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DATASHEET:

SOLAR POWERED ASSET TRACKER

SOLAR SENSE II

Solar Sense II is an energy-harvesting LTE Cat 1 Asset Tracker that supports long-term, remote deployments without the need to replace the battery.

Solar Sense II utilizes a high-efficiency solar panel to charge and maximize the operating life of the internal Lithium Ion battery. Customers who require frequent data for location, health, and monitoring of their remote assets can be assured that the Solar Sense II will provide more frequent data for longer periods compared with other asset tracking devices.

The internal 9 Ah battery is best-in-class. It is rugged and designed to withstand various environmental factors, the Solar Sense II is tested to meet IP67 rating. With a fully sealed, protective case the device can be deployed in hard environments.

USE CASES
• Trailer and Chassis
• Rail Cars
• Intermodal
• Containers
• Heavy Machinery
• Transportation Equipment
• Mobile Signage
• Generators
• Mobile Lighting
• Agriculture

KEY FEATURES
• Compact size
• Easy Installation
• Solar Powered
• Waterproof
• BLE 5.0 Full Wireless Sensor Solution
• Works With Door, Temperature and Humidity Sensors
• 9600 mAH Rechargable Battery
• Integrated GPS receiver and antenna
• Integrated LTE band antenna
• Low Battery Alarm

Optional Door and Temperature Sensor For Solar Sense II

SOLAR SENSE II SPECIFICATIONS:

GENERAL SPECIFICATIONS

Dimensions	85mm* 185mm*31 mm (3.35" *7.28" * 1.22")
Weight	370g (13.05oz)
Battery	PC+PBT
IP Rating Waterproof	Rechargeable Li 9600 mAh/ 3.6V
Standby Time (Without considering solar charging, 2 hours active tracking per day)	10 minutes reporting: 320 Days 5 minutes reporting: 170 Days 1 minute reporting: 68 Days
Charging & Data Communication	Magnetic USB cable (Recommend using 5V 1A adaptor, 20 hours charging)
Solar Panel	For charging the tracker battery
Charging & Data Communication	Charging & Data Communication
Operating Temperature	13 °F to 176 °F (-25 °C to 80 °C)
Mounting	Magnet/Screw/VHB Tape

INTERFACES

Charging and Data Transmission	4 Pin port with magnet
Network, GNSS Antenna	Internal only
Indicator LED	Network, GNSS and Battery level
FOTA	Yes
Light Sensor	1 Back Light Sensor
Temperature Sensor	1 temperature Sensor
Phyiscal Power Switch	1
BLE 5.0	Yes

NETWORKING/OPERATING BAND

Operating Band	FDD: B1/B2/B3/B4/B5/B8/B12/B13/ B19/B20/B25/B28 TDD: B39 (Cat M1 only) EGPRS 850/900/1800/1900MHz
Data Transmission	eMTC: Max. 300Kbps (DL), Max. 375Kbps (UL) NB1: Max. 32Kbps (DL), Max. 70Kbps (UL) EDGE: Max. 296Kbps (DL), Max. 236.8Kbps (UL) GPRS: Max. 107Kbps (DL), Max. 85.6Kbps (UL)

GNSS SPECIFICATIONS

GNSS Chipset	Qualcomm Gen 8C GNSS receiver
Parallel GNSS	GPS+Glonass +Galileo+ Beidou
Receiver Type	33 tracking/99 acquisitions- channel GNSS receiver
Sensitivity	Cold start: -149 dBm Tracking: -163 dBm
Position Accuracy (CEP)	Autonomous < 2m
Standalone TTFF	Cold start: < 29s Warm start: < 27s Hot start: < 1s

AIR INTERFACE PROTOCOL

Transmit Protocol	TCP, UDP, MQTT, SMS
Data Security & Encryption Option	MD5/AES128
BLE Accessory Support	Yes
Scheduled Timing/angle/distance Report	Report position and status at preset intervals
Low Power Alarm	Sending alarm when battery is low
Motion Detection	Motion alarm based on internal 3-axis accelerometer
Removal Alarm	Sending alarm when the light sensor detecting the light changing

CERTIFICATIONS

CCE, RCM, IC, FCC, PTCRB, AT&T, US Cellular, T-Mobile(on-going), Verizon(on-going)

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