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FIBOCOM AT Commands User Manual_GNSS

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Application type

No.	Type	Note
1	NL668-CN-00	NA
2	NL668-EU-00/01/03	NA
3	NL668-AM-00/01	NA
4	NL668-JP-00/01	NA
5	NL668-EAU-00	NA
6	NL668-LA-00	NA
7	NL661-EU-00	NA
8	NL668-CN-10	NA

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Versions

Version	Author	Date	Remarks
V1.0.0	Huihonglei	2013-06-25	Initial version
V1.0.1	Huihonglei	2017-03-09	Translate into English Change to new template
V1.0.2	Huihonglei	2017-11-24	Change to new template
V1.0.3	Wenzhice	2018-04-02	Change the format
V1.0.4	Wenzhice	2018-04-18	Add command +GTAGPSSERV
V1.0.5	Guowenhui	2018-12-14	Delete commands +GTGPSSET/GTGPSCON/GTGPSCONTM; Add command +GTGPSCF; Modify commands +GST/GTGPSEPO/GTAGPSSERV; Add test sample;
V1.0.6	Longyiliang	2019-08-16	modify applicable model
V1.0.7	Zhaohong	2019-10-14	Add NL668-CN-10

Contents

1 GPS command

1.1 Global Geographic Information

1.1.1 +GTGPSPOWER, Control GNSS Power

1.1.1.1 Description

This command is used to control GNSS module power.

1.1.1.2 Syntax

Command	Response/Action
+GTGPSPOWER=<mode>	OK or ERROR
+GTGPSPOWER?	+GTGPSPOWER: <mode> OK
+GTGPSPOWER=?	+GTGPSPOWER: (list of supported <mode>s) OK

1.1.1.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of duration
No	No	Yes	Yes	<1s

1.1.1.4 Defined Values

<mode>: int type, range 0,1.

0: power off GNSS module(default)

1: power on GNSS module

1.1.2 +GTGPS, Read GNSS Navigation information

1.1.2.1 Description

This command is used to read GNSS navigation information.

1.1.2.2 Syntax

Command	Response/Action
+GTGPS[=<item>]	+GTGPS: GNSS navigation information of <item>s OK or +GTGPS: all GNSS navigation information OK or ERROR
+GTGPS?	+GTGPS: all GNSS navigation information OK or ERROR
+GTGPS=?	+GTGPS: string OK

1.1.2.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of duration
No	No	Yes	Yes	<1s

1.1.2.4 Defined Values

<item>:string type.

"RMC": Get RMC sentence

"GGA": Get GGA sentence

"GSA": Get GSA sentence

"GSV": Get GSV sentence

1.1.3 +GTGPSEPO, Enable or Disable AGPS Function

1.1.3.1 Description

This command is used to enable or disable AGPS function.

1.1.3.2 Syntax

Command	Description
+GTGPSEPO=<mode>	OK or ERROR
+GTGPSEPO?	+GTGPSEPO: <mode> OK
+GTGPSEPO=?	+GTGPSEPO: (list of supported <mode>s) OK

1.1.3.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of duration
No	No	Yes	Yes	<1s

1.1.3.4 Defined Values

<mode>:int type and range 0,1,2.

0: Disable agps function(default).

1: Enable agps MSB mode function.

2: Enable agps MSA mode function.

1.1.4 +GTAGPSSERV, Set AGPS Server

1.1.4.1 Description

This command is used to set AGPS server.

1.1.4.2 Syntax

Command	Description
+GTAGPSSERV=<IP/URL>,<port>	OK or ERROR
+GTAGPSSERV?	+GTAGPSSERV: <IP/URL>,<port> OK
+GTAGPSSERV=?	+GTAGPSSERV: (<IP/URL>),(list of supported <port>s) OK

1.1.4.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of duration
No	Yes	Yes	No	<1s

1.1.4.4 Defined Values

<IP/URL>: string type, the ip or domain from where to download AGPS data.

<port>: int type and rang 1-65535, AGPS server port.

1.1.5 +GTGPSCFG, Configure Supl Version

1.1.5.1 Description

This command is used to configure supl version.

1.1.5.2 Syntax

Command	Description
+GTGPSCFG=<x>,<version>	OK Or: ERROR
+GTGPSCFG?	+GTGPSCFG: <version> OK
+GTGPSCFG=?	+GTGPSCFG: (<x>),(list of supported <version>s) OK

1.1.5.3 Attributes

Pin Restricted	Persistent	Sync Mode	Effect Immediately	Time of duration
No	Yes	Yes	No	<1s

1.1.5.4 Defined Values

<x>:int type and range 0.

0: Reserved parameter.

<version>:int type and range 0,1.

0: SUPL1.0.

1: SUPL2.0 (default).

1.1.6 Test Sample

The test sample is about opening GPS and AGPS, and getting nmea data.

After the below two SET commands, device should be re-start.

at+gtagpsserv="supl.qxwz.com",7276 //set supl server and port

OK

at+gtgpscfg=0,1 //set supl version

OK

at+cgdcont? //check APN setting, there should be a correct APN

+CGDCONT: 1,"IP","cmnet","0.0.0.0",0,0,0,0

OK

at+cops? //the device should attach to network

+cops: 0,0,"CHINA MOBILE",0

OK

at+gtgpsepo=1 //enable AGPS

OK

at+gtgpspower=1 //start GPS

OK

at+gtgps? //check NMEA data

+GTGPS:

$GPRMC,,V,,,,,,,,,N*53

$GPGGA,065911.12,,,,,0,,,,,,,,*41

$GPGSA,A,1,,,,,,,,,,,,,,*1E

$GPGSV,3,1,10,05,14,094,,10,12,293,,13,28,043,,15,65,023,*74

$GPGSV,3,2,10,20,36,306,,21,61,291,,24,49,144,,27,03,319,*72

$GPGSV,3,3,10,29,12,205,,32,,,*46

OK

at+gtgps="GSV" //you can also check the single NMEA sentence

GTGPS:

$GPGSV,3,1,10,05,14,094,,10,12,293,,13,28,043,,15,65,023,*74

$GPGSV,3,2,10,20,36,306,,21,61,291,,24,49,144,,27,03,319,*72

$GPGSV,3,3,10,29,12,205,,32,,,*46

OK