

# GSM/GPRS/GPS Smart Car Security and Tracking System (GP-20S)



## Features:

- Based on GPS / GSM Technology
- Position report to mobile phone or PC by SMS/GPRS
- Remote Configuration by mobile phone or PC via SMS
- Geo Fence Function
- Main Battery Failure Alarm
- Up to 8 hours Rechargeable Battery Back up
- Cut off engine by mobile phone
- Engine starter Alarm
- Display the car on map
- Play back history
- Add credit to prepaid SIM remotely

## TECHNICAL SPECIFICATIONS:

### GENERAL SPECIFICATION

- Real Time Clock (RTC) with Persian and Christen calendars (option)
- 3 digital inputs(to connect to car security system , ignition switch , and main car battery status)
- 4 digital outputs(3 relay cutting off and one for rear boot)
- 2 Analogue inputs ( **optional**)
- Position accuracy :10m
- On board flash memory for saving maps information in text format.
- DC Voltage input (6-15V) **(6-36V optional)**
- Information from GP-20S to user(s) are:
  - Vehicle position (Longitude and Latitude)
  - Vehicle Speed
  - Car ID
  - Driver ID
  - Alarms (over speed, engine start, credit limit for prepaid SIM, main battery failure, entering to or exiting from geo-fence area)



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- Commands and settings:
  - Assign or edit Master / clients Mobile numbers by SMS/GPRS
  - Time and Date Setting
  - Analog input Alarm Thresholds (**option**)
  - Input event trigger (Digital Inputs)
  - Digital Output active or deactivate
  - Report time interval setting
  - Output message format (Longitude & Latitude & Speed, LLS + text Address)
  - Defining Geo-fence area

## GSM MODULE

- Tri-Band GSM/GPRS 900/1800/1900 MHz
- GPRS class 0: 85.6kbps max. (downlink)
- CSD up to 14.4 kbps
- Compliant to GSM phase 2/2+
  - Class 4 (2 W @ 900 MHz)
  - Class 1 (1 W @ 1800/1900 MHz)
- Group 3 class 1

## GPS RECEIVER

- Channels : 32 channels
- Sensitivity : Acquisition : -146dBm  
Reacquisition: -156dBm  
Tracking:-158dBm
- Timing Accuracy: 100ns RMS
- Reacquisition Time : Less Than 1 sec
- Position Accuracy : <3m CEP (%50) without SA (horizontal)
- Velocity Accuracy: Without aid : 0.1 m/s
- Hot start : 1 sec (Typical)
- Warm start : 36 sec (Typical)
- Cold start : 37 sec (Typical)
- Altitude : 18000 m
- Velocity : 515 m/s Max

## GPS/GSM ANTENNA

### GPS antenna

- Frequency: 1575.42MHz
- Polarization: RHCP (right hand circular polarization)
- Gain: 30dB typical
- Attenuation: 20dB min. at F0 +/- 50MHz
- Bandwidth: 10MHz
- VSWR: ≤ 2.0:1
- Impedance: 50 ohms
- Power consumption: 2.7 to 5.5VDC/28mA

### GSM antenna

- Frequency: 900MHz /1800MHz (800/1900)
- Polarization: vertical
- Gain: 2.5dBi
- VSWR: 1.8:1
- Impedance: 50 ohms
- Power handling capacity: 40W

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**Address:** No.46- East Hovayzeh St – North Sohrevardi Ave.-Tehran-IRAN

Tel: +98-21-88505918, 88534464

FAX: +98-21-88534465

[www.takin-ms.com](http://www.takin-ms.com)

## ELECTRICAL

- Battery capacity : 1000/1800mAh
- Maximum voltage for digital outputs: 50 V
- Maximum current for digital outputs : 30A
- Maximum voltage for digital inputs: 40 V
- Current consumption:
  - Normal : 180mA
  - Transmitting SMS/GPRS:500mA
  - Network searching :2A/5mS

## Environmental and mechanical

- Dimensions: 10x8x3.5cm ( LXWXH)
- Operation temperature : -18 to +60 °C
- Weight : 270g