

SATCOP-AIS140

GSM + GPS + GLONASS +
IRNSS + RS-232 + RF-ID +
Temperature Sensor +
Accelerometer + Gyroscope



Key Features:

- IP 65 Compliant ABS Body.
- Quad band Class 12 GPRS Module.
- Multi-GNSS GPS, GLONASS and IRNSS with AGPS support.
- Embedded (internal) GPS & GPRS Antenna.
- RS-232 Port (this device can be used as remote data logger).
- 3 Axis Accelerometer. *
- 3 Axis Gyroscope. *
- Fuel sensor integration. *
- RF-ID reader (for driver authentication). *
- Mi-Fare card reader (for driver tracking in vehicle or student tracking in school bus). *
- Isolated Dedicated Ignition and AC Input.
- 4 Digital Inputs, 2 Digital Output and 2 Analog Input
- Vehicle Immobilization through SMS or Server.
- Alert: Ignition ON/OFF/Door Open/ Low Battery/ Box Tampering
- External Power Cut Alarm.
- SOS/Panic Alert.
- Vehicle Battery low alert.
- Driver behaviour monitoring using Accelerometer and Gyroscope (Harsh breaking, Harsh acceleration alerts).
- Offline tracking through SMS (in case of no internet connection available).
- Offline storage of data up to 1 month. **
- Data Communication over TCP/IP protocol.
- Over the Air configuration parameters update.
- Battery Back-up up to 6 Hrs.**



* - Ordering variant based features. (Optional)

** - Ordering variant based features. (which can be increase)

Technical Specifications

MCU

| | |
|----------|-------------------|
| Core | ARM Cortex 32-bit |
| CPU Freq | 48MHz |

Memory for Offline Logs

| | |
|------|---------------------|
| Type | NAND Flash |
| Size | 16Mbit / 40000 Logs |

Cellular / GSM

| | |
|----------------|------------------------------|
| Module | 2G, Quad Band |
| Frequency | 850/900/1800/1900 MHz |
| GPRS Class | Class 12/10 |
| Antenna | Internal (external optional) |
| Sim Card | Embedded Sim 1.8/3.3V |
| Protocol | FTP/HTTP/POP3/SMTP/TCP/UDP |
| Other Features | Jamming Detection, SSL, MMS |

GNSS

| | |
|-----------------------|---|
| GPS + GLONASS + IRNSS | GPS-1575.42 MHz, GLONASS – 1601.71 MHz IRNSS (L5) – 1176.45 MHz |
|-----------------------|---|

| | |
|-----------------|---|
| No. Of Channels | 22 Tracking, 66 Acquisition |
| Sensitivity | Acquisition – 156dBm Tracking – 162dBm |
| Output Format | NMEA 0183 |
| Antenna | Internal (external optional) |

RS-232

| | |
|--------------------|-----------------------------|
| Baud rate | 2400 to 115200 Configurable |
| Hardware Handshake | No |

Accelerometer

| | |
|-------------------|------------------|
| Measurement Range | +/-2g to +/- 16g |
| Resolution | 16Bit |

Gyroscope

| | |
|-------------------|------------------------|
| Measurement Range | +/-245 to +/- 2000 dps |
| Resolution | 16Bit |

Inputs / Outputs

| | |
|----------------|---|
| Digital Inputs | 4 Nos. |
| Voltage levels | 0 to 1.6V Logic Low / OFF 1.7 to 40V Logic High / ON |

Dedicated Digital Inputs

| | |
|-------------------------------|--------|
| Isolated Ignition Input (ACC) | |
| Isolated AC Input | |
| SOS Panic Input | 2 Wire |

Digital Outputs 2 Nos.

| | |
|---------|---------------------|
| Current | Open Drain, 1A max. |
|---------|---------------------|

Analog Inputs 2 Nos.

| | |
|---------|----------|
| Voltage | 0 to 30V |
|---------|----------|

| | |
|-------------------|--------|
| Box Tamper Switch | 1 Nos. |
|-------------------|--------|

Status LEDs

Power GSM GPS BLUETOOTH



Internal Battery

| | |
|------------|--------------------------|
| Type | Li-ion Rechargeable |
| Capacity | 650mAh @ 3.7V |
| Protection | Built in to battery pack |

Electrical

| | |
|-----------------------|--|
| Input Working Voltage | 8 V to 30 V |
| Maximum Limit Voltage | 36 V |
| Protections | Reverse Battery, Transient Protection Built-In PTC Fuse. Under Voltage lockout |
| ESD Protection | 4kV |

| | |
|-------------------|---|
| Power Consumption | Less than 1 watt (In High-Performance mode) Less than 0.25 watt (In Power-Saving mode) |
|-------------------|---|

Environmental

| | |
|-----------------------|-----------------|
| Operating Temperature | -40 to 85 Deg C |
|-----------------------|-----------------|

Mechanical

| | |
|--------------------|---------------------|
| Dimensions | 110 X 75 X 25 mm. |
| Box Material | ABS |
| Ingress Protection | IP65 |
| Weight | 250 Grams (Approx.) |