

PMVision Ltd
555 Leeds Rd
Idle
Bradford
BD10 8JT

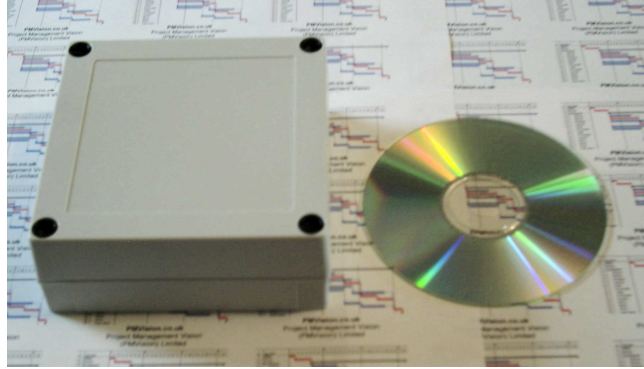
Tel: +44 (0)1787 469053
Email: roy@pmvision.co.uk

BATRAK ASSET LOCATOR

PMVision

Designing from concept to production

There are far more trailers than trucks and far more rolling stock than trains. If a client does not know where an asset is, then it can't be utilised causing loss of revenue



BATrak will tell you if the correct load is on the correct trailer, that the truck is connected to the correct trailer as well as the location of trailers in the fleet.

BATrak can be used to locate and compile a history of any asset for example rolling stock, containers, plant, hire equipment, pleasure craft, delivery vehicles and freight. If an asset is stolen or moved out of a geofence area BATrak can be placed into alarm mode and tracked.

BATrak is a robust self contained battery powered track and trace unit which provides cost-efficient and reliable asset tracking / management. BATrak can also be used for both remote monitoring and data logging applications. Unlike conventional wired vehicle fit systems Batrak requires no external connections, is easy to fit and is very cost effective. Message frequency and payload are all configurable

Key Features

- Low cost complete hardware solution requiring no connectivity
- Single payload can deliver last 10 positions (configurable)
- Installation in moments using magnets, gull wings or 3M tape
- Inconspicuous design in an IP67 rated case
- Contains quad band modem for worldwide use
- Uses SMS for cost effective communications
- Reporting frequency can be changed over air
- Alarm mode can be activated if asset is stolen (unit reports every 5 minutes)
- On board configurable Geofence
- Lasts upto 5 years based on 4 hourly reporting intervals
- Easily integrates into existing back office tracking software
- A variety of case styles available including a 4 x AA version



PMVision Ltd
555 Leeds Rd
Idle
Bradford
BD10 8JT

Tel: +44 (0)1787 469053
Email: roy@pmvision.co.uk

BATRAK ASSET LOCATOR

PMVision

Designing from concept to production

Batrak lasts 5 years entirely on internal power due to our unique efficient power design that only consumes micro amps in sleep mode. Batrak awakes at pre determined intervals which are entirely configurable storing GPS information to flash to be sent over the GSM network by SMS to your base station. Parameters such as GPS and GSM frequency are all configurable by incoming SMS. Default setting for Batrak is 4 hour reporting.

Message payloads are easily integrated into any back office mapping software, we have a dedicated team who are able to assist by telephone/email or by visiting and integrating on your behalf. We are also able to supply software to enable 'proof of concept' should clients wish to integrate at the end rather than the start of the sales cycle



PMVision proof of concept software

Payload & Monitoring

- UnitID - every unit has a unique ID number
- Protocol Version - current version of protocols
- Message Number - each message has a unique ID to the unit
- TempAndVolt - Temperature of the unit and remaining battery power
- Software Version - current version of software
- Hardware Version - identifies the version of hardware in the unit
- Timestamp - time message was sent
- Cell ID - location area
- Latitude, Longitude - GPS position
- Altitude - altitude against sea level
- Speed - speed at time of GPS reading
- Direction - heading at last GPS reading



The new BATrak Baby from PMVision has all the functionality of Batrak but in a much smaller case. Batrak junior runs on 4 x Lithium AA batteries and lasts upto 1 year based on 6 messages a day. Baby is only 155x93x34,

The new BATrak Junior from PMVision again has all the features of Batrak but based around 4 x Lithium C cells, just 155x93x47 in size it will last for upto 3 years based on 6 messages a day



Batrak can also be used for remote monitoring, We simply fit a connector which will allow any serial sensor to be connected. We are also able to supply Batrak as board only for integration into existing equipment.

PMVision Ltd
555 Leeds Rd
Idle
Bradford
BD10 8JT

Tel: +44 (0)1787 469053
Email: roy@pmvision.co.uk

BATRAK ASSET LOCATOR

PMVision

Designing from concept to production

Technical Data

GPS

Operating temperature: - 40°C to + 85°C
Receiver type: L1 frequency; C/A Code; 12 channels
Update rate: minimum 1 Hz

Accuracy:

- Position: 3m CEP; 6m 2DRMS
- Velocity: 0.2 m/s (50%)
- Time: 20 ns RMS (static mode)
- Reacquisition: 100 ms typical (signal reacquisition)
- Cold start : 50s – 55s
- Warm start: 35s
- Hot start : 8s
- Quick start : 4s

Dynamics:

- Acceleration: 4G
- Jerk: 4m/ s³

Sensitivity:

- Acquisition: - 145 dBm
- Tracking : - 152 dBm

GSM

Conforms to the Radio and Telecommunications Terminal Equipment (R&TTE) directive 99/5/EC with requirements covering EMC directive 89/336/EEC and Low Voltage directive 73/23/EEC. The product fulfils the requirements according to 3GPP TS 51.010-1, EN 301 489-7 and EN60950. This device complies with Part 15 of the FCC rules. FCC ID PYB7BC051021.

- Quad Band*
 - Both 3V and 1.8V SIM technology is supported
 - Dual SIM support, automated SIM-switching is available (fit option)
 - GPRS multi-slot class 10 (4+2) enabled (fit option)
 - Both PDU (protocol data unit) and text mode supported (PDU is standard fit)
- *Current model is dual band, quad band available from April at no extra cost

Enclosure (standard batrak)

- Size—130mm x 130mm x 50mm
- Weight—0.8KG including all internal components
- Ingress Protection (EN 60529): IP 67
- Impact Resistance (EN 50102): IK 08
- Electrical insulation: Totally insulated
- Halogen free (DIN/VDE 0472, Part 815): Yes
- UV resistance: UL 508
- Flammability Rating (UL 746 C 5): UL 94 5V
- Glow Wire Test (IEC 695-2-1) °C: 960
- NEMA Class: NEMA 1, 4, 4X, 6

Power (standard batrak)

- 5 x 3.6V lithium thionyl chloride—non rechargeable
- 5 year life based on 6 GPS and 6 GSM payloads per day within operating parameters
- Secondary power / connectivity—none

About PMVision

PMVision is a project management and electronics design consultant based in Bradford, UK. Since foundation in 2004 PMVision has undertaken design in complete systems and products as well as individual software and hardware modules, delivering on time and in budget. PMVision provide a one stop solution for clients taking projects from concept to mass production. PMVision are not restricted to designing for individual sectors however PMVision are specialists in Telematics, Medical and Industrial markets. PMVision have also produced numerous white label peripheral devices for the Telematic market allowing clients to brand as their own