HTTP Application Note

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Revision History

Version	Date	Remarks
V1.0.0	2013-11-01	Initial Version
V1.0.1	2014-05-08	Modify AT commands:" +HTTPACT"

Applicability Table

No.	Type	Note
1	H330	
2	G510	

Contents

1 HTTP Commands

1.1 +HTTPSET, Set HTTP or HPTTPS parameters

These commands are used for setting and reading the current HTTP parameters.

Command	Syntax	Response/Action	Remarks
Set	+HTTPSET="http Param" ,"http Param Value"	OK or: ERROR	Set all parameters of HTTP or HTTPS .
Read	+HTTPSET?	+HTTPSET: "http Param" ,"http Param Value" +HTTPSET: "http Param", "http Param Value" … OK	Read the current parameters of HTTP or HTTPS.
Test	+HTTPSET=?	+HTTPSET: (<"param">),(<"value">) OK	Format for checking commands.

The following table shows the http Param values and the corresponding http Param Value parameters:

<Parameter>	Description
URL	User must set http server address and character string format, and the corresponding format can be any kind of the following formats: http://host/path:port -- e.g. :http://news.sohu.com/20131010/n387881216.shtml:80 http://host/path:port --e.g. :http://news.sohu.com/20131010/n387881216.shtml:80 http://host/path --e.g. :http://news.sohu.com/20131010/n387881216.shtml User must set https server address and character string format, and the corresponding format can be any kind of the following formats:

	https://host:port -- e.g. :https:// www.googleapis.com:443
	https://host -- e.g. :https:// www.googleapis.com
	Specification :
	Host --- http or https host name or host IP address
	Path --- the file path requested by http or https
	Port --- http or https port , but is not necessary , the default number for http is 80, the default number for https is 443.
	Note:
	Whether https or http, we can set path according to the users needs. And if you want to set port shall be in the end.
UAGENT	User-Agent value, character string format, user can set Agent parameters by Themselves, also can be not set.
CONTYPE	Content-Type value, character string format, user can set Content-Type parameters by themselves, also can be not set.

Remark:

Parameters: URL,UAGENT, CONTYPE, only support capital.

Example:

AT+HTTPSET="URL","http://news.sohu.com/20131010/n387881216.shtml"

OK

The HTTP data sent to the server as listed below :

GET Host/20131010/n387881216.shtml HTTP/1.1

User-Agent: Fibocom GPRS module

Host: news.sohu.com

Accept: */*

Content-Type: application/x-www-form-urlencoded\multipart/form-data

Connection: Close

AT+HTTPSET?

+HTTPSET: "URL","http://news.sohu.com/20131010/n387881216.shtml"

+HTTPSET: "UAGENT",""

+HTTPSET: "CONTYPE",""

OK

AT+HTTPSET=?

+HTTPSET: (<"param">),(<"value">)

"OK

1.2 +HTTPDATA, Import POST Data to the Module

This command is used for importing the needed POST data to the module pass through the serial port when using HTTPPOST.

Command	Syntax	Response/Action	Remarks
Set	+HTTPDATA=<length>	> …… OK or: ERROR	After the module received AT+HTTPDATA=<length> command, if the length meets the requirements, it will echoes '>' and receives data through serial port. It doesn't accept any AT command at this time. All serial port data will be considered as POST data. When the received data is equals to the given size, it exits from receive mode, and echoes OK through serial port. When waiting for receiving serial port data, if it does not

			receive any data in 30 seconds, it exits from receive mode directly and returns ERROR.
Read	+HTTPDATA?	OK	Return OK directly.
Test	+HTTPDATA=?	+HTTPDATA: (1-64000) OK	Format for checking commands.

The following table shows +HTTPDATA parameter:

<Parameter>	Description
<length>	The length of the input data, unit: byte. The parameter range: 1-64000.

The data only support one-time enter; send data to the module in batches is not supported.

Example:

AT+HTTPDATA=50

>   // module returns '>' , means waiting for input the data

DATA   // users input the data, it must be done in 30 seconds

OK   //receive data completed, module returns OK

AT+HTTPDATA=?

+ HTTPDATA： (1-64000)

OK

1.3 +HTTPACT, launch HTTP or HTTPS service

This command launch the HTTP or HTTPS services (GET or POST)according to HTTPSET parameters.

Command	Syntax	Response/Action	Remarks

Set	+HTTPACT=<mode[,<timernum>]	OK or: ERROR:	Launch the HTTP or HTTPS service (GET or POST) according to HTTPSET parameters. Timernum means the overtime.
Read	+HTTPACT?	OK	Returns OK directly.
Test	+HTTPACT=?	+HTTPACT: (0,1) OK	Format for checking commands.
URC	+HTTP: <mode> +HTTPS: <mode>		+HTTP : HTTP connection status. +HTTPS : HTTPS connection status. Mode = 0: connection failed. Mode = 1: connection successful.

The following table shows +HTTPACT parameters:

<Parameter>	Description
<mode>	The service type for HTTP and HTTPS: 0: GET 1: POST
Timernum	If it time-out ,and the default value is 15 seconds, and the range is 10 to 60 seconds.
<reply>	HTTP result code 200: OKs 404: Not Found For more information, please refer to RFC2616
<length>	The data length received from server, the maximum length is 360000 bytes. The received data must be read by HTTPREAD command.

Example 1:

at+mipcall=1,"cmnet"

OK

+MIPCALL: 172.25.124.159

At+httpset="URL","https://www.coursera.org"   // set https URL

OK

At+httpset="UAGENT","fibocom"   // set https UAGENT

OK

AT+HTTPACT=0   //   boot HTTPS GET service

OK

+HTTPS: 1   //   https connection: 1 means successful; 0 means failure

+HTTPRES: <0>,<200>,<7228>   //   HTTPS GET successfully received the data with 7228
bytes.

At+httpread=0,20   // means read the data with 20 bytes.

+HTTPREAD: 20

HTTP/1.1 200 OK

Cac

OK

AT+HTTPACT=?

+HTTPACT:(0,1)[,(10-60)]

OK

Example 2:

at+mipcall=1,"cmnet"

OK

+MIPCALL: 172.25.124.159

At+httpset="URL","http://www.baidu.com"   // set http URL

OK

At+httpset="UAGENT","fibocom"   // set http UAGENT

OK

AT+HTTPDATA=30

>

OK

AT+HTTPACT=1,30   // boot POST service

OK

+HTTP: 1   // HTTP connect successfully

+HTTPRES: <1>,<400>,<332>   // HTTP POST successfully received the data with 332
bytes.

At+httpread=0,30

+HTTPREAD: 30

HTTP/1.0 400 Bad Request

Cont

AT+HTTPACT=0 　　　　　　// boot HTTPGET service

OK

+HTTP: 1 　　　　　　// http connect successfully. 1 means successfully; 0 means failure.

+HTTPRES: <0>,<200>,<50414> 　　// HTTP GET successfully received data with 50414 bytes.

At+httpread=0,50 　　　　// means read data with 50 bytes.

+HTTPREAD: 50

HTTP/1.1 200 OK

Content-Type: text/html; charset=

OK

1.4 +HTTPREAD, Read Received Service Data from Module

This command is used for reading the received service data from the module after HTTP service is finished.

Command	Syntax	Response/Action	Remarks
Set	AT+HTTPREAD	+HTTPREAD: <reslength> Data OK or: ERROR	Read all the received data.

	AT+HTTPREAD=<offset>,<length>		Read part of the received data.
Read	AT+HTTPREAD?	OK	Returns OK directly.
Test	AT+HTTPREAD=?	+HTTPREAD: [<offset>,<length>] OK	Check the command format.

The following table shows +HTTPREAD parameter:

<Parameter>	Description
<offset>	Read the offset position of the data starting. ---- cannot exceed the data length returned by +HTTPRES.
<length>	Length of the data to be read. ---- add offset, cannot exceed the data length returned by +HTTPRES.
<reslength>	The actual length

Example:

AT+HTTPREAD   //read all data

+HTTPREAD: 3000

N mOK   //module returns OK, read data completed

AT+HTTPREAD=1000,2000   // read 2000 bytes start from 1000

+HTTPREAD: 2000

Data…..

OK   // module returns OK, read data completed

R

AT+HTTPREAD=?

+HTTPREAD: [<offset>,<length>]

OK