

**Astrata's Geo-Location Platform (GLP20/21)** is one of the most technologically advanced fleet management and vehicle tracking solutions available.

It has a variety of features which makes it suitable for a range of applications including corporate vehicle fleets, cash in transit, long distance transportation and trailer tracking. The system can also be used for the tracking of coastal vessels with the unit installed in waterproof casings.

Astrata's Geo-Location Platform (GLP) is ideal for covert installations and is easy to conceal due to its small size. It comprises a GSM/GPRS module, which is permanently active, meaning it can receive commands at any time and is not therefore dependent on a vehicle's ignition. It also achieves groundbreaking low power consumption through the utilisation of advanced proprietary power management algorithms.

It has an advanced communications protocol that allows it to utilise 'least cost routing' of data transmission via multiple communication paths resulting in reduced communication costs. The unit boasts a Dual-Band SMS/GPRS compatible GSM module and the latest 'high sensitivity' GPS receiver. Connectivity to and from external sensors, such as an engine immobilizer, alarm button, buzzer etc, is facilitated through the onboard digital and analogue Input / Output (I/O) lines. A standard RS232 serial interface is also provided to data transfer between the unit and other in-vehicle terminal equipment, such as trailer identification system or a mobile data terminal.



## Applications include

- Fleet Management
- Remote Diagnostics
- Transit Tracking
- Driver Profiling
- Container Tracking
- Asset Recovery
- Asset Monitoring
- Job Dispatch
- Homeland Security
- Covert Tracking
- Trailer Tracking
- Data Collection
- Proof of Delivery



## Safety

- Monitor driver behaviour (over speeding, harsh breaking, harsh acceleration)
- Examine working hours
- Alert of high engine temperature, low fuel / oil

## Security

- Driver identification and validation
- Trailer identification
- Monitor authorized routes and zone-violations
- Prevent vehicles from entering 'no-go' zones
- Detect cargo tampering
- Anti-theft features



## Product Features

- Onboard Functionality
- Driver Management
  - Driver holds Dallas button
  - Driver authentication
  - Driver working hours
- Ignition Sensing
- Connectivity
  - Digital Inputs
  - Digital Outputs
  - Analogue Input
  - RS232
- Driver Profiling
  - Over speeding
  - Excessive idling
  - Harsh breaking and harsh acceleration
  - Distance driven (odometer)

## Benefits

Reduction in operational costs

- Fuel Economy
- Detect and reduce excessive idling
- Reduction of un-authorized trips
- Monitor driving behavior
- Optimize vehicle utilization

## Improvement Increase of Efficiency

- Location-based job assignment and vehicle dispatch through real-time vehicle tracking
- Monitor vehicle availability and synchronize with job orders
- Centralized Fleet Management
- Optimize vehicle maintenance

## Security

- Detection and Alert, including email and SMS
  - Illegal movement
  - Door Open
  - Cargo tampering
  - Remote Immobilization
  - Operation outside authorized zones
- Covert Listening
- Vehicle immobilization

## Communication

- Least Cost Communication
  - Main communication channel is GPRS. If a GPRS channel is unavailable the device will send the data via SMS
- Over-the-air Configuration
  - Device-based setting can be configured remotely from the back-end software
- Over-the-air Firmware Upgrade

## Technical Specifications the same for both products unless specified

### Physical

Size	77.6mm x 106mm x 28.15mm	
Weight	145g (325 grams including backup battery)	
CPU	PIC18F6620/1	
Digital Outputs	2	
Digital Inputs	GLP20 3	GLP21 5
Serial ports	1	

### Memory

Historical memory storage	2256 position
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### GPS

GPS Module	SiRFxTrac
Channels	12 Channels

### GSM

Supported Communications	SMS, GPRS, Voice
Band	US 850/1900 EU 900/1800

### Power Supply

Operating Voltage:	9 - 32v
Max Current	800 mA @ 12V
Cut off threshold:	8 VDC
Backup Battery	12 hours

### Environmental

Relative Humidity	95% Non Condensing
Vibration	Random 20 - 500 Hz, 0.001g/Hz
Shock	Half Sine 25g 10ms
Storage Temperature	-40 to +85 degrees Celsius
Operational Temperature	-25 to +70 degrees Celsius

### Electro Magnetic Compatibility

ESD	ISO TR10605
Vehicle Transients	ISO 7637 Part 1,2,and 3
EMC	95/54/EC (e-qualification)

## Optional Peripherals and Accessories

### Voice communication and messaging

- 2-way hands-free voice
- Mobile Data Terminal

### Security

- Distress Button
- Door and cargo sensor
- Immobilizer
- Activation of Horns & Blinkers
- Driver Identification
- Trailer Identification

### Safety

- Impact Sensor
- Accident Black-box Data

### Remote Diagnostic

- CANbus compatible

### Navigation

- NMEA Output