2016

Vehicle Tracking System – ETrack-Series

Overview

The Vehicle Tracking Solution (VTS) from **EDS** is a complete fleet management solution for vehicle owners or operators to determine theirreal-time and historical location. The solution includes a Vehicle tracking unit, which extensively collects the vehicle information and uploads to cloud servers. The solution allows our clients to schedule vehicles, to monitor their movement and to control the vehicle viz. trip start and completion time, distance travelled and speed for any given time period.Our turn-key solution provides Tracking, Reporting, Informative Monitoring (TRIM) features thereby trimming the operating costs while

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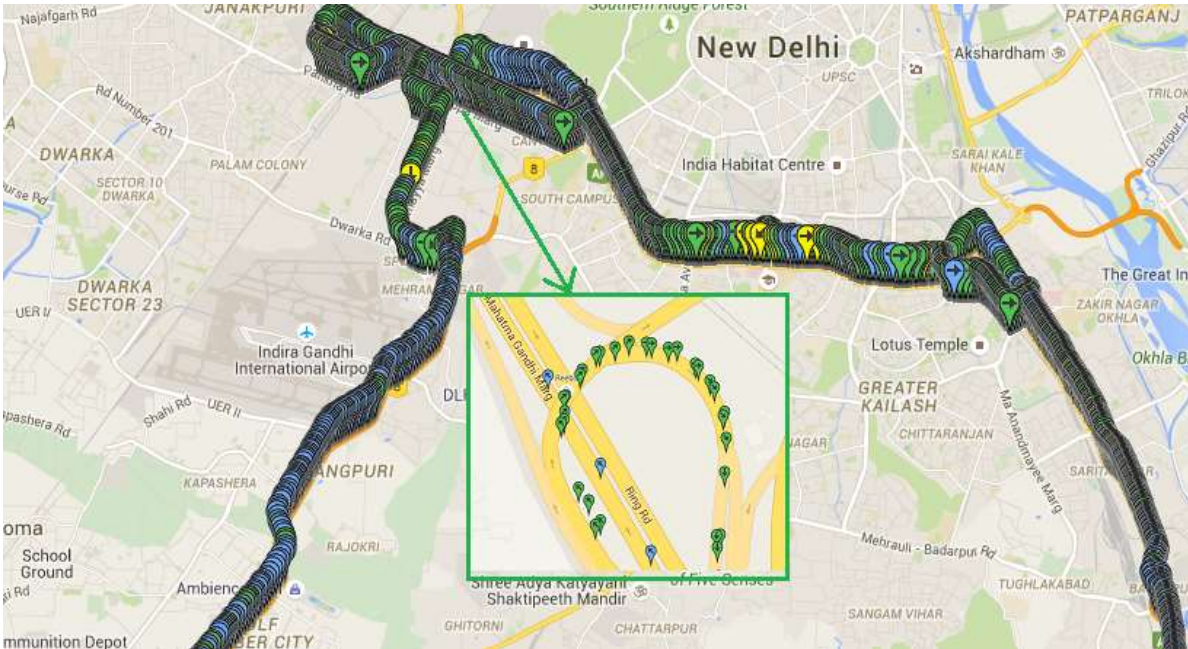
TECHNICAL SPECIFICATION

External Power	8VDC to 36VDC
Operating Current / Sleep Mode Current	< 60mA; Peak 2.5A; Sleep <4mA
Internal Battery - Backup Time	900 / 1100 / 3000mAH – Backup 4 Hour to 72 Hour
Operating Temp (Storage Temp)	- 0°C to +85°C (-30°F to +85°C)
CPU	ARM Cotex-M3 @72Mhz
External Memory	8 MB Flash
Wired Communication	1 RS-232 Port, 1 USB Device (Optional)
GSM /GPRS MODEM	850/900/1800/1900 MHz Quad Band, Multi Slot (12/10/8), Class B GPRS Module
Navigation – GPS+GLONASS Receiver	GPS - L1 1575.42MHz C/A Code GLONASS – L1 1598.0625~1605.275MHz
Serial Interface	CCTV Camera/RFID/Biometrics Sensors
FOTA	Firmware over Air, Configuration Over Air
Power/SIM/Battery removal alert	Yes
Low Battery alert	Yes
Device Auto Disconnection	When Vehicle Battery is low.
Geo-address	Yes (Optional)
GPS / GPRS antenna	Inbuilt
GPS dark zone	LBS & GSM Triangulation
Smart Polling	Time, Distance ,Angle & IO Events
Audio	Two way(optional)
Dual Server	Optional

Key Features

- ✓ Hard, Compact, Light-weight unit with Environment friendly IP67 plastic case
- ✓ Smart data acquisition – Optimized based on Event, Time, Angle, Ignition & Distance
- ✓ GPS Dark zone / multi path elimination using LBS & Cell Tower Triangulation
- ✓ In-built Flash memory to store 30,000 events for GSM Dark Zones
- ✓ Virtual trip meter with automatic Trip start and end detection
- ✓ SMS and Email Alarms from device on Tampering, Over speeding or vehicle Towing
- ✓ Remote Log maintenance and support using SMS
- ✓ Configurable External & Internal Battery Cut-off
- ✓ Device can be configured to hit multiple servers for a single event
- ✓ Vehicle health & Behaviour Monitoring (OBDII)
- ✓ Communication
    - o Sending acquired data via GPRS
    - o Receiving configuration / parameters / Immobiliser commands from Server.
- ✓ Auto APN Setting overridden by manual APN Settin
- ✓ Reverse Geo-code from device (optional)
- ✓ Events from I/O elements detection and sending via GPRS or SMS.
- ✓ 5 Circular Geo-fencing inside device.
- ✓ Complete cut-off from Car battery to prevent Car battery discharge.
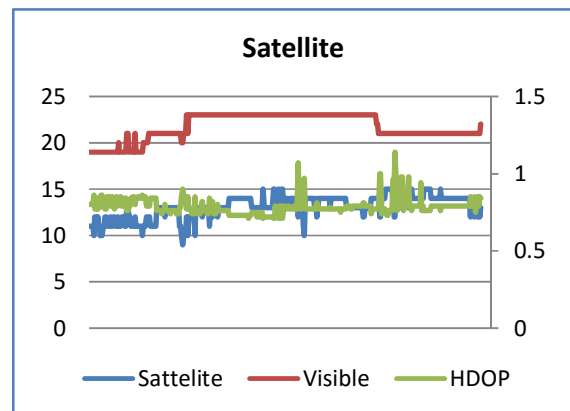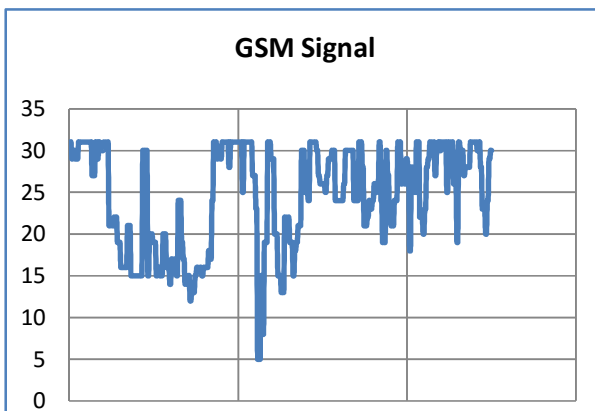- ✓ Automated FOTA (firmware updating via GPRS in moving condition).

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Features	ETrack-312	ETrack-442	ETrack-OBDII
Device USP	Dual Server	Auido & Accelerometer	OBDII Supported
Digital Input	2+1	3+1	✗
Digital Output	2	2	✗
Analog Input	1	4	✗
Audio	✗	✓	✗
Accelerometer	✗	✓	✗
Tampering	SIM/Power/Internal Battery/Box		SIM
Indication	Power,Ign,GPRS,GPS		
FW-OTA(Manual/Auto)	✓	✓	✓
Device Configuration Via SMS / TCP Server	✓	✓	✓
Virtual Trip Meter & Trip Analysis	✓	✓	✓
Smart data acquisition	Based On Time/Distance/Angle/Events & Ignition		
Configurable SMS Alerts	Ignition,Power,Over Speed,Tow,Geofence,SMS Tracking, Rev. Geo		
Autocut Vehical Battery	✓	✓	✗
Internal Battery	✓	✓	✗
OBDII Protocol	✗	✗	✓
Vehicle Health & Behaviour Monitoring	✗	✗	✓
Over Speed, Tow Dection	✓	✓	✓

Field Test Results

Test Results

1. **Average GSM Signal in range of -65 to -51dBm**
2. **Maximum Used satellite 20 out of 22 Visible with HDOP down to 0.60**
3. **TTFF 45 to 90 Seconds Maximum.**
4. **Input Over voltage test – 40VDC for 10 Minutes**
5. **Internal battery backup Min – 4Hr 30 Min, Max – 7 Hr**
6. **Trip Meter with accuracy of 99.2%**
7. **Smart Hitting Tested up to: Angle–20°, Distance–30 Meters, Time – 3 Sec.**

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