

9 HTTP/HTTPS Commands

9.1 AT+HTTPPARA - Setting HTTP Parameters

To set HTTP parameters

Format

Type	Command	Response
Set	AT+HTTPPARA=<para>,<para_value><CR>	<CR><LF>OK<CR><LF> or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 300ms.

Parameter

- <para>** HTTP parameters, supporting the following two parameters:
url: Destination path
port: Destination port ID (no default value)
keepalive: set long-time connection
para_value=0 default
para_value=1 long-time connection
recvmode: receive mode
para_value=0 default mode, only one +HTTPRECV: header is included in one HTTP response
para_value=1 data is displayed in format of +HTTPRECV: <length>,<data>
<para_value> Value of **<para>**. The value of url contains at most 2048 bytes and url supports domain name translation.

Example

AT+HTTPPARA =url, www.neoway.com.cn/en/index.aspx	Set the Neoway homepage as the URL. The URL supports domain name translation.
OK	
AT+HTTPPARA=url, 121.15.200.97/Service1.asmx/GetNote	Set URL.
OK	
AT+HTTPPARA=url,	The AT command is not complete.
ERROR	
AT+HTTPPARA=port, 80	Set the destination port ID to 80.
OK	
AT+HTTPPARA=port, 8080	Set the destination port ID to 8080.
OK	

9.2 AT+HTTPSETUP - Setting Up HTTP Connection

To set up an HTTP connection

The connection is set up successfully only after setting the destination address and port ID correctly. Ensure that a network connection has been set up successfully before setting an HTTP connection.

Format

Type	Command	Response
Execute	AT+HTTPSETUP<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 30s.

Parameter

N/A.

Example

AT+HTTPSETUP	Set up an HTTP connection
OK	Successful
AT+HTTPSETUP	Set up an HTTP connection

ERROR

DNS translation fails

9.3 AT+HTTPACTION – Executing HTTP Request

To execute an HTTP request

Comply with the HTTP protocol when defining packets.

Add a carriage return to the end of the packets if the HTTP request is set to custom packet mode.

Format

Type	Command	Response
Execute	<ul style="list-style-type: none">• AT+HTTPACTION=<mode>[,<length>[,<type>]]<CR>• AT+HTTPACTION=<mode>[,<offset>,<size>]<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF> Or <CR><LF>><post_content><CR><LF> <CR><LF>OK<CR><LF> Or <CR><LF>+HTTPACTION:SOCKET ID OPEN FAILED<CR><LF> Or <CR><LF>+HTTPSEND: ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 30s.

Parameter

<mode>	HTTP request mode, available value can be 0, 1, 2, 99 0: GET 1: HEAD 2: POST 99: OPEN_MODE, custom packet mode
<length>	POST content length or custom packet length; mandatory when <mode> is set to POST or OPEN_MODE, 2048 at most.
<type>	data type of POST request

0: x-www-form-urlencoded	
1: text	
2: json	
3: xml	
4: html	
<offset>	Offset in GET mode
<size>	Size of file to be downloaded in GET mode
<post_content>	Content sent through HTTPPOST

Example

```
AT+HTTPPARA=url, www.neoway.com.cn/en/index.aspx          Set the destination path.  
OK  
AT+HTTPSETPUP                                         Set up an HTTP connection.  
OK  
AT+HTTPACTION=0                                         GET request  
OK  
  
+HTTPRECV:  
HTTP/1.1 200 OK                                         Receive the response from the HTTP server.  
Cache-Control: private  
Content-Type: text/html; charset=utf-8  
Server: Microsoft-IIS/7.5  
Set-Cookie: ASP.NET_SessionId=rh3fjg554ufzb145aevgzz45; path=/;  
HttpOnly  
X-AspNet-Version: 2.0.50727  
X-Powered-By: ASP.NET  
X-UA-Compatible: IE=EmulateIE7  
Date: Wed, 02 Mar 2016 06:52:35 GMT  
Connection: close  
Content-Length: 13842  
  
/*neoway homepage, html format, 13842 bytes*/  
.....  
/* neoway homepage */  
+HTTPCLOSED: HTTP Link Closed  
  
AT+HTTPPARA =url, www.neoway.com.cn/en/index.aspx          Set the destination path.  
OK  
AT+HTTPSETPUP                                         Set up an HTTP connection.  
OK  
AT+HTTPACTION=1                                         HEAD request  
OK  
  
+HTTPRECV:  
HTTP/1.1 200 OK                                         The HTTP server responds.  
Cache-Control: private  
Content-Length: 13842  
Content-Type: text/html; charset=utf-8
```

```
Server: Microsoft-IIS/7.5
Set-Cookie: ASP.NET_SessionId=znt4fqabqsuclz55pvfufn55; path=/;
HttpOnly
X-AspNet-Version: 2.0.50727
X-Powered-By: ASP.NET
X-UA-Compatible: IE=EmulateIE7
Date: Thu, 28 Nov 2013 03:32:35 GMT
Connection: close

+HTTPCLOSED: HTTP Link Closed

AT+HTTPPARA=url,121.15.200.97/Service1.asmx/GetNote          Set destination path
OK

AT+HTTPPARA=port,8080                                         Set the destination
                                                               port ID as 8080.
OK

AT+HTTPSETUP                                              Set up an HTTP
                                                               connection
OK

AT+HTTPACTION=2,23                                           POST request.
>MAC=NEOWAY&DATA=0123456
OK

+HTTPRECV:
HTTP/1.1 200 OK
Cache-Control: private, max-age=0
Content-Type: text/xml; charset=utf-8
Server: Microsoft-IIS/7.5
X-AspNet-Version: 4.0.30319
X-Powered-By: ASP.NET
Date: Thu, 28 Nov 2013 03:41:52 GMT
Connection: close
Content-Length: 98

<?xml version="1.0" encoding="utf-8"?>
<string xmlns="http://wsliu.cn/">NEOWAY+0123456
</string>

+HTTPCLOSED: HTTP Link Closed

AT+HTTPPARA=url,www.neoway.com.cn/en/index.aspx           Set destination path
OK

AT+HTTPSETUP                                              The HTTP connection is
                                                               set up through port 80.
OK

AT+HTTPACTION=99,76                                         Send 76-byte user-
                                                               defined packets
>HEAD /en/index.aspx HTTP/1.1
connection: close
HOST: www.neoway.com.cn

OK

+HTTPRECV:
```

HTTP/1.1 200 OK	
Cache-Control: private	Receive the response from the HTTP server.
Content-Length: 13842	
Content-Type: text/html; charset=utf-8	
Server: Microsoft-IIS/7.5	
Set-Cookie: ASP.NET_SessionId=pvlaai3fizxg44eyvyqsyenk; path=/;	
HttpOnly	
X-AspNet-Version: 2.0.50727	
X-Powered-By: ASP.NET	
X-UA-Compatible: IE=EmulateIE7	
Date: Thu, 28 Nov 2013 05:40:24 GMT	The server disconnects with the module after it finishes responding.
Connection: close	
+HTTPCLOSED: HTTP Link Closed	
AT+HTTPACTION=0	PPP is not enabled or SOC connection encountered an error.
+HTTPACTION: SOCKET ID OPEN FAILED	
AT+HTTPACTION=0	Failed to send data.
+HTTPSETUP: ERROR	
AT+HTTPACTION=2,adasd	
ERROR	Other errors

9.4 AT+HTTPCLOSE - Closing an HTTP Socket

To close an HTTP socket

After the **+HTTPCLOSE** command is sent, the HTTP socket is closed and the setting of +HTTPPARA is cleared.

Only **OK** is returned after running this command if the HTTP socket is not connecting.

Format

Type	Command	Response
Execute	AT+HTTPCLOSE<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>
Unsolicited report	+HTTPCLOSE: <result>	

Timeout

The command times out if the module does not respond in 300ms.

Parameter

<result> HTTP Link Closed: HTTP link is closed
 ERROR: Fails to close the link

Example

```
AT+HTTPCLOSE           Close the HTTP socket.  
OK  
  
+HTTPCLOSE: HTTP Link Closed  Unsolicited report after socket is closed  
                                successfully.  
AT+HTTPCLOSE           The HTTP socket is not connecting; only OK is  
OK                         returned
```

9.5 +HTTPRECV - Unsolicited HTTP Data Output

Unsolicited HTTP data output

When the module receives HTTP data from the network, the UART prints the data automatically.

Format

Type	Command
Unsolicited report	<ul style="list-style-type: none">• +HTTPRECV: <datas>• +HTTPRECV: <length>,<datas>

Timeout

N/A.

Parameter

<length> <length>
<data> Data received through the HTTP socket

Example

```
+HTTPRECV:  
HTTP/1.1 200 OK  
Cache-Control: private  
Content-Length: 13842  
Content-Type: text/html; charset=utf-8  
Server: Microsoft-IIS/7.5  
Set-Cookie: ASP.NET_SessionId=pvlaai3fizxg44eyvyqsyenk; path=/;  
HttpOnly  
X-AspNet-Version: 2.0.50727  
X-Powered-By: ASP.NET  
X-UA-Compatible: IE=EmulateIE7  
Date: Thu, 28 Nov 2013 05:40:24 GMT  
Connection: close  
  
+HTTPCLOSED: HTTP Link Closed  
  
+HTTPRECV: 803,HTTP/1.1 206 Partial Content  
Cache-Control: no-cache  
Connection: Keep-Alive  
Content-Length: 10  
Content-Range: bytes 0-9/14615  
Content-Type: text/html  
Date: Tue, 10 Jul 2018 00:55:30 GMT  
Etag: "5b3c3650-3917"  
Last-Modified: Wed, 04 Jul 2018 02:52:00 GMT  
P3p: CP=" OTI DSP COR IVA OUR IND COM "  
Pragma: no-cache  
Server: BWS/1.1  
Set-Cookie: BAIDUID=F18E6894A34321D8CF9AAF28C14FACC9:FG=1;  
expires=Thu, 31-Dec-37 23:55:55 GMT; max-age=2147483647; path=/;  
domain=.baidu.com  
Set-Cookie: BIDUPSID=F18E6894A34321D8CF9AAF28C14FACC9;  
expires=Thu, 31-Dec-37 23:55:55 GMT; max-age=2147483647; path=/;  
domain=.baidu.com  
Set-Cookie: PSTM=1531184130; expires=Thu, 31-Dec-37 23:55:55 GMT;  
max-age=2147483647; path=/; domain=.baidu.com  
Vary: Accept-Encoding  
X-Ua-Compatible: IE=Edge,chrome=1  
  
<!DOCTYPE
```

9.6 AT+HTTPGET - Downloading HTTP File

To download HTTP file.

This command is asynchronous. OK is returned immediately after the command is executed. The downloading, decompressing, and verification processes are done in background.

Format

Type	Command	Response
Execute	AT+HTTPGET=<type>[,<check_type>,<check_value>]<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

- <type>** Decompression type
0: unzip (default)
1: zip (unsupported)
2 to 99: reserved.
- <check_type>** Type of checking the integrity of compressed passage.
0: MD5 (default)
1 to 99: reserved.
- <check_value>** Check code, used with the check type.

Example

```
AT+HTTPPARA=url,                                     Download the file.  
mybank.icbc.com.cn/icbc/perbank/index.jsp  
OK  
AT+HTTPGET=0  
OK  
+HTTPGETRPT: 10  
  
AT+HTTPGET=1  
OK  
+HTTPGETRPT: 20  
  
AT+HTTPGET=1,0,eaf84487e190bc79af55c972bbc63e3f  
OK  
+HTTPGETRPT: 30,303  
  
AT+HTTPGET=1,0,eaf84487e190bc79af55c972bbc63e3f  
OK
```



- When <check_type> and <check_value> are ignored, no verification will be performed after the download is complete.
- The downloading, decompressing, and verification results are reported through +HTTPGETSTAT. For details, see its definitions.

9.7 +HTTPGETRPT – Unsolicited Download Result Report

Unsolicited Download Result Report.

This command indicates the execution result of **AT+HTTPGET**.

Different result codes are reported according different results during downloading, verification, and decompression processes.

Format

Type	Command
Unsolicited report	+HTTPGETRPT: <state_type>[,<err_code>]

Timeout

N/A.

Parameter

- <state_type>** State type
- 10: successful download
 - 11: failed download
 - 20: successful decompression
 - 21: failed decompression
 - 30: successful verification
 - 31: failed verification
- <err_code>** Error response encountered during HTTP GET.
- 301 Moved Permanently
 - 302 Found
 - 303 See Other
 - 304 Not Modified
 - 305 Use Proxy
 - 307 Temporary Redirect
 - 400 Bad Request

401 Unauthorized
402 Payment Required
403 Forbidden
404 Not Found
405 Method Not Allowed
406 Not Acceptable
407 Proxy Authentication Required
408 Request Timeout
409 Conflict
410 Gone
411 Length Required
412 Precondition Failed
413 Payload Too Large
414 URI Too Long
415 Unsupported Media Type
416 Requested Range Not Satisfiable
417 Expectation Failed
500 Internal Server Error
501 Not Implemented
502 Bad Gateway
503 Service Unavailable
504 Gateway Timeout
505 HTTP Version Not Supported

Example

```
AT+HTTPPARA=url,                                     Download the file.  
mybank.icbc.com.cn/icbc/perbank/index.jsp  
  
AT+HTTPGET=0  
OK  
  
+HTTPGETRPT: 10  
AT+HTTPGET=1  
OK  
  
+HTTPGETRPT: 20  
  
AT+HTTPGET=1,0,eaf84487e190bc79af55c972bbc63e3f  
OK  
+HTTPGETRPT: 30,303  
  
AT+APHTTPGET=1,0,eaf84487e190bc79af55c972bbc63e3f  
OK  
  
+APHTTPGETRPT: 31
```

9.8 AT+HTTPGETSTAT? - Querying Downloading Result

To query the HTTP GET process and the download result.

Format

Type	Command	Response
Query	AT+HTTPGETSTAT?<CR>	<CR><LF> +HTTPGETSTAT: <state_type>[,<err_code>]<CR><LF> <CR><LF>OK<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

- <state_type>** State type
0: unknown result
10: successful download
11: failed download
20: successful decompression
21: failed decompression
30: successful verification
31: failed verification
- <err_code>** Error response encountered during HTTP GET.
301 Moved Permanently
302 Found
303 See Other
304 Not Modified
305 Use Proxy
307 Temporary Redirect
400 Bad Request
401 Unauthorized
402 Payment Required
403 Forbidden
404 Not Found
405 Method Not Allowed
406 Not Acceptable
407 Proxy Authentication Required
408 Request Timeout
409 Conflict

410 Gone
411 Length Required
412 Precondition Failed
413 Payload Too Large
414 URI Too Long
415 Unsupported Media Type
416 Requested Range Not Satisfiable
417 Expectation Failed
500 Internal Server Error
501 Not Implemented
502 Bad Gateway
503 Service Unavailable
504 Gateway Timeout
505 HTTP Version Not Supported

Example

```
AT+HTTPGET=0
OK
AT+HTTPGETSTAT?
+HTTPGETSTAT: 10,303
OK
AT+APHTTPGET=1
+HTTPGETSTAT: 30,303
OK
```

9.9 +HTTPCLOSED – HTTP Socket Closed

Unsolicited report of the HTTP socket closing

Format

Type	Command
Unsolicited report	<CR><LF>+HTTPCLOSE: Link Closed<CR><LF>

Timeout

N/A

Parameter

N/A

Example

+HTTPCLOSED: HTTP Link Closed	Unsolicited report of the HTTP socket closing
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9.10 AT+HTTPSCFG – Configuring SSL Parameters for HTTPS

To configure SSL parameters for HTTPS.

Format

Type	Command	Response
Execute	AT+HTTPSCFG=<type>,<type_name><CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>
Query	AT+HTTPSCFGA?<CR>	<CR><LF>+HTTPSCFG: <type>,<type_name><CR><LF>OK<CR><LF>
Test	AT+HTTPSCFGA=?<CR>	<CR><LF>+HTTPSCFG: <sslversion>,<authmode>,<cacert>,<clientcert>,<clientkey><CR><LF>OK<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

<type> SSL options
sslversion: SSL version
authmode: authentication mode
ciphersuite: Cipher suite
cacert: CA certificate
clientcert: Client certificate

clientkey: Client key
<type_name> setting of SSL
 sslversion:
 0: SSL3.0
 1: TLS1.0
 2: TLS1.1
 3: TLS1.2
 Authmode:
 0: No authentication
 1: Manage server authentication
 2: Manage server and client authentication if requested by the remote server
Cacert: string type, CA certificate
Clientcert: string type, client certificate
Clientkey: string type, client key



If **authmode** is set to **0**, you do not have to set **cacert**, **clientcert**, or **clientkey**..

Example

```
AT+ HTTPSCFG ="sslversion",0          Set SSL version to ssl3.0.  
OK  
AT+ HTTPSCFG ="authmode",0           Set no authentication.  
OK  
AT+ HTTPSCFG?  
+HTTPSCFG: 0,1,,ca.pem,cc.pem,ck.pem   Query current SSL settings.  
OK  
AT+ HTTPSCFG =?  
+ HTTPSCFG: <type>,<type_name>        Query the value range of parameters.  
OK
```

9.11 AT+HTTPSPARA – Setting HTTPS Parameters

To set HTTPS parameters.

Set new HTTPS parameters for new HTTPS requests.

After the **+HTTPSCLOSE** command is sent, the connection is closed and parameter settings will be cleared.

Format

Type	Command	Response
Execute	AT+HTTPSPARA=<para>,<para_value><CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

<para>	HTTPS parameters, supporting the following two parameters: url: Destination path port: Destination port ID keepalive: set long-time connection recvmode: receive mode para_value=0 default mode, only one +HTTPRECV: header is included in one HTTP response para_value=1 data is displayed in format of +HTTPRECV: <length>,<data>
<para_value>	The value of <para>. The value of url contains at most 512 bytes and url supports domain name translation.

Example

AT+HTTPSPARA=url, www.alipay.com/index.html	Set the alipay homepage as the URL. The URL supports domain name translation.
OK	Set URL.
AT+HTTPSPARA=port, 443	Set the destination port ID to 443.

9.12 AT+HTTPSSSETUP - Setting up HTTPS Connection

To set up an HTTPS connection.

The connection is set up successfully only after setting the destination address and port ID correctly.

Ensure that PPP dialing is successful before an HTTPS connection is set up.

Format

Type	Command	Response
Execute	AT+HTTPSSSETUP<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 30s.

Parameter

N/A.

Example

AT+HTTPSSSETUP	Set up an HTTPS connection
OK	Successful
AT+HTTPSSSETUP	Set up an HTTPS connection
ERROR	Failed.

9.13 AT+HTTPSACTION - Executing HTTPS Request

To execute an HTTPS request.

Comply with the HTTP protocol when defining packets.

Format

Type	Command	Response
Execute	<ul style="list-style-type: none"> • AT+HTTPSACTION=<mode>[,<length>[,<type>]<CR> • AT+HTTPSACTION=<mode>[,<offset>,<size>]<CR> 	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 30s.

Parameter

<mode>	HTTPS request mode, available value can be 0, 1, 2, 99 0: GET 1: HEAD 2: POST 99: OPEN_MODE, custom packet mode
<length>	POST content length, ranging from 1 to 2048; or custom packet length when <mode> is set to POST or OPEN_MODE
<type>	data type of POST request 0: x-www-form-urlencoded 1: text 2: json 3: xml 4: html
<offset>	specifies the start of file to be downloaded in GET mode
<size>	specifies download size for file download in GET mode

Example

```
AT+HTTPSPARA=url,support.cdmatech.com/login/          Set the destination path.  
OK  
AT+HTTPSPARA=port,443  
OK  
AT+HTTPSSETUP  
OK  
AT+HTTPSACTION=0  
OK  
+HTTPSREREV:  
HTTP/1.1 200 OK  
Server: QUALCOMM  
X-Powered-By: Servlet/2.5 JSP/2.1  
Content-Type: text/html; charset=ISO-8859-1  
Date: Sat, 15 Feb 2014 05:58:54 GMT  
Content-Length: 7630  
Connection: close  
Set-Cookie:  
JSESSIONID=8V1dS1Cpz1PcyNl2LzJZLQgDxWclpMJzP3FHZhVhpGb8  
3GVM02sn!1955538012; path=/; HttpOnly  
/*homepage, html format*/  
.....  
/*homepage*/  
+HTTPSCLOSED: HTTPS Link Closed  
AT+HTTPSPARA=url,support.cdmatech.com/login/          Set the destination path.  
OK  
AT+HTTPSPARA=port,443  
OK  
AT+HTTPSSETUP  
OK  
AT+HTTPSACTION=1  
OK  
+HTTPSREREV:
```

```

HTTP/1.1 200 OK
Server: QUALCOMM
X-Powered-By: Servlet/2.5 JSP/2.1
Content-Type: text/html; charset=ISO-8859-1
Date: Sat, 15 Feb 2014 06:05:39 GMT
Content-Length: 0
Connection: close
Set-Cookie:
JSESSIONID=qyNVS1DSmnjS9cvh72yW1xz1jtjBBRj0yv0zTmMy2LVy
BG7HK02b!1955538012; path=/; HttpOnly

+HTTPSCLOSED: HTTPS Link Closed
AT+HTTPSPARA=url,mybank.icbc.com.cn/icbc/perbank/index.jsp          Set the destination path.
OK
AT+HTTPSPARA=port,443                                                 Set the port.
OK
AT+HTTPSSETUP                                                       Set up an HTTPS connection.
OK
AT+HTTPSACTION=99,500
>POST /icbc/perbank/index.jsp HTTP/1.1<CRLF> /*custom
header*/
Connection: close<CRLF> /* custom header */
Host: mybank.icbc.com.cn<CRLF> /* custom header */
Content-Length: 10<CRLF> /* custom header */
Content-Type: application/x-www-form-urlencoded<CRLF>
/* custom header */
<CRLF><CRLF>
/*data to be sent*/
.....
+HTTPPSRECV:
/*homepage, html format*/
.....
/*homepage*/
+HTTPSCLOSED: HTTPS Link Closed

```

9.14 AT+HTTPSCLOSE - Closing HTTPS Socket

To close an HTTPS socket.

After the **+HTTPSCLOSE** command is sent, the HTTPS socket is closed and the setting of **+HTTPPARA** is cleared.

Format

Type	Command	Response
Execute	AT+HTTPSCLOSE<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

N/A.

Example

```
AT+HTTPSCLOSE                                     Close the HTTPS socket.  
OK  
  
+HTTPSCLOSE: HTTPS Link Closed
```

9.15 AT+HTTPSRREC – Unsolicited HTTPS Data Output

Unsolicited HTTPS data output

When the module receives HTTPS data from the client, the UART prints the data automatically.

Format

Type	Command
Unsolicited report	<ul style="list-style-type: none">• <CR><LF>+HTTPSRREC: <CR><LF><datas>• <CR><LF>+HTTPSRREC: <length>,<datas>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

<datas> Data received through the HTTPS connection.

Example

```
+HTTPSRREC:  
HTTP/1.1 200 OK                                         Report the data received  
                                                               from the HTTPS connection.
```

```
Cache-Control: private
Content-Length: 13842
Content-Type: text/html; charset=utf-8
Server: Microsoft-IIS/7.5
Set-Cookie: ASP.NET_SessionId=pvlaai3fizxg44eyvyqsyenk; path=/;
HttpOnly
X-AspNet-Version: 2.0.50727
X-Powered-By: ASP.NET
X-UA-Compatible: IE=EmulateIE7
Date: Thu, 28 Nov 2013 05:40:24 GMT
Connection: close

+HTTPSCLOSED: HTTPS Link Closed
+HTTPPSRECV: 832,HTTP/1.1 206 Partial Content
Server: Tengine/2.1.0
Date: Tue, 10 Jul 2018 01:09:25 GMT
Content-Type: text/html; charset=utf-8
Content-Length: 10
Connection: keep-alive
x-server-id: 40-5005
request-id: 0bea4b2215311849654971530e6674
Accept-Ranges: bytes
set-cookie: ctoken=MBHI38pHdL6q0ltGFqjkviz; path=/;
domain=.alipay.com; secure
set-cookie:
ALIPAYJSESSIONID=jMi6e4Q2JmIN8HRk68wm53KXisfnB5H0homeproxy; path=/;
domain=.alipay.com
x-frame-options: SAMEORIGIN
x-xss-protection: 1; mode=block
x-content-type-options: nosniff
x-download-options: noopener
strict-transport-security: max-age=31536000
Content-Range: bytes 0-9/21651
x-readtime: 2
Set-Cookie: ssl_upgrade=0;path=/;secure;
Set-Cookie:
spanner=aGuTtGMbvBcOyldCyZ/e4JI97JSiPcR1Xt2T4qEYgj0=;path=/;secure;
Via: spanner-internet-g2-35.em14[206]
```

Data format when RECMODE is set to 1

9.16 AT+HTTPSGET - Downloading HTTPS File

To download an HTTPS file.

This command is asynchronous. OK is returned immediately after the command is executed. The downloading, decompressing, and verification processes are done in background.

When <check_type> and <check_value> are ignored, no verification will be performed after the download is completed.

The downloading, decompressing, and verification results are reported through +HTTPSGETSTAT. For details, see its definitions.

Format

Type	Command	Response
Execute	AT+HTTPSGET=<type>[,<check_type>,<check_value>]<CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

- <type>** Decompression type
0: unzip (default)
1: zip (unsupported)
2 to 99: reserved.
- <check_type>** Type of checking the integrity of compressed passage.
0: MD5 (default)
1 to 99: reserved.
- <check_value>** Check code, used with the check type.

Example

```
AT+HTTPSPARA=url,                                     Download the file.
mybank.icbc.com.cn/icbc/perbank/index.jsp
OK
AT+HTTPSGET=0
OK
+HTTPSGETRPT: 10

AT+HTTPSGET=1
OK
+HTTPSGETRPT: 20

AT+HTTPSGET=1,0,eaf84487e190bc79af55c972bbc63e3f
OK
+HTTPSGETRPT: 30,303

AT+HTTPSGET=1,0,eaf84487e190bc79af55c972bbc63e3f
OK
+APHTTPSGETRPT: 31
```

9.17 +HTTPSGETRPT—Unsolicited Download Result Report

Unsolicited Download Result Report.

Format

Type	Command
Unsolicited report	+HTTPSGETRPT: <state_type>[,<err_code>]

Timeout

N/A.

Parameter

- <state_type>** State type
10: successful download
11: failed download
20: successful decompression
21: failed decompression
30: successful verification
31: failed verification
- <err_code>** Error response encountered during HTTP GET.
301 Moved Permanently
302 Found
303 See Other
304 Not Modified
305 Use Proxy
307 Temporary Redirect
400 Bad Request
401 Unauthorized
402 Payment Required
403 Forbidden
404 Not Found
405 Method Not Allowed
406 Not Acceptable
407 Proxy Authentication Required
408 Request Timeout
409 Conflict
410 Gone

411 Length Required
412 Precondition Failed
413 Payload Too Large
414 URI Too Long
415 Unsupported Media Type
416 Requested Range Not Satisfiable
417 Expectation Failed
500 Internal Server Error
501 Not Implemented
502 Bad Gateway
503 Service Unavailable
504 Gateway Timeout
505 HTTP Version Not Supported

Example

```
AT+HTTPSPARA=url,  
mybank.icbc.com.cn/icbc/perbank/index.jsp  
OK  
  
AT+HTTPSGET=0  
OK  
  
+APHTTPSGETRPT: 10  
  
AT+HTTPSGET=1  
OK  
+HTTPSGETRPT: 20  
  
AT+HTTPSGET=1,0,eaf84487e190bc79af55c972bbc63e3f  
OK  
+HTTPSGETRPT: 30,303  
  
AT+HTTPSGET=1,0,eaf84487e190bc79af55c972bbc63e3f  
OK  
+HTTPSGETRPT: 31
```

Download the file.

9.18 AT+HTTPSGETSTAT? - Querying Download Result

To query the HTTPS GET process and the download result.

Format

Type	Command	Response
Execute	AT+HTTPSGETSTAT?<CR>	<CR><LF> +HTTPSGETSTAT: <state_type>[,<err_code>]<CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

<state_type>	State type 0: unknown result 10: successful download 11: failed download 20: successful decompression 21: failed decompression 30: successful verification 31: failed verification
<err_code>	Error response encountered during HTTP GET. 301 Moved Permanently 302 Found 303 See Other 304 Not Modified 305 Use Proxy 307 Temporary Redirect 400 Bad Request 401 Unauthorized 402 Payment Required 403 Forbidden 404 Not Found 405 Method Not Allowed 406 Not Acceptable 407 Proxy Authentication Required 408 Request Timeout 409 Conflict 410 Gone 411 Length Required 412 Precondition Failed 413 Payload Too Large 414 URI Too Long 415 Unsupported Media Type 416 Requested Range Not Satisfiable

417 Expectation Failed
500 Internal Server Error
501 Not Implemented
502 Bad Gateway
503 Service Unavailable
504 Gateway Timeout
505 HTTP Version Not Supported

Example

```
AT+HTTPSGET=0
OK

AT+HTTPSGETSTAT?
+HTTPSGETSTAT: 10,303
OK

AT+APHTTPSGET=1
OK

+HTTPSGETSTAT: 30,303
OK
```

9.19 AT+FILEHTTPACTION—HTTP Request in File System

HTTP Request in File System.

Format

Type	Command	Response
Execute	<ul style="list-style-type: none">• AT+FILEHTTPACTION=<mode>,<length>,<type>,<dir&filename><CR>• AT+FILEHTTPACTION=<mode>,<offset>,<size><CR>	<p><CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF> Or <CR><LF>+CME ERROR:<errcode><CR><LF> Or <CR><LF>+CME ERROR:<errtext><CR><LF></p>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

<mode>	HTTP request method. 0: GET 1: POST
<length>	Length of the POST content, supports 524288 bytes at most.
<type>	POST request data type. 0: x-www-form-urlencoded 1: text 2: json 3: xml 4: html
<offset>	Offset, specifies where file data starts.
<size>	Length of file downloaded from the start point, 524288 bytes at most.
<dir&filename>	Path and name of the file required. The file path is relative to the root path of the file system.
<errcode>	See Appendix A.
<errtext>	See Appendix A.



- Establish a HTTP connection before executing this command.
- Before downloading files through HTTP GET, ensure that there are enough remaining space in the file system.

Example

AT+FILEHTTPACTION=0,0,524288	Download 512 KB data, starting from the first byte.
OK	
+FILEHTTPSTAT: 0,1,524288	
AT+FILEHTTPACTION=1,524288,0,text.txt	Adopt x-www-form-urlencoded type to post text.txt file.
OK	
+FILEHTTPSTAT: 1,1,524288	The file with 524288 data length is posted successfully.
AT+FILEHTTPACTION=0,0,524288	
+CME ERROR: 1001	Failed command execution. 1001 indicates PDP not active.

9.20 AT+FILEHTTPSACTION—HTTPS Request in File System

HTTPS Request in File System.

Format

Type	Command	Response
Execute	AT+FILEHTTPSACTION=<mode>,<length>,<type>,<dir&filename><CR> AT+FILEHTTPSACTION=<mode>,<offset>,<size><CR>	<CR><LF>OK<CR><LF> Or <CR><LF>ERROR<CR><LF> Or <CR><LF>+CME ERROR:<errcode><CR><LF> Or <CR><LF>+CME ERROR:<errtext><CR><LF>

Timeout

The command times out if the module does not respond in 300 ms.

Parameter

<mode>	HTTP request method. 0: GET 1:POST
<length>	Length of the POST content, supports 524288 bytes at most.
<type>	POST request data type. 0: x-www-form-urlencoded 1: text 2: json 3: xml 4: html
<offset>	Offset, specifies where file data starts.
<size>	Length of file downloaded from the start point, 524288 bytes at most.
<dir&filename>	Path and name of the file required. The file path is relative to the root path of the file system.
<errcode>	See Appendix A.
<errtext>	See Appendix A.

Example

```
AT+FILEHTTPSACTION=0,0,524288          Download 512 KB data, starting from the first byte.  
OK  
  
+FILEHTTPSTAT: 0,1,524288              The file with 512KB data length is posted successfully.  
  
AT+FILEHTTPSACTION=1,524288,0,text.txt  Adopt x-www-form-urlencoded type to post text.txt file.  
OK  
  
+FILEHTTPSTAT: 1,1,524288              The file with 524288 data length is posted  
successfully.  
  
AT+FILEHTTPSACTION=0,0,524288          Failed command execution. 1001 indicates PDP not  
+CME ERROR: 1001                      active.
```



- Establish a HTTP connection before executing this command.
- Before downloading files through HTTP GET, ensure that there are enough remaining space in the file system.

9.21 AT+FILEHTTPSTAT - Unsolicited HTTP(S) Result Status Report in File System

Unsolicited HTTP(S) upload/download result status report in the file system.

Format

Type	Command
Unsolicited report	<ul style="list-style-type: none">• +FILEHTTPSTAT: <mode>,<stat>[,<length>]<CR><LF>• +FILEHTTPSTAT: <stat>,<errcode><CR><LF>

Timeout

N/A.

Parameter

<mode> HTTP(S) request type.
 0: HTTP(S) GET
 1: HTTP(S) POST

<stat>	Download/upload result code 0: download/ upload failed 1: download/ upload successful
<length>	Length of the download/upload file, unit: byte.
<errcode>	Refer to Appendix A.

Example

```
AT+FILEHTTPSACTION=0,0,524288          Download 512 KB data, starting from the first
OK                                         byte.

+FILEHTTPSTAT: 0,1,524288              The file with 512KB data length is posted
                                         successfully.

AT+FILEHTTPSACTION=1,524288,0,text.txt   Adopt x-www-form-urlencoded type to post
OK                                         text.txt file.

+FILEHTTPSTAT: 1,1,524288              The file with 524288 data length is posted
                                         successfully.
```

9.22 +HTTPSCLOSED–HTTPS Link Closed Report

Unsolicited report that an HTTPS link is closed.

Format

Type	Command
Unsolicited report	+HTTPSCLOSED: HTTPS Link Closed

Timeout

N/A.

Parameter

N/A.

Example

```
+HTTPSCLOSED: HTTPS Link Closed           Unsolicited report that the HTTPS link is closed.
```