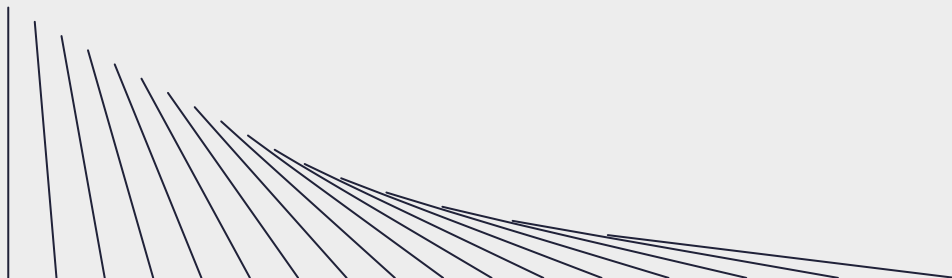


## IMPORTANT NOTE:

This version is to be used for certification processes only (e.g. airline approvals, country certs, etc). We will prepare another version to be used for clients and partners at a later date.

# Scout 3.0: Product specifications and operating manual



# Real-time Visibility Anytime, Anywhere

The Scout 3.0 gives your company real-time visibility over your key assets and shipments, enabling insights for effective decision-making.

The Scout tracker is a portable, lightweight solution, equipped with a variety of visibility sensors including an Accelerometer, Light, Location, Pressure, Humidity, Magnetic Field, and Temperature sensors. Data from devices is securely stored on a cloud-based platform and visualised in the Chorus Summit software.



## Reliable temperature tracking

The Scout 3.0 model has been tested and verified to operate within a temperature ranges of -20°C to 55°C



## Compact

The Scout 3.0 tracker is compact and lightweight, making it easy to place into a wide range of shipments and packages



## Durable

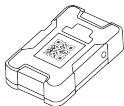
Trackers are water-resistant (meets IP67 standards for dust and liquid penetration), drop-proof (withstands drop from 1 meter) and minimally heat emitting (temperature sensitive goods will not be affected)



## Secure cloud-based platform

Viewability over all your assets with user-interface integrated with Google Maps. Programmatic access to device, data and locations through an API. Enabled with on-device encryption, data transmission encryption and Google Cloud security

# Scout 3.0



Functions as both asset tracker and gateway device. As a general-purpose asset tracker connected to the cellular network, it can be attached to assets or as a standalone solution to provide near real time data about the location, environmental conditions and state of the object(s) being tracked. As a gateway, it can collect data from other sensors and devices via Bluetooth Low Energy (BLE) and forward that data to the cloud via the cellular network with no dependency on other infrastructure (eg. Wi-Fi).

## Device Specifications

DEVICE	Scout 3.0
DIMENSIONS	122mm x 75mm x 28mm
WEIGHT	230g
BULK PACKAGING	Master Carton (20 units per carton)
OPERATING TEMPERATURE	- 20° C to 55° C
STORAGE TEMPERATURE	- 30° C to 70° C
CHARGING TEMPERATURE	0° C to 45° C
RELATIVE HUMIDITY (OPERATING)	5 To 95% Non-condensing
INGRESS PROTECTION	IP67
ESD TOLERANCE	Contact Discharge: +/-4 kV; Air Discharge: +/-8 kV
INTERFACES & LEDs	Multiple LEDs to indicate battery life, connectivity, airplane mode, service needed, and more USB-C Charging Port Charging Dock Interface General Purpose Button (x2)
AIRPLANE MODE	Device can automatically turn radios off/on for airplane take-off/ landing
CONFIGURABILITY	Fully cloud driven device configuration of sensors, collection interval & alerts
SECURITY AND PRIVACY	End-to-end data encryption. Unique authentication key for each device embedded in Secure Element Chip
DATA STORAGE CAPACITY	~20,000 measures at default collection configuration



Please contact our [sales team](#) to learn more.

# Device Specifications

## POWER, BATTERY & CHARGING

BATTERY VOLTAGE	Battery Life 3.7V Li-Polymer Rechargeable <i>Input Power: 5V/1A 5400 mAh (w/ Battery fuel gauge)</i>
EXTERNAL CHARGING MODE	Charging Standard USB Type-C Connector (5V/1A) <i>Time from empty to full at 25°C: 8 hours</i>
BATTERY LIFE	Fully charged 3.0 Scout lasts up to 60 days in typical conditions with a 15 min upload rate

## CERTIFICATIONS & COMPLIANCE

TYPE APPROVALS	USA (FCC Part 15), Canada (IC RSS), EU (CE-RED), UK-CA, Japan (MIC)
SAFETY	IEC 62368, EN62368
COMPLIANCE	RTCA/DO-160 RoHS, REACH, WEEE

## ACCESSORIES

CHARGING RACK	Not included with product, sold separately.
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# Device Specifications

## SENSORS & ENVIRONMENTAL MONITORING

TEMPERATURE SENSOR	<p>High accuracy temperature sensor (+/- 0.3C from -55C to+150C)</p> <p><i>Programmable alerts, selectable averaging</i></p> <p><i>Response Time: (T90)</i></p> <p><i>0 to 25C: &lt;= 20 minutes</i></p> <p><i>25C to 0C: &lt;= 20 minutes</i></p>
PRESSURE SENSOR	<p>260 to 1260 hPa absolute pressure range</p> <p>+/- 0.5 hPa pressure sensor accuracy</p> <p><i>Embedded temperature compensation</i></p> <p><i>24-bit pressure data output</i></p> <p><i>High shock survivability: 22,000 g</i></p>
LIGHT	<p>Wide Optical Spectrum: 200 nm to 1000 nm</p> <p><i>Intrusion and Door/Box Open Detection, System Wake-up</i></p> <p><i>23-bit dynamic range with automatic gain ranging</i></p>
HUMIDITY	<p>Up to +/- 0.1% RH accuracy</p> <p><i>Low power consumption</i></p> <p><i>Operating Range 0 – 100% RH</i></p> <p><i>Fully functioning in a condensing environment</i></p>
IMU	<p>High performance 3-axis digital accelerometer and 3-axis digital gyroscope</p> <p><i>Significant Motion and Tilt Detection</i></p> <p><i>Events for free-fall, wakeup, 6D/4D orientation</i></p>
DISCRETE DATA STORAGE	<p>~20,000 measures at default collection configuration</p>

# Device Specifications

## CONNECTIVITY & WIRELESS TECHNOLOGIES

Cellular LTE CAT M1	<p>Nordic nRF9160 SIP</p> <p>Multimode LTE-M and NB-IoT modem</p> <p>700 – 2200 MHz LTE Support</p> <p>Integrated TCP/IP stack, FOTA</p> <p>Fully certified for LTE bands B1, B2, B3, B4, B5, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B66</p> <p>GCF, PTCRB, FCC, CE, UKCA, ISED, MIC,</p> <p>Pending for SRRG, ACMA, RCM, NCC, IMDA, MSIP, IFT, Anatel, Enacom, NBTC</p> <p>Max Tx Power: 27.1 dBm (for EU)</p>
WI-FI	<p>Dual-band Wi-Fi module 802.11 a/b/g/n (2.4/5 GHz) (Telit WE310G4-P)</p> <p>Client (STA), Access Point (Soft-AP), Concurrent Mode WPA/WPA2 (Personal), WPA3 (Personal / Enterprise) Integrated TCP/IP stack, HTTPS server, client, MQTT client, FOTA</p> <p>2.412 GHz – 2.472 GHz (Channel 1 – 13)</p> <p>U-NII-1 (5.15 to 5.25 GHz)</p> <p>U-NII-2 (5.25 – 5.35 GHz)</p> <p>U-NII-2e (5.47 – 5.725 GHz)</p> <p>U-NII-3 (5.725 – 5.825 GHz)</p> <p>5150-5350MHz are restricted to indoor use for all EU member states.</p> <p>Max Tx Power Wi-Fi 2.4 GHz: 19.45 dBm (for EU)</p> <p>Max Tx Power Wi-Fi 5 GHz: 17.45 dBm (for EU)</p>
BLE	<p>Bluetooth 5.2 Low Energy 2.4 GHz enabled transceiver</p> <p>Max Tx Power BLE: 8.49 dBm (for EU)</p> <p>Supported Data Rates: 2 Mbps, 1Mbps, 500 kbps, 125 kbps</p>
GPS	<p>GNSS Receiver (Telit SL871L)</p> <p>Compliant with GPS (L1), GLONASS (L1, FDMA), Beidou (B1), Galileo (E1)</p> <p>Support for A-GPS, SBAS, QZSS, Dead Reckoning, Position Timing, Jamming Detection</p> <p>Low power consumption</p>
NFC Tag	<p>NFC-A tag (13.56 MHz receiver and load modulator)</p> <p>Data rate: 106 kbps</p> <p>Wake-on-field and touch-to-pair feature support</p>

# Charging Operations

## To charge the battery

Please connect a USB-C cable to the charging port at the bottom of the Scout 3.0.

For the empty-to-full charge time and the battery life of a Scout 3.0, please see the “POWER, BATTERY & CHARGING” section in the Device Specifications above.



LED color meaning when connected to a power source	
Battery LEDs are slowly pulsing green	When the Scout is connected to a power source and charging but not yet fully charged
Battery LEDs are solid green	When the Scout is connected to a power source and fully charged



# Checking Scout Status

## To check the status of your Scout

Please press the button once located on the side of the Scout.

By pressing the button once, LEDs will indicate the remaining battery level and/or whether the device has any issues.



### LED color meaning when pressing the button once

Battery LEDs	0-24%: Slowly blinking 1 bar 25-49%: Solid 1 bar 50-74%: Solid 2 bars 75-96%: Solid 3 bars 97-100%: Solid 4 bars
Connectivity LED	If the Connectivity LED lights up on button press, then Scout is connecting. If it does not light up, do not use the Scout. Contact Chorus if the Scout's Connectivity LED continues to not light up when you press the side button.
Airplane Mode LED	If the Airplane Mode LED lights up on button press, the Scout is in Airplane Mode. Confirm with your company's processes if a Scout should be or not be in Airplane Mode for a shipment.
Alert LED	If the Alert LED is blinking red without a button press or begins to blink red upon a button press, do not use the Scout.

# Airplane Mode

## Scouts automatically operate airplane mode by detecting takeoff and landing of the aircraft

While airplane mode is active, all communications will cease but sensor data will continue to collect. When the Scout exits airplane mode, it will upload all data saved during flights.

## To manually put the Scout into Airplane mode

Please press the side button then the bottom button and then the side button. Once in manual airplane mode, it will remain in manual airplane mode for 19 hours before automatically exiting airplane mode. Alternatively, you can cause the device to exit manual airplane mode by repeating the same side button → bottom button → side button sequence.



LED behavior on one button press is same as described in above page. Below is a reminder on how to check if Scout is in Airplane Mode or not.

Airplane Mode LED	If the Airplane Mode LED lights up on button press, the Scout is in Airplane Mode
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Hereby, Telit Communication S.p.A declares that the radio equipment type Scout 3.0 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <https://www.chorusview.com>

Hereby, Telit Communication S.p.A declares that the radio equipment type Scout 3.0 is in compliance with the relevant statutory requirements. The full text of the declaration of conformity is available at the following internet address: <https://www.chorusview.com>

#### FCC Compliance Statements

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.

Note: 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 or more 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.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with 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

#### Supplier's Declaration of Conformity

Trade Name: Scout

Model No.: Scout 3.0

Company Name: Telit IoT Solutions Inc.

Address: 5425 Page Road, Suite 120, Durham, NC 27703, USA

Contact Name: Ramy Mourad

Contact Phone Number: +1 (949) 540-1276



Please contact our [sales team](#) to learn more.

### ISED Compliance Statements

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-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.

This equipment complies with IC RSS-102 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.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) L'appareil ne doit pas produire de brouillage;

(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20cm entre le radiateur et votre corps.

i. the device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;

ii. for devices with detachable antenna(s), the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall be such that the equipment still complies with the e.i.r.p. limit;

i. le dispositif utilisé dans la bande 5150-5250 MHz est réservé à une utilisation en intérieur afin de réduire le risque de brouillage préjudiciable aux systèmes mobiles par satellite dans le même canal;

ii. pour les dispositifs à antenne (s) détachable (s), le gain d'antenne maximal autorisé pour les dispositifs dans les bandes 5250-5350 MHz et 5470-5725 MHz doit être tel que l'équipement soit toujours conforme à la norme e.i.r.p. limite;

#### Safety Precautions:

The following safety precautions are to prevent unexpected dangers or damages, so be sure to read them thoroughly. Do not do any of the following:

Replace the battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types)

Dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which can result in an explosion

Leave the battery in an extremely high temperature surrounding environment, which can result in an explosion or the leakage of flammable liquid or gas

Subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas