PHILLIPS CONNECT SolarNet CAN EROAD Asset Tracker User Manual

User Manual
SolarNet CAN™
Part #77-7571 US/EU

Contents

INTRODUCTION

The SolarNet CAN™ 4G LTE Asset Tracking Gateway from Phillips Connect is a vehicle tracking device that combines GPS location with LTE and Bluetooth. SolarNet CAN monitors vehicle and asset functions and sends that data to a cloud-based Remote Listening System for tracking and analysis. A built-in backup battery, plus a solar panel for charging, allow SolarNet CAN to provide health and location reports while the asset is parked and not connected to main power.
The SolarNet CAN Gateway appears to the user of a server application as a single endpoint device. It can be queried, updated, and configured either through a serial connection or an over-the air (OTA) LTE IP connection. SolarNet CAN presents itself over the connections as an enhanced cellular modem with attached functional elements. These elements include:

- GPS location engine
- General Purpose I/O (GPIO) pins
- CAN Communication (optional with harness)
- BLE 5.2

The following is a typical application scenario:

HARDWARE FEATURES

The SolarNet CAN Gateway ships from the factory pre-configured for a specific set of functions and can be reconfigured and commissioned in the field, while providing support for external control through a Phillips Connect proprietary set of commands. Supported features include the following:
Solution Highlights

- Manage and view your assets in the cloud-based Remote Listening System
- Real-time visibility and location

- Automated alerts configurable in the Remote Listening System
- Up to 6 months of reporting (on fully charged battery, stationary asset)
- 10-year battery life on solar power
- Optional 7-way charging harness for trailers
- Flawless operation in the harshest temperatures
- 5-minute reporting when in motion
- 2 reports per day when parked

Powerful Cost Saving Tools

- Automate yard checks
- Optimize trailer pool management, and do more with fewer trailers
- Eliminate trailer theft and cargo loss
- Improve driver satisfaction
- Manage detention billing

TECHNICAL SPECIFICATIONS

CELLULAR SUPPORT
LTE-FDD: Bands B2/B4/B12
WCDMA: Bands B2/B4/B5

GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS)
Supported Satellite Systems: GPS; GLONASS; BeiDou (COMPASS); Galileo; QZSS
Accuracy: Circular Error Probable (CEP-50) with Open Sky, <2.5 meters
Additional Features: Assisted GPS; WAAS Support

SENSOR DATA INTERFACES
Bluetooth 5.2
TIA-485-A

- PCTBus

GPIO: 2 Channels

ELECTRICAL / POWER MANAGEMENT
Operating Voltage: 10 V to 32 V
Max draw from tractor: 2 A @ 12 V

- Battery charger draw: 1 A
- Sensor draw: 500 mA
- Telematics draw: 150 mA

Max supply to sensors or indicator lamp: 12 V @ 500 mA
Battery Type: Li-ion, Rechargeable

- Nominal Capacity: 10.6 Ah

- Maximum Voltage: 4.2 V
- Cell Cycle Life: ≥1000 cycles; ≥80% retention

Solar Panel

- IMP : 0.37 A
- VMP : 6 V

Power management modes: Normal (Full power), Listen, Stealth
ENVIRONMENTAL
Ingress Protection Ratings: IP67; IP69K
Operating Temperature: -40°F to 149°F (-40°C to 65°C)
Storage Temperature: -40°F to 113°F (-40°C to 45°C)
Battery Charging Temperature: -4°F to 131°F (-20°C to +55°C)
Operating Humidity: 20% to 90% (non-condensing)
Storage Humidity: 10% to 95% (non-condensing)
MECHANICAL
Dimensions: 12.44” (L) x 2.95” (W) x 1.46” (H) (316 mm x 75 mm x 37 mm)
Weight: 0.93 lbs. (420 g)

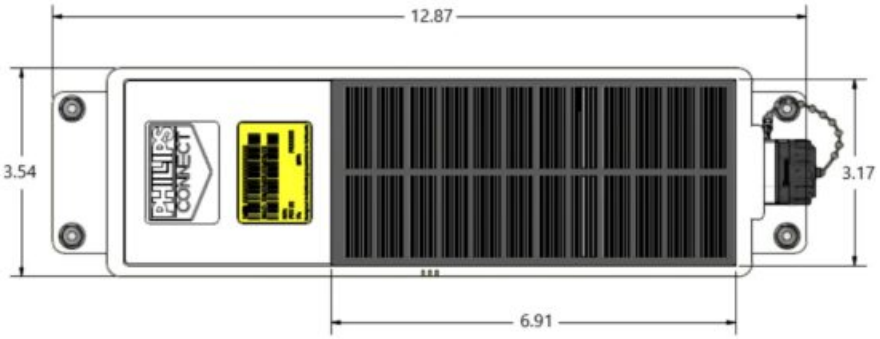
CERTIFICATIONS & COMPLIANCE
FCC / IC
PTCRB Cellular
CE / UKCA (EU version only)

INTEGRATED: GATEWAY SENSORS

- Orientation
- Vibration
- Temperature
- Battery Voltage
- Solar Panel Current
- Primary Input Voltage
- Secondary Input Voltage
- GNSS Location
- GNSS Odometer
- Device Time via GNSS and NITZ

MECHANICAL DETAILS

4.1 FRONT/REAR DIMENSIONS



4.2 SIDE DIMENSIONS

FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
IMPORTANT NOTE: FCC Radiation Exposure Statement
This equipment complies with the FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.
The transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

INDUSTRY CANADA STATEMENT

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). operation is subject to the following two conditions:

1. This device may not cause interference
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Radiation Exposure Statement:
This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

COMPANY INFORMATION

Technology that moves us forward

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Documents / Resources

	PHILLIPS CONNECT SolarNet CAN EROAD Asset Tracker [pdf] User Manual SN01, 2ASKH-SN01, 2ASKHSN01, SolarNet CAN EROAD Asset Tracker, SolarNet CAN, EROAD Asset Tracker, Asset Tracker, Tracker

References

- Connect.com
- User Manual