Application

SIM7000 Series_Quick Start Application Guide V1.00

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About Document

Document Information

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Related Documents

[1] SIM7000 Series AT Command Manual V1.04
[2] SIM7000 Hardware Design_V1.04
[3] SIM7000 Series_TCPIP_Application Note_V1.01
[4] SIM7000 Series_HTTP_Application Note_V1.01
[5] SIM7000 Series_HTTP(S)_Application Note_V1.00
[6] SIM7000 Series_FTP_Application Note_V1.00
[7] SIM7000 Series_FOTA_Application Note_V1.00
[8] SIM7000 Series UART Application Note_V1.00
[9] SIM7000 Series_MQTT_Application Note_V1.01
[10] SIM7000 Series_NTP_Application Note_V1.00
[11] SIM7000 Series_PING_Application Note_V1.00
[12] SIM7000 Series_GNSS_Application Note_V1.01
[13] SIM800F_SIM900_SIM5300E_Migration to SIM7000_Application Note_V1.00

This document applies to the following products:

Name	Type	Size (mm)	Comments
SIM7000C/E/G	CAT-M1/NB1/EGPRS	24*24	C: China E: EMEA/Australia G: Global
SIM7000JC	CAT-M1/NB1	24*24	JC: Japan
SIM7000A	CAT-M1/NB1	24*24	A: North America
SIM7000C-N/E-N	CAT-NB1 only	24*24	C: China E: EMEA

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Contents

1. PURPOSE OF THIS DOCUMNET

Based on module AT command manualand APP notes, this document will help developers to understand and develop application quickly and efficiently.

2. KEY SELLING POINTS

SIM7000G

(1) Three modes: eMTC/NB-IOT/EGPRS

(2) Global band LTE and Quad band EGPRS

(3) Integrated GNSS (GPS,GLONASS,Galileo,BeiDou)

(4) Strong extension capability with rich interfaces including UART, USB2.0, GPIO etc.

(5) LCC Package and AT commands of SIM7000G mostly compatible with SIM900 and SIM800F

(6) Designed for applications requiring low latency, medium throughput data communication in a variety of radio propagation conditions

(7) Embedded TCP(TLS)/UDP(DTLS)/IPV4/IPV6 stack

(8) Enhancedfeatures: HTTP(s)/FTP/MQTT/EMAIL/LBS/NTP/DNS/PING/COAP/ LWM2M/SMS/DFOTA/VoLTE/FileSystem/ALI_IOT etc.

(9)Wwan: NDIS (Windows)/ECM (Linux)

(10) Minimum power consumption and extended coverage/PSM&eDRX

(11) Cellular IoT SDK (CIOT)*

(12) Extended temperature range: -40°C to +85°C

SIM7000E

（1) Three modes: eMTC/NB-IOT/EGPRS

(2) Multi band LTE and Dual band EGPRS for EMEA/Australia region

(3) Integrated GNSS (GPS,GLONASS,Galileo,BeiDou)

(4) Strong extension capability with rich interfaces including UART, USB2.0, GPIO etc.

(5) LCC Package and AT commands of SIM7000E mostly compatible with SIM900 and SIM800F

(6) Designed for applications requiring low latency, medium throughput data communication in a variety of radio propagation conditions

(7) Embedded TCP(TLS)/UDP(DTLS)/IPV4/IPV6 stack

(8) Enhanced features: HTTP(s)/FTP/MQTT/EMAIL/LBS/NTP/DNS/PING/COAP/ LWM2M/SMS/DFOTA/VoLTE/FileSystem/ALI_IOT etc.

(9)Wwan: NDIS (Windows)/ECM (Linux)

(10) Minimum power consumption and extended coverage/PSM&eDRX

(11) Cellular IoT SDK (CIOT)*

(12) Extended temperature range: -40°C to +85°C

3. SIM7000 CONFIGURATION (AT COMMAND)

3.1 AT+CNMP Preferred mode selection

AT+CNMP=?
+CNMP: ((2-Automatic),(13-GSM Only),(38-LTE Only),(51-GSM And LTE Only))
OK

Parameters:
2-Automatic
13-GSM Only
38-LTE Only // CAT-M+NB-IoT
51-GSM And LTE Only // CAT-M+NBIoT+GPRS (default)

3.2 AT+CMNB Preferred selection between CAT-M and NB-IoT

AT+CMNB=?
+CMNB: ((1-Cat-M),(2-NB-IoT),(3-Cat-M And NB-IoT))
OK

Parameters:
1-Cat-M
2-NB-IoT
3-Cat-M And NB-IoT //default

SIM7000 Mode Configuration Examples:

Grammar	Description
AT+CNMP=51 AT+CMNB=3	CAT-M+NB-IOT+GPRS Default setting
AT+CNMP=38 AT+CMNB=3	CAT-M+NB-IOT
AT+CNMP=51 AT+CMNB=1	CAT-M+GPRS
AT+CNMP=51 AT+CMNB=2	NB-IOT+GPRS
AT+CNMP=38 AT+CMNB=1	CAT-M1 only
AT+CNMP=38 AT+CMNB=2	NB-IOT only
AT+CNMP=13	GPRS only

3.3 AT+NBSC Configure NB-IOT Scrambling Feature

AT+NBSC=?
+NBSC: (0,1)
OK

Parameters:
0 Disable the scrambling feature in NB-IOT network.
1 Enable the scrambling feature in NB-IOT network. //Default Value

3.4 AT+CBANDCFG Configure CAT-M Or NB-IOT Band

AT+CBANDCFG?//Default value for SIM7000G is as below

+CBANDCFG: "CAT-M",1,2,3,4,5,8,12,13,18,19,20,26,28,39

+CBANDCFG: "NB-IOT",1,2,3,5,8,12,13,17,18,19,20,26,28

OK
AT+CBANDCFG=?

+CBANDCFG: (CAT-M,NB-IOT),(1,2,3,4,5,8,12,13,17,18,19,20,26,28,39)

OK

SIM7000LPWA Band Configuration Examples:
AT+CBANDCFG="NB-IOT",8 //Fix to Band 8 only for NB-IOT

OK
AT+CBANDCFG="NB-IOT",20 //Fix to Band 20 only for NB-IOT

OK
AT+CBANDCFG="NB-IOT",8,20 //Fix to Band 8 and Band 20 for NB-IOT

OK
AT+CBANDCFG="CAT-M",20 //Fix to Band 20 for CAT-M (Like Orange/KPN/TIM)

OK

3.5 AT+CNBS Configure Band Scan Optimization For NB-IOT

AT+CNBS=?

+CNBS: (1-5)

OK
AT+CNBS?

+CNBS: 3 //Default value, UE tries SNR level 0, level 1, and level 2 band scan

OK
AT+CNBS=1//SNR level 0 band scan, to short the time for NB-IOT band scan

OK

3.6 AT+CGATT Attach or Detach from GPRS Service

AT+CGATT?

+CGATT: 1//Wait until get the “1” state

OK

3.7 AT+CGNAPN Get Network APN in CAT-M Or NB-IOT

AT+CGNAPN

+CGNAPN: 1,"cmnbiot"//cmnbiot is the APN of China Mobile NB-IOT SIM card

OK
AT+CGNAPN

+CGNAPN: 1,"internet.nbiot.telekom.de" //The NB-IOT APN for DT

OK

Example: NB-IOT for DT (DEUTSCHE TELEKOM)
AT+COPS?
+COPS: 0,2,"26201",9

OK

AT+CPSI?

+CPSI: LTE

NB-IOT,Online,262-01,0xE2AE,27219977,44,EUTRAN-BAND8,3740,0,0,-3,-79,-76,20

OK

Example:NB-IOT for TIM (Italy)

AT+COPS?

+COPS: 0,0,"222 01",9

OK

AT+CPSI?

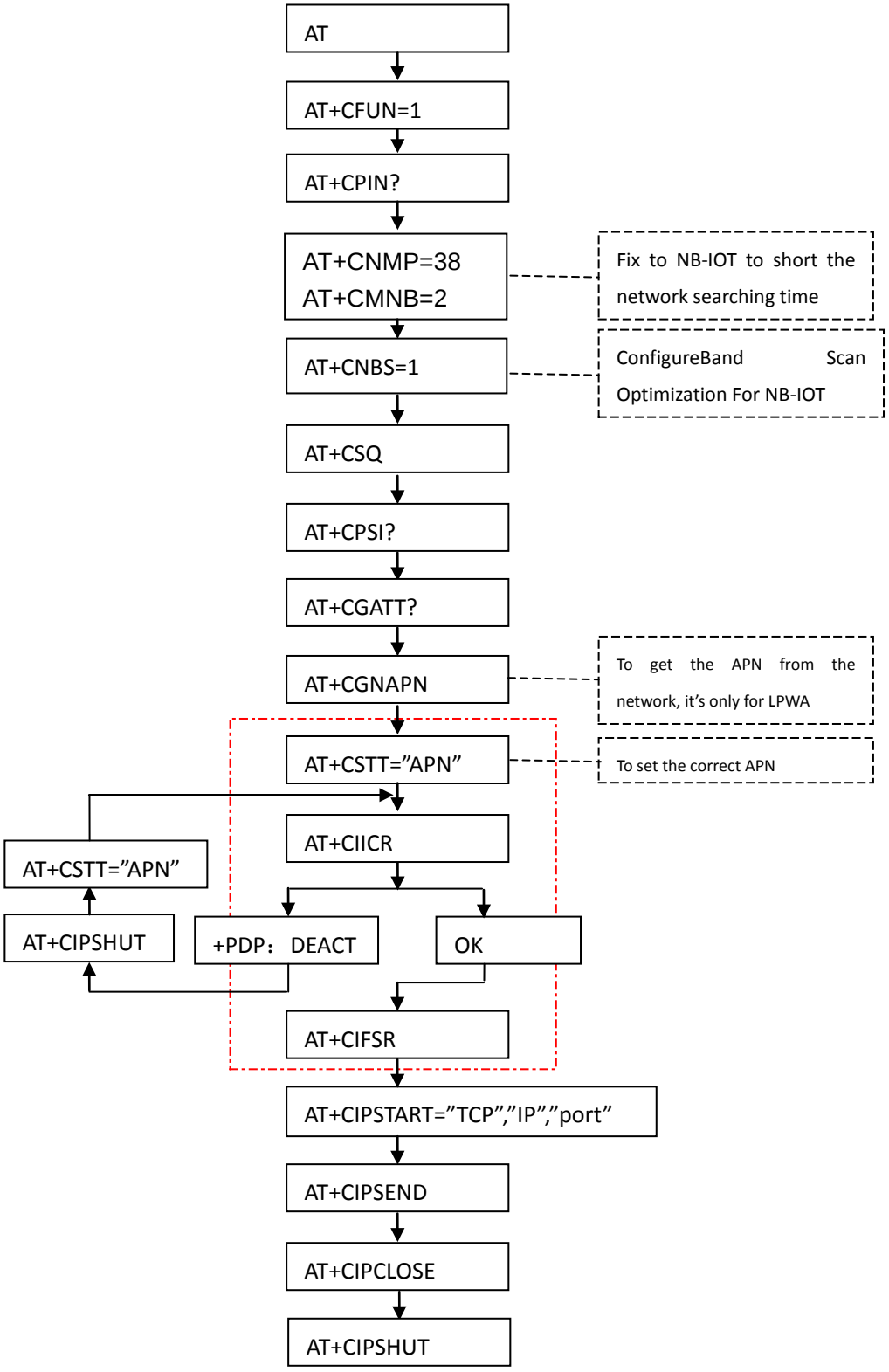
+CPSI: LTE

NB-IOT,Online,222-01,0x80EA,76845640,439,EUTRAN-BAND20,6290,0,0,-11,-74,-63,20

OK

4. FLOW CHARTOF USING TCP/IP AT COMMANDS

Take NB-IOT as the example:



5. EXAMPLES

5.1 Modem Side (Compatible with SIM900/SIM800 series)

5.1.1,Establish a TCP Client Connection UnderNB-IOTwith IPV4

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=38 OK	Set to CAT-M+NB-IoT
AT+CMNB=2 OK	Fix to NB-IOT
AT+CBANDCFG? +CBANDCFG: "CAT-M",20 +CBANDCFG: "NB-IOT",8,20 OK	Check Band configuration
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ	Query Signal Quality

+CSQ: 19,99 OK	
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CGNAPN +CGNAPN: 1,"cmnbiot" OK	GetAPN from network in CAT-M Or NB-IOT mode, it's not available for GPRS
AT+CSTT="cmnbiot" OK	Set theAPN, if customer know the correct APN, can set with this command directly. For GSM, check with local GSM provider to get the correct APN
AT+CIICR OK	Bring Up Wireless Connection for CAT-M/NB-IOT/GPRS
AT+CIFSR 100.75.203.78	Get Local IP Address
AT+CIPSRIP=1 OK	Display IP address and Port of sender
AT+CIPHEAD=1 OK	Add IP head in receiving data
AT+CIPSTART="TCP","117.131.85.139",8409 OK	Start up the TCP connection

CONNECT OK	The TCP connection has been established successfully
AT+CIPSEND=5 > 12345 SEND OK	Send data to TCP server
RECV FROM:117.131.85.139:8409 +IPD,13:HELLO SIM7000	Receive data from the remote TCP server
AT+CIPCLOSE CLOSE OK	Close the connection Connection is closed
AT+CIPSHUT SHUT OK	Deactivate the PDP context &close all connections

5.1.2,Establish a TCP Client Connection Under 2G (GPRS)with IPV4

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to GSM to short the band scan time
AT+CSQ +CSQ: 28,99	Query Signal Quality

OK	
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-56,0,47-157 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CSTT="CMNET" OK	For GSM, check with local GSM provider to set the correct APN
AT+CIICR OK	Bring Up Wireless Connection for CAT-M/NB-IOT/GPRS
AT+CIFSR 100.123.130.241	Get Local IP Address
AT+CIPSRIP=1 OK	Display IP address and Port of sender
AT+CIPHEAD=1 OK	Add IP head in receiving data
AT+CIPSTART="TCP","117.131.85.139",8409 OK CONNECT OK	Start up the TCP connection The TCP connection has been established successfully
AT+CIPSEND=5 > 12345 SEND OK	Send data to TCP server
RECV FROM:117.131.85.139:8409 +IPD,13:HELLO SIM7000	Receive data from the remote TCP server

AT+CIPCLOSE CLOSE OK	Close the connection Connection is closed
AT+CIPSHUT SHUT OK	Deactivate the PDP context &close all connections

Note: For the detail, please refer to “SIM7000 Series_TCPIP_Application Note_V1.01”.

5.1.3, HTTP GET Under 2G (GPRS)

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to 2G
AT+CSQ +CSQ: 28,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI?	Inquiring UE system information

+CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-50,0,53-163 OK	
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+SAPBR=3,1,"Contype","GPRS" OK	Configure bearer profile Set the correct APN, CMNET is the one for China Mobile 2G. For LPWA, need to set the correct one getting from the network (AT+CGNAPN).
AT+SAPBR=3,1,"APN","CMNET" OK	
AT+SAPBR=1,1 OK	Open bearer
AT+SAPBR=2,1 +SAPBR: 1,1,"100.107.223.18" OK	Query bearer
AT+HTTPINIT OK	Init HTTP service
AT+HTTPPARA="CID",1 OK	Set parameters for HTTP session
AT+HTTPPARA="URL","http://www.baidu.com" OK	
AT+HTTPACTION=0 OK +HTTPACTION: 0,200,153140	GET session start <Method> 0 GET 1 POST 2 HEAD 3 DELETE
AT+HTTPREAD +HTTPREAD: 153140	Read the data of HTTP server

<!DOCTYPE html> <!--STATUS OK--> . . . document.cookie="NOJS=;expires=Sat, 01 Jan 2000 00:00:00 GMT"; } </script> </body> </html> OK	
AT+HTTPTERM OK	Terminate HTTP service
AT+SAPBR=0,1 OK	Close bearer

Note: For the detail, please refer to “SIM7000 Series_HTTP_Application Note_V1.01”.

5.1.4, PING Under NB-IOT

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=38	Set to CAT-M+NB-IoT

OK	
AT+CMNB=2 OK	Fix to NB-IOT
AT+CBANDCFG? +CBANDCFG: "CAT-M",20 +CBANDCFG: "NB-IOT",8,20 OK	Check Band configuration
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ +CSQ: 19,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CGNAPN +CGNAPN: 1,"cmnbiot" OK	Get APN from network in CAT-M Or NB-IOT mode, it's not available for GPRS
AT+CSTT="cmnbiot"	Set the APN, if customer know the correct APN, can set with this command directly.

OK	For GSM, check with local GSM provider to get the correct APN
AT+CIICR OK	Bring Up Wireless Connection for CAT-M/NB-IOT/GPRS
AT+CIFSR 100.75.203.78	Get Local IP Address
AT+CIPPING="www.baidu.com",4,8,300,64 +CIPPING: 1,"111.13.100.92",17800,55 +CIPPING: 2,"111.13.100.92",4725,55 +CIPPING: 3,"111.13.100.92",9960,55 +CIPPING: 4,"111.13.100.92",960,55 OK	Ping request

Note: For the detail, please refer to “SIM7000 Series_PING_Application Note_V1.00”.

5.1.5, EMAIL SMTP Under 2G (GPRS)

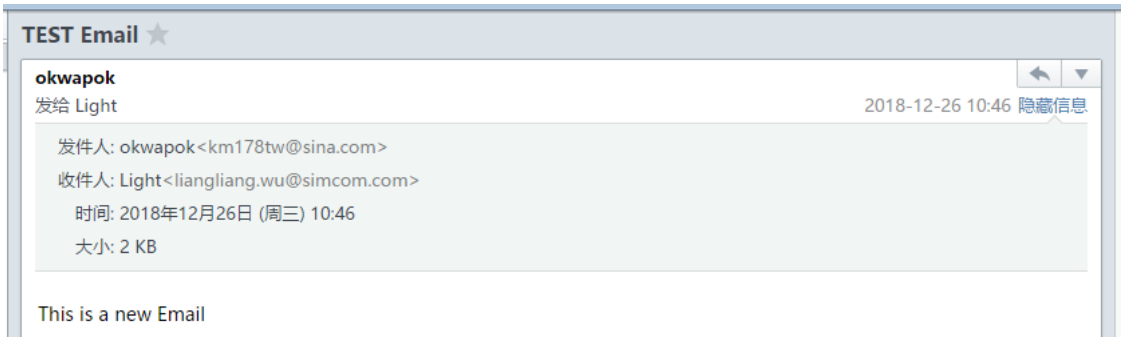
Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to 2G
AT+CSQ	Query Signal Quality

+CSQ: 28,99 OK	
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-50,0,53-163 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+SAPBR=3,1,"Contype","GPRS" OK	Configure bearer profile Set the correct APN, CMNET is the one for China Mobile 2G. For LPWA, need to set the correct one getting from the network (AT+CGNAPN).
AT+SAPBR=3,1,"APN","CMNET" OK	
AT+SAPBR=1,1 OK	Open bearer
AT+SAPBR=2,1 +SAPBR: 1,1,"100.107.223.18" OK	Query bearer
/Use NTP to do the time & date SYNC/	
AT+CNTPCID=1 OK	Set NTP Use bear profile 1
AT+CNTP="ntp1.aliyun.com",32	Set NTP service url and

OK	local time zone
AT+CNTP OK +CNTP: 1,"2019/01/04,16:47:28"	Start Sync Network Time
AT+CCLK? +CCLK: "19/01/04,16:47:43+32" OK	Get local date and time Timezone may be different with thatin CNTP setting
AT+EMAILCID=1 OK	Set parameters of Email
AT+EMAILTO? +EMAILTO: 30 OK	
AT+SMTPSRV="smtp.sina.com",25 OK	Set SMTP server address and port
AT+SMTPAUTH=1,"km*tw","ok***ok"** OK	Set user name and password
AT+SMTPFROM="km178tw@sina.com","okwapok" OK	Set sender address and name
AT+SMTPRCPT=0,0,"liangliang.wu@simcom.com","Light" OK	Set the recipient(To:)
AT+SMTPSUB="TEST Email" OK	Set the subject
AT+SMTPBODY=19 DOWNLOAD This is a new Email	Set the body Input data “This is a new

OK	Email”
AT+SMTPSEND OK +SMTPSEND: 1	Send the Email 1 The Email has been sent successfully
AT+SAPBR=0,1 OK	Close bearer

Note: For the detail, please refer to “SIM7000 Series_Email_Application Note_V1.0X”.



5.2AP Side

5.2.1, Establish a TCP Client Connection UnderNB-IOTwith IPV4

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY	Check SIM card status

OK	
AT+CNMP=38 OK	Set to CAT-M+NB-IoT
AT+CMNB=2 OK	Fix to NB-IOT
AT+CBANDCFG? +CBANDCFG: "CAT-M",20 +CBANDCFG: "NB-IOT",8,20 OK	Check Band configuration
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ +CSQ: 19,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4

AT+CNACT=1 OK +APP PDP: ACTIVE	Open the wireless connection AT+CNACT=<mode>[,<APN>]
AT+CNACT? +CNACT: 1,"100.81.245.27" OK	Get local IP
AT+CACID=0 OK	Device identification
AT+CASSLCFG=0,ssl,0 OK	Whether to use the SSL, If TCP/UDP connection, the parameter is 0. 0 Not support SSL 1 Support SSL
AT+CASSLCFG=0,protocal,0 OK	Set the protocol type. Set to 0 is TCP. If it is UDP, it should be set to 1.
AT+CAOPEN=0,"117.131.85.139",8409 +CAOPEN: 0,0 OK	Setup a TCP connection Return URC the first parameter is identification, the second parameter is the result of setup connection, 0 means success.
AT+CASEND=0,5 > OK +CASEND: 0,0,5	Request to send 5 bytes data Input data Data transmit success
+CADATAIND: 0 **AT+CARECV=0,100** +CARECV: 13,HELLO SIM7000 OK	Connection with an identifier of 0 has data Request to get 100 bytes data sending from server. In fact, receive 13 bytes data Output data received "HELLO SIM7000"
AT+CACLOSE=0 OK	Close the connection of Identification 0
AT+CNACT=0 OK	Disconnect the wireless connection

+APP PDP: DEACTIVE	

Note: For the detail, please refer to “SIM7000 Series_SSL_Application Note_V1.00”.

5.2.2, Establish a TCP Client Connection Under 2G (GPRS)with IPV4

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to 2G
AT+CSQ +CSQ: 28,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-50,0,53-163 OK	Inquiring UE system information
AT+CGATT?	Data Service’s status

+CGATT: 1 OK	Wait until get the “1” state
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACT=1,"CMNET" OK +APP PDP: ACTIVE	Set the correct APN and Open wireless connection
AT+CNACT? +CNACT: 1,"100.96.12.159" OK	Get local IP
AT+CACID=0 OK	Device identification
AT+CASSLCFG=0,ssl,0 OK	Whether to use the SSL, If TCP/UDP connection, the parameter is 0. 0 Not support SSL 1 Support SSL
AT+CASSLCFG=0,protocal,0 OK	Set the protocol type. Set to 0 is TCP. If it is UDP, it should be set to 1.
AT+CAOPEN=0,"117.131.85.139",8409 +CAOPEN: 0,0 OK	Setup a TCP connection Return URC the first parameter is identification, the second parameter is the result of setup connection, 0 means success.
AT+CASEND=0,5 > OK +CASEND: 0,0,5	Request to send 5 bytes data Input data Data transmit success
+CADATAIND: 0 **AT+CARECV=0,100** +CARECV: 13,HELLO SIM7000	Connection with an identifier of 0 has data Request to get 100 bytes data sending from server.

OK	In fact, receive 13 bytes data Output data received "HELLO SIM7000"
AT+CACLOSE=0 OK	Close the connection of Identification 0
AT+CNACT=0 OK +APP PDP: DEACTIVE	Disconnect the wireless connection

Note: For the detail, please refer to "SIM7000 Series_SSL_Application Note_V1.00".

5.2.3, Establish a UDP Client Connection UnderNB-IOTwith IPV6

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=38 OK	Set to CAT-M+NB-IoT
AT+CMNB=2 OK	Fix to NB-IOT
AT+CBANDCFG? +CBANDCFG: "CAT-M",20	Check Band configuration

+CBANDCFG: "NB-IOT",8,20 OK	
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ +CSQ: 19,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACTCFG="IPV6" OK	Set IP Protocol Type to IPV6
AT+CNACT=1 OK +APP PDP: ACTIVE	Open the wireless connection AT+CNACT=<mode>[,<APN>]
AT+CNACT?	Get local IP

+CNACT: 1,"2401:E180:9008:16:7D6E:E1F7:C16C:E8F" OK	
AT+CACID=0 OK	Device identification
AT+CASSLCFG=0,ssl,0 OK	Whether to use the SSL, If TCP/UDP connection, the parameter is 0. 0 Not support SSL 1 Support SSL
AT+CASSLCFG=0,protocal,1 OK	Set the protocol type. Set to 0 is TCP. If it is UDP, it should be set to 1.
AT+CASSLCFG=0,localport,8888 OK	Set local port (0-65536)
AT+CAOPEN=0,"2406:da14:5c8:1401:4b55:c73d:cb95:8ec8",2301 +CAOPEN: 0,0 OK	Setup a UDP connection Return URC the first parameter is identification, the second parameter is the result of setup connection, 0 means success.
AT+CASEND=0,5 > OK +CASEND: 0,0,5	Request to send 5 bytes data Input data Data transmit success
+CADATAIND: 0 **AT+CARECV=0,100** +CARECV: 13,HELLO SIM7000 OK	Connection with an identifier of 0 has data Request to get 100 bytes data sending from server. In fact, receive 13 bytes data Output data received "HELLO SIM7000"
AT+CACLOSE=0 OK	Close the connection of Identification 0
AT+CNACT=0 OK +APP PDP: DEACTIVE	Disconnect the wireless connection

Note: For the detail, please refer to "SIM7000 Series_SSL_Application Note_V1.00".

5.2.4, Establish a TCP TLS1.2 Client Connection UnderNB-IOTwith IPV4

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=38 OK	Set to CAT-M+NB-IoT
AT+CMNB=2 OK	Fix to NB-IOT
AT+CBANDCFG? +CBANDCFG: "CAT-M",20 +CBANDCFG: "NB-IOT",8,20 OK	Check Band configuration
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ +CSQ: 19,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9	0 User-specified GSM access technology 7 User-specified LTE M1 A GB

OK	access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACT=1 OK +APP PDP: ACTIVE	Open the wireless connection AT+CNACT=<mode>[,<APN>]
AT+CNACT? +CNACT: 1,"100.81.245.27" OK	Get local IP
1, Ignore CA root	
AT+CACID=0 OK	Device identification
AT+CSSLCFG="sslversion",0,3 OK	Set the protocol type of SSL with an identifier of 0. 3 indicate TLS1.2
AT+CASSLCFG=0,ssl,1 OK	Whether to use the SSL 0 Not support SSL 1 Support SSL
AT+CASSLCFG=0,protocal,0 OK	Set the protocol type. Set to 0 is TCP. If it is UDP, it should be set to 1.
AT+CASSLCFG=0,crindex,0	Set protocol type

OK	Identifier for AT+CSSLCFG corresponding SSL configuration
AT+CAOPEN=0,"eun-celli-13383-dev-01-iothub1.azure-devices.net",8883 +CAOPEN: 0,0 OK	Setup a TCP SSL connection Return URC the first parameter is identification, the second parameter is the result of setup connection, 0 means success.
AT+CACLOSE=0 OK	Close the connection of Identification 0
2, With CA root (Build a one-way authentication SSL connection)	
AT+CFSINIT OK	Get Flash Data Buffer
AT+CFSWFILE=3,baltimore_cyberTrust_Root.cer,0,891,10000 DOWNLOAD 文件大小: 891 波特率 115200bps 需要时间:大约 0 秒 请稍候... 发送完毕! OK	Download the CA root file into module flash
AT+CFSTERM OK	Free the Flash Buffer Allocated by CFSINIT
AT+CACID=0 OK	Device identification
AT+CSSLCFG="sslversion",0,3 OK	Set the protocol type of SSL with an identifier of 0. 3 indicate TLS1.2
AT+CASSLCFG=0,ssl,1 OK	Whether to use the SSL 0 Not support SSL 1 Support SSL
AT+CASSLCFG=0,protocal,0 OK	Set the protocol type. Set to 0 is TCP. If it is UDP, it should be set to 1.
AT+CASSLCFG=0,crindex,0 OK	Set protocol type Identifier for AT+CSSLCFG corresponding SSL configuration

AT+CSSLCFG="convert",2,"baltimore_ cyberTrust_Root.cer" OK	Configuring the type of certificate to be converted, and 2 is a root certificate. Configure the name of the certificate to be converted, and the name after the conversion is consistent with the existing certificate name.
AT+CASSLCFG=0,"cacert","baltimore_ cyberTrust_Root.cer" OK	Set root certificate. The root certificate must be a certificate that has been converted through AT+CSSLCFG. This item can be omitted. If omitted, all server certificates are trusted by default.
AT+CAOPEN=0,"eun-celli-13383-dev-01-iothub1. azure-devices.net",8883 +CAOPEN: 0,0 OK	Setup a TCP SSL connection Return URC the first parameter is identification, the second parameter is the result of setup connection, 0 means success.
AT+CACLOSE=0 OK	Close the connection of Identification 0
3, Build a two-way authentication SSL connection	
AT+CFSINIT OK	Get Flash Data Buffer
AT+CFSWFILE=3,root.pem,0,1758,10000 DOWNLOAD 文件大小: 1220 波特率 115200bps 需要时间:大约 0 秒 请稍候... 发送完毕! OK	Download the CA root file into module flash
AT+CFSWFILE=3,client.pem,0,1220,10000 DOWNLOAD 文件大小: 1220 波特率 115200bps 需要时间:大约 0 秒 请稍候...	Download theclient.pem file into module flash

发送完毕！ OK	
AT+CFSWFILE=3,client.key,0,1675,10000 DOWNLOAD 文件大小: 1220 波特率 115200bps 需要时间:大约 0 秒 请稍候... 发送完毕！ OK	Download theclient.key file into module flash
AT+CFSTERM OK	Free the Flash Buffer Allocated by CFSINIT
AT+CACID=0 OK	Device identification
AT+CSSLCFG="sslversion",0,3 OK	Set the protocol type of SSL with an identifier of 0. 3 indicate TLS1.2
AT+CSSLCFG="convert",2,"root.pem" OK	Configure the type of certificate to be converted, and 2 is a root certificate. Configure the name of the certificate to be converted, and the name after the conversion is consistent with the existing certificate name.
AT+CSSLCFG=convert,1,client.pem,client.key OK	Configure the type of certificate to be converted, and 1 is client certificate. Configure the certificate name that needs to be converted, and the client certificate needs to enter the certificate file and the private key file. The name after conversion is identical to the name of the certificate,that is "client.pem".
AT+CASSLCFG=0,ssl,1 OK	Whether to use the SSL 0 Not support SSL 1 Support SSL
AT+CASSLCFG=0,protocal,0	Set the protocol type. Set to 0 is TCP. If it is UDP, it should be set to 1.

OK	
AT+CASSLCFG=0,crindex,0 OK	Set protocol type Identifier for AT+CSSLCFG corresponding SSL configuration
AT+CASSLCFG=0,"cacert","root.pem" OK	Set root certificate. The root certificate must be a certificate that has been converted through AT+CSSLCFG. This item can be omitted. If omitted, all server certificates are trusted by default.
AT+CASSLCFG=0,"clientcert","client.pem" OK	Set up client certificates. The root certificate must be converted to a certificate that can be directly used by AT+CSSLCFG.
AT+CAOPEN=0,a3vyo55owhy462.iot.eu-west-1.amazonaws.com,8883 +CAOPEN: 0,0 OK	Setup a TCP SSL connection Return URC the first parameter is identification, the second parameter is the result of setup connection, 0 means success.
AT+CACLOSE=0 OK	Close the connection of Identification 0
AT+CNACT=0 OK +APP PDP: DEACTIVE	Disconnect the wireless connection

Note: For the detail, please refer to “SIM7000 Series_SSL_Application Note_V1.00”.

5.2.5, HTTP GET Under 2G (GPRS)

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1	Full functionality (Default)

OK	
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to 2G
AT+CSQ +CSQ: 28,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-50,0,53-163 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
/active PDP/	
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACT=1,"CMNET" OK +APP PDP: ACTIVE	Set the correct APN and Open wireless connection
AT+CNACT?	Get local IP

+CNACT: 1,"100.96.12.159" OK	
/HTTP GET test/	
AT+SHCONF="URL","http://www.baidu.com" OK	Set connect server parameter
AT+SHCONF="BODYLEN",350 OK	
AT+SHCONF="HEADERLEN",350 OK	
AT+SHCONN OK	HTTP build
AT+SHREQ="http://www.baidu.com",1 OK +SHREQ: "GET",200,153083	Set request type "1" is GET. Get data size is 153083 <type> 1 GET 2 PUT 3 POST 4 PATCH 5 HEAD
AT+SHREAD=0,153083 OK +SHREAD: 2048 <!DOCTYPE html> <!--STATUS OK--> . . . 'index_form':"#form", 'index_kw':"#kw", 'result_form':"#form", 'result_kw':"#kw" }); </script> <script>	Read data length is **153083**

if(navigator.cookieEnabled){
document.cookie="NOJS=;expires=Sat, 01 Jan 2000 00:00:00 GMT";
}
</script>
 	
</body>
</html>	

AT+SHDISC OK	Disconnect HTTP connect
AT+CNACT=0 OK +APP PDP: DEACTIVE	Disconnect the wireless connection

Note: For the detail, please refer to “SIM7000 Series_HTTP(S)_Application Note_V1.00”.

5.2.6, HTTPSGET Under 2G (GPRS)

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to 2G
AT+CSQ	Query Signal Quality

+CSQ: 28,99 OK	
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-50,0,53-163 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
/import certificate to flash/	
AT+CFSINIT OK	Get Flash Data Buffer
AT+CFSWFILE=3,"baidu_ca.crt",0,1282,5000 DOWNLOAD the size of file: 1282 baudrate 115200bps time: about 0 秒 please wait... finish ! OK	Download thebaidu_ca.crtfile into module flash
AT+CFSGFIS=3,"baidu_ca.crt" +CFSGFIS: 1282 OK	Get File Size. Double check for the file size, to make sure the file has successfully been written into module flash
AT+CFSTERM	Free the Flash Buffer

OK	Allocated by CFSINIT
/active PDP/	
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACT=1,"CMNET" OK +APP PDP: ACTIVE	Set the correct APN and Open wireless connection
AT+CNACT? +CNACT: 1,"100.96.12.159" OK	Get local IP
/HTTPS GET test/	
AT+CSSLCFG="convert",2,"baidu_ca.crt" OK	Conversion CA certificate format 2 means ca type baidu.cer is ca certificate name
AT+SHSSL=1,"baidu_ca.crt" OK	Set HTTP SSL Configure
AT+SHCONF="URL","https://www.baidu.com" OK	Set connect server parameter
AT+SHCONF="BODYLEN",350 OK	
AT+SHCONF="HEADERLEN",350 OK	
AT+SHCONN OK	HTTPS build
AT+SHREQ="https://www.baidu.com",1	Set request type “1” is GET. Get data size is 227

OK +SHREQ: "GET",200,227	<type> 1 GET 2 PUT 3 POST 4 PATCH 5 HEAD
AT+SHREAD=0,227 OK +SHREAD: 227 <html> <head> <script> location.replace(location.href.replace("https://","http://")); </script> </head> <body> <noscript><meta http-equiv="refresh" content="0;url=http://www.baidu.com/"></noscript> </body> </html>	Read data length is 227
AT+SHDISC OK	Disconnect HTTP connect
AT+CNACT=0 OK +APP PDP: DEACTIVE	Disconnect the wireless connection

Note: For the detail, please refer to “SIM7000 Series_HTTP(S)_Application Note_V1.00”.

5.2.7, HTTPS POST Under NB-IOT

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate

AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=38 OK	Set to CAT-M+NB-IoT
AT+CMNB=2 OK	Fix to NB-IOT
AT+CBANDCFG? +CBANDCFG: "CAT-M",20 +CBANDCFG: "NB-IOT",8,20 OK	Check Band configuration
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ +CSQ: 19,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9 OK	
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1	Data Service's status Wait until get the "1" state

OK	
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACT=1 OK +APP PDP: ACTIVE	Open the wireless connection AT+CNACT=<mode>[,<APN>]
AT+CNACT? +CNACT: 1,"100.81.245.27" OK	Get local IP
/HTTPS POST test/	
AT+SHCONF="URL","https://www.kpnsemafonie.nl" OK	Set connect server parameter
AT+SHCONF="BODYLEN",1024 OK	
AT+SHCONF="HEADERLEN",350 OK	
AT+CSSLCFG="sslversion",0,3 OK	Set the protocol type of SSL with an identifier of 0. 3 indicate TLS1.2
AT+SHCONN OK	Connect
AT+SHBOD="<?xml version=\"1.0\" encoding=\"utf-8\"?><……>",405 OK	Set body value
AT+SHAHEAD="Content-Lenght","405" OK	Add head value
AT+SHAHEAD="Content-Type","text/xml; charset=utf-8" OK	Add head value

AT+SHREQ="https://www.kpnsemafonie.nl/soap.asmx", 3 OK +SHREQ: "POST",200,305	Set request type "3" is POST. Post data size is 305 <type> 1 GET 2 PUT 3 POST 4 PATCH 5 HEAD
AT+SHREAD=0,305 OK +SHREAD: 305 <?xml version="1.0" encoding="utf-8"?><……>	Read data length is 305
AT+SHDISC OK	Disconnect HTTP connect
AT+CNACT=0 OK +APP PDP: DEACTIVE	Disconnect the wireless connection

Note: For the detail, please refer to "SIM7000 Series_HTTP(S)_Application Note_V1.00".

5.2.8, FOTA Under 2G (GPRS)

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+GMR Revision:1529B01SIM7000G OK	Check the FW version inside SIM7000
AT+IPR=115200 OK	Fix the baud rate to get the URC after module power up
AT+CFUN=1 OK	Full functionality (Default)

AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=13 OK	Fix to 2G
AT+CSQ +CSQ: 28,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",0 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: GSM,Online,460-00,0x1816,21817,81 EGSM 900,-50,0,53-163 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CNACT=1,"CMNET" OK +APP PDP: ACTIVE	Set the correct APN and Open wireless connection
AT+CNACT? +CNACT: 1,"100.96.12.159" OK	Get local IP
/FOTA test/	
AT+HTTPTOFS="http://117.131.85.139:6002/myweb/image/SIM7000G B01-B02.zip","/fota/update.zip"	Open the HTTP get session to Download file to AP file

OK
 	
+HTTPTOFS: 200,2298902
	system
	//For the delta firmware, please contact with SIMCom support team
	//Under NB-IOT network, it takes about 25minutes
	
	200indicates OK

AT+CFOTA=1 OK	Set the flag bit for FOTA update, and reset module automatically
+APP PDP: DEACTIVE RDY +CFUN: 1 +CPIN: READY +CFOTA: "Start to update" +CFOTA: "Updating",0 SMS Ready +CFOTA: "Updating",0 +CFOTA: "Updating",0 +CFOTA: "Updating",0 +CFOTA: "Updating",0 +CFOTA: "Updating",0 +CFOTA: "Update successfully, please wait for reset" RDY	The module enters into FOTA upgrading process, which will last several minutes

+CFUN: 1 +CPIN: READY SMS Ready	
AT+CFOTA? +CFOTA: 6 OK	Inquire the update result by command CFOTA. 6 means updated and succeeded; 7 means updated but failed.
AT+GMR Revision:1529B02SIM7000G OK	Inquire the firmware version by AT+GMR

Note: For the detail, please refer to “SIM7000 Series_FOTA_Application Note_V1.00”.

5.2.9, MQTTS to AWS server Under NB-IOT

Grammar	Description
AT OK	AT SYNC, especially for Auto baud rate
AT+IPR? +IPR: 0 OK	By default, SIM7000 series port set with Auto baud rate
AT+CFUN=1 OK	Full functionality (Default)
AT+CPIN? +CPIN: READY OK	Check SIM card status
AT+CNMP=38 OK	Set to CAT-M+NB-IoT
AT+CMNB=2	Fix to NB-IOT

OK	
AT+CBANDCFG? +CBANDCFG: "CAT-M",20 +CBANDCFG: "NB-IOT",8,20 OK	Check Band configuration
AT+CNBS=1 OK	Set SNR level 0 band scan, to short the time for NB-IOT band scan
AT+CSQ +CSQ: 19,99 OK	Query Signal Quality
AT+COPS? +COPS: 0,0,"CHINA MOBILE CMCC",9 OK	0 User-specified GSM access technology 7 User-specified LTE M1 A GB access technology 9 User-specified LTE NB S1 access technology
AT+CPSI? +CPSI: LTE NB-IOT,Online,460-00,0x5B57,27593498,435, EUTRAN-BAND8,3738,0,0,-5,-83,-78,11 OK	Inquiring UE system information
AT+CGATT? +CGATT: 1 OK	Data Service's status Wait until get the "1" state
AT+CNACTCFG? +CNACTCFG: "IPV4" OK	IP Protocol Type Configuration Default value is IPV4
AT+CNACT=1 OK +APP PDP: ACTIVE	Open the wireless connection AT+CNACT=<mode>[,<APN>]
AT+CNACT?	Get local IP

+CNACT: 1,"100.81.245.27" OK	
AT+CFSINIT OK	Get Flash Data Buffer
AT+CFSWFILE=3,root.pem,0,1758,10000 DOWNLOAD 文件大小: 1220 波特率 115200bps 需要时间:大约 0 秒 请稍候... 发送完毕! OK	Download the CA root file into module flash
AT+CFSWFILE=3,client.pem,0,1220,10000 DOWNLOAD 文件大小: 1220 波特率 115200bps 需要时间:大约 0 秒 请稍候... 发送完毕! OK	Download the client.pem file into module flash
AT+CFSWFILE=3,client.key,0,1675,10000 DOWNLOAD 文件大小: 1220 波特率 115200bps 需要时间:大约 0 秒 请稍候... 发送完毕! OK	Download the client.key file into module flash
AT+CFSTERM OK	Free the Flash Buffer Allocated by CFSINIT
AT+CACID=0 OK	Device identification
AT+CSSLCFG="sslversion",1,3	Set the protocol type of SSL

OK	with an identifier of 1. 3 indicate TLS1.2
AT+CSSLCFG="convert",2,"root.pem" OK	Configure the type of certificate to be converted, and 2 is a root certificate. Configure the name of the certificate to be converted, and the name after the conversion is consistent with the existing certificate name.
AT+CSSLCFG=convert,1,client.pem,client.key OK	Configure the type of certificate to be converted, and 1 is client certificate. Configure the certificate name that needs to be converted, and the client certificate needs to enter the certificate file and the private key file. The name after conversion is identical to the name of the certificate,that is "client.pem".
AT+SMCONF=url,a3vyo55owhy462.iot.eu-west-1.amazonaws.com,8883 OK	Set up server URL
AT+SMCONF=clientid,simcom OK	Set MQTT Parameter
AT+SMSSL=2,root.pem,client.pem OK	Set ca certificate and cert certificate name
AT+SMCONN OK	
. . .	Subscription packet/ Send packet/ Get data on server/ Unsubscription packet etc
AT+SMDISC OK	Disconnect MQTT
AT+CNACT=0	Disconnect the wireless connection

OK +APP PDP: DEACTIVE	

Note: For the detail, please refer to “SIM7000 Series_MQTT_Application Note_V1.01”.

Contact

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