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SIM7000 Series_HTTP_Application Note_V1.01

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Version History

Date	Version	What is new	Author
2017-07-10	1.00	New version	Dingfen.zhu
2017-10-24	1.01	Deleted related description of GPRS	Wenjie.lai

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Scope

This document presents the AT command of HTTP operation and application examples. This document can apply to SIM7000 series modules with HTTP function.

1 Description

This chapter introduces the HTTP application features of SIM7000 series modules

1.1 Features

1) SIM7000 series modules support Hyper Text Transfer Protocol application, which provides a mode to alternate of HTTP server. The basic application contains GET, POST, HEAD methods; it also supports proxy server, redirection, broken transfer resuming functions.

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2 AT commands

Command	Description
AT+HTTPINIT	Initialize HTTP service
AT+HTTPTERM	Terminate HTTP service
AT+HTTPPARA	Set HTTP parameters value
AT+HTTPDATA	Input HTTP data
AT+HTTPACTION	Http method action
AT+HTTPREAD	Read the HTTP server response
AT+HTTPSTATUS	Read HTTP status

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3 Examples

In the "Grammar" columns of following tables, input of AT commands are in black, module return values are in blue.

3.1. Bearer Configure

Grammar	Description
AT+SAPBR=3,1,"APN","CMNET" OK	Configure bearer profile 1
AT+SAPBR=1,1 OK	To open bearer
AT+SAPBR=2,1 +SAPBR:1,1,"10.89.193.1" OK	To query bearer
AT+SAPBR=0,1 OK	To close bearer

3.2. HTTP GET Method

Download data from HTTP server.

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK AT+HTTPPARA="URL","www.sim.com" OK	Set parameters for HTTP session
AT+HTTPACTION=0 OK +HTTPACTION: 0,200,1000	GET session start GET successfully
AT+HTTPREAD +HTTPREAD: 1000 …. OK	Read the data of HTTP server
AT+HTTPTERM OK	Terminate HTTP service

3.3. HTTP POST Method

Upload data to HTTP server.

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK AT+HTTPPARA="URL","www.sim.com" OK	Set parameters for HTTP session
AT+HTTPDATA=100,10000 DOWNLOAD …… OK	POST the data whose size is 100 Bytes and the maximum latency time for inputting is 10000 ms. It is recommended to set the latency time long enough to allow downloading all the data. It is ready to receive data from UART, and DCD has been set to low. All data has been received over, and DCD is set to high.
AT+HTTPACTION=1 OK +HTTPACTION: 1,200,0	POST session start POST successfully
AT+HTTPTERM OK	Terminate HTTP service

3.4. HTTP HEAD Method

Get HTTP head information from HTTP server.

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK AT+HTTPPARA="URL","www.sim.com" OK	Set parameters for HTTP session
AT+HTTPACTION=2 OK +HTTPACTION: 2,200,0	HEAD session start HEAD successfully
AT+HTTPTERM OK	Terminate HTTP service

3.5. Set Proxy HTTP Server

It provides the method to use proxy HTTP server.

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK AT+HTTPPARA="URL","www.sim.com" OK	Set parameters for HTTP session
AT+HTTPPARA="PROIP","10.0.0.172" OK	Set proxy server IP address
AT+HTTPPARA="PROPORT",80 OK	Set proxy server port
AT+HTTPACTION=0 OK +HTTPACTION: 0,200,1000	GET session start GET successfully
AT+HTTPREAD +HTTPREAD: 1000 …. OK	Read the data of HTTP server. Output the data to UART
AT+HTTPTERM OK	Terminate HTTP service

3.6. Set HTTP Redirection Parameter

It provides the method to use HTTP redirection function.

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK	Set parameters for HTTP session
AT+HTTPPARA="REDIR",1 OK	Set the redirection parameter
AT+HTTPPARA="URL","www.sim.com/abcde" OK	Set the URL
AT+HTTPACTION=0 OK +HTTPACTION: 0,200,1000	GET session start GET successfully
AT+HTTPREAD +HTTPREAD: 1000 …. OK	Read the response of HTTP server *Output the data to UART*

AT+HTTPTERM OK	Terminate HTTP service

3.7. Set HTTP Download Break Point Parameter

It provides the method to use HTTP broken download resuming function.

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK	Set parameters for HTTP session
AT+HTTPPARA="URL","HTTP://www.sim.com/img/sim_logo_jr_1003_38.gif" OK	Set the URL, the size of gif is 16384 bytes
AT+HTTPPARA="BREAK",2000 OK	Set the break point
AT+HTTPACTION=0 OK +HTTPACTION: 0, 200,14384	GET session start, get data from 2000 to 16384 GET successfully
AT+HTTPREAD +HTTPREAD: 14384 …. OK	Read the data of HTTP server *Output the data to UART*
AT+HTTPTERM OK	Terminate HTTP service

3.8. Get HTTP Current Status

Grammar	Description
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK	Set parameters for HTTP session
AT+HTTPPARA="URL","www.baidu.com" OK	Set the URL
AT+HTTPACTION=0 OK	Get session start
AT+HTTPSTATUS? +HTTPSTATUS: GET,1,1440,7915 OK	The status of getting session is in progress

+HTTPACTION: 0, 200,9335	GET successfully
AT+HTTPSTATUS? +HTTPSTATUS: GET,0,0,0 OK	The status of getting session is over
AT+HTTPACTION=1 OK	POST session start
AT+HTTPSTATUS? +HTTPSTATUS: POST,2,1440,608 OK +HTTPACTION: 1,200,0	The status of posting session is in progress POST successfully
AT+HTTPSTATUS? +HTTPSTATUS: POST,0,0,0 OK	The status of posting session is over
AT+HTTPTERM OK	Terminate HTTP service

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Appendix

A. Related Documents

SN	Document name	Remark
[1]	SIM7000 Series_AT Command Manual	

B. Terms and Abbreviations

Abbreviation	Description
HTTP	Hypertext Transfer Protocol
APN	Access Point Name
PDP	Packet Data Protocol

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