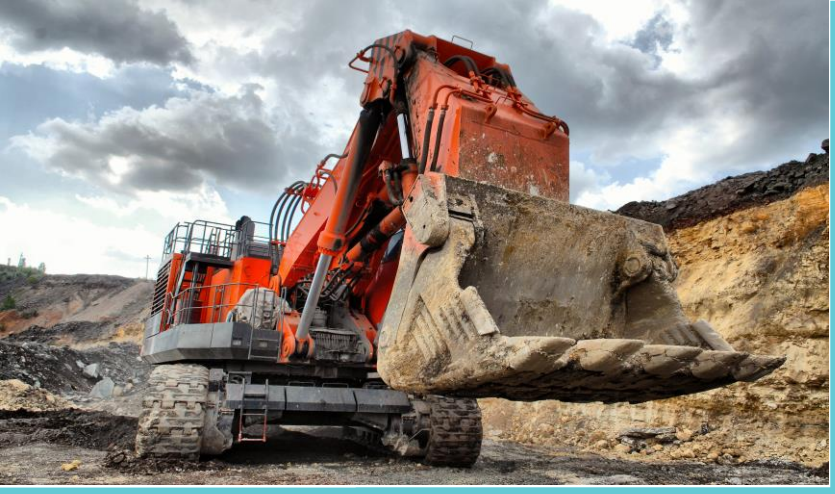
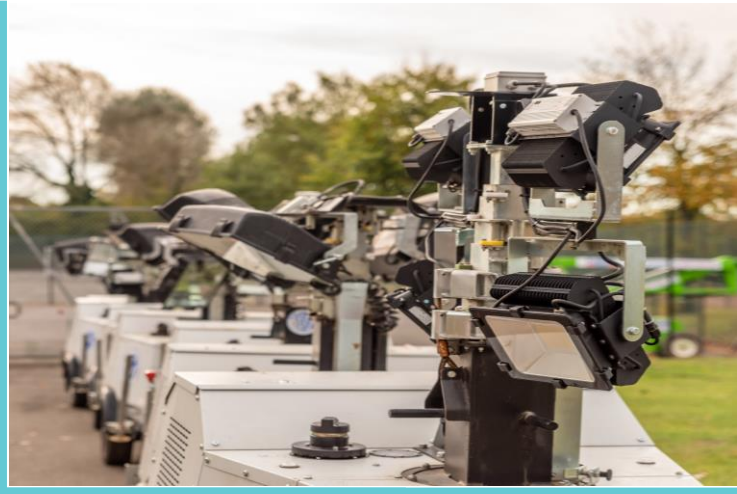
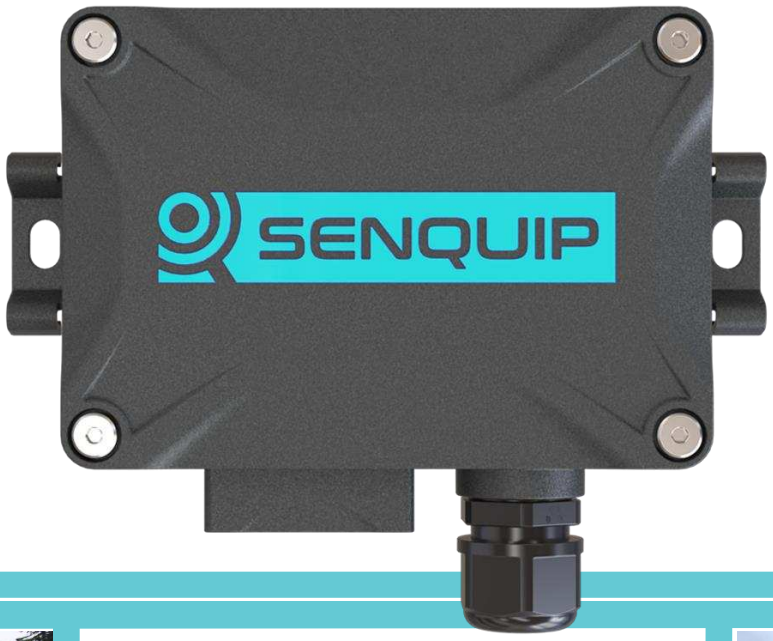
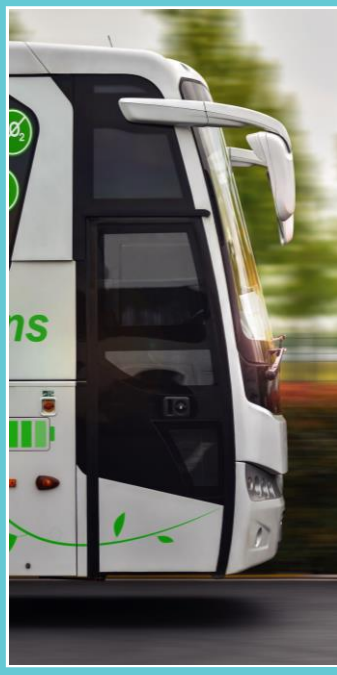








SENQUIP QUAD

Connects to industrial sensors and systems and sends measured data to the Senquip Portal or server of your choice.

Features

Designed for harsh industrial environments: dustproof, waterproof, UV resistant and strong.

Built in sensors: GPS position and speed, temperature, angle, vibration, and tamper.

External interface: RS232, RS485, MODBUS, CAN Bus, Bluetooth, voltage, 4-20mA, pulse , frequency, outputs, 4G and GPS antenna.

Wi-Fi or 4G LTE4 connection to the Senquip Portal or the server of your choice.

Powered with 10 to 75V DC or solar.

Upload your own scripts to manipulate data, create alerts, control devices, and create customised payloads.

Typical Applications

Machine monitoring – create uniform metrics across a fleet.

Machine Control – Control the functionality of machines.

Engine diagnostics – monitor for fault codes.

Sensor monitoring – MODBUS, NMEA, 4-20mA, voltage and more.

Safety systems – interlocks, gas concentration, liquid level.

Driver safety - monitor speed, pitch, roll, wind, air quality.

Remote control – write scripts to control attached systems.

Complex sensors – script power control and measurement timing.

Reliability - monitor oil condition, temperatures, pressure and more.

Data consolidation - send data to your preferred endpoint.

SENQUIP QUAD

CONNECTING MACHINES TO THE INTERNET

SENQUIP QUAD

WiFi + 4G LTE
CAT-M1 for best possible coverage.
CAT-1 for global connectivity

BLUETOOTH
Monitor BLE beacons or send data to the Senquip BLE App

DIRECT TO YOUR SERVER
Send data to the server of your choice

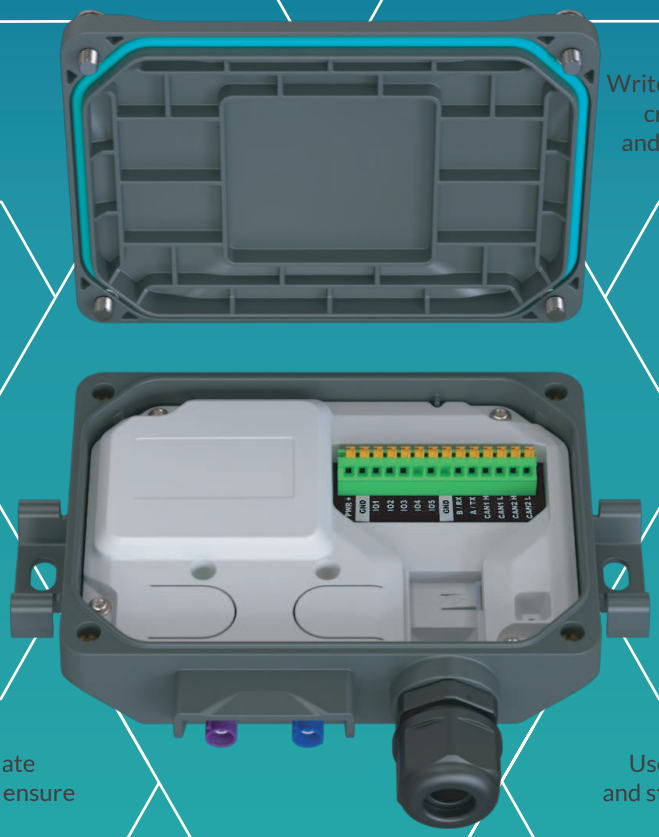
GPS + GNSS
Accurate position and speed

NOTIFICATIONS
Receive email and SMS warnings and alarms

SECURE
Embedded certificates validate identities, encrypt links and ensure integrity

SIMPLE SETUP
Use any phone, tablet or computer with the integrated webserver

EXTERNAL ANTENNA
4G and GPS antenna included



FLEXIBLE SENSOR INTERFACE
RS232, RS485, MODBUS, CAN Bus, Bluetooth, output, 4-20mA, pulse and voltage

USER PROGRAMMABLE
Write scripts to manipulate data, create alerts, control devices, and create customised payloads

VERSATILE MOUNTING
DIN rail, wall or panel mount

IP67
Waterproof and dustproof

BUILT TOUGH
Glass filled nylon
UV resistant and strong

CLOUD SERVICES
Use the Senquip Portal to view and store data, and configure and update devices

10 -72VDC
Integrated solar regulator
Internal backup battery

INTERNAL SENSORS
Accelerometer for pitch, roll and vibration. Tamper detection, temperature, and voltage monitoring

IP67

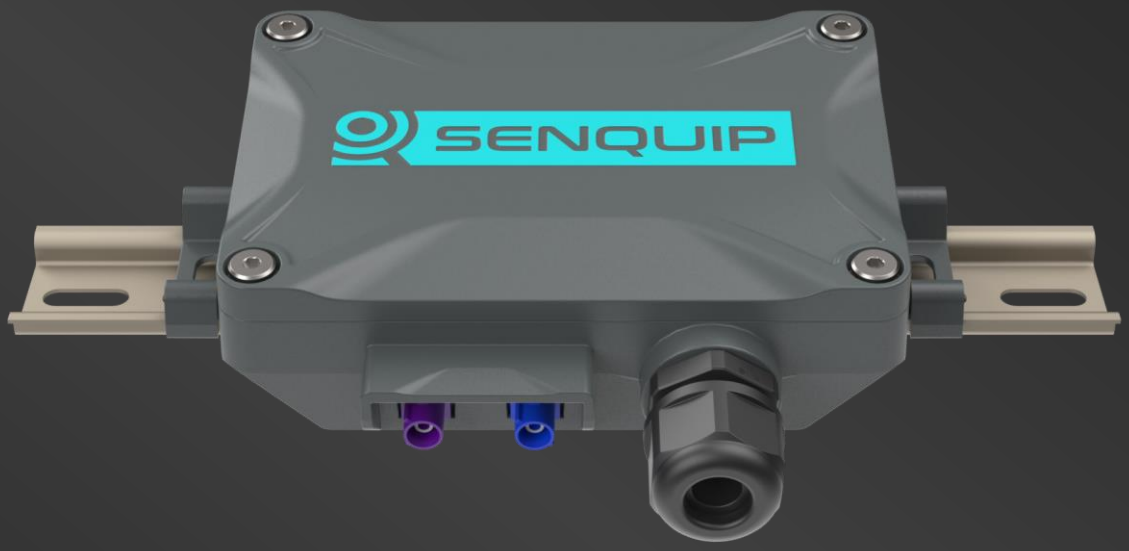
WEB & EMAIL
senquip.com
sales@senquip.com
support@senquip.com

DISTRIBUTOR:

SENQUIP®

SENSOR CONNECTIVITY MADE EASY

Senquip QUAD-C2 Datasheet



Senquip manufactures rugged, programmable telemetry devices that connect to industrial sensors and systems and send the data measured to the Senquip Portal or a server of your choice.

RUGGED: The Senquip QUAD is designed for harsh outdoor environments; up a pole, on a wall or attached to a vehicle.

SENSING: Built in sensors measure GNSS position and speed, temperature, magnetic, pitch and roll, vibration, supply and battery voltage, and tamper. Interfaces are provided for RS232, RS485, MODBUS, CAN Bus, Bluetooth, 4-20mA, pulse, frequency, and voltage.

NETWORK: Data measured is transmitted via Wi-Fi or 4G LTE4 and can be delivered to the Senquip Portal or to your own server or SCADA system.

POWER: Power is supplied with solar, or 10V to 75V DC. If a solar panel is used, an internal LiPo battery will keep the device powered during periods without sunlight.

EDGE PROCESSING: Users can write JavaScript to manipulate data, create combinational alerts, execute local control, or create customised payloads for sending to 3rd party servers.

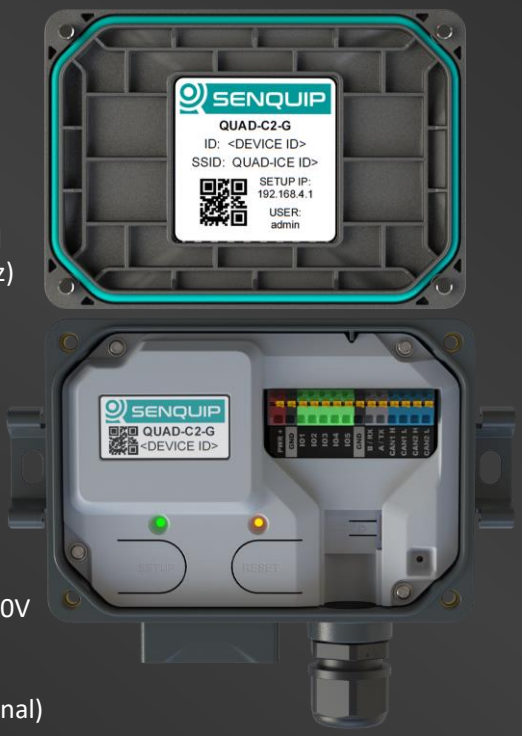
Technical Specification

Power
External supply: 10VDC to 75VDC
Solar: typical 12V 10W, with regulator and backup battery internal to the Senquip QUAD
Internal rechargeable backup battery: 3.7V, 1800mAh LiPo
Typical current draw (LiPo): 65uA (sleep), 40-70mA (measure), 100mA (Wi-Fi), 120mA (4G LTE)

Configuration
Local via embedded webserver
Remote via the Senquip Portal

Edge Processing
Write and deploy JavaScript applications to manipulate data, create combinational alerts, execute local control or create customised payloads for sending to 3rd party servers.

Internal Sensors
GPS: horizontal accuracy ±5m (<2.5m CEP-50), speed ±1km/h. Time to first fix typically < 60 sec
Bluetooth version 4.2
Accelerometer: 3-axis, ±16G. Pitch and roll accuracy ±1°, 100Hz vibration
Ambient temperature: -40 to 85°C, accuracy ±1°C
Supply, and internal LiPo voltage monitoring
Tamper detection through use of internal light sensor
Hall effect sensor for magnetic triggering



Multi-purpose Inputs/Output
5 multi-purpose input outputs
Input : 100Hz sampling with event capture
Analog (0-72V), Digital with configurable threshold
Frequency, Duty cycle, Pulse counting (up to 10kHz)
4-20mA sink and source (2 and 3 wire devices)

Output: Switch to ground 250mA
Switch to input power, 100mA
Switch to internal boost, 100mA
Boost configurable 5-25V, 100mA

Serial
RS232 (3-wire), RS485 (2-wire)
Serial capture or MODBUS RTU Master
2 x CAN Bus: High Speed CAN FD (4Mbps), Line Faults to ±60V

Network
4G LTE CAT-M1 (QUAD-C2-G) / 4G LTE CAT-1 (QUAD-C2-H)
SIM card holder for Micro-SIM (internal soldered SIM optional)
Wi-Fi (QUAD-C2-W)
Endpoint: Senquip Portal and 3rd party MQTT(S), HTTP(S), UDP servers
Data format: JSON or script your own

Mechanical
Dimensions: 147mm wide, 128mm height (including cable gland), 37mm depth
External FAKRA GPS and 4G LTE antenna with 3m cable (included)
Weight: 400g excluding antenna
Enclosure material: UV stabilised glass filled nylon
Stainless lid screws, spring mounted and captive
Terminal block wire size: 24 (min) to 16 (max) AWG

Environmental
Operating temperature: -20°C to 80°C
Water Ingress: IP67

Warranty
1 year from date of purchase

Part Number	Network Features
QUAD-C2-W	Wi-Fi
QUAD-C2-G	Wi-Fi, 4G LTE CAT-M1, GNSS
QUAD-C2-H	Wi-Fi, 4G LTE CAT-1, GNSS