4G HARDWIRED GNSS TRACKER

Hidden installation for all objects with power

PioneerX 101 4G

LTE Cat-1 + 2G wired tracker for wide ranging applications.

- ⚡ Compact Size
- 🎯 Driving Behavior Monitoring
- 🚗 Crash Detection
- ☁️ Firmware Over the Air
- ⬡ Geo-fences
- ▊ Motion Detection
- ❋ BLE 5.0
- ⌨ RS232
- 〜 1-Wire
- 🔧 Can Reading
- 🛡 IP67
- ⟲ 3 Axis Accelerometer
- 🆘 Panic Button

🔋	50g (2.47oz)	📦	102.6 x 42.6 x 13.0 mm (4.04″ x 1.67″ x 0.51″)
🌡	7V to 100V DC	🔋	-30℃ ~ +80℃ (-22°F ~ 176°F)

Certificates(Planned):

ANATEL   CITC   TDRA   ⬟   CE   FC   NBTC

*Please reach out to us if you need any certificates in particular

Product Specifications

Operating Band	LTE FDD Cat 1:B1/B2/B3/B4/B5/B7/B8/B12/B13/B17/B18/B19/B20/B25/B26/B28/B66 LTE TDD Cat 1:B34/B38/B39/B40/B41 GSM (2G):850/900/1800/1900 MHz
Data Transmission	LTE-FDD: Max.10 Mbps (DL), Max.5 Mbps (UL) LTE-TDD: Max.8.96 Mbps (DL), Max.3.1 Mbps(UL) GPRS: Max. 85.6 Kbps (DL), Max. 85.6 Kbps(UL)

GNSS Specifications

GNSS Chipset	All-In-One GNSS receiver
Parallel GNSS	GPS + Beidou + Galileo + QZSS (SBAS)
Receiver type:	24 tracking / 64 acquisitions- channel GNSS receiver
Sensitivity	Acquisition: -148 dBm Reacquisition: -159 dBm Tracking: -162 dBm
Horizontal Position Accuracy	Autonomous: < 1.5 m CEP
TTFF @ -130 dBm with (without) EASY	Cold Start: < 20s (30s) Warm Start: < 2 (2s) Hot Start: < 2s (2s)

Interfaces

Models	PN:01	PN:02	PN:03	PN:04	PN:05
Digital Input*	-	2	1	1	1
Digital Output	-	1	1	-	1
Configurable Input (Digital/Analog/Neg Trigger) *	-	2	-	-	-
1-Wire Power 3.3V DC	-	-	1	-	-
1-Wire Data	-	-	1	-	-
RS232 Power 5V DC	-	-	-	1	-
RS232 TX	-	-	-	1	-
RS232 RX	-	-	-	1	-
CAN-H	-	-	-	-	1
CAN-L	-	-	-	-	1
Battery	Li-Polymer 200mAh/ 3.7V	Li-Polymer 200mAh/ 3.7V	Li-Polymer 200mAh/ 3.7V	Li-Polymer 300mAh/ 3.7V	Li-Polymer 200mAh/ 3.7V
IP Rating	IP67	IP67	IP67	IP41	IP67

*For ignition detection (input range 0-32V, 5≤: ignition on, ≤2V ignition off, from 2V to 5V: unstable status)
*Can be configured to digital input or analog input (0~32V) or negative trigger input

General Specifications

Dimensions	102.6 x 42.6 x 13.0 mm (4.04" x 1.67" x 0.51")
Weight	50g (2.47oz)
Operating Voltage	7~100V DC
Operating Temperature	-30°C ~ +80°C (-22°F ~ 176°F)
Storage Temperature	-40°C ~ +85°C (-40°F ~ 185°F)
Internal Memory	8MB

General Features	
Operating Voltage	7V to 100V DC
Network, GNSS, BLE, WiFi Antenna	Internal only
Indicator LED	Network and GNSS
FOTA	Yes
Temperature Sensor	Internal temperature sensor
BLE 5.0	Yes
WiFi	2.4 GHz 802.11b (Rx)
Tracker Configuring	Type-C Connector
Waypoints	40,000 Waypoints
Air Interface Protocol	
Transmit Protocol	TCP, UDP, MQTT, SMS
Protocol Check & Encryption Support	MD5/ AES256
BLE Accessory Support	Yes
Scheduled Timing/angle/distance Report	Report position and status at preset intervals
External Power Status Alarm	Report when external power is disconnected
Low Power Alarm	Report when backup battery is low
Speeding Alarm	Report when speed exceed the pre-set value
Towing Alarm	From internal 3-axis acceleration
Remote Control	Remote output control
Network Signal Jamming Detection	Report network jamming
Data Roaming Control	Avoid additional data consumption
Driving Behavior Monitoring	Aggressive driving behavior detection, e.g., harsh braking and acceleration
Crash Detection	Accident data collection for reconstruction and analysis
Industry Certifications(Planned)	
FCC/CE/RCM/NBTC/TDRA/CITC/Anatel/IP67	

Optional Accessories List

Product Sku	Description	Photo for Reference
TSTH1-B	BLE 5.0 Wireless Temperature and Humidity Sensor	
TSDT1-B	BLE 5.0 Wireless Door and Temperature Sensor	
TSR1-B	BLE 5.0 Wireless Relay	
T-button	BLE 5.1 Key Fob & Panic button	
T-sense	BLE 5.1 IP67 temp&movement&door sensor	
T-hub	BLE 5.1 IO extension hub	
T-one	BLE 5.1 Probe temp or temp&humi sensor extender	