



# GlobalTop

## PMTK command packet

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## Revision History

Revision	Date	Author	Description
A03	2010-07-13	Brian	
A04	2010-09-09	Gavin	Add 001,605,705 command packet Add :Notice section
A05	2010-10-20	Gavin	Page 4 :Modify the description about ack feedback situation Add : Nav Speed threshold command (packet 397,447,527 )
A06	2011-05-23	Gavin	Page 9: Modify PMTK 314 Item 6 、 7 、 13 、 14 、 15 、 16 、 17 as reserved item
A07	2011-07-22	Hector	Modify the description of tail page Page 7: Modify PMTK251. Add description of baud rate setting
A08	2011-09-01	Hector	Add new command for MT3339 chip
A09	2011-12-14	Hector	Add new command for MT3339 chip
A10	2012-03-01	Hector	Add new command for MT3339 chip
A11	2012-09-24	Hector	Modify some command for MT3339 chip

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### MTK NMEA Packet Protocol

In order to inform the sender whether the receiver has received the packet, an acknowledge packet PMTK\_ACK should return after the receiver receives a packet.

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# GlobalTop PMTK command packet

Rev.A11

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## MTK NMEA Packet Format

Preamble	Talker ID	Pkt Type	Date Field	*	CHK1	CHK2	CR	LF
----------	-----------	----------	------------	---	------	------	----	----

Maximum packet length is restricted to 255 bytes

Field	Length	Type	Description
Preamble	1 byte	Character	"\$"
Talker ID	4 byte	Character string	"PMTK"
Pkt Type	3 byte	Character string	From "000" to "999", an identifier used to tell the decoder how to decode the packet
Data Field	variable		A "," must be inserted before each data field to help decoder process the Data Field
*	1 byte	Character	The star symbol is used make the end of Data Field
CHK1, CHK2	2 byte	Character string	Checksum of the data between preamble "\$" and "*"
CR, LF	2 byte	Binary data	Used to identify the end of a packet

Sample Packet: \$PMTK000\*32<CR><LF>

Pkt Type	Abbreviation/Syntax	Data Field	Meaning/Example/Return
000	PMTK_TEST	None	Test Packet \$PMTK000*32<CR><LF>
001	PMTK_ACK PMTK001,Cmd,Flag	Command/ packet type the acknowledge responds Flag: 0 = invalid command/ packet type 1 = unsupported command / packet type 2 = valid command/ packet, but action failed 3 = valid command/ packet and action succeeded	Acknowledge of PMTK command \$PMTK001,604,3*32<CR><LF>
010	PMTK_SYS_MSG PMTK010,Msg	Msg: System message 0: Unknown 1:Startup	Output system message \$PMTK010,001*2E<CR><LF>

In addition, when the GPS module is powered-on or restarted via command, both "\$PMTK010,001\*2E<CR><LF>" and "\$PMTK011,MTKGPS\*08<CR><LF>" will be returned at the same time after GPS engine has successfully completed boot-up stage.



**Note:**

When the power of device (module) is removed, any modified setting will be lost and reset to factory default setting. If the device (module) has backup power supply through VBACKUP or coin battery, it will be able to keep the modified setting until the backup power is exhausted.

## Packet Type: 001 PMTK\_ACK

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Acknowledge of PMTK command

**Data Field:**

PMTK001, Cmd, Flag

Cmd: The command / packet type the acknowledge responds.

Flag: '0' = Invalid command / packet.

'1' = Unsupported command / packet type

'2' = Valid command / packet, but action failed

'3' = Valid command / packet, and action succeeded

**Example:**

\$PMTK001,604,3\*32<CR><LF>

## Packet Type: 010 PMTK\_SYS\_MSG

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Output system message

**Data Field:**

Msg: The system message

'0' = UNKNOWN

'1' = STARTUP

'2' = Notification: Notification for the host aiding EPO

'3' = Notification: Notification for the transition to Normal mode is successfully done

**Example:**

\$PMTK010,001\*2E<CR><LF>



## Packet Type: 011 PMTK\_TXT\_MSG

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Output system message

**Example:**

\$PMTK011,MTKGPS\*08<CR><LF>

## Packet Type: 101 PMTK\_CMD\_HOT\_START

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Hot Restart: Use all available data in the NV Store.

**Data Field:**

None

**Example:**

\$PMTK101\*32<CR><LF>

## Packet Type: 102 PMTK\_CMD\_WARM\_START

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Warm Restart: Don't use Ephemeris at re-start.

**Data Field:**

None

**Example:**

\$PMTK102\*31<CR><LF>



## Packet Type: 103 PMTK\_CMD\_COLD\_START

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Cold Restart: Don't use Time, Position, Almanacs and Ephemeris data at re-start.

**Data Field:**

None

**Example:**

\$PMTK103\*30<CR><LF>

## Packet Type: 104 PMTK\_CMD\_FULL\_COLD\_START

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Full Cold Restart: It's essentially a Cold Restart, but additionally clear system/user configurations at re-start. That is, reset the receiver to the factory status.

**Data Field:**

None

**Example:**

\$PMTK104\*37<CR><LF>

## Packet Type: 220 PMTK\_SET\_NMEA\_UPDATERATE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Set NMEA port update rate

**Data Field:**

Position fix interval (millisecond). The possible interval values range between 100 and 10000 millisecond.

**Example:**

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\$PMTK220,1000\*1F<CR><LF>  
\$PMTK220, 200\*2C<CR><LF>  
\$PMTK220,100\*2F<CR><LF>

**Note :**

Before user input this command for update rate setting, it needs to see if the baud rate is enough or not.  
User can use PMTK251 command for baud rate setting  
1000(millisecond) = 1(sec) → 1/1 = 1Hz  
200(millisecond) = 0.2(sec) → 1/0.2 = 5 Hz  
100(millisecond) = 0.1(sec) → 1/0.1 = 10 Hz

## Packet Type: 251 PMTK\_SET\_NMEA\_BAUDRATE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

Set NMEA port baud rate

**Data Field :**

PMTK251, Baudrate

Baudrate setting : 4800,9600,14400,19200,38400,57600,115200

**Example :**

\$PMTK251,38400\*27<CR><LF>

**Note :**

1. You can also restore the system default setting via issue : \$PMTK251,0\*28<CR><LF>
2. The setting of baud rate will be back to default value in two conditions:
  - a. Full cold start command issued
  - b. Enter standby mode

## Packet Type: 301 PMTK\_API\_SET\_DGPS\_MODE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

API\_Set\_Dgps\_Mode

DGPS correction data source mode.

**Data Field:**

PMTK301,Mode

Mode: DGPS data source mode.



'0' = No DGPS source

'1' = RTCM

'2' = WAAS

**Example:**

\$PMTK301,1\*2D<CR><LF>

**Note:**

If you wish to set DGPS mode to RTCM, please use PMTK250 first to set RTCM baud rate before using this command

## Packet Type: 401 PMTK\_API\_Q\_DGPS\_MODE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

API\_Query\_Dgps\_Mode

**Data Field:**

None

**Return:**

PMTK\_API\_DT\_DGPS\_MODE

**Example:**

\$PMTK401\*37<CR><LF>

## Packet Type: 501 PMTK\_API\_DT\_DGPS\_MODE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

DGPS data source mode

**Data Field:**

PMTK501,Mode

Mode: DGPS data source mode.

'0' = No DGPS source

'1' = RTCM

'2' = WAAS



**Example:**

\$PMTK501,2\*28<CR><LF>

**Packet Type: 313 PMTK\_API\_SET\_SBAS\_ENABLED**

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

API\_Set\_Sbas\_Enabled

Enable to search a SBAS satellite or not.

**Data Field:**

PMTK313,Enabled

'0' = Disable

'1' = Enable

**Example:**

\$PMTK313,1\*2E<CR><LF>

**Packet Type: 413 PMTK\_API\_Q\_SBAS\_ENABLED**

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

API\_Query\_Sbas\_Enabled

**Data Field:**

None

**Return:**

PMTK\_DT\_SBAS\_ENABLED

**Example:**

\$PMTK413\*34<CR><LF>

**Packet Type: 513 PMTK\_DT\_SBAS\_ENABLED**

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Acknowledge for SBAS function is enable or disable.

**Data Field:**

PMTK513,Enabled

'0' = Disable

'1' = Enable

**Example:**

\$PMTK513,1\*28<CR><LF>

## Packet Type: 314 PMTK\_API\_SET\_NMEA\_OUTPUT

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

API\_Set\_NMEA\_Out

Set NMEA sentence output frequencies

**Data Field :**

There are totally 19 data fields that present output frequencies for the 19 supported NMEA sentences individually.

**Supported NMEA Sentences**

- 0 NMEA\_SEN\_GLL, // GPGLL interval - Geographic Position - Latitude longitude
- 1 NMEA\_SEN\_RMC, // GPRMC interval - Recommended Minimum Specific GNSS Sentence
- 2 NMEA\_SEN\_VTG, // GPVTG interval - Course over Ground and Ground Speed
- 3 NMEA\_SEN\_GGA, // GPGGA interval - GPS Fix Data
- 4 NMEA\_SEN\_GSA, // GPGLSA interval - GNSS DOPS and Active Satellites
- 5 NMEA\_SEN\_GSV, // GPGSV interval - GNSS Satellites in View
- 6 //Reserved
- 7 //Reserved
- 13 //Reserved
- 14 //Reserved
- 15 //Reserved
- 16 //Reserved
- 17 //Reserved
- 18 NMEA\_SEN\_MCHN, // PMTKCHN interval – GPS channel status

**Supported Frequency Setting**

- 0 - Disabled or not supported sentence
- 1 - Output once every one position fix

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- 2 - Output once every two position fixes
- 3 - Output once every three position fixes
- 4 - Output once every four position fixes
- 5 - Output once every five position fixes

**Example:**

\$PMTK314,1,1,1,1,1,5,0,0,0,0,0,0,0,0,0,0\*2C<CR><LF>

**Note:**

This command set GLL output frequency to be outputting once every 1 position fix, and RMC to be outputting once every 1 position fix, and so on. You can also restore the system default setting via issue : \$PMTK314,-1\*04<CR><LF>

## Packet Type: 414 PMTK\_API\_Q\_NMEA\_OUTPUT

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

API\_Query\_NMEA\_Out

Query current NMEA sentence output frequencies

**Data Field :**

None

**Return:**

PMTK\_API\_DT\_NMEA\_OUTPUT

**Example:**

\$PMTK414\*33<CR><LF>

## Packet Type: 514 PMTK\_API\_DT\_NMEA\_OUTPUT

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

NMEA sentence output frequency setting

**Data Field :**

There are totally 19 data fields that present output frequencies for the 19 supported NMEA sentences individually . Please refer to PMTK\_API\_SET\_NMEA\_OUTPUT for the supported NMEA sentence and frequency setting.



**Example:**

\$PMTK514,0,1,1,1,1,5,0,0,0,0,0,0,0,0,0\*2B<CR><LF>

**Packet Type: 319 PMTK\_API\_SET\_SBAS\_Mode**

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

API\_Set\_Sbas Mode\_Selection  
Choose SBAS satellite test mode

**Data Field:**

PMTK319,Mode  
'0' = testing mode  
'1' = Integrity mode

**Example:**

\$PMTK319,0\*25<CR><LF>  
\$PMTK319,1\*24<CR><LF>

**Packet Type: 419 PMTK\_API\_Q\_SBAS\_Mode**

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

API\_Query\_Sbas Mode\_Selection  
Choose SBAS satellite test mode

**Data Field:**

None

**Return:**

PMTK\_API\_DT\_SBAS\_Mode

**Example:**

\$PMTK419\*3E<CR><LF>

**Packet Type: 519 PMTK\_API\_DT\_SBAS\_Mode**

**Support Chip Type:**

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MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Current SBAS satellite mode

**Data Field:**

PMTK519,Mode

'0' = testing mode

'1' = Integrity mode

**Example:**

\$PMTK519,1\*22<CR><LF>

## Packet Type: 605 PMTK\_Q\_RELEASE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Query the firmware release information.

**Data Field:**

None

**Return:**

PMTK\_DT\_RELEASE

**Example:**

\$PMTK605\*31<CR><LF>

## Packet Type: 705 PMTK\_DT\_RELEASE

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Firmware release information.

**Data Field:**

PMTK705,ReleaseStr,Build\_ID,Internal\_USE\_1,( Internal\_USE\_2)

ReleaseStr: Firmware release name and version

3318 : Mcore\_x.x

3329 : AXN\_x.x

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Build\_ID: for firmware version control  
Internal\_USE\_1: Internal only  
Internal\_USE\_2: Internal only

**Example:**

\$PMTK705,AXN\_1.3,2102,ABCD,\*14<CR><LF>

## Packet Type: 607 PMTK\_Q\_EPO\_INFO

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Query the EPO data status stored in the GPS chip

**Data Field:**

None

**Return:**

PMTK\_DT\_DT\_EPO\_INFO

**Example:**

\$PMTK607\*33<CR><LF>

## Packet Type: 707 PMTK\_DT\_EPO\_INFO

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

EPO data status stored in the GPS chip

**Data Field:**

PMTK707,Set,FWN,FTOW,LWN,LTOW,FCWN,FCTOW,LCWN,LCTOW

Set: Total number sets of EPO data stored in the GPS chip

FWN & FTOW : GPS week number and TOW of the first set of EPO data stored in chip respectively

LWN & LTOW : GPS week number and TOW of the last set of EPO data stored in chip respectively

FCWN & FCTOW : GPS week number and TOW of the first set of EPO data that are currently used respectively

LCWN & LCTOW : GPS week number and TOW of the last set of EPO data that are currently used respectively





**Example:**

\$PMTK707,28,1680,259200,1681,237600,1680,345600,1680,345600\*19

## Packet Type: 127 PMTK\_CMD\_CLEAR\_EPO

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Clear the EPO data stored in the GPS chip

**Data Field:**

None

**Example:**

\$PMTK127\*36<CR><LF>

## Packet Type: 397 PMTK\_SET\_Nav Speed threshold

**Support Chip Type:**

MT3318 、 MT3329

**Packet Meaning:**

If the speed is slower than the specified threshold, the output position will stay frozen.  
User can test the appropriate parameters based on specified application

**Data Field:**

PMTK397,Nav Speed threshold

Nav Speed threshold: 0/ 0.2/ 0.4/ 0.6/ 0.8/ 1.0/1.5/2.0 (m/s)

Disable:Nav Speed threshold is set to 0 m/sec

**Example:**

\$PMTK397,0.2\*3F<CR><LF>

\$PMTK397,2.0\*3F<CR><LF>

## Packet Type: 386 PMTK\_SET\_Nav Speed threshold

**Support Chip Type:**

MT3339

**Packet Meaning:**

If the speed is slower than the specified threshold, the output position will stay frozen.  
User can test the appropriate parameters based on specified application

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**Data Field:**

PMTK386,Nav Speed threshold  
Nav Speed threshold: 0/ 0.2/ 0.4/ 0.6/ 0.8/ 1.0/1.5/2.0 (m/s)  
Disable:Nav Speed threshold is set to 0 m/sec

**Example:**

\$PMTK386,0.2\*3F<CR><LF>  
\$PMTK386,2.0\*3F<CR><LF>

## Packet Type: 447 PMTK\_Q\_Nav\_Threshold

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Query current Nav Speed threshold setting.

**Data Field:**

None

**Return:**

PMTK\_DT\_Nav\_Threshold

**Example:**

\$PMTK447\*35<CR><LF>

## Packet Type: 527 PMTK\_DT\_Nav\_Threshold

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning:**

Current Nav Speed Threshold setting

**Data Field:**

PMTK527,Current Nav\_Threshold  
Current Nav\_Threshold:  
The range is 0/ 0.2/ 0.4/ 0.6/ 0.8/ 1.0/1.5/2.0 (m/s)

**Example:**

\$PMTK527,0.20\*02<CR><LF>  
\$PMTK527,2.00\*02<CR><LF>

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\$PMTK527,0.00\*00<CR><LF>

## Packet Type: 161 PMTK\_CMD\_STANDBY\_MODE

**Support Chip Type:**

MT3339

**Packet Meaning:**

Enter standby mode for power saving.

**Data Field:**

PMTK161,Type

Type: Standby type

'0' =Sleep mode

**Example:**

\$PMTK161,0\*28<CR><LF>

**Note :**

Software on Host side sends any byte to wake up from standby mode.

## Packet Type: 223 PMTK\_SET\_AL\_DEE\_CFG

**Support Chip Type:**

MT3339

**Packet Meaning :**

It means the module needs to extend the time for ephemeris data receiving under what situation.

**Data Field :**

PMTK223,SV,SNR,Extension threshold, Extension gap

SV: it means the module need extend the time to receive more ephemeris data while the number of satellite without ephemeris data. [default value: 1, range 1~4]

SNR: it means the module needs to enable the ephemeris data receiving while the SNR of satellite is more than the setting value. [default value: 30, range 25~30]

Extension threshold (millisecond): extension time for ephemeris data receiving [default value: 180000, range 40000~180000]

Extension (millisecond): gap time between EPH data receiving [default value: 60000 msec, range 0~360000]

**Example :**

\$PMTK225,0\*2B<CR><LF>

\$PMTK223,1,25,180000,60000\*38<CR><LF>

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\$PMTK225,1,3000,12000,18000,72000\*16<CR><LF>

**Note :**

The command is recommended with **PMTK225** command.

## Packet Type: 225 PMTK\_CMD\_PERIODIC\_MODE

**Support Chip Type:**

MT3339

**Packet Meaning :**

Enter Standby or Backup mode for power saving.

**Data Field :**

PMTK225,Type,Run time,Sleep time, Second run time,Second sleep time

Type: operation mode

- '0' = go back to normal mode
- '1' = Periodic backup mode
- '2' = Periodic standby mode
- '4' = Perpetual backup mode
- '8' = AlwaysLocate™ standby mode
- '9' = AlwaysLocate™ backup mode

Run time (millisecond): Duration to fix for (or attempt to fix for) before switching from running mode back to a minimum power sleep mode.

- '0': disable
- >='1,000': enable [Range: 1,000~518400000]

Sleep time (millisecond): Interval to come out of a minimum power sleep mode and start running in order to get a new position fix.

- '0': disable
- >='1,000': enable [Range: 1,000~518400000]

Second run time (millisecond): Duration to fix for (or attempt to fix for) before switching from running mode back to a minimum power sleep mode.

- '0': disable
- >='1,000': enable [Range: 1,000~518400000]

Second sleep time (millisecond): Interval to come out of a minimum power sleep mode and start running in order to get a new position fix.

- '0': disable
- >='1,000': enable [Range: 1,000~518400000]

**Example :** How to enter periodic modes

Periodic Backup mode

\$PMTK225,0\*2B<CR><LF>

\$PMTK223,1,25,180000,60000\*38<CR><LF>

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\$PMTK225,1,3000,12000,18000,72000\*16<CR><LF>

Periodic Standby mode

\$PMTK225,0\*2B<CR><LF>

\$PMTK223,1,25,180000,60000\*38<CR><LF>

\$PMTK225,2,3000,12000,18000,72000\*15<CR><LF>

**Example :** How to enter AlwaysLocate modes

AlwaysLocate™ Standby

\$PMTK225,0\*2B<CR><LF>

\$PMTK225,8\*23<CR><LF>

AlwaysLocate™ Backup

\$PMTK225,0\*2B<CR><LF>

\$PMTK225,9\*22<CR><LF>

**Note :**

1. The second run time should larger than first run time when non-zero value.
2. The purpose of second run time and sleep time can let module to catch more satellite ephemeris data in cold boot condition. The value of them can be null. Then it will use the first run time and sleep time for ephemeris data receiving.
3. AlwaysLocate™ is an intelligent controller of MT3339 power saving mode. Depending on the environment and motion conditions, MT3339 can adaptive adjust the on/off time to achieve balance of positioning accuracy and power consumption.
4. This command needs to work normal with some hardware circuits. Please contact us for more details.

## Packet Type: 286 PMTK\_CMD\_AIC\_MODE

**Support Chip Type:**

MT3339

**Packet Meaning :**

Active Interference Cancellation (AIC) feature provides effective narrow-band interference and jamming elimination.

**Data Field :**

PMTK286,Mode

Mode:

'0' = disable AIC function

'1' = enable AIC function

**Example :**

\$PMTK286,1\*23<CR><LF>

**Note :**

The AIC function is enabled for default setting.

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## Packet Type: 869 PMTK\_CMD\_EASY\_ENABLE

**Support Chip Type:**

MT3339

**Packet Meaning :**

Enable or disable EASY function. Query if EASY is enabled or disabled

**Data Field :**

PMTK869,CmdType,Enable

CmdType:

'0' = Query

'1' = Set

'2' = Result for Query operation

Enable:

'0' = disable

'1' = enable

**Example :**

To query if EASY is enabled or disabled, use

\$PMTK869,0\*29<CR><LF>

If EASY is disabled, the receiver returns

\$PMTK869,2,0\*37<CR><LF>

**Note :**

1. The EASY function is enabled for default setting.
2. The "VBACKUP" pin needs to connect to a coin-battery for this feature. Please contact us for more details.
3. The EASY function only support update rate 1Hz.

## Packet Type: 187 PMTK\_LOCUS\_CONFIG

**Support Chip Type:**

MT3339

**Packet Meaning :**

Configure Locus setting by command

**Data Field :**

PMTK286,Mode, Interval

Mode:

'1' = Interval mode for Locus



Interval:

The value means how many second to log a data

**Example :**

\$PMTK187,1,5\*38<CR><LF> → It means every 5 second to log a data.

**Note :**

1. It only allow user to re-configure the interval of LOCUS function now.

## Packet Type: 330 PMTK\_API\_SET\_DATUM

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

Configure Datum

**Data Field :**

PMTK330,Datum

Datum:

'0' = WGS84

'1' = TOKYO-M

'2' = TOKYO-A

**Example :**

\$PMTK330,0\*2E<CR><LF>

**Note :**

1. It supports 222 different datum. Please refer to GTOPI Datum List.

## Packet Type: 430 PMTK\_API\_Q\_DATUM

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

Query default Datum

**Data Field :**

None

**Return:**

PMTK\_API\_DT\_DATUM

**Example :**

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\$PMTK430\*35<CR><LF>

## Packet Type: 530 PMTK\_API\_DT\_DATUM

**Support Chip Type:**

MT3318 、 MT3329 、 MT3339

**Packet Meaning :**

Current datum used

**Data Field :**

PMTK530,Datum

Datum:

'0' = WGS84

'1' = TOKYO-M

'2' = TOKYO-A

**Example :**

\$PMTK530,0\*28<CR><LF>

## Packet Type: 351 PMTK\_API\_SET\_SUPPORT\_QZSS\_NMEA

**Support Chip Type:**

MT3339

**Packet Meaning :**

The receiver support new NMEA format for QZSS. The command allow user enable or disable QZSS NMEA format. Default is disable QZSS NMEA format. (use NMEA 0183 v3.1)

**Data Field :**

PMTK351,enabled

Enabled: '0': Disable

'1': Enable

**Example :**

\$PMTK351,0\*29<CR><LF>

\$PMTK351,1\*28<CR><LF>

## Packet Type: 352 PMTK\_API\_SET\_STOP\_QZSS

**Support Chip Type:**

MT3339



**Packet Meaning :**

Since QZSS is regional positioning service. The command allow user enable or disable QZSS function.  
Default is enable QZSS function

**Data Field :**

PMTK352,enabled  
Enabled: '0': Enable  
          '1': Disable

**Example :**

```
$PMTK352,0*2B<CR><LF>
$PMTK352,1*2A<CR><LF>
```

**Notice:**

## How to calculate the checksum value

Example: \$PMTK605\*31<CR><LF>

31 is the checksum, and it is calculated by **Xor** all characters between \$ and \*.

CR, LF : Two bytes binary data

The two bytes are used to identify the end of a packet

## How to acquire that checksum value by checksum tool.

Example: \$PMTK226,3,30\*4<CR><LF>

### 1. Key in command contents



### 2. Click Translation

### 3. That checksum will display



## Command setting reset

Those command packet for module baud rate and update rate changed only temporary, when module power reset those update rate and baud rate must be back to original setting. If user want to change baud rate and update rate of module to other value that need GTop re-edit new firmware and burning it to module.

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