GeoSafe®
Complete GPS Tracking Solution

TS101 PLUS 4G WITH CAN

TECH SPECIFICATIONS & FEATURES

- CAN Available
- 6 Digital I/Os & 2 Analog Input
- Accelerometer & Gyroscope
- Multi Constellation GNSS Receiver
- Low power consumption & power optimization
- Long Battery Backup up to 4 hours*
- Remote health checking / Diagnosis through SMS
- Easy Installation & Configuration
- IP65 Rating

PARAMETERS	SPECIFICATIONS	FEATURES
LTE-Cat1	B1, B3, B5, B8, B34, B39, B40, B41	Provides broad LTE connectivity across multiple frequency bands.
2G	900/1800 MHz	Enables global connectivity and communication.
Communication Interface	TCP/IP	Enables real-time tracking, diagnostics, and management.
Short Range	Bluetooth 5.0	Provides reliable wireless communication.
Navigation	GNSS, GLONASS, BeiDou	Provides accurate location tracking and navigation services.
Digital Input	4 Nos	Detect vehicle movement; connect to panic button or AC system.
Digital Output	2 Nos	Output used for vehicle immobilization in case theft.
Analog Input	2 Nos	The analog input is used for fuel sensors to check actual fuel level in vehicle.
RS232 / RS485	1 No (Either One)	Enables communication with various vehicle and external systems.
USB	2.0 - For Config Purpose Only	Facilitates data transfer and device connectivity.
CAN	1 No J1939, OBD II, Raw Filter	Collects vehicle data and supports diagnostics protocols.
Ignition (IGN)	Yes	Device digital input (IGN) will be connected to vehicle IGN to detect vehicle on/off.
Panic Button	Yes	Enables quick emergency alerts for immediate assistance.
Main Power	Yes	Provides essential power for device operation and functionality.
Accelerometer & Gyroscope	Yes	Tracks vehicle orientation, acceleration, and movement changes.
OTA / FOTA	Yes	The device as an option to update the configuration parameters and firmware update through maintenance server.
Device Case Open/Tamper Alert	Yes	In case device main power is disconnected or device box is tampered or open the device will detect an alert.

CONTACT US AT

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Note: We pursue a policy of continuous research & product development. Specifications and features are subject to change without prior notice.

*Backup time may vary based on configuration and battery ageing.

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Sleep Mode Current	<5mA	Device has an option to configure to sleep mode once the vehicle is in OFF condition.
LED Status Indicators	GNSS, Process, Cellular, Power	LED indication is to check the device behavior with respect GNSS, Cellular, Power & Process LED.
Power Supply	9-90V DC	Supports a wide range of vehicle power sources.
Internal Battery	850 mAH	Offers backup power during brief outages.
LTE / GNSS / BLE Antenna	Internal	Enable communication, navigation, and connectivity.
SIM	Plastic (4FF - Nano)	Enables connectivity and location tracking for devices.
Data Storage	128 Mbyte	Stores telematics data for analysis and reporting.
Internal Data Storage	40000 Records	Holds historical data for review and analysis.
Configuration	USB / SMS / TCPIP / BT	Allows versatile configuration and communication options.
Operating Temperature	-25 to +85 Degree Celsius	Ensures operation in extreme temperatures.
Storage Temperature	-40 to +85 Degree Celsius	Protects device during extreme temperature storage.
Vibration	IS:9000-8	Ensures durability against mechanical vibrations.
Ingress Protection	IP65	Protects against dust and water.
Temperature Endurance	ISO 16750-4, Clause 5.1.2.2	Ensures durability under extreme temperature conditions.
Thermal Shock	ISO 16750-4	Tests resilience to rapid temperature changes.
Mechanical Shock	ISO 16750-3	Ensures device reliability under mechanical shock conditions.
Electrical (Load Dump)	ISO 7637-2 Pulse 5a, 5b	Protects against voltage spikes and electrical surges.
EMI / EMC	AIS-004	Reduces electromagnetic interference for reliable operation.

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Dimensions (LxWxH)	98mm x 85mm x 31mm	Determines device's physical dimensions.
Weight	~185 grams	Indicates device's overall weight.

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🚜 AIS 140 GPS Tracker with CAN & SOS for Mining Vehicles — Use Case Features in Detail

Mining operations involve heavy-duty vehicles operating in remote, rugged, and often hazardous environments. The **AIS 140 GPS tracker with CAN (Controller Area Network) interface and SOS features** ensures **real-time tracking, vehicle safety, fleet management, compliance, and productivity optimization** for the mining industry.

🛠️ 1. Real-Time Location Tracking & Monitoring

Ensure complete visibility of all mining vehicles across remote or large mining sites using GPS with satellite & cellular network connectivity.

- Live vehicle location tracking with map view
- Accurate GPS/GLONASS positioning in harsh terrains
- Real-time route replay and trip history
- Connectivity in low-signal or remote locations

⛽ 2. CAN Bus Data Integration

Using CAN Bus interface, the device collects deep vehicle insights for preventive maintenance and better operational efficiency.

- Monitor engine RPM, fuel level, and engine temperature(As per vehicle condition)
- Dual-engine tracking for large mining vehicles
- Accurate engine working hour reports
- Detect heavy load stress and mechanical faults early
- Analyze fuel usage to prevent theft and reduce wastage

📞 3. SOS Panic Button for Safety Compliance

In case of emergencies, the AIS 140 GPS tracker comes with an SOS panic button to send instant alerts to control rooms.

- Driver-triggered SOS alert with real-time location
- Emergency response activation
- Safety compliance with mining industry standards
- Critical in case of mechanical failure, accidents, or medical issues

🧭 4. Route Monitoring & Geo-Fencing in Mining Zones

Helps ensure vehicles operate only within designated mining or transport zones, improving control and security.

- Geo-fence entry and exit alerts
- Speed monitoring in restricted areas
- Idling detection and unauthorized movement alerts
- Prevents usage outside designated areas or hours

🔋 5. Harsh Condition Compliance & Durability

Designed to withstand extreme dust, vibration, temperature, and humidity—ideal for mining conditions.

- IP67-rated waterproof and dustproof enclosure
- High-impact, vibration-resistant design
- 24/7 performance under extreme temperature variations

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📊 6. Mining Fleet Management Dashboard

Powerful software platform for admin-level management of multiple vehicles.

- Multi-vehicle overview with filters (by site, vehicle type)
- Reports for fuel usage, distance, working hours
- Maintenance alerts and diagnostics
- Data export and cloud-based reporting

🚚 7. Supply Chain & Logistics Integration for Mining Transport

Efficient material movement is critical in mining. Our AIS 140 solution supports **end-to-end logistics visibility**.

- Track transportation of raw materials from mine to plant
- Monitor delivery delays and unauthorized detours
- Optimize truck dispatch schedules
- Support last-mile visibility and digital proof of delivery (POD)

⚖️ 8. Weighbridge System Integration

Ensure weight accuracy, eliminate pilferage, and maintain compliance with integration between GPS tracker and weighbridge system.

- Auto-capture vehicle weight during weigh-in/weigh-out
- Match trip logs with load data for auditing
- Detect discrepancies in loaded/unloaded status
- Alerts for overloading or suspicious weight changes

📍 9. Government Compliance — AIS 140 Certification

Meet government regulations for public and commercial transport vehicles under AIS 140.

- Fully certified AIS 140 compliant GPS device
- Fitted with IRNSS support and embedded SIMs
- Approved by RTO and transport authorities
- Mandatory for mining fleets operating in public zones

⭐ 10. Key USPs & Benefits of Our Mining GPS Tracker

🔷 Optimized Mining Operations

Track equipment utilization, reduce downtime, and plan better with engine hour and route analytics.

🔷 Improved Safety & Emergency Response

SOS and driver behavior tracking ensure prompt support and compliance with safety regulations.

🔷 Prevent Theft & Unauthorized Use

Live tracking, geo-fencing, and engine status monitoring protect high-value mining assets.

🔷 Smart Integration Capabilities

From weighbridge systems to ERP or logistics software, our device supports multi-system integrations.

🔷 Rugged Performance in Harsh Environments

Our device is designed for extreme conditions in mines with zero compromise on performance.

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