



## DMR-200 D

### SkyWave's New D+ Satellite Transceiver With Enhanced Input/Output Ports

#### Enhanced Monitoring and Control Combined with SkyWave's proven transceiver technology and unique integrated design



SkyWave's newest Inmarsat D+ transceiver, the DMR-200 D, offers the same form factor, reliability and proven transceiver technology of its predecessor, the DMR-200 C. Added to this is the capability to monitor and control external sensors and devices using any of the DMR-200 D's 4 configurable Input / Output lines with the DMR's legendary scripting capabilities.

#### Features Summary:

- Four dedicated I/O pins, each configurable as:
  - Digital input (2 processor wake-up enabled)
    - Detect external ground closure
    - Detect external voltage
  - Digital output open collector (max 100mA source)
    - 50mA sink
    - External pull-up
  - Analog voltage input
    - 0-3V
    - 8-bit resolution
- One of the four pins available for each of:
  - Analog current input – 4-20mA current detect
    - 50 Ohm low-impedance resistor
- All I/O pins are protected against shorts to ground or voltage inputs up to 30V.


These new monitoring and control capabilities will enable the DMR-200 D to be used as a complete remote monitoring and control solution eliminating the requirement for a separate I/O controller or micro-processor solution resulting in significant cost savings. In conjunction with SkyWave's powerful scripting language, these new capabilities will significantly increase the flexibility and range of uses for the DMR terminal.

**Track, Monitor and Control any Asset**

**Global Coverage on Land or at Sea**

**Operates for Years on Standard Batteries**

**Small, Lightweight and Stealthy**

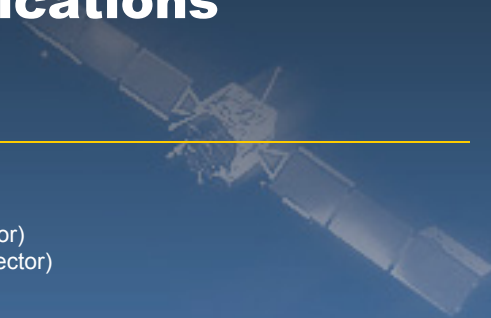
Positioning Technology provided by 

**Whether you need to control, monitor, or track any asset on land or at sea, the DMR-200 D is the ideal 'small message' service for mobile assets.**





# DMR-200 D Specifications



## Configuration Options

DMR-200 D (side mount connector)  
DMR-200 D (bottom mount connector)  
DMR-200 D Evaluation Kit (side mount connector)  
DMR-200 D Evaluation Kit (bottom mount connector)

## Physical

**Size:** 160mm (diameter) x 52mm (height)  
**Weight:** 580g

## Environmental

**Operating Temperature Range:** -40° to +70° C  
**Storage Temperature Range:** -40° to +85° C  
**Humidity:** 95% Relative Humidity at 30° C  
**Vibration:** 5-20 Hz: 1.92 m<sup>2</sup>/s<sup>3</sup> random noise  
20-500Hz: -3dB octave random noise  
**Shock (survival):** Half sine 6ms, 300m/s<sup>2</sup>

## Electrical

**Input Voltage Range:** 9 VDC to 30 VDC  
**Power Consumption (typ @ 12Vdc):** Receive: 0.9W  
Idle: 0.25W  
GPS Active: +1.0W;  
Heater Active: +5.0W  
Transmit: 10W; Sleep: 500µA  
**Mating Connector:** Conxall Mini-Con-X® 6282-8SG-3DC

## Satellite

**Coverage:** Global, four overlapping regions & Spot Beams  
**Frequency Range:** Rx: 1525.0 to 1559.0 MHz  
Tx: 1626.5 to 1660.5 MHz  
**Sensitivity:** >-25dB/K  
**EIRP:** 0 dBW to 9 dBW  
**Elevation Angle Range:** 15 to 90 degrees  
**Modulation:** Forward channel: 32-ary FSK, 20bps  
Reverse Channel: binary FSK, 4-128bps  
Forward channel: Reed-Solomon (31,15)  
Reverse channel: Half-rate convolutional (k=7)  
**Forward Error Correction:** Acknowledgement, Long Burst  
Long Burst: 64 bits  
Tone, Numeric, Alphanumeric & Transparent  
Numeric: up to 200 digits  
Alphanumeric: up to 133 chars  
Transparent: up to 800 bits payload (depending on priority)

## GPS

**Frequency:** 1575.42 MHz  
**Channels:** 16 parallel

## Certifications

Inmarsat D+ Type Approval  
CEMark  
IP56

**Wide Input  
Voltage Range**

**Application Specific  
Programmability**

**Over the Air Configuration  
and Programming**

**RS 232 Interface**

## SkyWave

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