Jimi IoT

VL103D
LTE GNSS Terminal

Compact size with great power, the VL103D is a discreetly-installed, fully-featured tracker with LTE, GNSS, RS485 interface and the IP66 waterproof rating. LTE communication with GSM (2G) fallback ensures a solid connection in almost all cases, and the wide 9-90V input voltage range is compatible with virtually any vehicle. It is a perfect tracker for a wide range of use cases – stolen vehicle recovery and the management of motorcycles, passenger cars, and light commercial vehicles.

Vehicle Intelligentization

Fleet Management

Vehicle Security

LTE & GSM Network
Communication via 4G LTE networks with 2G GSM fallback.

Configurable Input/Output
Set to alarm button status monitoring by default, also configurable as an extra digital output.

Vehicle Battery Protection
Automatically stop drawing power from the vehicle battery when it drops near the threshold.

IP66 Dust & Water Resistance
Rugged design ensures continued optimal performance, even in the toughest conditions.

RS485 Interface (VL103D-specific)
RS485 interface extends more device usage scenarios.

Driving Behavior Analysis (Basic)
Receive alerts when any of 4 kinds of dangerous driving behavior is detected.

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Standard Configuration

Positioning & Location

Technology	GPS, GLONASS, BDS, GALILEO, AGPS, LBS
Accuracy	＜2.5m CEP
Tracking sensitivity	−165dBm
Acquisition sensitivity	−148dBm
TTFF (open sky)	Avg. hot start ≤ 2sec; Avg. cold start ≤ 38sec

Cellular

Technology	LTE Cat 1, 2G (GSM)
Frequency	GSM: E-GSM900 DCS1800 LTE-FDD: B1/B3/B7/B8/B20/B28 LTE-TDD:B34/B38/B40

Power

Battery	270mAh/3.7V industrial-grade Li-Polymer battery
Input voltage	9-90VDC
Power consumption	Standby: 5mA Working: 50mA External power protection: 0.5mA

Operating environment

Operating temperature	−20℃ to +70℃
Operating humidity	5% to 95%, non-condensing
IP rating	IP66

Interface

LED indication	GNSS (Blue), Cellular (Green), Power (Red)
SIM	Nano-SIM
Digital I/Os	1*ACC, 1*SOS, 1*Relay
Analog I/Os	VL103D: ADC_1: 0–30V (±0.1V) or 0–5V (±0.1V)
Voltage detection	0–90V (±0.3V)
Memory capacity	3000+ GPS data entries
USB	Type-C (for firmware upgrade)
GNSS antenna	Internal
Bluetooth antenna	Internal
Serial ports	1*RS485 (VL103D-specific)

Feature

Voice monitoring range	N/A
Sensors	Accelerometer
Scenarios	Vehicle movement alert, Speeding alert, Geo-fence entry/exit, Vehicle battery detection
Driving behavior analysis (DBA)	Harsh acceleration, Harsh braking, Harsh cornering, Collision
Bluetooth	BLE 5.0
Configuration support	Bluetooth, Type-C, SMS, PC Tools, Tracksolid Pro
Certification	CE, FCC, RoHS

Physical specification

Dimensions	92.0 x 32.0 x 18.5mm
Weight	54.5g

Optional Configuration*

Bluetooth sensor	K7800 environmental sensor
RS485 sensor	Capacitive fuel level sensor, Ultrasonic fuel level sensor, Temperature sensor

*Optional Configuration required to be customized or purchased separately.