

# APLICOM R1

## Low cost vehicle security & tracking device

Aplicom's R1 device with integrated GPS and GSM antennas is quick and cost efficient to install. Its easy to set-up internal software enables fast time to market for vehicle tracking applications. The buttons on the device provide easy status messaging without wiring needs and digital inputs and output allow further actions. R1's advanced power management, geofencing and battery back-up are of benefit in diverse applications.



R1 IS A READY TO USE TRACKING UNIT suitable for a multitude of different applications. The unit offers car security, electronic log book and a standard real-time vehicle tracking. The inbuilt, large, 25mm patch antenna guarantees a good GPS reception and the efficient quad band GSM antenna provides a global coverage. Due to the internal antennas economical and, if needed, also covert installation is possible. As there are no visible antennas the unauthorised use of the vehicle, due to exposed tracking unit, is made extremely difficult. Of the 3 buttons on the unit, one can be used; for example, as an alarm button.

FOR CAR SAFETY USE the internal back-up battery allows continued operation and alarming when main input power is removed or cables cut. The inbuilt movement sensor gives a wakeup when the device is moved and ignition is off (tow detection). With the vehicle immobiliser the vehicle can be stopped at a safe location.

THE GEOFENCE FUNCTION allows the definition of prohibited areas, locations with status triggers, alarm zones, log book activities, work force management control or exact kilometers and time for charging customers of mobile workforce. Once the geofence is established, the unit automatically informs about entering or leaving a defined area.

In locations where the network is missing, the R1 saves the data in the non-volatile memory. This memory can store up to 5000 records. When the network is available again, the stored data is sent with the wanted method.

THE UNIT CAN ALSO BE USED AS AN ELECTRONIC LOG BOOK. The three buttons on the unit, with LED's showing the active button, provide a good tool for working status monitoring. The unpleasant paper work can thus be decreased significantly. Most demanding mobile workforce tasks can be managed by combining geofence features with the status buttons.

www.aplicom.com

**Aplicom**<sup>®</sup>  
MOBILE DATA FOR PROFESSIONALS

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# Technical data

## Aplicom R1

### FEATURES

- Compact unit, all in one package
- Quad band GPRS
- Sensitive GPS
- GPS odometer
- Internal antennas, external GPS antenna option
- 3 button user interface with status LED's
- Low power consumption and smart power management
- RTC which is synchronised to GPS time when available
- Configurable through USB interface and with SMS
- OTAP SW and configuration
- Remote trouble shooting
- Watchdog function
- Wide temperature range

### COMMUNICATIONS

Open protocol for server connectivity: GPRS, TCP/IP.  
Aplicom D-protocol, full IMEI identification.

### FACTORY INSTALLED SOFTWARE

The standard SW includes the functions required in normal tracking applications. It is stable and can be remotely updated (OTA).

Smart event based reporting logic is used to drive down communication costs and excess amounts of data to the server. Configuring the device to send only the essential, important information helps to keep the system overhead low.

Events that can trigger a report or other actions:

- IGN on/off (optional)
- Timed wake-up
- Movement wake-up
- Position (time interval, distance travelled, heading change)
- Geofence in & out
- Battery low, OK status
- Button pressing
- Trip counters
- Start moving, stop moving
- Input and output change
- External power supply available

#### GPRS platform

Quad-Band GPRS multislots Class 12

#### GPS

Atheros Communications  
- accuracy 1,0m (CEP50)  
- reacquisition 100ms  
- cold start 36s

#### Movement sensor

Wake-up, alarm and power management

#### Power supply

8...30V (+12V, 60mA nominal)

#### Battery (internal)

380mAh

#### Power switch

IGN, movement detection, SW controlled power management, button pressing

#### Dimensions

100mm(W) x 62mm(H) x 30mm(D)

#### Weight

130g

#### Operating conditions

- 30°C...+65°C  
- 40°C...+70°C storage  
Humidity +95 % max

#### Housing / material

Plastic mould and button membrane

#### User interfaces

3 button interface with 3 LED's indicating status, SIM card slot

#### Interfaces

- Input 1 +12...+24V (can be used for IGN control)  
- Input 2 +5V (24V option), pull down active  
- 1 x Output (open drain)  
- Internal GPS and GSM antenna (external GPS antenna option)  
- USB connector, device, serial  
- Cable to vehicle supply  
- Configuration through USB-connector, SMS, OTA FTP Server

#### Development tools

Software configurator tool

#### Approvals

CE marking 2004/108/EC (EMC directive)