

G Series

Goods Monitor Tracker Specification



The G series tracker devices are ideally for tracking and temperature monitoring of cold chain , food and fruits storage and transportation, ultra thin 8mm, just put it with goods requires monitoring .Integrates global connectivity by cellular network 2G,4G Cat.1 , NB-IoT and Cat.M1 without data plan contract .

The G series tracker devices have integrated multiple sensors for monitoring of movement , vibration , tampering , delay , temperature, humidity and geofence . Indoor and outdoor positioning supported by WIFI ,LBS and GPS ,GLONASS ,GALILEO and BEIDOU . Short range wireless BLE [Bluetooth Low Energy] is flexible for easy configuration , pair with external BLE sensors or accessories , which makes G series tracker device working as BLE gateway .

Firmware over the air OTA is always important for after sale maintainece .The insight platform view location and condition data of your shipments in real time to ensure on time and in full delivery , specify the constraints relevant to your shipments and receive notifications when issues arise and create detailed reports to share with customers and analyze your data to identify improvement opportunities.



Key Benefits

- ◆ Integrate GNSS, Wi-Fi, LBS Multi-positioning technology, can quickly and accurately locate the assets, and support Bluetooth positioning indoors.
- ◆ Worldwide LTE CAT.1/CAT.M/, NBIOT and GSM/GPRS/EDGE coverage.
- ◆ Integrate multiple sensors to monitor temperature, humidity, light and vibration.
- ◆ At least 1 year battery life under 1 report per day condition, environment friendly and recyclable. 3M adhesive or place directly inside the package, easy to install.
- ◆ The visualized cloud platform supports the full-scene status monitoring of assets and goods. At the same time, it also supports FOTA.



CAT.1/ CAT.M/
GSM/ NBIOT



Multi-constellation
GNSS



Wi-Fi 2.4G



Bluetooth 5.0



Temperature and
Humidity



Brightness change
alarm



Rechargeable
battery



Cloud-Platform
Service



Firmware Upgrade
OTA

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Variant for the Global

GT001-M-GL (Cat M1):

LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B14/ B18/B19/B20/B25/
B26*/B27/B28/B66/B71/B85
GSM: 850/900/1800/1900MHz

GT001-L-GL* (Cat 1):

LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/ B20/B25/
B26/B28
GSM: 850/900/1800/1900MHz

GT001-G-GL* (GSM only):

GSM: 850/900/1800/1900MHz

Variant for China/India

GT001-L-CN (Cat 1):

LTE FDD: B1/B3/B5/B8
LTE TDD: B34/B38/B39/B40/B41
GSM: 900/1800MHz

Variant for EMEA

GT001-L-EM (Cat 1):

LTE FDD: B1/B3/B5/B7/B8/B20/B28
GSM: 850/900/1800/1900MHz

Variant for Latin America

GT001-L-LA (Cat 1):

LTE FDD: B2/B3/B4/B5/B7/B8/B28/B66
GSM: 850/900/1800/1900MHz

Variant for North America

GT001-L-NA* (Cat 1):

LTE FDD: B2/B4/B5/B12/B13/B25/B26

GT001-M-NA* (Cat M1):

LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B14/B18/B19/B20/B25/
B26*/B27/B28/B66/B71/B85

Air Protocol

LTE (Cat 1):

LTE FDD: Max 10Mbps (DL)/Max 5Mbps (UL)
LTE TDD: Max 8.96Mbps (DL)/Max 3.1Mbps (UL)

LTE (Cat M1):

LTE FDD: Max 588Kbps (DL)/Max 1119Kbps (UL)

GSM:

GPRS: Max 107Kbps (DL)/Max 85.6Kbps (UL)
EDGE: Max 296Kbps (DL)/Max 236.8Kbps (UL)

Command Set: Track protocol command

Transmit protocol: TCP, MQTT

Working modes: Power saving mode for long standby time
Continuous mode for emergency tracking

Scheduled Timing Report:

Report position and status at preset time interval

Geo-fences: Support up to 5 internal geo-fence regions

Low Power Alarm: Alarm when internal battery is low

Wakeup Report: Report when the device wakes up

Motion Detection: Motion detection based on internal 3-axis accelerometer

Hardware Features

USB: × 1, Micro

(U)SIM Interface: Nano SIM card

Cellular Antenna: internal

GNSS Antenna: internal, GPS/GLONASS/BeiDou

LED: × 2, Power Light, Status Light

WLAN: 2.4G (GT001-G*)

Bluetooth: 5.0 (GT001-G*)

Motion Sensor:

Gravity Measurement Range: $\pm 2g/\pm 4g/\pm 8g/\pm 16g$

ODR Bandwidths: 1Hz ~ 400Hz

Light Sensor:

Measuring Range: 1~ 1000 (adjustable levels)

Temperature and Humidity Sensor:

Humidity Measurement Accuracy: $\pm 2\%$ RH@ $+10^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Temperature Measurement Accuracy: $\pm 0.3^{\circ}\text{C}$, $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Battery Capacity: 2500mAh (Li-ion Polymer Battery, USB 5.0 V charging)

GNSS Features

Horizontal Position Accuracy: Autonomous: $< 2.5\text{m CEP}$

Velocity Accuracy: Without Aid: $< 0.1\text{m/s}$

Acceleration Accuracy: Without Aid: $< 0.1\text{m/s}^2$

Reacquisition Time: $< 1\text{s}$

TTFB @-130dBm with EASY™:

Cold Start: $< 15\text{s}$; Warm Start: $< 5\text{s}$; Hot Start: $< 1\text{s}$

TTFB @-130dBm without EASY™:

Cold Start: $< 35\text{s}$; Warm Start: $< 30\text{s}$; Hot Start: $< 1\text{s}$

Electrical Characteristics

Supply Voltage: 3.7V Rechargeable

Stand-by Current: $\leq 80\mu\text{A}$

Battery Life: 1 Year @ 1 report per day

Buffer Storage

GT001-M: 50000 messages

GT001-L: 27000 messages

General Features

Operating Temperature: $-20^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Dimensions: 121mm × 61mm × 8mm

Weight: Approx. 85g (GT001-G), 90g (GT001-L), 88g (GT001-M)

Firmware Upgrade: USB interface, OTA

Data Encryption*: TEA, AES or RSA (Optional)

* Under development