



ASSET IoT Gateway

ABAX6S Datasheet

OVERVIEW

The ABAX6S 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 and ruggedized enclosure and a backup battery when needed. Want to protect it more, then add the special designed steelcage for the ultimate protection.

The ABAX6S 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.

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 GPS, Glonass, Galileo and BeiDou global navigation satellite systems.

Internal antenna for discreet installation.

Cat-M1 LTE with 2G fallback world wide connectivity to ensure the unit are always online.

Real-time GPS location with live updates.

Automatic OTA (Over The Air update).

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

PRODUCT HIGHLIGHTS

- Track, monitor and optimize vehicle location
- Ensure your corporate vehicles are tax compliant
- A light weight and small solution for trailers
- 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	32x66x19 mm
Weight	24g (115g inc cable)
Storage temperature	-40°C to +75°C
Operating temperature	-20°C to +60°C
Vibration approvals	Shock form: half sinus Peak acceleration: 500m/s ² Shock duration: 6ms Number of shocks: ±10 (X,Y,Z) total =60 Test axes: 3 (±X, ±Y, ±Z)
Supply voltage	6 to 60V DC
Current usage	Average usage 4,5mA Movement and active 60mA Still and active 30mA Hibernate after ~10 min 1mA
Battery capacity	200 mAh / 740 mWh
Charging time	Ca. 2 hours from 0-100%, unit is delivered with ca 50% battery. 150 cm fixed cable
Position updates	Every 60 second when powered and in movement, once a day still and once a day when not powered
Number of positions in internal battery mode	15 positions on full battery, provides a position every 24 hour when in battery mode

ENVIRONMENTAL DATA, RELIABILITY, CERTIFICATION

Approvals	CE, RoHS, REACH,UL
Type Approval	UN ECE R10 Rev.6
IP Grade	IP69K

GPS SPECIFICATIONS

GPS, Glonass, Galileo and BeiDou enabled GNSS module with ultra-high (167dBm) sensitivity and SBAS support. Quick fix using A-GPS

Based on the Ublox NEO-M8 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)
- 1.2 m accuracy under optimal condition

MOBILE CONNECTIVITY SPECIFICATIONS

Quad band GSM, Cat-M1 LTE connectivity supporting bands B1, B3, B8, B9, B20 and B28 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
Usage logging or general input	0-60V DC analog input voltage. Trigger value is >8 Volt DC to start usage logging
Configuration	Automatic OTA (Over The Air update) firmware and configuration updates
Sensors	Accelerometer, Gyro, GNSS and temperature