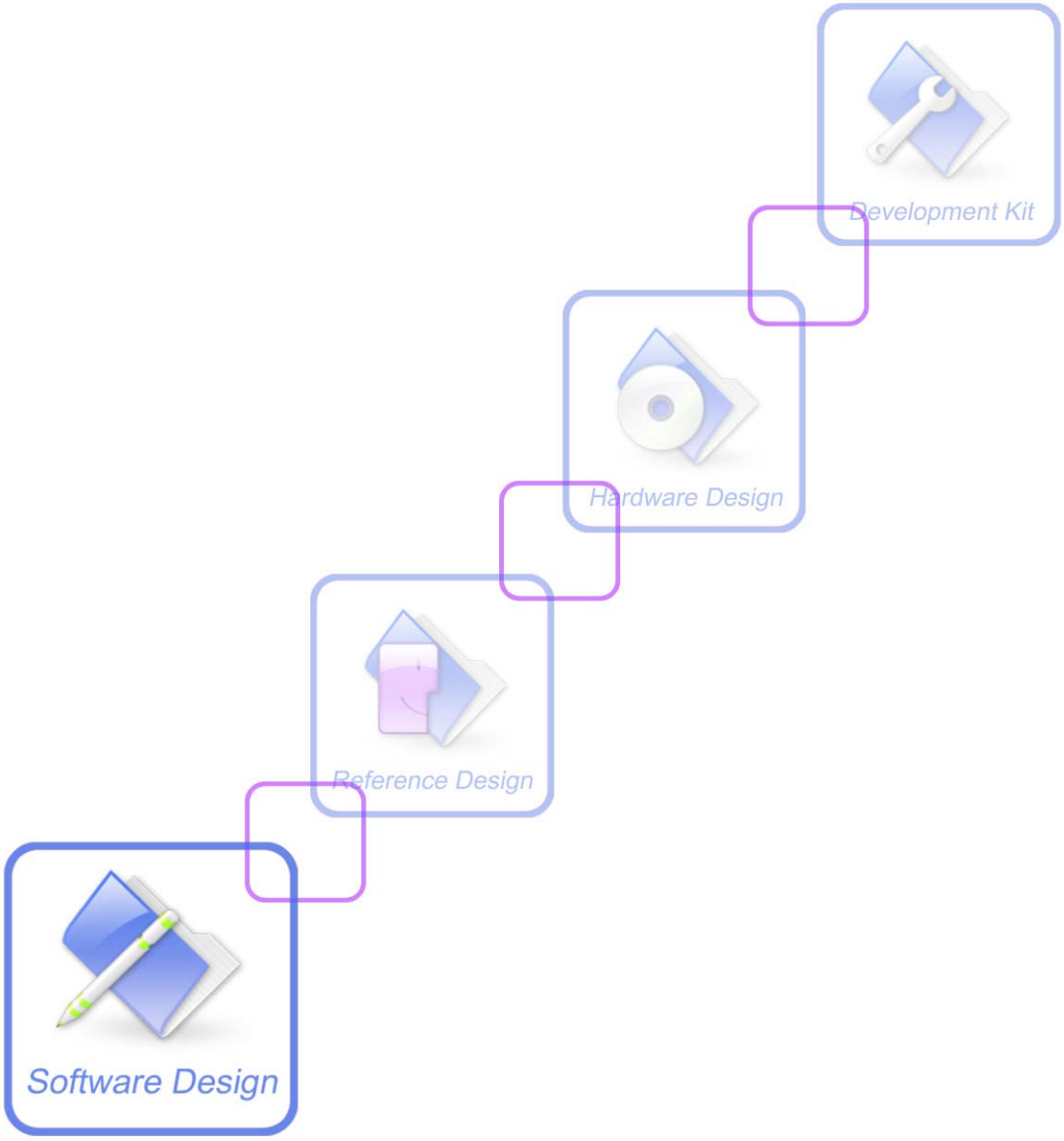
# AT Command Set

## For Internet Service



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# Version History

| Version | Chapter | Comments |
|---|---|---|
| V0.01 | New Version | |

# Contents

# 1 Introduction

## 1.1 Scope

The present document describes the AT Command Set about Internet Service on the SIMCom Module.

More information about the SIMCom Module which includes the Software Version information can be retrieved by the command ATI. In this document, a short description, the syntax, the possible setting values and responses, and some examples of AT commands are presented.

Prior to using the Module, please read this document and the Version History to know the difference from the previous document.

In order to implement communication successfully between Customer Application and the Module, it is recommended to use the AT commands in this document, but not to use some commands which are not included in this document.

## 1.2 References

The present document is based on the following standards:

[1] ETSI GSM 01.04: Abbreviations and acronyms.

[2] 3GPP TS 27.007: AT command set for User Equipment (UE).

## 1.3 Terms and Abbreviations

For the purposes of the present document, the following abbreviations apply:

- AT ATtention; the two-character abbreviation is used to start a command line to be sent from TE/DTE to TA/DCE
- EDGE Enhanced Data GSM Environment
- EGPRS Enhanced General Packet Radio Service
- FTP File Transfer Protocol
- GPRS General Packet Radio Service
- GSM Global System for Mobile communications
- HTTP Hyper Text Transfer Protocol
- HSDPA High Speed Downlink Packet Access
- HSUPA High Speed Uplink Packet Access
- PIN Personal Identification Number
- POP3 Post Office Protocol Version 3
- POP3 client An client that can receive e-mail from POP3 server over TCP session
- RTC Real Time Clock
- SIM Subscriber Identity Module
- SMTP Simple Mail Transfer Protocol

- SMTP client An client that can transfer text-based e-mail to SMTP server over TCP session
- TA Terminal Adaptor; e.g. a data card (equal to DCE)
- TE Terminal Equipment; e.g. a computer (equal to DTE)
- UMTS Universal Mobile Telecommunications System
- URC Unsolicited Result Code
- USIM Universal Subscriber Identity Module
- WCDMA Wideband Code Division Multiple Access

## 1.4 Definitions and conventions

1. For the purposes of the present document, the following syntactical definitions apply:

| | |
|---|---|
| **<CR>** | Carriage return character. |
| **<LF>** | Linefeed character. |
| **<…>** | Name enclosed in angle brackets is a syntactical element. Brackets themselves do not appear in the command line. |
| **[…]** | Optional subparameter of AT command or an optional part of TA information response is enclosed in square brackets. Brackets themselves do not appear in the command line. If subparameter is not given, its value equals to its previous value or the recommended default value. |
| **underline** | Underlined defined subparameter value is the recommended default setting or factory setting. |

2. Document conventions:

- Display the examples of AT commands with *Italic* format.
- Not display *blank-line* between command line and responses or inside the responses.
- Generally, the characters <CR> and <LF> are intentionally omitted throughout this document.
- If command response is ERROR, not list the ERROR response inside command syntax.

**NOTE** AT commands and responses in figures may be not following above conventions.

3. Special marks for commands or parameters:

SIM PIN – Is the command PIN protected?

YES – AT command can be used only when SIM PIN is READY.

NO – AT command can be used when SIM card is absent or SIM PIN validation is pending.

References – Where is the derivation of command?

3GPP TS 27.007 – 3GPP Technical Specification 127 007.

V.25ter – ITU–T Recommendation V.25ter.

Vendor – The command is supported by SIMCom.

# 2 AT Interface Synopsis

## 2.1 Interface settings

Between Customer Application and the Module, standardized RS–232 interface is used for the communication, and default values for the interface settings as following:

115200bps, 8 bit data, no parity, 1 bit stop, no data stream control.

## 2.2 AT command syntax

The prefix “AT” or “at” (no case sensitive) must be included at the beginning of each command line (except A/ and +++), and the character <CR> is used to finish a command line so as to issue the command line to the Module. It is recommended that a command line only includes a command.

When Customer Application issues a series of AT commands on separate command lines, leave a pause between the preceding and the following command until information responses or result codes are retrieved by Customer Application, for example, “OK” is appeared. This advice avoids too many AT commands are issued at a time without waiting for a response for each command.

In the present document, AT commands are divided into three categories: Basic Command, S Parameter Command, and Extended Command.

### 1. Basic Command

The format of Basic Command is “AT<x><n>” or “AT&<x><n>”, “<x>” is the command name, and “<n>” is/are the parameter(s) for the basic command, and optional. An example of Basic Command is “ATE<n>”, which informs the TA/DCE whether received characters should be echoed back to the TE/DTE according to the value of “<n>”; “<n>” is optional and a default value will be used if omitted.

### 2. S Parameter Command

The format of S Parameter Command is “ATS<n>=<m>”, “<n>” is the index of the S–register to set, and “<m>” is the value to assign to it. “<m>” is optional; in this case, the format is “ATS<n>”, and then a default value is assigned.

### 3. Extended Command

The Extended Command has several formats, as following table list:

**Table 2-1: Types of Extended Command**

| Command Type | Syntax | Comments |
|---|---|---|
| Test Command | AT+<NAME>=? | Test the existence of the command; give some information about the command subparameters. |

| | | |
|---|---|---|
| Read Command | AT+<NAME>? | Check the current values of subparameters. |
| Write Command | AT+<NAME>=<…> | Set user-definable subparameter values. |
| Execution Command | AT+<NAME> | Read non-variable subparameters determined by internal processes. |

**NOTE** The character "+" between the prefix "AT" and command name may be replaced by other character. For example, using "#" or "$"instead of "+".

## 2.3 Information responses

If the commands included in the command line are supported by the Module and the subparameters are correct if presented, some information responses will be retrieved by from the Module. Otherwise, the Module will report "ERROR" or "+CME ERROR" or "+CMS ERROR" to Customer Application.

Information responses start and end with <CR><LF>, i.e. the format of information responses is "<CR><LF><response><CR><LF>". Inside information responses, there may be one or more <CR><LF>. Throughout this document, only the responses are presented, and <CR><LF> are intentionally omitted.

# 3 Simple Mail Transfer Protocol Service

Simple Mail Transfer Protocol (SMTP) is an internet standard for electronic mail (e-mail) transmission across Internet Protocol (IP) networks, and it is a text-based protocol.

To sending an e-mail successfully, TE must set some mandatory parameters for the SMTP client correctly, such as SMTP server address, sender and recipient address. After the process of sending an e-mail is started, SMTP Client will initiates a Transmission Control Protocol (TCP) session with the SMTP server to send e-mail header and body. In addition, attachments selected from file system can be sent along with an e-mail message, total size up to 10MB or maximal number up to 10.

Unsolicited Result Code (URC) "+SMTP: SUCCESS" is present from SMTP client to indicate that sending an e-mail is successful, and the TCP session for SMTP service is closed. If sending an e-mail is unsuccessful, other URCs will be returned to TE.

Sender/recipient address and e-mail subject are used to construct the e-mail's header. In addition, data and time are also present in the e-mail's header, which are gotten from the module. So it is recommended to set Real Time Clock (RTC) and time-zone for the module.

## 3.1 AT+SMTPSRV SMTP server address and port number

### Description

The synchronous command is used to set SMTP server address and server's port number. SMTP client will initiate TCP session with the specified server to send an e-mail. If the process of sending an e-mail is ongoing, the command will return "ERROR" directly.

Read command returns current SMTP server address and port number.

Execution command will clear SMTP server address and set the port number as default value.

**NOTE** After an e-mail is sent successfully or unsuccessfully, SMTP server address and port number won't be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPSRV=? | +SMTPSRV: (list of supported <port>s)<br>OK |
| Read Command | Responses |
| AT+SMTPSRV? | +SMTPSRV: <server>, <port><br>OK |
| Write Command | Responses |
| AT+SMTPSRV=<server>[, <port>] | OK |
| Execution Command | Responses |

| | |
|---|---|
| AT+SMTPSRV | OK |

### Defined values

| |
|---|
| <server> |
| SMTP server address, non empty string with double quotes, mandatory and ASCII text string up to 128 characters. |
| <port> |
| Port number of SMTP server in decimal format, from 1 to 65535, and default port is 25 for SMTP. |

### Examples

| |
|---|
| *AT+SMTPSRV="smtp.server.com",25* |
| *OK* |
| *AT+SMTPSRV?* |
| *+SMTPSRV: "smtp.server.com", 25* |
| *OK* |
| *AT+SMTPSRV* |
| *OK* |
| *AT+SMTPSRV?* |
| *+SMTPSRV: "", 25* |
| *OK* |

## 3.2 AT+SMTPAUTH SMTP server authentication

### Description

The synchronous command is used to control SMTP authentication during connection with SMTP server. If SMTP server requires authentication while logging in the server, TE must set the authentication control flag and provide user name and password correctly before sending an e-mail. If the process of sending an e-mail is ongoing, the command will return “ERROR” directly.

Read command returns current SMTP server authentication control flag, if the flag is 0, both <user> and <pwd> are empty strings.

Execution Command cancels SMTP server authentication and clear user name and password.

**NOTE** After an e-mail is sent successfully or unsuccessfully, server authentication won’t be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPAUTH=? | +SMTPAUTH: (list of supported <flag>s) |

| | |
|---|---|
| | OK |
| Read Command | Responses |
| AT+SMTPAUTH? | +SMTPAUTH: <flag>, <user>, <pwd><br>OK |
| Write Command | Responses |
| AT+SMTPAUTH=<br><flag>[, <user>, <pwd>] | OK |
| Execution Command | Responses |
| AT+SMTPAUTH | OK |

### Defined values

| |
|---|
| <flag> |
| SMTP server authentication control flag, integer type.<br>0 – SMTP server doesn't require authentication, factory value.<br>1 – SMTP server requires authentication. |
| <user> |
| User name to be used for SMTP authentication, non empty string with double quotes and up to 128 characters. |
| <pwd> |
| Password to be used for SMTP authentication, string with double quotes and up to 128 characters. |
| **NOTE** If <flag> is 0, <user> and <pwd> must be omitted (i.e. only <flag> is present). |

### Examples

| |
|---|
| *AT+SMTPAUTH?* |
| *+SMTPAUTH: 0, "", ""* |
| *OK* |
| *AT+SMTPAUTH=1,"username","password"* |
| *OK* |
| *AT+SMTPAUTH?* |
| *+SMTPAUTH: 0, "username", "password"* |
| *OK* |
| *AT+SMTPAUTH* |
| *OK* |
| *AT+SMTPAUTH?* |
| *+SMTPAUTH: 0, "", ""* |
| *OK* |

## 3.3 AT+SMTPFROM Sender address and name

### Description

The synchronous command is used to set sender's address and name, which are used to construct e-mail header. The sender's address must be correct, and if the process of sending an e-mail is ongoing, the command will return "ERROR" directly.
Read command returns current sender's address and name.
Execution command will clear sender's address and name.
**NOTE** After an e-mail is sent successfully or unsuccessfully, sender address and name won't be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPFROM=? | OK |
| Read Command | Responses |
| AT+SMTPFROM? | +SMTPFROM: <saddr>, <sname><br>OK |
| Write Command | Responses |
| AT+SMTPFROM=<br><saddr>[, <sname>] | OK |
| Execution Command | Responses |
| AT+SMTPFROM | OK |

## Defined values

| |
|---|
| <saddr> |
| E-mail sender address (MAIL FROM), non empty string with double quotes, mandatory and ASCII text up to 128 characters. <saddr> will be present in the header of the e-mail sent by SMTP client in the field: "*From: *". |
| <sname> |
| E-mail sender name, string with double quotes, and alphanumeric ASCII text up to 64 characters. <sname> will be present in the header of the e-mail sent by SMTP client in the field: "*From: *". |

## Examples

| |
|---|
| *AT+SMTPFROM="senderaddress@server.com","sendername"* |
| *OK* |
| *AT+SMTPFROM?* |
| *+SMTPFROM: "senderaddress@server.com", "sendername"* |
| *OK* |
| *AT+SMTPFROM* |
| *OK* |
| *AT+SMTPFROM?* |

```
+SMTPFROM: "", ""
OK
```

## 3.4 AT+SMTPRCPT Recipient address and name (TO/CC/BCC)

### Description

The synchronous command is used to set recipient address/name and kind (TO/CC/BCC). If only the parameter of “kind” is present, the command will clear all recipients of this kind, and if only parameters of “kind” and “index” are present, the command will clear the specified recipient. If the process of sending an e-mail is ongoing, the command will return “ERROR” directly.

Read command returns current recipient address/name and kind list.

Execution command will clear all recipient information.

**NOTE** After an e-mail is sent successfully, all recipients will be cleared, if unsuccessfully, they won’t be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPRCPT=? | +SMTPRCPT: (list of supported <kind>s), (list of supported <index>s)<br>OK |
| **Read Command** | **Responses** |
| AT+SMTPRCPT? | [+SMTPRCPT: <kind>, <index>, <raddr>, <rname><br>[<CR><LF>…]]<br>OK |
| **Write Command** | **Responses** |
| AT+SMTPRCPT=<br><kind>[, <index><br>[,<raddr>[,<rname>]]] | OK |
| **Execution Command** | **Responses** |
| AT+SMTPRCPT | OK |

### Defined values

| <kind> |
|---|
| Recipient kind, the kinds of TO and CC are used to construct e-mail header in the field: “*To:* ” or “*Cc:* ”.<br>0 – TO, normal recipient.<br>1 – CC, Carbon Copy recipient. |

| |
|---|
| 2 – BCC, Blind Carbon Copy recipient. |
| <index> |
| Index of the kind of recipient, decimal format, and from 0 to 4. |
| <raddr> |
| Recipient address, non empty string with double quotes, and up to 128 characters. |
| <rname> |
| Recipient name, string type with double quotes, and up to 64 characters. |

### Examples

| |
|---|
| *AT+SMTPRCPT=0, 0, "rcptaddress_to@server.com", "rcptname_to"* |
| *OK* |
| *AT+SMTPRCPT?* |
| *+SMTPRCPT: 0, 0, "rcptaddress_to@server.com", "rcptname_to"* |
| *OK* |
| *AT+SMTPRCPT=1, 0, "rcptaddress_cc@server.com", "rcptname_cc"* |
| *OK* |
| *AT+SMTPRCPT?* |
| *+SMTPRCPT: 0, 0, "rcptaddress_to@server.com", "rcptname_to"* |
| *+SMTPRCPT: 1, 0, "rcptaddress_cc@server.com", "rcptname_cc"* |
| *OK* |

## 3.5 AT+SMTPSUB E-mail subject

### Description

The synchronous command is used to set the subject of e-mail, which is used to construct e-mail header. If the process of sending an e-mail is ongoing, the command will return "ERROR" directly.

Read command returns current e-mail subject.

Execution command will clear the subject.

**NOTE** After an e-mail is sent successfully, the subject will be cleared, if unsuccessfully, it won't be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPSUB=? | OK |
| Read Command | Responses |
| AT+SMTPSUB? | +SMTPSUB: <subject><br>OK |
| Write Command | Responses |

| | |
|---|---|
| AT+SMTPSUB=<subject> | OK |
| Execution Command | Responses |
| AT+SMTPSUB | OK |

### Defined values

| <subject> |
|---|
| E-mail subject, string with double quotes, and ASCII text up to 512 characters. <subject> will be present in the header of the E-mail sent by SMTP client in the field: "*Subject: "*. |

### Examples

| *AT+SMTPSUB?* |
|---|
| *+SMTPSUB: ""* |
| *OK* |
| *AT+SMTPSUB="THIS IS A TEST MAIL"* |
| *OK* |
| *AT+SMTPSUB?* |
| *+SMTPSUB: "THIS IS A TEST MAIL"* |
| *OK* |

## 3.6 AT+SMTPBODY E-mail body

### Description

The command is used to set e-mail body, which will be sent to SMTP server with text format.

Read command returns current e-mail body. If the process of sending an e-mail is ongoing, the command will return "ERROR" directly.

Execute command will switch the serial port from command mode to data mode, so TE can enter more ASCII text as e-mail body (up to 5120), and CTRL-Z (ESC) is used to finish (cancel) the input operation and switch the serial port back to command mode.

**NOTE** After an e-mail is sent successfully, the body will be cleared, if unsuccessfully, it won't be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPBODY=? | OK |
| Read Command | Responses |
| AT+SMTPBODY? | +SMTPBODY: <body><br>OK |

| Write Command | Responses |
|---|---|
| AT+SMTPBODY=<body> | OK |
| Execution Command | Responses |
| AT+SMTPBODY | >> |

### Defined values

| <body> |
|---|
| E-mail body, string with double quotes, and printable ASCII text up to 512 or 5120 characters. |
| **NOTE** In data mode, “BACKSPACE” can be used to cancel an ASCII character. |

### Examples

| *AT+SMTPBODY=”THIS IS A TEST MAIL FROM SIMCOM MODULE”* |
|---|
| *OK* |
| *AT+SMTPBODY?* |
| *+SMTPBODY: ”THIS IS A TEST MAIL FROM SIMCOM MODULE”* |
| *OK* |
| *AT+SMTPBODY* |
| *>> This is a test mail.<CTRL-Z>* |
| *OK* |
| *AT+SMTPBODY?* |
| *+SMTPBODY: ”This is a test mail.”* |
| *OK* |
| *AT+SMTPBODY* |
| *>> This is a test mail.<ESC>* |
| *OK* |
| *AT+SMTPBODY?* |
| *+SMTPBODY: “”* |
| *OK* |

## 3.7 AT+SMTPBCH E-mail body character set

### Description

This synchronous command is used to set the body character set of e-mail. If the process of sending an e-mail is ongoing, the command will return “ERROR” directly.

Read command returns current e-mail body character set.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPBCH=? | +SMTPBCH: ”CHARSET”<br>OK |
| Read Command | Responses |
| AT+SMTPBCH? | +SMTPBCH: <charset><br>OK |
| Write Command | Responses |
| AT+SMTPBCH=<charset> | OK<br>ERROR |
| Execution Command | Responses |
| AT+SMTPBCH | OK<br>ERROR |

### Defined values

| <charset> |
|---|
| E-mail body character, string with double quotes. By default, it is “utf-8”. The maximum length is 30 bytes. |

### Examples

| *AT+SMTPBCH=?* |
|---|
| *+SMTPBCH: “CHARSET”*<br>*OK* |
| *AT+SMTPBCH=”gb2312”* |
| *OK* |
| *AT+SMTPBCH?* |
| *+SMTPBCH: “gb2312”*<br>*OK* |

## 3.8 AT+SMTPFILE Select attachment

### Description

The synchronous command is used to select file as e-mail attachment. If the process of sending an e-mail is ongoing, the command will return “ERROR” directly.

Read command returns current all selected attachments with full path.

Execute command will clear all attachments.

**NOTE** After an e-mail is sent successfully, attachment will be cleared, if unsuccessfully, it won’t be cleared. The same file can’t be selected twice.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPFILE=? | +SMTPFILE: (list of supported <index>s)<br>OK |
| Read Command | Responses |
| AT+SMTPFILE? | [+SMTPFILE: <index>, <filename>, <filesize><br>[<CR><LF>…]]<br>OK |
| Write Command | Responses |
| AT+SMTPFILE=<br><index>[, <filename>] | OK |
| | [+SMTP: OVERSIZE]<br>ERROR |
| Execution Command | Responses |
| AT+SMTPFILE | OK |

### Defined values

| <index> |
|---|
| Index for attachments, from 1 to 10. According to the sequence of <index>, SMTP client will encode and send all attachments. |
| <filename> |
| String type with double quotes, the name of a file which is under current directory (refer to file system commands). SMTP client doesn't allow two attachments with the same file name. |
| <filesize> |
| File size in decimal format. The total size of all attachments can't exceed 10MB. |

### Examples

| *AT+SMTPFILE=1,"file1.txt"* |
|---|
| *OK* |
| *AT+SMTPFILE?* |
| *+SMTPFILE: 1, "D:/file1.txt"* |
| *OK* |
| *AT+SMTPFILE=2,"file2.txt"* |
| *OK* |
| *AT+SMTPFILE?* |
| *+SMTPFILE: 1, "D:/file1.txt"* |
| *+SMTPFILE: 2, "D:/file2.txt"* |
| *OK* |

## 3.9 AT+SMTPSEND Initiate session and send e-mail

## Description

The asynchronous command is used to initiate TCP session with SMTP server and send an e-mail after all mandatory parameters have been set correctly. After SMTP client has connected with specified SMTP server and SMTP client receives an indication that indicates SMTP server is working well, the command will return "+SMTP: OK", but it doesn't indicate that the e-mail is already sent successfully.

After the e-mail is sent and the session is closed, an Unsolicited Result Code (URC) will be returned to TE, "+SMTP: SUCCESS" indicates the e-mail is sent successfully, and other URCs indicate an failed result and the session is closed.

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPSEND=? | OK |
| **Read Command** | **Responses** |
| AT+SMTPSEND? | +SMTPSEND: <ongoing><br>OK |
| **Execution Command** | **Responses** |
| AT+SMTPSEND | +SMTP: OK<br>OK<br><br>+SMTP: <code> |
| | +SMTP: <code><br>ERROR |

## Defined values

| <ongoing> | |
|---|---|
| Whether or not an e-mail is sent in process. If the process of sending an e-mail is ongoing, SMTP client can't send the e-mail again.<br>0 – Not ongoing.<br>1 – Ongoing. | |
| **<code>** | |
| SUCCESS | SMTP client has sent the e-mail successfully. |
| ONGOING | The process of sending an e-mail is ongoing. |
| PARAM ERROR | Mandatory parameter isn't set (SMTP server, or sender/recipient address) |
| NETWORK ERROR | Invalid SMTP server.<br>Network is bad for establishing session or sending data to SMTP server. |
| SERVER ERROR | SMTP server released the session.<br>SMTP server rejects the operation with wrong response. |

| | |
|---|---|
| | SMTP server doesn't give SMTP client a response in time. |
| AUTH REQUIRED | Authentication is required by SMTP server. |
| AUTH ERROR | SMTP server rejects the session because of bad user name and password combination. |

### Examples

```
AT+SMTPSEND?
+SMTPSEND: 0
OK
AT+SMTPSEND
+SMTP: OK
OK

+SMTP: SUCCESS
```

## 3.10 AT+SMTPSTOP Force to stop sending e-mail

### Description

The synchronous command is used to force to stop sending e-mail and close the TCP session while sending an e-mail is ongoing. Otherwise, the command will return "ERROR" directly.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+SMTPSTOP=? | OK |
| Execution Command | Responses |
| AT+SMTPSTOP | OK |
| | ERROR |

### Examples

```
AT+SMTPSEND?
+SMTPSEND: 1
OK
AT+SMTPSTOP
OK
```

# 4 Post Office Protocol 3 Service

Post Office Protocol – Version 3 (POP3) is an application-layer internet standard protocol used by local e-mail client (POP3 client) to retrieve and delete e-mail from a remote POP3 server over a TCP/IP connection.

Through AT commands, the POP3 client provides the basic functionality. Things that can be done via POP3 client include:

Retrieve e-mail from POP3 server and delete it on the server.

Retrieve e-mail from POP3 server but not delete it on the server.

Ask whether new e-mail has arrived but not retrieve it.

Peek at e-mail whether it is worth retrieving.

## 4.1 AT+POP3SRV POP3 server and account

### Description

The synchronous command is used to set all parameters to get and e-mail from POP3 server, including server address, port number, user name and password. If POP3 client isn't free, the command will return "ERROR" directly.

Read command returns current all information about POP3 server and account.

Execution command will clear POP3 server address, user name and password, and set server's port number as default value.

**NOTE** After an e-mail is sent successfully or unsuccessfully, POP3 server and account information won't be cleared.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3SRV=? | +POP3SRV: (list of supported <port>s)<br>OK |
| Read Command | Responses |
| AT+POP3SRV? | +POP3SRV: <server>, <user>, <pwd>, <port><br>OK |
| Write Command | Responses |
| AT+POP3SRV=<server>, <user>, <pwd>[, <port>] | OK |
| Execution Command | Responses |
| AT+POP3SRV | OK |

### Defined values

| |
|---|
| <server> |
| POP3 server address, non empty string with double quotes, mandatory and ASCII text string up to 128 characters. |
| <user> |
| User name to log in POP3 server, non empty string with double quotes, and up to 128 characters. |
| <pwd> |
| Password to log in POP3 server, non empty string with double quotes, and up to 128 characters. |
| <port> |
| Port number of POP3 server in decimal format, from 1 to 65535, and default port is 110 for POP3. |

### Examples

| |
|---|
| *AT+POP3SRV=?* |
| *+POP3SRV: (1-65535)* |
| *OK* |
| *AT+POP3SRV?* |
| *+POP3SRV: “”, “”, “”, 110* |
| *OK* |
| *AT+POP3SRV=”pop3.server.com”, “user_name”, “password”, 110* |
| *OK* |
| *AT+POP3SRV?* |
| *+POP3SRV: “pop3.server.com”, “user_name”, “password”, 110* |
| *OK* |
| *AT+POP3SRV* |
| *OK* |
| *AT+POP3SRV?* |
| *+POP3SRV: “”, “”, “”, 110* |
| *OK* |

## 4.2 AT+POP3IN Log in POP3 server

### Description

The asynchronous command is used to log in POP3 server and establish a session after POP3 server and account information are set rightly. If the POP3 client logs in POP3 server successfully, the response “+POP3: SUCCESS” will be returned to TE; if no POP3 operation for a long time after the session is ready, POP3 server may release the session.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|

| | |
|---|---|
| AT+POP3IN=? | OK |
| Read Command | Responses |
| AT+POP3IN? | +POP3IN: “<server>”<br>OK<br>+POP3IN: NULL<br>OK |
| Execute Command | Responses |
| AT+POP3IN | +POP3: SUCCESS<br>OK |
| | +POP3: <code><br>ERROR |

### Defined values

| <code> | |
|---|---|
| NETWORK ERROR | Invalid POP3 server or network is bad for establishing session or sending data to POP3 server. |
| SERVER ERROR | POP3 server released the session.<br>POP3 server rejects the operation with wrong response.<br>POP3 server doesn’t give POP3 client a response in time. |
| INVALID UN | Invalid user name to log in POP3 server. |
| INVALID UN/PWD | Invalid user name and password combination to log in POP3 server. |
| <server> | |
| The address of the POP3 server currently logged in. | |

### Examples

| *AT+POP3IN=?* |
|---|
| *OK* |
| *AT+POP3IN* |
| *+POP3: SUCCESS*<br>*OK* |

## 4.3 AT+POP3NUM Get e-mail number and total size

### Description

The asynchronous command is used to get e-mail number and total size on the specified POP3 server after the POP3 client logs in POP3 server successfully and no other POP3 operation is ongoing.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3NUM=? | OK |
| Execution Command | Responses |
| AT+POP3NUM | +POP3: <num>, <tsize><br>OK |
| | +POP3: <code><br>ERROR |

### Defined values

| <num> | |
|---|---|
| The e-mail number on the POP3 server, decimal format. | |
| <tsize> | |
| The total size of all e-mail and the unit is in Byte. | |
| <code> | |
| NETWORK ERROR | Network is bad for sending data to POP3 server. |
| SERVER ERROR | POP3 server released the session. |
| | POP3 server rejects the operation with wrong response. |
| | POP3 server doesn't give POP3 client a response in time. |

### Examples

```
AT+POP3NUM=?
OK
AT+POP3NUM
+POP3: 1, 3057
OK
AT+POP3NUM
+POP3: ONGOING
OK
```

## 4.4 AT+POP3LIST List e-mail ID and size

### Description

The asynchronous command is used to list e-mail number and total size, e-mail ID and each e-mail's size after the POP3 client logs in POP3 server successfully and no other POP3 operation is ongoing. The e-mail ID may be used to do those operations: get e-mail header, get the whole e-mail, and mark an e-mail to delete from POP3 server.

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax Syntax

| Test Command | Responses |
|---|---|
| AT+POP3LIST=? | OK |
| Write Command | Responses |
| AT+POP3LIST=<msg_id> | +POP3: <msg_id>, <size><br>OK |
| | ERROR |
| Execution Command | Responses |
| AT+POP3LIST | +POP3: <num> <tsize><br>[<msg_id> <size><br>[<CR><LF>…]]<br>OK |
| | +POP3: <code><br>ERROR |

## Defined values

| | |
|---|---|
| <num> | |
| The e-mail number on the POP3 server, decimal format. | |
| <tsize> | |
| The total size of all e-mail and the unit is in Byte. | |
| <msg_id> | |
| The e-mail's ID. | |
| <size> | |
| The size of e-mail <msg_id>, and the unit is in Byte. | |
| <code> | |
| NETWORK ERROR | Network is bad for sending data to POP3 server. |
| SERVER ERROR | POP3 server released the session. |
| | POP3 server rejects the operation with wrong response. |
| | POP3 server doesn't give POP3 client a response in time. |
| | POP3 client gives wrong e-mail's ID. |

## Examples

| |
|---|
| *AT+POP3LIST=?* |
| *OK* |
| *AT+POP3LIST* |
| *+POP3: 1 3056* |
| *1 3056* |
| *OK* |
| *AT+POP3LIST=1* |
| *+POP3: 1, 3056* |

*OK*

## 4.5 AT+POP3HDR Get e-mail header

### Description

The asynchronous command is used to retrieve e-mail's sender address, date and sender address, that are present in the mail's header.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3HDR=? | OK |
| **Write Command** | **Responses** |
| AT+POP3HDR=<msg_id> | From: [<from>]<br>Date: [<date>]<br>Subject: [<sub>]<br>OK |
| | +POP3: <code><br>ERROR |

### Defined values

| | |
|---|---|
| <msg_id> | |
| The e-mail's ID. | |
| <from> | |
| E-mail's sender name and sender address from mail | |
| <date> | |
| E-mail's date from mail header. | |
| <sub> | |
| E-mail's subject from mail header. | |
| <code> | |
| NETWORK ERROR | Network is bad for sending data to POP3 server. |
| SERVER ERROR | POP3 server released the session. |
| | POP3 server rejects the operation with wrong response. |
| | POP3 server doesn't give POP3 client a response in time. |
| | POP3 client gives wrong e-mail's ID. |

### Examples

*AT+POP3HDR=1*

*From: sendername<senderaddress@server.com>*
*Date: Mon, 17 Aug 2009 14:09:27 +0800*
*Subject: THIS IS A TEST MAIL*

*OK*

## 4.6 AT+POP3GET Get an e-mail from POP3 server

### Description

The command is used to retrieve specified e-mail from the POP3 server. After retrieving an e-mail successfully, POP3 client will create a directory and save the e-mail's header and body into file system as file "Email*XYZ*.TXT", and save each attachment as a file under the same directory.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3GET=? | OK |
| **Write Command** | **Responses** |
| AT+POP3GET=<msg_id>,[<get_type>] | OK<br><br>+POP3: <code><br><mail_dir>, <mail_file> |
| | +POP3: <code><br>ERROR |

### Defined values

| |
|---|
| <msg_id> |
| The e-mail's ID. |
| <mail_dir> |
| The directory for e-mail and attachment, string type without double quotes and the format is "YYMMDDHHMMSS" which is generated according to module's RTC.<br>According to the setting of command +FSLOCA (refer to file system commands), TE can select the location (local file system or storage card) in which POP3 client saves e-mail file and attachment. |
| <mail_file> |
| The file to save e-mail's header and body, string type without double quotes. Usually, this file name is "EMAIL000.TXT", and if e-mail includes an attachment whose name is the same as the e-mail file, the number in the e-mail file name will be increase by 1, e.g. "EMAIL001.TXT", "EMAIL002.TXT". |
| <code> |

| | |
|---|---|
| NETWORK ERROR | Network is bad for sending or receiving data to POP3 server. |
| SERVER ERROR | POP3 server released the session.<br>POP3 server rejects the operation with wrong response.<br>POP3 server doesn't give POP3 client a response in time.<br>POP3 client gives wrong e-mail's ID. |
| FILE SYSTEM ERROR | File system is bad for saving E-mail or attachment, storage space isn't enough, or storage card is pulled out. If POP3 client encounters this error, POPE client will close the session with POP3 server. |
| SUCCESS | POP3 client gets an e-mail from POP3 server successfully. |
| FAILURE | POP3 client gets an e-mail unsuccessfully. |

<get_type>

The type to save when getting message from POP3 server:

1 – Save parsed body file and attachments

2 – Save the whole message as a ".eml" file.

3 – Save the parsed body file, attachments and eml file.

### Examples

```
AT+POP3GET=1
OK

+POP3: SUCCESS
C:/Email/090901120000/, EMAIL000.TXT
AT+POP3GET=1,2
OK

+POP3: SUCCESS
C:/Email/090901120000/, 090901120000.eml
AT+POP3GET=2
OK

+POP3: FAILURE
```

## 4.7 AT+POP3DEL Mark an e-mail to delete from POP3 server

### Description

The asynchronous command is used to mark an e-mail to delete from POP3 server. The operation only marks an e-mail on the server to delete it, and after POP3 client logs out POP3 server and closes the session normally, the marked e-mail is deleted on the server. Otherwise, the e-mail isn't deleted.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3DEL=? | OK |
| Write Command | Responses |
| AT+POP3DEL=<msg_id> | +POP3: SUCCESS<br>OK |
| | +POP3: <code><br>ERROR |

### Defined values

| <msg_id> | |
|---|---|
| E-mail's ID for mark to delete it on POP3 server. | |
| <code> | |
| NETWORK ERROR | Network is bad for sending data to POP3 server. |
| SERVER ERROR | POP3 server released the session. |
| | POP3 server rejects the operation with wrong response. |
| | POP3 server doesn't give POP3 client a response in time. |
| | POP3 client gives wrong e-mail's ID. |

### Examples

```
AT+POP3DEL=1
+POP3: SUCCESS
OK
```

## 4.8 AT+POP3OUT Log out POP3 server

### Description

The command will log out the POP3 server and close the session, and if there are some e-mails which are marked to delete, it also informs POP3 server to delete the marked e-mails.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3OUT=? | OK |
| Execution Command | Responses |
| AT+POP3OUT | +POP3: SUCCESS<br>OK |

| | |
|---|---|
| | +POP3: <code><br>ERROR |

### Defined values

| <code> | |
|---|---|
| NETWORK ERROR | Network is bad for sending data to POP3 server. |
| SERVER ERROR | POP3 server released the session.<br>POP3 server rejects the operation with wrong response.<br>POP3 server doesn't give POP3 client a response in time.<br>POP3 client gives wrong e-mail's ID. |

### Examples

```
AT+POP3OUT
+POP3: SUCCESS
OK
```

## 4.9 AT+POP3STOP Force to stop receiving e-mail/close the session

### Description

The synchronous command is used to force to close the session, and if the process of receiving e-mail is ongoing, the command also stops the operation. Otherwise, the command will return "ERROR" directly. If an e-mail has been marked to delete, POP3 server won't delete the e-mail after the session is closed.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+POP3STOP=? | OK |
| **Execution Command** | **Responses** |
| AT+POP3STOP | OK<br>ERROR |

### Examples

```
AT+POP3STOP
OK
```

## 4.10 AT+POP3READ Read an e-mail from file system

## Description

The command is used to read an e-mail from file system. If the process of receiving e-mail is ongoing, the command can't read an e-mail.

Execution command is used to read the e-mail which is received just now.

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax Syntax

| Test Command | Responses |
|---|---|
| AT+POP3READ=? | OK |
| **Write Command** | **Responses** |
| AT+POP3READ=<br><location>, <mail_file> | <e-mail><br>OK |
| | ERROR |
| **Execution Command** | **Responses** |
| AT+POP3READ | <e-mail><br>OK |
| | ERROR |

## Defined values

| <location> |
|---|
| The location from which TE reads an e-mail.<br>0 – Local file system.<br>1 – Storage card. |
| <mail_file> |
| The e-mail's file name, string type with double quotes and including a directory name and a text file name separated by the list separator "/", e.g. "090901103000/EMAIL000.TXT". |
| <e-mail> |
| The content of e-mail, including e-mail header and body. |

# 5 File Transfer Protocol Service

## 5.1 AT+CFTPPORT Set FTP server port

### Description

The command is used to set FTP server port.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPPORT=? | +CFTPPORT: (list of supported <port>s)<br>OK |
| Read Command | Responses |
| AT+CFTPPORT? | +CFTPPORT: <port><br>OK |
| Write Command | Responses |
| AT+CFTPPORT=<port> | OK |
| | +CME ERROR |

### Defined values

| <port> |
|---|
| The FTP server port, from 1 to 65535, and default value is 21. |

### Examples

```
AT+CFTPPORT=21
OK
AT+CFTPPORT?
+CFTPPORT:21
OK
AT+CFTPPORT=?
+CFTPPORT: (1-65535)
OK
```

## 5.2 AT+CFTPMODE Set FTP mode

### Description

The command is used to set FTP passive/proactive mode. Default is proactive mode.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPMODE=? | +CFTPMODE: (list of supported <mode>s)<br>OK |
| Read Command | Responses |
| AT+CFTPMODE? | +CFTPMODE: <mode><br>OK |
| Write Command | Responses |
| AT+CFTPMODE=<mode> | OK |
| | +CME ERROR |

### Defined values

| <mode> |
|---|
| The FTP access mode:<br>0 – proactive mode.<br>1 – passive mode. |

### Examples

| *AT+CFTPMODE=1* |
|---|
| *OK* |
| *AT+CFTPMODE?* |
| *+CFTPMODE: 1* |
| *OK* |
| *AT+CFTPMODE=?* |
| *+CFTPMODE: (0,1)* |
| *OK* |

## 5.3 AT+CFTPTYPE Set FTP type

### Description

The command is used to set FTP type. Default is binary type.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPTYPE=? | +CFTPTYPE: (list of supported <type>s)<br>OK |
| Read Command | Responses |
| AT+CFTPTYPE? | +CFTPTYPE: <type><br>OK |
| Write Command | Responses |
| AT+CFTPTYPE=<type> | OK |
| | +CME ERROR |

### Defined values

| <type> |
|---|
| The FTP type:<br>I – binary type.<br>A – ASCII type. |

### Examples

| *AT+CFTPTYPE=A* |
|---|
| *OK* |
| *AT+CFTPTYPE?* |
| *+CFTPTYPE: A*<br>*OK* |
| *AT+CFTPTYPE=?* |
| *+CFTPTYPE: (A,I)*<br>*OK* |

## 5.4 AT+CFTPSERV Set FTP server domain name or IP address

### Description

The command is used to set FTP server domain name or IP address.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSERV=? | +CFTPSERV: “ADDRESS”<br>OK |

| Read Command | Responses |
|---|---|
| AT+CFTPSERV? | +CFTPSERV: ”<address>”<br>OK |
| Write Command | Responses |
| AT+CFTPSERV=<br>”<address>” | OK<br>+CME ERROR |

### Defined values

| <address> |
|---|
| The FTP server domain name or IP address. |

### Examples

| *AT+CFTPSERV=”www.mydomain.com”* |
|---|
| *OK* |
| *AT+CFTPSERV?* |
| *+CFTPSERV: “www.mydomain.com”* |
| *OK* |
| *AT+CFTPSERV=?* |
| *+CFTPSERV: ”ADDRESS”* |
| *OK* |
| *AT+CFTPSERV=”10.0.0.127”* |
| *OK* |

## 5.5 AT+CFTPUN Set user name for FTP access

### Description

The command is used to set user name for FTP server access.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPUN=? | +CFTPUN: “NAME”<br>OK |
| Read Command | Responses |
| AT+CFTPUN? | +CFTPUN: “<name>”<br>OK |
| Write Command | Responses |
| AT+CFTPUN=“<name>” | OK |

| | |
|---|---|
| | +CME ERROR |

### Defined values

| <name> |
|---|
| The user name for FTP server access. |

### Examples

| *AT+CFTPUN=”myname”* |
|---|
| *OK* |
| *AT+CFTPUN=”anonymous”* |
| *OK* |
| *AT+CFTPUN?* |
| *+CFTPUN: “myname”*<br>*OK* |
| *AT+CFTPUN=?* |
| *+CFTPUN: ”NAME”*<br>*OK* |

## 5.6 AT+CFTPPW Set user password for FTP access

### Description

The command is used to set user password for FTP server access.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPPW=? | +CFTPPW: “password”<br>OK |
| Read Command | Responses |
| AT+CFTPPW? | +CFTPPW: “<password>”<br>OK |
| Write Command | Responses |
| AT+CFTPPW=<br>“<password>” | OK |
| | +CME ERROR |

### Defined values

| <password> |
|---|

| |
|---|
| The user password for FTP server access. |

### Examples

| |
|---|
| *AT+CFTPPW=”mypass”* |
| *OK* |
| *AT+CFTPPW?* |
| *+CFTPPW: “mypass”* |
| *OK* |
| *AT+CFTPPW=?* |
| *+CFTPPW: ”mypass”* |
| *OK* |

## 5.7 AT+CFTPGETFILE Get a file from FTP server to EFS

### Description

The command is used to download a file from FTP server to module EFS.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPGETFILE=? | +CFTPGETFILE: [{non-ascii}]“FILEPATH”, (0-8)<br>OK |
| **Write Command** | **Responses** |
| AT+CFTPGETFILE=<br>“<filepath>”,<dir> | OK<br>+CFTPGETFILE: 0 |
| | +CME ERROR |
| | OK<br>+CFTPGETFILE: <err> |

### Defined values

| <filepath> |
|---|
| The remote file path. When the file path doesn’t contain ”/”, this command transfers file from the current remote FTP directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}. |
| <dir> |
| The directory to save the downloaded file:<br>0 – current directory [refer to AT+FSCD]<br>1 – “*C:/Picture*” directory |

| | |
|---|---|
| | 2 – “*C:/Video*” directory<br>3 – “*C:/VideoCall*” directory<br>4 – “*D:/Picture*” directory<br>5 – “*D:/Video*” directory<br>6 – “*D:/VideoCall*” directory<br>7 – “C:/Audio” directory<br>8 – “D:/Audio” directory |
| <err> | |
| The error code of FTP operation. | |

### Examples

```
AT+CFTPGETFILE=”/pub/mydir/test1.txt”,1
OK
…
+CFTPGETFILE: 0
AT+CFTPGETFILE=” test2.txt”,2
OK
…
+CFTPGETFILE: 0
AT+CFTPGETFILE={non-ascii}” B2E2CAD42E747874”,2
OK
…
+CFTPGETFILE: 0
AT+CFTPGETFILE=?
+CFTPGETFILE: [{non-ascii}]“FILEPATH”,(0-8)
OK
```

## 5.8 AT+CFTPPUTFILE Put a file in module EFS to FTP server

### Description

The command is used to upload a file in the module EFS to FTP server.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPPUTFILE=? | +CFTPPPUTFILE: [{non-ascii}] “FILEPATH”, (0-8)<br>OK |
| Write Command | Responses |
| AT+CFTPPUTFILE= | OK |

| | |
|---|---|
| “<filepath>”,<dir> | +CFTPPUTFILE: 0 |
| | +CME ERROR |
| | OK<br>+CFTPPUTFILE: <err> |

### Defined values

| |
|---|
| <filepath> |
| The remote file path. When the file path doesn’t contain “/”, this command transfers file to the current remote FTP directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}. |
| <dir> |
| The directory that contains the file to be uploaded:<br>0 – current directory [refer to AT+FSCD]<br>1 – “*C:/Picture*” directory<br>2 – “*C:/Video*” directory<br>3 – “*C:/VideoCall*” directory<br>4 – “*D:/Picture*” directory<br>5 – “*D:/Video*” directory<br>6 – “*D:/VideoCall*” directory<br>7 – “C:/Audio” directory<br>8 – “D:/Audio” directory |
| <err> |
| The error code of FTP operation. |

### Examples

| |
|---|
| *AT+CFTPPUTFILE=”/pub/mydir/test1.txt”,1* |
| *OK* |
| *AT+CFTPPUTFILE=” test2.txt”,1* |
| *OK* |
| … |
| *+CFTPPUTFILE: 0* |
| *AT+CFTPPUTFILE={non-ascii}” B2E2CAD42E747874”,1* |
| *OK* |
| … |
| *+CFTPPUTFILE: 0* |
| *AT+CFTPPUTFILE=?* |
| *+CFTPPUTFILE: [{non-ascii}]“FILEPATH”,(0-8)* |
| *OK* |

## 5.9 AT+CFTPGET Get a file from FTP server and output it from SIO

## Description

The command is used to get a file from FTP server and output it to serial port. This command may have a lot of DATA transferred to DTE using serial port, The AT+CATR command is recommended to be used.

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPGET=? | +CFTPGET: [{non-ascii}] “FILEPATH”<br>OK |
| Write Command | Responses |
| AT+CFTPGET=<br>“<filepath>” | OK<br>+CFTPGET: DATA,<len><br>…<br>+CFTPGET: DATA, <len><br>…<br>…<br>+CFTPGET: 0 |
| | +CME ERROR |
| | +CFTPGET: DATA, <len><br>…<br>+CFTPGET: DATA, <len><br>…<br>…<br>+CFTPGET: <err> |

## Defined values

| |
|---|
| <filepath> |
| The remote file path. When the file path doesn’t contain ”/”， this command transfer file from the current remote FTP directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}. |
| <len> |
| The length of FTP data contained in this packet. |
| <err> |
| The error code of FTP operation. |

## Examples

| |
|---|
| *AT+CFTPGET=”/pub/mydir/test1.txt”* |
| *OK* |

+CFTPGET: DATA, 1020,
…
+CFTPGET: DATA, 1058,
…
…
*+CFTPGET: 0*
*AT+CFTPGET={non-ascii}"/2F74657374646972/B2E2CAD42E747874"*
*OK*
+CFTPGET: DATA, 1020,
…
*+CFTPGET: 0*
*AT+CFTPGET=?*
*+CFTPGET:[{non-ascii}] "FILEPATH"*
*OK*

## 5.10 AT+CFTPPUT Put a file to FTP server

### Description

The command is used to put a file to FTP server using the data got from serial port. Each <Ctrl+Z> character present in the data flow of serial port when downloading FTP data will be coded as <ETX><Ctrl+Z>. Each <ETX> character will be coded as <ETX><ETX>. Single <Ctrl+Z> means end of the FTP data.

<ETX> is 0x03, and <Ctrl+Z> is 0x1A.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPPUT=? | +CFTPPUT: [{non-ascii}] "FILEPATH"<br>OK |
| **Execution Command** | **Responses** |
| AT+CFTPPUT="<filepath>" | +CFTPPUT: BEGIN<br>OK |
| | +CME ERROR |
| | +CFTPPUPT: BEGIN<br>+CME ERROR |

### Defined values

| <filepath> |
|---|
| The remote file path. When the file path doesn't contain "/", this command transfers file to the |

current remote FTP directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}.

### Examples

```
AT+CFTPPUT=”/pub/mydir/test1.txt”
+CFTPPUT: BEGIN
…..<Ctrl+Z>
OK
AT+CFTPPUT={non-ascii}”/2F74657374646972/B2E2CAD42E747874”
+CFTPPUT: BEGIN
…..<Ctrl+Z>
OK
AT+CFTPPUT=?
+CFTPPUT: [{non-ascii}]“FILEPATH”
OK
```

## 5.11 AT+CFTPLIST List the items in the directory on FTP server

### Description

This command is used to list the items in the specified directory on FTP server

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPLIST=? | +CFTPLIST: [{non-ascii}] “FILEPATH”<br>OK |
| Write Command | Responses |
| AT+CFTPLIST=”<dir>” | OK<br>[+CFTPLIST: DATA,<len><br>…]<br>+CFTPLIST:<err><br>+CME ERROR |

### Defined values

| |
|---|
| <dir> |
| The directory to be listed. If the directory contains non-ASCII characters, the <dir> parameter should contain a prefix of {non-ascii}. |
| <len> |

| |
|---|
| The length of data reported |
| <err> |
| The result code of the listing |

### Examples

```
AT+CFTPLIST=”/testd”
OK
+CFTPLIST: DATA,193
drw-rw-rw-    1 user      group            0 Sep    1 18:01 .
drw-rw-rw-    1 user      group            0 Sep    1 18:01 ..
-rw-rw-rw-    1 user      group       2017 Sep    1 17:24 19800106_000128.jpg

+CFTPLIST: 0
```

## 5.12 AT+CFTPMKD Create a new directory on FTP server

### Description

This command is used to create a new directory on the FTP server. The maximum length of the full path name is 256.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPMKD=? | +CFTPMKD: [{non-ascii}]”DIR”<br>OK |
| Write Command | Responses |
| AT+CFTPMKD=”<dir>” | OK<br>+CFTPMKD:<err><br><br>ERROR |

### Defined values

| |
|---|
| <dir> |
| The directory to be created. If the directory contains non-ASCII characters, the <dir> parameter should contain a prefix of {non-ascii}. |
| <err> |
| The result code of the command |

### Examples

| |
|---|
| *AT+CFTPMKD=”/testdir”* |
| *OK* |
| *AT+CFTPMKD={non-ascii}”74657374646972”* |
| *OK* |

## 5.13 AT+CFTPRMD Delete a directory on FTP server

### Description

This command is used to delete a directory on FTP server

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPRMD=? | +CFTPRMD: [{non-ascii}]”DIR”<br>OK |
| Write Command | Responses |
| AT+CFTPRMD=”<dir>” | OK<br>+CFTPRMD:<err><br><br>ERROR |

### Defined values

| <dir> |
|---|
| The directory to be removed. If the directory contains non-ASCII characters, the <dir> parameter should contain a prefix of {non-ascii}. |
| <err> |
| The result code of the command |

### Examples

| |
|---|
| *AT+CFTPRMD=”/testdir”* |
| *OK* |
| *AT+CFTPRMD={non-ascii}”74657374646972”* |
| *OK* |

## 5.14 AT+CFTPDELE Delete a file on FTP server

### Description

This command is used to delete a file on FTP server

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPDELE=? | +CFTPDELE: [{non-ascii}]"FILENAME"<br>OK |
| Write Command | Responses |
| AT+CFTPDELE="<filename>" | OK<br>+CFTPDELE:<err><br><br>ERROR |

### Defined values

| <filename> |
|---|
| The name of the file to be deleted. If the file name contains non-ASCII characters, the <filename> parameter should contain a prefix of {non-ascii}. |
| <err> |
| The result code of the command |

### Examples

| *AT+CFTPDELE="test"* |
|---|
| *OK* |
| *AT+CFTPDELE={non-ascii}"74657374"* |
| *OK* |

## 5.15 Unsolicited FTP Codes (Summary of CME ERROR Codes)

| Code of <err> | Description |
|---|---|
| 201 | Unknown error for FTP |
| 202 | FTP task is busy |
| 203 | Failed to resolve server address |
| 204 | FTP timeout |
| 205 | Failed to read file |
| 206 | Failed to write file |
| 207 | Not allowed in current state |
| 208 | Failed to login |
| 209 | Failed to logout |

| | |
|---|---|
| 210 | Failed to transfer data |
| 211 | FTP command rejected by server |
| 212 | Memory error |
| 213 | Invalid parameter |
| 214 | Network error |

# 6 Hyper Text Transfer Protocol Service

## 6.1 AT+CHTTPACT - Launch a HTTP operation

### Description

The command is used to launch a HTTP operation like GET or POST. Each <Ctrl+Z> character presented in the data flow of serial port will be coded as <ETX><Ctrl+Z>. Each <ETX> character will be coded as <ETX><ETX>. Single <Ctrl+Z> means end of the HTTP request data or end of the HTTP responded data.

<ETX> is 0x03, and <Ctrl+Z> is 0x1A.

For this command there may be a lot of DATA which need to be transferred to DTE using serial port, it is recommended that the AT+CATR will be used.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CHTTPACT=? | +CHTTPACT: “ADDRESS”, (1-65535)<br>OK |
| **Write Command** | **Responses** |
| AT+CHTTPACT=<br>“<address>”,<port> | +CHTTPACT: REQUEST<br>+CHTTPACT: DATA, <len><br>…<br>+CHTTPACT: DATA, <len><br>…<br>…<br>+CHTTPACT: 0 |
| | +CME ERROR |
| | +CHTTPACT: REQUEST<br>+CME ERROR |
| | +CHTTPACT: REQUEST<br>+CHTTPACT: <err> |
| | +CHTTPACT: REQUEST<br>+CHTTPACT: DATA, <len><br>…<br>+CHTTPACT: DATA, <len><br>…<br>…<br>+CHTTPACT: <err> |

## Defined values

| |
|---|
| <address> |
| The HTTP server domain name or IP address. |
| <port> |
| The HTTP server port. |
| <len> |
| The length of HTTP data in the packet. |
| <err> |
| The error code of HTTP operation. |

## Examples

*AT+CHTTPACT=”www.mywebsite.com”,80*
*+CHTTPACT: REQUEST*
*GET http://www.mywebsite.com/index.html HTTP/1.1*
*Host: www.mywebsite.com*
*User-Agent: MY WEB AGENT*
*Content-Length: 0*
***<Ctrl+Z>***
*OK*
*+CHTTPACT: DATA, 249*
*HTTP/1.1 200 OK*
*Content-Type: text/html*
*Content-Language: zh-CN*
*Content-Length: 57*
*Date: Tue, 31 Mar 2009 01:56:05 GMT*
*Connection: Close*
*Proxy-Connection: Close*

*<html>*
*<header>test</header>*
*<body>*
*Test body*
*</body>*
*+CHTTPACT: 0*
*AT+CHTTPACT=”www.mywebsite.com”,80*
*+CHTTPACT: REQUEST*
*POST http://www.mywebsite.com/mydir/test.jsp HTTP/1.1*
*Host: www.mywebsite.com*
*User-Agent: MY WEB AGENT*
*Accept: */**
*Content-Type: application/x-www-form-urlencoded*
*Cache-Control: no-cache*

```
Accept-Charset: utf-8, us-ascii
Pragma: no-cache
Content-Length: 29

myparam1=test1&myparam2=test2<Ctrl+Z>
OK
+CHTTPACT: DATA, 234
HTTP/1.1 200 OK
Content-Type: text/html
Content-Language: zh-CN
Content-Length: 54
Date: Tue, 31 Mar 2009 01:56:05 GMT
Connection: Close
Proxy-Connection: Close

<html>
<header>result</header>
<body>
Result is OK
</body>
+CHTTPACT: 0
AT+CHTTPACT=?
+CHTTPACT: “ADDRESS”,(1-65535)
OK
```

## 6.2 Unsolicited HTTP Codes (Summary of CME ERROR Codes)

| Code of <err> | Description |
|---|---|
| 220 | Unknown error for HTTP |
| 221 | HTTP task is busy |
| 222 | Failed to resolve server address |
| 223 | HTTP timeout |
| 224 | Failed to transfer data |
| 225 | Memory error |
| 226 | Invalid parameter |
| 227 | Network error |

# 7 Secure Hyper Text Transfer Protocol Service

## 7.1 AT+CHTTPSSTART - Acquire HTTPS protocol stack

### Description

This command is used to acquire HTTPS protocol stack.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CHTTPSSTART | OK<br>ERROR |

### Examples

```
AT+CHTTPSSTART
OK
```

## 7.2 AT+CHTTPSSTOP - Release HTTPS protocol stack

### Description

This command is used to release HTTPS protocol stack.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CHTTPSSTOP | OK<br>ERROR |

### Examples

```
AT+CHTTPSSTOP
OK
```

## 7.3 AT+CHTTPSOPSE – Open HTTPS session

### Description

This command is used to open a new HTTPS session. Every time, the module must call AT+CHTTPSSTART before calling AT+CHTTPSOPSE.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Write Command | Responses |
|---|---|
| AT+CHTTPSOPSE="<host>",<port> | OK<br>ERROR |

### Defined values

| |
|---|
| <host> |
| The host address |
| <port> |
| The host listening port for SSL |

### Examples

| |
|---|
| *AT+CHTTPSOPSE="www.mywebsite.com",443* |
| *OK* |

## 7.4 AT+CHTTPSCLSE – Close HTTPS session

### Description

This command is used to close the opened HTTPS session.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CHTTPSCLSE | OK<br>ERROR |

### Examples

| |
|---|
| *AT+CHTTPSCLSE* |
| *OK* |

## 7.5 AT+CHTTPSSEND – Send HTTPS Request

### Description

This command is used to send HTTPS request. The AT+CHTTPSSEND=<len> is used to download the data to be sent. The AT+CHTTPSSEND is used to wait the result of sending.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CHTTPSSEND=? | +CHTTPSSEND: (1-4096)<br>OK |
| Read Command | Responses |
| AT+CHTTPSSEND? | +CHTTPSSEND: <unsent_len><br>OK |
| Write Command | Responses |
| AT+CMMSSEND=<len> | ><br>OK<br>ERROR |
| Execute Command | Responses |
| AT+CHTTPSSEND | OK<br>+CHTTPSSEND: <result><br>ERROR |

### Defined values

| |
|---|
| <unsent_len> |
| The length of the data in the sending buffer which is waiting to be sent. |
| <len> |
| The length of the data to send |
| <result> |
| The final result of the sending. |

### Examples

*AT+CMMSSEND=88*

*>GET / HTTP/1.1*

*Host: www.mywebsite.com*

*User-Agent: MY WEB AGENT*

*Content-Length: 0*

*OK*
*AT+CHTTPSSEND*
*OK*
*+CHTTPSSEND: 0*
*AT+CHTTPSSEND?*
*+CHTTPSSEND: 88*
*OK*

## 7.6 AT+CHTTPSRECV – Receive HTTPS Response

### Description

This command is used to receive HTTPS response after sending HTTPS request.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Write Command | Responses |
|---|---|
| AT+CHTTPSRECV=<recv_len> | OK<br>+CHTTPSRECV: DATA,<len><br>…<br>+CHTTPSRECV: DATA,<len><br>…<br>+CHTTPSRECV:<result><br>+CHTTPSRECV:<result><br>ERROR<br>ERROR |

### Defined values

| |
|---|
| <recv_len> |
| The minimum length of the data to be received. The final length of the received data may be larger than the requested length. |
| <len> |
| The length of the data received. |
| <result> |
| The final result of the receiving. |

### Examples

*AT+CHTTPSRECV=1*
*OK*
*+CHTTPSRECV: DATA,249*

```
HTTP/1.1 200 OK
Content-Type: text/html
Content-Language: zh-CN
Content-Length: 57
Date: Tue, 31 Mar 2009 01:56:05 GMT
Connection: Close
Proxy-Connection: Close

<html>
<header>test</header>
<body>
Test body
</body>

+CHTTPSRECV: 0
```

## 7.7 Unsolicited HTTPS Codes

| Code of <err> | Description |
|---|---|
| +CHTTPS: RECV EVENT | When the AT+CHTTPSRECV is not being called, and there is data cached in the receiving buffer, this event will be reported. |

# 8 Secure File Transfer Protocol Service

## 8.1 AT+CFTPSSTART Acquire FTPS protocol stack

### Description

This command is used to acquire FTPS protocol stack.

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CFTPSSTART | OK<br>ERROR |

### Examples

```
AT+CFTPSSTART
OK
```

## 8.2 AT+CFTPSSTOP Stop FTPS protocol stack

### Description

This command is used to stop FTPS protocol stack. Currently only explicit FTPS mode is supported.

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CFTPSSTOP | OK<br>ERROR |

### Examples

```
AT+CFTPSSTOP
OK
```

## 8.3 AT+CFTPSLOGIN Login the FTPS server

### Description

This command is used to login the FTPS server. Each time, the module must call AT+CFTPSSTART before calling AT+CFTPSLOGIN.

### Syntax

| Write Command | Responses |
|---|---|
| AT+CFTPSLOGIN=”<host>”,<port>,”<username>”, ”<password>” | OK<br>ERROR |

### Defined values

| |
|---|
| <host> |
| The host address |
| <port> |
| The host listening port for SSL |
| <username> |
| The user name |
| <password> |
| The password |

### Examples

| |
|---|
| *AT+CFTPSLOGIN=”www.myftpsserver.com”,990, ”myname”, ”mypassword”* |
| *OK* |

## 8.4 AT+CFTPSLOGOUT Logout the FTPS server

### Description

This command is used to logout the FTPS server.

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CFTPSLOGOUT | OK<br>ERROR |

### Examples

| |
|---|
| *AT+CFTPSLOGOUT* |
| *OK* |

## 8.5 AT+CFTPSMKD Create a new directory on FTPS server

### Description

This command is used to create a new directory on the FTPS server.

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSMKD=? | +CFTPSMKD: ”DIR”<br>OK |
| Write Command | Responses |
| AT+CFTPSMKD=”<dir>” | OK<br>ERROR |

### Defined values

| <dir> |
|---|
| The directory to be created |

### Examples

| *AT+CFTPSMKD=”testdir”* |
|---|
| *OK* |
| *AT+CFTPSMKD={non-ascii}”74657374646972”* |
| *OK* |

## 8.6 AT+CFTPSRMD Delete a directory on FTPS server

### Description

This command is used to delete a directory on FTPS server

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSRMD=? | +CFTPSRMD: ”DIR”<br>OK |
| Write Command | Responses |
| AT+CFTPSRMD=”<dir>” | OK<br>ERROR |

### Defined values

| <dir> |
|---|
| The directory to be removed. If the directory contains non-ASCII characters, the <dir> parameter should contain a prefix of {non-ascii}. |

### Examples

| |
|---|
| *AT+CFTPSRMD=”testdir”* |
| *OK* |
| *AT+CFTPSRMD={non-ascii}”74657374646972”* |
| *OK* |

## 8.7 AT+CFTPSDEL Delete a file on FTPS server

### Description

This command is used to delete a file on FTPS server

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSRMD=? | +CFTPSRMD: ”FILENAME”<br>OK |
| Write Command | Responses |
| AT+CFTPSRMD=”<filename>” | OK<br>ERROR |

### Defined values

| <filename> |
|---|
| The name of the file to be deleted. If the file name contains non-ASCII characters, the <filename> parameter should contain a prefix of {non-ascii}. |

### Examples

| |
|---|
| *AT+CFTPSDEL=”test”* |
| *OK* |
| *AT+CFTPDEL={non-ascii}”74657374”* |
| *OK* |

## 8.8 AT+CFTPSCWD Change the current directory on FTPS server

### Description

This command is used to change the current directory on FTPS server

### Syntax

| Test Command | Responses |
|---|---|

| | |
|---|---|
| AT+CFTPSCWD=? | +CFTPSCWD: ”DIR”<br>OK |
| Write Command | Responses |
| AT+CFTPSCWD=”<dir>” | OK<br>ERROR |

### Defined values

| <dir> |
|---|
| The directory to be changed. If the directory contains non-ASCII characters, the <dir> parameter should contain a prefix of {non-ascii}. |

### Examples

| *AT+CFTPSCWD=”testdir”* |
|---|
| *OK* |
| *AT+CFTPSCWD={non-ascii}”74657374646972”* |
| *OK* |

## 8.9 AT+CFTPSPWD Get the current directory on FTPS server

### Description

This command is used to get the current directory on FTPS server.

### Syntax

| Execute Command | Responses |
|---|---|
| AT+CFTPSPWD | +CFTPSPWD: ”<dir>”<br>OK<br>ERROR |

### Defined values

| <dir> |
|---|
| The current directory on FTPS server. |

### Examples

| *AT+CFTPSPWD* |
|---|
| *+CFTPSPWD: “/testdir”* |
| *OK* |

## 8.10 AT+CFTPSTYPE Set the transfer type on FTPS server

### Description

This command is used to set the transfer type on FTPS server

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSTYPE=? | +CFTPSTYPE: (A,I)<br>OK |
| Read Command | Responses |
| AT+CFTPSTYPE? | +CFTPSTYPE: <type><br>OK |
| Write Command | Responses |
| AT+CFTPSTYPE=<type> | OK<br>ERROR |

### Defined values

| <type> |
|---|
| The type of transferring:<br>A – ASCII.<br>I – Binary. |

### Examples

| *AT+CFTPSTYPE=A* |
|---|
| *OK* |

## 8.11 AT+CFTPSLIST List the items in the directory on FTPS server

### Description

This command is used to list the items in the specified directory on FTPS server

### Syntax

| Write Command | Responses |
|---|---|
| AT+CFTPSLIST="<dir>" | OK<br>+CFTPSLIST: DATA,<len><br>…<br>+CFTPSLIST:<err><br>ERROR |

| Execute Command | Responses |
|---|---|
| AT+CFTPSLIST | OK<br>+CFTPSLIST: DATA,<len><br>…<br>+CFTPSLIST:<err><br>ERROR |

### Defined values

| |
|---|
| <dir> |
| The directory to be listed. If the directory contains non-ASCII characters, the <dir> parameter should contain a prefix of {non-ascii}. |
| <len> |
| The length of data reported |
| <err> |
| The result code of the listing |

### Examples

```
AT+CFTPSLIST=”/testd”
OK
+CFTPSLIST: DATA,193
drw-rw-rw-    1 user      group            0 Sep   1 18:01 .
drw-rw-rw-    1 user      group            0 Sep   1 18:01 ..
-rw-rw-rw-    1 user      group         2017 Sep   1 17:24 19800106_000128.jpg

+CFTPSLIST: 0
AT+CFTPSLIST
OK
+CFTPSLIST: DATA,193
drw-rw-rw-    1 user      group            0 Sep   1 18:01 .
drw-rw-rw-    1 user      group            0 Sep   1 18:01 ..
-rw-rw-rw-    1 user      group         2017 Sep   1 17:24 19800106_000128.jpg

+CFTPSLIST: 0
```

## 8.12 AT+CFTPSGETFILE Get a file from FTPS server to EFS

### Description

The command is used to download a file from FTPS server to module EFS.

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSGETFILE=? | +CFTPSGETFILE: [{non-ascii}]“FILEPATH”, (0-8)<br>OK |
| Write Command | Responses |
| AT+CFTPGETFILE=<br>“<filepath>”,<dir> | OK<br>+CFTPSGETFILE: 0 |
| | ERROR |
| | OK<br>+CFTPSGETFILE: <err> |

## Defined values

| <filepath> |
|---|
| The remote file path. When the file path doesn’t contain ”/”, this command transfers file from the current remote FTPS directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}. |
| <dir> |
| The directory to save the downloaded file:<br>0 – current directory [refer to AT+FSCD]<br>1 – “*C:/Picture*” directory<br>2 – “*C:/Video*” directory<br>3 – “*C:/VideoCall*” directory<br>4 – “*D:/Picture*” directory<br>5 – “*D:/Video*” directory<br>6 – “*D:/VideoCall*” directory<br>7 – “C:/Audio” directory<br>8 – “D:/Audio” directory |
| <err> |
| The error code of FTPS operation. |

## Examples

| *AT+CFTPSGETFILE=”/pub/mydir/test1.txt”,1* |
|---|
| *OK*<br>…<br>*+CFTPSGETFILE: 0* |
| *AT+CFTPSGETFILE=” test2.txt”,2* |
| *OK*<br>…<br>*+CFTPSGETFILE: 0* |
| *AT+CFTPSGETFILE={non-ascii}” B2E2CAD42E747874”,2* |
| *OK* |

…
*+CFTPSGETFILE: 0*
*AT+CFTSPGETFILE=?*
*+CFTPSGETFILE: [{non-ascii}]“FILEPATH”,(0-8)*
*OK*

## 8.13 AT+CFTPSPUTFILE Put a file in module EFS to FTPS server

### Description

The command is used to upload a file in the module EFS to FTPS server.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSPUTFILE=? | +CFTPSPPUTFILE: [{non-ascii}] “FILEPATH”, (0-8)<br>OK |
| **Write Command** | **Responses** |
| AT+CFTPSPUTFILE=<br>“<filepath>”,<dir> | OK<br>+CFTPSPUTFILE: 0 |
| | ERROR |
| | OK<br>+CFTPSPUTFILE: <err> |

### Defined values

<filepath>

The remote file path. When the file path doesn’t contain “/”, this command transfers file to the current remote FTPS directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}.

<dir>

The directory that contains the file to be uploaded:

0 – current directory [refer to AT+FSCD]
1 – “*C:/Picture*” directory
2 – “*C:/Video*” directory
3 – “*C:/VideoCall*” directory
4 – “*D:/Picture*” directory
5 – “*D:/Video*” directory
6 – “*D:/VideoCall*” directory
7 – “C:/Audio” directory
8 – “D:/Audio” directory

| <err> |
| --- |
| The error code of FTPS operation. |

### Examples

```
AT+CFTPSPUTFILE=”/pub/mydir/test1.txt”,1
OK
AT+CFTPSPUTFILE=” test2.txt”,1
OK
…
+CFTPSPUTFILE: 0
AT+CFTPSPUTFILE={non-ascii}” B2E2CAD42E747874”,1
OK
…
+CFTPSPUTFILE: 0
AT+CFTPSPUTFILE=?
+CFTPSPUTFILE: [{non-ascii}]“FILEPATH”,(0-8)
OK
```

## 8.14 AT+CFTPSGET Get a file from FTPS server to serial port

### Description

The command is used to get a file from FTPS server and output it to serial port. This command may have a lot of DATA transferred to DTE using serial port, The AT+CATR command is recommended to be used.

| SIM PIN | References |
| --- | --- |
| YES | Vendor |

### Syntax

| Test Command | Responses |
| --- | --- |
| AT+CFTPSGET=? | +CFTPSGET: [{non-ascii}] “FILEPATH”<br>OK |
| Write Command | Responses |
| AT+CFTPSGET=<br>“<filepath>” | OK<br>+CFTPSGET: DATA,<len><br>…<br>+CFTPSGET: DATA, <len><br>…<br>…<br>+CFTPSGET: 0 |
| | ERROR |

| | |
|---|---|
| | +CFTPSGET: DATA, <len><br>…<br>+CFTPSGET: DATA, <len><br>…<br>…<br>+CFTPSGET: <err> |

### Defined values

| |
|---|
| <filepath> |
| The remote file path. When the file path doesn't contain "/", this command transfer file from the current remote FTPS directory. If the file path contains non-ASCII characters, the file path parameter should contain a prefix of {non-ascii}. |
| <len> |
| The length of FTPS data contained in this packet. |
| <err> |
| The error code of FTPS operation. |

### Examples

| |
|---|
| *AT+CFTPSGET="/pub/mydir/test1.txt"* |
| *OK*<br>+CFTPSGET: DATA, 1020,<br>…<br>+CFTPSGET: DATA, 1058,<br>…<br>…<br>*+CFTPSGET: 0* |
| *AT+CFTPSGET={non-ascii}"/2F74657374646972/B2E2CAD42E747874"* |
| *OK*<br>+CFTPSGET: DATA, 1020,<br>…<br>*+CFTPSGET: 0* |
| *AT+CFTPSGET=?* |
| *+CFTPSGET:[{non-ascii}] "FILEPATH"*<br>*OK* |

## 8.15 AT+CFTPSPUT Put a file to FTPS server

### Description

This command is used to put a file to FTPS server through serial port. The AT+CFTPSPUT=<len> is used to download the data to be sent. The AT+CFTPSPUT is used to wait the result of sending.

| SIM PIN | References |
|---|---|
| YES | Vendor |

### Syntax

| Read Command | Responses |
|---|---|
| AT+CFTPSPUT? | +CFTPSPUT: <unsent_len><br>OK |
| Write Command | Responses |
| AT+CFTPSPUT=[“<filepath>”,]<len> | ><br>OK<br>ERROR |
| Execute Command | Responses |
| AT+CFTPSPUT | OK<br>+CFTPSPUT: <result><br>ERROR |

### Defined values

| |
|---|
| <filepath> |
| The path of the file on FTPS server. |
| <unsent_len> |
| The length of the data in the sending buffer which is waiting to be sent. |
| <len> |
| The length of the data to send |
| <result> |
| The final result of the sending. |

### Examples

| |
|---|
| *AT+CFTPSPUT=”t1.txt”,10* |
| *>testcontent*<br><br>*OK* |
| *AT+CFTPSPUT* |
| *OK*<br>*+CFTPSSPUT: 0* |
| *AT+CFTPSPUT?* |
| *+CFTPSPUT: 88*<br>*OK* |

## 8.16 AT+CFTPSSINGLEIP Set FTPS data socket address type

## Description

The command is used to set FTPS server data socket IP address type

| SIM PIN | References |
|---|---|
| YES | Vendor |

## Syntax

| Test Command | Responses |
|---|---|
| AT+CFTPSINGLEIP=? | +CFTPSINGLEIP: (0,1)<br>OK |
| Read Command | Responses |
| AT+CFTPSINGLEIP? | +CFTPPORT: <singleip><br>OK |
| Write Command | Responses |
| AT+CFTPSINGLEIP=<singleip> | OK |
| | ERROR |

## Defined values

| <singleip> |
|---|
| The FTPS data socket IP address type:<br>0 – decided by PORT response from FTPS server<br>1 – the same as the control socket. |

## Examples

| *AT+CFTPSSINGLEIP=1* |
|---|
| *OK* |
| *AT+CFTPSSINGLEIP?* |
| *+CFTPSINGLEIP:1* |
| *OK* |
| *AT+CFTPSINGLEIP=?* |
| *+CFTPSINGLEIP: (0,1)* |
| *OK* |

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