

AT Command Manual

For ZTE Corporation's MG2636 Modules

Version: V1.4

ZTE Corporation

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Preface

Summary

This user manual applies to MG2636 modules. AT command set provided by ZTE modules not only covers standard GSM voice and data applications, but adds some commands according to GSM specification and some ZTE exclusive commands for users. Refer to the manual to help you understand AT command operations of MG2636 modules.

Target Readers

- System designing engineers
- Hardware engineers
- Software engineers
- Test engineers

Update History

The update history records the descriptions of manual update every time. The latest version includes the updates of all previous versions.

Version V1.4 (2010-06-30)

It is the 4th time to release the document. See the updates below:

Modify 1.12 +CLIP

Modify 1.16 +CLCK

Modify 1.17 +CPWD

Modify 8.5 \$MYNETWRITE

Modify 9.1 \$MYNETCREATE

Version V1.3 (2010-06-13)

It is the 4th time to formally release the document. See the updates below:

Modify 1.5 ATI

Modify 1.19 +IPR

Modify 3.1 +CPAS

Modify 4.3 +CNMI

Modify 5.1 +CPBS

Modify 5.3 +CPBW

Modify 7.1 \$MYNETCON

Add 1.24 ESIMS

Add 1.25 +ESLP

Version V1.2 (2010-06-09)

It is the 3rd time to release the document. See the updates below:

Modify 1.11 +CLVL

Modify 2.1 +CREG

Modify 4.3 +CNMI

Modify 4.5 +CSMS

Modify 4.6 +CMGS

Modify 4.7 +CPMS

Modify 6.1 \$MYNETCON

Modify 8.1 \$MYNETCREATE

Version V1.1 (2010-05-18)

It is the 2nd time to release the document. See the updates below:

Add 8.1 \$MYNETCREATE

Modify 6.1 \$MYNETCON

Modify 7.1 \$MYNETSRV

Modify 7.2 \$MYNETOPEN

Modify 7.3 \$MYNETCLOSE

Modify 7.4 \$MYNETREAD

Modify 7.5 \$MYNETWRITE

Version V1.0 (2010-04-15)

It is the 1st time to formally release the document.

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1. Common Commands

1.1 ATA: Answer

Description	This command is used to answer a call.	
Format	ATA	
Example	RING	Incoming call
	ATA	Answer a call

1.2 ATD: Dial

Description	This command is used to dial, transmit data or send a fax.	
Format	ATD<string>; ATD><mem><n>; ATD><n>;	
Example	AT+CPBS="SM" ATD13024540756;	Select SIM card phonebook as the current phonebook Search the number from SIM card phonebook and dial it
	AT+CPBS="SM" ATD>2; OK	Select SIM card phonebook as the current phonebook Dial the second number in the current phonebook
	ATD>SM1;	the first number in SIM card phonebook
Parameters	<mem>:Phonebook "SM":SIM card phonebook "LD": Latest dial in phonebook "MC": Missed calls "ME": local phonebook <n>:the nth option in phonebook. <string>:the number of called party, e.g., *99#.	

1.3 ATE: Enable

Description	This command is used to enable the display on the terminal.	
Format	ATE<n>	
Example	ATE0 OK	ATE0, do not display the input command on the terminal
	OK	

	ATE1 OK ATE1 OK	ATE1, display the input command on the terminal
Parameters	<n>=0 disable echo display <n>=1 enable echo display	

1.4 ATH: Hang up

Description	This command is used to hang up the call.	
Format	ATH	
Example	ATA OK	Answer the call
	ATH	Hang up the call

1.5 ATI: Indicate

Description	This command is used to indicate the manufacturer's information of the module.	
Format	ATI	
Example	ATI ZTE Mobile LTD GSM/GPRS Mobile Station Revision: 1.0 OK	indicate the manufacturer's information of the module

1.6 ATQ: Display returned value

Description	This command is used to set whether or not display the returned value	
Format	ATQ<n>	
Example	ATQ0 OK ATQ0 OK	Display the returned value on the terminal
	ATQ1 OK ATQ1ATQ1	Don't display the returned value on the terminal

1.7 +++: switch from data mode to command mode

Description	This command is used to switch from data mode to command mode.	
Format	+++	
Example	ATD*99# CONNECT +++ AT OK	Dial to enter data mode Switch from data mode to command mode

1.8 ATO: switch from command mode to data mode

Description	This command is used to switch from command mode to data mode.	
Format	ATO	
Example	ATD*99# CONNECT +++ ATO	Dial to enter GPRS data connection Switch from data mode to command mode Switch from command mode to data mode.

1.9 ATS0: set auto answer

Description	This command is used to control auto answer mode of the module.	
Format	ATS0=<value>	
Example	ATS0=2 OK	Auto answer after ringing twice
	ATS0? 2 OK	Check the current setting
	ATS0=0 OK	Cancel auto answer
Parameter	<value>: ringing times	

1.10 +CRC: caller ringer type

Description	This command is used to set the answer mode.	
Format	AT+CRC=num	
Example	AT+CRC=1 OK +CRING: VOICE	RING prompts incoming call type Use CRC command to set the caller ringer type

Parameter	Num: 0: do not display the caller ringer type 1: display the caller ringer type Descriptions of caller ringer type -VOICE -GPRS -FAX
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1.11 +CLVL: caller volume level

Description	This command is used to set the volume level of the speaker.	
Format	AT+CLVL=<level>	
Example	AT+CLVL=6 OK	Set the current volume level as 6
Parameter	AT+CLVL? +CLVL:6	Check the current volume level
	<level> : 0~6, the smaller the number is, the smaller the volume is.	

1.12 +CLIP: caller ID presentation

Description	This command is used to set caller ID presentation. The default is turn off caller ID presentation.	
Format	AT+CLIP=<mode> +CLIP: <mode> of return from AT+CLIP? +CLIP: <number>,<type>,<> presentation mode.	
Example	AT+CLIP=1 OK RING:+CLIP: "130*****",129,"", 0,"",0	Turn on caller ID presentation. Incoming call, number is 130*****
	AT+CLIP=0 OK RING	Turn off caller ID presentation No prompt upon incoming call
Description	<mode>: 0: Turn off caller ID presentation 1: Turn on caller ID presentation <number>: incoming call number (need apply for the service) <type>: 129。	

1.13 +CIMI: check international mobile identification

Description	This command is used to read SIM card's international identification.	
Format	AT+CIMI	
Example	AT+CIMI 460030916875923 OK	Check CIMI Return CIMI

1.14 +(C) GMR: get mobile revision

Description	This command is used to get the current software revision.	
Format	AT+(C)GMR	
Example	AT+(C)GMR=? OK	No meaning
	AT+(C)GMR +(C)GMR: ***.bin	Get current software revision

1.15 +CGSN: get current IMEI

Description	This command is used to get current device's IMEI.	
Format	AT+CGSN	
Example	AT+CGSN 355670010290001 OK	Return current IMEI

1.16 +CLCK: function lock

Description	This command is used to lock the terminal or network function.	
Format	AT+CLCK=<fac>,<mode>[,<passwd>[,<class>]] +CLCK:<status>	
Example	AT+CLCK=? +CLCK: ("PF","SC","AO","OI","OX","AI","IR","AB","AG","AC","FD","PN","PU","PP","PC") OK	

Parameter	<p><fac>: "PF" lock the phone into the firstly inserted SIM card; "SC" SIM card; "AO" all outgoing calls; "OI" Outgoing international calls; "AI" all incoming calls; "IR" Incoming roaming; "AB" all services barring; "AG" barring of all outgoing calls; "AC" barring of all incoming calls; "FD" Fixed dial; "PN" Personalized network; "PU" Personalized sub network; "PP" Personalized provider; "PC" Personalized corporate.</p> <p><mode>:</p> <p>0: unlock</p> <p>1: lock</p> <p>2: check status</p> <p><passwd>: password or operation code, string type "****".</p> <p><class>:</p> <p>1: voice call type</p> <p>2: data service type</p> <p>4: fax service type</p> <p>7: All service types</p> <p><status>:</p> <p>0: disable</p> <p>1: enable</p>
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1.17 +CPWD: change password

Description	This command is used to change the password.	
Format	AT+CPWD=<fac>,<passwd>,<newpasswd> +CPWD:<fac,length>s	
Example	AT+CPWD=? +CPWD: ("SC",8),("P2",8),("AO",4), ("OI",4),("OX",4),("AI",4), ("IR",4),("AB",4),("AG",4), ("AC",4) AT+CPWD="SC","1234","2345" OK	Check command setting range Return list of parameters Change password SIM password
Parameters	fac: "SC": SIM card; "P2"SIM PIN2;"AO" :all outgoing calls; "OI": outgoing international calls; "OX": outgoing international calls except to home country; "AI": All incoming calls; "IR": Incoming roaming; "AB" all services barring; "AG" barring of all outgoing calls; "AC" barring of all incoming calls; passwd: password or operation code, string type "****". newpasswd: new password or operation code, string type "****". length: fac supported password length.	

1.18 +CGMI: check manufacturer's information

Description	This command is used to check the manufacturer's information of the module.	
Format	AT+CGMI	
Example	AT+CGMI ZTE Mobile LTD OK	check the manufacturer's information of the module

1.19 +IPR: set module's baud rate

Description	This command is used to set the module's baud rate and auto save the current baud rate.	
Format	AT+IPR=<baud rate>	
Example	AT+IPR? +IPR: 115200 OK	Check the module's current baud rate
	AT+IPR=?	Check supported baud rate
	AT+IPR=115200 OK	Set baud rate as 115200
Parameter	Only EDGE or 3G platform support baud rate higher than 115200bps. Use AT&W to save the settings. Otherwise, auto return with 115200bps after the module's power cut-off.	

1.20 +CCFC: call forwarding conditions

Description	This command is used to set call forwarding number and conditions.	
Format	AT+CCFC=<reason>,<mode>[,<number> [, <type>[,<class>[,<subaddr>[,<saytype>[,time]]]]]] If mode!=2, after settings return OK; If mode=2, after settings return +CCFC:<status>,<class>	
Example	AT+CCFC=? +CCFC: (0,1,2,3,4,5) OK	Check call forwarding number and conditions. Return reason range.

	<p><reason>:</p> <p>0: unconditional</p> <p>1: mobile device busy</p> <p>2: No answer</p> <p>3: Can't be connected</p> <p>4: All calls</p> <p>5: all conditions</p> <p><mode>:</p> <p>0: disabled</p> <p>1: enabled</p> <p>2: check status</p> <p>3: register</p> <p>4: delete</p> <p>number: phone number</p> <p><type>:</p> <p>145: international number</p> <p>129: other number</p> <p><subaddr>: address of string type</p> <p><saytype>: 128</p> <p><class>:</p> <p>1: voice</p> <p>2: data</p> <p>4: fax</p> <p>7: all types</p> <p>Time: 1..20..30 multiply 5s</p> <p><status>:</p> <p>0: deactivate</p> <p>1: activate</p>
Remarks	Need apply for relevant services.

1.21 +CCWA: call waiting

Description	This command is used for call waiting.	
Format	AT+CCWA=[<n>] [,<mode> [,<class>]]	
Example	AT+CCWA=?	List all supported <n> +CCWA: (list of supported <n>s) OK
	AT+CCWA?	Read current <n> +CCWA: <n> OK

	<p>AT+CCWA=[<n>] [,<mode> [,<class>]]</p>	<p>Call waiting setting As mode!=2, if succeeded, OK As mode==2, return: +CCWA:<status>,<class1>[<CR><LF> +CCWA:<status>,<class2>[...]] OK If operation error occurs: +CME ERROR: <err> If <n>=1, send call waiting result code: +CCWA: <number>,<type>,<class> [,<alpha>][,<CLI validity>] Under the premise of call waiting activated, in the process of call connection, As the system terminates the call, actively send the result code.</p>
Parameter	<p><n> 0: do not send the result code of call waiting; 1: send the result code of call waiting <mode> 0: Deactivate call waiting; 1: call waiting; 2: check current status <class> 1: voice call <status> 0: deactivated; 1: activated. <number> call waiting number, designated by <type> <type> <number> format <alpha>,<CLI validity> 见AT+CLIP</p>	

1.22 +CHLD: call held

Description	This command is used to set call held and conference call.	
Format	AT+CHLD=[<n>]	
Example	AT+CHLD=?	<p>Check supported <n> +CHLD: (list of supported <n>s) OK</p>
	AT+CHLD=[<n>]	<p>Set call held and conference call. If settings succeed: OK If operation error: +CME ERROR: <err></p>

Parameter	<p><n>:</p> <p>0: release all held calls or set a waiting call as UDUB</p> <p>1: Release all activated calls and receive a held or waiting call.</p> <p>1X: Release call X</p> <p>2: Hold all activated calls and receive another held or waiting call.</p> <p>2X: hold all calls except for call X</p> <p>3: Add the held call into the conference call</p>
Remarks	<p>1. This command is used for telecom service 11;</p> <p>2. The range of X value:1~7</p> <p>3. When there is both held call and waiting call, the process above should be applied for the waiting call.</p> <p>4. When releasing call, please firstly use AT+CHLD=1 to release the current call, and use ATH to hang up the call.</p> <p>5. Please refer to the method of conference call provided by the operator when using AT+CHLD=3.</p>

1.23 +CMUT: Mute control

Description	This command is used for mute control. The command is used only during the conversation.	
Format	AT+CMUT=<Mode>	
Example	AT+CMUT=? + CMUT: (0-1) OK	Check the setting parameters
	AT+ CMUT =1 OK	MUTE ON
	AT+ CMUT =0 OK	MUTE OFF
Description	<p><Mode>:</p> <p>0: MUTE ON</p> <p>1: MUTE OFF</p>	

1.24 ESIMS: check SIM card status

Format	This command is used to check SIM card status.	
Example	AT+ESIMS?	
Example	AT+ ESIMS? + ESIMS: 0 OK	Check SIM card status No SIM card
Parameter	Status: 0: SIM card does not exist. 1: SIM card exists.	

1.25 +ESLP: set sleep mode

Format	This command is used to disable and enable sleep mode.	
Example	AT+ESLP=<mode>	
Example	AT+ ESLP =0 OK	Disable sleep mode
	AT+ ESLP =1 OK	Enable sleep mode
	AT+ ESLP =? + ESLP: (0,1) OK	Check status
Parameter	<mode> 0: disable 1: enable	

2. Network Service Command

2.1 +CREG: network registration and roaming

Format	This command is used to check the module's network registration and roaming status.	
Example	AT+CREG=<mode> +CREG :<mode>,<stat> return code	
Example	AT+CREG=0 OK	Disabled network registration and provide result code
	AT+CREG? +CREG: 0,1	Display the module's registration status
	AT+CREG=? +CREG: (0-2) OK	Check status range
Parameter	<mode>: 0 Disabled network registration and provide result code (default) 1 Enabled network registration and provide result code: +CREG: <stat> 2 Enabled network registration and provide the location information. <stat>: 0: Not logged on the network yet, currently not searching for new operator 1: Already logged on the local network. 2: Not logged on the network, currently searching for the BS 4: unknown code 5: Already logged on the network, under roaming status	

2.2 +COPS: network selection

Format	This command is used for network selection.	
Example	AT+COPS=[<mode>[,<format>[,<oper>]]]	
Example	AT+COPS? +COPS=<mode>[,<format>,<oper>] OK	Return current network's registration mode and network
	AT+COPS=[<mode>[,<format>[,<oper>]]] OK	Select and register network

Parameter	<p><mode></p> <p>0 auto select, omit <format> <oper></p> <p>1 manual select, need <format><oper></p> <p>3 not involve network registration, this command is used to set format only; at this point, need <format></p> <p>4 manual/auto; If manual registration fails, auto register</p> <p><format></p> <p>0 format of long character <oper></p> <p>1 ormat of short character <oper></p> <p>2 number format <oper></p> <p><format>:</p> <p>0 long format alpha <oper>,up to 16 character</p> <p>1 short <oper>, up to 8 character</p> <p>2 numeric <oper> (MCC+MNC), default</p> <p><stat></p> <p>0 unknown</p> <p>2 current registered network</p> <p>3 forbidden registered network</p>
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3. Mobile Device Control and Status Report

3.1 +CPAS: check module's status

Format	This command is used to check the module's work status.	
Example	AT+CPAS	
Example	AT+CPAS +CPAS: 0 OK	Check the module's current work status.
Parameter	<p><pas></p> <p>0: Ready to receive AT command</p> <p>1: not ready to receive AT command</p> <p>2: Unknown status (not insert card or no signal)</p> <p>3: Incoming call (ring)</p> <p>4: In a call</p>	

3.2 +CFUN: set module's function

Format	This command is used to set/disable some functions of the module.	
Example	AT+CFUN=<func>,<rst>	
Example	AT+CFUN=? +CFUN: (1,4) OK	Check the setting range
	AT+CFUN=1,0	Setting invalid after restart
	AT+CFUN=1,1	Settings valid after restart
Parameter	<p><fun></p> <p>1 Full function (default)</p> <p>4 Disable RF Tx. and Rx. Function</p> <p><rst></p> <p>0 valid after settings</p> <p>1 valid after restart</p>	

3.3 +CMEE: mobile equipment errors

Format	This command is used for mobile equipment's error report.	
Example	AT+CMEE=<n>	
Example	AT+CMEE?	+CMEE:<n> OK Check current error report method
	AT+CMEE=<n>	OK Select error report method

Parameter	<n> 0 Only ERROR 1 Provide error's specific number 2 Provide error's specific number and detailed prompt
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3.4 +CPIN: input PIN

Format	This command is used to check PIN status and input PIN. The functions can be used only after the correct PIN is entered.	
Example	AT+CPIN=	
Example	AT+CPIN? +CPIN:READY OK	check PIN status No need to input new PIN
	AT+CPIN? +CPIN:SIM PIN AT+CPIN="****" OK	check PIN status Need input PIN Enter correct PIN
Parameter	AT+CPIN?: check if what passwords need to be entered. +CPIN: READY: don't need to enter any password. +CPIN: SIM PIN: need enter PIN. +CPIN: SIM PUK: PIN unlock password +CPIN: PH-SIM PIN: SIM card bundle password +CPIN: SIM PIN2: PIN2 password +CPIN: SIM PUK2: PIN2 unlock password +CPIN: PH-NET PIN: network password Pin: string value.	

3.5 +CSQ: check signal strength

Description	This command is used to check received signal strength indicator(rssi) and bit error rate (ber)	
Format	AT+CSQ	
Example	AT+CSQ +CSQ:<rssi>,<ber>	
parameters	<rssi>: 0-113dbm 1-111dbm 2..30-109..-53dbm 31-51dbm 99: network unavailable <ber>: 0~7: normal 99: network unavailable	

3.6 +CCLK: clock management

Description	This command is used to set and check the date/time of real-time clock.	
Format	AT+CCLK=<time>	
Example	AT+CCLK?	Check current time and date
	+CCLK: "04/02/09,17:34:23"	Current network time and date
parameters	AT+CCLK="04/02/09,18:34:23"	Set current date and time
	Time string format: "yy/mm/dd, hh: mm: ss "	

4. SMS Service Command

4.1 +CSCA: SMS center number

Description	This command is used to set SMS center number.	
Format	AT+CSCA=<sca>[,<tosca>]	
Example	AT+CSCA="+861380****500" OK	Set SMS center number
Parameters	<sca>: SMS center address <tosca>: SMS center format	

4.2 +CMGF: Set SMS mode

Description	This command is used to set SMS input method.	
Format	AT+CMGF=<num>	
Example	AT+CMGF=1 OK AT+CMGF? +CMGF: 1 AT+CMGF=? +CMGF=(0-1) OK	Set the text mode Check current input method Current settings as text mode Check current setting range
Parameters	0: PDU mode 1: Text mode	

4.3 +CNMI: set new message indication

Description	This command is used to set new message indication.	
Format	AT+CNMI=<mode>,<mt>,<bm>,<ds>,<bfr>	
Example	AT+CNMI=? +CNMI: (0-3),(0-3),(0,2,3),(0,1),(0,1) OK	Check current setting range
	AT+CNMI=3,1,0,0,0 OK +CMTI: "SM",19	Set message receiving mode as +CMTI: men, index Receive new messages
	AT+CNMI=3,2,0,0,0 OK AT+CMGF=1 OK +CMT: "+86130*****", "", "07/02/14, 10:29:04+32" text	Set message receiving mode Set as TEXT mode Received a message TEXT from 130*****

Returned results	<p>+CMTI:<mem>,<index> : receive new message</p> <p>+CMT:,<length><CR><LF><pdu> : directly output message (PDU mode)</p> <p>+CBM:<length><CR><LF><pdu> : directly output cell broadcast message (PDU mode)</p>
Parameters	<p><mode>: control the method of notifying TE, default 2</p> <p>0: cache the notice firstly and send it according to <mt> value;</p> <p>1: notify TE as the data cable is idle, otherwise, do not notify TE;</p> <p>2: Directly notify TE as the data cable is idle, otherwise cache the notice first and transmit it again as the date cable is idle;</p> <p>3: Directly notify TE. As the data cable is used, transmit a combined message to TE.</p> <p><mt>: set message storage and notify TE, default 1.</p> <p>0: received message saved to default memory (including class 3), do not notify TE;</p> <p>1: received message saved to default memory and notify TE (including class 3). The notice form is: +CMTI: "SM", <index></p> <p>2: Save Class 2 message to SIM card and notify TE; as for other class, directly forward message to TE:</p> <p>+CMT: [<alpha>], <length><CR><LF><pdu> (PDU mode)</p> <p>Or +CMT: <oa>, [<alpha>,]<scts>[, <tooa>, <fo>, <pid>, <dc>, <sca>, <tosca>, <length>]<CR><LF><data> (text mode)</p> <p>3: as for other class 3, directly forward message to TE: same as <mt>=2; as for other class, the same as <mt>=1.</p> <p><bm>: set cell broadcast</p> <p>0: don't send cell broadcast</p> <p>2: new cell broadcast, return</p> <p>+CBM: length;;CR;;LF;;pdu;</p> <p>3: cell broadcast in Class3 format, use bm=2 format</p> <p><ds>: status report</p> <p>0: do not send status report</p> <p>1: new status report, return:</p> <p>+CDS:;length;;CR;;LF;;pdu;</p> <p>2: If new status report is saved to ME, return:</p> <p>+CDSI:;mem;;index;</p> <p><brf>:</p> <p>1: always 1</p>

4.4 +CMGR: read message

Description	This command is used to read the received message.	
Format	AT+CMGR=?	
Example	AT+CMGF=1 AT+CMGR=1 +CMGR:"REC UNREAD","133*****",, "04/02/25,12 :58 :04+04" ABCD OK	+CMTI: "MT": 1 Receive the message, saved at index 1 Set TEXT format Read the first TEXT message
	AT+CMGF=0 AT+CMGR=1 +CMGR: 1,,127 0891683108705505F00408A1705581 060008701091905564236E5C0A656C 76845BA26237FF0C60A85DF27ECF62 10529F5F00901A4E86003100300030 51430047005000520053595799104F 1860E04E1A52A1FF0C4ECE00320030 003000375E74003000326708003000 3165E55F0059CB751F654830028C22 8C22FF016DF1573379FB52A8 516C53F8	Set PDU mode Read first PDU message
Returned results	AT+CMGR=<index> Return format: The terminal adaptor would return the message of index saved in mem1 -if select text mode (+CMGF=1): +CMGR :<stat>,<oa>,<[alpha]>,<scts>,<[tooa>,<fo>,<pid>,<dcsc>,<[sca>,<tosca>,<length>] <CR><LF> <data> (used to read received message) +CMGR :<stat>,<da>,<[alpha]>,<[toda>,<fo>,<pid>,<dcsc>,<[vp>,<[sca>,<[tosca>,<length>] <CR><LF> <data> (used to read transmitted message) --if select PDU mode (+CMGF=0): +CMGR: <stat>,<[alpha]>,<lenth>,<CR>,<LF>,<pdu> OK -if error occurs, prompt: +CMS ERROR:<err> Note: after reading message, the status will change from "REC UNREAD" to "REC READ".	

Parameter	<p><alpha>: the name of corresponding <da> or <oa> on the terminal.</p> <p><stat>: the message status in memory.</p> <p><oa>: message original number string</p> <p><da>: message target string</p> <p><scts>: message service center time string</p> <p><lenth>: length of message body <data></p> <p><pdu>: ME/TA hex value</p> <p><stat>:</p> <p>0:“REC UNREAD” received unread message.</p> <p>1:“REC READ” received read message.</p> <p>2:“STO UNSENT” saved unread message.</p> <p>3:“STO SENT” saved read message</p> <p>4: “All” all messages</p>
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4.5 +CSMS: select SMS service

Description	The command is used to select SMS <service>. Send (SMS-MO) , receive (SMS-MT) , cell broadcast SMS-CB.	
Format	AT+CSMS = <service>	
Example	AT+CSMS? +CSMS:0,1,1,1 OK	Check the current SMS service Support receive/transmit message and cell broadcast
	AT+CSMS=0 +CSMS: 1,1,1 OK AT+CSMS? +CSMS:0,1,1,1 OK	Set current SMS service as GSM Phase 2 Support receive/transmit message and cell broadcast Check the settings Succeed
Parameter	<service> 0: compatible with GSM07.05 Phase 2 version 4.7.0 1: compatible with GSM07.05 Phase 2+ version <mo> 1: support send message <mt> 1: support receive message <bm> 1: support cell broadcast	

4.6 +CMGS: send message

Description	<p>This command is used to send the message from the terminal to the network.</p> <p>Return the parameter to the terminal after the message is sent.</p> <p>Note: there is error prompt as the message is sent to illegal number.</p>
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Format	Text mode (AT+CMGF=1) AT+CMGS=<de><CR> <data><Ctrl-Z/ESC> PDU mode(AT+CMGF=0) AT+CMGS=<length><CR> <pdu><Ctrl-Z/ESC>	
Example	AT+CMGF=1 OK	Set as text mode
	AT+CMGS="13316538879"<CR> ABC<ctrl/Z> OK AT+CMGF=0 OK	Send a "ABC" message to 13316538879 Set as PDU mode
	AT+CMGS=17<CR> 0891683108705505f011000b81312 0882624f700f1ff0361f118<Ctrl-Z> +CMGS:2 OK	Send a "ABC" message to 13028862427
Parameter	<de>: message sending number under text mode <length>: length of bytes in TPDU under PDU mode <data>: message under text mode	

4.7 +CPMS: preferred SMS memory

Description	This command is used for preferred message memory. Note: ME memory messages will count from 51.	
Format	AT+CPMS=<mem1>[,<mem2>[<mem3>]] +CPMS=<used1>,<total>	
Example	AT+CPMS="SM_P" +CPMS: 2, 50, 2, 50, 2, 50 OK AT+CPMS=? +CPMS:("SM","ME", "SM_P", "ME_P", "MT"), ("SM","ME","SM_P", "ME_P", "MT"), ("SM","ME","SM_P", "ME_P", "MT") OK	Check message storage in SIM card mem1 total capacity 50 entries, 2 used mem2 total capacity 50 entries, 2 used mem3 total capacity 50 entries, 2 used Check supported storage types: "SM","ME", "SM_P", "ME_P", "MT"
Parameters	<mem1>: used to read, delete message <mem2>: used to write and send message <mem3>: used for messages not saved to PC <used>: used entries <total>: total number of memory	

4.8 +CMGD: delete messages

Description	This command is used to delete a message from selected memory.	
Format	AT+CMGD=<Index>	
Example	AT+CMGF=1 AT+CMGL="all" +CMGL:1,"REC READ","130*****", "", abcdefg +CMGL:2,"REC READ","131*****", "", abcdef +CMGL:3,"STO SENT","1331*****", "" opqrxt OK AT+CMGD=2 OK	Set as text mode List all messages Delete the second message
	AT+CMGF=0 AT+CMGL=4 +CMGL: 1,3,,21 0891683108705505F0010F0B813 120882624F700 0808738B54084F1F5927 +CMGL: 2,3,,21 0891683108705505F001100B813 120882624F700 0808738B54084F1F5927 +CMGL: 3,3,,21 0891683108705505F001110B8131 20882624F700 0808738B54084F1F5927 OK AT+CMGD=1 OK	Set as PDU mode List all messages Delete the first message
Parameters	<Index>: index of saved message	

4.9 +CMGL: message list

Description	The command is used to read a kind of messages saved in the selected memory via +CPMS command.	
Format	AT+CMGL=<stat>	
Example	AT+CMGF=1 OK AT+CMGL="ALL" +CMGL:1,"REC READ","130*****", "", abcdefg +CMGL:2,"REC READ","131*****", "", abcdef +CMGL:3,"STO SENT","1331*****", "", opqrxt OK	Set as text mode Use text mode Check all messages
Returned format	1) text mode as below: +CMGL :<index>,<stat>,<da/oa>,<[alpha]>,<[scts]>,<[tooa/toda>,<length> <CR><LF><data><CR><LF> +CMGL :<index>,<stat>,<da/oa>,<[alpha]>,<[scts]>,<[tooa/toda>,<length> <CR><LF><data> [...] (Received/transmitted message list) OK 2)PDU mode as below: +CMGL:<index>,<stat>,<[alpha]>,<length><CR><LF><pdu>	

Parameters	<p>1. text mode(+CMGF=1)</p> <p><stat></p> <p>REC UNREAD: receive unread message</p> <p>REC READ: receive read message</p> <p>STO UNSENT: store unsent message</p> <p>STO SENT: store sent message</p> <p>ALL: all messages</p> <p>2.PDU Mode (+CMGF=0)</p> <p><stat></p> <p><stat>:</p> <p>0: received unread message</p> <p>1: received read message</p> <p>2: saved unsent message</p> <p>3: saved unsent message</p> <p>4: All messages</p> <p><index>: message index</p> <p><length>: TPDU length in PDU mode</p> <p><pdu>: binary system in PDU mode</p> <p><data>: message text in text mode</p>
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4.10 +CMSS: send messages saved in SIM card

Description	This command is used to send the messages saved in SIM card.	
Format	AT+CMSS=<index>[,<da> [,<toda>]] Return format: +CMSS : <mr> 或+CMS ERROR: <err> If the new target number is designated, the new number will replace the number saved in the message.	
Example	AT+CMGF=1 AT+CMGW="1331653****"<CR> (note the phone number should not exceed 20 digits) ABC<ctrl-Z> +CMGW:2 OK	Set as text mode Write a message and send it to 1331653**** The message will be saved in index 2
	AT+CMSS=2 +CMSS:0 OK	Send the messages saved in index 2 Message sent CMSS return initial value 0

	AT+CMSS=2 +CMSS:1 OK	As the message is saved Do not designate the number to send the message Message sent, (send to the address used to save the message) CMSS return value 1
	AT+CMSS=2,"1302755****" +CMSS:2 OK	Use number 1302755**** to replace the original number 1331653****, and send a message to new number

5. Phonebook Command

5.1 +CPBS: phonebook selection

Description	This command is used to select phonebook memory.	
Format	AT+CPBS=<type>	
Example	AT+CPBS? +CPBS: "SM",1,250 OK	Check current phonebook settings Select SIM card as current phonebook
	AT+CPBR=1 +CPBR=1,"130*****",129,"" OK	Check phonebook storage memory
	AT+CPBS=? +CPBS: ("ME", "SM", "LD", "MC", "RC","FD","DC","ON") OK	Select the phonebook saved in SIM card
Parameters	Type: "SM" SIM card "FD" Fixed dial "LD" Last dial "MC" Missed calls "RC" Received calls "ME" Module memory "DC" Dialed calls "ON" Owner number	

5.2 +CPBR: phonebook read

Description	This command is used to read the phonebook information.	
Format	AT+CPBR=<index1>,[<index2>] +CPBR:<index>,<number>,<type>,<text>	
Example	AT+CPBR=? +CPBR: (1-10),40,13 OK	Check current phonebook information
	AT+CPBR=1 +CPBR=1,"130*****",129,"" OK	Read the first number of currently selected phonebook

	AT+CPBS="SM" OK AT+CPBR=? +CPBR: (1-10),40,13 AT+CPBR=1,3 +CPBR: 1,"8151****",129,"" +CPBR: 2,"8636****",129,"" +CPBR: 3,"8604****",129,""	Select SIM card phonebook Check SIM card phonebook information Read the contacts information from 1 to 3
Parameters	index1: read phonebook index index2: read the contacts information from index1 to index2 index: index number: phone number type: phone type 129: domestic 145: international text: number's corresponding name	

5.3 +CPBW: Phonebook write

Description	This command is used to write information into the phonebook. Note: as the number length exceeds 20 digits, the first 20 digits will be saved in one file and the remaining digits saved in another expanded file. The expanded file is smaller than the first file, therefore a number exceeding 20 digits can't be added into SIM card after the expanded file is full.	
Format	AT+CPBW= <index>,<number>,<type>,<name> +CPBW:(<index>),<length>,<type>,<tlength>	
Example	AT+CPBW=? +CPBW: (1-10),40,(129,145,161,177),13 OK	AT+CPBW=? +CPBW: (1-10),40,(129,145, 161,177),13 OK
	AT+CPBS="SM" OK AT+CPBW=1,"130*****",129,"john" OK AT+CPBR=1 +CPBR:1,"130*****",129,"john" OK	AT+CPBS="SM" OK AT+CPBW=1,"130*****",129,"john" OK AT+CPBR=1 +CPBR:1,"130*****",129,"john" OK

Parameters	index: index length: number length type: phone type 129: domestic 145: international tlength: length of contact's name Number: phone number Name: number's corresponding name
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5.4 +CPBF: phonebook find

Description	This command is used to find the information in phonebook.	
Format	AT+CPBF= <name> +CPBF: <index>,<number>,<type>,<name> +CPBF:<nlength>,<tlength>	
Example	AT+CPBF=? +CPBF:40,13 OK	Check current phonebook information Phone number length 40 Name length 13
	AT+CPBS="SM" OK AT+CPBW=1,"130*****",129, "john" OK AT+CPBR=1 +CPBR:1,"130*****",129, "john" OK AT+CPBF="john" +CPBF: 1,"130*****",129,"john" OK	Select phonebook Write phone information in the first field of current phonebook Read relevant information Search the contacts with the name John
Parameter	index: index nlength: number length type: phone type 129: domestic 145: international tlength: length of contact's name Number: phone number Name: number's corresponding name	

5.5 +CNUM: owner's number

Description	This command is used to read the owner's number.	
Format	AT+CNUM	
Example	AT+CNUM +CNUM: "", "130*****", 129, 7, 4 OK	Read the owner's number
Parameter	The owner's number can be written into SIM card through AT+CPBS="ON" ;AT+CPBW command and read through AT+CNUM command.	

6. GPRS Command

6.1 +CGDCONT: Set PDP format

Description	This command is used to set GPRS PDP format.	
Format	at+CGDCONT=cid,type,APN[,PDP_ADDR]	
Example	At+CGDCONT=1, "IP", "CMNET" ATD*99# Connect	
Parameter	cid: used to used to designate PDP context mark, min. 1. type: PDP packet type IP: use TCP/IP packet; APN: access point network PDP_ADDR: user designated IP address (optional)	

6.2 +CGACT: activate and deactivate PDP

Description	This command is used to activate and deactivate PDP settings.	
Format	at+CGACT=[<state>[,<cid>[,<cid>[,..]]]]	
Example	At+CGDCONT=1,"IP","CMNET" OK AT+CGACT=1,1 OK	
Parameter	cid: used to mark PDP parameter state: indicate PDP status 0: Deactivate 1: Activate	

6.3 +CGATT: set GPRS service

Description	This command is used to set GPRS service.	
Format	AT+CGATT=[<state>]	
Example	AT+CGATT? +CGATT:0 OK AT+CGATT=1 OK	Check GPRS service status Set GPRS service status
Parameter	state: 0: Detach 1: Attach	

6.4 +CGCLASS: GPRS device levels

Description	This command is used to check GPRS device levels.	
Format	AT+CGCLASS=[<class>]	
Example	AT+CGCLASS? +CGCLASS:"B" OK	Check GPRS device levels.
Parameter	class: A: support A level B: support B level CG :support GPRS only CC: support circuit exchange only	

7. Public Transmitting Commands

7.1 \$MYNETCON: set network connection initializing parameters

Type	Command	Possible returned results	Descriptions
Setup command	AT\$MYNETCON=<channel>,<type>,<typename>	OK	Succeed Pay attention to case sensitive of the parameters
		ERROR[:<errornumber>] {Error!parameter invalid, Error!Service type not configure, Error!channel has been opened, Error!channel has been closed, Error!address not match, Error!network is connecting..., Error!connect network timeout, Error!connect network fail, Error!send data fail, . . . }	Error Error list: {invalid parameters Not set service type Path On Path Off Server address not matched with service type Network connecting Network connection time up Connecting network failed Transmitting data failed . . . }
Query command	AT\$MYNETCON?	\$MYNETCON: <channel>,<type>,<typename>; Ok	The number of parameters displayed according to the number of settings
		ERROR	Error
Test command	AT\$MYNETCON=?	\$MYNETCON: OK	
Parameter	1.<channel>: channel number, ranging from 0 to 5; 2.<type> : conType: connection type, valuing GPRS/CSD; （currently does not support CSD） userpwd: username and password, format “user,passwd”; APN: GPRS APN provided by GSM operators CFGT: used for transparent transmission, waiting time upon the transmission of each packet, value 50-65535, unit: ms; （default 1000ms） CFGP: the size of each packet upon transparent transmission, value 536-1460; （default 1000 bytes） 3.<typename>: <type>: corresponding value		

Example	<pre> AT\$MYNETCON=0,conType,GPRS (default as GPRS, optional setting) OK AT\$MYNETCON=0,userpwd,"user,1234" (optional setting) OK AT\$MYNETCON=0,APN,"cmnet" (must set APN before connecting to network) OK AT\$MYNETCON=0,CFG,200 OK AT\$MYNETCON=0,CFG,800 OK AT\$MYNETCON? 0,conType,GPRS 0,userpwd,"user,1234" 0,APN,"cmnet" 0,CFG,200 0,CFG,800 1,conType,GPRS 1,CFG,1000 1,CFG,1000 2,conType,GPRS 2,CFG,1000 2,CFG,1000 3,conType,GPRS 3,CFG,1000 3,CFG,1000 4,conType,GPRS 4,CFG,1000 4,CFG,1000 5,conType,GPRS 5,CFG,1000 5,CFG,1000 OK </pre>
Description	<p>This command is used to set APN, username, password and transparent transmitting parameters. APN must be set.</p> <p>During the setting of APN, select any channel to set up.</p> <p>Note: when a certain channel is ON, you are not allowed to use the command again to set, otherwise it would return with error.</p>

7.2 \$MYTYPE: check module's work mode and network type

Type	Command	Possible results returned	Descriptions
Query command	AT\$MYTYPE?	\$MYTYPE: <workType>,<netType> Ok	Two bytes, work mode + network type
		ERROR	Error
Test command	AT\$MYTYPE=?	\$MYTYPE: OK	
Parameter	<p><workType>: First byte 8bit Position 0: indicating transparent transmission Position 1: indicating non-transparent transmission</p> <p><netType>: One byte 8bit Position 0: GSM network supports GPRS Position 1 WCDMA network Position 2: TD-CDMA network Position 3: CDMA2000</p> <p>Additional 6bit is reserved. If it supports two transmission modes, need position 1 for the two bits.</p>		
Example	<p>AT\$MYTYPE?</p> <p>\$MYTYPE: 3,1</p>		
Description	This command is used to query the module's work mode and network type.		

8. Non Transparent Transmission Command

8.1 \$MYNETSRV: set service parameters

Type	Command	Possible returned results	Descriptions
Set command	AT\$MYNETSRV=<channel> <nettype>,<value>	OK	Succeed Pay attention to the case sensitive of each parameter
		ERROR[:<errornumber>]	Error
Query command	AT\$MYNETSRV?	\$MYNETSRV : <channel>,<nettype>,<value> OK	The number of parameters displayed according to the number of settings
		ERROR	Error
Test command	AT\$MYNETSRV=?	\$ MYNETSRV: OK	
Parameters	1.<channel>: channel number, ranging from 0 to 5; 2. <nettype>: type: service type, valuing SOCKET/FTP; address: object server address/port and transmitting method, etc. 3. <value>: <nettype> corresponding value		
Example	<pre> at\$mynetsrv=0,type,SOCKET OK at\$mynetsrv=0,address,UDP:119.123.203.72:7000 OK at\$mynetsrv=1,type,SOCKET OK at\$mynetsrv=1,address,TCP:116.24.228.196:6800 OK at\$mynetsrv=2,type,FTP OK at\$mynetsrv=2,address,FTPget"ftp://hj:1234@119.122.174.84:21/hujin\test20.txt;type=a" OK at\$mynetsrv=3,type,FTP OK at\$mynetsrv=3,address,FTPput"ftp://hj:1234@119.122.174.84:21/hujin\test20.txt;type=a;mode=a" OK </pre>		

	<p>at\$mynetsrv? (display the setting options)</p> <p>0,type,SOCKET</p> <p>0,address,UDP:119.123.203.72:7000</p> <p>1,type,SOCKET</p> <p>1,address,TCP:116.24.228.196:6800</p> <p>2,type,FTP</p> <p>2,address,FTPget"ftp://hj:1234@119.122.174.84:21/hujin\test20.txt;type=a"</p> <p>3,type,FTP</p> <p>3,address,FTPput"ftp://hj:1234@119.122.174.84:21/hujin\test20.txt;type=a;mode=a"</p> <p>OK</p>
Descriptions	<p>This command is used to set SOCKET or FTP service address.</p> <p>In SOCKET service mode, the address format: mode: IP address: port (mode: TCP or UDP)</p> <p>In FTP service mode, the address format:</p> <p>(1) FTPget"ftp:// <username>:<password>@<IP>:< PORT>/<dir&filename>;<type=a i d>"</p> <p>Note:</p> <ul style="list-style-type: none"> <Username>: username to log on FTP <Password>: password to log on FTP <IP>: server's IP address <PORT>: server's FTP port number, default 21 (Note: according to RFC959, it's recommended to change the port number to 21) <Dir&filename>: file directory or file name (including the directory) (Note: file directory is in terms of FTP's root directory; as Dir&filename is directory, type must be d, and root directory should be "/") <p>Type: file transmitting mode</p> <ul style="list-style-type: none"> --a: ASCII --i: Binary --d: file properties and file list <p>(2)</p> <p>FTPput"ftp://<username>:<password>@<IP>:<port>/<dir&filename>;<type=a i>;<mode = u a d >"</p> <p>Note:</p> <ul style="list-style-type: none"> Other parameters same as FTPget <dir&filename>: must be file name (including the directory) <p>Type: file transmitting mode</p> <ul style="list-style-type: none"> --a: ASCII --i: Binary <p>Mode: operation mode</p> <ul style="list-style-type: none"> --u: STOR mode: create the file on the server and write the data. If the file exists, cover the original file. --a: APPE mode: if the file does not exist on the server, then create it. If the file exists, attach the data to the end of the file. --d: DELE mode: delete one file.

	Note: when a certain channel is ON, you are not allowed to use the command again to set, otherwise it would return with error.
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8.2 AT\$MYNETOPEN: open service

Type	Command	Possible returned results	Descriptions
Set command	AT\$MYNETOPEN= <channel>	OK	Succeed
		ERROR[:<errornumber>]	Error
Query command	AT\$MYNETOPEN?	\$MYNETOPEN:<netchannel>,<LocalIP>,<local_port>,<gate>,<DNS1>,<DNS2>,<type>,< dest_ip>,<dest_port>	The number of parameters displayed according to the number of settings
		ERROR	Error
Test command	AT\$MYNETOPEN=?	\$MYNETOPEN: OK	
Parameters	1.<netchannel>: channel No. ranging from 0 to 5; 2.<LocalIP>: the local IP address assigned to the module by the network 3.<local_port>: local port; 4.<gate>: gate address; 5.<DNS1>: main domain name resolution server address; 6.<DNS2>: second domain name resolution server address; 7.<type>: service type, valuing SOCKET/FTP 8.<dest_ip>: connected server address; 9.<dest_port>: connected server's port number		
Example	<pre> at\$mynetcon=0,APN,"cmnet" OK at\$mynetsrv=0,type,SOCKET OK at\$mynetsrv=0,address,TCP:116.25.79.29:6800 OK at\$mynetopen=0 \$MYNETOPEN: 0 OK at\$mynetsrv=1,type,SOCKET OK at\$mynetsrv=1,address,UDP:116.25.79.29:7000 OK at\$mynetopen=1 \$MYNETOPEN: 1 </pre>		

	<pre> OK at\$mynetopen? (echo display the open channel information) netchannel:0,type:TCP,Local_ip:10.9.114.150,DNS1:211.136.20.203,DNS2:211. 136.20.203,Dest_ip:116.25.79.29,Dest_port:6800 netchannel:1,type:UDP,Local_ip:10.9.114.150,DNS1:211.136.20.203,DNS2:211. 136.20.203,Dest_ip:116.25.79.29,Dest_port:7000 OK at\$mynetsrv=2,type,FTP OK at\$mynetsrv=2,address,FTPget"ftp://hj:1234@119.122.174.84:21/hujin;type=d" (obtain hujin file list) OK at\$mynetopen=2 total 110 drw-rw-rw- 1 user group 0 May 14 14:29 . drw-rw-rw- 1 user group 0 May 14 14:29 .. -rw-rw-rw- 1 user group 8 Apr 28 14:01 test1.txt -rw-rw-rw- 1 user group 16450 May 13 17:12 test10.txt -rw-rw-rw- 1 user group 2400 May 12 11:11 test11.txt -rw-rw-rw- 1 user group 22004 May 14 09:33 test20.txt -rw-rw-rw- 1 user group 0 Apr 30 13:03 test3.txt -rw-rw-rw- 1 user group 80 May 14 14:29 test30.txt -rw-rw-rw- 1 user group 12 Apr 30 13:27 test4.txt -rw-rw-rw- 1 user group 0 Apr 30 13:48 test5.txt -rw-rw-rw- 1 user group 6666 Apr 30 14:10 test6.txt -rw-rw-rw- 1 user group 6000 Apr 30 14:50 test8.txt at\$mynetsrv=2,address,FTPput"ftp://hj:1234@119.122.174.84:21/hujin/test6.txt;type =a;mode=d"(delete file test6.txt) at\$mynetopen=2 Delete file ok! </pre>
Descriptions	<p>Use this command to open SOCKET (non transparent transmission) or FTP service connection.</p> <p>Note: the connection could be opened only as APN, service type and service address are all set, otherwise it will return with error.</p> <p>For the three services such as transparent transmission, non transparent transmission SOCKET and FTP service, you could only open one. In order to guarantee the transmitting accurateness, multiple services are not allowed to exist at the same time. Besides, for transparent transmission, non transparent transmission Socket mode, multiple channels could exist at the same time.</p> <p>Besides, for FTPget operation, obtain designated file data after \$mynetopen.</p> <p>For FTPput delete operation (mode=d), activate delete file after \$mynetopen. As mode! =d, need use \$mynetwrite command to write the data into FTP server.</p> <p>For FTP service mode, auto release connection after a complete FTP operation.</p>

8.3 AT\$MYNETCLOSE: close service

Type	Command	Possible returned results	Descriptions
Set command	AT\$MYNETCLOSE= <channel>	OK	Succeed
		ERROR[:<errornumber>]	Error
Query command	AT\$MYNETCLOSE?	\$MYNETCLOSE: Ok	Succeed
		ERROR	Error
Test command	AT\$MYNETCLOSE =?	\$MYNETCLOSE: OK	
Parameters	1.<netchannel>: channel No. ranging from 0 to 5;		
Example	AT\$MYNETCLOSE=1 \$MYNETCLOSE: 1 OK \$MYNETCLOSE: 0 (actively report, indicating channel 0 is closed at the server end) OK		
Descriptions	This command is used for users to close one opened connection, including transparent transmission and non transparent transmission. Besides, the command has active report function. It should be noted that, for FTP mode, auto release connection after a complete FTP operation and do not need \$MYNETCLOSE to close it.		

8.4 AT\$MYNETREAD: read data

Type	Command	Possible returned results	Descriptions
Set command	AT\$MYNETREAD=<netchannel>,<data_len>	\$MYNETREAD:netchannel,data_length ... (data) OK	Succeeded
		ERROR[:<errornumber>]	Failed
Test command	AT\$MYNETREAD=?	\$MYNETREAD: OK	
Parameters	1.<netchannel>: channel No., ranging from 0 to 5; 2.<data_len>: max. data to read, ranging from 0 to 2048; 3.<data_length>: the data flow followed, ranging from 0 to 2048; if data_length=0, there is		

	no data for this channel.
Example	<p>\$MYNETREAD: 0,47 (actively report, indicating channel 0 received 47 bytes) OK AT\$MYNETREAD=0,10 (read 10 data) \$MYNETREAD: 0,10 TCP:testby OK AT\$MYNETREAD=0,48 \$MYNETREAD: 0,47 (only 47 data) TCP:testbyZTEMT2010.4.13,send_string=0123456789 (data) OK</p>
Descriptions	In non transparent transmission SOCKET mode, as the module receives the data, actively report it and use the command to read the data in the designated channel; for each channel, the received data's buffer size is 2K and FTP service is 60K.

8.5 AT\$MYNETWRITE: transmit data

Type	Command	Possible returned results	Descriptions
Set command	AT\$MYNETWRITE=<netchannel>,<data_len>	\$MYNETWRITE: netchannel, data_len, Rsend_len;	Write the data to transmit as the characters appear
		ERROR[:<errornumber>]	Error
Query command	AT\$MYNETWRITE?	\$MYNETWRITE: Ok	Succeed
		ERROR	Error
Test command	AT\$MYNETWRITE=?	\$MYNETWRITE: OK	
Parameters	1.<netchannel>: channel No., ranging from 0 to 5; 2. <data_len>: data to transmit, ranging from 0 to 2048; 3. <Rsend_len>: data length transmitted to the adaptor, but the adaptor has not yet transmitted		
Example	<p>at\$mynetworkwrite=0,10 \$MYNETWRITE: 0,10,0 (prompt to write data) 0123456789 (write data) OK</p> <p>at\$mynetsrv=3,type,FTP OK at\$mynetsrv=3,address,FTPput"ftp://hj:1234@119.122.174.84:21/hujin\test30.txt;ty</p>		

	<pre>pe=a;mode=a" OK at\$mynetopen=3 OK at\$mynetwrite=0,80 Input data</pre>
Descriptions	<p>Used for non transparent transmission SOCKET service mode and FTP service mode, FTPput command (mode not delete) is used to transmit data.</p> <p>For each channel, the received data's buffer size is 2K and FTP service is 10K.</p> <p>If there is anything wrong with the server (cut-off or drop), using the command in TCP mode to transmit the data will prompt with server abnormal.</p>

9. Transparent Transmission Command

9.1 AT\$MYNETCREATE: open transparent transmission service

Type	Command	Possible returned results	Descriptions
Set command	AT\$MYNETCREATE=<mode>,<netchannel>,[<local_port>],<ip>,<port>	OK	Succeed
		ERROR[:<errornumber>]	Error
Query command	AT\$MYNETCREATE?		List the channels on the link
Test command	AT\$MYNETCREATE =?	\$MYNETCREATE: OK	
Parameters	1.<mode>: value (1, 2) ; 1:udp;2:TCPclient; 2. <netchannel>: channel no; 3.<local_port>: user designated local port, ranging from 1024 to 65535; 4. <ip>: object server's address; 5. <port>: object server port, ranging from 1 to 65535;		
Example	<pre> AT\$MYNETCREATE=2,3,1024,119.122.174.84,6800 (open transparent transmission connection) \$MYNETCREATE: 3 OK ATO (enter data mode, can't use AT command) Enter into data mode, please input data: OK Enter the data to transmit +++ (enter command mode, can use AT command) Enter into cmd mode,please input AT commmand: at\$mynetclose=3 (actively close the connection) \$MYNETCLOSE: 3 OK </pre>		
Descriptions	<p>Use this command to open transparent transmission service.</p> <p>Use AT\$MYNETCON command to set the network connection initializing parameters for transparent transmission.</p> <p>The adaptor is still in command mode after it is connected with the main station. AT command ATO is used from command mode to data mode; +++ is used from data mode to command mode</p> <p>In data mode, enter the data to transmit, it will transmit the data according to cfgt time interval and then according to the size of packet.</p> <p>As the data is received in data mode, display the received data; as the data is</p>		

	<p>abandoned in command mode, do not display the received data.</p> <p>Use AT\$MYNETCLOSE command to close the connection.</p> <p>If there is anything wrong with the server (cut-off or drop), using the command in TCP mode to transmit the data will prompt with server abnormal.</p> <p>Note: The overall size of transparent transmission data is within 2K; when receiving data in UDP mode, the data transmitted at UDP mode one time is not allowed to exceed 2K, but no limitation to the overall size of transmitted data.</p>
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