



## ST 2100

**Satellite communications for monitoring vehicles and industrial equipment.**

The ST 2100 offers reliable global satellite connectivity—ideal for remote locations. Its durable, sealed design supports installation on mobile assets like vehicles, railcars, and equipment, as well as fixed assets such as pipelines, pumps, and tanks in industrial settings.

With a simplified architecture for low-cost satellite messaging, the ST 2100 is non-programmable and does not support VIACHAIN apps or Lua scripting. However, it features an intuitive AT Command set for easy integration with external controllers and flexible installation options for side or bottom cable access.

### **Fleet management**

Always-on satellite connectivity for tracking drivers and mobile assets in the most remote areas of the world.

### **Cathodic protection**

Ensure safety and compliance by monitoring pipeline health in isolated locations.

### **SCADA**

Remote monitoring and control of SCADA systems including electrical grid infrastructure and industrial assets like valves, pumps and tanks.

**Two-way communication**

**Simple command set**

**Quick deployment**

**Compact**

**Rugged and environmentally sealed**

# Specifications

## Satellite Communication

- Satellite Service: Two-way, Global, OGx or IsatData Pro
- Maximum message size:
  - ▶ OGx: From-mobile 1 MB, to-mobile 1 MB
  - ▶ IsatData Pro: From-mobile 6.4 kB, to-mobile 10 kB
- Typical latency: <15 sec, 100 bytes
- Elevation angle: +20° to +90°
- Frequencies:
  - ▶ OGx: Rx 1525.0 to 1559.0 MHz; Tx 1626.5 to 1660.5 MHz
  - ▶ IsatData Pro: Rx 1525.0 to 1559.0 MHz; Tx 1626.5 to 1660.5 MHz
- EIRP: <7.0 dBW

## 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, 514.6C-1)
- Shock: MIL-STD-810G (Sec 516.6)



Bottom cable access

## GPS/GLONASS/Beidou

- Acquisition time: Hot: 1s; cold: 29s/30s/36s
- Accuracy: 2.0m CEP

## Dimensions

12.5 cm x 8.5 cm x 3.6 cm

## Certification

- Regulatory: CE, FCC, IC
- Other: Inmarsat Type Approval, IP67, Anatel

## Electrical

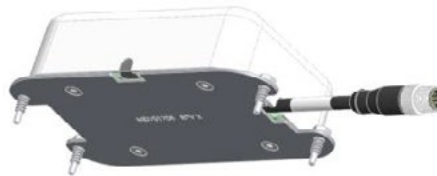
- Input voltage: 9 to 32V; Load dump protection: +150V; SAE J1455 (Sec. 4.13);
- Supercapacitor: 5F, 5V
- Power consumption (typical @12V DC, 23°C):
  - ▶ IDP receive: 75 mA;
  - ▶ IDP transmit: 570 mA;
  - ▶ GPS/Glonass/Beidou: 35 mA;
  - ▶ Sleep: 280  $\mu$ A

## External interfaces

- Inputs/outputs:
  - ▶ Event notification: Indicates ST 2100 events have occurred
  - ▶ 1PPS: One pulse per second output timed by GPS
  - ▶ Reset in: Allows external device to reset the ST 2100
  - ▶ Reset out: Allows the ST 2100 to reset an external device
- Serial: 1 x RS-232 (AT command set)

## Order codes

- **ST2100-P2X** ST 2100 with super capacitor
- **ST2100-PXX** ST 2100 without super capacitor
- **ST100990-001** Bottom cable access mount kit
- **ST100991-001** Side cable access mount kit
- **ST101004-001** ST 2100 Development kit
- **ST101349-001** ST 2100 Blunt cut cable, 5m
- **840-00193** Extension cable



Side cable access

Screwless mounting available with VHB tape kit

Although we strive to ensure accuracy in all of our published specifications, actual field performance can vary depending on a variety of environmental, installation and usage factors, as well as third-party factors such as cellular providers. The specifications listed are approximations, and do not constitute binding statements or modify the terms and conditions of purchase or lease including, but not limited to, product operational limitations and warranties. All specifications are subject to change without notice. Please check [www.viachain.io](http://www.viachain.io) to ensure you have the latest version of these specifications.

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