



Globalsat Technology Corporation

TR-102 Access Command of GRPS

Ver 1.5

Introduction:

If customer would like to use his or her own software via GPRS, the access command between TR-102 and control center can also be provided. Customer could use the access command to control TR-102 and received data from it.

Access commands:

The access commands between control center and TR-102 are described in two parts as bellow:

A) Commands from control center to TR-102 via GPRS.

B) Commands from TR-102 to control center via GPRS.

A) Commands from control center to TR-102 via GPRS

- IMEI is the serial number of GSM module.

	Report type	Format	Note	Example	TR-102 will return
1.	Immediate report	\$0,IMEI!	*note1	\$0,355632000166323!	\$OK!
2.	Period report	\$1,IMEI,sec!	*note2 sec= 5~86400	\$1,355632000166323,30! → Report every 30 seconds	\$OK!
3.	Stop connect	\$2,IMEI!	*note3	\$2,355632000166323!	\$OK!
4.	Stop connect and set period report	\$3,IMEI,sec!	*note4 sec= 30~86400	\$3,355632000166323,30! → Report every 30 seconds	\$OK!

*note1: When TR-102 receives this command, it will send the report back immediately. It will send only one time, and the GPRS connection is still on.

*note2: When TR-102 receives this command, it will send back the report every specified second. And the GPRS connection is still on. The time error of return could be 1~3 seconds, or larger if the GPRS connection is not stable.

*note3: When TR-102 receives this command, it will disconnect from GRPS and go to sleep mode.

*note4: When TR-102 receives this command, it will send the report back immediately. And after that, it will disconnect from GRPS and go to sleep mode. When the specified period time is reached, it will wake up and connect to internet via GPRS to send the report, and go to sleep mode again. It will repeat the same procedure when the specified period time is reached again. Due to the GPS function is closed most of time, when it starts the GPS function, it could take a little bit longer to get a fixed position. If the GPS signal is not strong enough, it could take more 3 minutes (also depending on the stability of GPRS connection.)

B) Commands from TR-102 to control center via GPRS

Format:

Command_Head,IMEI,status,GPS_fix,date,time,longitude,latitude,altitude,speed,heading,number of satellites in use*checksum,Command_End

Format	Value	Note
Command_Head	\$	
IMEI	(The number of IMEI)	
Status	0 1 2 3	0: Immediate report 1: Period report 2: Stop connect 3. Stop connect and set period report
GPS_fix	1 2 3	1: Fix not available 2: GPS 2D Fix 3: GPS 3D Fix
date	ddmmyy	
time	hhmmss	
longitude	(E or W)dddmm.mmmm	Example: E12129.2186 → E 121°29.2186'
latitude	(N or S)ddmm.mmmm	Example: N2459.8915 → N 24°59.8915'
altitude	xxxxx.x	unit: meters
speed	xxxxx.xx	unit: knots (1knots = 1.852km)
heading	ddd	
number of satellites in use	xx	
“*”	*	Checksum delimiter. It indicates that the following two alpha-numeric characters is the value of Checksum.
Checksum	xx	The absolute value calculated by adding the 8 data bits of each character in the command sentence, but excluding “*”. The hexadecimal value of the most significant and least significant 4 bits of the result are converted to two ASCII characters (0-9, A-F) for transmission. The most significant character is transmitted first.
Command END	!	

Example.

\$355632000166323,1,1,040202,093633,E12129.2252,N2459.8891,00161,0.0100,147,07*37!

Return:

\$OK!

Note:

1. While TR-102 is under the status 3 (please refer to command A. 4); if you want to change to another command, you can send the command A.

The formats are:

Report type	Format	Example
Immediate report	\$0,IMEI!	\$0,355632000166323!
Period report	\$1,IMEI,sec!	\$1,355632000166323,0!
Stop connect	\$2,IMEI!	\$2,355632000166323!
Stop connect and set period report	\$3,IMEI,sec!	\$3,355632000166323,0!

For it is under the “Stop connect and set period report” mode, the command will not be sent out until the next GPRS connection is established.