



Product Data Sheet: Semaphore 800 Series

The IDP-800 series of terminals uses the two-way IsatData Pro satellite service for remotely tracking and managing fixed and mobile assets anywhere in the world. This low profile terminal is ideal for trailers, containers, vehicles and vessels, and can either be powered by non-rechargeable batteries, rechargeable batteries, or vehicle power. The IDP-800 can also be purchased with optional remote antenna.



SATELLITE COMMUNICATIONS

Satellite Service	Two-way, IsatData Pro
Coverage	Global
From-Mobile Message	6,400 bytes
To-Mobile Message	10,000 bytes
Typical Latency	<15 sec, 100 bytes
Elevation Angle	+20° to +90° (Integrated or remote antenna) -15° to +90° (Low elevation antenna)
Frequency	Rx:1525.0 to 1559.0 MHz Tx:1626.5 to 1660.5 MHz
EIRP	7.0 dBW

GPS/GLONASS

Acquisition Time	Hot: 1s Cold: 29s/30s
Accuracy	2.5 m/4.0 m CEP-Horizontal
Sensitivity (Tracking)	-162 dBm/-158 dBm

EXTERNAL INTERFACES

Inputs/Outputs	3 – Analog or Digital In/Out
Serial	1 – RS-232

ELECTRICAL

Input Voltage	9 to 32V Load Dump Protection: +150V SAE J1455 (Sec 4.13) Auto switchover
Power Consumption (Typical@12VDC, 22°C)	Average Receive: 8.3 mA Receive with GPS: 40 mA Transmit: 0.75 A Sleep: 100 µA Power off: 12µA
Battery Cells	12 AA Cells
Battery Chemistry	Rechargeable: NIMH Non-Rechargeable: LiFeS2

CHARGING

Current	1.33A (at 12V)
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PROGRAMMING

Lua scripting engine with core services. SDK with GUI development tools available. Lua software application upgradeable over-the-air (SOTA).

User Data Memory	3.5 MB
Geofencing	128 Polygons
Data Log	50,000 Position Reports

MASS

With batteries	1.3 kg (With integrated antenna)
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ENVIRONMENTAL

Operating Temperature	-40°C to +85°C (batteries not included) -40°C to +60°C (Non-rechargeable) -10°C to +50°C (Rechargeable)
Dust & Water Ingress	IP67
Vibration	SAE J1455 (Sec 4.9.4.2 fig 6-8) MIL-STD-810G (Sec 514.6)
Shock	MIL-STD-810G (Sec 516.6)

CERTIFICATION

Regulatory	CE,FCC, IC, Inmarsat Type Approval
Other	RoHS (batteries not included), IP67

ORDERING CODES

INTEGRATED ANTENNA	REMOTE ANTENNA	BATTERIES	TYPE
SM201225-CXX	SM201227-CXX	Not Included	Non Rechargeable
SM201225-DXX	SM201227-DXX	Included	Rechargeable
SM201226-CXX	SM201228-CXX	Not Included	Rechargeable
SM201226-DXX	SM201228-DXX	Included	Rechargeable
ST100231-001	Development kit, which includes airtime, training and support. Order terminal separately.		

IsatData Pro is a trade mark of Inmarsat and is a service delivered by SkyWave Mobile Communications through the Inmarsat network.

Positioning technology provided by ublox