

R1 GSM GPS card

Power supply
on Board

Quad Band

On Board
SIM Holder

2 GPIO outputs

Audio outputs

PYTHON
Script Interpreter

RoHS Compliant

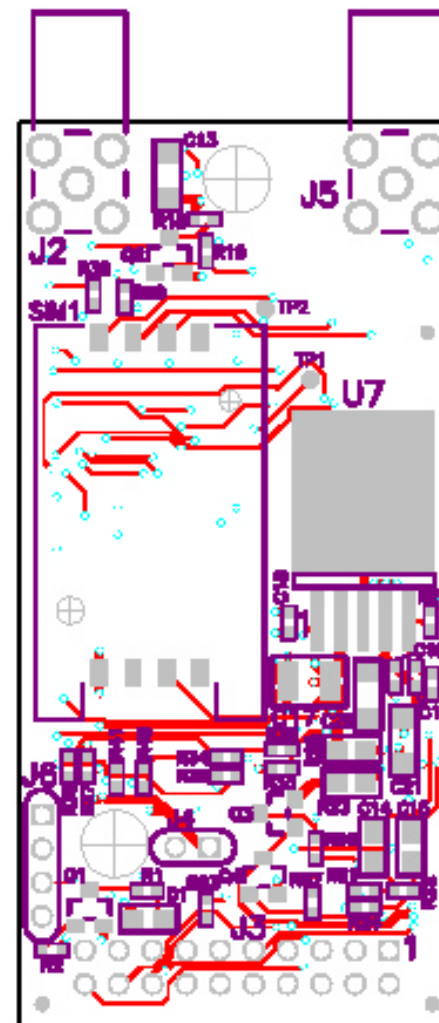
GPS SIRF 3

The GateTel R1 card is complete Modem GSM GPS solution. R1 card base on Telit GE863 GPS modem, RoHS compliance. R1 with PYTHON offers customer program inside the modem, Making the terminal a complete customer solutions. The R1 board to board 2.54mm 20 pins connector. Directly controlled by 2.8V serial UART interface Offering a board supply voltage range (5-14 V DC). The R1 is universal solution for all low volume applications. R1 product comply to the RoHS directive of EU.

Product Features

Quad-Band EGSM 850/900/1800/1900 MHz
Output Power Class 4 (2W) 850/900MHz, Class 1 (1W) 1800/1900MHz
At commands according to GSM 07.05, 07.07 and proprietary Telit
Supply Voltage Range: 5-14 V DC
Power Consumption, power off: 26uA, idle: 4 mA, GPRS(max): 700 mA
Dimensions: 68x 33 x 10 mm
Weight: 35 gr. With 1300ma/H battery 60 gr.
Temperatures range: -20 / +70 C
2 I/O General Purpose I/O
9 pin board connector for UART communication 300 to 115,00 bps
SMA female, 50 ohm connector for GSM
SMA female, 50 ohm connector for GPS
PYTHON script interpreter, Memory: 3 MB of NV, 1.5 MB RAM

GPS High sensitivity for indoor reception up to -159 dBm.
Fast TTFF's at low signal levels. Hot starts less then 2 seconds.
Support 20- Channel GPS. GPS NMEA 0183 output format.



R1 GSM GPS card PYTHON application

GPRS, SMS protocol
TCP/IP, UDP selection

Log for GPS location
When GPRS lost
connection

2 GPIO outputs
Audio outputs

All unit base on
PYTHON
Script Interpreter

GPS SIRF III
Socket open when get
SMS and calls

Unit can lunch SMS for
emergency and can
get audio call
automatically

PYTHON program runs on Telit GM863 GPS PYTHON Modem.
Transfers GPS information through GPRS to remote IP.
Transfers CELL ID and CELL LOCK information through GPRS to remote IP.
Transfers GPS information to local UART.
Unit has 2 GPIO for remote notification and Audio output.
Setup with SMS command or UART.
Storage GPS information when GPRS out.
Unit can send the GPS info few ways: TCP/IP, UDP, SMS Modes.

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Sample: what the unit send to the IP side

```
DEVICE OEM1
*R35827800000547,044C,7DAB,01,01,$GPSACP: 122749.000,3210.8110N,03452.6387E,1.2,79.8,3,185.59,0.72,0.3,090606,06>#
+++
```

IMEI,LOCK,CELL,input1input2,output1output2,GPSACP:'>#\r\n'

Unit can store GPS information when GPRS not available. (Storage 0.5M byte)
Store GPS information will be send with next time GPRS will be available.

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SMS setup protocol:

0:APN,USER,PASSWORD
1:IP ADDRESS,REMOTE PORT
2:MOVE INTERVAL,FIX INTERVAL
3:PHONE_NUM, PHONE_NUM,
4:OUTPUT1,OUTPUT2
RESET
INFO
PHONES

Sample string

0:internetg,0,0
1:62.90.100.169,6005
2:30,120
3:0547516256,0547665754
4:1,1 (output 1 on. output 2 on)
reset
info
get the list of phones in the unit.

5:1,100,60,Over speed 100Km/h
6:0,5,10,Car stolen
7:1, 5,emergency

R1 GSM GPS card Block Diagram V1.1

