MEITRACK® GPRS_Total Command Document

Document Record

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Version	date	Revise
1.0	2024-12-30	First draft.
1.1	2024-05-07	New CE1 command: Upload the recorded videos within the specified time period.

Contents

1 Data Format

1.1 GPRS Command Transmission and Reception

The format for receiving and sending GPRS commands is as follows:

Downlink	@@<Data Packet Identifier><Data Length>,<IMEI>,<Parameter Table Number><Command Code>,<Command Content><*Checksum>\r\n
Uplink	$<Data Packet Identifier><Data Length>,<IMEI>,<Event Code>,<Command Content/Error Code><*Checksum>\r\n

Format Description

- "@@" is the message header issued by the server, consisting of 2 characters.
- The "Data Packet Identifier" is a 1-byte hexadecimal value ranging from 0x41 to 0x7A; the sender assigns a random number, and the receiver must maintain consistency with the sender to ensure reliable data transmission confirmation.
- The English comma ',' is used as the data segment delimiter character, represented as an ASCII code (hexadecimal 0x2C).
- The 'Data Length' indicates the length from the first delimiter ',' to the terminator '\r\n' (inclusive of both), expressed as decimal characters.
  $<Data Packet Identifier><Data Length>,<IMEI>,<Command Type>,<Command Content><*Checksum>\r\n
- 'IMEI' is primarily the IMEI of the GSM Module but can be modified if stored in the reserved FLASH area.
- <Parameter Table Number>: 0 or empty: modify all parameter tables; 1: modify the basic parameter table; 2: modify roaming parameter table 1.
- 'Command Code' consists of half-width English letters and digits; refer to the command details for further information.
- "Command Content" must not exceed 1024 bytes.
- "*Checksum": the preceding asterisk is a fixed character; the checksum consists of two hexadecimal characters, calculated as the cumulative sum from the message header up to and including the asterisk.
  $<Data Packet Identifier><Length>,<IMEI>,<Command Type>,<Command Content><* Checksum>\r\n
- "\r\n" denotes carriage return and line feed, consisting of 2 bytes with hexadecimal values 0x0D 0x0A.
- "$" is the message header sent by the terminal, consisting of 2 bytes with hexadecimal values 0x24 0x24.

If multiple "Command Content" fields appear, they shall be separated by the delimiter ",". If the "Command Content" field is empty but must be retained, the "," delimiter must also be preserved.

1.2 Event code

Event Code	Event Description	Default SMS Header (Maximum 16 Bytes)
1	SOS Emergency	SOS
2	Input 2 Activated	Door Open
3	Input 3 Activated	Ignition On
4	Input 4 Activated	In4 Active
5	Input 5 Activated	In5 Active
6	Input 6 Activated	In6 Active

7	Input 7 Activated	In7 Active
8	Input 8 Activated	In8 Active
9	Input 1 Deactivated	In1 Inactive
10	Input 2 Deactivated	Door Close
11	Input 3 Deactivated	Ignition Off
12	Input 4 Deactivated	In4 Inactive
13	Input 5 Deactivated	In5 Inactive
14	Input 6 Deactivated	In6 Inactive
15	Input 7 inactive	In7 Inactive
16	Input 8 inactive	In8 Inactive
17	Terminal battery low	Low Battery
18	External battery low	Low Ext-Battery
19	Overspeed detected	Speeding
20	Entered geofence	Enter Fence
21	Exited geofence	Exit Fence
22	Vehicle battery line connected	Ext-Battery On
23	Vehicle battery line disconnected	Ext-Battery Cut
24	GPS signal lost	GPS Signal Lost
25	GPS signal acquired	GPS Recovery
26	Entered sleep mode	Enter Sleep
27	Exited sleep mode	Exit Sleep
28	GPS antenna disconnected	GPS Antenna Cut
29	Terminal powered on	Power On
31	Heartbeat signal	/
32	Turning detected	Cornering
33	Fixed-distance tracking	Distance
34	Reply with current location (passive)	Now
35	Timed Tracking	Interval
36	Trailer	Tow
37	RFID (Change serial port baud rate)	/
39	Photo trigger event	/
41	Vehicle stationary	Quiet
42	Vehicle start	Moving
44	GSM interference (supported only in special versions)	GSM Jamming
50	High temperature	Temp High
51	Low temperature	Temp Low
52	Full fuel	Fuel Full
53	Low fuel	Fuel Empty
54	Fuel theft	Fuel Steal
63	GSM interference removal (supported only in	No GSM Jamming

	special versions)	
70	Reject incoming call	/
72	Automatically answer incoming call	/
78	Impact	Impact
82	Refueling alarm	Refuelling
83	Ultrasonic oil sensor detached	Ult-Sensor Drop
87	Tire pressure warning	Tpms Alarm
90	Sharp left turn	Sharp Turn to Left
91	Sharp right turn	Sharp Turn to Right
94	Output 1 activated	Output 1 Active
95	Output 2 activated	Output 2 Active
96	Output 3 activated	Output 3 Active
97	Output 4 activated	Output 4 Active
98	Output 5 activated	Output 5 Active
99	Output 1 deactivated	Output 1 Inactive
100	Output 2 deactivated	Output 2 Inactive
101	Output 3 deactivated	Output 3 Inactive
102	Output 4 deactivated	Output 4 Inactive
103	Output 5 deactivated	Output 5 Inactive
117	Passenger flow sensor	People Counter
118	Input 9 activated	In9 Active
119	Input 9 deactivated	In9 Inactive
128	Vehicle rollover	Rollover
129	Sudden braking event	Harsh Braking
130	Sudden acceleration event	Fast Accelerate
133	Extended idling while parked	Idle Overtime
134	Idling resumed after parking	Idle Recovery
135	Driver fatigue	Fatigue Driving
136	End of driver fatigue rest period Note: Rest period after driver fatigue must be at least 20 minutes	Enough Rest
138	Vehicle speed normalized	Speed Recovery
139	Maintenance alert	Maintenance Notice
159	Output 6 activated	Output 6 Active
160	Output 7 activated	Output 7 Active
161	Output 8 activated	Output 8 Active
162	Output 6 deactivated	Output 6 Inactive
163	Output 7 deactivated	Output 7 Inactive
164	Output 8 deactivated	Output 8 Inactive

2 Command list

Command type	Command description	Model					
		T711L	T633L	T399L	MD300	MD500S	MD600\MD833H
A10	Querying the Location in Real Time	✓	✓	✓	✓	✓	✓
A11	Setting a Heartbeat Packet Reporting Interval	✓	✓	✓	✓	✓	✓
A12	Tracking by Time Interval	✓	✓	✓	✓	✓	✓
A13	Setting the Cornering Report	✓	✓	✓	✓	✓	✓
A14	Tracking by Distance	✓	✓	✓	✓	✓	✓
A15	Setting the Parking Scheduled Tracking Function	✓	✓	✓	✓	✓	✓
A16	Enabling the Parking Scheduled Tracking Function	✓	✓	✓	✓	✓	✓
A17	Controlling Output 1 Status by RFID/iButton	✓	✓	✓	✓	✓	✓
A21	Setting GPRS Parameters	✓	✓	✓	✓	✓	✓
A22	Setting the DNS Server IP Address	✓	✓	✓			
A23	Setting the Standby GPRS Server	✓	✓	✓	✓	✓	✓
A25	Setting the IP3 Parameter						
A55	Setting a Time Interval in Roaming Mode	✓	✓	✓	✓	✓	✓
A70	Reading All Authorized Phone Numbers	✓	✓	✓	✓	✓	✓
A71	Setting Authorized Phone Numbers	✓	✓	✓	✓	✓	✓
A72	Setting Listen-in Phone Numbers		✓	✓	✓	✓	✓
A73	Setting the Smart Sleep Mode	✓	✓	✓	✓	✓	✓
A75	Querying the SIM Card Balance	✓		✓			
A82	Obtaining Time Calibration from Server	✓	✓	✓	✓	✓	✓
A84	Setting the Unit of the GPRS Data Interval		✓			✓	✓

A9A	Transmitting Audio and Video Data in Real Time				✓	✓	✓
A9B	Controlling Real-Time Audio and Video Transmission				✓	✓	✓
A9C	Querying the Resource List				✓	✓	✓
A9D	Playing Back Videos Remotely				✓	✓	✓
A9E	Controlling Remote Video Playback				✓	✓	✓
A9F	Uploading Files				✓	✓	✓
AA0	Controlling File Uploading				✓	✓	✓
AA1	Obtaining the WiFi List				✓	✓	✓
AA2	Sending the FTP File Uploading Progress				✓	✓	✓
AA3	Obtaining MDVR Network Status				✓	✓	✓
AA4	Querying the Storage Date of Video Files				✓	✓	✓
AB2	RTMP Real-Time Audio and Video Transmission Request (GPRS)				✓	✓	✓
AB3	RTMP Real-Time Audio and Video Transmission Control (GPRS)				✓	✓	✓
AB4	RTMP Remote Video Playback Request (GPRS)				✓	✓	✓
AB5	RTMP Remote Video Playback Control (GPRS)				✓	✓	✓
AB8	Subpackage Query of the Resource List (GPRS)				✓	✓	✓
ABB	Setting the Wi-Fi Hotspot Function				✓	✓	✓
ABD	Setting the Bluetooth Peripheral (GPRS)	✓		✓	✓		✓
AC0	Setting the MDVR Audio Format				✓	✓	✓
AC9	Temperature Sensing Registration: Use Platform or MM	✓	✓	✓			
ACB	Overspeed Control OUT1	✓	✓	✓			

AD9	Temporarily Enable Bluetooth Slave Mode						✓
ADD	Subpackage Query of the Resource List (New)					✓	
AE3	Facial information processing				✓		✓
AE4	Facial information registration query				✓		✓
AE5	Power Output Switch				✓		✓
AFF	Deleting a GPRS Event in the Buffer	✓	✓	✓			
B05	Setting a Geo-Fence	✓	✓	✓	✓	✓	✓
B06	Deleting a Geo-Fence	✓	✓	✓	✓	✓	✓
B07	Setting the Speeding Alert	✓	✓	✓	✓	✓	✓
B08	Setting the Towing Alert	✓	✓	✓	✓	✓	✓
B09	Setting the Vibration Sensitivity Level	✓		✓	✓		
B10	Fast Setting the Towing Alert	✓	✓	✓	✓	✓	✓
B11	Setting a Polygonal Geo-Fence	✓	✓	✓	✓	✓	✓
B14	Setting the Idling Alert Parameters	✓	✓	✓	✓	✓	✓
B15	Setting Driver Fatigue Parameters	✓	✓	✓	✓	✓	✓
B16	Setting the Speeding Alert Duration	✓	✓	✓	✓	✓	✓
B21	Setting the Anti-Theft Function	✓	✓	✓			
B22	Setting the Mileage and Speed Calculation Mode						✓
B25	Restart the Device	✓	✓	✓		✓	
B26	Setting Filtering Time of an Input Port	✓		✓	✓	✓	✓
B27	Setting Auto Arming	✓		✓			
B2A	Setting Input Port Filtering Duration (New)				✓		✓
B30	Setting the Timed Photo Interval		✓				
B31	Turning Off the LED Indicator	✓	✓	✓			
B32	Setting the Sleep Mode of	✓	✓	✓			

	the GPS Module						
B33	Setting the Device Sleep Entry Time	✓	✓	✓			
B34	Setting a Log Interval	✓	✓	✓	✓	✓	✓
B35	Setting the SMS Time Zone	✓	✓	✓	✓	✓	✓
B36	Setting the GPRS Time Zone	✓	✓	✓	✓	✓	✓
B37	Setting the Auto Sleep Function	✓	✓	✓	✓	✓	
B38	Setting the Auto Sleep Voltage		✓			✓	
B43	Configuring the Roaming Table Switching Function	✓		✓			
B60	Determining Vehicle Status by ACC Status	✓	✓	✓		✓	
B64	Configuring FTP Upload Photograph Parameters				✓	✓	✓
B70	Retrieving Terminal Information					✓	
B81	Configuring Standby Entry Time			✓			
B91	Configuring SMS Event Characters	✓	✓	✓	✓	✓	✓
B99	Setting Event Authorization	✓	✓	✓	✓	✓	✓
BB8	Configuring MDVR Speaker Volume Level				✓	✓	✓
BBD	Configuring Sudden Acceleration and Deceleration Parameters	✓	✓	✓	✓	✓	✓
BC6	Configuring Sudden Left and Right Turn Parameters	✓	✓	✓	✓	✓	✓
BCA	Configuring MDVR Minimum Operating Duration				✓	✓	✓
BDA	ASPC Passenger Flow Configuration		✓				✓
BDE	Retrieving Bluetooth Version Information	✓		✓			
BE4	Disabling Static Drift	✓	✓	✓			

	Filtering						
BFE	Configuring SMS Reply Format	✓	✓	✓			
C01	Controlling Output Status	✓	✓	✓	✓	✓	✓
C02	Notifying the Device of Sending an SMS	✓	✓	✓	✓	✓	✓
C03	Setting a GPRS Event Transmission Mode	✓	✓	✓	✓	✓	✓
C07	Setting the Input Mode of an Input Port	✓		✓			
C08	Setting I/O Port Status	✓		✓	✓		✓
C40	Registering a Temperature Sensor Number	✓	✓	✓	✓	✓	✓
C41	Deleting a Registered Temperature Sensor	✓	✓	✓	✓	✓	✓
C42	Reading the Temperature Sensor SN and Number	✓	✓	✓	✓	✓	✓
C43	Setting the Temperature Threshold and Logical Name	✓	✓	✓	✓	✓	✓
C44	Reading Temperature Sensor Parameters	✓	✓	✓	✓	✓	✓
C45	Reading Temperature in Real Time	✓		✓	✓	✓	✓
C46	Checking Temperature Sensor Parameters	✓	✓	✓	✓	✓	✓
C47	Setting Fuel Parameters	✓	✓		✓	✓	✓
C48	Reading Fuel Parameters	✓	✓		✓	✓	✓
C49	Setting the Fuel Theft Alert	✓	✓	✓	✓	✓	✓
C60	LED Screen Protocol Transparent Transmission		✓				
C61	Transparently Transmitting Data over the Serial Port	✓		✓			
C67	Setting the Positioning Mode	✓	✓	✓	✓	✓	✓
C69	Setting the SPK and MIC		✓	✓	✓	✓	✓
C70	Setting a Serial Port and a Peripheral	✓		✓			
C77	Disable power button	✓	✓	✓			

	shutdown functionality						
C82	Lock the network	✓		✓			
C85	Enable GSM jamming detection function (supported only in special versions)		✓				
C91	Configure serial ports and peripherals		✓				
C96	Fuel level sensor configuration	✓	✓		✓		
C9F	Set RFID-controlled OUT1 ignition on/off waiting time	✓	✓	✓	✓		✓
CB4	Set acceleration threshold and duration for impact event detection	✓	✓	✓	✓	✓	✓
CB8	Configure event-triggered camera playback				✓		✓
CC2	Configure video rotation attribute				✓		✓
CC4	Bluetooth data relay transmission	✓		✓			
CC5	Bluetooth pairing settings (SMS\GPRS) (customized for T399G)	✓		✓	✓		✓
CC7	Set Rollover Alarm Calibration	✓	✓				
CD1	Initiate DMS calibration					✓	
CD4	Offline FOTA parameter configuration		✓	✓	✓	✓	✓
CD7	Configure user parameters for inertial navigation			✓			
CD8	View or clear inertial navigation installation angle			✓			
CE0	Bidirectional Transparent Transmission						✓
CE1	Upload the recorded videos within the specified time period.				✓		✓
CFF	Deleting an Event in the	✓	✓	✓	✓	✓	✓

	Buffer						
D00	Obtaining a Picture		✓				
D01	Obtaining the Picture List		✓				
D02	Deleting a Picture		✓				
D03	Taking Photos on Demand		✓				
D10	RFID/iButton Authorization	✓	✓	✓	✓	✓	✓
D11	Batch Authorization of RFID/iButton	✓	✓	✓	✓	✓	✓
D12	Query Authorization Status of Known RFID/iButton Numbers	✓	✓	✓	✓	✓	✓
D13	Read Authorized RFID/iButton Numbers	✓	✓	✓	✓	✓	✓
D14	Delete Authorized RFID/iButton Numbers	✓	✓	✓	✓	✓	✓
D15	Batch Delete Authorized RFID/iButton Numbers	✓	✓	✓	✓	✓	✓
D16	Verify Checksum of Authorized RFID/iButton Card Number Database	✓	✓	✓	✓	✓	✓
D30	Setting the Maximum Acceleration Threshold of the Harsh Braking Alert					✓	
D31	Setting the Maximum Acceleration Threshold of the Harsh Acceleration Alert					✓	
D35	Setting the Driver Fatigue Time					✓	
D36	Setting the Rest Time After Driver Fatigue					✓	
D65	Setting the Maintenance Mileage	✓	✓	✓	✓	✓	✓
D66	Setting Maintenance Time	✓	✓	✓	✓	✓	✓
D71	Setting GPS Data Filtering	✓		✓		✓	
D72	Setting an Output Port	✓		✓	✓	✓	✓
D73	Allocating GPRS Cache and GPS Log Storage Space	✓		✓	✓	✓	✓
D9E	Configuring Peripheral		✓	✓			

	Parameters						
DA0	Obtaining All Alert Parameters of a Tire Pressure Sensor		✓		✓		✓
DA1	Obtaining Data of All Bound Tire Pressure Sensors		✓		✓		✓
DA2	Obtaining Data of a Tire Pressure Sensor		✓		✓		✓
DA3	Deleting Tire Pressure Sensors		✓		✓		✓
DA4	Obtaining Data of Multiple Tire Pressure Sensors		✓		✓		✓
DA5	Setting Tire Pressure Alarm Threshold		✓		✓		✓
DA6	Querying the Device Status	✓	✓	✓			
DAF	Setting the Vibration Sensitivity Level	✓	✓	✓		✓	
DB0	Setting the Auto-Authorization Time for RFID Cards	✓	✓	✓			
DB4	Querying Device Parameters	✓	✓	✓			
DDB	Using the Actual Number of Satellites	✓	✓	✓	✓	✓	✓
DDC	Retrieving GNSS Real-Time Data	✓	✓	✓	✓		✓
DDD	Configuring Whether to Use NITZ Time	✓	✓	✓	✓	✓	✓
DF3	Requiring Speed to Be Below 5 km/h During Fuel Level Detection	✓		✓			
E04	Retrieving Terminal Command List	✓	✓	✓	✓	✓	✓
E91	Reading Device's Firmware Version and SN	✓	✓	✓	✓	✓	✓
E93	Temperature Sensor Reading Configuration	✓	✓				
E94	FTP Configuration or Terminal Firmware	✓	✓	✓	✓	✓	✓

	Upgrade						
F00	Restarting the GSM and GPS Modules	✓	✓	✓	✓		✓
F01	Restarting the GSM Module	✓	✓	✓	✓		✓
F02	Restarting the GPS Module	✓	✓	✓	✓	✓	✓
F08	Setting the Mileage and Run Time	✓	✓	✓	✓	✓	✓
F09	Deleting SMS or GPRS Cache Data	✓	✓	✓	✓	✓	✓
F11	Restoring Initial Settings	✓	✓	✓	✓	✓	✓
F12	Fast Enabling the GPRS Function	✓	✓		✓	✓	✓
F20	Changing the Device Password	✓	✓	✓	✓	✓	✓
FAC	OTA Upgrade	✓	✓	✓			
103	MDVR Complete Device Reboot				✓		✓
109	Set Camera Contrast				✓		

3 Detailed Command Description

3.1 Querying the Location in Real Time (GPRS) – A10

GPRS Settings Method	A10
GPRS Settings Response	AAA,34,(-)Latitude,(-)Longitude,Date and Time,Location Status,Number of Satellites,GSM Signal Strength,Speed,Direction,Horizontal Positioning Accuracy,Altitude,Mileage,Operating Time,Base Station Information,Input/Output Port Status,Analog Input Port Value
Note	34 is the GPRS command event code.
Example	
GPRS Transmission Content	@@Q25,353358017784062,A10*6A\r\n
GPRS Settings Response	$$Q128,353358017784062,AAA,34,22.543176,114.078448,100313093738,A,5,22,2,205,5,-14,0,60,0|0|10133|4110,0000,149|153|173|2707|914,*91\r\n

3.2 Setting a Heartbeat Packet Reporting Interval (GPRS) – A11

GPRS Settings Method	A11,Time Interval
GPRS Settings Response	A11,OK
Note	The heartbeat packet function is applicable when the GPRS timed reporting interval

	is set to a long duration and is used to maintain a persistent TCP connection. Time Interval = 0, disable the heartbeat packet function (default value). Time Interval = [1,65535], set the heartbeat packet reporting interval in minutes. Heartbeat packets are only applicable in deep sleep mode. When the device enters deep sleep mode, it sends heartbeat packet data at each specified time interval. The heartbeat packet data only maintains the connection with the platform; therefore, GPS positioning data is invalid.
Example	
GPRS Transmission Content	@@S28,353358017784062,A11,10*FD\r\n
GPRS Settings Response	$$S28,353358017784062,A11,OK*FE\r\n *After successfully sending the above command, the terminal will report the following GPRS heartbeat packet to the platform every 10 minutes during deep sleep.* *$$a131,353358017784062,AAA,31,22.913458,114.083183,080229123628,V,9,23,21,83,1,18,1350,127,0|0|10133|4110,0000,169|181|184|2714|919,*60*

3.3 Set Timed Tracking (GPRS) – A12

GPRS Settings Method	A12, Time Interval
GPRS Settings Response	A12,OK
Note	The time interval unit is 10 seconds. Time Interval = 0, disable the GPRS timed reporting function. Maximum time interval = 65535 × 10 seconds Recommended setting value: 6 × 10 seconds
Example	
GPRS Transmission Content	@@V27,353358017784062,A12,6*D5\r\n
GPRS Settings Response	$$V28,353358017784062,A12,OK*02\r\n *After successfully sending the above command, the terminal will continuously report the following GPRS data packet to the platform every 1 minute.* *$$W129,353358017784062,AAA,35,22.540113,114.076141,100313094354,A,5,22,1,174,4,129,0,435,0|0|10133|4110,0000,166|224|193|2704|916,*BE\r\n*

3.4 Setting the Cornering Report (GPRS) – A13

GPRS Settings Method	A13, Angle Value
GPRS Settings Response	A13,OK
Note	When the driving direction exceeds the preset angle value, the terminal will send a location GPRS data packet to the server. This function ensures the driving track is more realistic and prevents jumps. Angle Value = 0: disables the cornering report function (default value);

	Angle Value = [1, 359]: sets the cornering angle value. Recommended setting value: 30
Example	
GPRS Transmission Content	@@X29,353358017784062,A13,120*37\r\n
GPRS Settings Response	$$X28,353358017784062,A13,OK*05\r\n *After successfully sending the above command, when the driving cornering angle exceeds 120 degrees, the terminal will report the following cornering report GPRS data packet to the server.* *$$Y129,353358017784062,AAA,32,22.540968,114.077455,100313094534,A,4,22,1,166,3,175,0,534,0|0|10133|4110,0000,141|138|159|2691|904,*D9\r\n*

3.5 Tracking by Distance – A14

GPRS Settings Method	A14, Driving Distance
GPRS Settings Response	A14,OK
Note	Driving Distance = 0: Disable fixed-distance location reporting function (default value). Driving Distance = [1, 65535]: Set the driving distance value in meters. Note: When both GPRS timed tracking and fixed-distance tracking are configured simultaneously, the condition met first will take priority for reporting; timing and distance counters will reset accordingly. For example, if timed tracking is set to 1 minute and fixed-distance tracking to 200 meters, under favorable road conditions the fixed-distance report packet will be sent first; if traffic is congested and only 100 meters are traveled within 1 minute, the timed report will be sent first. Recommended setting value: 300.
Example	
GPRS Transmission Content	@@D30,353358017784062,A14,1000*4A\r\n
GPRS Settings Response	$$D28,353358017784062,A14,OK*F2\r\n *After successfully sending the above command, the terminal will report a fixed-distance data packet to the server upon traveling 1000 meters.* *$$D131,353358017784062,AAA,33,22.547271,114.047405,080310080929,A,8,21,13,89,1,12,8525,561,0|0|10133|4110,0000,163|185|186|2712|939,*31\r\n*

3.6 Setting the Parking Scheduled Tracking Function (GPRS) – A15

GPRS Settings Method	A15, Time Interval
GPRS Settings Response	A15,OK
Note	This function applies exclusively to vehicle terminals. It reduces the number of GPRS transmissions after parking to conserve data usage.

	Once the A15 function is set, the software will automatically activate A16. For the logic concerning engine on/off status, please refer to the detailed description of the A16 function. The time interval unit is 10 seconds. Time Interval = 0 disables the GPRS timed reporting function. Maximum time interval = 65535 × 10 seconds Note: To transmit data at different intervals when the vehicle starts and after the engine shuts off, use this command in conjunction with A12. Refer to the descriptions of commands A12 and A16 for details.
Example	
GPRS Transmission Content	@@E27,353358017784062,A15,6*C7\r\n
GPRS Settings Response	$$E28,353358017784062,A15,OK*F4\r\n

3.7 Enabling the Parking Scheduled Tracking Function (GPRS) – A16

GPRS Settings Method	A16, Status
GPRS Settings Response	A16,OK
Note	**This function applies exclusively to vehicle terminals. The first positive trigger (high-level) input of the vehicle terminal must be connected to engine status detection; otherwise, this function cannot be activated.** Status=1: Enable parking timed tracking; GPRS will transmit according to the following schedule: Engine on: transmissions occur at intervals defined by A12. Engine off: transmissions occur at intervals defined by A15. Status=0: Disable parking timed tracking; GPRS will transmit according to the following schedule: Engine on: transmissions occur at intervals defined by A12. Engine off: transmissions occur at intervals defined by A15.
Example	
GPRS Transmission Content	@@F27,353358017784062,A16,0*C3\r\n
GPRS Settings Response	$$F28,353358017784062,A16,OK*F6\r\n

3.8 Controlling Output 1 Status via RFID/iButton – Parameter A17

GPRS Settings Method	A17,X
GPRS Settings Response	A17,OK
Note	X=1: RFID control of Output 1 is enabled (this function requires two conditions: 1. Engine must be connected to input 3; 2. The scanned RFID must be authorized). X=0 disables the RFID control function of OUT1; this function is Off by default. For example: after swiping an authorized RFID, the engine must be started within 1

	minute (detected via input 3). If more than 1 minute passes, the authorized RFID must be swiped again to start the engine. Once the engine is started, input 3 continuously monitors the engine status. When input 3 detects the engine is in ACC ON state (i.e., input 3 is at a high level), OUTPUT1 remains Off (effectively Off). After input 3 detects the engine has been Off for 1 minute, restarting the engine requires swiping the authorized RFID again. For details on RFID authorization, please refer to commands D10 through D15.
Example	
GPRS Transmission Content	@@T27,353358017784062,A17,1*D3\r\n
GPRS Settings Response	$$T28,353358017784062,A17,OK*05\r\n

3.9 Setting GPRS Parameters – A21

GPRS Settings Method	A21, Connection Mode, IP Address, Port, APN, APN Login Name, APN Password
GPRS Settings Response	A21,OK
Note	Connection Mode=0, Disable GPRS function; Connection Mode=1, Enable GPRS function and use TCP/IP reporting mode; Connection Mode=2, Enable GPRS function and use UDP reporting mode. IP Address: IP address or domain name, up to 32 bytes. Port: up to 5 digits; APN / APN Login Name, APN Password: each up to 32 bytes in length; Leave blank if username and password are not required.
Example	
GPRS Transmission Content	@@H58,353358017784062,A21,1,server.meigps.com,8800,CMNET,,*A0
GPRS Settings Response	$$H28,353358017784062,A21,OK*F4\r\n

3.10 Setting the DNS Server IP Address – A22

GPRS Settings Method	A22, DNS Server IP
GPRS Settings Response	A22,OK
Note	If the device cannot report GPRS data to the server correctly using the A21 command, the DNS server IP may be incorrect. You can use this command to set the DNS server IP (please verify your DNS server IP with your domain provider), then use the A21 command again to reset the domain name. DNS Server IP: Up to 16 bytes.
Example	
GPRS Transmission Content	@@K38,353358017784062,A22,75.127.67.90*FD\r\n
GPRS Settings Response	$$K28,353358017784062,A22,OK*F8\r\n

3.11 Setting the Standby GPRS Server – A23

GPRS Settings Method	A23, IP Address, Port
GPRS Settings Response	A23,OK
Note	IP: Up to 32 bytes Port: Up to 5 digits If the device fails to send data to the server configured by the A21 command, it will automatically send to the standby server to prevent data loss.
Example	
GPRS Transmission Content	@@S44,353358017784062,A23,182.92.69.175,8800*35\r\n
GPRS Settings Response	$$S28,353358017784062,A23,OK*01\r\n

3.12 Setting the IP3 Parameter – A25

GPRS Settings Method	A25,1,67.203.13.26,8800
GPRS Settings Response	A25,OK
Note	Connection Mode: TCP LONG mode is recommended. 0 = Off (default) 1 = TCP LONG 2 = UDP 3 = TCP SHORT (currently unsupported) "IP Address" must be an IP address or domain name, up to 32 characters. "Port" must be the port number to connect to, in decimal format, range: 2 to 65534. "APN Name", "APN Username", and "APN Password" each support up to 32 characters; refer to the APN configuration instructions provided by local carriers. Parameters to be modified: parameters preceding this parameter must not be empty; parameters following this parameter will remain unchanged if no comma is appended; to clear parameters following this parameter, a comma must be appended; for any parameter modification, after receiving 'Setting Successful', the GPRS connection must be re-established; individual parameters cannot be set independently.
Example	
GPRS Transmission Content	@@H48,353358017784062,A25,1,67.203.13.26,8800,,,*C9
GPRS Settings Response	$$H28,353358017784062,A25,OK*F4\r\n

3.13 Setting Roaming Fixed Interval – A55

GPRS Settings Method	A50,1234456
GPRS Settings Response	A55,OK

Note	Mode=4 (T1+T2+T3+T4): in this mode, T1 represents the fixed time interval parameter when Acc is On in non-roaming; T2 represents the fixed time interval parameter when Acc is Off in non-roaming; T3 represents the fixed time interval parameter when Acc is On in roaming; and T4 represents the fixed time interval parameter when Acc is Off in roaming. 3. After setting the GPRS fixed time interval parameters using A55, the terminal will respond with the configured GPRS fixed time interval parameters. If A55 is sent without parameters, it will read the terminal's current GPRS fixed time interval parameters.
Example	
GPRS Transmission Content	
GPRS Settings Response	

3.14 Reading All Authorized Phone Numbers – A70

GPRS Settings Method	A70
GPRS Settings Response	A70, SOS Emergency Number 1, SOS Emergency Number 2, SOS Emergency Number 3, Monitoring Number 1, Monitoring Number 2
Note	Reading All Authorized Phone Numbers
Example	
GPRS Transmission Content	@@T25, 353358017784062,A70*93\r\n
GPRS Settings Response	$$T85,353358017784062,A70,13811111111,13822222222,13833333333,13844444444,13855555555*21\r\n

3.15 Setting Authorized Phone Numbers – A71

GPRS Settings Method	A71, Function Number 1, Function Number 2, Function Number 3
GPRS Settings Response	A71,OK
Note	Function Number: Maximum length of 16 bytes. If a function number is not set, it remains empty (default is empty). To cancel a function number, commas must be retained. For example: A71,,,
Example	
GPRS Transmission Content	@@U61,353358017784062,A71,13811111111,13822222222,13833333333*7D\r\n
GPRS Settings Response	$$U28,353358017784062,A71,OK*06\r\n

3.16 Setting Listen-in Phone Numbers – A72

GPRS Settings Method	A72, Monitoring Number 1, Monitoring Number 2

GPRS Settings Response	A72,OK
Note	When a configured monitoring number calls the device, the call will be automatically answered and enter monitoring mode; the device will not emit any sound. Numbers: Up to two monitoring numbers can be set, each up to 16 digits. If no number is set, the field remains empty (default is empty). If the number field is left blank and the comma is retained, the number at the corresponding position will be deleted.
Example	
GPRS Transmission Content	@@V49,353358017784062,A72,13844444444,13855555555*55\r\n
GPRS Settings Response	$$V28,353358017784062,A72,OK*08\r\n

3.17 Setting the Smart Sleep Mode – A73

GPRS Settings Method	A73, Sleep Level
GPRS Settings Response	A73,OK
Note	Configure the terminal to automatically enter Smart Sleep Mode when idle. Sleep Level = 0, disables sleep mode (default setting). Sleep Level = 1, normal sleep; the GSM Module remains continuously active while the GPS intermittently enters sleep. Normal sleep extends battery life by approximately 25% compared to standard operating mode. Note: This mode is not recommended for customers using timed tracking with short intervals, as it may compromise track completeness. Sleep level = 2, deep sleep; If the device remains inactive for 5 minutes, the GPS module will be turned off and the GSM module will enter sleep mode. Upon any activation, both the GPS and GSM modules will be awakened, and the above cycle will repeat. Heartbeat events occur only during deep sleep, with a default upload interval of one heartbeat event per hour. Activation actions include: SOS status changes, internal/external battery low voltage, external power supply status changes, GPS antenna disconnection, trailer detection, high/low temperature alerts, fuel theft, vehicle theft, ACC ON, any input port (button) changes, vibration, incoming calls, received SMS, calls, and heartbeat events (GPS is not activated when awakened by heartbeat).
Example	
GPRS Transmission Content	@@W27,353358017784062,A73,2*D9\r\n
GPRS Settings Response	$$W28,353358017784062,A73,OK*0A\r\n

3.18 SIM Card Balance Query – A75

GPRS Settings Method	A75,*120#
GPRS Settings Response	A75,OK
Note	01 Supports three query response methods: USSD commands, calls (voice menus not

	supported), and SMS. 02 Parameters are not saved; query command: 1). Type indicates the service type: USSD, CALL, or SMS; lowercase letters are converted to uppercase before processing. 2). Code specifies the USSD command code for balance inquiry. 3). Num specifies the phone number. 4). Content is used only for SMS query content. 5). Ussd code contains only the USSD code content for balance inquiry. e.g. A75,*120# <Send USSD balance inquiry; response is directly returned and forwarded to the configured phone number> A75,USSD,*120# <Send USSD balance inquiry; response is directly returned and forwarded to the configured phone number> A75,CALL,1008611 <Call for inquiry; parsed the same as SMS query> A75,CALL,10010111 <Call for inquiry; parsed the same as SMS query> A75,SMS,10010,cxye <Send SMS query; decode long SMS in PDU UCS2 format and forward to the platform or configured phone number> 03 Query results are returned to the mobile phone or platform in PDU UCS2 format; the terminal must support long SMS.
Example	
GPRS Transmission Content	@@P27,353358017784062,A75,*120#*D1\r\n
GPRS Settings Response	$$P28,353358017784062,A75,Saldo 37,71kr. Kortet giltigt till 2014-07-03. Basprislista 1,99kr/min till alla och sms 0,99 kr*03\r\n

3.19 Obtain Time Calibration from Server – A82

GPRS Settings Method	A82,1
GPRS Settings Response	A82,OK
Note	01 X=1: Indicates a request to obtain time from the server 02 Time: When the server receives the A82 command with X=1, it responds with the current UTC Time in decimal characters. For example, for April 19, 2016, 09:36:30, it sends: 160419093630 Note: This command is issued proactively by the server; the terminal automatically updates its time upon receipt.
Example	
GPRS Transmission Content	@@V27,353358017784062,A82,1*D5\r\n
GPRS Settings Response	$$S28,353358017784062,A82,160419093630*FE\r\n

3.20 Setting the Unit of the GPRS Data Interval – A84

GPRS Settings Method	A84,1
GPRS Settings Response	A84,OK
Note	01 X=1: Indicates a request to obtain time from the server

	02 Time: When the server receives the A82 command with X=1, it responds with the current UTC Time in decimal characters. For example, for April 19, 2016, 09:36:30, it sends: 160419093630 Note: This command is issued proactively by the server; the terminal automatically updates its time upon receipt.
Example	
GPRS Transmission Content	@@P27,353358017784062,A84,1*D1\r\n
GPRS Settings Response	$$P28,353358017784062,A84,OK*03\r\n

3.21 Real-Time Audio and Video Transmission Request – A9A

GPRS Settings Method	A9A, Structure information
GPRS Settings Response	A9A,OK

Note	The structure information definition for the Real-Time Audio and Video Transmission Request is as follows:
	typedef struct _live_media_request
	{
	BYTE ip_len; // Length of the server IP address
	BYTE ip_addr[64]; // IP address, maximum length 64 bytes
	WORD tcp_port; // TCP port, Big-endian Format
	WORD udp_port; // UDP port, Big-endian Format
	BYTE chn; // Logical Channel Number
	BYTE data_type; // Data Type: 0 - Audio and Video, 1 - Video, 2 - Two-way Intercom
	// 3 - Monitoring, 4 - Central Broadcast (Reserved, not yet implemented), 5 - Transparent Transmission
	BYTE stream_type; // Data Stream Type: 0 - Primary stream, 1 - Sub-stream
	
	}
	
	Logical Channel Number: 1-64 are Audio and Video Channel Numbers, 129 is the Intercom Channel Number, 65-128 are Monitoring Channel Numbers;
	Upon receiving the A9A Transmitting Audio and Video Data in Real Time request, the terminal establishes a real-time audio and video data transmission connection for the channel and sends audio and video data using the following data format (no platform response required).
	Format:
	Start Byte Field Data Type Description and Requirements
	0 Frame Header Flag BYTE Fixed at 0x12
	1 m_pt BYTE Payload Type Flag Value
	m_pt (1 BYTE) = Payload Type (bits 7 to 1) + Flag Bit (bit 0)
	Payload Type (7 bits): H264 is 98, H265 is 99, Audio (G.726le) is

8,

Audio (G.711A) is 6, Audio (AAC) is 19, GPS Data is 45,

Audio (G.726) is 46

Flag Bit (1 bit): Set to 1 if this is the last packet of a frame; otherwise, set to 0.

For example:

If the payload is audio, this value is 0x11;

If the payload is H264 video and this packet is the last packet of the video frame, this value is 0xC5,

Otherwise, the value is 0xC4;

If the payload is H265 video and this packet is the last packet of the video frame, the value is 0xC7,

Otherwise, the value is 0xC6;

If the payload is G726le audio data, the value is 0x11.

If the payload is G711A audio data, the value is 0x0D.

If the payload is GPS data from playback files, the value is 0x5B.

If the payload is G726 audio data, the value is 0x5D.

2 Packet sequence number WORD, initially 0; incremented by 1 for each RTP packet sent, in Big-endian Format.

4 IMEI number BCD[8], representing the terminal device's IMEI number.

12 Logical Channel Number BYTE; values 1-64 represent audio and video channel numbers, 129 represents the intercom channel number.

65-128 are the monitoring channel numbers.

13 Data Type 4BITS 0000: Video I-frame

0001: Video P-frame

0010: Video B-frame

0011: Audio frame

0100: Transparent data

Packet segmentation flag 4BITS 0000: Atomic packet, cannot be split

0001: First packet in packet segmentation

0010: Last packet in packet segmentation

0011: Middle packet in packet segmentation

14 Timestamp BYTE[8] Indicates the relative time of this RTP data packet, in

	milliseconds (ms). When the data type is 0100, this field is 0, in Big-endian Format. 22 Previous I-frame interval WORD The time interval between this frame and the previous I-frame, in milliseconds (ms). When the data type is not a video frame, this field shall be 0, in Big-endian Format. 24 Previous Frame Interval Time WORD The time interval between this frame and the previous frame, in milliseconds (ms). When the data type is not a video frame, this field shall be 0, in Big-endian Format. 26 Data Body Length WORD Length of the audio and video data, in Big-endian Format. 28 Data Body BYTE[n] Audio and video data (length not exceeding 950 bytes).
Example	
GPRS Transmission Content	40 40 6A 34 36 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 39 41 2C 0C 36 37 2E 32 30 33 2E 31 33 2E 32 36 69 75 00 00 01 00 01 2A 30 46 0D 0A
GPRS Settings Response	$$j28,861585040710269,A9A,OK*2D

3.22 Real-Time Audio and Video Transmission Request – A9B

GPRS Settings Method	A9B, Structure information
GPRS Settings Response	A9B,OK

Note	01 Structure Information is defined as follows:
	typedef struct
	{
	BYTE logiChn // Logical Channel Number
	
	BYTE controlCmd; // Control Command: the platform can control the device's real-time audio and video via this command.
	// 0: Off audio and video transmission command
	// 1: Switch data stream
	// 2: Pause sending all streams on this channel
	// 3: Resume sending streams prior to pause, consistent with the stream types before pause.
	//4: Disable Two-way Intercom
	BYTE closeAVtype; //Type of audio and video to disable
	//0: Disable all audio and video data related to this channel
	//1: Disable only the audio related to this channel, retain the related video
	//2: Disable only the video related to this channel, retain the related audio
	BYTE switchCodetype; //Switch stream type: switch the previously requested stream to the newly requested stream; audio remains unchanged before and after switching.

	//换前保持一致。
	//Newly requested stream types: 0: Primary stream 1: Sub-stream
	}

Example	
GPRS Transmission Content	40 40 41 33 30 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 39 42 2C 01 00 00 01 2A 39 45 0D 0A
GPRS Settings Response	$$A28,861585040710269,A9B,OK*05

3.23 Transmitting Audio and Video Data in Real Time – A9C

GPRS Settings Method	A9C, Structure information
GPRS Settings Response	A9C,OK

Note	Query Structure Information is defined as follows:
	typedef struct
	{
	WORD alarmNum; //Number of alarms; when zero, it indicates Select All; little-endian format
	WORD alarmCode[alarmNum]; //Alarm event number (Serial Number of EEPID Alarm Event Number); little-endian format
	}ExAlarmCode;
	typedef struct
	{
	BYTE logiChn; // Channel Number
	BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS, all zeros indicate no start time condition
	BYTE t_end[6]; // End Time, YY-MM-DD-HH-MM-SS, all zeros indicate no end time condition
	BYTE alarm_flag[8]; // Reserved Field, default all zeros
	BYTE srcAVtype; // Audio and Video Resource Type: 0 - Audio and Video, 1 - Audio, 2 - Video, 3 - Video
	// or Audio and Video
	BYTE streamtype; // Stream Type: 0 - All streams, 1 - Primary stream, 2 - Sub-stream
	BYTE captype; // Memory Type: 0 - All memory, 1 - Primary memory, 2 - Disaster recovery storage
	ExAlarmCode code; // Alarm Event Structure
	}
	02 Response Structure Information:
	typedef struct
	{
	BYTE logiChn; // Channel Number
	BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS

	BYTE t_end[6]; // End time, YY-MM-DD-HH-MM-SS
	BYTE alarm_flag[8]; // Alarm number (Serial number of EEPID Alarm Event Number)
	// Byte 0–5: Reserved
	// Byte 6–7: Corresponding Meitrack evencode, Big-endian format
	BYTE srcAVtype; // Audio and Video Resource Type: 0 = Audio and Video, 1 = Audio, 2 = Video, 3 = Video or Audio and Video
	BYTE streamtype; // Stream Type: 0 - All streams, 1 - Primary stream, 2 - Sub-stream
	BYTE captype; // Memory Type: 0 - All memory, 1 - Primary memory, 2 - Disaster recovery storage
	DWORD fileLen; // File size in bytes, Big-endian format
	}
	typedef struct
	{
	DWORD Number; // Total number of audio and video resources N, Big-endian format
	ReplyMsg_t Src[Number]; //
	};

Example	
GPRS Transmission Content	40 40 54 35 32 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 39 43 2C 00 19 08 03 00 00 00 19 08 03 23 59 59 00 00 00 00 00 00 00 00 00 00 00 00 00 2A 44 31 0D 0A
GPRS Settings Response	$Q2438,861585040710269,A9C, Resource File Structure

3.24 Remote Video Playback Request – A9D

GPRS Settings Method	A9D, Structure information
GPRS Settings Response	A9D,OK

Note	Structure information is defined as follows:
	typedef struct _PlayBackrequest
	{
	BYTE ip_len;
	BYTE ip_addr[64]; // Maximum 64 bytes
	WORD tcp_port; // Big-endian format
	WORD udp_port; // Big-endian format
	BYTE logiChn; // Logical Channel Number
	BYTE avType; // Audio and Video Resource Type: 0 = Audio and Video, 1 = Audio, 2 = Video, 3 = Video or Audio and Video
	BYTE streamType; // Stream type: 0 - Primary stream or Sub-stream; 1 - Primary stream; 2 - Sub-stream. If this channel only
	// transmits audio, this field shall be set to 0.
	BYTE capType; // Memory Type: 0 - All memory; 1 - Primary memory; 2 - Disaster

	recovery storage.
	BYTE reviewStyle; // Playback Mode: 0 - Normal Playback; 1 - Fast-forward playback (Reserved).
	// 2 - Keyframe rewind playback (Reserved).
	// 3 - Keyframe Playback (Reserved); 4 - Single-frame Upload (Reserved).
	BYTE viewRank; // Fast-forward or rewind multiplier. This field is valid when Playback Mode is 1 or 2; otherwise, set to 0.
	//0: Invalid 1: 1x 2: 2x 3: 3x 4: 8x 5: 16x
	//(Reserved, default is 0)
	BYTE t_start[6]; //Start time, YY-MM-DD-HH-MM-SS
	//When playback mode is 4, this field specifies the single-frame upload time
	BYTE t_end[6]; //End time, YY-MM-DD-HH-MM-SS; 0 indicates continuous playback. When playback mode is 4,
	//this field is invalid
	}
	
	Upon receiving the remote playing back videos request (handled identically to command A9A), the terminal establishes a real-time audio and video data transmission channel (defaulting to TCP connection; UDP is currently unsupported) and transmits audio and video data using the same format as the A9A real-time audio and video request (no platform acknowledgment required), thereby enabling audio and video playback functionality.

Example	
GPRS Transmission Content	40 40 52 36 31 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 39 44 2C 0C 36 37 2E 32 30 33 2E 31 33 2E 32 36 69 74 00 00 04 03 00 00 00 00 19 08 03 10 17 02 19 08 03 10 23 17 2A 42 36 0D 0A
GPRS Settings Response	$$R28,861585040710269,A9D,OK*18

3.25 Remote Video Playback Control – A9E

GPRS Settings Method	A9E, Structure information
GPRS Settings Response	A9E,OK

Note	Structure information is defined as follows:
	typedef struct _PlayBack_control
	{
	BYTE chn; //Channel Number
	BYTE reviewControl; //Playback Control: 0 – Start Playback (Reserved); 1 – Pause Playback (Reserved); 2 – Stop Playback
	//3 – Fast-forward Playback (Reserved)
	//4 – Keyframe Rewind Playback

	(Reserved); 5 – Drag Playback; 6 – Keyframe Playback (Reserved)
	BYTE viewRank; //Fast-forward or rewind multiplier; valid only when playback control is 3 or 4, otherwise set to 0.
	//0 – Invalid; 1 – 1x; 2 – 2x; 3 – 3x; 4 – 8x; 5 – 16x
	//(Reserved, default is 0)
	BYTE dragPoint[6]; //Drag Playback Location in format YY-MM-DD-HH-MM-SS; valid when playback control is 5
	}

Example	
GPRS Transmission Content	40 40 6D 33 35 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 39 45 2C 04 02 00 00 00 00 00 00 00 2A 44 36 0D 0A
GPRS Settings Response	$$m28,861585040710269,A9E,OK*34

3.26 File Upload Request – A9F

GPRS Settings Method	A9F, Structure information
GPRS Settings Response	A9F,OK

Note	Structure information is defined as follows:
	typedef struct
	{
	WORD alarmNum; // Number of alarms, Little-endian format
	WORD alarmCode[alarmNum]; // Alarm number (Serial Number of EEPID Alarm Event Number), Little-endian format
	}ExAlarmCode;
	typedef struct _term_upload_src_list
	{
	BYTE IPLen; // Server address length
	BYTE IP[64]; // FTP server address, maximum 64 bytes
	WORD PORT; // FTP server port, Big-endian format
	BYTE UserLen; // Username length
	BYTE User[64]; // Username, maximum 64 bytes
	BYTE PWLen; // Password length
	BYTE PW[64]; // Password, maximum 64 bytes
	BYTE FilePathLen; // File upload path length
	BYTE FilePath[256]; // File upload path, maximum 256 bytes
	BYTE logiChn; // Channel Number
	BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS
	BYTE t_end[6]; // End time, YY-MM-DD-HH-MM-SS
	BYTE alarm_flag[8]; // Reserved field, default all 0xFF
	BYTE srcAVtype; // Audio and Video Resource Type: 0 - Audio and Video, 1 - Audio, 2 - Video
	// 3 - Video or Audio and Video
	BYTE streamtype; // Stream Type: 0 - All streams, 1 - Primary stream, 2 - Sub-

	stream
	BYTE captype; // Storage Location: 0 - All memories, 1 - Primary memory, 2 - Disaster recovery storage
	BYTE Execute; // Task execution conditions represented by bit flags:
	// Bit 0: WIFI; set to 1 to allow download over WIFI;
	// Bit 1: LAN; set to 1 to allow download over LAN connection;
	// Bit 2: 3G/4G; set to 1 to allow download over 3G/4G connection
	
	ExAlarmCode code; // Alarm event number (omit if number of alarms is zero)
	}
	
	06 File Upload Response structure definition is as follows:
	
	typedef struct
	{
	BYTE logiChn; // Channel Number
	BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS
	BYTE t_end[6]; // End time, YY-MM-DD-HH-MM-SS
	BYTE alarm_flag[8]; // Alarm number (Serial number of EEPID Alarm Event Number)
	BYTE srcAVtype; // Audio and Video Resource Type: 0 - Audio and Video, 1 - Audio, 2 - Video, 3 - Video or Audio and Video
	BYTE streamtype; // Stream Type: 0 - All streams, 1 - Primary stream, 2 - Sub-stream
	
	BYTE captype; // Memory Type: 0 - All memories, 1 - Primary memory, 2 - Disaster recovery storage
	DWORD FileLen; // File size in bytes, Big-endian format
	} ReplyMsg_t;
	
	typedef struct _term_upload_reply
	{
	BYTE flag; // OK / Error Code
	// When an error code is present, the following file information structure is empty
	DWORD Number; // Total number of audio and video resources N, in Little-endian format
	FileMsg_t FileSrc[N]; // Uploaded file information
	} term_upload_reply_t;

Example	
GPRS Transmission Content	40 40 71 39 39 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 39 46 2C 0C 36 37 2E 32 30 33 2E 31 33 2E 34 33 26 94 08 4D 44 56 52 74 65 73 74 06 31 32 33

	34 35 36 10 30 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 04 19 08 03 10 17 02 19 08 03 10 23 17 FF FF FF FF FF FF FF FF 00 00 00 07 2A 34 34 0D 0A
GPRS Settings Response	$$q59,861585040710269,A9F,OK

3.27 Controlling File Uploading – AA0

GPRS Settings Method	AA0, Structure information
GPRS Settings Response	AA0,OK

Note	Structure Information Definition is as follows:
	typedef struct _term_upload_src_list
	{
	BYTE Flag; // Upload control
	// 0: Pause (Reserved)
	// 1: Continue (Reserved)
	//2: Cancel
	BYTE FileName[128]; // File name of the file to be uploaded under control
	}

Example	
GPRS Transmission Content	40 40 59 37 38 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 41 30 2C 02 43 48 34 5F 32 30 31 39 30 38 30 33 31 30 31 37 30 32 5F 32 30 31 39 30 38 30 33 31 30 32 33 31 37 5F 30 5F 30 5F 31 5F 31 5F 4E 4F 52 2E 61 76 6D 73 67 2A 39 34 0D 0A
GPRS Settings Response	$$Y28,861585040710269,AA0,OK*13

3.28 Obtaining the Wi-Fi List – AA1

GPRS Settings Method	
GPRS Settings Response	AA1,OK

Note	Obtain information of nearby Wi-Fi hotspots;
	Wi-Fi list structure information is defined as follows: typedef struct _term_upload_src_list
	{
	byte Cnt; // Total quantity n of obtained Wi-Fi networks
	byte SSID1_Type; // SSID format: 0 = Unicode, 1 = ASCII
	byte SSID1_Len; // Length of SSID
	byte SSID1[]; // SSID, length determined by SSID1_Len
	byte SSID1_Rssi; // Signal strength of SSID; higher values indicate better signal; range: 0~100
	…
	byte SSIDn_Type; // SSID format: 0 = Unicode, 1 = ASCII
	byte SSIDn_Len; // Length of SSID
	byte SSIDn[]; // SSID, length determined by SSID1_Len
	byte SSIDn_Rssi; // Signal strength of SSID; higher values indicate better signal; range: 0~100

	}
Example	
GPRS Transmission Content	40 40 77 32 35 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 41 31 2A 41 31 0D 0A
GPRS Settings Response	$$w485,861585040710269,AA1,Meitrack_YanFa

3.29 Sending the FTP File Upload Progress – AA2

GPRS Settings Method	AA2, Structure information
GPRS Settings Response	AA2,OK

Note	The structure definition for Sending the FTP File Upload Progress is as follows: typedef struct
	{
	BYTE Percent; // Indicates the upload progress percentage, range: 0–100
	BYTE FileName[128]; // File name
	}
	When an FTP file is being uploaded, the terminal proactively sends the current FTP file upload progress to the platform

Example	
GPRS Transmission Content	None
GPRS Settings Response	$$a155,861585040710269,AA2,CH4_20190803101702_20190803102317_0_0_1_1_NOR.avmsg

3.30 Obtaining MDVR Network Status – AA3

GPRS Settings Method	AA3
GPRS Settings Response	AA3, Network Status Structure Information

Note	Structure information is defined as follows:
	Typedef struct
	{
	byte CurUser; // Current network in use: 0 = None; 1 = GSM; 2 = WIFI;
	// 3：LAN
	byte GSM_Status; // 0 = Not found; 1 = Normal; 2 = Abnormal
	byte GSM_Simcard_Ready; // 0:Not Ready 1:Ready
	byte GSM_SimcardNum[16]; // SIM card number
	byte GSM_SimcardIMSI[16]; // imsi
	byte GSM_Type; // 0 = Not registered; 1 = 2G; 2 = 3G; 3 = 4G
	byte GSM_CSQ; // Signal strength, maximum value 31
	byte GSM_IMEI[16];
	byte GSM_Connect; // 0 = Not dialed; 1 = Dialing; 2 = Dial

	successful
	// 3: Dial-up failure
	byte WIFI_Status; // 0 = Not found; 1 = Normal; 2 = Abnormal
	byte WIFI_Mode; // 0:AP 1:Station
	byte WIFI_SSID[128]; // Unicode encoding, Big-endian Format
	byte WIFI_Rssi; // WiFi signal strength, valid only in Station Mode
	byte WIFI_IP[15]; // WiFi IP address
	byte WIFI_Mac[6]; // WiFi MAC Address
	byte WIFI_SubnetMask[15]; // Subnet Mask Settings
	byte WIFI_DefaultGateway[15]; // Gateway Settings
	byte WIFI_PrimaryDNSServer[15]; // Primary DNS Server Settings
	byte WIFI_SecondaryDNSServer[15]; // Backup DNS Server Settings
	
	byte LAN_Status; // 0: Not found 1: Normal 2: Abnormal
	byte LAN _IP[15]; // LAN IP address
	byte LAN _Mac[6]; // LAN MAC Address
	byte LAN _SubnetMast[15]; // Subnet Mask Settings
	byte LAN_DefaultGateway[15]; // Gateway Settings
	byte LAN_PrimaryDNSServer[15]; // Primary DNS Server Settings
	byte LAN_SecondaryDNSServer[15]; // Backup DNS Server Settings
	}

Example	
GPRS Transmission Content	40 40 70 32 35 2C 38 36 31 35 38 35 30 34 30 37 31 30 32 36 39 2C 41 41 33 2A 39 43 0D 0A
GPRS Settings Response	$p374,861585040710269,AA3, Network Status Structure Information

3.31 Querying the Storage Dates of Video Files – AA4

GPRS Settings Method	AA4[,YYMM]
GPRS Settings Response	AA4, Structure Information

Note	01 Query the terminal for the dates on which video files are stored, marking them with different colors or fonts; days with alarm recordings are marked in red.
	02 The platform automatically issues the AA4 command when opening the video retrieval and playback interface. If the command is issued without the YYMM parameter, it retrieves all dates with stored video files on the terminal. If the YYMM parameter is included, it retrieves the dates with stored video files for the specified year and month.
	03 The structure information is defined as follows:
	typedef struct MediaRecInfo_S
	{
	BYTE YYMM[2]; // Year and month in BCD code; for example, June 2009 is represented as 0906.

	DWORD mediaRecFlag; // Flags the days of the month with media recordings; Little-endian format.
	// Bits 0 to 30 represent the 1st to 31st day of the month respectively; bit 31 is reserved.
	// A bit set to 1 indicates that recording exists for that day; otherwise, none.
	DWORD alarmRecFlag; // Flags indicating which days of the month have alarm media records; Little-endian format.
	// Bits 0 to 30 represent the 1st to 31st day of the month respectively; bit 31 is reserved.
	// A bit set to 1 indicates that alarm recording exists for that day; otherwise, none.
	}
	MediaRecInfo_S stMediaRecInfo[N];
	N: The terminal increments N when querying recordings across different months. For example, if recordings are found in January and March 2019, then N equals 2.

Example	
GPRS Transmission Content	@@V27,353358017784062,AA4,0906*D5\r\nS
GPRS Settings Response	$S28,353358017784062,AA4,Structure Information*FE\r\n

3.32 RTMP Transmitting Audio and Video Data in Real Time Request (GPRS) – AB2

GPRS Settings Method	AB2, Transmitting Audio and Video Data in Real Time Request Structure
GPRS Settings Response	AB2,OK<Error Code>

Note	The structure information definition for the Real-Time Audio and Video Transmission Request is as follows:
	typedef struct _live_media_request
	{
	BYTE rtmp_upload_len; // Length of the RTMP uplink address
	BYTE rtmp_upload_addr[256]; // RTMP uplink address
	BYTE chn; // Logical Channel Number
	BYTE data_type; // Data Type: 0 - Audio and Video, 1 - Video, 2 - Two-way Intercom
	// 3: Listen 4: Central broadcast (Reserved, not yet implemented) 5: Transparent transmission
	BYTE stream_type; // Data Stream Type: 0 - Primary stream, 1 - Sub-stream
	BYTE rtmp_down_len; // Length of the RTMP downlink address; present only when data_type = 2
	BYTE rtmp_down_addr[256]; // RTMP downlink address; present only when data_type = 2

	} Logical Channel Number: 1-64 are Audio and Video Channel Numbers, 129 is the Intercom Channel Number, 65-128 are Monitoring Channel Numbers; Upon receiving the AB2 Transmitting Audio and Video Data in Real Time request, the terminal establishes a real-time audio and video data transmission connection for the channel and streams via RTMP.
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.33 RTMP Audio and Video Real-Time Transmission Control (GPRS) – AB3

GPRS Settings Method	AB3, Structure Information
GPRS Settings Response	AB3, OK <Error Code>

Note	The definition of structure 01 is as follows:
	typedef struct
	{
	BYTE logiChn // Logical Channel Number
	BYTE controlCmd; // Control Command: the platform can control the device's real-time audio and video via this command.
	//0: Turn off audio and video transmission command
	//1: Switch data stream
	//2: Pause sending all streams on this channel (Reserved, not yet implemented)
	//3: Resume sending streams prior to pause, consistent with the stream type before pause (Reserved, not yet implemented)
	//4: Turn off two-way intercom
	BYTE closeAVtype; // Audio and video off type
	//0: Turn off audio and video data related to this channel
	//1: Turn off only audio related to this channel, retain related video (Reserved, not yet implemented)
	//2: Turn off only video related to this channel, retain related audio (Reserved, not yet implemented)
	BYTE switchCodetype; //Switch stream type: switch the previously requested stream to the newly requested stream; audio remains unchanged before and after switching.
	//换前保持一致。
	//Newly requested stream types: 0: Primary stream 1: Sub-stream
	}

Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.34 RTMP Remote Video Playback Request (GPRS) – AB4

GPRS Settings Method	AB4, Structure Information
GPRS Settings Response	AB4, OK/Error Code

Note	01 Structure Information is defined as follows:
	typedef struct _PlayBackrequest
	{
	BYTE rtmp_len; // Length of the RTMP address
	BYTE rtmp_addr[256]; // RTMP address
	BYTE logiChn; // Logical Channel Number
	BYTE avType; // Audio and Video Resource Type: 0 - Audio and Video; 1 - Audio; 2 - Video; 3 - Video or Audio and Video
	BYTE streamType; // Stream type: 0 - Primary stream or Sub-stream; 1 - Primary stream; 2 - Sub-stream. If this channel only
	// Transmit audio; this field is set to 0
	BYTE capType; // Memory Type: 0 - All memory; 1 - Primary memory; 2 - Disaster recovery storage.
	BYTE reviewStyle; // Playback Mode: 0 - Normal Playback; 1 - Fast-forward playback (Reserved).
	// 2: Keyframe rewind playback (Reserved)
	// 3: Keyframe playback (Reserved); 4: Single-frame upload (Reserved)
	BYTE viewRank; // Fast-forward or rewind multiplier. This field is valid when Playback Mode is 1 or 2; otherwise, set to 0.
	// 0: Invalid; 1: 1x; 2: 2x; 3: 3x; 4: 8x; 5: 16x
	// (Reserved, default value is 0)
	BYTE t_start[6]; // Start time in format YY-MM-DD-HH-MM-SS; when playback mode is 4, this field indicates the single-frame upload time
	BYTE t_end[6]; //End time, YY-MM-DD-HH-MM-SS; 0 indicates continuous playback. When playback mode is 4,
	//This field is invalid
	}
	The data format transmitted by the subordinate device conforms to the RTMP format.

Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.35 RTMP Controlling Remote Video Playback (GPRS) – AB5

GPRS Settings Method	AB5, Structure Information
GPRS Settings Response	AB5, OK/Error Code

Note	01 Structure Information is defined as follows:
	typedef struct _PlayBack_control
	{
	BYTE chn; //Channel Number
	BYTE reviewControl; // Playback control: 0 – Start playback (Reserved), 1 – Pause playback (Reserved), 2 – Stop playback
	//3 – Fast-forward playback (Reserved)
	//4 – Keyframe rewind playback (Reserved), 5 – Drag playback, 6 – Keyframe playback (Reserved)
	BYTE viewRank; // Fast-forward or rewind multiplier, valid only when playback control is 3 or 4; otherwise, set to 0.
	//0 – Invalid, 1 – 1x, 2 – 2x, 3 – 3x, 4 – 8x, 5 – 16x
	//(Reserved, default value is 0)
	BYTE dragPoint[6]; //Drag Playback Location YY-MM-DD-HH-MM-SS; this field is valid when playback control equals 5
	}
	
	Note: There are two methods for implementing platform drag playback: ① When the file is viewed by a single user, first send the stop playback command, then send the playback request command.
	② When the file is viewed by multiple users, a separate drag command is sent.

Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.36 Subpackage Query of the Resource List (GPRS) – AB8

GPRS Settings Method	AB8, Query Structure Information
GPRS Settings Response	AB8, Response Structure Information

Note	01 Query Structure Information is defined as follows:
	typedef stuct
	{
	word MainAlarmCode; //Alarm event number (serial number of EEPID Alarm Event Number), little-endian format
	word subAlarmCode; // Sub-event number; little-endian format
	}Alarm_t;

```
typedef struct
{
  WORD alarmNum;          // Number of alarms; when zero, indicates Select All; little-endian format
  Alarm_t    alarm[alarmNum];   //
}ExAlarmCode;

typedef struct      // Specify the number of packets
{
  WORD    N                    // Specify retrieval of a particular packet, supports up to 100, little-endian format
WORD BUF[N];        // little-endian format
}Appoint_PACK;

typedef struct
{
   BYTE logiChn;      // Channel Number
   BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS, all zeros indicate no start time condition
   BYTE t_end[6];      // End Time, format YY-MM-DD-HH-MM-SS; all zeros indicate no end time condition
   BYTE alarm_flag[8];      // Reserved Field, default all zeros, little-endian format
   BYTE srcAVtype;   // Resource Type: 0 - Audio and Video; 1 - Audio; 2 - Video; 3 - Video
         // or Audio and Video; 4 - Photograph
   BYTE streamtype; // Stream Type: 0 - All streams; 1 - Primary stream; 2 - Sub-stream
   BYTE captype; // Memory Type: 0 - All memory; 1 - Primary memory; 2 - Disaster recovery storage
   ExAlarmCode code;        // Alarm event structure

Appoint_PACK      code2;                  // Specified number of packets to retrieve, used when uploading data with lost packets
}
02 Response Structure Information:
typedef struct

   BYTE logiChn; // Channel Number
   BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS
   BYTE t_end[6]; // End time, YY-MM-DD-HH-MM-SS
   BYTE res[6];                    // Reserved
   WORD    event_code;                  // Corresponding Meitrack evencode, little-endian format
```

	WORD subEventCode; // Small event number, little-endian format
	BYTE srcAVtype; // Resource type: 0 - Audio and Video, 1 - Audio, 2 - Video, 3 - Video or Audio and Video, 4 - Photograph
	BYTE streamtype; // Stream Type: 0 - All streams, 1 - Primary stream, 2 - Sub-stream
	BYTE captype; // Memory type: 0 - All memory, 1 - Primary memory, 2 - Disaster recovery storage
	DWORD fileLen; // File size in bytes, little-endian format
	}ReplyMsg_t ；
	
	typedef struct
	{
	WORD all_pack; // Total number of packets, range 1 to 65535, little-endian format
	WORD cur_pack; Current packet, little-endian format
	DWORD all_file_num; Total number of files, little-endian format
	DWORD Number; // Current number of uploaded files, little-endian format
	
	ReplyMsg_t Src[Number]; //
	};

Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.37 Set Wi-Fi Hotspot Function – ABB

GPRS Settings Method	ABB,X,Y,Z
GPRS Settings Response	ABB, OK/Error Code
Note	01 X: =0 indicates Hotspot Function Off; =1 indicates Hotspot Function On; decimal character 02 Y: Hotspot Name, string format, maximum 64 characters (commas not allowed) 03 Z: Hotspot Password, string format, maximum 32 characters (commas not allowed), minimum 8 characters 04 No parameters indicates a read operation.
Example	
GPRS Transmission Content	ABB,1,asd,123
GPRS Settings Response	ABB,OK

3.38 Set Bluetooth Peripheral (GPRS) – ABD

GPRS Settings Method	ABD, Structure Information
GPRS Settings Response	ABD,OK/Error Code

Note	01 Structure Information is defined as follows:
	typedef struct _PlayBackrequest
	{
	BYTE type; // Setting type: 0 - Set temperature sensor; 1 - Set ibeacon
	
	{ // type: When the type is 1 (i.e., setting ibeacon), this bracketed parameter is not required to be sent
	Byte operation; 0: Add temperature sensor; 1: Upload peripheral with specified MAC; 2: Retrieve temperature and humidity status of specified MAC; 3: Retrieve status of all added peripherals; 4: Set temperature alarm threshold; 5: Set humidity alarm threshold; 6: Set Control Output Loss Sensitivity
	{ // operation: 0 - Add temperature sensor
	BYTE temp_index; // Corresponding ibeacon position to be set
	BYTE upload_flag; // Upload enable flag
	BYTE temp_name[16]; // Pad with zeros if length is insufficient
	BYTE temp_mac[6];
	sint16 temp1_H; // Temperature High Temperature Alarm -40 ~ +60
	sint16 temp1_L; // Temperature Low Temperature Alarm -40 ~ +60
	sint16 humidity_H; // Humidity High Humidity 0 ~ 100
	sint16 humidity_L; // Humidity Low Humidity 0 ~ 100
	}
	
	{ // operation: 1 Upload peripheral device for specified MAC
	BYTE upload_flag; // Upload enable flag
	BYTE temp_mac[6];
	}
	
	{ // operation: 2 Retrieve temperature and humidity status for specified MAC
	BYTE temp_mac[6];
	}
	{ // operation: 3 Retrieve status of all added peripherals
	// Empty
	}
	
	{ // operation: 4 Set temperature alarm threshold
	BYTE temp_mac[6];
	sint16 temp1_H; // Temperature High Temperature Alarm -40 ~ +60
	sint16 temp1_L; // Temperature Low Temperature Alarm -40 ~ +60
	}

{ // operation: 5 Set humidity alarm threshold
BYTE temp_mac[6];
sint16 humidity_H; // Humidity High Humidity 0 ~ 100
sint16 humidity_L; // Humidity Low Humidity 0 ~ 100
}

{ // operation: 6 Set Control Output Loss Sensitivity

word lose_sec; // Unit: seconds 0~65535
byte control_out_type; // bit 0: Loss
// bit 1: Temperature too high
// bit 2: Temperature too low
// bit 3: Humidity too high
// bit 4: Humidity too low

byte control_out; // bit 0: Control Output 1
// bit 1: Control Output 2
}
}

{ // type: When the type is 0, i.e., setting the temperature sensor, the parameters within this bracket do not need to be sent
Byte operation;
0: Add Ibeacon sensor
1: Pause peripheral upload for the specified MAC
2: Retrieve status of the specified MAC
3: Retrieve status of all added peripherals
4: Set Control Output Loss Sensitivity

{ When operation is 0: Add Ibeacon sensor
BYTE ibeacon_index; // The corresponding Ibeacon position to be set
BYTE upload_flag; // Upload enable flag
BYTE ibeacon_name[16]; // Pad with zeros if length is insufficient
BYTE ibeacon_mac[6];
}
{ // operation: 1 Pause peripheral upload for the specified MAC
BYTE upload_flag; // Upload enable flag
BYTE temp_mac[6];
}

{ // operation: 2 Retrieve status of the specified MAC //

	BYTE temp_mac[6];
	}
	
	{ // operation: 3 Retrieve status of all added peripherals
	// Empty
	}
	
	{ // operation: 4 Set Control Output Loss Sensitivity
	word lose_sec; // Unit: seconds (s) Loss alarm time, // Unit: seconds (s) 0~65535
	
	byte control_out_type; // bit 0: Loss
	
	byte control_out; // bit 0: Control Output 1
	// bit 1: Control Output 2
	}
	}

Example	
GPRS Transmission Content	ABD, Structure Information
GPRS Settings Response	ABD,OK

3.39 Set MDVR audio format – AC0

GPRS Settings Method	AC0,X
GPRS Settings Response	AC0, OK/Error Code
Note	01 X: Indicates audio format, decimal character 02 Range: 0-3 or 31 03 X=0, indicates G.711A X=1, indicates G.711U X=2, indicates G.726 X=3, indicates AAC X=31, indicates audio off
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.40 Temperature sensing registration uses Platform or MM – AC9

GPRS Settings Method	AC9,A
GPRS Settings Response	AC9,OK/ERROR
Note	1. Value is 0 or 1; 0 indicates temperature sensing registration uses GPRS (Platform),

	1 indicates temperature sensing registration uses MM
Example	
GPRS Transmission Content	@@P25,5454643146516646,AC9,1*D1\r\n
GPRS Settings Response	$$P24,5454643146516646,AC9,OK*D2\r\n

3.41 Overspeed Control OUT1 – ACB

GPRS Settings Method	ACB,X
GPRS Settings Response	ACB,OK
Note	01. Decimal string 02. X: 1 to enable overspeed control, which disables upon overspeed recovery; 0 to disable this function
Example	
GPRS Transmission Content	ACB,1
GPRS Settings Response	ACB,OK

3.42 Temporarily enable Bluetooth Slave Mode – AD9

GPRS Settings Method	AD9,TIME
GPRS Settings Response	AD9, OK/Error Code
Note	01 TIME: Duration to enable Bluetooth Slave Mode, unit: minutes, range: 1 to 10
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.43 Subpackage Query of the Resource List (New) – ADD

GPRS Settings Method	ADD, Query Structure Information
GPRS Settings Response	ADD, Response Structure Information

Note	01 Query Structure Information is defined as follows:
	typedef stuct
	{
	word MainAlarmCode; //Alarm event number (serial number of EEPID Alarm Event Number), little-endian format
	word subAlarmCode; // Sub-event number; little-endian format
	}Alarm_t;
	typedef struct
	{
	WORD alarmNum; // Number of alarms; when zero, indicates Select All; Little-endian format
	Alarm_t alarm[alarmNum]; //
	}ExAlarmCode;

```
typedef struct      // Specify the number of packets
{
 WORD    N                    // Specify retrieval of a particular packet, supports up to 100, little-endian format
      WORD BUF[N];       // little-endian format
}Appoint_PACK;

typedef struct
{
    DWORD logiChn; // Channel Number: 0 indicates all channels; otherwise, bits 0 to 31 represent channels 1 to 32
    BYTE t_start[6]; // Start time, YY-MM-DD-HH-MM-SS, all zeros indicate no start time condition
    BYTE t_end[6];      // End Time, format YY-MM-DD-HH-MM-SS; all zeros indicate no end time condition
    BYTE alarm_flag[8]; // Reserved field, default all zeros; Little-endian format
    BYTE srcAVtype;   // Resource Type: 0 - Audio and Video; 1 - Audio; 2 - Video; 3 - Video
          // or Audio and Video; 4 - Photograph
    BYTE streamtype; // Stream Type: 0 - All streams; 1 - Primary stream; 2 - Sub-stream
    BYTE captype; // Memory Type: 0 - All memory; 1 - Primary memory; 2 - Disaster recovery storage
    ExAlarmCode code;       // Alarm event structure

     Appoint_PACK      code2;                    // Specified number of packets to retrieve, used when uploading data with lost packets
}
02 Response Structure Information:
typedef struct

    BYTE logiChn; // Channel Number
     BYTE t_start[6]; // Start time, format YY-MM-DD-HH-MM-SS
     BYTE t_end[6]; // End time, format YY-MM-DD-HH-MM-SS
     BYTE res[6];                    // Reserved
     WORD    event_code;                    // Corresponding Meitrack evencode, little-endian format
     WORD    subEventCode;           // Small event number, little-endian format
     BYTE srcAVtype; // Resource Type: 0 = Audio and Video, 1 = Audio, 2 = Video, 3 = Video or Audio and Video, 4 = Photograph
     BYTE streamtype; // Stream Type: 0 - All streams, 1 - Primary stream, 2 - Sub-stream
```

	BYTE captype; // Memory Type: 0 - All memories, 1 - Primary memory, 2 - Disaster recovery storage
	DWORD fileLen; // File size in bytes, little-endian format
	}ReplyMsg_t ；
	
	typedef struct
	{
	WORD all_pack; // Total number of packets, range 1 to 65535, little-endian format
	WORD cur_pack; Current packet, little-endian format
	DWORD all_file_num; Total number of files, little-endian format
	DWORD Number; // Current number of uploaded files; Little-endian format
	
	ReplyMsg_t Src[Number]; //
	};

Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.44 Facial Information Processing – AE3

GPRS Settings Method	AE3,A,B,C[,D1,E1,F1]....[,Dn,En,Fn]
GPRS Settings Response	AE3, OK/ERROR/Response Data
Note	01 A, Control item indicator, decimal character: 0 – Register; 1 – Delete all; 2 – Delete specified entry; 3 – Modify; 4 – Local registration 02 B, Timeout duration, decimal character, unit: minutes, range: 1–255 03 C, Quantity of facial information processed in this operation; decimal character, GPRS Command: can process up to 8 facial information entries per operation; SMS Command: can process up to 1 facial information entry per operation 03 D, Facial ID, UTF-8 encoded, maximum length 64 bytes; special characters not permitted: comma, underscore, etc. 04 E, Facial information, typically an ID card number or professional qualification certificate, encoded in UTF-8, with a maximum length of 64 bytes, equivalent to 128 characters 05 F, denotes an image URL address, formatted as follows: FTP format: ftp://admin:000000@meiligao.org:9870/1234 HTTP format: http://meiligao.org:80/1234 Note: The maximum length for FTP Username, FTP Password, and FTP Address is

	limited to 50 bytes each; FTP Path is limited to 100 bytes. 06 If the command is not a delete command, upon receipt, first respond with OK. After processing is completed or upon timeout, the result must be reported to the platform using the following format. The reply data structure is as follows: A,C[,D1,E1,K1]....[,Dn,En,Kn] Where: K indicates the result status, with values as follows: 0: Success; 1: Image download failed; 2: Image conversion failed; 3: Poor image quality; 4: Storage full failure; 5: Facial recognition function not enabled; 6: Other unknown error.
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.45 Facial Information Registration Query – AE4

GPRS Settings Method	AE4,A1,A2.....An
GPRS Settings Response	AE4,C,D,A1,B1,A2,B2....An,Bn
Note	01 A: Facial ID to query, UTF-8 format, maximum length 64 bytes GPRS Command: Can process up to 8 facial information entries per request; SMS Command: Can process up to 1 facial information entry per request 02 B: Registration result, 0: Registered 1: Not registered 03 C: Total number of packets 04 D: Current packet number, starting from 0; 05 For single-send commands, reply with all registered facial IDs; each packet length controlled within 1 KB; if exceeding 1 KB, send in multiple packets;
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.46 Facial Information Registration Query – AE5

GPRS Settings Method	AE5,A,B
GPRS Settings Response	AE5,OK/ERROR
Note	01 A: 5V output, 0: Disabled 1: Enabled 02 B: 12V output, 0: Disabled 1: Enabled 03 Without parameters indicates a read operation
Example	
GPRS Transmission	None

Content	
GPRS Settings Response	None

3.47 Deleting a GPRS Event in the Buffer – AFF

GPRS Settings Method	AFF, Delete Quantity
GPRS Settings Response	AFF, Remaining Buffer Quantity, Command Type, (−) Latitude, (−) Longitude, Date and Time, Positioning Status, Number of Satellites, GSM Signal Strength, Speed, Direction, Horizontal Positioning Accuracy, Altitude, Mileage, Operating Time, Base Station Information, Input/Output Port Status, Analog Input Port Value
Note	Delete Quantity: Hexadecimal character format, typically 1. Remaining Buffer Quantity: Hexadecimal character format, indicating the total number of events stored in the memory chip. Note: When GPRS mode is UDP, the AFF command must be used to clear each data entry after transmission.
Example	
GPRS Transmission Content	@@h27,353358017784062,AFF,1*0B\r\n
GPRS Settings Response	$$h28,353358017784062,AFF,OK*3D\r\n

3.48 Setting a Geo-Fence – B05

GPRS Settings Method	B05, Fence Serial Number, Latitude, Longitude, Radius, Enter Fence Alarm, Exit Fence Alarm
GPRS Settings Response	B05,OK
Note	Fence Serial Number: Any integer from 1 to 8. A maximum of 8 geo-fences can be configured. Latitude: Latitude of the geo-fence center point, expressed in decimal degrees. Precision must be to 6 decimal places; pad with zeros if necessary, otherwise the command will be rejected. Longitude: Longitude of the geo-fence center point, expressed in decimal degrees. Precision must be to 6 decimal places; pad with zeros if necessary, otherwise the command will be rejected. Radius: Value range [1, 4294967295], unit in meters. A circle is drawn with the specified latitude and longitude as the center and this radius. Geofence entry alarm = 0, disable the geofence entry alarm function. Geofence entry alarm = 1, enable the geofence entry alarm function. Geofence exit alarm = 0, disable the geofence exit alarm function. Geofence exit alarm = 1, enable the geofence exit alarm function.
Example	
GPRS Transmission	@@H57,353358017784062,B05,1,22.913191,114.079882,1000,0,1*96\r\n

Content	
GPRS Settings Response	$$H28,353358017784062,B05,OK*F7\r\n *When the terminal leaves the configured geofence (center point: 22.913191, longitude 114.079882, radius: 1000 meters), it will report a geofence exit alarm GPRS data packet to the server.* *$$J132,353358017784062,AAA,21,22.918046,114.089726,080229123812,A,10,22,12,32,1,21,6667,847,0|0|10133|4110,0000,124|181|183|2714|922,*5A\r\n*

3.49 Deleting a Geo-Fence – B06

GPRS Settings Method	B06, Geofence Serial Number
GPRS Settings Response	B06,OK
Note	Geofence Serial Number: any number from 1 to 8. Only one geofence can be deleted at a time via SMS or GPRS command.
Example	
GPRS Transmission Content	@@J27,353358017784062,B06,1*C8\r\n
GPRS Settings Response	$$J28,353358017784062,B06,OK*FA\r\n *Upon successful transmission of the above command, the first geofence point will be deleted.*

3.50 Setting the Speeding Alert – B07

GPRS Settings Method	B07, Alert Speed, Buzzer Flag
GPRS Settings Response	B07,OK
Note	Alert Speed = 0, disables the speeding alert function (default value). Alert Speed = value within [1,255], configures the terminal to issue a speeding alert when the driving speed reaches the preset value. Unit: KM/H. Buzzer Flag = 0 indicates the speeding buzzer will sound (default). Buzzer Flag = 1 indicates the speeding buzzer will not sound.
Example	
GPRS Transmission Content	@@P28,353358017784062,B07,60*05\r\n
GPRS Settings Response	$$P28,353358017784062,B07,OK*01\r\n

3.51 Setting the Towing Alert – B08

GPRS Settings Method	B08, Continuous Vibration Time
GPRS Settings Response	B08,OK
Note	If the terminal vibration exceeds the preset threshold, an alert will be sent to the Authorized Number or Server. When using the trailer alarm, the intelligent sleep level must first be set to 2 via command A73; and command B08 must be used to

	set the 'Continuous Vibration Time' value; otherwise, the trailer alarm will not function. Continuous Vibration Time = 0 disables the trailer alarm function (default); Continuous Vibration Time = [1,255] sets the waiting time, in seconds, for continuous vibration to trigger the alarm.
Example	
GPRS Transmission Content	@@I27,353358017784062,B08,3*CB\r\n
GPRS Settings Response	$$I28,353358017784062,B08,OK*FB\r\n *After successfully sending the above GPRS commands, if the terminal vibrates continuously for more than 3 seconds, it will report trailer alarm GPRS data to the server.* *$$K133,353358017784062,AAA,36,22.916675,114.088813,080229123718,A,10,22,61,31,1,21,6635,395,460|0|1013|4110,0000,164|185|181|2712|915,*A2*

3.52 Setting the Vibration Sensitivity – B09

GPRS Settings Method	B09, Sensitivity
GPRS Settings Response	B09,OK
Note	Vibration sensitivity is used to detect stationary movement, waking the device by vibration, and triggering the trailer alarm function. "Sensitivity" minimum value is 1, maximum value is 65535, and cannot be 0. The smaller the value, the higher the sensitivity. Default is "1."
Example	
GPRS Transmission Content	@@I27,353358017784062,B09,1*CA\r\n
GPRS Settings Response	$$I28,353358017784062,B09,OK*FC\r\n

3.53 Fast Setting of the Towing Alert – B10

GPRS Settings Method	B10: Continuous Vibration Time, Power Saving Mode Entry Time
GPRS Settings Response	B10,OK
Note	01 Continuous Vibration Time = 0, disables the towing alert function (default). 02 Continuous Vibration Time = {1,255}, sets the waiting time for the continuous vibration alarm to trigger, in seconds. 03 Power Saving Mode Entry Time = Not set; default enabled time is 2 minutes, with power saving function activated. 04 Power Saving Mode Entry Time = 0, disables power saving mode. 05 Power Saving Mode Entry Time = {1,255}, enables the power saving function; the terminal will enter power saving mode after being idle for the preset time, in minutes.
Example	
GPRS Transmission	@@I29,353358017784062,B10,5,5*29\r\n

Content	
GPRS Settings Response	$$I28,353358017784062,B10,OK*F4\r\n

3.54 Setting a Polygonal Geo-Fence – B11

GPRS Settings Method	B11, Fence ID, Latitude1, Longitude1, Latitude2, Longitude2, ..., LatitudeN, LongitudeN, Entry Alarm, Exit Alarm
GPRS Settings Response	B11,OK
Note	01 Fence ID value range: 1–8 (maximum value varies depending on customization) 02 Latitude with six decimal places precision, e.g., 22.512517 or -22.512517 03 Longitude with six decimal places precision, e.g., 114.057200 or -114.057200 04 Entry alarm value range: 0–1; 0 indicates no alarm on entry, 1 indicates alarm on entry 05 Exit alarm value range: 0–1; 0 indicates no alarm on exit, 1 indicates alarm on exit 06 If the parameter contains only the fence number, it indicates deletion of the corresponding fence. 07 To set a circular fence, send: B11,Fence Number,Latitude,Longitude,Radius (meters),Entry Alarm,Exit Alarm.
Example	
GPRS Transmission Content	@@I59,353358017784062,B11,5,31,22.913458,114.083183,100,1,1*F5\r\n
GPRS Settings Response	$$I28,353358017784062,B11,OK*F5\r\n

3.55 Setting the Idling Alert Parameters – B14

GPRS Settings Method	B14,Speed Duration (seconds),Speed (km/h),Alarm Duration (seconds)
GPRS Settings Response	B14,OK
Note	Speed Duration (seconds): Range 0 to 60000 seconds, default is 180 seconds. Speed (km/h): Range 0 to 200 km/h, default is 5 km/h. Alarm Duration (seconds): Range 0 to 60000 seconds, default is 120 seconds. Omitting parameters indicates reading the current parameter values.
Example	
GPRS Transmission Content	@@I27,353358017784062,B14,180,5,120*AE\r\n
GPRS Settings Response	$$I28,353358017784062,B14,OK*F8\r\n

3.56 Setting Driver Fatigue Parameters – B15

GPRS Settings Method	B15, Continuous Driving Time (minutes), Alarm Time (seconds), Rest Time (minutes)
GPRS Settings Response	B15,OK
Note	Continuous Driving Time range: 0–1000 minutes; default: 240 minutes Alarm Time range: 0–60000 seconds; default: 300 seconds

	Rest Time range: 0–1000 minutes; default: 20 minutes Omitting parameters indicates reading the current parameter values.
Example	
GPRS Transmission Content	@@I27,353358017784062,B15,240,300,20*79\r\n
GPRS Settings Response	$$I28,353358017784062,B15,OK*F9\r\n

3.57 Setting the Speeding Alert Duration – B16

GPRS Settings Method	B16, Speeding Alert Detection Duration, Speeding Recovery Detection Time
GPRS Settings Response	B16,OK
Note	Speeding Alert Detection Duration range: 1–30000 seconds; default: 15 seconds Speeding Recovery Detection Time range: 1–30000 seconds; default: 15 seconds Omitting parameters indicates reading the current parameter values. Speeding Alert Detection Duration: When the speed exceeds the configured speeding alert threshold and the duration surpasses the set time, a speeding alert event will be triggered. Overspeed recovery detection time: When the speed falls below the overspeed alarm threshold and remains so for longer than the configured duration, a vehicle speed recovery event will be triggered.
Example	
GPRS Transmission Content	@@I27,353358017784062,B15,240,300,20*79\r\n
GPRS Settings Response	$$I28,353358017784062,B15,OK*F9\r\n

3.58 Setting the Anti-Theft Function – B21

GPRS Settings Method	B21, Status
GPRS Settings Response	B21,OK
Note	Status=1: Set Anti-theft/Arm (default is 1); Status=0: Cancel Anti-theft/Disarm Note: 1. Anti-theft events can only be generated when the arm status is enabled. 2. When ACC is On, issuing the arm command will activate the immobilization function; 3. The arm alarm function operates independently from input triggers, towing, and other event functions; arming or disarming does not affect the operation of other event functions.
Example	
GPRS Transmission Content	@@C27,353358017784062,B21,1*BE\r\n
GPRS Settings Response	$$C28,353358017784062,B21,OK*F0\r\n

3.59 Setting the Mileage and Speed Calculation Mode – B22

GPRS Settings Method	B22,X
GPRS Settings Response	B22,<K>/<OK>/<Error Code>
Note	01 Speed ratio K: K pulses are counted per 1 km trip. 02 X is a decimal digit; X=0, Use GPS Speed (default is 0). X=n, where X is not 0, and after speed ratio K (K≥3), the mileage meter and speedometer calculate values using pulse signals. X=empty, if X is empty, read the speed ratio K. 03 X=1; Automatically use GPS Speed to calibrate the speed ratio K. System K algorithm: Based on the speed per second and pulse count, calculate the unit pulse distance. Compute the difference between this value and the largest ten unit pulse distances, and the difference between this value and the smallest ten unit pulse distances. Both differences must be less than the reference threshold (3% of these ten unit pulse distance values) to qualify. If ten consecutive values meet this condition, the average of these ten corresponding unit pulse distances is used to calculate the speed ratio K. Upon receiving the calibration command <B22,1>, the terminal's buzzer emits a long beep to indicate entry into calibration mode. If calibration succeeds, the horn sounds twice. Calibration duration is unlimited. The calculation is performed only once; subsequent calculations will not occur unless the state changes to automatic calibration or the K value is zero, triggering recalculation. During the speed ratio K calibration, it is recommended that the vehicle speed exceed 50 km/h and maintain a steady speed. This condition facilitates accurate calculation of the speed ratio K with minimal error. A successful calibration will return the speed ratio K value. 04 X=2: Use the SOS button to manually perform on-site calibration of the speed ratio K. The speed ratio K automatically calibrated using GPS speed is inaccurate; the <B22,2> command can be used to recalibrate. When the vehicle odometer increments, stop the vehicle. Upon receiving the calibration command <B22,2>, the terminal's buzzer emits a long beep to indicate entry into calibration mode, and the green LED remains lit. You may then drive (speed is unrestricted). Once the vehicle has traveled exactly 1 kilometer, stop the vehicle, press the SOS button for 2 seconds, and the horn will sound twice, confirming successful setting of the speed ratio K. If calibration is not completed within 10 minutes, the terminal will automatically exit calibration mode without applying any settings. The LED will turn off, and the speed ratio K value will be reported. 05 X>=3; <B22,K> sets a fixed speed ratio K. Valid range: 3 <= K <= 65535. The default speed ratio K is 0.

	If a discrepancy exists between the vehicle's mileage and the terminal's mileage after a certain journey, the automatically calculated speed ratio K can be manually adjusted. Speed ratio K calibration calculation method: If the vehicle travels a distance L1 after setting the speed ratio K to K1, and the terminal calculates the mileage as L2, then the calibrated speed ratio K = (L2 / L1) × K1. Note: Due to inherent errors in vehicle mileage measurement, this calculation is approximate; therefore, the actual traveled distance should exceed 100 kilometers for the result to be more accurate. This method is not recommended. It is advisable to use the vehicle's odometer speed ratio or to fine-tune the speed ratio K by adjusting the default value slightly, then compare the odometer and speedometer readings to verify accuracy. A response message will be returned for all successful settings. Note: Due to calibration timing constraints, the response to this command may be delayed.
Example	
GPRS Transmission Content	@@V27,353358017784062,B22,1*D5\r\n
GPRS Settings Response	$$S28,353358017784062,B22,OK*FE\r\n

3.60 Restart Device – B25

GPRS Settings Method	B25,X
GPRS Settings Response	B25,OK/<Error Code>
Note	01 External power must remain connected during the device restart process 02 X: Set the watchdog time in minutes, range 1-65535; if this parameter is absent, the device will restart immediately
Example	
GPRS Transmission Content	@@V27,353358017784062,B25,6*D5\r\n
GPRS Settings Response	$$S28,353358017784062,B25,OK*FE\r\n

3.61 Setting Filtering Time of an Input Port – B26

GPRS Settings Method	B26,1:T1,2:T2,.....n:Tn
GPRS Settings Response	B26,OK
Note	n ranges from 1 to 5, representing input ports 1 through 5 Tn is the filtering time, with a range of 0-65535, unit: 10 ms Settings can be applied to multiple or single input ports If no parameter is provided, the filtering time of the input port will be read
Example	

GPRS Transmission Content	@@C30,353358017784062,B26,1:10*58\r\n
GPRS Settings Response	$$C28,353358017784062,B26,OK*F5\r\Sn

3.62 Setting Auto Arming – B27

GPRS Settings Method	B27,X
GPRS Settings Response	B27,OK
Note	x is a numeric character: x=1 to enable automatic arming, x=0 to disable automatic arming Once automatic arming is enabled, the device will automatically arm after entering sleep mode After arming, disarming can be performed via commands or remote control.
Example	
GPRS Transmission Content	@@I27,353358017784062,B27,1*CA\r\n
GPRS Settings Response	$$I28,353358017784062,B27,OK*FC\r\n

3.63 Set Input Port Filtering Duration (New) – B2A

GPRS Settings Method	B2A,1:T1:T2,2:T1:T2,.....N:T1:T2
GPRS Settings Response	B2A,OK
Note	1 N: Input IO port; for example, if input 1 is configured, then N = 1 2 T1 is the trigger filtering time, T2 is the release filtering time; range 0–65536; unit: 10 ms 3 Multiple or single input ports can be configured. 4 Without parameters, the input port filtering duration is read.
Example	
GPRS Transmission Content	B2A,1:6:6
GPRS Settings Response	B2A,OK

3.64 Set Timed Photo Interval – B30

GPRS Settings Method	B30,T
GPRS Settings Response	B30,OK
Note	01: T value range is 0–65535 minutes; 0 indicates no timed photo. 02: Without parameters, the parameter is read.
Example	
GPRS Transmission Content	@@C27,353358017784062,B30,1*BE\r\n
GPRS Settings Response	$$C28,353358017784062,B30,OK*F0\r\n

3.65 Turn Off the LED Indicator – B31

GPRS Settings Method	B31,A
GPRS Settings Response	B31,OK
Note	A=00: Turn on the LED Indicator during terminal operation (default), used to monitor the device status. A=10, Turn off the LED indicator during terminal operation.
Example	
GPRS Transmission Content	@@J28,353358017784062,B31,10*F7\r\n
GPRS Settings Response	$$J28,353358017784062,B31,OK*F8\r\n

3.66 Setting the Sleep Mode of the GPS Module – B32

GPRS Settings Method	B32, Sleep Mode
GPRS Settings Response	B32, OK/<Error Code>
Note	01 When 'Sleep Mode' is set to 0, this function is disabled. 02 When 'Sleep Mode' is set to 1, the GPS module operates for 3 minutes and then turns off for 1 minute, cycling continuously. 03 When 'Sleep Mode' is set to 2, the GPS module operates for 1 minute and then turns off for 2 minutes, cycling continuously. 04 Similar to A73; refer to the description of A73. 05 MT90/T1 and terminals released after 2011-10-01 do not support this command.
Example	
GPRS Transmission Content	@@V27,353358017784062,B32,1*D5\r\n
GPRS Settings Response	@@V27,353358017784062,B32,1*D5\r\n

3.67 Setting the Device Sleep Entry Time – B33

GPRS Settings Method	B33,time
GPRS Settings Response	B31,OK
Note	01 When the 'time' unit is minutes, the maximum value is 255 minutes; 0 means Off. 02 Similar to A73; please refer to the description of A73. 03 The device will enter sleep mode after waiting for X minutes without any trigger. (Default is 5 minutes)
Example	
GPRS Transmission Content	@@J28,353358017784062,B33,10*F9\r\n
GPRS Settings Response	$$J28,353358017784062,B33,OK*FA\r\n

3.68 Setting a Log Interval – B34

GPRS Settings Method	B34, Recording Interval
GPRS Settings Response	B34,OK
Note	Configure the terminal to automatically record tracks to the storage chip at specified intervals when GPS signal is available; no recording occurs when GPS signal is absent. **Recorded data can only be accessed via GPSlog or Meitrack Manager software.** Recording interval = 0 disables the recorder function (default value); Recording interval = [1,65535] sets the recorder's automatic recording interval in seconds.
Example	
GPRS Transmission Content	@@N28,353358017784062,B34,60*03\r\n
GPRS Settings Response	$$N28,353358017784062,B34,OK*FF\r\n

3.69 Setting the SMS Time Zone – B35

GPRS Settings Method	B35, SMS time zone offset in minutes
GPRS Settings Response	B35,OK
Note	The terminal's default time zone is GMT+8. This command is used to modify the SMS report time zone to the local time zone. The time zones for SMS reports and GPRS data packets are independent. Minutes = 0, GMT 0 time zone; Minutes = [-32768, 32767], to set different time zones.
Example	
GPRS Transmission Content	@@O29,353358017784062,B35,480*3C\r\n
GPRS Settings Response	$$O28,353358017784062,B35,OK*01\r\n *After successfully sending the above command, the terminal's SMS time zone will be changed to GMT+8 (China time zone).*

3.70 Setting the GPRS Time Zone – B36

GPRS Settings Method	B36, GPRS data packet time zone offset in minutes
GPRS Settings Response	B36,OK
Note	GPRS data packet time zone offset in minutes = 0, GMT 0 time zone (default); the MS02 platform software will automatically detect the user's time zone. There is no need to change the GPRS time zone; please keep the terminal's default GPRS time zone at 0. Changing it may cause data to be ahead or delayed. GPRS data packet time zone minute value = [-32768, 32767], used to configure different time zones.

Example	
GPRS Transmission Content	@@P29,353358017784062,B36,480*3E\r\n
GPRS Settings Response	$$P28,353358017784062,B36,OK*03\r\n *Upon successful transmission of the above command, the GPRS data packet time zone will be set to GMT+8 (China Standard Time).*

3.71 Disable the automatic sleep function – B37

GPRS Settings Method	B37,X
GPRS Settings Response	B37,OK
Note	The value of X can be 0 or 1; 0 disables the automatic sleep mode. Default is 1. The terminal will automatically enter deep sleep mode when ACC is OFF, the device is stationary, and the external power supply voltage falls below 11.4V or 24.8V.
Example	
GPRS Transmission Content	@@P27,353358017784062,B37,0*D1\r\n
GPRS Settings Response	$$P28,353358017784062,B37,OK*04\r\n

3.72 Set the automatic sleep voltage threshold – B38

GPRS Settings Method	B38,V
GPRS Settings Response	B38,OK
Note	The value of V ranges from 0 to 2400. Voltage = V/10 V Default is 0. The terminal enters sleep mode based on voltage level; the sleep voltage threshold is 11.4V for small vehicles and 24.8V for large vehicles. If no parameter is provided, the command performs a read operation.
Example	
GPRS Transmission Content	@@P29,353358017784062,B39,0*D4\r\n
GPRS Settings Response	$$P28,353358017784062,B39,OK*05\r\n

3.73 Setting the Roaming Table Switching Function – B43

GPRS Settings Method	B43,X
GPRS Settings Response	B43,OK
Note	The value of X can be 0 or 1; 0 disables the roaming table switching function, and 1 enables it. The default value is 0. If no parameter is provided, the command performs a read operation.
Example	
GPRS Transmission	@@P27,353358017784062,B43,1*D1\r\n

Content	
GPRS Settings Response	$$P28,353358017784062,B43,OK*03\r\n

3.74 Determining Vehicle Status by ACC Status – B60

GPRS Settings Method	B60,X
GPRS Settings Response	B60,OK
Note	X=1 indicates that the terminal determines movement or stationary status using engine detection (when the terminal detects the engine is off, it will not update latitude and longitude to prevent static drift). X=0 indicates that the terminal determines movement or stationary status without using engine detection (default). The T633L model defaults IN3 to engine detection.
Example	
GPRS Transmission Content	@@U27,353358017784062,B60,1*D3\r\n
GPRS Settings Response	$$U28,353358017784062,B60,OK*05\r\n

3.75 Set FTP Upload Photograph Parameters –B64

GPRS Settings Method	B64,H,username,password,host,port,path
GPRS Settings Response	B64,OK/<Error Code>
Note	01 H: 0 indicates FTP function Off, 1 to Enable FTP Upload, 2 to Clear Original Parameters 02 username: maximum 50-byte username 03 password: maximum 50-byte user password 04 hostname: maximum 50-byte domain name 05 hostport: maximum 5-byte port number 06 path: maximum 100-byte domain path 07 If this parameter is not modified, the comma must be retained 08 No parameters indicates read operation
Example	
GPRS Transmission Content	@@V27,353358017784062,B64,1,test,test,quectel.3322.org,10001,/meitrack/cxc/mp3_file/*D5\r\n
GPRS Settings Response	$$S28,353358017784062,B64,OK*FE\r\n

3.76 Get Terminal Information –B70

GPRS Settings Method	B70
GPRS Settings Response	B70,<MODEL>,<SN>,<FW Ver>,<Board Ver>,<GPS Ver>,<GSM Ver>,<IMEI>,<ICC-ID>,<IMSI>
Note	<MODEL>: maximum 20-byte ASCII.

	<SN>: maximum 11-byte ASCII. <FW Ver>: <Board Ver>: maximum 6-byte ASCII. <GPS Ver>: maximum 20-byte ASCII. <GSM Ver>: maximum 32-byte ASCII. <IMEI>: Up to 16 bytes ASCII. <ICC-ID>: Up to 20 bytes ASCII. <IMSI>: Up to 17 bytes ASCII.
Example	
GPRS Transmission Content	@@V27,353358017784062,B70*D5\r\n
GPRS Settings Response	$$S28,353358017784062,B70,<MODEL>,<SN>,<FW Ver>,<Board Ver>,<GPS Ver>,<GSM Ver>,<IMEI>,<ICC-I*FE\r\n

3.77 Set standby entry time – B81

GPRS Settings Method	B81,time
GPRS Settings Response	B81,OK
Note	01 time: Standby entry time in minutes, valid range 0–65535 02 Deep sleep mode must be enabled first; if ACC OFF duration exceeds the set time, the device may enter standby mode
Example	
GPRS Transmission Content	@@V27,353358017784062,B81,10*D5\r\n
GPRS Settings Response	$$S28,353358017784062,B81,OK*FE\r\n

3.78 Set SMS event characters – B91

GPRS Settings Method	B91, event SMS code, SMS header
GPRS Settings Response	B91,OK
Note	Header content: Up to 16 bytes
Example	
GPRS Transmission Content	@@R31,353358017784062,B91,1,SOS*F0\r\n
GPRS Settings Response	$$R28,353358017784062,B91,OK*06\r\n *After successfully sending the above command, pressing the SOS emergency button (input 1) will cause the terminal to send an alarm SMS starting with "SOS" to the preset authorized number.*

3.79 Setting Event Authorization – B99

GPRS Settings Method	B99,<SMS>/<0>,<Number position>/<Authorized Number>,<Operation code>,[Event code1]…[Event code n] B99,<CALL>/<1>,<Number Position>/<Authorized Number>,<Operation Code>,

	[Event Code1]…[Event Code n] B99,<GPRS>/<2>,<Operation Code>, [Event Code1]…[Event Code n] 0000,B99,<CAMERA>/<3>,<Operation Code>, [Event Code1]…[Event Code n] B99,<BUZZER>/<4>,<Operation Code>, [Event Code1]…[Event Code n]. B99,<OUT1>/<5>,<Operation Code>, [Event Code1]…[Event Code n] B99,<OUT2>/<6>,<Operation Code>, [Event Code1]…[Event Code n]
GPRS Settings Response	B99,<SMS>/<0>,<Number Position>,<Authorized Number>, [Configured Event Code1]…[Configured Event Code n] B99,<CALL>/<1>,<Number Position>,<Authorized Number>, [Configured Event Code1]…[Configured Event Code n] B99,<GPRS>/<2>,[Event code 1 configured]……[Event code n configured] B99,<CAMERA>/<3>,[Event code 1 configured]……[Event code n configured] B99,<BUZZER>/<4>,[Event code 1 configured]……[Event code n configured] B99,<OUT1>/<5>,<Operation Code>, [Event Code1]…[Event Code n] B99,<OUT2>/<6>,<Operation Code>, [Event Code1]…[Event Code n]
Note	The fields 'SMS', 'CALL', 'CAMERA', 'GPRS', 'BUZZER', 'OUT1', and 'OUT2' within the parameters may be represented by the decimal digits 0, 1, 2, 3, 4, 5, and 6; Operation codes 'GET', 'SET', 'ADD', and 'DEL' may be represented by the decimal digits 0, 1, 2, and 3. These field characters are case-insensitive. Note: When using the B99 command to configure SMS/CALL event codes, authorized numbers must be preconfigured, or alternatively, authorized numbers can be set first via the A71 command or the parameter configuration tool. The terminal compares the authorized number issued by B99 with the authorized numbers stored in the terminal (excluding prefix characters such as +86). If the numbers match, the operated event code will be stored according to the new settings; otherwise, the operation fails and is handled as a parameter error.
Example	
GPRS Transmission Content	@@B34,863070010825791,B99,gprs,get*BC\r\n
GPRS Settings Response	$$B33,863070010825791,B99,1,17,18*B5\r\n

3.80 Set MDVR speaker volume level – BB8

GPRS Settings Method	BB8,N
GPRS Settings Response	BB8,OK/<Error Code>
Note	01 N value range: 0 to 100. 02 If no parameter is provided, the operation is a read.
Example	
GPRS Transmission Content	@@V27,353358017784062,BB8,10*D5\r\n
GPRS Settings Response	$$S28,353358017784062,BB8,OK*FE\r\n

3.81 Set sudden deceleration parameters – BBD

GPRS Settings Method	BBD,X1,Y1,Z1,X2,Y2,Z2
GPRS Settings Response	BBD,OK
Note	X1 is the initial speed for sudden acceleration, in km/h, maximum 480. Y1 is the acceleration for sudden acceleration, in km/h/s, with a value range of 0 to 1000. Z1 is the duration for evaluation, in seconds, with a value range of 1 to 255. X2 is the initial speed of sudden deceleration, in km/h, maximum 480 Y2 is the acceleration during sudden deceleration, in km/hr/sec, with a value range from -1000 to 0 Z2 is the duration for evaluation, in seconds, with a value range from 1 to 255 Omitting parameters indicates a read operation
Example	
GPRS Transmission Content	@@V27,353358017784062,BBD,200,100,10,200,-100,10*D5\r\n
GPRS Settings Response	$$S28,353358017784062,BBD,OK*FE\r\n

3.82 Set sudden left/right turn –BC6

GPRS Settings Method	BC6,A,B,C
GPRS Settings Response	BC6,OK
Note	01 Decimal 02 A: Angle value, range 0 to 359 B: Duration, range 2 to 100 seconds C: Speed, range 0 to 255 03 Command without parameters indicates reading the current settings
Example	
GPRS Transmission Content	@@V34,353358017784062,BC6,90,10,60*3C\r\n
GPRS Settings Response	$$S28,353358017784062,BC6,OK*FE\r\n

3.83 Set MDVR minimum operating duration –BCA

GPRS Settings Method	BCA,M
GPRS Settings Response	BCA,OK
Note	1. M: Operating duration, range 0 to 65535 minutes 2. Upon receiving the command, the device starts timing. During this period, even if ACC is OFF, the device must remain powered on. After timing concludes, the device will power off or remain on based on the current status. 3. This parameter is not retained after MCU shutdown.
Example	
GPRS Transmission Content	BCA,100

GPRS Settings Response	BCA,OK

3.84 ASPC Passenger Flow Configuration – BDA

GPRS Settings Method	BDA,A,[B,C....]
GPRS Settings Response	BDA,OK
Note	A represents the setting type; when A is set to 0, 0: Clear data time settings; Format types B and C: B: 0: Disable; 1: Enable C: Represents time, range 0 to 23 hours When A is set to 1, 1: Command to clear data; data is cleared immediately upon receipt When A is set to 2, 2: Configure sensor door location (ASPC address) Format type A: door1, door2, door3, door4 doorx: Represents door location, range 0 to 4; 0 indicates invalid. Sensors cannot be configured with the same door location. When A is set to 3, 3: Configure trigger conditions Format types B, [C, D, E, F] B: Trigger type, 0: IO trigger; 1: GPS geofence trigger When the trigger type is 0, [C, D, E, F] can be configured as follows: [C, D, E, F] represent the IO trigger sources corresponding to doors 1 through 4, with a range of 0 to 4. 0 indicates invalid; 1 to 4 correspond to inputs 1 through 4. When A is set to 4: 4: Query passenger flow data Returned data format: Sensor1|Door location|Total boarding passengers|Total alighting passengers, Sensor2|Door location|Total boarding passengers|Total alighting passengers, Sensor3|Door location|Total boarding passengers|Total alighting passengers, Sensor4|Door location|Total boarding passengers|Total alighting passengers, Total boarding passengers|Total alighting passengers|Remaining passengers
Example	
GPRS Transmission Content	@@V27,353358017784062,BDA,4*F6\r\n
GPRS Settings Response	$$S63,353358017784062,BDA,1|1|1|1,2|2|0|0,3|3|0|0,4|4|0|0,1|1|0*A7\r\n

3.85 Retrieve Bluetooth Version Information – BDE

GPRS Settings Method	BDE
GPRS Settings Response	BDE,FW
Note	FW: Bluetooth software version, ASCII string
Example	
GPRS Transmission Content	BDE
GPRS Settings Response	BDE,T399X_BLE_V001

3.86 Disable Static Drift Filtering – BE4

GPRS Settings Method	BE4,A
GPRS Settings Response	BE4,OK
Note	01 A: 0: Disable static drift filtering in stationary state; 1: Enable static drift filtering in stationary state 02 Without parameter: read the current setting
Example	
GPRS Transmission Content	@@g27,869716066328767,BE4,1*0C
GPRS Settings Response	$$g28,869716066328767,BE4,OK*3E

3.87 Configure SMS Reply Format – BFE

GPRS Settings Method	BFE,X
GPRS Settings Response	BFE,OK
Note	X: 0 Enable SMS link; 1 Disable SMS link (default is SMS link enabled) When X=0, the device replies with the following SMS format: Now,072118 16:40,V,12,56Km/h,97%,https://www.google.com/maps?f=q&hl=en&q=22.540103,114.082329 When X=1, the device replies with the following SMS format: 353358017784062,Now,22.535888,114.063034,080310161834,A,9,27,30,179,0,15,8890,1346,,0000,,
Example	
GPRS Transmission Content	@@M34,353358017784062,C01,20,10122*18\r\n
GPRS Settings Response	$$M28,353358017784062,C01,OK*F9\r\n

3.88 Controlling Output Status – C01

GPRS Settings Method	C01, Speed value, ABCDE
GPRS Settings Response	C01,OK

Note	Speed value = 0: no speed limit; the terminal executes the command immediately upon receipt. Speed value = range [1,255], unit: kilometers per hour; sets the speed threshold for output control activation. The output control is effective only when the vehicle speed is below this threshold. A=0, Turn off output port (Output Port 1) - Open drain A=1, Turn on control port (Output Port 1) - Ground impedance equals 0 A=2, Maintain previous state. B=0, Turn off output port (Output Port 2) - Open drain B=1, Turn on control port (Output Port 2) - Ground impedance equals 0 B=2, Maintain previous state. C=0, Turn off output port (Output Port 3) - Open drain C=1, Turn on control port (Output Port 3) - Ground impedance equals 0 C=2, Maintain the previous status. D=0, Turn off the output port (Output Port 4) - Open-drain D=1, Turn on the control port (Output Port 4) - Ground impedance is 0 D=2, Maintain the previous status. E=0, Turn off the output port (Output Port 5) - Open-drain E=1, Turn on the control port (Output Port 5) - Ground impedance is 0 E=2, Maintain the previous status.
Example	
GPRS Transmission Content	@@M34,353358017784062,C01,20,10122*18\r\n
GPRS Settings Response	$$M28,353358017784062,C01,OK*F9\r\n

3.89 GPRS Platform Command to Control Device to Send SMS – C02

GPRS Settings Method	C02, X, Phone Number, Content
GPRS Settings Response	C02,OK
Note	Used by the platform to command the terminal to send an SMS to a mobile phone. X = 0, Using TEXT encoding; X = 1, Using Unicode encoding. Phone Number: Maximum of 16 digits Content: Maximum of 140 characters Upon receiving this message, the terminal sends the specified “Content” to the designated phone number.
Example	
GPRS Transmission Content	@@f47,353358017784062,C02,0,15360853789,Meitrack*B1\r\n
GPRS Settings Response	$$f28,353358017784062,C02,OK*13\r\n

3.90 Setting GPRS Event Reliable Transmission Mode – C03

GPRS Settings Method	C03, X
GPRS Settings Response	C03,OK
Note	X=0, Auto Event Report (default) X=1, Event reports require server confirmation and deletion via the AFF command before transmitting subsequent events (this mode must be selected when using UDP mode for GPRS).
Example	
GPRS Transmission Content	@@f27,353358017784062,C03,0*E1\r\n
GPRS Settings Response	$$f28,353358017784062,C03,OK*14\r\n

3.91 Setting the Input Mode of an Input Port – C07

GPRS Settings Method	C07,IN1:M1,IN2:M2 … INn:Mn
GPRS Settings Response	C07,IN1:C1,IN2:C2 … INn:Cn
Note	01 n: Input port serial number; the valid range varies by device model (1–n). 02 Mn: Input port mode; detailed parameters are as follows: 0: Low trigger 2: AD input 1: High trigger 3: Remote control signal input 03 Cn: Current input port parameter; parameter description is the same as Mn. 04 Multiple or single input ports can be configured simultaneously; if no parameter is provided, the current settings are read.
Example	
GPRS Transmission Content	@@P27,353358017784062,C07,IN1:1*D1\r\n
GPRS Settings Response	$$P28,353358017784062,C07,IN1:1,IN2:0,IN3:1*03\r\n

3.92 Setting I/O Port Status – C08

GPRS Settings Method	C08,I01:M1,I02:M2 … I0n:Mn
GPRS Settings Response	C08,I01:C1,I02:C2 … I0n:Cn
Note	01 n: IO port serial number; the value range varies by device model (0 to n-1) 02 Mn: IO port mode; specific parameters are as follows: 0: Low trigger 4: Open-drain output 8: One-wire 1: High trigger 5: Low output 14: CAN function 2: AD input 6: PWM output 15: Speedometer function 3: Remote control signal input 7: Buzzer output 03 Cn: Current IO port parameter; parameters correspond to those of Mn 04 Multiple or single IO ports can be configured simultaneously; if no parameter is provided, the current settings will be read
Example	
GPRS Transmission Content	@@f31,353358017784062,C08,IO1:5*E9\r\n
GPRS Settings Response	$$f55,353358017784062,C08,IO0:5,IO1:5,IO2:2,IO3:2,IO4:1*42\r\n

3.93 Registering a Temperature Sensor Number – C40

GPRS Settings Method	C40, SN1 and number 1, SN2 and number 2, …, SNn and number n
GPRS Settings Response	C40, SN1 with number 1 and registration result; SN2 with number 2 and registration result; … SNn with number n and registration result.
Note	Commands from C40 to C46, totaling seven, are all used for reading or configuring the temperature sensor. The procedure for connecting the temperature sensor is as follows: 1) Verify whether the temperature sensor number in the uploaded GPRS data of type AAA contains any zero values. 2) If any sensor number is zero, indicating it is unnumbered, send the C42 command to retrieve the sensor SN-to-number mapping table. 3) Assign numbers to all unnumbered sensors using the C40 command, and record this mapping in the database to facilitate displaying the correspondence on the platform, including IMEI, SN, number, custom name, and so forth. 4) To configure the temperature sensor's high-temperature and low-temperature alarms, send the C43 command to set the temperature thresholds and custom parameters; it is recommended to use the installation location as the custom name, which should also be stored in the database. 5) In the event of sensor disconnection or replacement, use the C46 command to verify the sensor when the device comes online. If a mismatch occurs, configure it again using the aforementioned C40 and C43 commands. The device first uploads the current temperature data via the AAA event. If the identifier value in any temperature data is 0, it indicates that the temperature sensor is unregistered. The platform will automatically issue the C42 command to retrieve the terminal's temperature sensor serial number (SN) and identifier table. Based on the obtained SN and identifier correspondence table, the temperature sensor with identifier 0 will be registered. n: maximum value is 8. SN: refers to the unique serial number of the temperature sensor, represented as an 8-byte hexadecimal value. The platform also displays the SN as 8 bytes, for example, 28 1B D5 23 04 00 00 57, which matches the SN label affixed by the factory. ID: Represented by 1 byte of hexadecimal data, with a value range from 1 to 254. Registration result: 0x01 indicates successful registration; 0x02 indicates the ID or SN already exists; 0x03 indicates the sensor registration is full; 0x04 indicates registration failure, all represented in hexadecimal.
Example (Since settings and display use hexadecimal, the example cannot show hexadecimal values and uses ASCII codes instead; please refer to actual operation.)	
GPRS Transmission Content	@@q35,012896001078259,C40,(1BD5#040000W02*50\r\n
GPRS Settings Response	$$q36,012896001078259,C40,(1BD5#040000W0201*1B \r\n

3.94 Deleting a Registered Temperature Sensor – C41

GPRS Settings Method	C41, ID1, ID2, … IDn
GPRS Settings Response	C41, ID1, result, ID2, result, … IDn, result
Note	ID: Refers to an already registered ID in hexadecimal character format, with a value range from 1 to 254. Result: (expressed as decimal characters), 1 indicates successful deletion, 2 indicates the ID does not exist, and 3 indicates deletion failure due to other reasons. (To delete all registered temperature sensors, send command C41 without parameters; a successful deletion returns OK, while failure returns Error.)
Example	
GPRS Transmission Content	@@n28,012896001078259,C41,01*19\r\n
GPRS Settings Response	$$n30,012896001078259,C41,01,1*37\r\n

3.95 Reading the Temperature Sensor Serial Number (SN) and Identifier – C42

GPRS Settings Method	C42
GPRS Settings Response	C42,SN1 and Identifier1,SN2 and Identifier2,…SNn and Identifiern
Note	SNn: denotes the unique serial number of the nth temperature sensor, represented as 8 bytes of hexadecimal data; Identifiern: denotes the identifier of the nth temperature sensor, represented as 1 byte of hexadecimal data, with a value range from 0 to 255; a value of 0 indicates the temperature sensor is unregistered.
Example (Since settings and display use hexadecimal, the example cannot show hexadecimal values and uses ASCII codes instead; please refer to actual operation.)	
GPRS Transmission Content	@@m25,012896001078259,C42*89\r\n
GPRS Settings Response	$$t45,012896001078259,C42,(B4v#040000R00,(1BD5#040000W00*13\r\n

3.96 Setting the High and Low Temperature Alarm Thresholds and Custom Logical Name – C43

GPRS Settings Method	C43,Identifier1/SN1/HighTempValue1/LowTempValue1/HighTempAlarm1/LowTempAlarm1/CustomName1/…Identifiern/SNn/HighTempValuen/LowTempValuen/HighTempAlarmn/LowTempAlarmn/CustomNamen
GPRS Settings Response	C43, Number 1/Result 1/Number 2/Result 2…/Number n/Result n
Note	**n:** Maximum value is 8; **Number**: Represented by 1 byte of hexadecimal data; **SN**: Denotes the unique serial number of the temperature sensor, fixed at 8 bytes of hexadecimal data; **High and low temperature values**: Each represented by two bytes of hexadecimal

	data. The first byte indicates the integer part of the temperature value, where the most significant bit set to 1 denotes a negative integer, and 0 denotes a positive integer. The second byte represents the fractional part. **High Temperature Alarm**: Flag bit, represented by 1 byte of hexadecimal data; **Low Temperature Alarm**: Flag bit, represented by 1 byte of hexadecimal data; **Custom Name**: Fixed length of 16 bytes represented by hexadecimal characters. If fewer than 16 bytes, pad with 0x00. For English, 15 characters are allowed (one reserved byte at the end of the English string contains a fixed character '#' to distinguish between Unicode and English characters). For Chinese, supports up to 8 characters, which must be Unicode encoded; **Result**: (Fixed as 1-byte hexadecimal data), 0x01 indicates Setting Successful; 0x02 indicates Number Not Found; 0x03 indicates Setting Failed due to incorrect parameters or other reasons. Note: No delimiter "/" is required between parameters.
Example (Since settings and display use hexadecimal, the example cannot show hexadecimal values and uses ASCII codes instead; please refer to actual operation.)	
GPRS Transmission Content	@@o57,012896001078259,C43,01(1BD5#040000W<0005000101T1#00000000000000000000000000*3F
GPRS Settings Response	$$o28,012896001078259,C43,0101*85

3.97 Reading Temperature Sensor Parameters – C44

GPRS Settings Method	C44
GPRS Settings Response	C44, Number 1/SN1/High Temperature Value 1/Low Temperature Value 1/High Temperature Alarm 1/Low Temperature Alarm 1/Custom Name 1/… Number n/SNn/High Temperature Value n/Low Temperature Value n/High Temperature Alarm n/Low Temperature Alarm n/Custom Name n
Note	**n**: Maximum value is 8; **Number**: Represented as 1-byte hexadecimal data; **SN**: Refers to the unique serial number of the temperature sensor, fixed as 8-byte hexadecimal data; **High and low temperature values**: Each represented by two bytes of hexadecimal data. The first byte indicates the integer part of the temperature value, where the most significant bit set to 1 denotes a negative integer, and 0 denotes a positive integer. The second byte represents the fractional part. **High Temperature Alarm**: Flag bit, represented by 1 byte of hexadecimal data; **Low Temperature Alarm**: Flag bit, represented by 1 byte of hexadecimal data; **Custom Name**: Fixed length of 16 bytes represented by hexadecimal characters. If fewer than 16 bytes, pad with 0x00. For English, 15 characters are allowed (one reserved byte at the end of the English string contains a fixed character '#' to distinguish between Unicode and English characters). For Chinese, supports up to 8 characters, which must be Unicode encoded; Note: No delimiter "/" is inserted between parameters.

Example (Since settings and display use hexadecimal, the example cannot show hexadecimal values and uses ASCII codes instead; please refer to actual operation.)	
GPRS Transmission Content	@@r25,012896001078259,C44*90\r\n
GPRS Settings Response	$$r274,012896001078259,C44,01(B4v#040000R00000000000000000000000000000000000000000000002(1BD5#040000W000*1E\r\n

3.98 Reading Temperature in Real Time – C45

Note	**n: The maximum value is determined by the device model and the number of sensors.** **SN: The unique serial number of the temperature sensor, fixed as 16 hexadecimal characters.** **Temperature value: represented as decimal characters, unit in degrees Celsius.**

3.99 Checking Temperature Sensor Parameters – C46

GPRS Settings Method	C46
GPRS Settings Response	C46, Checksum
Note	Checksum: represented by 2 bytes in hexadecimal, calculated using CRC-CCITT over all relevant parameters of the 8 temperature sensors (in the following order: ID, SN, high temperature value, low temperature value, high temperature alarm, low temperature alarm, custom name), serving as the temperature sensor checksum.
Example	
GPRS Transmission Content	@@i25,012896001078259,C46*89\r\n
GPRS Settings Response	$$i28,012896001078259,C46,12_*F1\r\n

3.100 Setting Fuel Parameters – C47

GPRS Settings Method	C47, Sensor Type, Upper Limit Alarm Percentage, Lower Limit Alarm Percentage
GPRS Settings Response	C47,OK
Note	Sensor Type: 0 indicates no fuel level sensor connected; 1 indicates C-type fuel level sensor (AD2); 2 indicates R-type fuel level sensor (AD2); 3 indicates V-type fuel level sensor (AD2). The MVT600 and T1 models default to an AD2 fuel level sensor connection. Upper Limit Alarm Percentage: Set to 0 to disable the alarm. When set to a non-zero

	value, the corresponding GPRS and SMS event flags are automatically enabled. An alarm is triggered when the fuel level percentage is greater than or equal to this value. The alarm event code is 52. Lower Limit Alarm Percentage: Set to 0 to disable the alarm. When set to a non-zero value, the corresponding GPRS and SMS event flags are automatically enabled. An alarm is triggered when the fuel level percentage is less than or equal to this value. The alarm event code is 53. If only a single parameter is to be modified, leave the other parameters blank; however, the corresponding delimiter ',' must be retained. If only C47 is sent, all parameters will be initialized to 0. All parameters are represented using decimal characters. R-type fuel level sensor: resistance output fuel level sensor C-type fuel level sensor: capacitance output fuel level sensor V-type fuel level sensor: voltage output fuel level sensor The new fuel level sensors (A53/A54) are all classified as V-type fuel level sensors.
Example	
GPRS Transmission Content	@@f33,353358017784062,C47,2,90,10*0A\r\n
GPRS Settings Response	$$f28,353358017784062,C47,OK*1C\r\n

3.101 Reading Fuel Parameters – C48

GPRS Settings Method	C48
GPRS Settings Response	C48, sensor type, upper limit alarm percentage, lower limit alarm percentage
Note	The returned parameter format corresponds to the C47 parameter settings and is represented using decimal characters.
Example	
GPRS Transmission Content	@@c25,353358017784062,C48*89\r\n
GPRS Settings Response	$$c33,353358017784062,C48,2,90,10*D0\r\n

3.102 Setting the Fuel Theft Alert – C49

GPRS Settings Method	C49, Fuel Theft Alert Detection Time, Fuel Level Decrease Percentage
GPRS Settings Response	C49,OK
Note	Fuel Theft Alert Detection Time: Represented as decimal characters, unit in minutes. Default value is 3, range 0 to 255; 0 disables this alert. Fuel Level Decrease Percentage: Represented as decimal characters, default value is 2. Range 0 to 100; 0 disables this alert. This command configures the fuel level decrease percentage within the detection time to trigger the alert. Default is 3 minutes / 2% (e.g., C49,3,2). Note: The configured percentage value must exceed twice the accuracy percentage of

	the fuel level sensor. (For example, if the fuel level sensor accuracy is 10mm and the length is 500mm, it is recommended to set the fuel theft percentage to 2 × 10 / 500 = 4%).
Example	
GPRS Transmission Content	@@c29,353358017784062,C49,3,2*4B\r\n
GPRS Settings Response	$$c28,353358017784062,C49,ok*5B\r\n

3.103 LED Screen Protocol Transparent Transmission – C60

GPRS Settings Method	C60, LED Peripheral Protocol Packet
GPRS Settings Response	C60, LED Peripheral Protocol Response Packet
Note	The LED peripheral protocol packet and the LED peripheral protocol response packet are transmitted transparently. For the peripheral protocol data format, please refer to the document 'Meitrack Peripheral Communication Protocol_V1.02_20120705.docx'. For example: The LED protocol command to set the LED to full brightness is (in hexadecimal) 40 01 02 00 00 0A 13 00 03 02 32 0A CB A8 0D. The platform should issue @@I27,359231032751834,C60,(40 01 02 00 00 0A 13 00 03 02 32 0A CB A8 0D) (transparent transmission)*BE\r\n. Upon receiving this command, the terminal forwards it to the peripheral LED advertising screen. When the LED advertising screen receives the command, it replies to the terminal with 23 01 02 00 00 8A 13 00 03 02 32 00 77 64 0D. After the terminal receives the LED advertising screen's reply, it transparently transmits the LED reply data packet to the platform via C60 as $I28,359231032751834,(23 01 02 00 00 8A 13 00 03 02 32 00 77 64 0D) (transparent transmission)*F0\r\n. The platform then parses the received reply packet along with the 'Meitrack Peripheral Communication Protocol_V1.02_20120705.docx' document to verify whether the LED full brightness setting was successful and displays a corresponding prompt on the interface.
Example	
GPRS Transmission Content	C60, LED Peripheral Protocol Response Packet
GPRS Settings Response	C60, LED Peripheral Protocol Packet

3.104 Transparent Bidirectional Data Transmission over the Serial Port – C61

GPRS Settings Method	C61, SERVER DATE & TIME, Config, Interface Device Number, Transparent Data Packet
GPRS Settings Response	C61, GPS DATE & TIME, Interface Device Number, <Transparent Data Packet>/<Error Code>
Note	Interface Device Number: 1 byte in hexadecimal. SERVER DATE & TIME: Server date and time, represented by 14 characters in the format 'yyyyMMddHHmmss' (e.g., '20121114235959').

	GPS DATE & TIME: Terminal GPS date and time, represented by 14 characters in the format 'yyyyMMddHHmmss' (e.g., '20121114235959'). Config: Currently unused; reserved and left empty. Interface Device Number: Default value is 2. Transparent Data Packet: Maximum size of 512 bytes; supported only over GPRS. Note: When the device receives data from a peripheral, it uploads the data packet; if no peripheral data packet is detected, it sends an <Error Code>.
Example	
GPRS Transmission Content	@@\50,868998031589050,C61,20121114235959,,01,1234*44
GPRS Settings Response	$$\31,868998031589050,C61,20190717060702,1,1234*0D

3.105 Setting Positioning Mode – C67

GPRS Settings Method	C67, Positioning Mode
GPRS Settings Response	C67,OK
Note	Positioning Mode: range 0 to 2, decimal character format. Mode 0: GPS+GLONASS positioning mode (default mode). Mode 1: GLONASS standalone positioning mode. Mode 2: GPS standalone positioning mode. Mode 3: GPS+BEIDOU positioning mode.
Example	
GPRS Transmission Content	@@V27,353358017784062,C67,1*D5\r\n
GPRS Settings Response	$$S28,353358017784062,C67,OK*FE\r\n

3.106 Setting SPK and MIC – C69

GPRS Settings Method	C69, MIC volume, SPK volume
GPRS Settings Response	C69,OK
Note	MIC volume level: decimal string format, range 0 to 10; mute when set to 0. SPK volume level: decimal string format, range 0 to 10; mute when set to 0.
Example	
GPRS Transmission Content	@@c31,353358017784062,C69,1,1*43\r\n
GPRS Settings Response	$$c28,353358017784062,C69,ok*5D\r\n

3.107 Setting a Serial Port and a Peripheral – C70

GPRS Settings Method	C70,X,Y
GPRS Settings Response	C70,OK
Note	X indicates the serial port selection; default is 2.

	Y represents the selection of peripheral, expressed as a decimal character; Y=0/CAMERA: Camera Y=2/LEDSCREEN: LED advertising screen Y=4/RFID: RFID
Example	
GPRS Transmission Content	@@f29,353358017784062,C70,2,0*17\r\n
GPRS Settings Response	$$f28,353358017784062,C70,OK*8B\r\n

3.108 Setting to disable the power button shutdown function – C77

GPRS Settings Method	C77,Value
GPRS Settings Response	C77,OK
Note	A value of 1 enables the power button shutdown function; A value of 0 disables the power button shutdown function;
Example	
GPRS Transmission Content	@@c27,353358017784062,C77,1*EA\r\n
GPRS Settings Response	$$c28,353358017784062,C77,ok*5C\r\n

3.109 Network lock – C82

GPRS Settings Method	C82,A
GPRS Settings Response	C82,OK/<Error Code>
Note	01 A=0: indicates automatic network selection, decimal character 02 A=1: indicates selection of the 2G network, decimal character 03 A=2: indicates selection of the 3G network, decimal character
Example	
GPRS Transmission Content	@@V27,353358017784062,C82,1*D5\r\n
GPRS Settings Response	$$S28,353358017784062,C82,OK*FE\r\n

3.110 Setting the GSM Jamming Detection Function (supported only in special versions) – C85

GPRS Settings Method	C85,X,Y
GPRS Settings Response	C85,OK
Note	X=0, GSM interference alarm function Off; X=1, GSM interference alarm function On; default is 0.

	Y (range 0-9999) specifies the duration in minutes after INPUT1 is triggered under ACC ON status during which GSM interference persists before an alarm and output are generated; Y=0 triggers immediate alarm and output. If no parameter is provided, the command performs a read operation. Note: GSM interference detected lasting Y minutes. GPS valid and speed ≤ 20 KM/h. ACC ON: Immediately trigger OUT1 (cut off fuel and power) and simultaneously generate an interference event. ACC OFF: Immediately trigger OUT1 (cut off fuel and power) and simultaneously generate an interference event. GPS invalid. ACC ON: Activate OUT1 for 1 second, then return to inactive state; repeat every 5 seconds until ACC OFF status is detected for more than 10 seconds, after which OUT1 remains continuously active, simultaneously generating an interference event. ACC OFF: ACC OFF status has been detected continuously for more than 10 seconds; OUT1 will remain activated. Simultaneously, an interference event will be generated. If the device continuously detects interference preventing the driver from operating the vehicle, the driver can reactivate OUT1 by triggering input1 five times within one minute, which will deactivate OUT1.
Example	
GPRS Transmission Content	@@f29,353358017784062,C85,1,5*4F\r\n
GPRS Settings Response	$$f28,353358017784062,C85,OK*1E\r\n

3.111 Select Serial Port and Peripheral – C91

GPRS Settings Method	C91,X,Serial port number Y1:Peripheral number K1, Serial port number Y1:Peripheral number K2, ..., Serial port number Yn:Peripheral number Kn
GPRS Settings Response	C91,OK
Note	01 X indicates the serial port selection; the default is PC. 02 Yn indicates the serial port number selection; the T633L has 7 peripheral interfaces, represented by decimal characters. Yn=1: Serial port number is 1. Yn=2: Serial port number is 2

	Yn=3: Serial port number is 3 Yn=4: Serial port number is 4 Yn=n: Serial port number is n 03 Kn represents the selected peripheral, expressed as a decimal character; Kn=0/CAMERA: RS232 camera Kn =4/RFID: RFID Kn=8/ULTRASONIC: Ultrasonic fuel level sensor Kn=12/A82: A82 peripheral Kn=13/A83: RS485 camera Kn=14/A81: A81 LED display Note: The above are the peripheral models supported by the device; please refer to the MM for confirmation.
Example	
GPRS Transmission Content	@@P27,353358017784062,C91,PC,1:4*D1\r\n
GPRS Settings Response	$$P28,353358017784062,C91,OK*03\r\n

3.112 Fuel Level Sensor Settings – C96

GPRS Settings Method	C96, sensor type, high fuel alarm percentage, low fuel alarm percentage, refueling alarm change interval (MIN), refueling alarm change percentage, fuel theft alarm change interval (MIN), fuel theft alarm change percentage, full fuel value, empty fuel value
GPRS Settings Response	C96,OK
Note	01 Sensor Type: 0: No sensor connected; 1: Type C; 2: Type R; 3: Type V; 4: Type LLS; 5: Ultrasonic type (requires peripheral setting to ultrasonic oil sensor to function). Please also ensure the sensor type is selected; however, the software does not support error responses. MIN range: 0 to 255 Full oil value and empty oil value: 0 to 65535; the empty oil value cannot exceed the full oil value. Each percentage range: 0 to 100 02 If only one parameter is to be modified, leave the other parameters empty; however, the corresponding delimiter ',' must be retained. Note: The sensor type value must be specified. 03 Send a command without parameters to read the current settings.
Example	

GPRS Transmission Content	@@P50,353358017784062,C96,3,80,20,1,10,1,10,200,50*1B\r\n
GPRS Settings Response	$$P28,353358017784062,C96,OK*0A\r\n

3.113 Set RFID Control OUT1 Ignition On/Off Waiting Time – C9F

GPRS Settings Method	C9F,A,B
GPRS Settings Response	C9F,OK
Note	01 A: Ignition waiting time after card swipe, unit: seconds, format: decimal characters, range: 1 to 30000 02 B: Ignition waiting time after ACC OFF, unit: seconds, format: decimal characters, range: 1 to 30000 03 Command without parameters; returns the current setting value
Example	
GPRS Transmission Content	@@P27,353358017784062,C9F,15,10*D1\r\n
GPRS Settings Response	$$P28,353358017784062,C9F,OK*03\r\n

3.114 Set Acceleration Threshold and Duration for Impact Event Generation – CB4

GPRS Settings Method	CB4,X,Y
GPRS Settings Response	CB4,OK
Note	01 X: Set acceleration threshold for impact event generation, unit: mg, range: 500 to 65535 02 Y: Set duration for impact event generation, unit: 10 ms, range: 0 to 255 03 Without parameters; reads the current settings. Recommended default value.
Example	
GPRS Transmission Content	@@V27V31,353358017784062,CB4,1000,10*BC\r\n
GPRS Settings Response	$$V28,353358017784062,CB4,OK*17\r\n

3.115 Set event-triggered playback camera – CB8.

GPRS Settings Method	CB8,A,B1|C1|D1|E1, B2|C2|D2|E2…Bn|Cn|Dn|En
GPRS Settings Response	CB8, OK/<Error Code>/ B1|C1|D1|E1, B2|C2|D2|E2 … Bn|Cn|Dn|En
Note	01 A: Operation code, decimal character. =1: Add or modify; =2: Delete. 02 Bn: Event number, decimal character. 03 Cn: Video channel, decimal character. =0: All channels; other values indicate the corresponding channel number n.

	04 Dn: Playback time, decimal character, in seconds; =0: Permanent playback; other values indicate playback duration in seconds; maximum is 65535 seconds. 05 En: Playback priority, decimal character, range 0–64; the smaller the value, the higher the priority. High-priority events can interrupt the playback of lower-priority events; new events of the same priority overwrite the playback of previous events. 06 A maximum of 64 events can be set for playback; n has a maximum value of 64. 07 When A=2, Cn, Dn, and En are fixed at 0. 08 If no parameters are provided, the current event playback settings will be read.
Example	
GPRS Transmission Content	CB8,1,1|2|20|1, 9|4|10|2
GPRS Settings Response	CB8,OK

3.116 Set Video Rotation Attribute – CC2

GPRS Settings Method	CC2,A1:B1:C1,A2:B2:C2,…..A8:B8:C8
GPRS Settings Response	CC2,A1:B1:C1,A2:B2:C2,…..A8:B8:C8/OK/<Error Code>
Note	1 A: Channel Number, decimal digit, range: 1 to 8 2 B: Rotation Attribute, decimal digit; 0: Video rotation function Off 1: Horizontal flip 2: Vertical flip 3: Center point rotation 3 C: Indicates the rotation angle, effective only when the rotation attribute is set to center point rotation; this value can only be set to 0 or 180 degrees. 4 Up to 8 channels can be configured simultaneously; channels not configured remain unchanged. 5 No parameters indicates a read operation.
Example	
GPRS Transmission Content	@@V27,353358017784062,CC2,1:0*D5\r\n
GPRS Settings Response	$$S28,353358017784062,CC2,OK*FE\r\n

3.117 Bluetooth Data Transparent Transmission (SMS\GPRS) – CC4

GPRS Settings Method	CC4,<Transparent Data>
GPRS Settings Response	CC4,OK/<Error Code>/<Transparent Data>
Note	1.<Transparent Data>: Supports a maximum of 1394 bytes.
Example	
GPRS Transmission Content	CC4,123

GPRS Settings Response	CC4,OK

3.118 Bluetooth Pairing Settings (SMS\GPRS) – CC5

GPRS Settings Method	CC5,Broadcast Name,Broadcast Interval,Pairing Password
GPRS Settings Response	CC5,OK/<Error Code>
Note	1.Broadcast Name: String with a maximum length of 16 bytes. 2. Broadcast Interval: 20 to 10240 ms 3. Pairing Password: Up to 6-digit numeric password 4. Leave blank when setting parameters to clear them; only the pairing password can be used to clear parameters 5. To reset Bluetooth only, leave all parameters blank but retain commas 6. No parameters indicates a read operation
Example	
GPRS Transmission Content	CC5,123,20,000000
GPRS Settings Response	CC5,OK

3.119 Set Rollover Alarm Calibration – CC7

GPRS Settings Method	CC7
GPRS Settings Response	CC7,OK
Note	Upon issuing the command, the device begins calibrating the current acceleration (i.e., calibrating the direction pointing to the ground). Calibration requires a 1-minute wait, after which the device responds with OK.
Example	
GPRS Transmission Content	@@i25,864394040026785,CC7*A1
GPRS Settings Response	$$i28,864394040026785,CC7,OK*32

3.120 Start DMS Calibration – CD1

GPRS Settings Method	CD1,A
GPRS Settings Response	CD1,OK
Note	A:1 Start DMS Calibration
Example	
GPRS Transmission Content	@@F61,865265512655512125,CD1,25*C2\r\n
GPRS Settings Response	$$F41,865265512655512125,CD1,OK*C1\r\n

3.121 Offline FOTA Parameter Settings – CD4

GPRS Settings Method	CD4,A,B,C,D,E,F,G
GPRS Settings Response	CD4,OK
Note	01 A: Indicates Enable; 0: Disable FOTA Function; 1: Enable FOTA Function 02 When A=1, parameters B, C, D, E, F, and G are valid B: Indicates IP Address, Maximum 32 Characters C: Indicates Port, Maximum 5 Characters D: Scheduled connection interval, unit: minutes; Sleep mode also counts time; reconnection to FOTA is permitted only after the interval expires and the device wakes from sleep. Range: 0–65535 E: Alarm hour F: Alarm minute G: Alarm second If all alarm parameters are zero, the alarm is turned off; When the alarm time is reached and the device is in sleep mode, it will wake up to connect to the FOTA platform once 03 without parameters indicates reading the current parameters

3.122 Set user parameters for inertial navigation – CD7

GPRS Settings Method	CD7,A,B,C,D
GPRS Settings Response	CD7,OK
Note	1. Parameter A serves as an index; different values of A correspond to configuring specific alarm parameters for inertial navigation, with valid values from 0 to 7 2. When A equals 0, it configures the sudden acceleration alarm. In this case, B specifies the acceleration threshold for sudden acceleration, ranging from 8 to 50, unit: 0.1 m/s²; C specifies the time threshold for sudden acceleration, ranging from 2 to 8 seconds; D is not applicable 3. When A equals 1, it indicates the configuration of the sudden deceleration alarm. In this case, B represents the acceleration threshold for sudden deceleration, with a value range from -60 to -30, unit: 0.1 m/s². Parameters C and D are not applicable. 4. When A equals 2, it indicates the configuration of the sudden turn alarm. In this case, B represents the acceleration threshold for sudden turn, with a value range from 20 to 60, unit: 0.1 m/s². Parameter C represents the angle threshold for sudden turn, with a value range from 30 to 80 degrees. Parameter D is not applicable.

	5. When A equals 3, it indicates the configuration of the sudden lane change alarm. In this case, B represents the acceleration threshold for sudden lane change, with a value range from 10 to 60, unit: 0.1 m/s². Parameter C represents the angle threshold for sudden lane change, with a value range from 10 to 30 degrees. Parameter D represents the speed threshold for sudden lane change, with a value range from 10 to 40 km/h. 6. When A equals 4, it indicates the configuration of the horizontal collision accident alarm. In this case, B represents the collision factor threshold, with a value range of 40 to 80, unit: m/s²; C represents the delay time threshold, with a value range of 6 to 18, unit: 10 seconds; D is not applicable. 7. When A equals 5, it indicates the configuration of the rollover accident alarm. Here, B represents the attitude angle threshold for the rollover accident, with a value range of 30 to 90 degrees; C and D are not applicable. 8. When A equals 6, it indicates the configuration of the vehicle stability alarm. In this case, B represents the time threshold for the vehicle stability alarm, with a value range of 2 to 10 seconds; C represents the angular velocity threshold for the vehicle stability alarm, with a value range of 10 to 30 degrees per second; D is not applicable. 9. When A equals 7, it indicates the configuration of the vehicle posture abnormality alarm. In this case, B represents the minimum angle threshold for vehicle posture abnormality, with a range of 10 to 40 degrees; C represents the maximum angle threshold for vehicle posture abnormality, with a range of 40 to 80 degrees; D is not applicable. 10. When A equals 8, it indicates low power consumption related configuration. Here, B represents the time threshold for entering low power mode, ranging from 3 to 20 minutes; C represents the acceleration threshold for waking from low power mode, ranging from 1 to 20 units of 4mg; D is not applicable. 11. When A equals 9, it indicates vehicle type settings. Here, B represents the vehicle type, with values from 0 to 3: 0 for small car, 1 for large vehicle, 2 for general, and 3 for new energy bus; C and D are not applicable. 12. If only the index is issued, it indicates reading the parameters of the corresponding group.
Example	
GPRS Transmission	@@A31,8665656214466214,CD7,1,10,2*A7

Content	
GPRS Settings Response	$$A28,8665656214466214,CD7,OK*A6

3.123 View or clear the installation angle of the inertial navigation system – CD8

GPRS Settings Method	CD8,A
GPRS Settings Response	CD8,OK
Note	1. When A equals 0, it indicates clearing the installation angle. 2. Issuing the command without parameters indicates reading the installation angle. The installation angle value ranges from 0 to 360; a value of 65535 indicates that the installation angle has not been obtained.
Example	
GPRS Transmission Content	@@A31,8665656214466214,CD8,0*A7
GPRS Settings Response	$$A28,8665656214466214,CD8,OK*A6

3.124 Bidirectional transparent transmission – CE0

GPRS Settings Method	CE0,<Time><Data Length><Data>
GPRS Settings Response	CE0,<Number of Data Packets><Data Packets>

Note	1. Time: The time issued by the server, in timestamp format, using local time; unit: seconds; starting from 00:00:00 on January 1, 2000.
	2. Data Packets:
	typedef struct
	{
	dword time; // The time when the device receives data to be uploaded; unit: seconds; starting from 00:00:00 on January 1, 2000.
	word len; // Data length
	byte data[len]; // Issued data content, maximum tentatively 900 bytes.
	};

Example	
GPRS Transmission Content	40406D34312C383630333035303535393030323931322C4345302CD6CC562E09003132333435363738392A43420D0A
GPRS Settings Response	24246235312C383632393937303632383535313630392C4345302C01004880362E11004D5330332E6D6569747261636B2E636F6D2A433

3.125 Upload the recorded videos within the specified time period. – CE1

GPRS Settings Method	CE1,A,B,ch1|ch2..|ch8,C,D,E,F,G,H
GPRS Settings Response	CE1,OK

Note	A represents the start time of the required video. The format is 20241014112356, which means October 14, 2024, 11:23:56. B represents the end time of the required video. The format is 20241014112456, which means October 14, 2024, 11:24:56. Note: The time for obtaining a single file cannot be more than 1 hour. The file time cannot span across days. chN represents the channel number. 0 means all channels. The range of N is 0 - 8. C is the FTP type. C = 0 means uploading to the FTP configured in the device. C = 1 means uploading to a specified FTP. When C = 1, the following parameters are valid. D is the FTP user name, in string format, with a maximum length of 50 bytes. Special characters such as commas and hyphens are not allowed. E is the FTP password, in string format, with a maximum length of 50 bytes. Special characters such as commas and hyphens are not allowed. F is the FTP address, in string format, with a maximum length of 50 bytes. Special characters such as commas and hyphens are not allowed. G is the FTP port, in string format, with a maximum length of 5 bytes. Special characters such as commas and hyphens are not allowed. H is the FTP path, in string format, with a maximum length of 100 bytes. Special characters such as commas and hyphens are not allowed. The path should start with "/".

3.126 Reliable Transmission Command – CFF

GPRS Settings Method	CFF, Delete Quantity
GPRS Settings Response	CFF, CFF Command Data Set
Note	"Delete Quantity" is a hexadecimal character format, usually 1 In CFF, it is necessary to verify whether the random number in the data protocol matches; otherwise, the terminal will not delete. When the machine uploads using the CFF upload method, sending CFF,FFFF with the packet number matching the machine's uploaded packet number allows deletion of all buffers. CFF is generally used in conjunction with the UDP connection method to send data, ensuring the server has received the transmitted data.

3.127 Obtaining a Picture – D00

GPRS Settings Method	D00, Filename, Picture Data Packet Start Number
GPRS Settings Response	D00, Filename, Total Number of Picture Data Packets, Current Picture Data Packet Number, Picture Data
Note	First, read the image list using the D01 command, then retrieve the required images from the terminal to the server using the D00 command.

	File name: The name of the image file to be retrieved from the terminal's memory card; each image has a unique file name. Image data packet start number: An image is divided into N packets; this specifies the packet number from which to start reading. Minimum value = 0 (indicating the first packet). Total number of image data packets: The total number of packets into which the image is divided. Minimum value = 1. Current image data packet number: Indicates the sequence number of the packet currently being sent for the entire image. Image data: The acquired original image data in hexadecimal format. Once all data is received, the server will automatically reconstruct the image. Note: Upon receiving the D00 command, the terminal will consecutively upload 8 image data packets. The server must then wait 2 seconds before issuing the D00 command again to retrieve packets starting from the 9th image data packet, repeating this process until all image data packets have been uploaded.
Example	
GPRS Transmission Content	@@O48,353358017784062,D00,0215080432_C2E03.jpg,0*DB\r\n
GPRS Settings Response	Since the data is in hexadecimal, the example cannot be displayed; please perform actual testing.

3.128 Obtaining the Picture List – D01

GPRS Settings Method	D01, Starting Packet Number of the Picture
GPRS Settings Response	D01, Total Number of Picture Packets, Current Picture Packet Number, Picture Name(1)|Picture Name(2)|…|Picture Name(n)|
Note	Picture Name(n): The file name of the picture, separated by the "|" delimiter. Starting Packet Number of the Picture: Indicates the packet number from which to start retrieving the list. Minimum value = 0. For example: when the starting packet number is 0, retrieval begins from the first picture packet; when it is 4, retrieval begins from the fifth picture packet. Total Number of Picture Packets: The total number of picture packets stored on the memory card (each picture packet contains n pictures allocated freely by the terminal). Minimum value = 0.
Example	
GPRS Transmission Content	@@A27,353358017784062,D01,0*BB\r\n
GPRS Settings Response	$$A480,353358017784062,D01,3,0,0506162517_C1E03.jpg|0506162517_C1E11.jpg|0506162624_C1E03.jpg|0506162630_C1E11.jpg|0506162720_C1E03.jpg|0506162721_C1E03.jpg|0215080547_C1E03.jpg|0215080547_C1E11.jpg|0215080626_C1E03.jpg|0215080626_C1E11.jpg|0215080827_C1E03.jpg|0215080827_C1E11.jpg|0215080850_C1E03.jpg|0215080850_C1E11.jpg|0507145426_C1E03.jpg|0

	507145426_C1E11.jpg|0507145512_C2E03.jpg|0507145512_C2E11.jpg|0215080050_C3E03.jpg|0215080050_C3E11.jpg|0215080459_C3E03.jpg|021508050*41\r\n

3.129 Deleting a Picture – D02

GPRS Settings Method	D02, ImageName(1)|ImageName(2)|…|ImageName(n)|
GPRS Settings Response	D02,OK
Note	ImageName(n): The filename of the photograph to be deleted. Multiple images can be deleted, separated by the '|' delimiter.
Example	
GPRS Transmission Content	@@E110,353358017784062,D02,0506162517_C1E03.jpg|0506162517_C1E11.jpg|0506162624_C1E03.jpg|0506162630_C1E11.jpg|*4E\r\n
GPRS Settings Response	$$F28,353358017784062,D02,OK*F4\r\n

3.130 Taking Photos on Demand – D03

GPRS Settings Method	D03, Camera Serial Number, Image Name
GPRS Settings Response	D03, OK
Note	Camera Serial Number: Corresponds to the serial number of the camera connected to the terminal. Minimum value = 1, indicating the first camera; the maximum value depends on the number of external cameras connected to the terminal, generally two. Image Name: The server platform assigns the name for the captured photograph.
Example	
GPRS Transmission Content	@@D46,353358017784062,D03,1,camera_picture.jpg*21\r\n
GPRS Settings Response	$$D28,353358017784062,D03,OK*F3\r\n

3.131 RFID/iButton Authorization – D10

GPRS Settings Method	D10,RFID(1),RFID(2),…,RFID(n)
GPRS Settings Response	D10, OK
Note	RFID(1) ～ RFID(n): Pre-authorized RFID numbers, with a value range of 1 to 4294967295, represented as decimal characters. A maximum of 50 RFID cards can be authorized at one time.
Example	
GPRS Transmission Content	@@f43,353358017784062,D10,13737431,13737461*17\r\n
GPRS Settings Response	$$f28,353358017784062,D10,OK*13\r\n

3.132 RFID/iButton Batch Authorization – D11

GPRS Settings Method	D11, RFID Starting Card Number, n
GPRS Settings Response	D11, OK
Note	RFID Starting Card Number: Value range 1 to 4294967295, represented as decimal characters. n: Indicates batch authorization of n RFID cards, expressed as decimal characters. RFID card numbers increment by 1 starting from the RFID Starting Card Number. The maximum value of n is 128.
Example	
GPRS Transmission Content	@@e36,353358017784062,D11,13737431,1*AA\r\n
GPRS Settings Response	$$e28,353358017784062,D11,OK*13\r\n

3.133 Query Whether a Known RFID/iButton Number Is Authorized – D12

GPRS Settings Method	D12, RFID Number/iButton Number
GPRS Settings Response	D12, n
Note	RFID Number: Value range 1 to 4294967295, represented as decimal characters. n: A non-zero value indicates the RFID card number is authorized; zero indicates the RFID card is unauthorized.
Example	
GPRS Transmission Content	@@C34,353358017784062,D12,13737431*2A\r\n
GPRS Settings Response	$$C27,353358017784062,D12,0*87\r\n

3.134 Read Authorized RFID/iButton Numbers – D13

GPRS Settings Method	D13, RFID Starting Packet Number / iButton Number
GPRS Settings Response	D13, Total Number of RFID Packets, Current RFID Packet Number, RFID(1), RFID(2), …, RFID(n)
Note	RFID Starting Packet Number: Indicates the starting RFID packet number for list retrieval; minimum value is 0. For example, when the RFID Starting Packet Number is 0, retrieval begins from the first RFID packet; when the RFID Starting Packet Number is 4, retrieval begins from the fifth RFID packet. Total Number of RFID Packets: The total count of authorized RFID packets (each RFID packet can contain up to 100 RFID card numbers); minimum value is 0. RFID(n): Each RFID card number is represented by 8 fixed hexadecimal characters.
Example	
GPRS Transmission Content	@@w27,353358017784062,D13,0*F4\r\n
GPRS Settings Response	Since the data is in hexadecimal, the example cannot be displayed; please perform

	actual testing.

3.135 Delete Authorized RFID / iButton Numbers – D14

GPRS Settings Method	D14,RFID(1),RFID(2),…,RFID(n)
GPRS Settings Response	D14, OK
Note	RFID(1) through RFID(n): RFID numbers to be deleted, with values ranging from 1 to 4294967295, represented as decimal characters. Delete up to 50 RFID cards at a time, and a single SMS Content (including the protocol portion) must not exceed 140 bytes.
Example	
GPRS Transmission Content	@@Q34,353358017784062,D14,13723455*3B\r\n
GPRS Settings Response	$$Q28,353358017784062,D14,OK*02\r\n

3.136 Batch Delete Authorized RFID/iButton Numbers – D15

GPRS Settings Method	D15, RFID Starting Card Number, n
GPRS Settings Response	D15, OK
Note	RFID Starting Card Number: value range 1 to 4294967295, represented as decimal characters n: indicates batch deletion of n RFID cards, represented as decimal characters. RFID card numbers increment by 1 starting from the RFID Starting Card Number. Deletes authorized and matching RFID card numbers. The maximum value of n for batch deletion is 128. When the starting card number is between 1 and 4294967295, and n is greater than or equal to 65536, all authorized numbers will be deleted (use with caution).
Example	
GPRS Transmission Content	@@K36,353358017784062,D15,13723455,3*97\r\n
GPRS Settings Response	$$K28,353358017784062,D15,OK*FD\r\n

3.137 Verify Authorized RFID/iButton Card Number Database Checksum – D16

GPRS Settings Method	D16
GPRS Settings Response	D15, XOR
Note	This command verifies whether the authorized RFID card number database stored in the device is consistent with the authorized RFID card number database recorded on the Server for that device. Upon receiving the D16 command, the device responds with a database checksum calculated by XORing all authorized RFID card numbers byte by byte. The Server then compares this checksum with the byte-wise XOR value of the authorized RFID card

	numbers stored on the Server for that device. If the values match, the authorized RFID card data in the device is consistent with that on the Server; otherwise, a data error exists in the authorized RFID database.
Example	
GPRS Transmission Content	@@u25,353358017784062,D16*97\r\n
GPRS Settings Response	$$u28,353358017784062,D16,18*F7\r\n

3.138 Setting the Maximum Acceleration Threshold for the Harsh Braking Alert – D30

GPRS Settings Method	D30, Acceleration
GPRS Settings Response	D30,OK
Note	Acceleration: Used to define the upper acceleration limit alarm value when the device speed decreases abruptly. Unit: m/s² (meters per second squared) Range: 0–255, where =0 disables the harsh braking alert function.
Example	
GPRS Transmission Content	@@P27,353358017784062,D30,4*D1\r\n
GPRS Settings Response	$$P28,353358017784062,D30,OK*03\r\n

3.139 Setting the Maximum Acceleration Threshold for the Harsh Acceleration Alert – D31

GPRS Settings Method	D31, Acceleration
GPRS Settings Response	D31,OK
Note	Acceleration: Used to define the upper acceleration limit alarm value when the device speed increases abruptly. Unit: m/s² (meters per second squared) Range: 0–255; 0 disables the rapid acceleration alert function.
Example	
GPRS Transmission Content	@@P27,353358017784062,D31,4*D1\r\n
GPRS Settings Response	$$P28,353358017784062,D31,OK*03\r\n

3.140 Setting the Driver Fatigue Time – D35

GPRS Settings Method	D35, Time
GPRS Settings Response	D35,OK
Note	Time: Used to issue a reminder when driving time is excessively long. Driving time accumulates only when the engine speed is not zero. The accumulated driving time resets to zero only after the rest duration exceeds the configured time (set by D36). When the engine speed is not zero, the accumulated rest time resets to zero.

	Unit: min (minutes) Range: 0~65535; a value of 0 disables the driver fatigue alarm function.
Example	
GPRS Transmission Content	@@P27,353358017784062,D35,240*D1\r\n
GPRS Settings Response	$$P28,353358017784062,D35,OK*03\r\n

3.141 Setting the Driver Fatigue Time – D36

GPRS Settings Method	D36, Time
GPRS Settings Response	D36,OK
Note	Time: Used to specify the reminder duration for stopping and resting after driver fatigue. The condition for driver fatigue rest time is engine off, i.e., engine shutdown state. Note: The accumulated driving time will be reset to zero only after the rest duration exceeds this configured time (D36 setting). The accumulated rest time will be reset to zero when the engine speed is not zero. Unit: min (minutes) Range: 0~65535; a value of 0 indicates that once a driver fatigue alarm is triggered, the fatigue driving state cannot be exited.
Example	
GPRS Transmission Content	@@P27,353358017784062,D36,20*D1\r\n
GPRS Settings Response	$$P28,353358017784062,D36,OK*03\r\n

3.142 Setting the Maintenance Mileage – D65

GPRS Settings Method	D65,X
GPRS Settings Response	D65,OK
Note	Eight mileage point data entries must be set; otherwise, the setting will not take effect. Mileage points: value range [0, 4294967295], unit: meters. Note: When the device detects that the mileage is nearing the set value, it will issue an early maintenance mileage reminder. The default advance reminder is 300 kilometers. If the maintenance time alarm has already been triggered in advance, the maintenance mileage will automatically advance to the next mileage point.
Example	
GPRS Transmission Content	@@u78,353358017784062,D65,50000,60000,70000,80000,90000,100000,1100000,1200000*9C\r\n
GPRS Settings Response	$$u28,353358017784062,D65,OK*28\r\n

3.143 Setting Maintenance Time – D66

GPRS Settings Method	D66,X
GPRS Settings Response	D66,OK
Note	Eight mileage point data entries must be set; otherwise, the setting will not take effect. Mileage points: value range [0, 4294967295], unit: meters. Note: When the device detects that the mileage is nearing the set value, it will issue an early maintenance mileage reminder. The default advance reminder is 300 kilometers. If the maintenance time alarm has already been triggered in advance, the maintenance mileage will automatically advance to the next mileage point.
Example	
GPRS Transmission Content	@@u78,353358017784062,D66,50000,60000,70000,80000,90000,100000,1100000,1200000*9D\r\n
GPRS Settings Response	$$u28,353358017784062,D66,OK*2D\r\n

3.144 Setting GPS Data Filtering – D71

GPRS Settings Method	D71,X,Y1,Y2,Y3,Y4
GPRS Settings Response	D71,OK/<Error Code>
Note	X: Enable GPS data filtering, 1: On, 0: Off; default is Off. Y1: Minimum speed value, range: 0–999 km/h (recommended setting range: 0–5) Y2: Maximum speed value, range: 0–999 km/h Y3: Number of satellites; GPS information updates only if the count exceeds this value, range: 0–99 Y4: Positioning accuracy; GPS information is updated only when it is less than this value, multiplied by 10. Range: 0~999. Note: Y1, Y2, Y3, and Y4 are combined with a logical AND; that is, when GPS information filtering is On, GPS data will be updated only if all conditions of Y1, Y2, Y3, and Y4 are satisfied.
Example	
GPRS Transmission Content	@@I40,865328022075252,0D71,1,5,255,4,0.4*38\r\n
GPRS Settings Response	$$I28,865328022075252,D71,OK*F8\r\n

3.145 Setting an Output Port – D72

GPRS Settings Method	D72,X,Y1,Y2,Y3,Y4
GPRS Settings Response	D72,OK/<Error Code>
Note	X: Output port selection — 1: OUT1, 2: OUT2 Y1: Output duration upon event trigger, unit: 10 ms, range: 0~4294967295. Y2: When set to 0, output triggers a high level. When set to 1, output triggers a low level.

	When set to 2, output triggers a PWM waveform. Y3: PWM duty cycle range: 0~100. Y4: Period, unit: μS, range: 5~20000000000
Example	
GPRS Transmission Content	@@s42,865328022075252,0D72,1,100,0,0,10000*B0\r\n
GPRS Settings Response	$$s28,865328022075252,D72,OK*23\r\n

3.146 Allocating GPRS Cache and GPS Log Storage Space – D73

GPRS Settings Method	D73,X,Y
GPRS Settings Response	D73, OK/<Error Code>
Note	X: Set the percentage of GPRS cached data storage, decimal digit Y: Set the percentage of GPS log data storage, decimal digit X + Y must equal 100
Example	
GPRS Transmission Content	@@Q31,865328022075252,D73,50,50*90\r\n
GPRS Settings Response	$$Q28,865328022075252,D73,OK*02\r\n

3.147 Set Peripheral Parameters – D9E

GPRS Settings Method	D9E,A,B,C,D,E,F,G
GPRS Settings Response	D9E,<OK>/<1,0,115200,1.0,0,8,0/2,4,19200,1.0,0,8,0/....>
Note	01 All values are decimal 02 A indicates Serial Port Selection A=1: Terminal peripheral interface (UART/RS232/485) 1 (UART1) A=2: Terminal peripheral interface (UART/RS232/485) 2 (UART2) ..... 02 B indicates Peripheral Selection; B=0/CAMERA: Camera B=1/HANDSET: Handset B=2/LEDSCREEN: LED Vehicle Display B=3/A21: A21 B=4/RFID: RFID ..... 03 C Baud Rate Selection D Stop Bits (Range: 0.5, 1.0, 1.5, 2.0) E Parity Bit (Range: 0: None, 1: Odd, 2: Even) F Data Bits (Range: 8 bits per byte, 9 bits per byte) G Flow Control (Range: 0: None, 1: CTS Hardware Flow Control, 2: RTS Hardware Flow Control) Note: Baud rate and other setting values must be authorized to be set in order

	to take effect. 04 Command only; retrieves all current peripheral parameters selected by the serial port.
Example	
GPRS Transmission Content	@@P27,353358017784062,D9E,1,1,115200,0.5,0,8,1*D1\r\n
GPRS Settings Response	$$P28,353358017784062,D9E,OK*03\r\n

3.148 Obtaining All Alert Parameters of a Tire Pressure Sensor – DA0

GPRS Settings Method	DA0
GPRS Settings Response	DA0,<First axle high-pressure threshold><First axle low-pressure threshold><Second axle high-pressure threshold><Second axle low-pressure threshold><Third axle high-pressure threshold><Third axle low-pressure threshold><Fourth axle high-pressure threshold><Fourth axle low-pressure threshold><Trailer high-pressure threshold><Trailer low-pressure threshold><High-temperature threshold>
Note	First axle high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar First axle low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Second axle high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Second axle low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Third axle high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Third axle low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Fourth axle high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Fourth axle low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Trailer High-Pressure Threshold: Hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar. Trailer Low-Pressure Threshold: Hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar. High-Temperature Threshold: Hexadecimal unsigned format, 1 byte; actual value = transmitted value minus 50; unit: Celsius.
Example	
GPRS Transmission	@@Q25,863835020877432,DA0*72\r\n

Content	
GPRS Settings Response	$$Q90,863835020877432,DA0,02080010000000000004576*46\r\n

3.149 Obtaining Data of All Bound Tire Pressure Sensors – DA1

GPRS Settings Method	DA1
GPRS Settings Response	DA1,<Location1><ID1><TirePressure1><Temperature1><Status1>…<LocationN><IDN><TirePressureN><TemperatureN><StatusN>
Note	Location: Tire position, 1 unsigned byte in hexadecimal; Bits 7 to 5 represent the card number: 000(B): Tractor, 001(B): Trailer 1, 010(B): Trailer 2, 011(B): Trailer 3, 100(B): Trailer 4. Bits 4 to 0 represent the serial number of the tire pressure sensor on a specific card; for example, 00001(B) indicates the first tire. ID: Tire pressure sensor ID, 4 bytes unsigned hexadecimal format. Tire pressure: 2 bytes unsigned hexadecimal format, actual value = (transmitted value × 0.025) Bar. Temperature: 1 byte unsigned hexadecimal format, actual value = (transmitted value − 50) degrees Celsius. Status: 1 byte unsigned hexadecimal format. BIT7: Transmitter battery voltage status; 0 indicates normal battery voltage, 1 indicates low battery voltage. BIT6: Set to 1 if no data has been received from the transmitter for an extended period (15 minutes). BIT5: Reserved. BIT4: 1 indicates high air pressure. BIT3: 1 indicates low air pressure; BIT2: 1 indicates high temperature, 0 indicates normal temperature. BIT1~BIT0: 00 indicates normal; 01 indicates rapid air leakage; 10 indicates slow air leakage; 11 indicates inflation. Note: Up to 64 tire data entries are supported, i.e., the maximum value of N is 64.
Example	
GPRS Transmission Content	@@Q25,863835020877432,DA1*82\r\n
GPRS Settings Response	$$Q90,863835020877432,DA1,02080010000000000000071101000000000000006100100*46\r\n

3.150 Obtaining Data of a Tire Pressure Sensor – DA2

GPRS Settings Method	DA2, Location
GPRS Settings Response	DA2, <Location><ID><Tire Pressure><Temperature><Status>
Note	Location: Tire position, 1 unsigned byte in hexadecimal; Bits 7 to 5 represent the card number: 000(B): Tractor; 001(B): Trailer 1; 010(B): Trailer 2; 011(B): Trailer 3; 100(B): Trailer 4; Bits 4 to 0 represent the tire serial number on a card; for example, 00001(B) indicates the first tire. ID: Tire Pressure Sensor ID, 4-byte unsigned hexadecimal format, Little-endian format

	Tire Pressure: 2-byte unsigned hexadecimal format, Little-endian format; actual value = (transmitted value × 0.025) Bar Temperature: 1-byte unsigned hexadecimal format; actual value = (transmitted value − 50) degrees Celsius Status: 1-byte unsigned hexadecimal format BIT7: Transmitter battery voltage status; 0 indicates normal battery voltage, 1 indicates low battery voltage BIT6: Set to 1 if no data is received from the transmitter for an extended period (15 minutes) BIT5: Reserved BIT4: 1 indicates high pressure BIT3: 1 indicates low pressure BIT2: 1 indicates high temperature; 0 indicates normal temperature. BIT1~BIT0: 00 indicates normal; 01 indicates rapid air leakage; 10 indicates slow air leakage; 11 indicates inflation.
Example	
GPRS Transmission Content	@@g27,863835020877432,DA2,01*C8\r\n
GPRS Settings Response	$$g35,863835020877432,DA2,02080010000000000000071101000000000000006100100\r\n

3.151 Deleting Tire Pressure Sensors – DA3

GPRS Settings Method	DA3,<Location1> … <LocationN>
GPRS Settings Response	DA3,<Location1> … <LocationN>, OK
Note	Location: Tire position, 1 unsigned byte in hexadecimal; Bits 7 to 5 represent the card number: 000(B): Tractor, 001(B): Trailer 1, 010(B): Trailer 2, 011(B): Trailer 3, 100(B): Trailer 4. Bits 4 to 0 represent the serial number of the tire pressure sensor on a card; for example, 00001(B) indicates the first tire. Note: 1. The maximum value of N is 64; some custom versions limit it to 32. 2. The response returns the positions of tires successfully deleted.
Example	
GPRS Transmission Content	@@i27,863835020877432,DA3,0A*22\r\n
GPRS Settings Response	$$i34,863835020877432,DA3,0A,OK*56\r\n

3.152 Obtaining Data of Multiple Tire Pressure Sensors – DA4

GPRS Settings Method	DA4,<Location1><ID1> … <LocationN><IDN>
GPRS Settings Response	DA4,<Location1><ID1> … <LocationN><IDN>, OK
Note	Location: Tire position, 1 unsigned byte in hexadecimal; Bits 7 to 5 represent the card number: 000(B): Tractor, 001(B): Trailer 1, 010(B):

	Trailer 2, 011(B): Trailer 3, 100(B): Trailer 4. Bits 4 to 0 represent the serial number of the tire pressure sensor on a card; for example, 00001(B) indicates the first tire. ID: Tire Pressure Sensor ID, 4-byte unsigned hexadecimal format Note: A maximum of 64 tire data entries are supported, i.e., the maximum value of N is 64. The response returns the locations and IDs of successfully bound tires.
Example	
GPRS Transmission Content	@@\31,863835020877432,DA4,9800100100*62\r\n
GPRS Settings Response	$$\59,863835020877432,DA4,0210000000!0100000080010010C110000009800 10010 0010185R00,OK*A4\r\n

3.153 Set Tire Pressure Alarm Threshold – DA5

GPRS Settings Method	DA5,<First Axle High Pressure Threshold><First Axle Low Pressure Threshold><Second Axle High Pressure Threshold><Second Axle Low Pressure Threshold><Third Axle High Pressure Threshold><Third Axle Low Pressure Threshold><Fourth Axle High Pressure Threshold><Fourth Axle Low Pressure Threshold><Trailer High Pressure Threshold><Trailer Low Pressure Threshold><High Temperature Threshold>
GPRS Settings Response	DA5,OK
Note	First Axle High Pressure Threshold: 1 byte, unsigned hexadecimal format; actual value = transmitted value ÷ 10; unit: Bar First axis low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Second axis high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Second axis low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Third axis high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Third axis low-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Fourth axis high-pressure threshold: hexadecimal unsigned format, 1 byte; actual value = transmitted value ÷ 10; unit: Bar Fourth axis low-pressure threshold: hexadecimal unsigned format, 1 byte, actual value = transmitted value ÷ 10, unit: Bar Trailer high-pressure threshold: hexadecimal unsigned format, 1 byte, actual value = transmitted value ÷ 10, unit: Bar Trailer low-pressure threshold: hexadecimal unsigned format, 1 byte, actual value = transmitted value ÷ 10, unit: Bar High-Temperature Threshold: Hexadecimal unsigned format, 1 byte; actual value = transmitted value minus 50; unit: Celsius.
Example	

GPRS Transmission Content	@@I37,863835020877432,DA5,FF0000FFFFFF00000F19d*58\r\n
GPRS Settings Response	$$I31,863835020877432,DA5,OK*BC\r\n

3.154 Querying the Device Status – DA6

GPRS Settings Method	DA6
GPRS Settings Response	DA6, network connection status: connection type; IP1: IP address; PORT1: port; IP2: backup IP address; PORT2: port; GPRS_INT: time interval; CSQ: GSM signal quality; GPS_SUM: GPS signal count; GPRS/SMS: remaining entries in GPRS and SMS buffers; IO: input/output status; BAT/DCIN: internal/external voltage
Note	01 Network Connection Status: Connected, Disconnected 02 Connection Type: TCP, UDP, CLOSED 03 IO Status: 0000 (the first two digits indicate input, the last two digits indicate output) 04 BAT/DCIN: unit mV Example: Connect:TCP,IP1:gpsmms.f3322.org,PORT1:16869,IP2:,PORT2:,GPRS_INT:6,CSQ:31,GPS_SUM:7,GPRS/SMS:0/0,IO:0000,BAT/DCIN:4100/12860
Example	
GPRS Transmission Content	@@A25,868998031589050,DA6*84
GPRS Settings Response	$$Q28,865328022075252,DA6,Connect:TCP,IP1:gpsmms.f3322.org,PORT1:16869,IP2:,PORT2:,GPRS_INT:6,CSQ:31,GPS_SUM:7,GPRS/SMS:0/0,IO:0000,BAT/DCIN:4100/12860

3.155 Set Vibration Sensor Sensitivity Level – DAF

GPRS Settings Method	DAF,X
GPRS Settings Response	DAF,OK
Note	Decimal string, range 1 to 10, default is 1; the higher the level, the more difficult it is to wake the device. X without parameter reads the current level. Note: Used to configure the sensitivity for deep sleep mode and waking the device by vibration.
Example	
GPRS Transmission Content	@@P27,353358017784062,DAF,10*D1\r\n
GPRS Settings Response	$$P28,353358017784062,DAF,OK*03\r\n

3.156 Set Auto Authorization Time for RFID Cards – DB0

GPRS Settings Method	DB0,X
GPRS Settings Response	DB0,OK
Note	X range: 0 to 10000, unit: seconds During the auto authorization period, any RFID card swipe will be automatically authorized; after this period ends, the device will resume normal working status.
Example	
GPRS Transmission Content	@@P27,353358017784062,DB0,10*D1\r\n
GPRS Settings Response	$$P28,353358017784062,DB0,OK*03\r\n

3.157 Querying Device Parameters – DB4

GPRS Settings Method	DB4
GPRS Settings Response	DB4, GPRS Connection Type, IP1: IP, PORT1: Port, IP2: Backup IP, PORT2: Port, GPRS Time Zone, APN, Sleep Mode, Heartbeat, GPRS Mode, Time Interval, Parking Time Interval, Fixed-distance Tracking Interval, Overspeed Threshold, Turning Angle Value, Trailer Alarm Continuous Vibration Duration, External Battery Low Voltage
Note	GPRS Connection Type, IP1: IP, PORT1: Port, IP2: Backup IP, PORT2: Port, GPRS Time Zone, APN, Sleep Mode, Heartbeat, GPRS Mode, Time Interval, Parking Time Interval, Fixed-distance Tracking Interval, Overspeed Threshold, Turning Angle Value, Trailer Alarm Continuous Vibration Duration, External Battery Low Voltage.
Example	
GPRS Transmission Content	@@P27,861358038017414,DB4*D1\r\n
GPRS Settings Response	$$D106,861358038017414,DB4,TCP,IP1:server.meigps.com,PORT1:8909,IP2:,PORT2:,420,,2,50,0,30,60,0,80,30,0,114*1F

3.158 Use Actual Number of Satellites – DDB

GPRS Settings Method	DDB,A
GPRS Settings Response	DDB,OK
Note	Indicates whether to use the actual number of satellites: 0 means do not use, 1 means use
Example	
GPRS Transmission Content	@@F52,56554895644558545,DDB,1*C0\r\n
GPRS Settings Response	@@F53,56554895644558545,DDB,OK*C0\r\n

3.159 Obtain GNSS Real-Time Data – DDC

GPRS Settings Method	DDC,A
GPRS Settings Response	DDC, GPS Data
Note	1. 'A' specifies the window duration for obtaining GNSS real-time data, with a value range of 0–600 seconds 2. If no parameter is provided, it queries the remaining time in the current window
Example	
GPRS Transmission Content	@@F51,6554555458654455,DDC,120*C2\r\n
GPRS Settings Response	$$F998,864507031322448,DDC,$GPGGA,060413.000,2230.5973,N,11403.3781,E,1,5,2.72,31.4,M,-2.0,M,,*76OK

3.160 Set Whether to Use NITZ Time – DDD

GPRS Settings Method	DDD, Mode, [NTP Timeout, IP1, PORT1, [IP2, PORT2]]
GPRS Settings Response	DDD,OK
Note	01 This command sets the system time calibration mode; mode values range from 0 to 6. 0:GNSS ONLY 1:NITZ+NTP 2:NTP 3:NITZ 4:GNSS+NITZ 5:GNSS+NTP 6:GNSS+NTP+NITZ 02 NTP synchronization timeout value ranges from 1 to 65535 seconds; 03 IP1/IP2 should be filled with an IP address or domain name, up to 32 characters; 04 PORT1/PORT2 should be filled with the port number to connect to, in decimal format, range: 2 to 65534. 05 Parameters: NTP timeout, IP1, PORT1, IP2, and PORT2 can only be configured when the mode is set to On for NTP (i.e., only modes 1, 2, 5, and 6 display these configuration options). Among these, when NTP is enabled, IP1 and PORT1 are mandatory, while IP2 and PORT2 are optional. 06 Commands without parameters are treated as queries.
Example	
GPRS Transmission Content	@@F27,863921032192554,DDD,1*E6
GPRS Settings Response	$$F28,863921032192554,DDD,OK*18

3.161 Whether speed less than 5 km/h is required during fuel detection – DF3.

GPRS Settings Method	DF3,A,B,C,D

GPRS Settings Response	DF3,OK/ERROR
Note	1. A indicates whether speed is required for oil theft detection; 1 means required, 0 means not required. 2. B indicates whether speed is required for refueling detection; 1 means required, 0 means not required. 3. C indicates whether speed is required for high fuel detection; 1 means required, 0 means not required. 4. D indicates whether low fuel detection requires speed to be considered; 1 means yes, 0 means no.
Example	
GPRS Transmission Content	@@P28,896556551551545,DF3,1,0,1,1*D2\r\n
GPRS Settings Response	$$P26,896556551551545,DF3,OK*E1\r\n

3.162 Retrieve Terminal Command List – E04

GPRS Settings Method	E04
GPRS Settings Response	E04,<Command1>,<Command2>,…
Note	01 Reply with the supported command list 02 For GPRS-issued commands, respond only with commands supported by GPRS 03 For SMS-issued commands, respond only with commands supported by SMS
Example	
GPRS Transmission Content	@@P27,353358017784062,E04*D1\r\n
GPRS Settings Response	$$P28,353358017784062,E04,A10,A11....*03\r\n

3.163 Reading Device's Firmware Version and Serial Number – E91

GPRS Settings Method	E91
GPRS Settings Response	E91,Version Number,Serial Number
Note	Read the terminal's firmware version number and factory serial number.
Example	
GPRS Transmission Content	@@W25,353358017784062,E91*7D\r\n
GPRS Settings Response	$$W38,353358017784062,FWV1.00,12345678*1C\r\n

3.164 Temperature Sensor Reading Settings – E93

GPRS Settings Method	E93,A,B,C
GPRS Settings Response	E93,<Error Code>
Note	01 A: 0: Automatic 1: Manual (default). Decimal character B:1~255 Time reading without USB connection. Decimal characters, unit: μs C:1~255 Time reading with USB connection. Decimal characters, unit: μs 02 Do not set parameters; separated by commas. If no parameters are provided, returns the current setting value. 03 Note: Do not set arbitrarily without R&D confirmation.
Example	
GPRS Transmission Content	@@P27,353358017784062,E93,1,15,15*D1\r\n
GPRS Settings Response	$$P28,353358017784062,E93,OK*03\r\n

3.165 FTP configuration or terminal upgrade – E94

GPRS Settings Method	E94,type[,username,password,host,port,path,fileName,overtime]
GPRS Settings Response	E94, Error Code/fileName, ack[, fail_ID1, fail_ID2, ..., fail_IDN]
Note	01 type: 0: indicates terminal upgrade; 1: indicates terminal configuration; 2: cancel configuration or terminal upgrade. 02 username: Username, maximum 50 bytes, ASCII format. 03 password: User password, maximum 50 bytes, ASCII format. 04 hostname: Domain name or IP address, maximum 50 bytes, ASCII format. 05 hostport: Port number, up to 5 bytes, ASCII format 06 path: Path, up to 100 bytes, ASCII format 07 fileName: Name of the file to download, up to 64 bytes, ASCII format 08 overtime: Timeout duration, range: 1 to 255, unit: minutes 09 ack: Terminal response, 0: Indicates the command has been received 1: Indicates terminal configuration succeeded 2: Indicates terminal configuration failed 3: Indicates terminal upgrade succeeded 4: Indicates terminal upgrade failed 5: Version identical; no upgrade performed 6: FTP server busy 7: Indicates FTP OTA upgrade is not supported 10 fail_IDx: Present only when ack indicates terminal configuration failure; Indicates failed IDs in hexadecimal format, reporting up to 256 failed IDs
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

3.166 Restarting the GSM and GPS Modules – F00

GPRS Settings Method	F00,GSM,GPS
GPRS Settings Response	F00,OK
Note	Restarting the GSM Module
Example	
GPRS Transmission Content	@@j25,353358017784062,F00*87\r\n
GPRS Settings Response	$$j28,353358017784062,F00,OK*18\r\n

3.167 Restarting the GSM Module – F01

GPRS Settings Method	F01
GPRS Settings Response	F01,OK
Note	Restarting the GSM Module
Example	
GPRS Transmission Content	@@j25,353358017784062,F01*88\r\n
GPRS Settings Response	$$j28,353358017784062,F01,OK*19\r\n

3.168 Restarting the GPS Module – F02

GPRS Settings Method	F02
GPRS Settings Response	F02,OK
Note	Restarting the GPS Module
Example	
GPRS Transmission Content	@@Z25,353358017784062,F02*79\r\n
GPRS Settings Response	$$Z28,353358017784062,F02,OK*0A\r\n

3.169 Setting Mileage and Operating Time – F08

GPRS Settings Method	F08, Operating Time, Mileage
GPRS Settings Response	F08,OK
Note	Operating Time: Value range [0, 4294967295], decimal format, unit in seconds; leave blank to retain current setting. Mileage: Value range [0, 4294967295], decimal format, unit in meters; leave blank to retain current setting.
Example	
GPRS Transmission Content	@@D40,353358017784062,F08,0,4825000*51\r\n
GPRS Settings Response	$$D28,353358017784062,F08,OK*FA\r\n

3.170 Deleting SMS or GPRS Cache Data – F09

GPRS Settings Method	F09, Serial Number
GPRS Settings Response	F09,OK
Note	Serial Number=1: Delete SMS cache data pending transmission. Serial Number=2: Delete GPRS cache data pending transmission. Serial Number=3: Delete both SMS and GPRS cache data pending transmission.
Example	
GPRS Transmission Content	@@E27,353358017784062,F09,1*CA\r\n
GPRS Settings Response	$$E28,353358017784062,F09,OK*FC\r\n

3.171 Restoring Initial Settings – F11

GPRS Settings Method	F11
GPRS Settings Response	F11,OK
Note	Restore all settings to factory defaults (except the password).
Example	
GPRS Transmission Content	@@[25,353358017784062,F11*7A\r\n
GPRS Settings Response	$$[28,353358017784062,F11,OK*0B\r\n

3.172 Changing the Device Password – F20

GPRS Settings Method	F20, New Password
GPRS Settings Response	F20,OK
Note	Change the SMS password. Note: The password must be exactly 4 decimal digits and contain no other characters.
Example	
GPRS Transmission Content	@@P27,353358017784062,F20,1234*D1\r\n
GPRS Settings Response	$$P28,353358017784062,F20,OK*03\r\n

3.173 OTA Upgrade – FAC

GPRS Settings Method	FAC, OTA File Name
GPRS Settings Response	FAC,OK
Note	OTA file name: ASCII characters, up to 32 characters. Please confirm the version name with meitrack.
Example	

GPRS Transmission Content	FAC,TC68L_Y8V021.OTA
GPRS Settings Response	FAC,OK

3.174 DVR full device reboot – 103

GPRS Settings Method	103,A
GPRS Settings Response	103,OK
Note	01 A: Control Attribute 1: Restart Video Only 2: Restart Entire Device
Example	
GPRS Transmission Content	None
GPRS Settings Response	None

If You Have Any Further Questions, Please Send an Email to info@meitrack.com. We Are Happy to Assist You.