GoTEK 7
Security Solutions

GT7 RANGE GPS TRACKER

Built To Withstand Harsh Environments

ROBUST
Rugged and waterproof at IP68

NO HARDWIRING
Attached with powerful magnets deep under the car - thieves won't know where to look!

INCREDIBLE PERFORMANCE
Sony GPS/GNSS Receiver and Positioning Engine Solution - detailed tracking & low power consumption

PRODUCT OVERVIEW

The nRF9160 is a low-power cellular IoT (Internet of Things) solution, integrating an ARM Cortex-M33 processor with advanced security features, a range of peripherals, as well as a complete LTE modem compliant with 3GPP LTE release 13 Cat-M1 and Cat-NB1, and 3GPP LTE release 14 Cat-NB1 and Cat-NB2 standards.

- Rugged and waterproof at IP68
- Powered by 3 x Lithium Thionyl Chloride Saft Batteries
- LTE-M NBIOT Network
- Military-level AES-256 Encryption
- Health checks every 20 minutes when non motion.
- Certifications: LTE-M / NB-IoT – FCC, ISED, CE, UKCA, ACMA RCM, PTCRB, AT&T (in progress), Telstra, EMC, RoHS
- Store weeks of records if device is out of cellular coverage.
- 3-Axis Accelerometer to detect movement, high G-force events, and more
- Non-China module or GPS receiver
- GNSS Assistance (GNSS almanac and ephemeris data for greater sensitivity and position accuracy)
- Low Noise Amplifier (GPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation where other units fail)
- Cell tower location fall-back for positioning when GPS can't get a fix.
- Ultra-strong custom magnetic base

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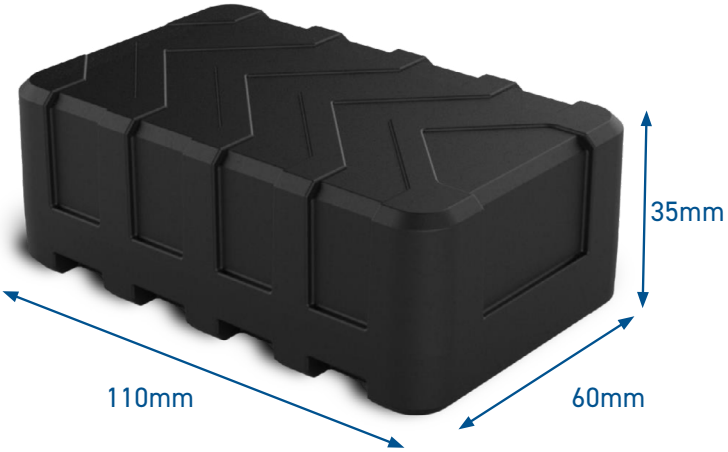
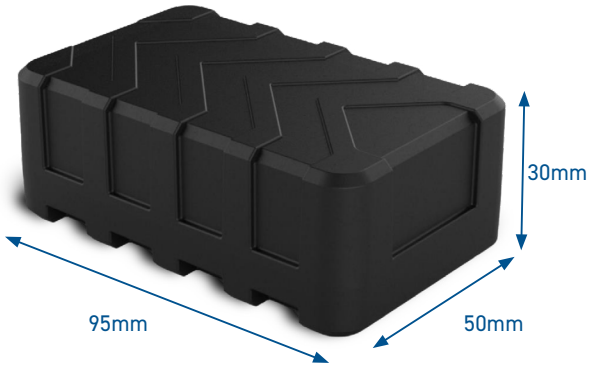
nRF9160 - Ultra low power consumption

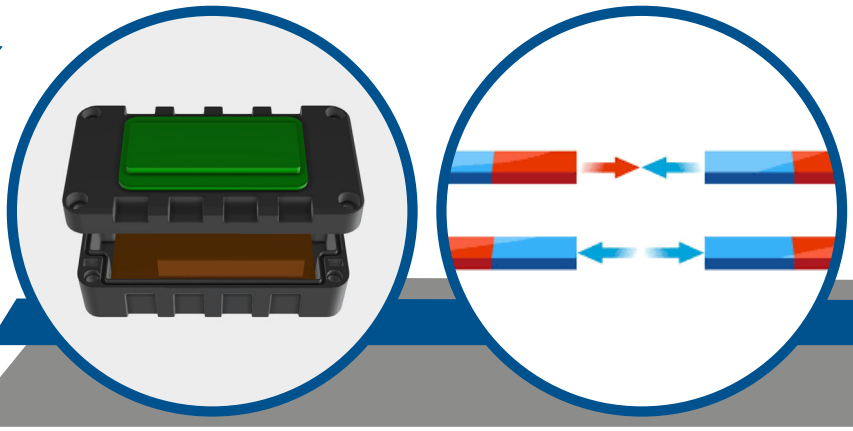




Application core	The nRF9160 application core has a modern and powerful ARM Cortex-M33 with on-chip flash and RAM exclusively for application use.
Power and clock management	The power and clock management system automatically ensures maximum power efficiency.
LTE modem	The long term evolution (LTE) modem consists of baseband processing and RF parts, which together implement a complete 3GPP LTE release 13 (Rel-13) Cat-M1 and Cat-NB1 and LTE release 14 (Rel-14) Cat-NB1 and Cat-NB2 capable product.
GPS receiver	The GPS receiver supports GPS L1 C/A and QZSS L1 C/A reception. Operation is time multiplexed with LTE modem, and it is possible to use the GPS and QZSS receiver to obtain position either while the LTE is in RRC Idle mode or power saving mode (PSM), or when the LTE modem is completely deactivated.
Regulatory information	The nRF9160 undergoes a number of regulatory certifications, ensuring both regional compliances and compatibility with the LTE 3GPP specification.

MAGNETIC STRENGTH

Ensuring your tracker is firmly placed on any metal object, we have customised the N52 magnets. A total of eight magnets are positioned on a metal plate, each magnet is facing north and south, creating a stronger pulling force. The metal plate also protects the batteries, it also contributes and enhances the magnetic field.



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Sony GPS/GNSS Receiver

GPS/GNSS Receiver and Positioning Engine Solution

SONY

Sony Semiconductor Solutions GPS/GNSS receiver/ processor chips use high-frequency analogue circuits and digital signal processing circuits with proprietary designs to deliver accurate positioning with the lowest power consumption level in the industry. This low power consumption performance helps to extend the operating times of the IoT and wearable products that use GPS/GNSS.

PRODUCT OVERVIEW

Compared to the L1 band, the L5 band employs signals with 10 times higher ranging resolution, improving positioning precision and signal reception from the satellite. The combination of L1 and L5 signals enables highly precise positioning even in difficult signal reception conditions. Fast acquisition delivered by Sony's advanced algorithms provides accurate positioning quickly even in challenging environments, like multipath conditions created by tall buildings, fast-moving tracking devices, and constantly changing acceleration of a sports wearable from the swinging arm. Low power consumption and high sensitivity are delivered by Sony's analogue circuit technology and innovative design techniques that enable low-voltage operation, along with digital circuits and software algorithms that enable the use of low clock frequencies.

PRODUCT FEATURES

- A dual-band (L1 band and L5 band) GNSS receiver
- Supports multi-constellation
- Ultra-low power consumption GNSS positioning
- Embedded noise filters and spectrum analyser for speedy development
- Embedded NVM (16 Mbit) for firmware updates and embedded application SDK support
- Ultra-low leak current in the Deep Sleep state

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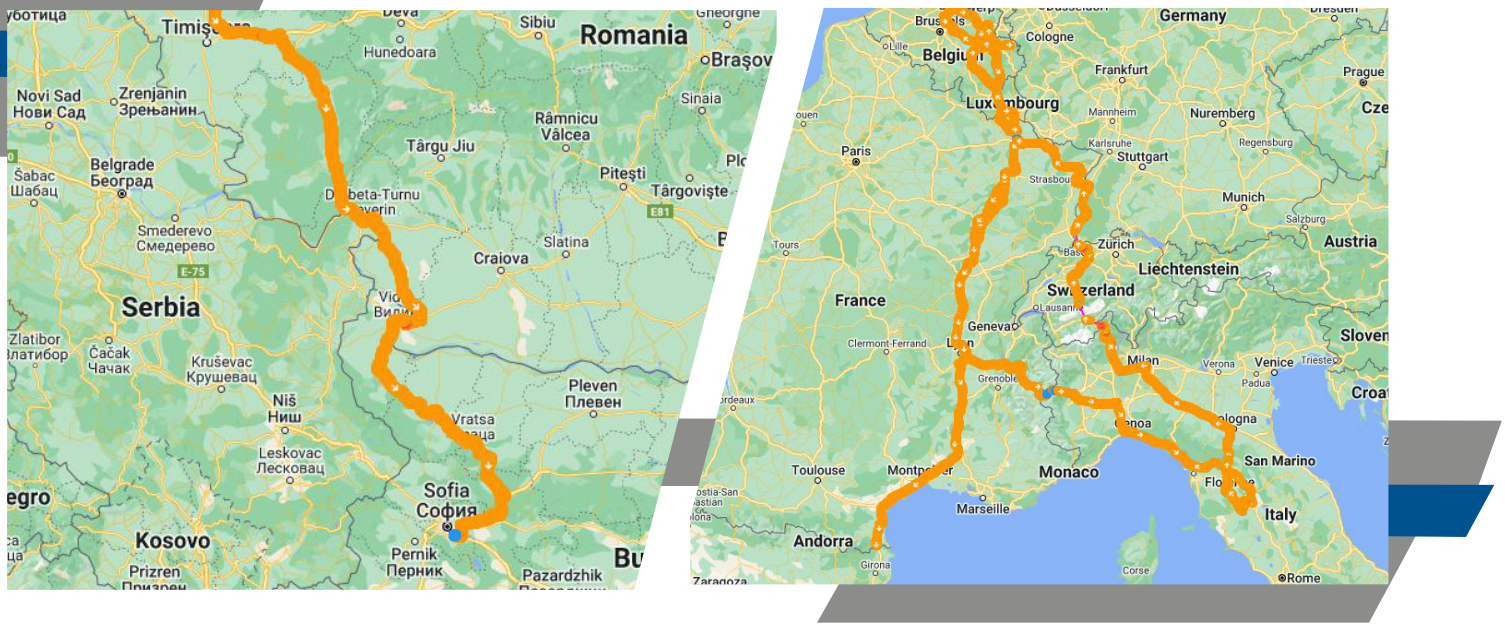
Powerful Performance

DETAILED TRACKING

TRACKS ACROSS BORDERS



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Battery Performance

Non restricted and recommended for transport with dangerous goods

For over 100 years, Saft's longer-lasting batteries and systems have provided critical safety applications, back-up power and propulsion for our customers.

Safts innovative, safe, and reliable technology delivers high performance on land, at sea, in the air, and in space.

LS14500 Battery

- Chemistry: Lithium Thionyl Chloride
- High Energy Density
- Impact Resistant
- Non-flammable electrolyte
- Hermetic glass-to-metal sealing
- Superior resistance to atmospheric corrosion
- Maintenance Free
- Stable voltage and broad temperature range: (-60° to +85°C)
- Non-restricted for transport/ Non-assigned to Class 9 according to the UN Recommendations on the transport of dangerous goods
- Compliant with IEC 60086-4 safety standard and IEC 60079-11 intrinsic safety standard (class T3 assignment)

Security

Designed using non-China LTE-M Cat-M1-NB-IoT Modules or a GPS receiver.

This next level generation GPS boasts military-level AES-256 encryption from device-to-device manager to protect the integrity and confidentiality of telematics data.

The GT7 Pro firmware can also be updated over the air, this reduces any future security risks if they arise.