MT372

RTK Module

Datasheet

Revision: 5.78

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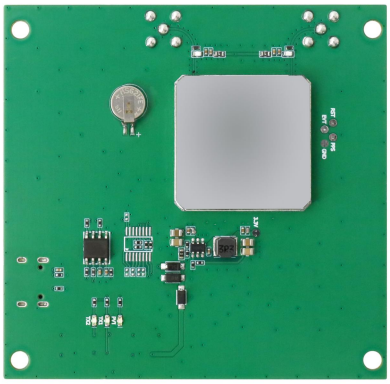


Features:

Item	Description				
Electrical Characteristic	Chip	RTK GNSS module			
	Mode	BDS B1I/B2I/B3I、GPS L1/L2/L5、GLONASS L1/L2、Galileo E1/ E5a/E5b、QZSS L1/L2/L5、SBAS			
	Channel	1408 channels, based on NebulasIV			
	Primary antenna frequency	BDS B1I/B2I/B3I GPS L1C/A/L2P (Y)/L2C/L5 GLONASS L1/L2 Galileo E1/E5a/E5b QZSS L1/L2/L5			
	From the antenna frequency	BDS: B1I/B2I/B3I GPS: L1C/A/L2C GLONASS: L1/L2 Galileo: E1/E5b QZSS: L1/L2			
Precision	Single-point positioning (RMS)	Flat：1.5 m Elevation：2.5 m			
	DGPS (RMS)	Flat：0.4 m+1 ppm Elevation：0.8 m+1 ppm			
	RTK (RMS)	Flat：0.8 cm + 1 ppm Elevation：1.5 cm + 1 ppm			
	PPP (RMS)	Flat：5 cm Elevation：10 cm			
	Accuracy of observations（RMS）	BDS	GPS	GLONASS	Galileo
	B1I/L1 C/A/G1/E1 Pseudorange	10cm	10cm	10cm	10cm
	B1I/L1 C/A/G1/E1 carrier phase	1mm	1mm	1mm	1mm
	B2I/L5/E5a/E5b Pseudorange	10cm	10cm	10cm	10cm
	B2I/L5/E5a/E5b carrier phase	1mm	1mm	1mm	1mm
	B3I/L2P(Y)/L2C/G2 Pseudorange	10cm	10cm	10cm	10cm
	B3I/L2P(Y)/L2C/G2 carrier phase	1mm	1mm	1mm	1mm
	Orientation accuracy (RMS)	0.1° /1m baseline			
	Time accuracy (RMS)	20ns			
	Speed accuracy (RMS)	0.03m/s			
Start Time	cold boot	< 30s			
	warm boot	< 4s			
	Initialization time	< 5s (Typical value)			
	Initialization reliability	> 99.9%			
Output Data	Data update rate	Positioning direction finding ≤20 Hz Default: 1Hz			
		≤20Hz Raw data output			
	Differential data	RTCM V3.X			

	Output statements	Default: GGA、RMC、TVG、GSA、GSV、HEADINGA、THS
	Data Format	NMEA-0183, Unicore
	Baud rate	115200bps
Power Consumption	Voltage	DC 5V-12V；default：5V
	Current	600mW（Antenna not included）
Physical Specications	Dimension	73.4*75*5mm
	Weight	30g
	Connector	34PIN
	Antenna interface	2-MCX-K
Temperature	Operating	-40 °C ~ +85°C
	Storage	-40°C ~ +105°C
LED	PVT LED	Positioning is always on
	TX1 LED	The blue light flashes when powered on, indicating that the port has data output
	TX2 LED	The blue light flashes when powered on, indicating that the port has data output
Type-C	Only power supply is supported	

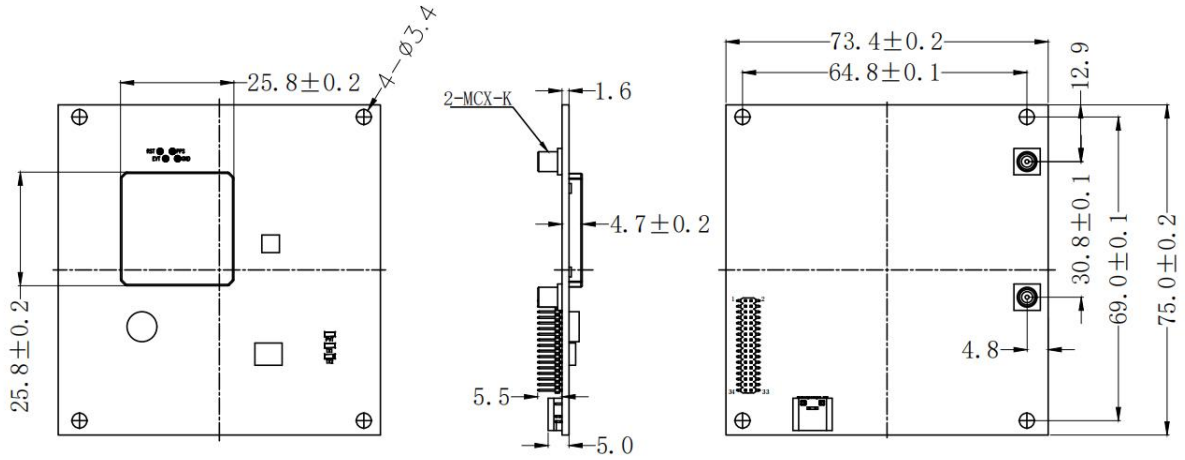
Pin definition：

PIN	Name	I/O	Description
1	VCC_3.3V	I	The power supply of the IO interface is 3.3V
2	VCC_3.3V	I	The power supply of the IO interface is 3.3V
3	VCC	I	DC 5V-12V； Recommended: 5V
4	VCC_3.3V	I	The power supply of the IO interface is 3.3V
5	NC	-	NC
6	NC	-	NC
7	GND	G	Grounding
8	GND	G	Grounding

9	232-RX2	I	Data input interface, TTL level (RS-232 level reserved)
10	232-TX2	O	Data input interface, TTL level (RS-232 level reserved)
11	NC	-	NC
12	NC	-	NC
13	NC	-	NC
14	NC	-	NC
15	PPS	O	Seconds pulse/hour scale output
16	NC	-	NC
17	TTL-TX1	O	Data output interface, TTL level
18	RTK_STAT		
19	NC	-	NC
20	NC	-	NC
21	NC	-	NC
22	TTL-TX2	O	Data output interface, TTL level
23	NC	-	NC
24	NC	-	NC
25	NC	-	NC
26	NC	-	NC
27	GND	G	Grounding
28	GND	G	Grounding
29	GND	G	Grounding
30	GND	G	Grounding
31	232-TX1	O	Data input interface, TTL level (RS-232 level reserved)
32	232-RX1	I	Data input interface, TTL level (RS-232 level reserved)
33	GND	G	Grounding
34	GND	G	Grounding

Back picture:

Size drawing:



Data output protocol

Joint mode protocol header-GN
GPS mode protocol header-GP
GLONASS mode protocol header-GL
Beidou mode protocol header-GB or BD

Unlocated：

$GNGGA,073355.00,,,,,0,00,9999.0,,,,,,*4F
$GNRMC,073355.00,V,,,,,,,190324,0.0,E,N,V*78
#HEADINGA,COM1,9669,98.0,FINE,2306,200053.000,250290,3,18;INSUFFICIENT_OBS,NONE,0.0000,0.0000,0.0000,0.0000,0.0000,0.0000,"",0,0,0,0,0,00,0,0*bab92c3d

Located：

$GNGGA,073551.00,2243.08050950,N,11401.10579872,E,1,28,0.6,102.6347,M,-3.3668,M,,*6F
$GNRMC,073551.00,A,2243.08050950,N,11401.10579872,E,0.009,230.6,190324,3.2,W,A,C*55
#HEADINGA,COM1,9669,91.0,FINE,2306,200169.000,366302,17,18;SOL_COMPUTED,NARROW_INT,0.7736,77.2515,1.0758,0.0000,0.3178,0.7664,"999",46,36,36,29,3,01,0,f3*9e744258

Data output instructions

3.1 NEMA 0183 Information output instructions

The high-precision receiver supports NMEA0183 information output. This chapter introduces the NMEA0183 output description.

Simplified ASCII syntax：

GNGGA 0.1

GNGGA COM2 1

BDSGGA COM1 0.5

Naming convention：

1> If it starts with GN, without special instructions, it defaults to joint system positioning or related output;

2> If it starts with 3 system letters, without special instructions, it defaults to independent solution output for each system, among:

BDS identifies the BeiDou system; GPS identifies the US Global Positioning System;

GLO identifies the Russian GLONASS system; GAL identifies the European Union's Galileo system;

3.1.1. GNGGA GNSS Multi-system joint positioning data

This command is used to set the current serial port or the specified serial port to output the result of multi-system joint positioning. The output information includes the time and

positioning related data of the GNSS receiver. The statement starts with GNGGA. Depending on the satellite system involved in positioning, it may be GPGGA, BDGGA, GLGGA, or GAGGA. When only the GPS satellite system participates in positioning solution, it is output in the form of GPGGA; when only the BDS satellite system participates in positioning solution, it is output in the form of BDGGA; when only the GLONASS satellite system participates in positioning solution, it is output in the form of GLGGA; when only the Galileo satellite system participates in positioning solution, it is output in the form of GAGGA. When there are two or more satellite systems participating in positioning solution, the output is in the form of GNGGA.

Simplified ASCII format:

GNGGA 1 The serial port currently outputs 1Hz GNGGA information

GNGGA COM2 1 Output 1Hz GNGGA information on com2

Message Output:

$GNGGA,025754.00,4004.74102107,N,11614.19532779,E,1,18,0.7,63.3224,M,-9.7848,M,00,0000*58

Table 3-1 GNGGA data structure

ID	Field	Data Description	Symbol	Example
1	$GNGGA	Log header		$GNGGA
2	utc	Position corresponding to UTC time, hh/mm/ss.ss	hhmmss.ss	170659.00
3	lat	Latitude (DDmm.mm)	IIII.II	4001.1220
4	lat dir	Latitude direction (N = North, S = South)	a	N
5	lon	Longitude (DDDmm.mm)	yyyyy.yy	11600.3622
6	lon dir	Longitude direction (E = East, W = West)	a	E
7	qual	GPS quality indicator 0 = Positioning is not available or invalid 1 = Single point positioning 2 = Pseudo-range differential or SBAS positioning 4 = RTK fixed solution	x	1

ID	Field	Data Description	Symbol	Example
		5 = RTK floating point solution 6 = Inertial navigation positioning 7 = User-set position (Fixed Position)）		
8	# sats	Number of satellites in use. May not match the number seen	xx	10
9	hdop	Horizontal Dilution of Precision	x.x	1.0
10	alt	Antenna altitude, negative if below the geoid.	x.x	1098.44
11	a-units	Units for antenna altitude (M = m)	M	M
12	undulation	Geoid difference – distance between the geoid and the WGS84 ellipsoid. Positive if the geoid is above the ellipsoid, negative if not.	x.x	-15.174
13	u-units	Units for geoid difference (M = m)	M	M
14	age	Differential data age, seconds	xx	（ 00 when there is no differential data）
15	stn ID	Differential base station ID, 0000-4096	xxxx	（ 00 when there is no differential data）
16	*xx	Checksum	*hh	*3F
17	[CR][LF]	Terminator		[CR][LF]

3.1.2. GPGGA GNSS Positioning data forces GPGGA statement output

The output of this command is exactly the same as GNGGA, and it is forced to output with "$GPGGA" as the message header statement. This information includes the receiver's time, position, and positioning related data.

Simplified ASCII format：

GPGGA 1	The current serial port outputs 1Hz GPGGA information
GPGGA COM2 1	Output 1Hz GPGGA information on com2

Message Output:

$GPGGA,025754.00,4004.74102107,N,11614.19532779,E,1,18,0.7,63.3224,M,-9.7848,M,00,0000*58

Table 3-2 GPGGA data structure

ID	Field	Data Description	Symbol	Example
1	$GPGGA	Log Header		$GPGGA
2	utc	Position corresponding to UTC time, hh/mm/ss.ss	hhmmss.ss	170659.00
3	lat	Latitude (DDmm.mm) Does the number of digits need to correspond?	IIII.II	4001.1220
4	lat dir	Latitude direction (N = North, S = South)	a	N
5	lon	Longitude (DDDmm.mm)	yyyyy.yy	11600.3622
6	lon dir	Longitude direction (E = East, W = West)	a	E
7	qual	GPS quality indicator 0 = Positioning is not available or invalid 1 = Single point positioning 2 = Pseudo-range differential or SBAS positioning 4 = RTK fixed solution 5 = RTK floating point solution 6 = Inertial navigation positioning 7 = User-set position (Fixed Position)	x	1
8	# sats	Number of satellites in use. May not match the number seen	xx	10
9	hdop	Horizontal Dilution of Precision	x.x	1.0
10	alt	Antenna height, above/below mean sea level	x.x	1098.44

ID	Field	Data Description	Symbol	Example
11	a-units	Antenna height unit（M = m）	M	M
12	undulation	Geoid Disparity – The distance between the geoid and the WGS84 ellipsoid. Positive values are obtained when the geoid is above the ellipsoid, negative values are obtained when the geoid is above the ellipsoid.	x.x	-15.174
13	u-units	Geoid deviation unit（M = m）	M	M
14	age	Age of differential data, in seconds	xx	（ 00 when there is no differential data）
15	stn ID	Differential Base Station ID ，0000-4096	xxxx	（ 00 when there is no differential data）
16	*xx	Checksum	*hh	*3F
17	[CR][LF]	Statement terminator		[CR][LF]

3.1.3. GPGSA DOP Values and valid satellite information

This command contains the GNSS receiver positioning mode, satellites used for positioning and DOP value.

Simplified ASCII format：

GPGSA 1 The current serial port outputs 1Hz GPGSA information=
GPGSA COM2 1 Output 1Hz GPGSA information on com2

Message Output：

$GNGSA,M,3,05,13,02,29,20,15,30,07,,,,,1.1,0.6,0.9*23
$GNGSA,M,3,81,66,82,88,67,,,,,,,,1.1,0.6,0.9*2D

$GNGSA,M,3,02,21,07,04,,,,,,,,,1.1,0.6,0.9*24

$GNGSA,M,3,13,06,08,09,03,14,01,02,04,05,,,1.1,0.6,0.9*2E

Table 3- 3 GPGSA data structure

ID	Field	Data Description	Symbol	Example
1	$GPGSA	Log header		$GPGSA
2	mode MA	A = Automatic 2D/3D M = Manual, force operation in 2D or 3D	M	M
3	mode 123	Mode: 1 = Fixed or not available; 2 = 2D; 3 = 3D	x	3
4 - 15	prn	Satellite PRN number used in the solution (unused fields are empty), 12 fields in total. (GPS: 1 to 32, GLONASS: 65 to 96, Galileo 1 to 38, BDS 1 to 63, SBAS 120 to 141 and 183 to 187, QZSS 193 to 197)	xx,xx,.....	18,03,13, 25,16, 24,12, 20,,,,
16	pdop	Position precision factor	x.x	1.5
17	hdop	Plane precision factor	x.x	0.9
18	vdop	Elevation precision factor	x.x	1.2
19	*xx	Checksum	*hh	*3F
20	[CR][LF]	Statement terminator		[CR][LF]

3.1.4. GPGST Pseudorange observation noise statistics

This message contains pseudorange observation noise, which will be passed to the positioning result to provide the accuracy information of the positioning solution. In addition to the RMS field, this information reflects the accuracy of the position in BESTPOS and GPGGA. Since the RMS field is dedicated to pseudorange, it cannot reflect the observation accuracy of the carrier phase, but it can reflect the accuracy of the positioning solution calculated by pseudorange in PSRPOS.

Simplified ASCII format:

GPGST 1 The current serial port outputs 1Hz GPGST information

GPGST COM2 1 Output 1Hz GPGST information on com2

LOG message output:

$GPGST,141451.00,1.18,0.00,0.00,0.0000,0.00,0.00,0.00*6B

Table 3- 4 GPGST data structure

ID	Fields	Data Description	Symbol	Example
1	$GPGST	Log header		$GPGST
2	utc	UTC time corresponding to the location (hours/minutes/seconds/tenths of a second)	hhmmss.ss	173653.00
3	rms	Standard deviation of pseudorange used for positioning calculation, RMS.	x.x	2.73
4	smjr std	Major semi-axis of error ellipse, m	x.x	2.55
5	smnr std	Minor semi-axis of error ellipse, m	x.x	1.88
6	orient	Direction of error ellipse, deg	x.x	15.2525
7	lat std	Standard deviation of latitude error, m	x.x	2.51
8	lon std	Standard deviation of longitude error, m	x.x	1.94
9	alt std	Standard deviation of altitude error, m	x.x	4.30
10	*xx	Checksum	*hh	*6E
11	[CR][LF]	Terminator of statement		[CR][LF]

3.1.5. GPGSV Visible satellite status output

This message contains the number of visible SVs, PRN number, elevation, azimuth and SNR value. Each message contains up to 4 satellites. When necessary, additional satellite data can be sent in 2 or more messages (up to 9). The total number of messages transmitted and the current message being transmitted are indicated in the first two fields.

Simplified ASCII format:

GPGSV 1	The current serial port outputs 1Hz GPGSV information
GPGSV COM2 1	Output 1Hz GPGSV information on com2

Message Output:

$GPGSV,3,1,09,02,51,123,47,05,69,022,49,07,12,050,41,13,58,174,48*75
$GPGSV,3,2,09,15,32,210,45,20,44,281,45,29,49,272,49,30,19,081,40*74
$GPGSV,3,3,09,21,07,307,36*45
$GLGSV,2,1,08,74,05,021,37,66,69,333,49,82,34,325,46,75,07,070,42*61
$GLGSV,2,2,08,65,23,043,44,88,33,164,40,81,77,244,49,67,33,250,45*6E
$GAGSV,1,1,04,03,86,345,48,05,33,050,44,08,35,236,43,22,42,156,45*64
$BDGSV,3,1,10,01,36,146,42,02,34,225,38,03,43,188,40,04,25,124,38*6F
$BDGSV,3,2,10,05,17,249,36,06,74,234,45,08,56,155,44,13,79,211,47*67
$BDGSV,3,3,10,14,37,054,45,09,46,229,41*6F

Table 3-5 GPGSV data structure

ID	Fields	Data Description	Symbol	Example
1	$GPGSV	Log header,		$GPGSV
2	# msgs	Total number of messages (1-9)	x	3
3	msg #	Total number of visible satellites. May be different from total number of satellites in use	x	1
4	# sats	Satellite PRN number	xx	09
5	prn	GPS=1~32	xxx	03
6	elev	GLONASS=65~96	xx	51
7	azimuth	Galileo=1~38	xxx	140
8	SNR	BDS=1~37	xx	42

ID	Fields	Data Description	Symbol	Example

… … …	… … …	Next satellite PRN number, elevation, azimuth, SNR, last satellite PRN number, elevation, azimuth, SNR,		
	*xx	Checksum	*hh	*72
	[CR][LF]	Terminator		[CR][LF]

3.1.6. GPHDT GPS Heading information output

This message contains the receiver's heading information relative to the true north direction in degrees. The output of this information requires the receiver to support the HEADING orientation working mode.

Simplified ASCII format:

GPHDT 1 The current serial port outputs 1Hz GPHDT information

GPHDT COM2 1 Output 1Hz GPHDT information on com2

Message Output

$ GPHDT,178.7236,T*15

Table 3-6 GPHDT data structure

ID	Fields	Data Description	Symbol	Example
1	$GPHDT	Log Head		$GPHDT
2	heading	Heading angle, deg	X.X	178.7236
3	TRUE	True North	T	T
4	*XX	Checksum	*hh	*15

ID	Fields	Data Description	Symbol	Example
5	[CR][LF]	Statement terminator		[CR][LF]

3.1.8. GNRMC GNSS Recommended information

This message contains the time, date, position, heading and speed information calculated by the receiver. RMC information is the most compact navigation information recommended for the receiver.

The GNRMC command outputs the relevant information without waiting for a valid almanac. In addition, it uses the UTC time calculated with default parameters. In this case, the UTC time status is set to WARNING because 100% accuracy cannot be guaranteed. When a valid almanac is obtained, the receiver will use the true parameters for calculation. At this time, the UTC time status is set to VALID

Simplified ASCII format:

GNRMC 1	The serial port currently outputs 1Hz GNRMC information
GNRMC COM2 1	Output 1Hz GNRMC information on com2

Message Output:

$GNRMC,055322.20,A,4004.73976661,N,11614.19695591,E,0.003,316.8,181017,6.7,W,A*39

Table 3-8 GNRMC data structure

ID	Fields	Data Description	Symbol	Example
1	$GNRMC	Log header		$GNRMC
2	utc	UTC time corresponding to the location	hhmmss.ss	144326.00
3	pos status	Location status:	A	A
4	lat	A = valid, V = invalid	llll.ll	5107.0017737
5	lat dir	Latitude direction	a	N
6	lon	N = North, S = South	yyyyy.yy	11402.3291611
7	lon dir	Longitude (DDDmm.mm)	a	W
8	speed Kn	Longitude direction	x.x	0.080

9	track true	E = East, W = West	x.x	323.3
10	date	Ground speed, knots	xxxxxx	210307

ID	Fields	Data Description	Symbol	Example
11	mag var	Magnetic declination, degb	x.x	0.0
12	var dir	Magnetic declination direction E/Wc	a	E
13	mode ind	Positioning mode indicator	a	A
14	*xx	Checksum	*hh	*72
15	[CR][LF]	Sentence terminator		[CR][LF]

3.1.9. GPRMC GNSS Recommended information

The output information of this message is consistent with GNRMC, but it is mandatory to output it with the "$GPRMC" header. Whether it is single-system positioning or multi-system joint positioning, it is always output with the "$GPRMC" header. The message contains the time, date, position, heading and speed information calculated by the receiver. RMC information is the most compact navigation information recommended for the receiver.

Simplified ASCII format:

GPRMC 1 The current serial port outputs 1Hz GPRMC information

GPRMC COM2 1 Output 1Hz GPRMC information on com2

Message Output:

$GPRMC,094403.00,A,4004.73794422,N,11614.18999462,E,0.037,5.5,260815,6.5,W,A*35

Table 3- 9 GPRMC data structure

ID	Fields	Data Description	Symbol	Example
1	$GPRMC	Log header		$GPRMC
2	utc	UTC time corresponding to the location	hhmmss.ss	144326.00
3	pos status	Location status:	A	A
4	lat	A = valid, V = invalid	llll.ll	5107.0017737

ID	Fields	Data Description	Symbol	Example
5	lat dir	Latitude direction	a	N
6	lon	N = North, S = South	yyyyy.yy	11402.3291611
7	lon dir	Longitude (DDDmm.mm)	a	W
8	speed Kn	Longitude direction	x.x	0.080
9	track true	E = East, W = West	x.x	323.3
10	date	Ground speed, knots	xxxxxx	210307
11	mag var	True north track direction, deg	x.x	0.0
12	var dir	Date: dd/mm/yy	a	E
13	mode ind	Magnetic declination, degb	a	A
14	*xx	Magnetic declination direction E/Wc	*hh	*72
15	[CR][LF]	Positioning mode indicator		[CR][LF]

3.1.10. GPVTG Ground speed information

This command is used to set the current serial port or the specified serial port to output ground speed information.

Simplified ASCII format:

GPVTG 1 The current serial port outputs 1Hz GPVTG information
GPVTG COM2 1 Output 1Hz GPVTG information on com2

Message Output

$GNVTG,330.424,T,337.152,M,0.01159,N,0.02147,K,A*32

Table 3- 10 GPVTG data structure

ID	Fields	Data Description	Symbol	Example
1	$GPVTG	Log Head		$GPVTG
2	Heading	Ground heading relative to true north	hhh	

ID	Fields	Data Description	Symbol	Example
	true	(000~359 degrees, the leading 0 will also be transmitted)		
3	TRUE	True North Reference	T	

	NORTH	System		
4	Heading mag	Ground heading with reference to magnetic north (000~359 degrees, the leading 0 will also be transmitted)	hhh	
5	MAGNETIC NORTH	Magnetic North Reference System	M	
6	speed Kn	Ground speed (000.0~999.9 knots, the leading 0 will also be transmitted)	Sss.s	
7	N	Knot, knot	N	
8	speed Km	Ground speed (0000.0~1851.8 kilometers/hour, the leading 0 will also be transmitted)	Ssss.s	
9	K	Kilometers per hour	K	
10	Mode ind	Mode indication (only NMEA0183 3.00 version output, A=autonomous positioning, D=differential, E=estimated, N=invalid data	a	
11	*xx	Checksum	*hh	*72
12	[CR][LF]	Sentence end character		[CR][LF]

3.1.11. GPGLL Geolocation information

This command is used to set the current serial port or specify the serial port to output latitude, longitude, UTC time and other information.

Simplified ASCII format:

GPGLL 1 The current serial port outputs 1Hz GPGLL information

GPGLL COM2 1 Output 1Hz GPGLL information on com2

Message Output:

$GPGLL,4250.5589,S,14718.5084,E,092204.999,A*2D

Table 7-11 GPGLL data structure

ID	Fields	Data Description	Symbol	Example
1	$GPGLL	Log header		$GPGLL
2	lat	Latitude (DDmm.mm)	ddmm.mmmm	
3	lat dir	Latitude direction (N = North, S = South)	a	
4	lon	Longitude (DDDmm.mm)	dddmm.mmmm	
5	lon dir	Longitude direction (E = East, W = West)	a	
6	Utc	UTC time	hhmmss.sss	
7	mode ind	Positioning status, A = Positioning, V = Unpositioning	a	
8	*xx	Checksum	*hh	*72
9	[CR][LF]	Terminator		[CR][LF]

3.1.12. GPZDA Date and time

This command is used to set the current serial port or the specified serial port to output UTC date and time.

Simplified ASCII format:

GPZDA 1 The current serial port outputs 1Hz GPZDA information

GPZDA COM2 1 Output 1Hz GPZDA information on com2

Message Output:

$GPZDA,055435.00,13,11,2018,,*73

Table 3- 12 GPZDA data structure

ID	Fields	Data Description	Symbol	Example
1	$GPZDA	Log header		$GPZDA
2	Utc	UTC time	hhmmss.ss	
3	Day	Day	xx	
4	Month	Month	xx	
5	Year	Year	xxxx	

6	Local zone description	Local time zone description, 00 to +/- 13 hours	xx	
7	Local zone minutes description	Local time zone description (same sign as hour)	xx	
8	*xx	Checksum	*hh	*72
9	[CR][LF]	Statement terminator		[CR][LF]

3.1.13. GPTRA Direction angle output

This command is used to set the current serial port or the specified serial port to output the receiver's heading, pitch, roll and other information.

Simplified ASCII format:

GPTRA 1 The current serial port outputs 1Hz GPTRA information

GPTRA COM2 1 Output 1Hz GPTRA information on com2

Message Output:

$GPTRA,074453.00,206.59,36.19,0.00,4,32,0.00,0000*61

Table 3- 13 GPTRA data structure

ID	Fields	Data Description	Symbol	Example
1	$GPTRA	Log head		$GPTRA