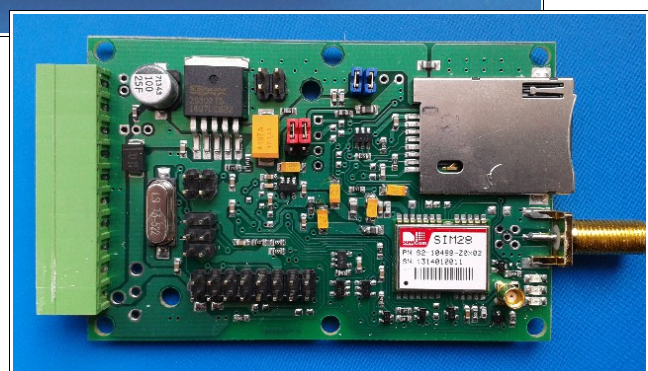
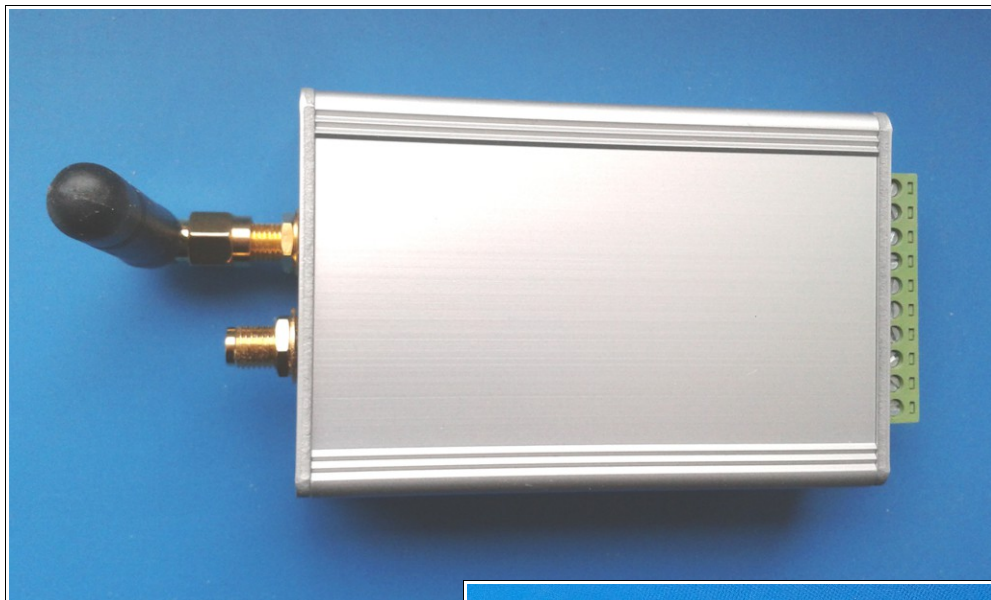


**GSM/GPRS GPS Tracker**  
for real-time GPS data tracking

**BR900-GPS**

Preliminary data

22 oct. 2018



## GSM module BR900-GPS

### Features:

- Quad band GSM module SIM900 or compatible
- GPS receiver SIM28
- 1 Solid State Relay outputs (28V/1A max)
- optionally 2 Open-Drain Mosfet Outputs instead of 1 Solid-State Relay output
- 4 digital inputs
- 1 analogue input
- 1 temperature input (optionally)
- Power supply monitoring
- SMS/FTP tracking
- Remote programming using SMS
- Pluggable screw terminal block for external signal and power supply connections
- Push-Push SIM holder
- External stabilised +5VDC...+12VDC (+14.5VDC max) power supply
- Board dimensions: 77.5x50.5mm
- Enclosure: FISCHER ELEKTRONIK AKG 55 24 80 ME (optional)
- Enclosure dimensions: 80x55x24mm

### Applications:

- GPS tracking

### BR900 Versions

BR900-ST - Standard version

BR900-SMT - Temperature monitoring version

BR900-PT100 - Temperature monitoring version for Pt100 sensors

BR900-RF - RF-control version for wireless remote control switch AC power plugs

BR900-GATE - Gate opener version for Gate control

BR900-GPS - GPS version for SMS/FTP tracking

BR928-DL - Data logger version with extended inputs and outputs and with GPRS data transfer to WEB server

## GSM module BR900-GPS

### Technical Specification

#### BR900 series Hardware Specification

	BR900-ST	BR900-SMT	BR900-RF	BR900-GATE	BR900-GPS	BR928-DL
GSM band support	800/1900Mhz or 800/850/1800/1900Mhz					
Internal GSM module	Dual or Quad band GSM module SIM900 or compatible					
RF Transmit Power	Class 4 (2W) 850/900Mhz, Class 1 (1W) 1800/1900Mhz					
Data transmission	SMS	SMS	SMS	SMS	SMS/FTP/GPRS	SMS/FTP/GPRS
SIM card reader	Push-push					Simple
SIM card type	Phase 1 and phase 2+; SIM 3V / 1.8V					
Antenna Connection	50Ω SMA (f) Connector					
<b>Digital inputs</b>						
Digital inputs type	MOSFET transistor input (20V max)					Darlington transistor input
- Digital inputs	4	2	1	4	4	6
- Events digital inputs	4	2	1	4	4	12
- Digital inputs event	0-1 or 1-0	0-1 or 1-0		0-1 or 1-0	0-1 and 1-0	0-1 and 1-0
- Digital signal filter	Yes					
<b>Temperature sensor inputs</b>						
Temperature sensor	-	SMT172	-	-		SMT172
Temperature inputs	-	2	-	-	1 optionally	2
Temperature input events	-	min/norm/max	-	-		min/norm/max
Temperature range	-	-45 to +99°C	-	-		-45 to +99°C
Accuracy	-	1°C	-	-		1°C
- Temperature filter		Yes				Yes
<b>Analogue inputs</b>						
Analogue inputs	1	1	-	-	1	3
Analogue input range	0...10V	0...10V	-	-	0...10V	0-10V
Analogue input mode	-	-	-	-	-	0-5V/0-10V 0-20mA (optional)
- Analogue input events	min/norm/max	min/norm/max	-	-	min/norm/max	min/norm/max
- ADC resolution	10-bit	10-bit	-	-	10-bit	10-bit
<b>Outputs</b>						
- Relay Output	-	-	-	-	-	1 (125Vac/24Vdc/0.5A)
- Solid State Relay outputs	1 (30V/1A max)	1 (30V/1A max)	-	1 (30V/1A max)	1 (30V/1A max)	-
- MOSFET Open Drain outputs	2 optionally (30V) instead of Solid-State Relay output	2 optionally (30V) instead of Solid-State Relay output	-	2 optionally (30V) instead of Solid-State Relay output	2 optionally (30V) instead of Solid- State Relay output	2 (20V)
- Wireless Outputs (AC remote switch control)	-	-	Up to 5			-
- Output control mode	On-Off; Pulse					
<b>On-board monitoring</b>						
Power supply voltage monitoring	Yes	Yes	Yes	Yes	Yes	Yes
Power supply voltage monitoring range	15.5V max	15.5V max	15.5V max	15.5V max	15.5V max	17.75V max
Temperature monitoring	-	-	Yes	-	-	-
Temperature range	-	-	-40 to +85°C	-	-	-

## GSM module BR900-GPS

	BR900-ST	BR900-SMT	BR900-RF	BR900-GATE	BR900-GPS	BR928-DL
<b>Wiring</b>						
Wiring Connections	10-way Pluggable Screw Terminal block	10-way Pluggable Screw Terminal block	5.5/2.1 power connector; 2 way pluggable screw terminal	10-way Pluggable Screw Terminal block	10-way Pluggable Screw Terminal block	2x10-way Double row pluggable Screw Terminal block
<b>Power Supply</b>						
Required Power External Supply	+6..12Vdc (14.5Vdc max) stabilised	+5Vdc stabilised	+5Vdc stabilised	+6..12Vdc (14.5Vdc max) stabilised	+6..12Vdc (14.5Vdc max) stabilised	+12Vdc stabilised (+11Vdc min +14.5Vdc max)
Power requirement	50mA typ, 250mA(rms) max, 2A peak typ. (3A max) peak during transmission					
Minimum current recommended	1.2A	1A	1A	1.2A	1.5A	1.5A
Voltage regulator	Internal voltage regulator					
Power protection	Reverse-polarity and over-voltage protection					
<b>Environmental Conditions</b>						
Operating temperature range	-40...+85°C					
<b>Dimensions</b>						
Board dimensions	77.5x50.5mm					
Enclosure	optional	optional	Yes	optional	optional	optional
Enclosure	aluminium	aluminium	aluminium	aluminium	aluminium	aluminium
Enclosure dimensions	80x55x24mm	80x55x24mm	80x55x24	80x55x24mm	80x55x24mm	80x55x32

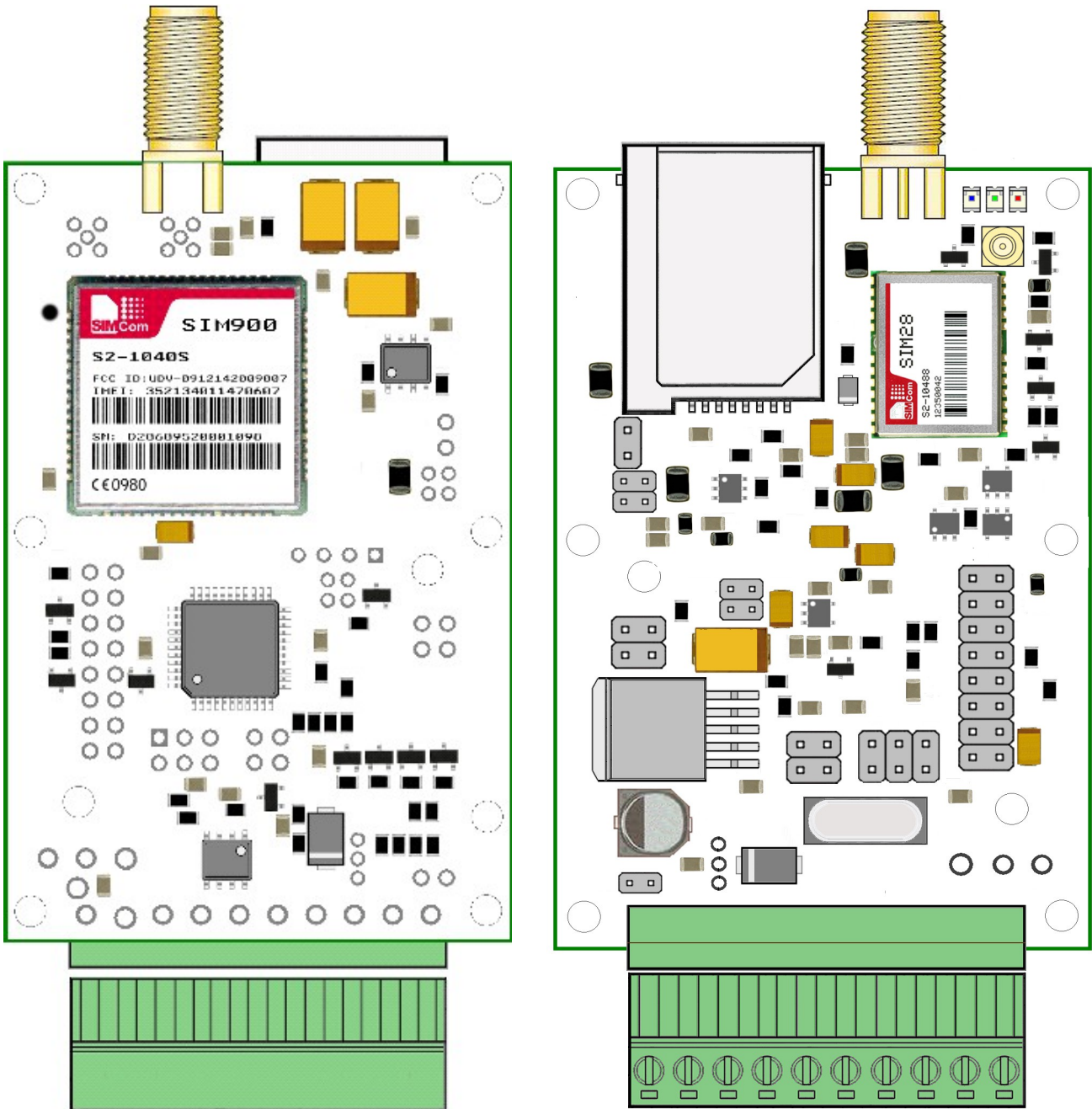
## BR900 series Firmware Specification

	BR900-ST	BR900-SMT	BR900-RF	BR900-GATE	BR900-GPS	BR928-DL
Quantity of controlled outputs	1 (2)	1 (2)	5	1 (2)	1 (2)	3
Quantity of digital event inputs	4	2	1	4	4	6
Quantity of analogue event inputs	1 (+power supply voltage)	1 (+power supply voltage)	-	power supply voltage	1 (+power supply voltage)	3 (+power supply voltage)
Quantity of readable analogue data	2	2	-	1	2	4
Quantity of temperature event inputs	0	2	1	-		2
Quantity of readable temperature data	0	2	1	-		2
Events cell phone numbers	4	4	4		6	7

# GSM module BR900-GPS

## Hardware

The BR900-GPS module consists of the microprocessor, voltage regulator, inputs driver, MOSFET output transistors, built-in GSM module, GPS module, push-push SIM-card holder, GSM antenna connector, GPS antenna connector, pluggable 10-ways screw terminal for external power supply and input and output signal connection.



## GSM module BR900-GPS

### Power Supply

The BR900-GPS operates from a stabilized power source. It draws less than 50mA standby, less than 300mA rms and 2A peak typ. (3A peak max.). +12VDC/1.2A min switching stabilized power supply is recommended. Power supply input has reverse polarity and over-voltage protection. The BR900-GPS can operate also from +5VDC to up to +14.5VDC stabilized power supply.

### SIM Card

Small SIM-card with 3V/1.8V technology

#### Preparation of SIM card

---

1. Delete any SMS messages from SIM.
2. **Disable PIN code** request so it will not prompt for a PIN code on turning on.
3. First SMS to module - **2345N1** from your cell phone (store your number)

**Note:**

- The BR900 can only be used with small SIM-cards with 3V/1.8V technology.
- For SIM card preparation you can use cell phone or external GSM modem.
- SIM card change if power turn off.

### LED indicators

- Module work process indication - RED LED (LED1)
- GSM module SIM900 status indication - GREEN LED (LED2)
- GPS module SIM28 – BLUE LED (LED3)

#### Module LED indication (Red LED)

LED status	Modem status
Permanently off	Device off
Short blinking after power on and periodic blinking	SIM card read process
Short periodic blinking	Module in work
Permanently on	Module work with modem

#### GSM Module SIM900 LED GSM status indication (Green LED)

LED status	Modem status
Off	GSM module SIM900 is not running
64ms On / 800ms Off	GSM module does not find the network
64ms On / 3000ms Off	GSM module find the network
64ms On / 300ms Off	GPRS communication

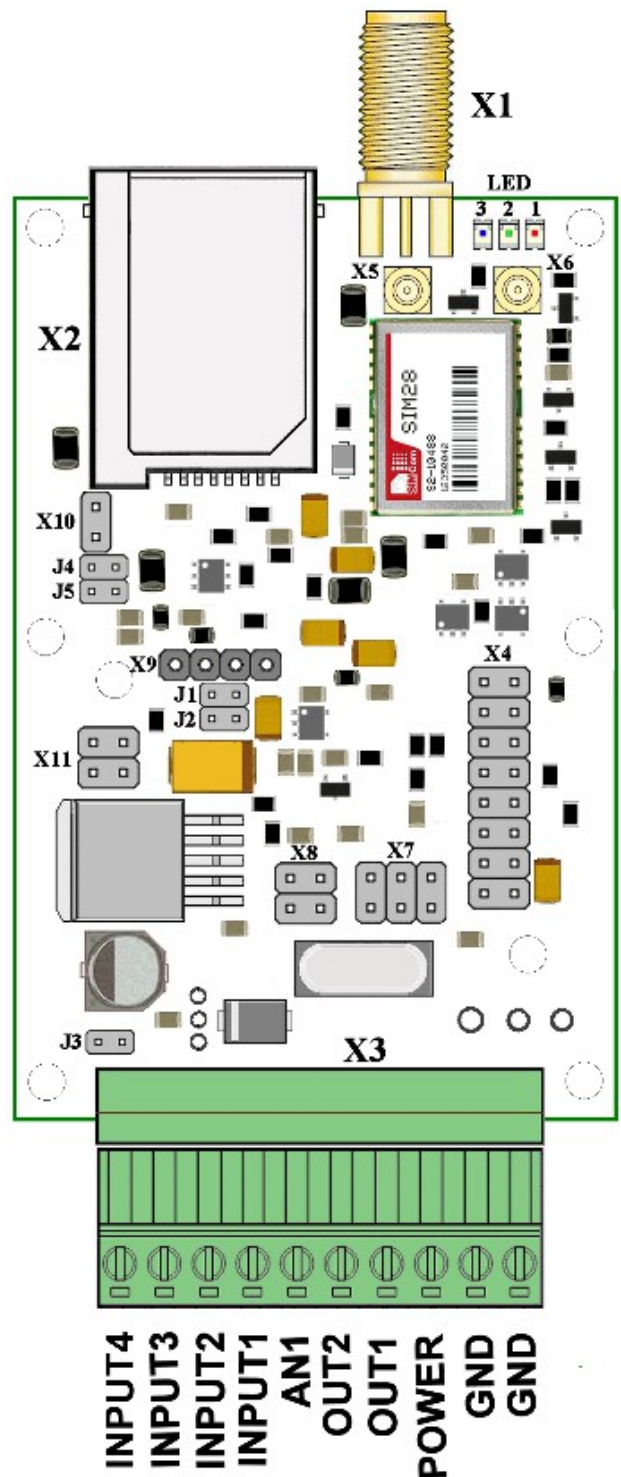


## Connectors and Jumpers

The BR900-GPS consist 10-way pluggable screw terminal for power supply, inputs and outputs connection, push-push SIM connector for SIM card, SMA (female) connector for GSM antenna connection and optional MMCX (female) connector for MMCX(male)-SMA(female) cable for GSM antenna connection. Optionally BR900 have also 2x8 pin header (X4) and 2x2 pin header (X11) for additional extended adapter board connection.

- X1 – GSM antenna SMA (female) connector
- X2 – Push-push SIM connector
- X3 – Pluggable 10-ways terminal block for power supply and external inputs/outputs signal connection
- X4, X11 – Pin headers for optional extension adapter board connection
- X5 – MMCX (female) connector for MMCX to SMA bulkhead GSM antenna cable for any other enclosure
- X6 – optional MMCX (female) connector for GPS antenna
- X7 – ISP interface connector for Firmware programming
- X8 – control point
- J1/J2 – Jumpers for firmware mode setting
- J3 – Jumper for connection INPUT4 to GND.
- J4/J5 – Jumpers for connection microcontroller to GPS module

- Power Supply: see “Power supply”
- Digital Inputs: NTR4003N MOSFET transistor 0-20V max)
- Analogue Input: 0...10V max with resistive divider and diode protection
- Digital outputs: Solid State Relay outputs, 30V max / 1A max



## Jumpers

- Jumper J1** - Change GSM band  
without Jumper J1 - All Band GSM850/900/1800/1900  
with jumper J1 - GSM 850/1900 (850+PCS)
- Jumper J2** - Set password to default 2345

## GSM antenna connector

GSM antenna must be connected to SMA female connector X1. Use only the 50Om antenna of the necessary frequency range. Base version completed with direct mount GSM antenna.  
Optional X5 MMCX female connector used for connection MMCX(m) to SMA(f) cable for mounting to any other enclosure.

*Note: It is very important that the antenna is installed on a location where the GSM-network coverage is sufficient. Please also check carefully that antennas are not installed nearby technical devices, cables etc. which could influence the GSM-radiation.*

## Inputs and Outputs connection

Digital inputs, analogue input, outputs and power supply must be connected with pluggable screw terminals blocks X3.

- Digital inputs - 4
- Analogue inputs – 1
- Solid-State Relay output - 1 (optionally: Open-Drain MOSFET outputs – 2)

See “Inputs and Outputs”

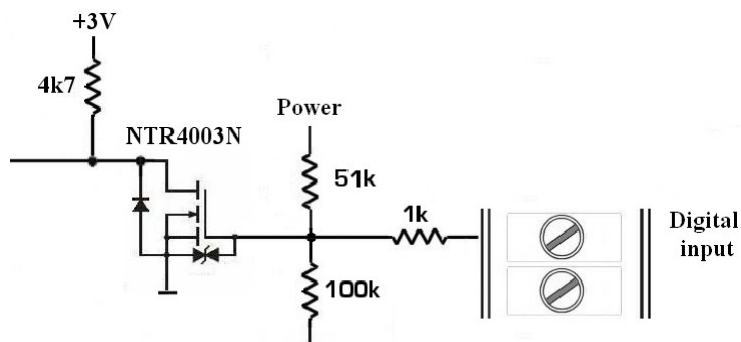


## Inputs and Outputs

### Inputs

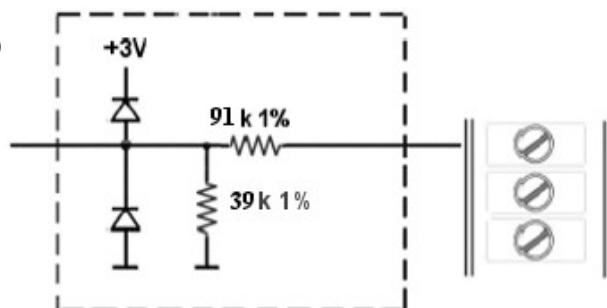
#### Digital Transistor Inputs (exclude BR928)

Driver type: MOSFET transistor NTR4003  
 Connector: Pluggable screw terminal block  
 Inversion: Yes  
 Max input voltage: 20V  
 Free Input: logic "0"  
 Logic "0": 0V...+1V  
 Logic "1": +2V...+20V  
 Pull-up resistor: 51k – only for INPUT3 and INPUT4



#### Analogue Inputs 1

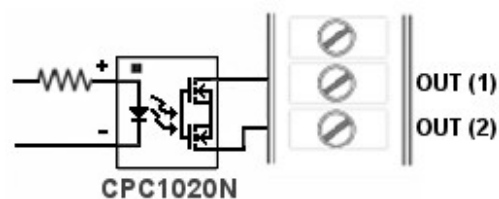
Connector: Pluggable screw terminal block (for analog input1)  
 Input type: CMOS  
 Input Voltage: 0 to +10V: – ANALOG1  
 ADC resolution: 10-bit



### Outputs

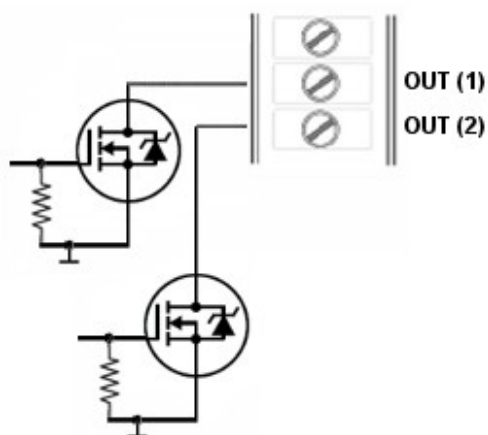
#### Solid State Relay Outputs

Connector: Pluggable Screw terminal block  
 Solid State Relay: single-pole, normally open (1-Form-A) Solid State  
 Relay CPC1020N  
 Max. Voltage: 30V  
 Max. Current: 1A  
 On-resistance: 0.25ohm

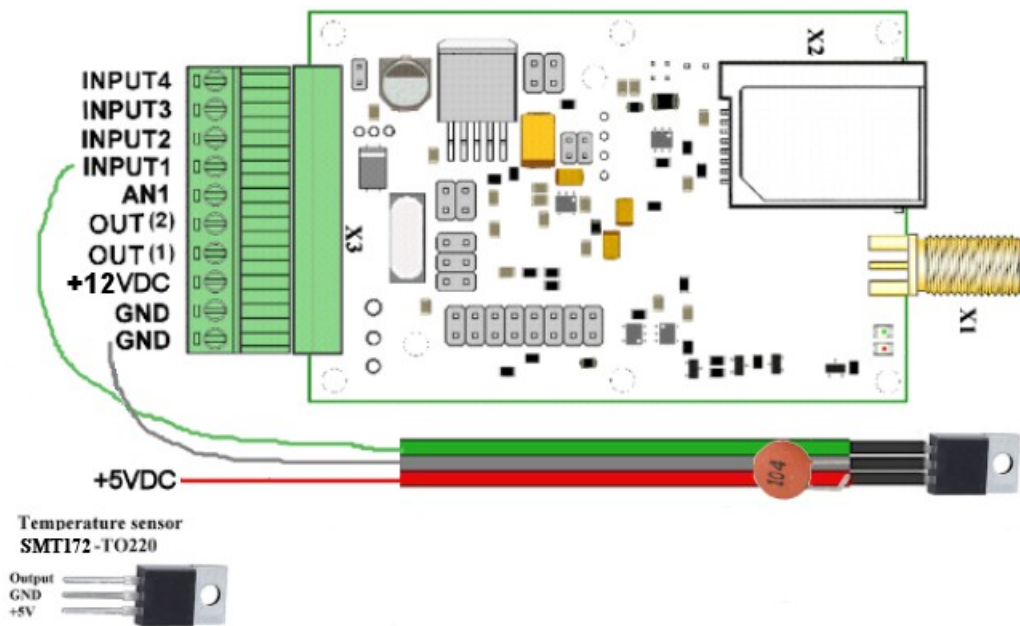


#### MOSFET Open Drain Outputs (optional)

Connector: Pluggable Screw terminal block  
 MOSFET transistor: IRL6372PBF  
 Max. Voltage: 30V



**Temperature sensors Smartec SMT172 / SMT160-30 connections (OPTIONALLY)**



**Note 1:** for cable need connect capacitor 100nF between GND and +5V sensor side. Also for long cable recommended used shielded cable.

**Note 2:** if for as power supply used +5VDC temperature sensor can powered from this +5VDC power.

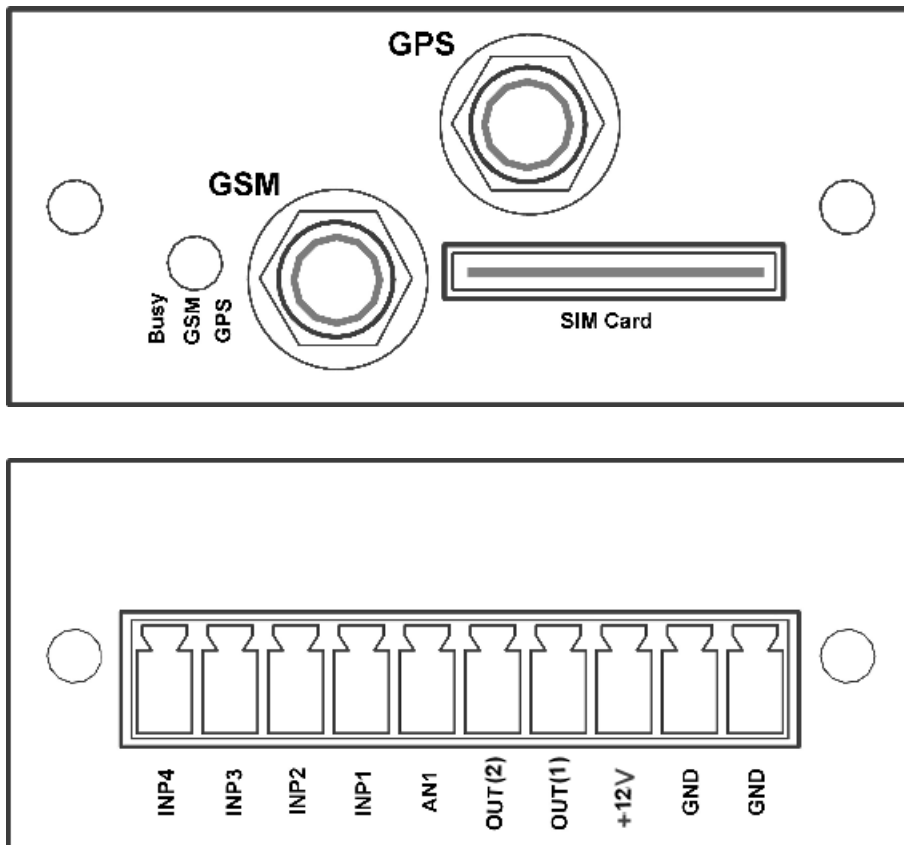
**Note 3:** this feature is optionally.

## GSM module BR900-GPS

### Enclosure

For all BR900 version used Fischer Elektronik aluminium enclosure AKG 55 24 80 ME.

- BR900 Board dimensions: 50.5x77.5mm
- Enclosure AKG 55 24 80 ME dimension 54 x 80 x 24 mm



## Programming

### Main SMS command

2345n1	- set number at position 1 (send from cell phone for alarm SMS),	
2345c1	- clear number at position 1 (send from cell phone from any SMS)	
2345gi	- get location	
2345i	- get info	
2345y	- auto location SMS disable,	2345y1 - auto location SMS enable
2345An	- change speed level n=0, 1, ... 9 = 0, 10, ... 90 km/h	
2345Y?	- Auto location SMS enable	- get Auto-location SMS status
	-Auto location SMS disable	

SMS command	Answer SMS	Function
Setting parameters		
2345Y1 2345Y or 2345Y0	OK	Auto-location SMS enable SMS if speed > n*10km/h where n - speed level / 10 (SMS command 2345An, n = 1,2 ... 9) Auto-location SMS disable ( <b>default</b> ) Auto-SMS disable
2345A0 ... 2345A9  2345AS0 ... 2345AS9  2345AP0 ... 2345AP9	OK	Set speed level 0 ... 9 0: 0km/h, 1: 10 km/h, 2: 20 km/h, 3: 30km/h, ( <b>default</b> ) 4: 40 km/h, ... 9: 90km/h,  Set SMS Speed Filter 0 ... 9 0: speed filter = 0,5 min 1: speed filter = 1 min, <b>default</b> 2: speed filter = 1,5 min 3: speed filter = 2 min ...  Set Auto-SMS period (auto SMS if speed > n*10km/h where n - speed level / 10 (SMS command 2345An, n = 1,2 ... 9)) 0 – disable auto SMS, <b>default</b> 1 - period = 1 hours 2 - period = 2 hours ... 9 - period = 9 hours
Phone Numbers for alarm SMS		
2345n1 ... 2345N7	OK	Set number for alarm (1..6) and auto- SMS (1,7)
2345n1? or 2345N?	N1:+37122842913 ...	Get number or Get all numbers
2345c1 ... 2345C7	OK	Clear number at position 1..7
Get information		
2345ig	UTC:270716,113007 5654.82050,N	Get location info Latitude

## GSM module BR900-GPS

2345ix	02411.09700,E Speed: 47km/h	Longitude Speed
2345il	Battery: 12.0V UTC: 270716,113007 5654.82050,N 02411.09700,E Speed: 47km/h 16/07/27,14:30:07	Battery voltage UTC date,time Latitude Longitude Speed Speed GSM date,time
2345i	270716,113007,12.1,5654.82050,N, 02411.09700,E,49,00.0,[-15,] 24	UTC time,Battery voltage,Latitude, Longitude,Speed,Analog,[Temperature,] GSM Signal Quality
2345ip	(Information) Analog=00.0% Battery=11.9V I1=0 I2=0 I3=0 I4=0 O1 OFF O2 OFF SQ:26.0 TM: 15 [ON] [T: -10]  (parameters) TM: 15min A:0,900 AM:1 B:100 150 V/10 [T level: -20 30] AF:1 TF:5 O1 ctrl: 00 DF:2 DLP:1 DLF:0 DLF:0 SL:2 SF:1 ASP:0  16/07/27,13:42:55 ver.900GP.25072016	Get info Analog in % Battery voltage in V inputs outputs GSM signal quality output timer and timer status [temperature, if SMT sensor connected]  output timer default setting Analog level MIN MAX Battery level MIN MAX [Temperature level MIN MAX] Analog and Temperature timeout filter Out.1 internal control, digital signal filter DLP: DataLogger Period, <b>default 1</b> DLF: DataLogger Filter, <b>default 3</b> SL: Speeg level SF: Speed Filter, <b>default 1</b> <b>ASP:</b> Auto SMS Period, <b>default 0</b> Date-time (GSM) Firmware version number
Enable alarm SMS / disable alarm SMS (for digital inputs)		
2345E1 2345E or 2345E0	PROTECTED, confirmation enable PROTECTED, confirmation disable	Enable alarm SMS for digital inputs; Confirmation SMS after SMS command S,R,E,B enable/disable <b>default:</b> protected, confirmation enable
2345B	UNPROTECTED	Disable alarm SMS for digital inputs
2345qa 2345q	OK	Alarm mode enable* Alarm mode disable ( <b>default</b> )
2345F1 ... 2345F9 2345F0	(parameters)	Set filter for digital inputs 1 – 0,5s, 2 – 1s, 3 – 1,5s, ...9 – 4,5s 0 - filter 50ms
Alarm SMS text setting		
2345X01,Input 01 2345X01	1-Event Input 1 0-1 1-	Text up to 32 char (see table “Text SMS Message” below) Clear text
2345X01?	1-Event Input 1 0-1	Get text
GPRS parameters		

## GSM module BR900-GPS

2345WA,apn 2345WA? 2345WA,	APN: internet  APN:	Set APN Get APN disable FTP mode (default)
2345WU,userID 2345WU? 2345WI, 2345WI,IP 2345WI?	User ID: userID  IP: 0.0.0.0	r ID Get User ID Set IP 0.0.0.0 (default) Set IP Get IP
2345WP,password 2345WP?	Passw: password	Set password Get password
2345W?	GPRS: APN: APN User ID: UserID Psw: password IP: 0.0.0.0	Get GPRS APN setting
FTP parameters		
2345MH,HostName 2345MH? 2345MH, or 2345MH,-	Host Name FTP: HostName	Set Host Name FTP Get Host Name FTP Clear Host Name FTP
2345MU,UserID 2345MU? 2345MU, or 2345MU,-	User ID FTP: UserID	Set User ID FTP Get User ID FTP Clear User ID FTP
2345MP,password 2345MP? 2345MP, or 2345MP,-	Passw.FTP: password	Set Password FTP Get Password FTP Clear FTP password
2345M?	FTP: Host Name: HostName User ID: UserID Psw: password	Get FTP setting
FTP period parameters		
2345Dn  2345DF0 ... 2345DF9	(parameters)	Set DataLogger Period, n = 1,2,4,8 (4,8,16,32 line in file) default 4 line in file  Set DataLogger Filter, 0..9 0: filter = 0,5 min 1: filter = 1 min 2: filter = 1,5 min 3: filter = 2 min, <b>default</b>
Set/Reset Outputs; Timer Outputs; only for Output 1		
2345S1 2345S2	(Information)	Set output 1 or 2
2345R1 2345R2	(Information)	Reset output 1 or 2
2345V,030	(iparameters)	set duration for timeout = 30 min Maximum 240 min. (default 15 min)
2345T,060  2345T	(information)	set output for timeout = 60 min default timeout = 15 min Maximum 240 min. set output for timeout = default For Out.1 only.
2345jO,S	(information)	Pulse for output: O – output 1 or 2, S – pulse duration 0 ... 9 S=0: 1sec S=1: 3sec ... S=9: 19sec

## GSM module BR900-GPS

Analog setpoints		
2345L1,0300 2345L2,0100 2345L3-006	(parameters)	Set min level for analog, <b>default: 0000</b> Set min level for battery, <b>default: 0100</b> 100 - level 10.0 (% or V) Set min temperature = -6 dec C <b>default: -010</b>
2345H1,0500 2345H2,0150 2345H3+030	(parameters)	Set max level for analog, <b>default: 0000</b> Set max level for battery, <b>default: 0150</b> 150 - level 15.0 (% or V) Set max temperature = +30 dec C, <b>default: +030</b>
2345L or 2345H	(parameters)	Get parameters
2345LA,01 2345LT,05	(parameters)	Set analog timeout filter 00-99 01: 1min; 02: 2min; 03: 3min ... 99: 99min <b>default 1</b> Set temperature timeout filter 00-99 01: 1min; 02: 2min; 03: 3min ... 50: 50min ... 99: 99min <b>default 2</b>
Restart		
2345O	restart	
Password change		
2345P2013	Psw:2013	Change password; use only 0,1,2,3,4,5,6,7,8,9 <b>default password 2345</b> if you forgot password, use jumper for restore default password 2345 (see paragraph JUMPERS)



## GSM module BR900-GPS

### Event SMS

Digital	Analog	Battery	
Text SMS  UTC: 310716,092536 5654.8295,N 02411.0719,E Speed: 0km/h  16/07/31,12:25:28	Text SMS  Analog: 00.0% UTC: 310716,092536 5654.8295,N 02411.0719,E Speed: 0km/h  16/07/31,12:25:28	Text SMS  Battery: 10.0V UTC: 310716,092536 5654.8295,N 02411.0719,E Speed: 0km/h  16/07/31,12:25:28	Text SMS (“Text SMS message”)  Analog signal UTC time DDMMYY,HHMMSS Latitude Longitude Speed  GSM time YY/MM/DD,HH:MM:SS

### Text SMS message

SMS command	Text (length 32 char)	Default text
2345X01,	For digital Input 1 event 0-1	Input event 1 0-1
2345X02,	For digital Input 2 event 0-1	Input event 2 0-1
2345X03,	For digital Input 3 event 0-1	Input event 3 0-1
2345X04,	For digital Input 4 event 0-1	Input event 4 0-1
2345X05,	For digital Input 1 event 1-0	Input event 1 1-0
2345X06,	For digital Input 2 event 1-0	Input event 2 1-0
2345X07,	For digital Input 3 event 1-0	Input event 3 1-0
2345X08,	For digital Input 4 event 1-0	Input event 4 1-0
2345X09,	For analog input high	Analog high
2345X10,	For analog input low	Analog low
2345X11,	For analog input normal	Analog normal
2345X12,	For battery high	Battery high
2345X13,	For battery low	Battery low
2345X14,	For battery normal	Battery normal
2345X15,	For temperature high (if sensor connected)	Temperature high
2345X16,	For temperature low (if sensor connected)	Temperature low
2345X17,	For temperature normal (if sensor connected)	Temperature normal
2345X18	Analog signal name (maximum 12 char.)	Analog

Disable SMS if first character = blank

2345K,XY (parameters) internal control  
 X = 0,1...F for 1-0 digital event  
 Y = 0,1...F for 0-1 digital event  
 (see paragraph INTERNAL CONTROL)

#### NOTE

If Temperature sensor connected, INTERNAL CONTROL only for Dig.Inp.3 and 4

## GSM module BR900-GPS

### Numbers

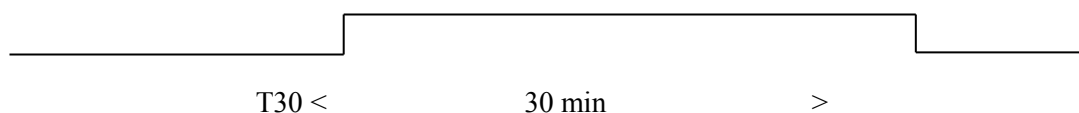
Example for numbers in EEPROM (with SMS command 2345N and 2345C)

Nr in EEPROM	numbers	
1	+37122842913	For auto SMS and alarm SMS
2	+37122842914	For alarm SMS
3		For alarm SMS
4		For alarm SMS
5		For alarm SMS
6		For alarm SMS
7		For auto SMS

Number consist + and country code before phone number

### Timer Output

Timer output for Output 1. Output 1 ON for time duration (SMS command 2345T, 2345V).



### Internal Control

Internal control for set Output 1 ON on duration time if event digital input.1,2,3,4

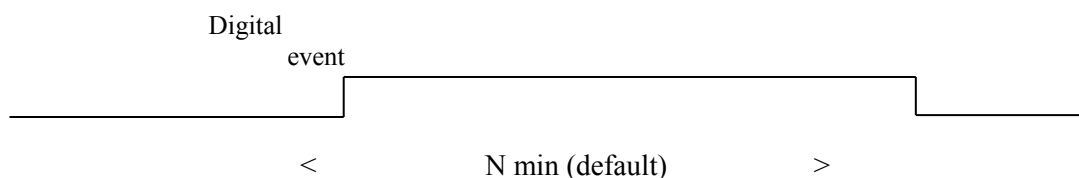
	Digital Input event 1-0				Internal control with Out.1 for default time
	4	3	2	1	
SMS command					
2345K,00	0	0	0	0	disable
2345K,10	0	0	0	1	Out.1 ON if event digital input 1 1-0
2345K,20	0	0	1	0	Out.1 ON if event digital input 2 1-0
2345K,30	0	0	1	1	Out.1 ON if event digital input 1,2 1-0
2345K,40	0	1	0	0	Out.1 ON if event digital input 3 1-0
...					
2345K,F0	1	1	1	1	Out.1 ON if event digital input 1,2,3,4 1-0

	Digital Input event 0-1				Internal control with Out.1 for default time
	4	3	2	1	
SMS command					
2345K,00	0	0	0	0	disable
2345K,01	0	0	0	1	Out.1 ON if event digital input 1 0-1

## GSM module BR900-GPS

2345K,02	0	0	1	0	Out.1 ON if event digital input 2 0-1
2345K,03	0	0	1	1	Out.1 ON if event digital input 1,2 0-1
2345K,04	0	1	0	0	Out.1 ON if event digital input 3 0-1
...					
2345K,0F	1	1	1	1	Out.1 ON if event digital input 1,2,3,4 0-1

Out.1 OFF after default timeout (SMS command 2345V, 2345T)



For example – if motion detector active – Out.1 ON for N min (N = 001..240 min). To Out.1 you can connect Siren.

### Data Logger FTP

Directory `/[IMEI from GSM modem]`  
 for example `/863591021624279`

Files format:

**160731121611.txt** (YYMMDDHHMMSS.txt)

Datalogger row:

**270716,113007,12.1,5654.82050,N,02411.09700,E,49,00.0,24**

if Smartec SMS temperature sensor connected

**270716,113007,12.1,5654.82050,N,02411.09700,E,49,00.0,-15,24**

where

270716,113007,	- UTC time DDMMYY,HHMMSS
12.1,	- Battery voltage in V
5654.82050,N,	- Latitude
02411.09700,E,	- Longitude
49,	- Speed in km/h
00.0,	- Analog Input in %
.-15,	- Temperature in deg.C (optionally)
24	- GSM Signal Quality

## GPS MONITORING with SMS

Enable with SMS command 2345Y1  
Disable with SMS command 2345Y0  
parameters for SMS monitoring

2345A1 ... 2345A9 set Speed Level 10 ... 90 km/h

2345AS0 ... 2345AS9 SMS speed filter (SMS frequency); 0: speed filter = 0,5 min, 1: speed filter = 1 min, 2: speed filter = 1,5 min, 3: speed filter = 2 min ...

2345AP0 Auto-SMS disable

2345AP1 ... 2345AP9 Auto-SMS period (if speed < Speed level, for example if speed = 0); 1 - period = 1 hours, 2 - period = 2 hours ...

SMS example:

UTC: 211018,112428

5655.35N 02409.4265E

Speed: 065km/h

## GPS MONITORING with FTP

Enable with SMS command 2345WA,internet (as example)  
Disable with SMS command 2345WA,

File example:

211018,115949,14.3,5655.4590N,02409.7949E,049,84.3,30,C

211018,115949,14.3,5655.4590N,02409.7949E,049,84.3,30,C

211018,120038,12.7,5655.2942N,02410.2364E,000,74.2,24,C

211018,120059,14.3,5655.2356N,02410.2865E,043,84.2,24,C

DDMMYY,HHMMSS,BATT, CURRENT LOCATION ,SPEED,AN%,SQ,DInputs 1100

visualization SOFTWARE for FTP monitoring

# GSM module BR900-GPS

FTP900GPS monitoring software for BR900GP GPS data-logger

File Setting From FTP to local PC file transfer Table and Chart GPS info

Remote location Remote Dir: 863591021624279 Remote Files: 160802004003.txt, 160802011511.txt, 160802014549.txt, 160802020740.txt, 160802022652.txt, 160802023635.txt, 160802030344.txt, 160802033327.txt, 160802034337.txt, 160802041114.txt, 160802042058.txt, 160802043015.txt, 160802044943.txt, 160802045927.txt, 160802051855.txt, 160802054902.txt, 160802060925.txt, 160802062920.txt, 160802063904.txt, 160802071808.txt, 160802074940.txt

Local location Local File: \*.txt Local Dir: g:\ FTP900GPS 863591021624279 TMP

FTP account Host: ftp.bienelectronics.com Port: 21 User ID: 900GP Password: \*\*\*\*\* Connect Disconnect Refresh FTP Connected

c:\windows\system32\notepad.exe notepad.exe Exit

List success

FTP900GPS monitoring software for BR900GP GPS data-logger

File Setting From FTP to local PC file transfer Table and Chart GPS info

begin: 22-Oct-18 end: 22-Oct-18 Merge files FTP Disconnected

G:\Biene Projects\BIENEREMOTE\FTP900GPS\181021-181021.txt

ID	Date	Time	Battery	Latitude	Longitude	Speed	Analog	Temperature	GSM	SQ	Inout
93	211018	115755	14.1	5656.0339N	02408.7009E	000	83.1	000	31	1100	
94	211018	115807	14.5	5656.0226N	02408.6865E	031	85.1	000	31	1100	
95	211018	115949	14.3	5655.4590N	02409.7949E	049	84.3	000	30	1100	
96	211018	115949	14.3	5655.4590N	02409.7949E	049	84.3	000	30	1100	
97	211018	120038	12.7	5655.2942N	02410.2364E	000	74.2	000	24	1100	
98	211018	120059	14.3	5655.2356N	02410.2865E	043	84.2	000	24	1100	
99	211018	120234	14.4	5654.6429N	02410.7407E	055	85.1	000	31	1100	
100	211018	120246	14.5	5654.6062N	02410.7860E	000	84.8	000	31	1100	
101	211018	120325	14.4	5654.5261N	02410.9681E	034	84.3	000	30	1100	
102	211018	120356	14.4	5654.4761N	02411.0913E	052	85.1	000	25	1100	
103	211018	120451	14.2	5654.2262N	02411.6196E	014	83.2	000	31	1100	
104	211018	120451	14.2	5654.2262N	02411.6196E	014	83.2	000	31	1100	
105	211018	120541	14.3	5654.3462N	02411.3862E	039	83.7	000	31	1100	
106	211018	120612	14.5	5654.4019N	02411.2755E	039	85.2	000	23	1100	
107	211018	120816	14.4	5654.7898N	02410.9863E	029	85.1	000	31	1100	
108	211018	120847	14.3	5654.8858N	02411.1022E	002	84.9	000	31	1100	
109	211018	120919	14.4	5654.8436N	02411.1585E	009	85.0	000	22	1100	

axelX - Date/Time

Temperature (deg C)

Analog (%)

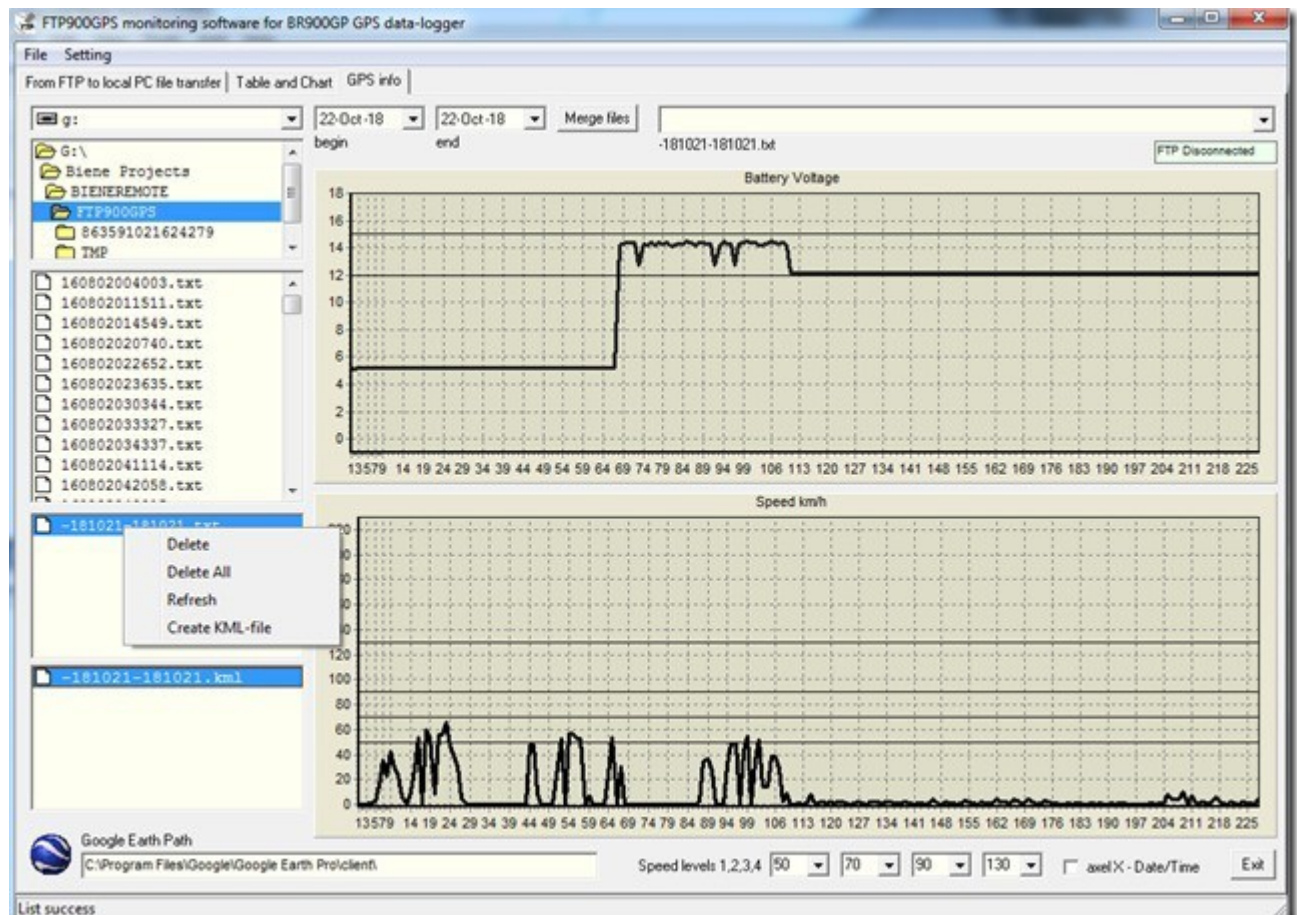
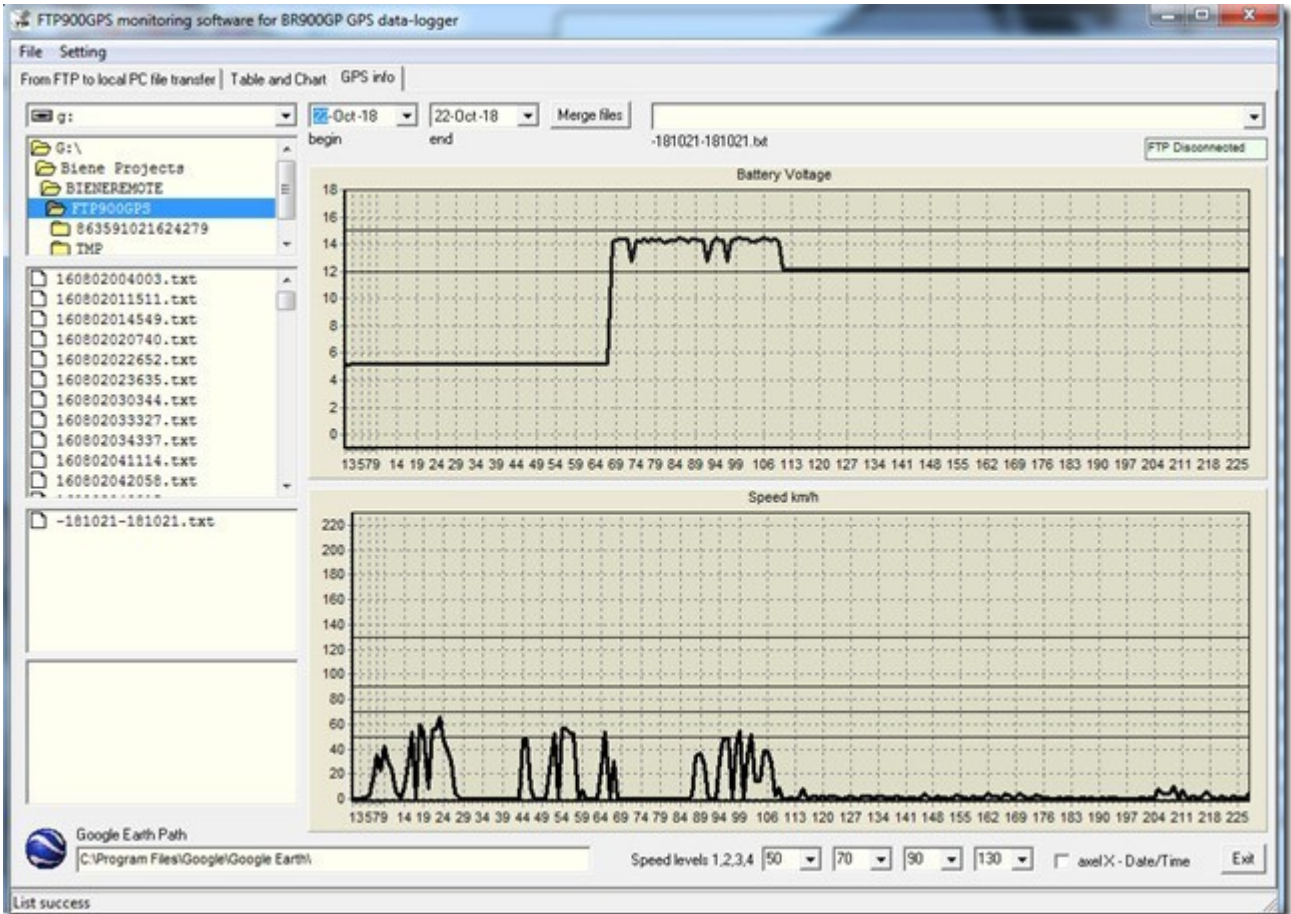
Battery (V)

MIN: [0] MAX: [35] MIN: [0] MAX: [100] MIN: [12] MAX: [15] Exit

FTP Disconnected



# GSM module BR900-GPS



# GSM module BR900-GPS

