SIM300 MMS Application Note

SIM300_MMS_AN_V1.1
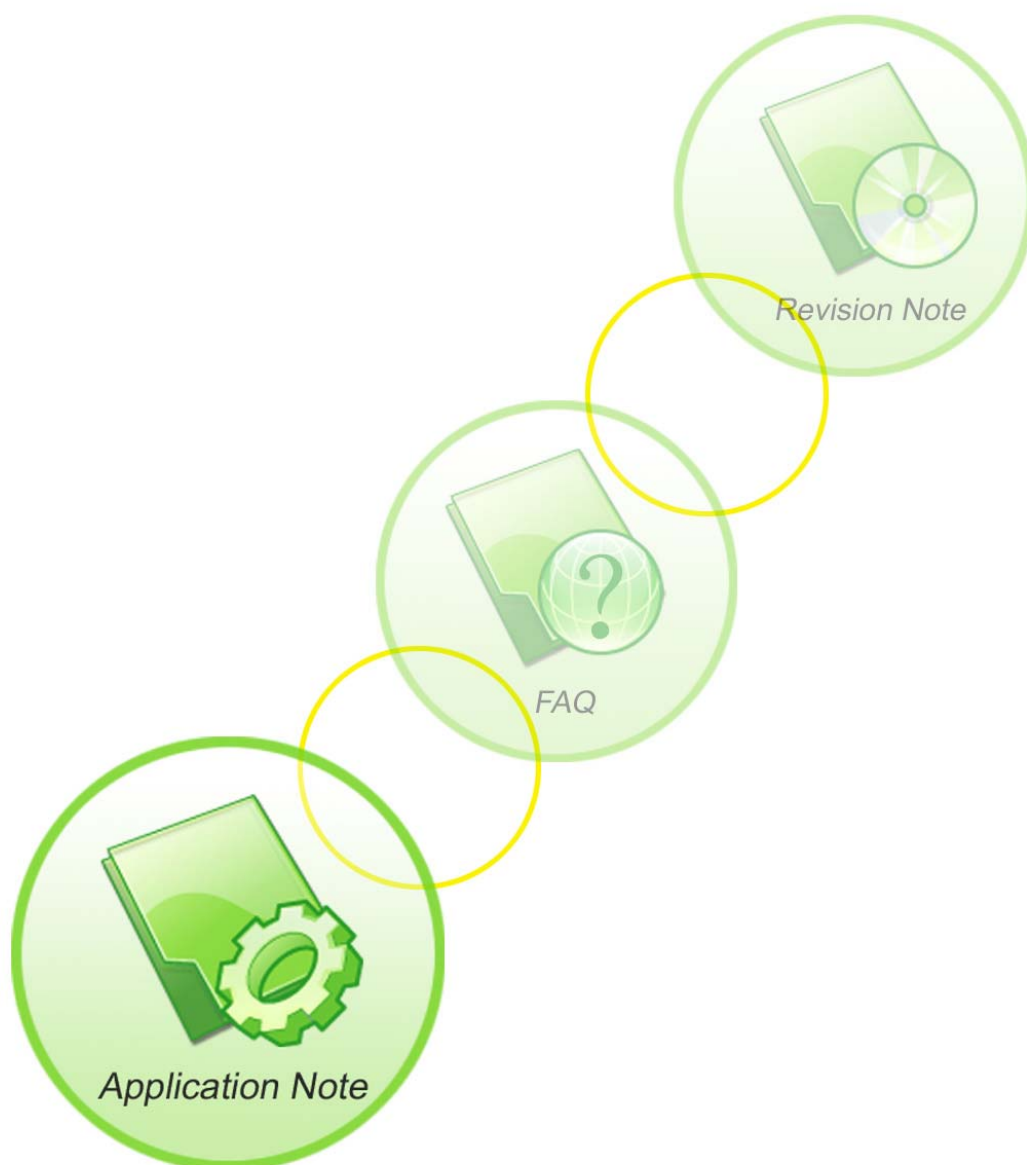
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Contents

1 Summary

SIM300_MMS module provides sending and receiving MMS functions based on SIMCom special AT commands.

This document shows customer the steps that how to operate MMS functions with SIMCom special AT commands.

1.1 Reference

[1] SIM300_MMS_ATC_V1.00
[2] SIM300_ATC_V2.01
[3] SIM300_EVB_UGD_V1.04
[4] wap-209-mmsencapsulation-20020105-a

1.2 Related AT commands

1	AT+CMMSCURL	Set the URL of the MMS center
2	AT+CMMSPROTO	Set the protocol parameter and MMS proxy
3	AT+CMMSNETCFG	Set the network parameters for MMS
4	AT+CMMSSENDCFG	Set the parameters for sending MMS
5	AT+CMMSEDIT	Enter or exit the edit mode
6	AT+CMMSDOWN	Download the file data or title from UART
7	AT+CMMSDELFILE	Delete the file of the editing MMS by file index
8	AT+CMMSSEND	Start MMS sending
9	AT+CMMSRECP	Add recipients
10	AT+CMMSCC	Add copy recipients
11	AT+CMMSBCC	Add secret recipients
12	AT+CMMSDELRECP	Delete recipients
13	AT+CMMSDELCC	Delete copy recipients
14	AT+CMMSDELBCC	Delete secret recipients
15	AT+CMMSRECV	Receive MMS
16	AT+CMMSVIEW	Get the MMS in the given mail box into buffer and show the information
17	AT+CMMSREAD	Read the given file of the MMS in the buffer
18	AT+CMMSSAVE	Save the MMS in the buffer to some mail box
19	AT+CMMSDELETE	Delete MMS in the mail box
20	AT+CMMSREADPUSH	Read the information of the MMS PUSH message

2 Preparative

1、SIM card and SIM300_MMS module should be present in SIM300 EVB;

2、 The main port of SIM300 EVB should be connected to PC;

3、 Power on the SIM300 EVB;

4、 Launch the HyperTerminal soft in PC, choose the correct COM, then configure to 115200-8-1-N;

5、 Make sure that the communication between SIM300_MMS module and HyperTerminal is OK.

3 Application

SIM300_MMS module provides MMS solution which communicates via WAP or HTTP protocol.

Unicode (little endian and big endian) and UTF8 character set are supported, also ASCII is only supported for English and numerals. SIM300_MMS module can send JPG format pictures. When receiving the title, text and picture data of MMS, module can create a MMS file automatically. You can make phone number or e-mail address as MMS destination, also save these parameters. Managing MMS mail box is easy.

SIM300 MMS protocol is based on GPRS network. So, all commands related to MMS must be executed after GPRS network attached. Make sure that after executing AT+CGATT command, the result is 1.

3.1 Configuration

Before sending or receiving MMS, please configure parameters as follow.

AT+CMMSCURL="mmsc.monternet.com"   // set URL parameter without "http://"
OK
AT+CMMSNETCFG=1, "CMWAP"   // GPRS connection, set APN to "CMWAP"
OK
AT+CMMSPROTO=1, "10.0.0.172", 80   // http protocol, set MMS proxy server
OK
AT+CMMSSENDCFG=6, 3, 0,0,2,4   //

OK

Note: the parameters of URL, APN, PROTOCOL should be set according to local network.

Note: AT+CMMSSENDCFG=<valid>, <pri>, <sendrep>, <readrep>, <visible>, <class>

Parameter	Explanation	Value	Remark
<valid>	the valid period of MMS	0	1 hour
		1	12 hours
		2	24 hours
		3	2 days
		4	1 week

		5	maximum
		6	not set (default)
<pri>	priority	0	lowest
		1	normal
		2	highest
		3	not set(default)
<sendrep>	whether to need delivery report	0	no(default)
		1	yes
<readrep>	whether to need receive report	0	no(default)
		1	yes
<visible>	whether to show sender address	0	hide
		1	show
		2	not set(default)
<class>	the class of the MMS	0	personal
		1	advertisement
		2	informational
		3	auto
		4	not set(default)

3.2 Send MMS

Please refer to steps of sending MMS below.

Call Ready   // power on, wait for this URC

Note: If SIM card is not present or requires PIN code, Call Ready will not present. It is recommended to check AT+CPIN? command result after module is powered on, if the result is Ready, then SIM card is present.

AT+CGATT?   // make sure the GPRS network attached
+CGATT: 1

OK
AT+CMMSEDIT=1   // open edit mode
OK

Note: This command is used to open edit mode before sending MMS, also used to close edit mode before receiving MMS message.

AT+CMMSDOWN="PIC", 12963, 20000   // download picture data, 12963 bytes,
                                    Time out is 20000ms; make sure this time is
                                    enough to send data completely.

Note: AT+CMMSDOWN=<type>, <size>, <time>, <name>

Type	Size (byte)	Time (ms)	Name (byte)	Remark
PIC	1-61440	>=5000	<=40	
TEXT	1-15360	>=2000	<=40	
TITLE	1-40	>=2000	<=40	

CONNECT   // module is ready for data from serial port; meanwhile, DCD is low level.

……   // receiving, data not echo

Note: data flow is from module serial port to module buffer; these data are ready for sending latter.

OK   // data receiving is finished, DCD is high level

AT+CMMSDOWN="TITLE", 3, 5000   // download TITLE data, 3 bytes, time out is 5000ms

CONNECT   // ready for data receiving from serial port

……   // data is receiving, here, for example, is "hua"

Note: here, if the data is in Unicode (big endian) format, it must be begun with "FE FF"; if the data is in Unicode (little endian) format, it must follow with "FF FE". For example, the data is "00 31 00 32 0033 0034" in big endian format, then before sending, it should be encode to "FE FF 00 31 00 32 00 33 00 34".

OK   // over, DCD is high level

AT+CMMSDOWN="TEXT", 5, 5000   // download TEXT data, 5 bytes, time out is 5000ms

CONNECT   // receiving

……   // data,for example is "ilove"

OK   // download successfully

AT+CMMSRECP="13918181818"   // add phone number as destination

OK

Note: following AT commands in blue Italy are optional

AT+CMMSCC="13564545454"   // add copy address

OK

AT+CMMSBCC="simcom@sim.com"   // add secret email address

OK

AT+CMMSDELBCC   // delete BCC address

OK

AT+CMMSDELCC   // delete CC address

OK

AT+CMMSCC="simcom@sim.com"   // add email address as secret destination

OK

AT+CMMSVIEW
+CMMSVIEW:
 2, "", "13918181818","","simcom@sim.com","2003-01-01,12:07:18","480055004100",13054
1,"image1.jpg", 7, 12963
2,"text0.txt", 4, 5

OK

Note: AT+CMMSVIEW command can get MMS information from module buffer.
The response result as below,

+CMMSVIEW:<mmstype>,"<sender>","<receipts>","<ccs>","<bccs>","<datetime>","<su
bject>","<size>",<CR><LF>list of <fileIndex, name,type, filesize><CR><LF>.

Parameter	Explanation	Value	Remark
<mmstype>	The type of MMS	0	Received mms
		1	Sent mms
		2	Unsent mms
<sender>	The address of th sender		
<receipts>	List of recipients		Separated by ";"
<ccs>	List of copy recipients		Separated by ";"
<bccs>	List of secret recipients		Separated by ";"
<datetime>	The time of receive MMS		
<subject>	The title of MMS		
<size>	Data size of MMS		

<fileIndex, name,type, filesize> list as follow,
1,"image1.jpg", 7, 12963
2,"text0.txt", 4, 5

<type> parameter as below,
2: text
3: text/html
4: text/plain
5: image
6: image/gif
7: image/jpg
8: image/tif
9: image/png
10: smil

So far, only JPG and GIF format picture data are supported.

AT+CMMSDELFILE=2
OK

Note: here, TEXT data of MMS is cancelled, that's" text0.txt".

AT+CMMSVIEW
+CMMSVIEW:
 2, "", "13918619573","","inviolet@163.com","2003-01-01,12:07:18","480055004100",13007
1,"image1.jpg", 7, 12963

OK

Note: here you can see that the second part of MMS has been cancelled.

AT+CMMSSEND   // send MMS
……   // sending, serial port will not respond any AT command
OK   // sent successfully
AT+CMMSSAVE   // save this MMS to mail box
+CMMSSAVE: 0   // saved successfully, and the index is 0

OK
AT+CMMSEDIT=0   // close edit mode, and clear the buffer

3.3 Receive MMS

+CMTI: "SIM", 11,"MMS PUSH"   // new push message indication
AT+CMMSEDIT=0   // mms can not be accepted in edit mode
OK
AT+CMMSREADPUSH=11
+CMMSREADPUSH:
2,"13564545284","","ON0rpFnTWrbB","http://211.136.113.36/ON0rpFnTWrbB","2008-07-14,13
:52:11",0,10923

OK

**Note: +CMMSREADPUSH：2,"<sender>","<subject>","<transaction>","<location>",
"<time>",<class>,<size> parameters' explanation as follow.**

Parameter	Explanation	Remark
2	m-notification-ind[4]	Maybe other value
<sender>	The address of the sender	
<subject>	The title of the MMS	
<transaction>	X-mms-Transaction-ID[4]	
<location>	X-mms-Content-Location[4]	

<time>	Date and time when the push message was received	
<class>	X-mms-class[4]	
<size>	The size of the MMS	

AT+CMMSRECV=11   // get MMS message form proxy server
+CMMSRECV: "13564545284","2008-07-14,05:52:43","",10888
1,"6.JPG",7,10427
2,"__.txt",4,6
3,"pres.smil",10,366

OK
AT+CMMSSAVE
+CMMSSAVE: 1

OK

Note: this MMS message is saved to index 1 location in mail box. The mail box can only store two MMS message.

3.4 Manage MMS mail box

AT+CMMSDELETE?
+CMMSDELETE: 2

OK

Note: Total MMS messages can be checked by this AT command. The index is from 0.

AT+CMMSREAD=1
+CMMSREAD: "6.JPG", 10427
……   // picture data
OK

Note: Read the second MMS message in the mail box.

AT+CMMSDELETE=1
OK

Note: The second MMS message is deleted by this AT command.

   [End]

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