Model SC6570

Canary – HAZLOC

RMU w/ Serial Pass Through

Summary

- Wireless Remote Monitoring Unit
- Excellent Sensitivity / Range
- External 12V Operation (w/ Optional Battery Backup)
- Supports Digital and Analog I/O, 4-20mA Sensors, Serial Interfaces, including Modbus and Hart (Optional Module)
- Wide Operating Temperature Range (-25 to +75C)
- Time Stamped Data
- Threshold Alarming Functions
- External Diversity Antennae

Description

The SC6570 has an identical feature set to the SC6520 but adds support for serial pass through mode. When combined with SCT's C-PORT RPMA Gateway Interface, the unit can operate as a transparent wireless serial data modem. The unit is designed for operation in North American Class 1 Division 2 environments.

The SC6570 is targeted at low rate wireless data applications requiring exceptional sensitivity and long battery life. It provides wireless connectivity for sensors, I/O and other instrumentation. The embedded battery and wireless interface provides users with a stand-alone device that greatly simplifies installation and helps minimize infrastructure costs. Depending on configuration and reporting interval, installations with a battery life of several (5-10) years can be achieved.

Canary products incorporate an RPMA (aka ULP) wireless modem. RPMA is a groundbreaking wireless technology built from the ground up, specifically targeting sensors and other low data rate devices. It's an end-to-end solution that provides an optimal mix of coverage, capacity, low-power consumption, and cost. It fills a significant gap in between currently available short range mesh radios and cellular M2M modems.

RPMA is a half-duplex system that operates in a star configuration. It is deployed using industry standard and time-tested modeling tools, similar to those used in the mobile telephony industry. The system delivers the lowest cost of ownership in the industry and is simple to deploy, operate, and maintain.

Typical Applications

- Oil and Gas Sensors
- Cathodic Protection Monitoring
- Pipeline and Distribution Equipment
- Water Management
- Asset Tracking

Features

Generous Interfaces:

- 1x RS-232/RS-485 Serial Communication Port
- 2x Digital Input (5 to 24VDC) Channels
- 1x Relay Drivers (12 to 24VDC)
- 2x Analog Voltage (±20V) Inputs
- 2x Analog Current (4-20mA) Inputs
- 1x Hart (on 4-20mA input)
- Optional External 12VDC Supply Input

Suitable for Indoor or Outdoor Deployment

- Polycarbonate Enclosure NEMA 4X Rated (IP66)
- -25C (-25F) to +75C (167F) Operating Temp
- Suitable for mounting on poles or flat surfaces
- 5-10 Year Battery Life

Low Deployment and Maintenance Costs

Wireless Connectivity

- RPMA Network in Star Configuration
- Over 160dB of Link Budget
- GPS Synchronization and Time Stamping

Other Features

- Configurable monitoring / sampling intervals
- Data threshold alarming
- Easy to Install, Configure and Use

Specifications

Radio Performance
Sensitivity: -143 dBm
Transmit Power: +20 dBm (NA), +10 dBm (EU)
Data Throughput: 60kbps
Access Point Capacity: 64,000 Nodes
Security: 128/256 bit encryption
Protocol: RPMA Network in 2.4 GHz ISM Band
Modulation: 1MHz Bandwidth, Dynamic DSSS
Diversity Support: Yes
Frequency: 2402 to 2476 MHz (NA), 2402 to 2481 MHz (EU)

Digital Inputs (2 Channels)
Maximum Input Voltage (No Damage) +26.0VDC
$V_{IN\_HI} \geq +2.56VDC$, $V_{IN\_LO} \leq +1.60VDC$
I_{max}: 16mA

External Relay Control (2 Channels)
Open Drain: 50mA at 24V maximum
Maximum Input Voltage (No Damage): +33VDC

Analog Voltage Inputs (2 Channels)
Input Range: ±20.0 VDC
Resolution: 10mVolts (12bits min)
Typical Input Impedance: 10 MOhm
Minimum Input Impedance: 2 MOhm
Input Voltage (No Damage): +25.8 VDC

Analog Current Inputs (2 Channels)
Input Range: 0 to 20mA
Resolution: 12bits minimum
Input Impedance: 200 +/-25 Ohms
6, 12 and 21.6V (Configurable) Loop Power Available
Maximum Input Voltage (No Damage): 4.5VDC

Serial Interface (2 Channels)
RS-232 or RS-485 (SW Selectable)
Maximum Input Voltage (No Damage): 9.6 VDC

Interface
Status LED (powered, link, error)
I/O access is provided through two cable glands. The SC6570 is shipped with a plug in each gland to ensure IP66 level protection in the absence of cables.

Environmental
NEMA 4x (IP66 per IEC 529)
Polycarbonate Enclosure is UL94-5VA Flammability Rated
Operating Temperature: -25 to +75°C
Storage Temperature: -25 to +85°C
Humidity: 5% to 85%, non-condensing

Certifications (North America Class 1 Div 2)
UL61010-1/CSA 22.2 No. 61010-1-12
ANSI/ISA-12.12.01-2013
CAN/CSA-C22.2 No. 213-M1987

Certifications (EU)
EN 61010-1:2010
ETSI EN 301 489-1 V2.1.1
ETSI EN 301 489-17 V3.1.1

Dimensions and Weight
Size (excl. antennas): 21 x 11.5 x 7.6cm (8.25 x 4.5 x 3.0in)
Weight: 2.0kg (incl. antenna and mounting hardware)

Power Requirements
Optional Battery (SignalCraft Part# SCT-BM0652VC)
External Supply : +10.8 to 13.2VDC
Max Current Consumption: 250mA

Support
Technical support is available through our website, www.signalcraft.com/support or by contacting us at support@signalcraft.com .

Calibration
Calibration is not required on this product.

Warranty
Full one year parts and labor when used under normal installation and operation conditions. Repair services are available for products no longer covered under warranty.

Ordering Information
Send inquiries to info@signalcraft.com .