
USR-GPRS232 AT Commands

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1.AT Commands

1.1. Error Code

Error code	Info
58	Invalid command or command format error
3	Incorrect command parameter type or missing parameters

1.2. Commands

NO.	Command	Function
Management command		
1	H	Help information
2	Z	Module reboot
3	E	Does query / settings open instruction recall
4	ENTM	Exit command mode
5	WKMOD	Query / setup work mode
6	CALEN	Query / settings enable call function
7	NATEN	Query / settings enable network AT command
8	UATEN	Query / settings enable serial port AT command in transparent mode
9	CMDPW	Query / set command password
10	CACHEN	Query / settings allow cache data
11	STMSG	Query / set module startup information
12	RSTIM	Query / setup restart time
Configuration parameter command		
13	S	Save current settings
14	RELD	Restore user default settings
15	CLEAR	Restore original factory settings
16	CFGTF	Save the current settings as default settings.
Information query command		
17	VER	Query version information
18	SN	Query SN code
19	ICCID	Query ICCID code
20	IMEI	Query IMEI code
21	CNUM	Query the local telephone number
Serial port parameter command		
22	UART	Query / set serial parameters
23	RFCEN	Query / settings enable class RFC2217 functions
Net command		
24	APN	Query / set APN information
25	SOCKA	Query / setup socket A parameter

26	SOCKB	Query / setup socket B parameter
27	SOCKC	Query / setup socket C parameter
28	SOCKD	Query / setup socket D parameter
29	SOCKAEN	Query / setup whether to enable socket A
30	SOCKBEN	Query / setup whether to enable socket B
31	SOCKCEN	Query / setup whether to enable socket C
32	SOCKDEN	Query / setup whether to enable socket D
33	SOCKASL	Query / setup enable socket A short connections
34	SOCKBSL	Query / setup enable socket B short connections
35	SOCKCSL	Query / setup enable socket C short connections
36	SOCKDSL	Query / setup enable socket D short connections
37	SOCKALK	Query socket A connection state
38	SOCKBLK	Query socket B connection state
39	SOCKCLK	Query socket C connection state
40	SOCKDLK	Query socket D connection state
41	SOCKRSTIM	Query / setup whether to display socket ID function
42	SHORTIM	Query / setup connection failure restart time
43	SOCKIDEN	Query / setup short link timeout time
44	CIP	Query local IP (3.0.0 and later version support)
45	PING	PING directive (3.0.0 and later version support)
46	CSQ	Query signal strength
Register command		
47	REGEN	Query / settings enable registration package
48	REGTP	Query / settings register package content type
49	REGID	Query / settings register ID (for D2D function)
50	REGDT	Query / settings custom registration information
51	REGSND	Query / settings register packet sending mode
Heartbeat command		
52	HEARTEN	Query / settings enable heartbeat package
53	HEARTDT	Query / settings heartbeat data
54	HEARTTP	Query / settings heartbeat packet delivery mode
55	HEARTTM	Query / settings heartbeat packet interval
HTTPD command		
56	HTPTP	Query / setup HTTP operate mode
57	HTPURL	Query/setup URL
58	HTPSV	Query/setup remote IP and port
59	HTPHD	Query/setup head info of HTTP protocol
60	HTPPK	Query/setup whether to turn on HEAD filtering function
61	HTPTIM	Query setup HTTP timeout time
SMS command		
62	DSTNUM	Target phone number
63	SMSSEND	Sending short messages in instruction mode
USR-Cloud function		

64	CLOUDEN	Set enable USR-Cloud
65	CLOUDID	Set USR-Cloud 20 bit ID
66	CLOUDPA	Set USR-Cloud 8 bit password
Other function		
67	LBS	Query base station location information

1.2.1.AT+H

Function: command for help

Format: AT+H{CR}{CR}{LF}help message{CR}{LF}{CR}{LF}OK{CR}{LF}

1.2.2.AT+Z

Function: command for reboot

Format: AT+Z{CR}{CR}{LF}OK{CR}{LF}

1.2.3.AT+E

Function: Query / set AT command's display state

Format:

Query parameter description:

AT+E=? {CR} {CR} {LF}+E:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+E{CR} or AT+E? {CR}

{CR} {LF}+E:status{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+E=status{CR} {CR} {LF}OK {CR} {LF}

Parameters:

Status: status of display, including:

"On": open

"Off": close

The default is "on".

1.2.4.AT+ENTM

Function: Set module to return to work mode before

Format: AT+ENTM{CR} {CR} {LF}OK {CR} {LF}

1.2.5.AT+WKMOD

Function: query / set module working mode.

Format:

Query parameter description:

AT+WKMOD=? {CR}

{CR} {LF}+WKMOD:< "CMD", "SMS", "NET", "HTTPD" >{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+WKMOD{CR} or AT+WKMOD? {CR}
{CR} {LF}+WKMOD:mode{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+WKMOD=mode{CR} {CR} {LF}OK {CR} {LF}

Parameters:

Mode: working mode

"CMD": AT instruction mode

"SMS": short message transmission mode

"NET": network transmission mode

"HTTPD": HTTPD mode

The default is "NET".

Example: AT+WKMOD= "NET"

1.2.6.AT+CALEN

Function: query / set whether to enable call function.

Format:

Query parameter description:

AT+CALEN=? {CR}
{CR} {LF}+CALEN:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+CALEN{CR} or AT+CALEN? {CR}
{CR} {LF}+CALEN:status{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+CALEN=status{CR} {CR} {LF}OK {CR} {LF}

Parameters:

Status: the enabling state of the call function, including:

"On": enabling

"Off": prohibition

The default is "off".

Example: AT+CALEN= "off"

1.2.7.AT+NATEN

Function: query / set whether to enable network AT instruction.

Format:

Query parameter description:

AT+NATEN=? {CR}
{CR} {LF}+NATEN:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+NATEN{CR} or AT+NATEN? {CR}
{CR} {LF}+NATEN:status{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+NATEN=status{CR}
{CR} {LF}OK {CR} {LF}

Parameters:

Status: network AT command enabling state, including:

"On": enabling

"Off": prohibition

The default is "on".

Example: AT+NATEN= "on"

1.2.8.AT+UATEN

Function: query / set to enable serial port AT command in transparent mode.

Format:

Query parameter description:

```
AT+UATEN=? {CR}
```

```
{CR} {LF}+UATEN:<"on", "off">{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+UATEN{CR} or AT+UATEN? {CR}
```

```
{CR} {LF}+UATEN:status{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+UATEN=status {CR}
```

```
{CR} {LF}OK {CR} {LF}
```

Parameters:

Status: serial port AT command enable state in transparent mode, including:

"On": enabling

"Off": prohibition

The default is "off".

Example: AT+UATEN= "on"

1.2.9.AT+CMDPW

Function: query / set command password.

Format:

Query parameter description:

```
AT+CMDPW=? {CR}
```

```
{CR} {LF}+CMDPW:<"password">{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+CMDPW {CR} or AT+CMDPW? {CR}
```

```
{CR} {LF}+CMDPW: "password" {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+CMDPW= "password" {CR}
```

```
{CR} {LF}OK {CR} {LF}
```

Parameters:

Password: Command password, usr.cn by default, up to 6 bytes.

Example: AT+CMDPW= "usr.cn"

1.2.10. AT+CACHEN

Function: query / set whether to open cached data.

Format:

Query parameter description:

```
AT+CACHEN=? {CR}
{CR} {LF}+CACHEN:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+CACHEN{CR} or AT+CACHEN? {CR}
{CR} {LF}+CACHEN:status{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+CACHEN=status{CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Status: whether to open cached data, including:

"On": open

"Off": close

The default is "on".

Example: AT+CACHEN= "on"

1.2.11. AT+STMSG

Function: welcome information for enquiry / setting module.

Format:

Query parameter description:

```
AT+STMSG=? {CR}
{CR} {LF}+STMSG:< "welcome message" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+STMSG {CR} or AT+STMSG? {CR}
{CR} {LF}+STMSG: "welcome message" {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+STMSG= "welcome message" {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

"Welcome message": welcome information, module power-on boot, the active output of information, can be used to detect whether the module is properly driven, default to "USR-GM3 version number", up to 17 bytes.

Example: AT+ STMSG = "www.usr.cn"

1.2.12. AT+RSTIM

Function: Query / set the module's automatic restart time, when the network does not have data when the arrival of the specified time will restart the module.

Format:

Query parameter description:

Query the current parameter value:

AT+RSTIM{CR} or AT+RSTIM? {CR}
{CR} {LF}+RSTIM:time{CR} {LF} {CR} {LF}OK{CR} {LF}

Set up:

AT+RSTIM=time{CR}
{CR} {LF}OK{CR} {LF}

Parameters:

Time: Auto restart time, unit seconds, default 1800 seconds, maximum 65535, set to 0 to turn off auto restart function.

Example: AT+ RSTIM =180

1.2.13. AT+S

Function: save the current settings, and the module will be restarted.

Format:

Query the current parameter value:

AT+S{CR}
{CR} {LF}OK{CR} {LF}

1.2.14. AT+RELD

Function: restore user default settings, and module will restart.

Format:

Query the current parameter value:

AT+RELD{CR}
{CR} {LF}OK{CR} {LF}

1.2.15. AT+CLEAR

Function: restore the factory settings, and the module will be restarted.

Format:

Query the current parameter value:

AT+CLEAR{CR}
{CR} {LF}OK{CR} {LF}

1.2.16. AT+CFGTF

Function: save the current operation parameters of the module as default parameters.

Format:

Query the current parameter value:

AT+CFGTF{CR}
{CR} {LF}OK{CR} {LF}

1.2.17. AT+VER

Function: the firmware version of the query module.

Format:

Query the current parameter value:

AT+VER{CR} or AT+VER? {CR}
{CR}{LF}+VER:version{CR}{LF}{CR}{LF}OK{CR}{LF}

Parameters:

Version: firmware version number

1.2.18. AT+SN

Function: query the SN code of the module.

Format:

Query the current parameter value:

AT+SN{CR} or AT+SN? {CR}
{CR}{LF}+SN:code{CR}{LF}{CR}{LF}OK{CR}{LF}

Parameters:

code:SN code

1.2.19. AT+ICCID

Function: query the ICCID code of the module.

Format:

Query the current parameter value:

AT+ICCID{CR} or AT+ICCID? {CR}
{CR}{LF}+ICCID:code{CR}{LF}{CR}{LF}OK{CR}{LF}

Parameters:

code:ICCID code

1.2.20. AT+IMEI

Function: query the IMEI code of the module.

Format:

Query the current parameter value:

AT+IMEI{CR} or AT+IMEI? {CR}
{CR}{LF}+IMEI:code{CR}{LF}{CR}{LF}OK{CR}{LF}

Parameters:

Code:IMEI code

1.2.21. AT+CNUM

Function: inquire the phone number of this machine.

Format:

Query the current parameter value:

AT+CNUM{CR} or AT+CNUM? {CR}
{CR}{LF}+CNUM:phone number{CR}{LF}{CR}{LF}OK{CR}{LF}

Parameters:

Phone number: local telephone number

1.2.22. AT+UART

Function: query / set serial parameters.

Format:

Query parameter description:

```
AT+UART=? {CR}
```

```
{CR} {LF}+UART:
```

```
<2400,4800,9600,14400,19200,28800,33600,38400,57600,115200,230400,460800,921600>, < "NONE",  
"ODD", "EVEN">, <7,8>, <1,2>, < "NONE", "CRTS", "RS485"> {CR CR} {LF} {CR LF} {LF} {
```

Query the current parameter value:

```
AT+UART{CR} or AT+UART? {CR}
```

```
{CR} {LF}+UART:baud, parity, data bit, stop bit, flow control{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+UART=baud, parity, data bit, stop bit, flow control{CR}
```

```
{CR} {LF}OK{CR} {LF}
```

Parameters:

Baud: baud rate, including: 2400, 4800, 9600, 14400, 19200, 28800, 33600, 38400, 57600, 115200, 230400, 460800, 921600

Parity: calibration mode, including:

"NONE": no calibration.

"ODD": odd check

"EVEN": parity check

Data bit: data bits, including:

7:7 bit data

8:8 bit data

Stop bit: stop bits, including:

1:1 bit stop bit

2:2 bit stop bit

Flow control: flow control, including:

"NONE": no flow control.

"RS485": using RS485 function

The default serial port parameter is 115200, "NONE", 8,1, "RS485".

Example: AT+UART=115200, "NONE", 8,1, "RS485".

1.2.23. AT+RFCEN

Function: query / set whether enabling RFC2217 function.

Format:

Query parameter description:

```
AT+RFCEN=? {CR}
```

```
{CR} {LF}+RFCEN:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+RFCEN{CR} or AT+RFCEN? {CR}
```

```
{CR} {LF}+RFCEN:status{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+RFCEN=status{CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Status: RFC2217 enabled state, including:

"On": enabling

"Off": prohibition

The default is "off".

Example: AT+ RFCEN = "on"

1.2.24. AT+APN

Function: query / set APN code.

Format:

Query parameter description:

```
AT+APN=? {CR}
{CR} {LF} +APN:<"code"> << name >> << pass >> {CR} {LF} {CR} {LF} OK {CR} {LF} >
```

Query the current parameter value:

```
AT+APN{CR} or AT+APN? {CR}
{CR} {LF} +APN: "code", "name", "pass" {CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+APN= "code", "name", "pass" {CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

code:APN, default CMNET, up to 50 bytes.

The name: user name is not blank, up to 50 bytes, and the default is empty.

The pass: password is not blank, up to 50 bytes, and the default is empty.

Example: AT+APN= "usr", "usr.cn", "123".

1.2.25. AT+SOCKA

Function: query / set the parameters of socket A.

Format:

Query parameter description:

```
AT+SOCKA=? {CR}
{CR} {LF} +SOCKA:<protocol>, <"address">, <port> {CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+SOCKA{CR} or AT+SOCKA? {CR}
{CR} {LF} +SOCKA: protocol, "address", port {CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+SOCKA=protocol, "address", port {CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Protocol: communication protocol, default TCP, including:

"TCP": TCP protocol

"UDP": UDP protocol

Address: server address. This address can be domain name or IP, up to 100 bytes, defaults to test.usr.cn

Port: server port, default 2317, range 1~65535

Example: AT+SOCKA="TCP", "test.usr.cn", 2317

1.2.26. AT+SOCKB

Function: query / set the parameters of socket B.

Format:

Query parameter description:

AT+SOCKB=? {CR}

{CR} {LF}+SOCKB:<protocol>, <"address">, <port>{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+SOCKB{CR} or AT+SOCKB? {CR}

{CR} {LF}+SOCKB: protocol, "address", port{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+SOCKB=protocol, "address", port{CR}

{CR} {LF}OK {CR} {LF}

Parameters:

Protocol: communication protocol, default TCP, including:

"TCP": TCP protocol

"UDP": UDP protocol

Address: server address, this address can be domain name or IP, up to 100 bytes, default test.usr.cn

Port: server port, default 2317, range 1~65535

Example: AT+SOCKB="TCP", "test.usr.cn", 2317

1.2.27. AT+SOCKC

Function: query / set the parameters of socket C.

Format:

Query parameter description:

AT+SOCKC=? {CR}

{CR} {LF}+SOCKC:<protocol>, <"address">, <port>{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+SOCKC{CR} or AT+SOCKC? {CR}

{CR} {LF}+SOCKC: protocol, "address", port{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+SOCKC=protocol, "address", port{CR}

{CR} {LF}OK {CR} {LF}

Parameters:

Protocol: communication protocol, default TCP, including:

"TCP": TCP protocol

"UDP": UDP protocol

Address: server address, this address can be domain name or IP, up to 100 bytes, default test.usr.cn

Port: server port, default 2317, range 1~65535

Example: AT+SOCKC= "TCP", "test.usr.cn", 2317

1.2.28. AT+SOCKD

Function: query / set the parameters of socket D.

Format:

Query parameter description:

AT+SOCKD=? {CR}

{CR} {LF}+SOCKD:<protocol>, <"address">, <port>{CR} {LF} {CR} {LF}OK{CR} {LF}

Query the current parameter value:

AT+SOCKD{CR} or AT+SOCKD? {CR}

{CR} {LF}+SOCKD: protocol, "address", port{CR} {LF} {CR} {LF}OK{CR} {LF}

Set up:

AT+SOCKD=protocol, "address", port{CR}

{CR} {LF}OK{CR} {LF}

Parameters:

Protocol: communication protocol, default TCP, including:

"TCP": TCP protocol

"UDP": UDP protocol

Address: server address, this address can be domain name or IP, up to 100 bytes, default test.usr.cn

Port: server port, default 2317, range 1~65535

Example: AT+SOCKD= "TCP", "test.usr.cn", 2317

1.2.29. AT+SOCKAEN

Function: query / set whether to enable socket A.

Format:

Query parameter description:

AT+SOCKAEN=? {CR}

{CR} {LF}+SOCKAEN:<"on", "off">{CR} {LF} {CR} {LF}OK{CR} {LF}

Query the current parameter value:

AT+SOCKAEN{CR} or AT+SOCKAEN? {CR}

{CR} {LF}+SOCKAEN:status{CR} {LF} {CR} {LF}OK{CR} {LF}

Set up:

AT+SOCKAEN=status{CR}

{CR} {LF}OK{CR} {LF}

Parameters:

Status: socket A function enabling state, including:

"On": enabling

"Off": prohibition

The default is "on".

Example: AT+SOCKAEN= "on"

1.2.30. AT+SOCKBEN

Function: query / set whether to enable socket B.

Format:

Query parameter description:

```
AT+SOCKBEN=? {CR}
{CR} {LF}+SOCKBEN:< "on", "off" >{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+SOCKBEN{CR} or AT+SOCKBEN? {CR}
{CR} {LF}+SOCKBEN:status {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+SOCKBEN=status{CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Status: socket B function enabling state, including:

"On": enabling

"Off": prohibition

The default is "on".

Example: AT+SOCKBEN= "on"

1.2.31. AT+SOCKCEN

Function: query / set whether to enable socket C.

Format:

Query parameter description:

```
AT+SOCKCEN=? {CR}
{CR} {LF}+SOCKCEN:< "on", "off" >{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+SOCKCEN{CR} or AT+SOCKCEN? {CR}
{CR} {LF}+SOCKCEN:status {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+SOCKCEN=status{CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Status: socket C function enabling state, including:

"On": enabling

"Off": prohibition

The default is "on".

Example: AT+SOCKCEN= "on"

1.2.32. AT+SOCKDEN

Function: query / set whether to enable socket D.

Format:

Query parameter description:

```
AT+SOCKDEN=? {CR}
{CR} {LF}+SOCKDEN:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+SOCKDEN{CR} or AT+SOCKDEN? {CR}
{CR} {LF}+SOCKDEN:status {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+SOCKDEN=status {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Status: socket D function enabling state, including:

"On": enabling

"Off": prohibition

The default is "on".

Example: AT+SOCKDEN= "on"

1.2.33. AT+SOCKASL

Function: query / set up the connection mode of socket A for TCP communication.

Format:

Query parameter description:

```
AT+SOCKASL=? {CR}
{CR} {LF}+SOCKASL:< "short", "long" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+SOCKASL{CR} or AT+SOCKASL? {CR}
{CR} {LF}+SOCKASL:type {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+SOCKASL=type {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Type: connection mode, including:

"Short": short connection

"Long": long connection

The default is "long".

Example: AT+SOCKASL= "long"

1.2.34. AT+SOCKBSL

Function: query / set up the connection mode of socket B for TCP communication.

Format:

Query parameter description:

```
AT+SOCKBSL=? {CR}
{CR} {LF}+SOCKBSL:< "short", "long" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+SOCKBSL{CR} or AT+SOCKBSL? {CR}
{CR} {LF}+SOCKBSL:type {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+SOCKBSL=type{CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Type: connection mode, including:

"Short": short connection

"Long": long connection

The default is "long".

Example: AT+SOCKBSL= "long"

1.2.35. AT+SOCKCSL

Function: query / set up the connection mode of socket C for TCP communication.

Format:

Query parameter description:

```
AT+SOCKCSL=? {CR}
{CR} {LF} +SOCKCSL:< "short", "long" >{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+SOCKCSL{CR} or AT+SOCKCSL? {CR}
{CR} {LF} +SOCKCSL:type{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+SOCKCSL=type{CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Type: connection mode, including:

"Short": short connection

"Long": long connection

The default is "long".

Example: AT+SOCKCSL= "long"

1.2.36. AT+SOCKDSL

Function: query / set up the connection mode of socket D for TCP communication.

Format:

Query parameter description:

```
AT+SOCKDSL=? {CR}
{CR} {LF} +SOCKDSL:< "short", "long" >{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+SOCKDSL{CR} or AT+SOCKDSL? {CR}
{CR} {LF} +SOCKDSL:type{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+SOCKDSL=type{CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Type: connection mode, including:

"Short": short connection

"Long": long connection

The default is "long".

Example: AT+SOCKDSL= "long"

1.2.37. AT+SOCKALK

Function: query whether socket A has established a connection.

Format:

Query the current parameter value:

AT+SOCKALK{CR} or AT+SOCKALK? {CR}

{CR} {LF}+SOCKALK:status{CR} {LF} {CR} {LF}OK{CR} {LF}

Parameters:

Status:socket A connection status, including:

"Connected": connected

"Disconnected": unconnected

1.2.38. AT+SOCKBLK

Function: query whether socket B has established a connection.

Format:

Query the current parameter value:

AT+SOCKBLK{CR} or AT+SOCKBLK? {CR}

{CR} {LF}+SOCKBLK:status{CR} {LF} {CR} {LF}OK{CR} {LF}

Parameters:

Status:socket B connection status, including:

"Connected": connected

"Disconnected": unconnected

1.2.39. AT+SOCKCLK

Function: query whether socket C has established a connection.

Format:

Query the current parameter value:

AT+SOCKCLK{CR} or AT+SOCKCLK? {CR}

{CR} {LF}+SOCKCLK:status{CR} {LF} {CR} {LF}OK{CR} {LF}

Parameters:

Status:socket C connection status, including:

"Connected": connected

"Disconnected": unconnected

1.2.40. AT+SOCKDLK

Function: query whether socket D has established a connection.

Format:

Query the current parameter value:

AT+SOCKDLK {CR} or AT+SOCKDLK? {CR}
{CR} {LF}+SOCKDLK:status {CR} {LF} {CR} {LF}OK {CR} {LF}

Parameters:

Status:socket D connection status, including:

"Connected": connected

"Disconnected": unconnected

1.2.41. AT+SOCKRSTM

Function: setup / query connection failure restart time

Format:

Query parameter description:

AT+ SOCKRSTM =? {CR}
{CR} {LF}+ SOCKRSTM:<time>{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+ SOCKRSTM {CR} or AT+ SOCKIDEN? {CR}
{CR} {LF}+ SOCKRSTM:time{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+ SOCKRSTM =time{CR}
{CR} {LF}OK {CR} {LF}

Parameters:

Time: restart time, unit second, default 60 seconds, maximum 65535 seconds.

Note: When users use multi-channel sockets, the module will automatically restart when one-way connections are abnormal, and can't be restored. Restart will affect other connections, in order to minimize the impact on other multi-way, customers can increase this time appropriately.

Example: AT+SOCKRSTM=180

1.2.42. AT+SHORTIM

Function: set / query short connection failure restart time

Format:

Query parameter description:

AT+ SHORTIM=? {CR}
{CR} {LF}+ SHORTIM:<time>{CR} {LF} {CR} {LF}OK {CR} {LF}

Query the current parameter value:

AT+ SHORTIM {CR} or AT+ SOCKIDEN? {CR}
{CR} {LF}+ SHORTIM:time{CR} {LF} {CR} {LF}OK {CR} {LF}

Set up:

AT+ SHORTIM =time{CR}
{CR} {LF}OK {CR} {LF}

Parameters:

Time: restart time, unit second, default 10 seconds, maximum 65535 seconds.

Example: AT+SOCKRSTM=10

1.2.43. AT+SOCKIDEN

Function: set / query whether to display which socket the data comes from.

Format:

Query parameter description:

```
AT+ SOCKIDEN =? {CR}
{CR} {LF}+ SOCKIDEN:< "on", "off" >{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+ SOCKIDEN {CR} or AT+ SOCKIDEN? {CR}
{CR} {LF}+ SOCKIDEN:status{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+ SOCKIDEN =status{CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

Status:

"On": opens the display socket ID function.

"Off": close the display of socket ID function.

Default "off"

Example: AT+SOCKIDEN= "on"

1.2.44. AT+CIP

Function: query local IP address.

Format:

Query the current connection IP address:

```
AT+ CIP {CR} or AT+ CIP? {CR}
{CR} {LF}+ CIP: {CR} {LF}SOCKET:IP{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Parameters:

SOCKET: the current link.

IP: the local IP address under the current link.

1.2.45. AT+PING

Function: test whether the specified address device is reachable, and whether the network connection is malfunctioning.

Format:

Query parameter description:

```
AT+ PING =? {CR}
{CR} {LF}+ PING:< "DNS/IP address" >{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Instruction usage:

```
AT+ PING= "DNS/IP address" {CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

DNS/IP address: domain name or IP address.

Example: AT+PING= "www.baidu.com"

1.2.46. AT+CSQ

Function: network signal strength of query module.

Format:

Query current signal value:

```
AT+CSQ{CR}
{CR}{LF}+CSQ: <rss>, <ber>{CR}{LF}{CR}{LF}OK{CR}{LF}
```

Parameters:

RSSI: signal quality

BER: bit error rate

Explanation: the signal quality is generally more than 20 normal, and the full value is 31.

1.2.47. AT+REGEN

Function: query / set whether to enable the registration of package functions.

Format:

Query parameter description:

```
AT+REGEN=? {CR}
{CR}{LF}+REGEN:<"on", "off">{CR}{LF}{CR}{LF}OK{CR}{LF}
```

Query the current parameter value:

```
AT+REGEN{CR} or AT+REGEN? {CR}
{CR}{LF}+REGEN:status{CR}{LF}{CR}{LF}OK{CR}{LF}
```

Set up:

```
AT+REGEN=status{CR}
{CR}{LF}OK{CR}{LF}
```

Parameters:

Status: Registration package function enabling state, including:

"On": open

"Off": close

The default is "off".

Example: AT+REGEN= "on"

1.2.48. AT+REGTP

Function: query / set the content type of the registration package.

Format:

Query parameter description:

```
AT+REGTP=? {CR}
{CR}{LF}+REGTP:<"ICCID", "IMEI", "REGID", "REGDT">{CR}{LF}{CR}{LF}OK{CR}{LF}
```

Query the current parameter value:

```
AT+REGTP{CR} or AT+REGTP? {CR}
{CR}{LF}+REGTP:type{CR}{LF}{CR}{LF}OK{CR}{LF}
```

Set up:

```
AT+REGTP=type{CR}
{CR}{LF}OK{CR}{LF}
```

Parameters:

Type: registration data types, including:

"ICCID": ICCID code

"IMEI": IMEI code

"REGID": registered ID

"REGDT": custom data

The default is "REGDT".

Example: AT+REGEN= "ICCID"

1.2.49. AT+REGID

Function: query / set up registration ID.

Format:

Query parameter description:

AT+REGID=? {CR}

{CR} {LF} +REGID:<id>{CR} {LF} {CR} {LF} OK {CR} {LF}

Query the current parameter value:

AT+REGID {CR} or AT+REGID? {CR}

{CR} {LF} +REGID:id {CR} {LF} {CR} {LF} OK {CR} {LF}

Set up:

AT+REGID=id {CR}

{CR} {LF} OK {CR} {LF}

Parameters:

ID: register ID, default 100, Max 65536.

Example: AT+REGID=123

1.2.50. AT+REGDT

Function: query / set custom registration package data.

Format:

Query parameter description:

AT+REGDT=? {CR}

{CR} {LF} +REGDT:<"data" >{CR} {LF} {CR} {LF} OK {CR} {LF}

Query the current parameter value:

AT+REGDT {CR} or AT+REGDT? {CR}

{CR} {LF} +REGDT: "data" {CR} {LF} {CR} {LF} OK {CR} {LF}

Set up:

AT+REGDT= "data" {CR}

{CR} {LF} OK {CR} {LF}

Parameters:

Data: Custom registration package data, hexadecimal string format, maximum 80 bytes, default 7777772E7573722E636E, with ASCII code for the expression of www.usr.cn.

Example: AT+REGDT= "7777772E7573722E636E"

1.2.51. AT+REGSND

Function: query / set the sending mode of the registration package.

Format:

Query parameter description:

```
AT+REGSND=? {CR}
{CR} {LF} +REGSND:< "link", "data", "link&data" >{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+REGSND{CR} or AT+REGSND? {CR}
{CR} {LF} +REGSND:type{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+REGSND=type{CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Type: sending mode, including:

"Link": send when connection is established.

"Data": register packet data as the beginning of each packet data.

"Link& data": at the same time support the above two kinds.

The default is "link".

Example: AT+REGSND= "link"

1.2.52. AT+HEARTEN

Function: query / set whether to enable heartbeat package function.

Format:

Query parameter description:

```
AT+HEARTEN=? {CR}
{CR} {LF} +HEARTEN:< "on", "off" >{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+HEARTEN{CR} or AT+HEARTEN? {CR}
{CR} {LF} +HEARTEN:status{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+HEARTEN=status{CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Status: heartbeat package function enabling state, including:

"On": open

"Off": close

The default is "on".

Example: AT+HEARTEN= "on"

1.2.53. AT+HEARTDT

Function: query / set heartbeat data.

Format:

Query parameter description:

```
AT+HEARTDT=? {CR}
{CR} {LF}+HEARTDT:< "data" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+HEARTDT {CR} or AT+HEARTDT? {CR}
{CR} {LF}+HEARTDT: "data" {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+HEARTDT= "data" {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Data: Custom registration package data, hexadecimal string format, maximum length of 40 bytes, default 777772E7573722E636E, with ASCII code is expressed as www.usr.cn.

Example: AT+HEARTDT= "777772E7573722E636E"

1.2.54. AT+HEARTTP

Function: query / set the sending mode of heartbeat package.

Format:

Query parameter description:

```
AT+HEARTTP=? {CR}
{CR} {LF}+HEARTTP:< "COM", "NET" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+HEARTTP {CR} or AT+HEARTTP? {CR}
{CR} {LF}+HEARTTP:type {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+HEARTTP=type {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Type: sending mode, including:

"COM": send heartbeat packets to the serial port.

"NET": send heartbeat packets to the network side.

The default is "NET".

Example: AT+HEARTTP= "NET"

1.2.55. AT+HEARTTM

Function: query / set the sending time of heartbeat packets.

Format:

Query parameter description:

```
AT+HEARTTM=? {CR}
{CR} {LF}+HEARTTM:<time> {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+HEARTTM {CR} or AT+HEARTTM? {CR}
{CR} {LF}+HEARTTM:time {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+HEARTTM=time {CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Time: sending interval time, the default is 30s, the maximum 65535s.

Example: AT+HEARTTM=60

1.2.56. AT+HTPTP

Function: query / set up HTTP request mode.

Format:

Query parameter description:

```
AT+HTPTP=? {CR}
{CR} {LF} +HTPTP:< "GET", "POST" >{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+HTPTP{CR} or AT+HTPTP? {CR}
{CR} {LF} +HTPTP:type {CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+HTPTP=type {CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

Type:HTTP request mode, including:

"GET": get mode

"POST": post mode

The default is "GET".

Example: AT+HTPTP= "GET"

1.2.57. AT+HTPURL

Function: query / set the URL of the HTTP request.

Format:

Query parameter description:

```
AT+HTPURL=? {CR}
{CR} {LF} +HTPURL:< "URL" >{CR} {LF} {CR} {LF} OK {CR} {LF}
```

Query the current parameter value:

```
AT+HTPURL{CR} or AT+HTPURL? {CR}
{CR} {LF} +HTPURL: "URL" {CR} {LF} {CR} {LF} OK {CR} {LF}
```

Set up:

```
AT+HTPURL= "URL" {CR}
{CR} {LF} OK {CR} {LF}
```

Parameters:

The URL of the URL:HTTP request is "/1.php?" by default, with a maximum length of 100 bytes.

Example: AT+HTPURL= "/1.php?"

1.2.58. AT+HTPSV

Function: query / set the server parameters of the HTTP request.

Format:

Query parameter description:

```
AT+HTPSV=? {CR}
{CR} {LF}+HTPSV:< "address" > <port>{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+HTPSV{CR} or AT+HTPSV? {CR}
{CR} {LF}+HTPSV: "address", port{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+HTPSV= "address", port{CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

Address: Server address, which can be a domain name or IP, defaults to test.usr.cn, up to 100 bytes.

Port: server port, defaults to 80, range 1~65535

Example: AT+HTPSV= "test.usr.cn", 80

1.2.59. AT+HTPHD

Function: query / set the header information of HTTP request.

Format:

Query parameter description:

```
AT+HTPHD=? {CR}
{CR} {LF}+HTPHD:< "head" >{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+HTPHD{CR} or AT+HTPHD? {CR}
{CR} {LF}+HTPHD: "head" {CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+HTPHD= "head" {CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

The header information of the head:HTTP request is "Accept:text/html[0D][0A]" by default, with a maximum length of 200 bytes.

Example: AT+HTPHD= "Accept:text/html[0D][0A]Accept-Language:zh-CN[0D][0A]"

1.2.60. AT+HTPPK

Function: query / set HTTP Baotou filtering

Format:

Query parameter description:

```
AT+HTPPK=? {CR}
{CR} {LF}+HTPPK:< "on", "off" >{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+HTPPK{CR} or AT+HTPPK? {CR}
```

{CR} {LF}+HTPPK:status{CR} {LF} {CR} {LF}OK{CR} {LF}

Set up:

```
AT+ HTPPK=status{CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

Status: packet filtering enabling state, including:

"On": open

"Off": close

The default is "on".

Example: AT+HTPPK= "on"

1.2.61. AT+HTPTIM

Function: query / set HTTP timeout.

Format:

Query parameter description:

```
AT+HTPTIM=? {CR}
{CR} {LF}+HTPTIM:<"time">{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+ HTPTIM {CR} or AT+ HTPTIM? {CR}
{CR} {LF}+HTPTIM:time{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+ HTPTIM =time{CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

Time: timeout time 1-65535 seconds, default 10 seconds.

Example: AT+HTPTIM=10

1.2.62. AT+DSTNUM

Function: target telephone number for inquiring / setting short message.

Format:

Query parameter description:

```
AT+DSTNUM=? {CR}
{CR} {LF}+DSTNUM:<"number">{CR} {LF} {CR} {LF}OK{CR} {LF}
```

Query the current parameter value:

```
AT+DSTNUM{CR} or AT+DSTNUM? {CR}
{CR} {LF}+DSTNUM: "number" {CR} {LF} {CR} {LF}OK{CR} {LF}
```

Set up:

```
AT+DSTNUM= "number" {CR}
{CR} {LF}OK{CR} {LF}
```

Parameters:

Number: the target phone number in the SMS transmission function, the default number is 1008610010, up to 20 bytes.

Example: AT+DSTNUM= "1008610010"

1.2.63. AT+SMSSEND

Function: send short message.

Format:

Query parameter description:

```
AT+SMSSEND=? {CR}
```

```
{CR} {LF}+SMSSEND:< "number" ><1,2,3>, <"data" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+SMSSEND= "number", type, "data" {CR}
```

```
{CR} {LF}OK {CR} {LF}
```

Parameters:

Number: target telephone number for short messages.

Type: encoding methods, including

1:ASCII encoding, compression

2:8 bit encoding, no compression

3:UCS8, in Chinese and English.

Data: content of short message

Note: The maximum length of SMS content is 160 bytes in mode ASCII, 140 bytes in mode 8 and 70 bytes in mode UCS8.

Example: AT+SMSSEND= "1008610010", 1, "ww.usr.cn".

1.2.64. AT+CLOUDEN

Function: query / settings to enable transparent transmission of cloud function

Format:

Query parameter description:

```
AT+ CLOUDEN =? {CR}
```

```
{CR} {LF}+ CLOUDEN:< "on", "off" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+ CLOUDEN {CR} or AT+ CLOUDEN? {CR}
```

```
{CR} {LF}+ CLOUDEN: status {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+ CLOUDEN =status{CR}
```

```
{CR} {LF}OK {CR} {LF}
```

Parameters:

Status: transparent cloud enabled state, including:

"On": open

"Off": close

The default is "off".

Example: AT+CLOUDEN= "on"

1.2.65. AT+CLOUDID

Function: query / set up the 20 bit device ID of the device.

Format:

Query parameter description:

```
AT+ CLOUDID =? {CR}
{CR} {LF}+ CLOUDID:< "Id" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+ CLOUDID {CR} or AT+ CLOUDID? {CR}
{CR} {LF}+ CLOUDID: "Id" {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+ CLOUDID= "Id" {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

ID: through the cloud 20 bit device ID, the default is empty.

Example: AT+CLOUDID= "12345678901234567890"

1.2.66. AT+CLOUDPA

Function: query / set up the 8 bit communication code of the device.

Format:

Query parameter description:

```
AT+ CLOUDPA =? {CR}
{CR} {LF}+ CLOUDPA:< "pass" >{CR} {LF} {CR} {LF}OK {CR} {LF}
```

Query the current parameter value:

```
AT+ CLOUDPA {CR} or AT+ CLOUDPA? {CR}
{CR} {LF}+ CLOUDPA: "pass" {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Set up:

```
AT+ CLOUDPA = "pass" {CR}
{CR} {LF}OK {CR} {LF}
```

Parameters:

Pass: pass through the cloud 8 bit communication password, the default is empty.

Example: AT+CLOUDPA= "12345678"

1.2.67. AT+LBS

Function: get location information of base station

Format:

Query the current parameter value:

```
AT+ LBS {CR} or AT+ LBS? {CR}
{CR} {LF}+ LBS: LAC, CID {CR} {LF} {CR} {LF}OK {CR} {LF}
```

Parameters:

LAC: location code

CID: base station code

6.Contact Us

Company: Jinan USR IOT Technology Limited

Address: Floor 11, Building 1, No. 1166 Xinluo Street, Gaoxin District, Jinan, Shandong, 250101, China

Web: www.usriot.com

Support: h.usriot.com

Email: sales@usr.cn

Tel: 86-531-88826739/86-531-55507297

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8.Update History

Edition	Describe
V1.0.0	2019-02-27 establish