N706B

AT Commands Manual

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Contents

Chapter 1 Power-On LOG Description

The module outputs “+PBREADY” after boot.

If the module starts in auto-baud mode, wait 10 seconds after power-on before sending “AT”. If AT initialization is completed, the module will reply “OK”. When the phonebook is ready, “+PBREADY” will be displayed.

Network indicator:

- No network service: Off
- Registered but PPP not activated: Solid on
- PPP activated: blinking cycle of 0.2s on and 1.8s off

Chapter 2 AT Syntax

2.1 Definition

- **<CR>**: Carriage return
- **<LF>**: Line feed
- **<..>**: Parameter name; angle brackets are *not* preserved in the actual AT command
- **[..]**: Optional parameter; square brackets are *not* preserved in the actual AT command
- **(space)**: Space character

2.2 Syntax Description

Prefix Description: "AT" or "at" is used as the command prefix. The module recognizes only these forms as valid AT commands.

Command Fields:

- **Standard Commands**: Defined by 3GPP TS 27007, 27005 or ITU-T Recommendation V.250
- **Proprietary Commands**: Neoway-extended command set

Connector Description: "+" and "$" are used as the connector between the prefix and the command field. See each command section for detailed behavior.

Termination Character: By default, **<CR>** is used as the termination character for every AT command (value: **0x0D**).

Command Response Syntax:

```
<CR><LF>response<CR><LF>
```

The response field may contain multiple lines/messages depending on the command.

Command Result Syntax:

```
<CR><LF>OK<CR><LF>
<CR><LF>ERROR<CR><LF>
```

OK indicates successful execution, while **ERROR** indicates failure.

2.3 Command Types

Type	Command Syntax	Response Syntax	Description
Set	AT+CMD=<VALUE><(	OK or ERROR	Write parameter
Execute	AT+CMD[=<VALUE>]·	response + OK	Perform internal action
Test	AT+CMD=?<CR>	response + OK	Return available parameter list
Query	AT+CMD?<CR>	response + OK	Return current stored value
URC	<CR><LF>+CMD:<VA	N/A	Unsolicited report from module

2.4 Command Response Time

After receiving an AT command, the module requires some time to process it internally. The response duration depends on the type of command.

For commands involving simple parameter operations (read/write), the module typically responds immediately, with a default maximum response time of **300 ms**.

Commands involving SIM/USIM card operations, network interactions, or peripheral control may take several seconds to tens of seconds. The actual duration depends on:

- SIM/USIM card content (e.g., number of contacts or SMS stored)
- Network quality, signal strength, and congestion
- Peripheral device type and operating state

The table below lists typical response times for selected commands. Commands not listed usually have a maximum response time of approximately **300 ms**.

No.	Command	Timeout (s)
1	AT+COPS	180
2	AT+CLCK	15
3	ATD*99#	30
4	AT+CMGR	30
5	AT+CMGL	30
6	AT+CMGS	30
7	AT+XIIC	60
8	AT+TCPSETUP	60
9	AT+TCPSEND	30
10	AT+TCPCLOSE	5
11	AT+UDPSETUP	30
12	AT+UDPSEND	30
13	AT+TCPLISTENMODE	30
14	AT+TCPLISTEN	30
15	AT+CLOSELISTEN	5
16	AT+CLOSECLIENT	5
17	AT+TCPREADS	30
18	AT+TCPSENDS	30

continues on next page

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No.	Command	Timeout (s)
19	AT+CLIENTSTATUS	30
20	AT+TCPACKS	30
21	AT+TCPTRANS	60
22	AT+FTPLOGIN	30
23	AT+FTPLOGOUT	30
24	AT+FTPGET	30
25	AT+FTPPUT	30
26	AT+FTPSIZE	30
27	AT+HTTPSETUP	60
28	AT+HTTPACTION	60

Chapter 3 Basic Commands

3.1 ATI□Get Module Manufacturer Information

Get module manufacturer information, including manufacturer, model, and version. Command Format

3.1.1 Command Format

Execute Command

Command□

```
ATI
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.1.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.1.3 Examples

```
ATI

OK
```

3.1.4 Notes

Example 1

3.2 AT+GMR□Query Version Information

Query software version information. Command Format

3.2.1 Command Format

Execute Command

Command□

```
AT+GMR
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.2.2 Parameters

- **<service>**□ □□□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.2.3 Examples

```
AT+CSMS=1

+CSMS: 1,1,1
OK
```

3.2.4 Notes

Example 2

3.3 AT+CSQ□Get Signal Strength

Query received signal strength <rssi>. Command Format

3.3.1 Command Format

Execute Command

Command□

```
AT+CSQ
```

Response□

```
<CR><LF>OK<CR><LF>
```


3.3.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.3.3 Examples

```
AT+CSQ

OK
```

3.3.4 Notes

Example 3

3.4 AT+CREG□Query Network Registration Status

Query the current network registration status of the module. Command Format

3.4.1 Command Format

Execute Command

Command□

```
AT+CREG
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.4.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.4.3 Examples

```
AT+CREG

OK
```

3.4.4 Notes

See Example 4

3.5 AT+CEREG□Get EPS Network Registration Status

Query EPS network registration status. Command Format

3.5.1 Command Format

Execute Command

Command□

```
AT+CEREG
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.5.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.5.3 Examples

```
AT+CEREG

OK
```

3.5.4 Notes

See Example 5

3.6 AT+COPS□Network Selection

Query network. Command Format

3.6.1 Command Format

Execute Command

Command□

```
AT+COPS
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.6.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.6.3 Examples

```
AT+COPS

OK
```

3.6.4 Notes

See Example 6

3.7 AT+CIMI□Query International Mobile Subscriber Identity Code

Obtain the International Mobile Subscriber Identity (IMSI). Command Syntax

3.7.1 Command Format

Execute Command

Command□

```
AT+CIMI
```

Response□


```
<CR><LF>OK<CR><LF>
```

3.7.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.7.3 Examples

```
AT+CIMI

OK
```

3.7.4 Notes

See Example 7

3.8 AT+CGSN□Get Communication Module IMEI Number

Obtain the product serial number of the module, which is the IMEI number (International Mobile Equipment Identity). Command Syntax

3.8.1 Command Format

Execute Command

Command□

```
AT+CGSN
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.8.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.8.3 Examples

```
AT+CGSN

OK
```

3.8.4 Notes

See Example 8

3.9 AT+GSN□Get Communication Module IMEI Number

Obtain the product serial number of the module, which is the IMEI number (International Mobile Equipment Identity). Command Syntax

3.9.1 Command Format

Execute Command

Command□

```
AT+GSN
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.9.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.9.3 Examples

```
AT+GSN

OK
```

3.9.4 Notes

See Example 9

3.10 AT+CCID□Get SIM Card Identifier

Get the ICCID of the SIM card. Command Format

3.10.1 Command Format

Execute Command

Command□

```
AT+CCID
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.10.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.10.3 Examples

```
AT+CCID

OK
```

3.10.4 Notes

See Example 10

3.11 AT+CGMM□Query Module Model

Query the module model. Command Format

3.11.1 Command Format

Execute Command

Command□

```
AT+CGMM
```

Response□


```
<CR><LF>OK<CR><LF>
```

3.11.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.11.3 Examples

```
AT+CGMM

OK
```

3.11.4 Notes

See Example 11

3.12 AT+GMM□Query Module Model

Query the module model. Command Format

3.12.1 Command Format

Execute Command

Command□

```
AT+GMM
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.12.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.12.3 Examples

```
AT+GMM

OK
```

3.12.4 Notes

See Example 12

3.13 AT+IPR□Set Module Baud Rate

Set the module baud rate, saved by default when powered off. If the baud rate query returns 0, it indicates that the module baud rate is adaptive. The default is adaptive baud rate (Note: adaptive baud rate does not exceed 115200). Command Format

3.13.1 Command Format

Execute Command

Command□

```
AT+IPR
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.13.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.13.3 Examples

```
AT+IPR

OK
```

3.13.4 Notes

Example 13

3.14 AT+CFUN□Set Module Function

Select the module's function by setting <fun>. <fun> only supports certain values. This parameter is not saved when powered off. Command Format

3.14.1 Command Format

Execute Command

Command□

```
AT+CFUN
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.14.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.14.3 Examples

```
AT+CFUN

OK
```

3.14.4 Notes

Example 14

3.15 AT+CMUX□Serial Port Multiplexing Command

Enable the communication module's serial port multiplexing function. Based on a physical communication serial port, virtualize two or even more serial ports through a standardized protocol, generally virtualizing three serial ports, one for external protocol stack dial-up internet access, and the other two for sending and receiving AT commands. It is recommended to use AT+CMUX=0 to enable the serial port multiplexing function. Command Format

3.15.1 Command Format

Execute Command

Command□


```
AT+CMUX
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.15.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.15.3 Examples

```
AT+CMUX

OK
```

3.15.4 Notes

Example 15

3.16 AT+CCLK□Clock Management

Set and query the module's real-time clock. The set time takes effect immediately, is saved during power off, and the default clock is in the 0 timezone, using 1/4 timezone. Command Format

3.16.1 Command Format

Execute Command

Command□

```
AT+CCLK
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.16.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+

- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.16.3 Examples

```
AT+CCLK

OK
```

3.16.4 Notes

Example 16

3.17 AT+CPIN□Input PIN Code

Query the PIN status and input the PIN code. To input the PIN code, the current SIM card must be locked (AT+CLCK=”SC”,1,”1234”) and the module must be restarted to input the PIN code. After three incorrect PIN entries, a PUK code will be required to unlock. Command Format

3.17.1 Command Format

Execute Command

Command□

```
AT+CPIN
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.17.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.17.3 Examples

```
AT+CPIN

OK
```


3.17.4 Notes

Example 17

3.18 AT+CLCK□PIN Enable and Query Function Command

Lock, unlock, and query MT and network devices. Set this parameter, and it will take effect after restarting the module. Command Format

3.18.1 Command Format

Execute Command

Command□

```
AT+CLCK
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.18.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.18.3 Examples

```
AT+CLCK

OK
```

3.18.4 Notes

Example 18

3.19 AT+CPWD□Change Password Command

Change the password for the module lock function. To change the PIN code, the SIM card must be locked first (AT+CLCK=”SC”,1,”1234”). Command Format

3.19.1 Command Format

Execute Command

Command□

```
AT+CPWD
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.19.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.19.3 Examples

```
AT+CPWD

OK
```

3.19.4 Notes

Example 19

3.20 AT+CGDCONT□Set PDP Format

Set the PDP (Packet Data Protocol) format for GPRS. The maximum length allowed for APN is 50.
Command Format

3.20.1 Command Format

Execute Command

Command□

```
AT+CGDCONT
```

Response□

```
<CR><LF>OK<CR><LF>
```


3.20.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.20.3 Examples

```
AT+CGDCONT

OK
```

3.20.4 Notes

Example 20

3.21 AT+XGAUTH□User Authentication

PDP authentication. This command should be placed after the AT+CGDCONT command. Currently, there is a growing demand for user identity authentication in various places within private networks, using the internal protocol stack, this command needs to be used, so please add this command in the code flow. The default username and password for Unicom cards are “card” and “card”. <cid> corresponds to <cid> in +CGDCONT. The maximum string length allowed for <name> and <pwd> is 50. Command Format

3.21.1 Command Format

Execute Command

Command□

```
AT+XGAUTH
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.21.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.21.3 Examples

```
AT+XGAUTH

OK
```

3.21.4 Notes

Example 21

3.22 AT+CGATT□Set GPRS Attach and Detach

This command is used to query and set GPRS attach and detach. It does not persist after power off. By default, the module actively performs GPRS attach. Before establishing a PPP connection, ensure that GPRS is in the attached state. Add the query command AT+CGATT?: If the return value is 1, you can directly proceed with the PPP connection; if the return value is 0, manual attachment is required, i.e., AT+CGATT=1. Command Format

3.22.1 Command Format

Execute Command

Command□

```
AT+CGATT
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.22.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.22.3 Examples

```
AT+CGATT

OK
```


3.22.4 Notes

Example 22

3.23 ATE1□/ATE0: Turn On & Off Echo

Turn on (or off) the module's AT command echo function. The module's default echo function is in the on state. This setting does not persist after power off. Command Format

3.23.1 Command Format

Execute Command

Command□

```
ATE1
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.23.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.23.3 Examples

```
ATE1

OK
```

3.23.4 Notes

Example 23

3.24 ATD□*99#: GPRS

Use an external protocol stack to perform GPRS dialing connection. Before dialing, ensure that CREG has registered successfully and that the APN is set. Command Format

3.24.1 Command Format

Execute Command

Command□

```
ATD
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.24.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.24.3 Examples

```
ATD

OK
```

3.24.4 Notes

Example 24

3.25 AT+CESQ□Extended Signal Strength

Query extended signal strength.

3.25.1 Command Format

Execute Command

Command□

```
AT+CESQ
```

Response□

```
<CR><LF>OK<CR><LF>
```


3.25.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.25.3 Examples

```
AT+CESQ

OK
```

3.25.4 Notes

See Example 25

3.26 AT+NWDNS□Domain Name Resolution

After dialing with the built-in protocol stack, query the DNS resolution result. This command can only be executed after successfully dialing with AT+XIIC command. The domain name is not validated for correctness; ensure the correctness of the input content. Command format

3.26.1 Command Format

Execute Command

Command□

```
AT+NWDNS
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.26.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.26.3 Examples

```
AT+NWDNS

OK
```

3.26.4 Notes

See Example 26

3.27 AT+NWENPWRSAVE□Sleep Setting

Set whether to allow the module to enter sleep mode. This command does not save settings after power off. The module DTR signal is low by default: After sending the command to allow entering sleep mode, and the module DTR signal is low (or high), all circuits of the module must be allowed to enter sleep state for the module to enter sleep. Command format

3.27.1 Command Format

Execute Command

Command□

```
AT+NWENPWRSAVE
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.27.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.27.3 Examples

```
AT+NWENPWRSAVE

OK
```

3.27.4 Notes

See Example 27

3.28 AT+NWPWROFF□Module Power Off Command

Module power off command. Before sending AT+NWPWROFF, the POWERKEY pin level of the module must be suspended or pulled high. After returning OK, if a reboot is needed, the POWERKEY pin level can be pulled low. Command Format

3.28.1 Command Format

Execute Command

Command□

```
AT+NWPWROFF
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.28.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.28.3 Examples

```
AT+NWPWROFF

OK
```

3.28.4 Notes

Example 28

3.29 AT+NWRFTEST□Module Strong Transmit and Receive Command (For Testing Only)

Used to verify the module's strong transmit and receive capabilities in test mode, only testing the transmit power and receive power accuracy at the center frequency of each frequency band. Due to platform limitations, there are some errors in the accuracy of strong receive and transmit tests. Strong transmit testing can only verify maximum transmit power of 23dB and 10dB, other values cannot be verified. Command Format

3.29.1 Command Format

Execute Command

Command□

```
AT+NWRFTEST
```

Response□

```
<CR><LF>OK<CR><LF>
```

3.29.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.29.3 Examples

```
AT+NWRFTEST

OK
```

3.29.4 Notes

Example 29

3.30 AT+NSTGETRSSI□Get Receive Power of the Module in Strong Receive Mode (For Testing Only)

Used to verify the module's receive power in test mode, strong receive test accuracy will have some errors. Command Format

3.30.1 Command Format

Execute Command

Command□

```
AT+NSTGETRSSI
```

Response□

```
<CR><LF>OK<CR><LF>
```


3.30.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

3.30.3 Examples

```
AT+NSTGETRSSI

OK
```

3.30.4 Notes

Example 30

Chapter 4 SMS Command

4.1 AT+CSMS□Select SMS Service

Supported short messages include: sending (SMS-MO), receiving (SMS-MT), cell broadcast (SMS-CB).

4.1.1 Command Format

Execute Command

Command□

```
AT+CSMS=<service><CR>
```

Response□

```
<CR><LF>+CSMS: <mt>,<mo>,<bm>
<CR><LF>OK<CR><LF>
Or
<CR><LF>ERROR<CR><LF>,<CR><LF>+CSMS: <service>,<mt>,<mo>,<bm>
<CR><LF>OK<CR><LF>,<CR><LF>+CSMS: (list of supported <service>s)
<CR><LF>OK<CR><LF>
```

Query Command

Command□

```
AT+CSMS?<CR>
```

Response□

```
OK
```

Test Command

Command□

```
AT+CSMS=?<CR>
```

Response□

```
OK
```

4.1.2 Parameters

- **<service>**□ SMS service mode selection
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+

- **<mt>,<mo>,<bm>**□ Downlink/Uplink/Broadcast support
  - 0□Not supported
  - 1□Supported

4.1.3 Examples

```
AT+CSMS=1

+CSMS: 1,1,1
OK
AT+CSMS=2

ERROR
AT+CSMS?

+CSMS: 1,1,1,1
OK
AT+CSMS=?

+CSMS: (0,1)
OK
```

4.1.4 Notes

Supports multiple short message service types

4.2 AT+CPMS□Preferred SMS Storage

For preferred SMS storage. Command format

4.2.1 Command Format

Execute Command

Command□

```
AT+CPMS
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.2.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□

– 1□□□

4.2.3 Examples

```
AT+CPMS

OK
```

4.2.4 Notes

See example 32

4.3 AT+CMGF□Set Short Message Mode

Set the input mode for SMS. Command format

4.3.1 Command Format

Execute Command

Command□

```
AT+CMGF
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.3.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.3.3 Examples

```
AT+CMGF

OK
```

4.3.4 Notes

See example 33

4.4 AT+CSCS□Set TE Character Set

Set the format of the TE character set. Command Format

4.4.1 Command Format

Execute Command

Command□

```
AT+CSCS
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.4.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.4.3 Examples

```
AT+CSCS

OK
```

4.4.4 Notes

Example 34

4.5 AT+CNMI□Set SMS Indication Format

Set how the module notifies the user after receiving a short message from the network. Command Format

4.5.1 Command Format

Execute Command

Command□

```
AT+CNMI
```

Response□


```
<CR><LF>OK<CR><LF>
```

4.5.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.5.3 Examples

```
AT+CNMI

OK
```

4.5.4 Notes

Example 35

4.6 AT+CMGR□Read Short Message

Read the short message in the current storage (must be set in advance using the AT+CPMS command). If the status of the received SMS is unread, executing this command will change the SMS storage status to read. Command Format

4.6.1 Command Format

Execute Command

Command□

```
AT+CMGR
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.6.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□

– 1□□□

4.6.3 Examples

```
AT+CMGR

OK
```

4.6.4 Notes

Example 36

4.7 AT+CMGL□Message List

Read a certain type of stored SMS, the messages will be read from the current storage selected by the +CPMS command. Command Format

4.7.1 Command Format

Execute Command

Command□

```
AT+CMGL
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.7.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.7.3 Examples

```
AT+CMGL

OK
```

4.7.4 Notes

See Example 37

4.8 AT+CMGS□Send Short Message

Send a short message from the module to the network, after the short message is successfully sent, the network returns the reference value <mr> to the module. Command Format

4.8.1 Command Format

Execute Command

Command□

```
AT+CMGS
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.8.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.8.3 Examples

```
AT+CMGS

OK
```

4.8.4 Notes

See Example 38

4.9 AT+CMGW□Write Short Message

Write a short message to the storage, after successful storage, return the location information <index>. Command Format

4.9.1 Command Format

Execute Command

Command□

```
AT+CMGW
```

Response□


```
<CR><LF>OK<CR><LF>
```

4.9.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.9.3 Examples

```
AT+CMGW

OK
```

4.9.4 Notes

See Example 39

4.10 AT+CMSS□Send Saved Short Message

Send the short message (SMS-SUBMIT) located at the position specified by <index> in the memory. After the short message is successfully sent, the network returns the reference value <mr> to the terminal.
Command Format

4.10.1 Command Format

Execute Command

Command□

```
AT+CMSS
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.10.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□

– 1□□□

4.10.3 Examples

```
AT+CMSS

OK
```

4.10.4 Notes

Example 40

4.11 AT+CMGD□Delete Short Message

Delete short messages from the current memory. Command Format

4.11.1 Command Format

Execute Command

Command□

```
AT+CMGD
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.11.2 Parameters

- **<service>**□ □□□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.11.3 Examples

```
AT+CMGD

OK
```

4.11.4 Notes

Example 41

4.12 AT+CSCA□SMS Center Number

Set the SMS center number. This command is not supported in CDMA mode. Command Format

4.12.1 Command Format

Execute Command

Command□

```
AT+CSCA
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.12.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.12.3 Examples

```
AT+CSCA

OK
```

4.12.4 Notes

Example 42

4.13 AT+CSMP□Set Text Mode Parameters

In text mode, select the required values for additional parameters, set the validity period starting from when the message is received from the SMSC, or define the absolute time that terminates the validity period. Command Format

4.13.1 Command Format

Execute Command

Command□

```
AT+CSMP
```

Response□


```
<CR><LF>OK<CR><LF>
```

4.13.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.13.3 Examples

```
AT+CSMP

OK
```

4.13.4 Notes

See Example 43

4.14 AT+CSDH□Display Text Mode Parameters

Set whether to display detailed header information in the result code in text mode. This command is valid in SMS text mode and requires sending AT+CMGF=1 to set to text mode. Command Format

4.14.1 Command Format

Execute Command

Command□

```
AT+CSDH
```

Response□

```
<CR><LF>OK<CR><LF>
```

4.14.2 Parameters

- **<service>**□ □□□□□□□□
  - 0□GSM03.40/GSM03.41 Phase 2
  - 1□GSM03.40/GSM03.41 Phase 2+
- **<mt>,<mo>,<bm>**□ □□/□□/□□□□
  - 0□□□□
  - 1□□□

4.14.3 Examples

```
AT+CSDH

OK
```

4.14.4 Notes

See Example 44

Chapter 5 □□