ABAX

ASSET
IoT Gateway

ABAX GT107 Datasheet

OVERVIEW

The ABAX GT107 IoT Gateway is ideal for monitoring of all types of vehicles, vans, trailers, heavy equipment and high-value mobile assets and is designed for rapid return of investment.
It features a waterproof enclosure and a built-in high temperature Ni-mh backup battery when needed.
The ABAX GT107 enables improved operating efficiency, asset recovery, and streamlined regulatory compliance.
It is part of ABAX IoT global network that combines asset tracking, fleet management, and compliance solutions in a single platform.

TYPICAL APPLICATIONS

- Vehicles - all brands and types
  • Corporate vehicles
  • Company vehicles
  • Private vehicles with mileage claim
- Trailers for live trailer tracking
- Powered Assets
  • Construction equipment
    diggers, backhoes, bulldozers, cranes, etc.
  • Forklifts, lifts, dumpers,agriculture
- Single usage logging for all powered assets
- Service and maintenance for heavy equipment
  and high-value mobile assets

DESIGNED TO ACCESS THE IOT NETWORK

A gateway of the ABAX global IoT network.
Advanced positioning system simultaneously reads from multiple independent satellite systems including NB IoT /GPRS network systems.
Internal antenna for discreet installation.
Cat-M1 LTE with 2G fallback world wide connectivity to ensure the unit is always online.
Real-time GPS location with live updates.
Automatic OTA (Over The Air update).

PRODUCT HIGHLIGHTS

• Track, monitor and optimize vehicle location
• Ensure your corporate vehicles are tax compliant
• A flexible solution for heavy equipment
• A solution for all kind of mobile assets
• Ruggedized and weatherproof enclosure
• Monitor and increase asset utilization
• Optimize asset pool inventory and location
• Recover lost assets

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GENERAL SPECIFICATIONS

Dimension	90×44×18mm
Weight	70g
Storage temperature	-40ºC to +85ºC
Operating temperature	-20ºC to +70ºC
Supply voltage	9V to 30V DC, Typical 12V, 24V
Current usage	Sleep mode: <1mA at 12V Working mode: <300mA at 12V
Cellular	LTE CAT M1/NB-IoT/GSM LTE: Max. 588Kbps (DL)/ Max.1119Kbps(UL) GPRS: Max. 107Kbps (DL)/Max. 85.6Kbps (UL)
Battery capacity	Battery Capacity: 180mAh(Nimh)/2.4V
Postion updates	Every 30 second when powered and in movement, once a day still and once a day when not powered

ENVIRONMENTAL DATA, RELIABILITY, CERTIFICATION

Approvals	CE/RED, UKCA, ROHS
IP Grade	IP67

GPS SPECIFICATIONS

GPS, Glonass, and Galileo enabled GNSS module with ultra-high (162dBm) sensitivity and SBAS support. Quick fix using A-GPS

Based on the u-blox UBX-G7020 GPS module

Differential GPS enhancements:
- Satellite based augmentation system (SBAS using EGNOS in Europe) for increased accuracy
- Assisted GPS (A-GPS) enabled for ultra-low TTFF (Time To First Fix)

MOBILE CONNECTIVITY SPECIFICATIONS

LTE CAT M1/NB-IoT/GSM connectivity supporting bands B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B85 with 2G fallback

GSM network positioning based on antenna site identification

Global support for antenna site triangulation and positioning

Ca. 97% coverage for Europe's GSM network (in terms of GSM positioning)

Timing advance support

INTERFACES

Radio communication frequency	Bluetooth Smart 5.2 (optional)
Usage logging or general input	10 - 30 V DC with overvoltage protection. Trigger value is >8 Volt DC to start usage logging
Configuration	Automatic OTA (Over The Air update) firmware and configuration updates
Sensors	Accelerometer