealth installations.

Marine installations on vessels and buoys not only extend asset visibility to hard-to-reach ocean locations, but provide an effective means of reporting data used for weather, fishing or scientific purposes.

Logistics applications make use of sensor input to gather detailed diagnostic information for various purposes, ensuring efficient route planning and fuel consumption or to document vehicle adherence to safety and security regulations for insurance and legal purposes.

Stationary assets can also be managed using a non-GPS version of the terminal for SCADA and remote monitoring, including cathodic protection of pipelines. In these deployments, the integrated packaging of I/O with the communications subsystem not only minimizes footprint, but also provides increased reliability. Coupled with features such as low-power mode to ensure long battery life, the DMR-200D is designed to reduce total lifecycle cost.



### Key Benefits

- Reliable global coverage across 5 Ocean Regions
- Low total lifecycle cost
- Easy to install
- Painless integration with application software
- Feature options balance capital and functional needs

### Key Features

- Compact & inconspicuous
- Rugged outdoor packaging
- Prioritized communications
- Exception-based reports
- Over-the-air programming
- Integrated input/outputs
- Optional GPS
- Multiple Geofences
- Low power modes
- Highly reliable network



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## Technical Details

- Full API & development toolkit for scripting
  - 32 Actions
  - 16 Alarms
  - 16 Timers
- RS-232 serial port communications and I/O
- 4 Integrated I/O lines
  - Digital or analog
  - Voltage or current
  - Wake-up enabled
- From-terminal messaging
  - 10.5 bytes
- To-terminal messaging
  - Up to 100 bytes and 4 alert codes
- Geofences
  - 32 shapes
- Support for NMEA formatted output from GPS

## Product Specifications

Physical	Size	160mm diameter (6.25") x 51mm height (2.00")
	Weight	~520g
Environmental	Operating Temperature	-40C to +70C
	Storage Temperature	-40C to +85C
Electrical	Humidity	95% Relative Humidity at 30C
	Vibration	5-20 Hz; 1.92 m <sup>2</sup> /s <sup>3</sup> random noise
	Shock (survival)	20-500 Hz; -3dB octave random noise
		Half sine 6ms, 300m/s <sup>2</sup>
Satellite	Input Voltage	9 VDC to 32 VDC
	Power Consumption (typical @ 12VDC)	Receive: 0.8W (typical) GPS Active: 1.2W Heater Active: 1.4W Idle: 0.25W Transmit: 10W Sleep: 500µA
Certifications and Compliance	Mating Connector	Conxall Mini-Con-X® 6282-8SG-3DC
	Network Coverage	To +/- 75 degrees latitude with 5 overlapping Ocean Regions
Satellite	Frequency	Tx: 1626.5 to 1660.5 MHz
	EIRP	9 dBW max
	Elevation Angle	15 to 90 degrees
	GPS Accuracy	16 channels; 1575.42 MHz 2.5 m CEP; 5.0 m SEP
Certifications and Compliance		Inmarsat Type Approval
		FCC; RSS-201; R&TTE (CE Marking); E Mark; NEMA 4/4X; IP56; RoHS

Product	Application/Configuration Description	Ordering Code
DMR-200D	Bottom-mount connector with GPS	SM200216-BHG
	Side-mount connector with GPS	SM200216-SHG
	Bottom-mount connector (non-GPS)	SM200216-BHN
	Side-mount connector (non-GPS)	SM200216-SHN
DMR-200 Evaluation Kit	Evaluation Kit for DMR-200; Limited Airtime (order with DMR-200D terminal)	SM200232
DMR-200 Feature Options	Factory configured for D+ Operation (default)	F0001
	Factory configured for IsatM2M Operation	F0002

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