Senquip QUAD User Guide

Release

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Introduction

1.1 What is the Senquip QUAD

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

The Senquip QUAD is designed for applications where the telemetry device needs to be hidden, is in a metal enclosure, and so needs external antennas.

Built in sensors allow measurement of supply voltage, battery voltage, time, position, speed, ambient temperature, pitch, roll and pressure. Interfaces are provided for RS232, RS485, MODBUS, CAN bus, Bluetooth, 4-20mA, pulse, frequency, and voltage.

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

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

Senquip telemetry devices are programmable with JavaScript. Users can write their own scripts to manipulate data, create combinational alerts, execute local control, or create customised payloads for sending to 3rd party servers.

Typical markets include mining, utilities, and transport.

1.2 Who can use the Senquip QUAD

The extensive array of in-built sensors, ability to interface to any industrial sensor or system, programmability, versatile power supply and rugged enclosure mean that the Senquip QUAD can be used in a wide variety of applications across many industries. Typical applications are found in:

Mining, monitoring plant and equipment such as lighting plants, pumps, water tankers and more. Measure utilisation, location, fuel level, engine speed, temperature and more to ensure reliability and optimal performance.

Water Services, ensuring that drinking water is of the highest possible quality. Detection of chemical leaks in factories and in water treatment plants. Measure level, flow, temperature, pH, chemical makeup and more.

Fleet, connecting to the vehicle and load to provide more than just telematics. Interface to CAN-bus and other available sensors on a vehicle.

Smart Cities, measuring temperature, sound, asset utilisation, service delivery and other parameters to enhance the daily lives of citizens.

Environment, monitoring air-quality pollution, dust and pollen levels to provide early warnings and improve the health of local populations.

Emergency Services, monitoring of water levels and other environmental factors to provide early warning of flood, fire and other natural disasters.

Industrial Installations, interface to sensors using industry standard protocols like 4-20mA, voltage, MODBUS, and RS232.

Agriculture, soil and water monitoring to ensure fast growing, high quality crops and maximum yield.

Aquaculture, measuring water quality and temperature to ensure optimum growth and health of fish populations.

Health Services, monitoring of fridges to ensure safe storage of temperature sensitive medicines.

1.3 You can rely on the Senquip QUAD

The Senquip QUAD has been designed from the ground up to offer a reliable, capable, flexible and secure remote monitoring platform for industrial users.

Reliability, the Senquip QUAD has been designed for use in challenging environments where reliability is paramount. Where other devices fail, the Senquip QUAD will continue to deliver data, reducing overall cost of ownership and an enhanced user experience.

Capability, the Senquip QUAD has more on-board monitoring, allows connection to more external sensors and has the most versatile power requirements of any telemetry unit in its class.

Flexibility, the user interface is simple to use and yet allows enough flexibility to ensure compatibility with most industrial sensors and systems. User written scripts offer infinite opportunity for customisation.

Security, all data collected is encrypted and is transmitted using secure authenticated connections.

Ownership, at Senquip, we believe that the customer owns their data. We deliver your data to your servers in a private, secure manner. We will not access, use or resell your data - it is yours.