

Hardware Connectivity Options

ST 6100

The next generation satellite terminal—more powerful, more versatile, more coverage.

Reliably track, monitor and control assets in some of the world's most isolated regions.

SATELLITE COMMUNICATION

- Satellite service: two-way, Global, IsatData Pro
- From-mobile message: 6,400 bytes
- To-mobile message: 10,000 bytes
- Typical latency: <15 sec, 100 bytes
- Elevation angle: -5° to +90°
- Frequency: Rx: 1518.0 to 1559.0 MHz;
Tx: 1626.5 to 1660.5 MHz;
1668.0 to 1675.0 MHz
- EIRP: <7.0 dBW

GPS/GLONASS/BEIDOU

- Acquisition time: Hot: 1 second; Cold: 29/30/36 seconds
- Accuracy: 2.0m CEP
- Sensitivity:
 - » Acquisition: -148 dBm
 - » Tracking: -163 dBm

CERTIFICATION

- Regulatory: CE, FCC, IC, Anatel, RCM Mark, IEC 60945, C1D2, SRRC, IFT, ICASA, FFA; Pending: MSS Russia
- Others: Inmarsat Type Approval, IP67

ELECTRICAL

- Input voltage: 9 to 32V; Load dump protection: +150V; SAE J1455 (Sec. 4.13)
- Power consumption (typical average @12V DC, 22°C):
 - » IDP Receive: 65 mA;
 - » GPS/Glonass/Beidou Receive: 22 mA;
 - » Transmit: 0.65 A;
 - » Sleep: 100 µA

DIMENSIONS

- 12.6 cm x 12.6 cm x 4.9 cm

EXTERNAL INTERFACES

- Inputs/outputs: 4 analog or digital in/out
- Serial: RS-232; RS-485

ENVIRONMENTAL

- Operating temperature: -40°C to +85°C
- Dust and 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)



Programming

- Lua scripting engine with core services. SDK with GUI development tools available. Lua software application upgradable over the air (SOTA).
- Core services: Geofence, data logger, position reporting, accelerometer events, serial communications.
- Optional configurable device-level applications, including:
 - » Analytics Agent - Notifications and reports for driver behaviour and vehicle/asset performance.
 - » AVL Agent - Facilitates integration of ST 6100 terminals into fleet management solutions.
 - » Garmin Dispatch Agent - Tracking, navigation, driver communication and dispatch using Garmin devices.
 - » Garmin FMI Agent - Fleet management support for two-way text messaging, stops, driver ID, hours of service, file-transfer, custom forms, and speeding alerts

ACCELEROMETER

- 3-axis accelerometer

MEMORY

- Lua Code RAM: 4MB
- Lua Code NVM: 6M

OPTIONS

- Side or bottom connector variant

ORDERING CODES/RELATED PRODUCTS

ST6100-SXX ST 6100 Terminal, Side Connector
ST6100-BXX ST 6100 Terminal, Bottom Connector
ST6100-BXXC ST 6100 Terminal, Bottom Connector, C1D2
ST100679-001 ST 6100 Development Kit
ST100030-001 Mating Cable Connector Kit with Solder Cups

IDP-782

Cellular and satellite-cellular terminals for fleet management applications

The fully programmable, feature-rich IDP-782 delivers connectivity to assets over cellular and satellite networks.

SATELLITE COMMUNICATION

- Satellite service: Two-way, Global, IsatData Pro
- From-mobile message: 6,400 bytes
- To-mobile message: 10,000 bytes
- Typical latency: <15 sec, 100 bytes
- Elevation angle: +20° to +90° (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

CELLULAR COMMUNICATION

- GPRS frequencies: 850/900/1800/1900 MHz
- HSPA frequencies: 800/850/900/1900/2100 MHz
- SIM: 3.3V/1.8V SIM
- Security: jamming detection

GPS

- Acquisition time: hot: 1 second; cold: 27 seconds
- Accuracy: 2.5m CEP-horizontal
- Sensitivity: acquisition: -148 dBm; tracking: -159 dBm
- Security: GPS signal jamming detection

CERTIFICATION

- Regulatory: CE (R&TTE, RoHS 2), FCC, IC, PTCRB (HSPA only)
- Other: Inmarsat type approval

EXTERNAL INTERFACES

- Inputs/outputs: 4 x config. Analog/digital inputs/outputs 2 x dedicated outputs (sink-ground)
- Serial: 2 x RS-232; 1 x RS-485; 1-CAN bus; 1-Wire
- Accelerometer: 3 axis

ELECTRICAL

- Input voltage: 9 to 32V; load dump protection: +150V; SAE J1455 (Sec. 4.13)
- Battery backup: >12 hours operation with 1-minute cellular reporting or 10-minute satellite reporting

ENVIRONMENTAL

- Operating temperature: transceiver and antenna: -40°C to +85°C; back-up battery: -10°C to +60°C;
- Dust and water ingress: transceiver: IP40 (IP65 with optional shroud); satellite antenna: IP67; GPS antenna: IP67
- Vibration: SAE J1455 (Sec 4.9.4.2 fig 6-8); MIL-STD-810G
- Shock: MIL-STD-810G (Sec 516.6)

PROGRAMMING

- Lua scripting engine with core services. SDK with GUI development tools available. Lua software application upgradable over the air (SOTA).
- Geofencing: 128 Polygons
- Data Logger: 50,000 position reports; auto-upload in cellular coverage
- Optional, configurable device-level applications:
- AVL agent - facilitates integration of IDP terminals into fleet management solutions.
- Garmin Dispatch Agent - tracking, navigation, driver communication and dispatch using Garmin devices.
- J1939 Agent - vehicle CAN bus connectivity for monitoring driver behavior and vehicle/asset performance.
- ARC Agent - asset alarms, periodic reports and remote control.
- Analytics Agent - notifications and reports for driver behaviour and vehicle/asset performance.



STARTER KIT: Scan the QR code for complete details of the IDP-782 Starter Kit. It's everything you need to evaluate your IDP-782 in one box



ORDERING CODES/RELATED PRODUCTS

SM201329-HNU IDP-782 Transceiver with cellular antenna (HSPA)
SM201329-HBU IDP-782 Transceiver with cellular antenna (HSPA, Battery)
ST901065-AFA IDP Remote antenna
ST901066-AFA IDP Low elevation remote antenna
SM201361-001 IDP-782 Starter Kit (USA)
SM201361-002 IDP-782 Starter Kit (Rest of World)
SM201361-003 IDP-782 Starter Kit (Canada)

ST100340-001 IDP-782 Development Kit
ST100382 IDP-782 terminal shroud, IP65
SM201455 - HBA IDP-782 cellular, battery, AT&T
SM201455 - HNA IDP-782 cellular, AT&T
SM201455 - HBV IDP-782 cellular, battery, Vodafone
SM201455 - HNV IDP-782 cellular, Vodafone
ST100445 - 001 IDP-782 cellular antenna kit
ST100446 - 001 IDP-782 cellular external gps/gsm combo antenna

IDP 800 SERIES

Satellite Communication Terminals

SATELLITE COMMUNICATION

- Satellite Service: Two-way, Global, IsatData Pro
- 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: 2.5m/4.0m CEP-Horizontal
- Sensitivity (Tracking): -162 dBm/-158 dBm

CERTIFICATION

- Regulatory: CE (R&TTE, RoHS 2), FCC, IC, Inmarsat Type
- Approval
- Others: IP67

ELECTRICAL

- Input Voltage: 9 to 32V; Load dump protection: +150V; SAE J1455 (Sec. 4.13); Auto Switchover
- Power Consumption (Typical @12V DC, 22°C):
 - »Average receive: 8.3 mA;
 - »Receive with GPS/GLONASS: 40 mA;
 - »Transmit: 0.75 A;
 - »Sleep: 100 µA;
 - »Power off: 12 µA
- Battery Cells: 12 AA Cells
- Battery Chemistry: Rechargeable: NiMH; Nonrechargeable: LiFeS2

CHARGING

- Current: 1.33 A (at 12V)

DIMENSIONS

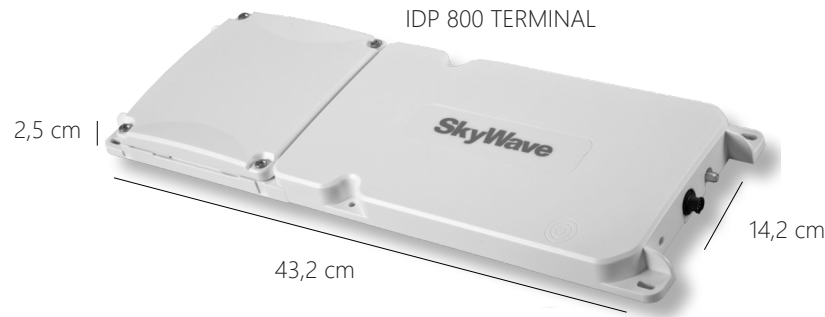
- IDP 800: 43.2 cm x 14.7 cm x 2.5 cm
- IDP Remote Antenna: 12.6 cm x 9.3 cm x 7.4 cm
- IDP Remote Antenna Low Elevation: 12.6 cm x 9.3 cm x 2.5 cm

MASS

- With batteries: 1.3 Kg (with integrated antenna)

EXTERNAL INTERFACES

- Inputs/Outputs: 3 x Analog or Digital In/Out
- Serial: 1 x RS-232
- Accessories: 1-Wire adapter via RS-232 port



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)

PROGRAMMING

- Lua scripting engine with core services. SDK with GUI development tools available. Lua software application upgradable over the air (SOTA).
- User Data Memory: 3.5 MB
- Geofencing: 128 Polygons
- Data Logger: 50,000 Position Reports
- Optional, Configurable Device-Level Applications:
 - » Analytics Agent - Notifications and reports for driver behaviour and vehicle/asset performance.
 - » AVL Agent - Facilitates integration of IDP terminals into fleet management solutions.
 - » Garmin Dispatch Agent - Tracking, navigation, driver communication and dispatch using Garmin devices

ORDERING CODES/RELATED PRODUCTS

- SM201225 - CXX Integrated Antenna Batteries: Not Included/Non-Rechargeable
- SM201225 - DXX Integrated Antenna Batteries: Included/Non-Rechargeable
- SM201226 - CXX Integrated Antenna Batteries: Not Included/Rechargeable
- SM201226 - DXX Integrated Antenna Batteries: Included/Rechargeable
- SM201227 - CXX Remote Antenna Batteries: Not Included/Non-Rechargeable
- SM201227 - DXX Remote Antenna Batteries: Included/Non-Rechargeable
- SM201228 - CXX Remote Antenna Batteries: Not Included/Rechargeable
- SM201228 - DXX Remote Antenna Batteries: Included/Rechargeable
- ST100325 - 001 1-Wire Adapter
- ST100231 - 001 Development Kit (Airtime, training and support included. Terminal purchased separately)



**START TRACKING
TODAY!**

The IDP - 800 development kit has everything you need to start experiencing the benefits of Skywave - enabled satellite tracking and monitoring solution.



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