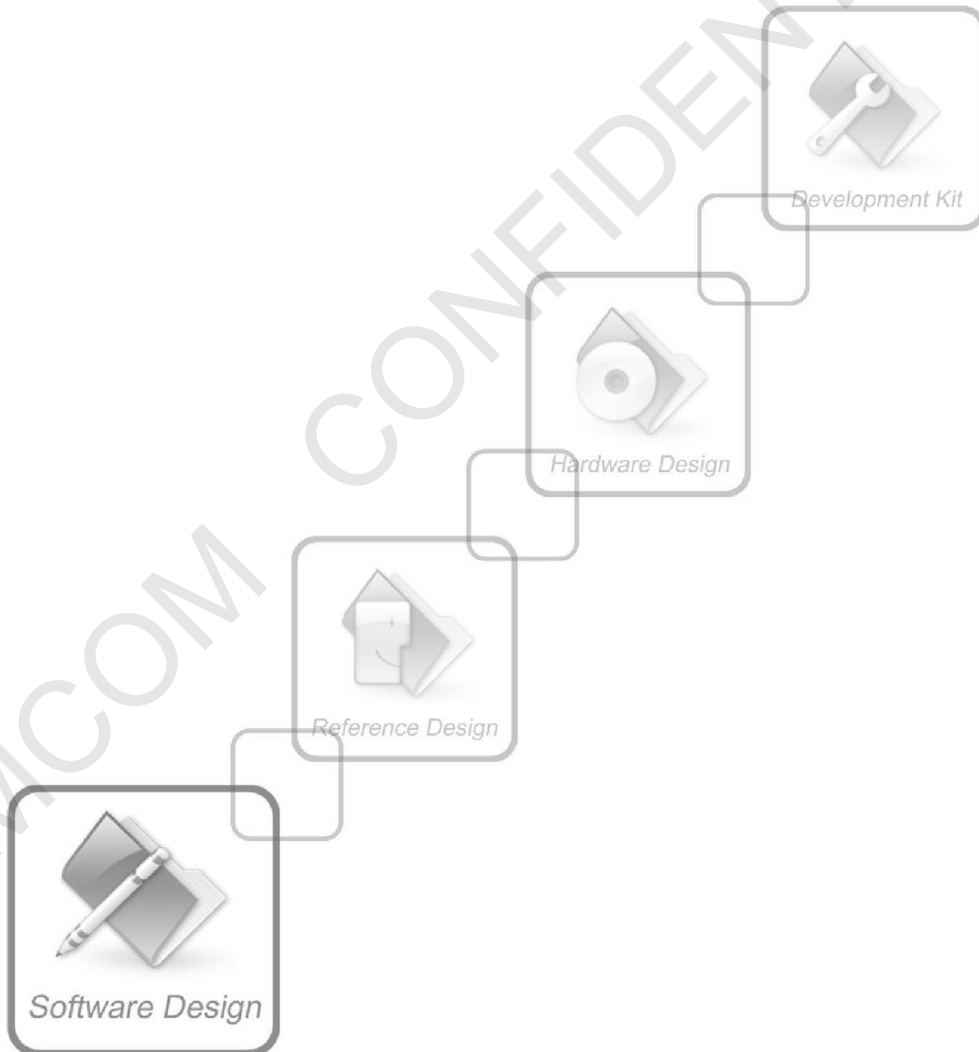

SIM5300E_MMS_Application Note



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SCOPE

This document describes how to use the internal MMS function of SIM5300E through AT commands.

Examples are also given for reference.

This document can be used for SIM5300E.

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1. INTRODUCTION

This document presents the AT command of MMS operation for SIM5300E.

SIM5300E supports sending and receiving MMS only through HTTP protocol.

- Unicode (both little endian and big endian) and UTF8 are character sets supported and ASCII is supported only for English and numerals.
- The maximum data size of an MMS is 300 Kbytes.
- The maximum size of an image file is 300 Kbytes.
- The maximum size of a text file is 15360 bytes.
- The maximum number of files to be enclosed is 10.
- It is necessary to input text data into modem with header of Unicode (both little endian and big endian, “FF FE” is the header for Unicode little endian and “FE FF” is the header for Unicode big endian)
- It includes “MMS PUSH” in “+CMTI: ...” when the received short message is a MMS push message (either M-Notification.ind or M-Delivery.ind [2]).
- If the current received MMS push message is a concatenated message, it will include “,<m>,<n>” after “MMS PUSH”. <m> is the total number of the parts of the concatenated message and <n> is the index of the current part in the whole concatenated message. For example: +CMTI: "SM",1,"MMS PUSH",2,1. In the URC, 2 means the concatenated push message include two parts and 1 means the current message is the first part. When all the parts of the concatenated push message have been received, it will prompt “+CMTI: ...” URC with “MMS PUSH” and without “,<m>,<n>”. For example: +CMTI: "SM",1,"MMS PUSH"
- X-profile parameters need to be configured for some MMS server, or some problems like image compression error may occur, also the x-profile address which is not configured by default should be set according to the customer’s own hardware environment.
- The output text from the modem is encoded with little-endian Unicode, but the head of Unicode is omitted.
- It is highly recommended that the parameter <subject> of “AT+CMMSENDCFG” be set to “2” if not used in china.

1.1 REFERENCE

[1] SIM5300E AT Commands Set

1.2 GLOSSARY

| | |
|------|---|
| MMS | multimedia short message |
| URL | Uniform Resource Locator |
| UART | Universal Asynchronous Receiver and transmitter |
| PDU | Protocol Data Unit |

2. EXAMPLES

SIM5300E_MMS module provides MMS solution which communicates via HTTP protocol.

Unicode (little-endian and big-endian) and UTF8 character set are supported, also ASCII is only supported for English and numerals. SIM5300E_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.

2.1 INITIALIZATION

```
AT+CMMSINIT //First entering the mms function, this command must be executed.
OK
```

2.2 CONFIGURATION

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

```
AT+CMMSURL="mmsc.monternet.com" //Set the MMS center URL without "http://"
OK

AT+CMMSCID=1 //Set bearer context id
OK

AT+CMMSPROTO="10.0.0.172",80 //Set the IP address and port of MMS proxy to "10.0.0.172" and 80.
OK

AT+CMMSSENDCFG=6,3,0,0,2,4 //Set the parameter for the MMS PDU to send. This is unnecessary to set.
About the details of these parameters, please refer to [2].
OK
```

2.3 ACTIVE BEARER PROFILE

```

AT+SAPBR=3,1,"Contype","GPRS" //Set bearer parameter
OK

AT+SAPBR=3,1,"APN","CMWAP"
OK

AT+SAPBR=1,1 //Active bearer context
OK

AT+SAPBR=2,1
+SAPBR: 1,1,"10.89.193.1"

OK

```

2.4 SEND MMS

```

AT+CMMSEDIT=1 //Enter edit mode to edit MMS
OK

AT+CMMSDOWN="PIC",12963,20000 //Download an image whose size is 12963 Bytes and the maximum latency
time for downloading is 20000 ms. It is recommended to set the latency time as long as enough to download all the data in the
latency time.
CONNECT //This means it is ready to receive data from UART. And DCD has been set to low.
..... //Receive data from UART without echo.
Note: data flow is from module serial port to module buffer; these data are ready for sending latter.
OK //This means all data has been received over, and DCD is set to high.

AT+CMMSDOWN="TITLE",3,5000 //Download a title for the MMS, it is not necessary to download a title for the MMS.
CONNECT //It is similar with downloading an image.
... ..
OK // data is received here, for example, is "hua"

AT+CMMSDOWN="TEXT",5,5000 //Download a text whose size is 5 Bytes and the maximum latency time is 5000
ms. Same as downloading an image, it is recommended to set the latency time long enough.
CONNECT //It is similar to the previous downloading operations.
.....
Note: here, if the data is in Unicode (big endian) format, it must begin 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 00 33
00 34" in big endian format, then before sending, it should be encode to "FE FF 00 31 00 32 00 33 00
34".

```

OK // data, for example is "ilove"

AT+CMMSRECP="13918181818" //Add the first recipient.

OK //Successfully to add a recipient.

Note: following AT commands in italics are optional

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

OK

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

OK

AT+CMMSDELBC // delete BCC address

OK

AT+CMMSDELCC // delete CC address

OK

AT+CMMBCC="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

AT+CMMSDELFILE=2

OK

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

AT+CMMSVIEW

+CMMSVIEW:

2, "", "13918619573", "", "simcom@sim.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 to any AT command

OK

// sent successfully

AT+CMMSEDIT=0

//Exit from edit mode and the MMS in buffer will be cleared up.

OK

2.5 RECEIVE MMS

```

+CMTI: "SM",3,"MMS PUSH"           //received a MMS push message
AT+CMMSEDIT=0                     //exit edit mode. It is not allowed to receive MMS in edit mode.
OK

AT+CMMSRCV=3                       //Receive the MMS from the MMS proxy
+CMMMSRCV: "+8613818181818", "2008-05-02, 03:38:12", "", 26670
1, "image0.jpg",7,26625

OK                                   //Successfully receives the MMS and the MMS includes the file "image0.jpg"
whose size is 26625 Bytes. The sender is "+8613818181818". The size the MMS body is 26670 Bytes.

AT+CMGD=3                           //Delete the MMS push message.
OK

```

2.6 RECEIVE MMS WHEN THE MMS PUSH MESSAGE IS A CONCATENATED MESSAGE

```

+CMTI: "SM",1,"MMS PUSH",2,1       //receive the first part of a concatenated MMS push message which includes two parts
+CMTI: "SM",2,"MMS PUSH",2,2       //receive the second part of a concatenated MMS push message which include
two parts
+CMTI: "SM",1,"MMS PUSH"             //receive all the parts of the concatenated MMS push message

AT+CMMSEDIT=0                       //exit edit mode. It is not allowed to receive MMS in edit mode.
OK

AT+CMMSRCV=1                         //Receive the MMS from the MMS proxy
+CMMMSRCV: "+85266097746", "2009-04-15,10:41:21", "",49
1,"text0.txt",4,7

OK

AT+CMGD=1                             //Delete the MMS push message and all the parts of the concatenated MMS push message will be deleted.
OK

```

2.7 READ A FILE OF MMS

```
AT+CMMSREAD=1 //The parameter 1 is the index of the file in the MMS. Please refer to the response of AT+CMMSRECV=3.  
+CMMSREAD: "image0.jpg", 26625//Include file name and size  
..... //The data of the file "image0.jpg"  
  
OK //All the data of the file has been read over
```

2.8 EXIT MMS FUNCTION

```
AT+CMMSTERM // Exiting the MMS function  
OK
```

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