AE55

Mini Vehicle Tracking Device with Internal Battery

Features:

- Extremely compact enclosure 63mm x 50mm x 21.8mm
- Internal 3-axis accelerometer supporting driver behavior, power saving and motion detection
- Internal u-blox chipset
- Low power consumption, long standby time with internal battery
- Quad band GSM / GPRS 850/900/1800/1900 MHz
- Embedded full-featured **AcuTRack** a online tracking solution
- Multiple input/output interfaces for monitoring and control
- Internal GSM antenna
- Internal GPS antenna
- FCC / CE Certified

The AE55 is a mini GPS tracker designed for a wide variety of vehicle tracking applications. The AE55 has multiple input/output interfaces that can be used for monitoring or controlling external devices. Its built in GPS receiver has superior sensitivity and fast time to first fix. Its quad band GPRS / GSM subsystem supports 850/900/1800/1900 MHz allowing the AE55's location to be monitored in real time or periodically tracked by a backend server and mobile devices. Its built in 3-axis accelerometer allows motion detection and extended battery life through sophisticated power management algorithms. System integration is straightforward as complete documentation is provided for the full featured **AcuTRack**. The **AcuTRack** supports a wide variety of reports including emergency, geo-fence boundary crossings, driver behavior, low battery or scheduled GPS position and many other useful functions.

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GSM Specifications

Frequency	Quad band : 850/900/1800/1900 MHz Compliant to GSM phase 2/2+ -Class 4 (2W @ 850/900 MHz) -Class 1 (1W @ 1800/1900 MHz)
GPRS	GPRS multi-slot class 12 GPRS mobile station class B
RMS Phase Error	5 deg
Max Out RF Power	33.0 dBm ± 2 dBm
Dynamic Input Range	-15 ~ -108 dBm
Receiver Sensitivity	Class Ⅱ RBER 2% (-107 dBm)
Stability Of Frequency	< 2.5 ppm
Max Frequency Error	± 0.1 ppm

GPS Specifications

GPS Chipset	u-blox All-In-One GPS receiver
Sensitivity	Autonomous : -148 dBm Hot start : -160 dBm Tracking : -162 dBm
Position Accuracy	Autonomous : < 2.5m SBAS : 2.0m
TTFF (Open Sky)	Cold start : 30s average Warm start : < 30s Hot start : < 1.2s

Air Interface Protocol

Transmit Protocol	TCP, UDP, SMS
Power Supply Monitoring	Alarm status reporting of the external power and backup battery of the device
Scheduled Report	Report position at a pre-set time interval, distance, mileage or combination of these values
Geo-fence	Geo-fence alarm and parking alarm, supports up to 5 internal geo-fences
Tow Alarm	Alarm report for movement when ignition off
Speed Alarm	Flexible speed monitoring for unusual speed alarm
Driving Behavior Monitoring	Aggressive driving behaviors detection for harsh braking and acceleration
Crash Detection	Accident data collection for reconstruction and analysis
Special Alarm	Special alarm based on the digital inputs
Remote Control	OTA control of device outputs

Interfaces

Digital Inputs	Two digital inputs One positive trigger for ignition detection One negative trigger input for normal use
Digital Outputs	One digital output open drain, 150mA max current drain
Latched Digital Outputs	One digital output with internal latch circuit open drain, 150mA max current drain
GSM/GPS Antenna	Internal only
Indicator LED	GSM, GPS and power
Mini UBS port	Mini USB port for firmware upgrading and debugging

General Specifications

Dimensions	63mm * 50mm * 21.8mm
Weight	50g
Backup Battery	Li-Polymer 250mAh
Standby Time	Without reporting : 60 Hours 5 minutes reporting : 27 Hours 10 minutes reporting : 32 Hours
Operating Voltage	8 to 16V DC
OperatingTemperature	-30℃ ~ +80℃ (without battery) -40℃ ~ +85℃ for storage (without battery)

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