



SIM7020 Series HTTP Application Note

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About Document

Document Information

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Revision	Date	Owner	Status / Comments
1.0	April 10, 2018	Jin Zhang	First Release.
1.1	April 19, 2018	Albert Meng	Revised

Related Documents

[1] SIM7020 Series AT Command Manual V1.0.pdf

This document applies to the following products:

Name	Type	Size (mm)	Comments
SIM7020C	NB1	17.6*15.7	Band 1/3/5/8
SIM7020E	NB1	17.6*15.7	Band 1/3/5/8/20/28

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1 Purpose of this document

Based on module AT command manual, this document will introduce HTTP application process.

Developers could understand and develop application quickly and efficiently based on this document.

2 Bearer Configuration

Usually module will register PS service automatically.

2.1 PDN Auto-activation

AT Command	Response	Description
AT+CPIN?	+CPIN:READY	Check SIM card status
	OK	
AT+CSQ	+CSQ: 20,0	Check RF signal
	OK	
AT+CGREG?	+CGREG: 0,1	Check PS service
	OK	
AT+CGACT?	+CGACT: 1,1	Activated automatically
	OK	
AT+COPS?	+COPS: 0,0,"CHN-UNICOM",9	Check operator info CHN-UNICOM is operator's name 9 is NB-IOT network
	OK	
AT+CGCONTRDP	+CGCONTRDP: 1,5,"shnbiot","10.250.0.213.255.255.0"	Get APN and IP address from network
	OK	

2.2 APN Manual configuration

If not attached, could configure correct APN setting.

AT Command	Response	Description
AT+CFUN=0	+CPIN: NOT READY OK	Disable RF
AT*MCGDEFCONT="IP","3GNET"	OK	Configure new APN
AT+CFUN=1	OK +CPIN: READY	Enable RF
AT+CGREG?	+CGREG: 0,1 OK	Inquiry PS service
AT+CGCONTRDP	+CGCONTRDP: 1,5,"3GNET","10.250.0.253.255.255.0" OK	Attached PS domain and got IP address automatically

3 HTTP GET service

AT Command	Response	Description
AT+CHTTPCREATE="http://www.sim.com/"	+CHTTPCREAT: 0 OK	Create HTTP host instance
AT+CHTTPCON=0	OK	Connect server
AT+CHTTPSEND=0,0,"/index.html"	OK +CHTTPNMIH:0,0,800,Date: Tue, 10 Apr 2018 07:24:25 GMT Server: Apache/2.0.58 (Win32) PHP/5.2.11 Last-Modified: Fri, 16 May 2014 01:01:31 GMT ETag: "282e-45-f4410fef" Accept-Ranges: bytes Content-Length: 69 Content-Type: text/html +CHTTPNMIC:0,0,69,138,3c736372697074206c616e67756167653d6a6176617363726970743e6c6f63617469666e2e687265663d27657370636d732f696e6465782e706870273c2f7363726970743e	send http request First parameter 0 is http instance id, second parameter 0 is http get method, third parameter is file, not include root path. If succeed, will report incoming data +CHTTPNMIH is header +CHTTPNMIC is content
AT+CHTTPDISCON=0	OK	Disconnected from server
AT+CHTTPDESTROY=0	OK	Destroy HTTP instance

4 HTTP POST service

AT Command	Response	Description
AT+CHTTPCREATE="http://139.217.9.49:8080/"	+CHTTPCREAT: 0 OK	Create HTTP host instance
AT+CHTTPCON=0	OK	Connect server
AT+CHTTPSEND=0,1,"/setBikeData",4163636570743a202a2f2a0d0a436f6e6e656374696f6e3a204b6565702d416c6976650d0a557365722d4167656e743a2053494d434f4d5f4d4f44554c450d0a,"application/json",7b22646576534e223a22313131313232323222c227370656564223a2232352e36222c226c6f6e676974756465223a2233362e32222c226c61746974756465223a2239382e36222c22616c746974756465223a2231302e38222c22646972656374696f6e223a2231352e38222c22736174656c6c697465223a2235222c22766f6c74616765223a22342e32222d	OK	send http request If succeed, will report incoming data +CHTTPNMIH is header +CHTTPNMIC is content
AT+CHTTPDISCON=0	OK	Disconnected from server
AT+CHTTPDESTROY=0	OK	Destroy HTTP instance

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