GSM MMS

AT Commands Manual

GSM/GPRS Module Series

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About the Document

History

Revision	Date	Author	Description
1.0	2009-08-07	Jay XIN	Initial
1.01	2009-09-18	Jay XIN	1. Added error code 3962. 2. Modified “AT+QMMCFG“ default value. 3. Added “AT+QMMPRI” command.
1.02	2009-11-25	Jay XIN	1. Modified “+QMMRECV:(1-20),(1) ” 2. Removed “The maximum size of UFS is 100 Kbytes”. 3. Modified “AT+QFUPL” description.
1.03	2009-12-31	Jay XIN	Added GMT time description in “AT+QMMRM”
1.1	2010-11-20	Jay XIN	4. Removed AT+QFXXX command, please refer to document [4] GSM_FILE_ATC. 5. Added “Reliable transmission”. 6. Added “AT+QMMDUR” command. 7. Removed “The maximum number of ‘append file’ is 6”. 5. Added AT+QMMSMS. Added AT+QMMCTYP. Added AT+QMMFTYP.
1.2	2015-05-08	Thomas ZHANG	Added applicable modules
1.3	2017-11-13	Sherlock ZHAO	Modified the default value of AT+QMMSMS.

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1 Introduction

Quectel module provides MMS application interface for sending and receiving messages including multimedia objects (image, audio, rich text, etc.). This document is a reference guide to all the AT commands defined for MMS.

This document is applicable to all Quectel GSM modules.

1.1. General Description

Quectel GSM module supports to transfer MMS message over HTTP protocol. The MMS service supports the following character sets: US-ASCII, UTF8, UCS2 (Big Endian) and GBK. It is recommended to use PDU (HEX) mode to input MMS message title if the character set is not US-ASCII.

TA will switch to data mode after executing **AT+QMMRR** command. To switch back to AT mode, please input "**+++**" and this will terminate the current MMS AT command. The interval time between the first "+" and the character before the first "+" must not be less than 500ms, the interval time between the last "+" and the character next to the last "+" must not be less than 500ms and the interval time between each "+" must be less than 1000ms.

1.2. AT Command Syntax

Test Command	**AT+<*x*>=?**	This command returns the list of parameters and value ranges set by the corresponding Write Command or internal processes.
Read Command	**AT+<*x*>?**	This command returns the currently set value of the parameter or parameters.
Write Command	**AT+<x>=<…>**	This command sets the user-definable parameter values.
Execution Command	**AT+<x>**	This command reads non-variable parameters affected by internal processes in the GSM engine.

2 Description of MMS AT Commands

2.1. AT+QMMURL Set the URL of MMSC

AT+QMMURL Set the URL of MMSC	
Test Command **AT+QMMURL=?**	Response **+QMMURL: "URL"** **OK**
Read Command **AT+QMMURL?**	Response **+QMMURL: <mmsc url>** **OK**
Write Command **AT+QMMURL=<mmsc url>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<mmsc url>	The URL of MMSC. The maximum length of the parameter is 100 bytes.
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.2. AT+QMMPROXY Set the Proxy of MMS

AT+QMMPROXY Set the Proxy of MMS	
Test Command **AT+QMMPROXY=?**	Response **+QMMPROXY:** **(1),"(0-255).(0-255).(0-255).(0-255)",(0-65535)** **OK**

Read Command **AT+QMMPROXY?**	Response **+QMMPROXY: <type>,<gateway>,<port>** **OK**
Write Command **AT+QMMPROXY** **=<type>,<gateway>[,<port>]**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<type>	Protocol type. The protocol type is HTTP protocol. The default value is 1.
<gateway>	IP address of MMS proxy.
<port>	Port of MMS proxy. The range is 0-65535, and the default value is 80.
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.3. AT+QMMCFG Configure Parameters for Sending MMS Message

AT+QMMCFG Configure Parameters for Sending MMS Message	
Test Command **AT+QMMCFG=?**	Response **+QMMCFG:** (list of supported **<valid>**s),(list of supported **<pri>**s),(list of supported **<sendrep>**s),(list of supported **<readrep>**s),(list of supported **<visible>**s),(list of supported **<class>**s) **OK**
Read Command **AT+QMMCFG?**	Response **+QMMCFG:** **<valid>,<pri>,<sendrep>,<readrep>,<visible>,<class>** **OK**
Write Command **AT+QMMCFG=<valid>[,<pri>][,<sendrep>][,<readrep>][,<visible>][,<class>]**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<valid>	The validity period of MMS message 0 1 hour 1 12 hours 2 24 hours 3 2 days 4 1 week 5 Maximum 6 Use the network configuration
<pri>	Priority 0 Low 1 Normal 2 High 3 Use the network configuration
<sendrep>	Whether to send report. 0 Do not need delivery report 1 Need delivery report
<readrep>	Whether to read report 0 No 1 Yes
<visible>	Indicate whether to hide address 0 Hide any address 1 Show even secret address 2 Use the network configuration
<class>	The class of the MMS message 0 Personal 1 Advertisement 2 Informational 3 Auto 4 Use the network configuration
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.4. AT+QMMSCS Set Character Sets and Input Mode

AT+QMMSCS Set Character Sets and Input Mode	
Test Command **AT+QMMSCS=?**	Response **+QMMSCS:** (list of supported **<charset>**s),(list of supported **<input mode>**s) **OK**

Read Command **AT+QMMSCS?**	Response **+QMMSCS: <charset>,<input mode>** **OK**
Write Command **AT+QMMSCS=<charset>[,<input mode>]**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<charset>	A string parameter which indicates the type of character sets:	
	"ASCII"	US-ASCII character set
	"UTF8"	UTF8 character set
	"UCS2"	ISO-10646-UCS-2 character set; this needs to specify Big Endian order.
	"GBK"	GBK character set
<input mode>	The mode to input or view MMS message title.	
	0	PDU (HEX) mode
	1	Text (BIN) mode
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.	

NOTE

The parameter settings of this command affect the following commands:

- **AT+QMMSW=4,1** which is used to input MMS message title.
- **AT+QMMSW=4** which is used to view MMS message title.
- **AT+QMMSW=5,1** which is used to append a text file "test.txt".

2.5. AT+QMMSW Write MMS Message

AT+QMMSW Write MMS Message	
Test Command **AT+QMMSW=?**	Response **+QMMSW:** (list of supported **<function>**s) **OK**
Write Command 1) If MMS title is written (**<function>**=4 and **<operate>**=1): **AT+QMMSW=<function>,<operate>** After response “>”, input the data to be	Response If the operation is successful, response: **OK** If there is an error related to ME functionality:

sent. Tap CTRL+Z to send, and tap ESC to cancel the operation. 2)Otherwise: **AT+QMMSW=<function>[,<operate>][,<oprstring>]**	**+CME ERROR: <err>**

Parameter

<function>	Operation type	
	0	Clean all the content of MMS message
	1	Operate “TO address”
	2	Operate “CC address”
	3	Operate “BCC address”
	4	Operate title
	5	Operate file appended
<operate>	It is omitted if **<function>** is 0.	
	0	Clean
	1	Write
<oprstring>	It is address string if **<function>** is 1, 2 or 3, the length of which must be less than 50. It is file name if **<function>** is 5, the length of which must be less than 13.	
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.	

NOTES

1. The maximum quantity of "TO address", "CC address" and "BCC address" is 6.
2. Address could be a subscriber number or an email address (e.g. info@quectel.com).
3. The file to be appended must have been stored in UFS. It is strongly recommended that DOS 8.3 format should be used for the file name.
4. The maximum length of MMS message title is 100.
5. The character set of the MMS message title or the contents of a text file are specified by **AT+QMMSCS**. For example, If the contents of a text file uses UTF8 character set, **AT+QMMSCS="UTF8", 0** must be executed firstly.

2.6. AT+QMMSEND Send MMS Message

AT+QMMSEND	**Send MMS Message**
Test Command **AT+QMMSEND=?**	Response **+QMMSEND:** (list of supported **<operate>**s) **OK**

Write Command **AT+QMMSEND=<operate>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**
Maximum Response Time	75s

Parameter

<operate>	Operation type. 1 Start to send.
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

NOTES

1. The response **OK** means starting to send MMS message. When MMS message sending has finished, an unsolicited result code "**+QMMNOTIFY: 1,<mms index>,<error code>**" will be returned.
2. If **<error code>** equals to 0, it means sending MMS message successfully.

2.7. AT+QMMRM Manage the Received MMS Message

AT+QMMRM Manage the Received MMS Message	
Test Command **AT+QMMRM=?**	Response **+QMMRM:** (list of supported **<operate>**s) **OK**
Write Command **AT+QMMRM=<operate>[,<from>][,<to>]**	Response If **<operate>**=1 is to list MMS message, response: **+QMMRM:<mms index>,<from address>,<ind>,<date>,<time>,<message size>[…]** **OK** Otherwise **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<operate>	Operation type 0 Delete MMS message 1 List MMS message
<from>	The beginning of the MMS message to be operated. The minimum value of the parameter is 1.
<to>	The end of the MMS message to be operated. The minimum value of the parameter is 1.
<mms index>	The index of MMS message
<from address>	Origination address
<ind>	Whether the MMS message is downloaded successfully. 0 Failed to download the MMS message 1 Successfully download the MMS message
<date>	Download date. Its format is MM/DD/YYYY. E.g.“07/25/2009”(GMT)
<time>	Download time. Its format is HH:MM:SS. E.g.“10:25:56”(GMT)
<message size>	MMS message size in bytes
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.8. AT+QMMRR Read a Received MMS Message

AT+QMMRR Read a Received MMS Message	
Test Command **AT+QMMRR=?**	Response **+QMMSRR:** (list of supported **<operate>**s) **OK**
Write Command **AT+QMMRR=<operate>[,<mms index>][,<para>][,<file name>]**	Response The following is the format to view "Origination address", "TO address" and "CC address" (**<operate>**=1,2, or 3; **<para>** is omitted): **+QMMRR: 1,<address>** **OK** The following is the format to view MMS message title (**<operate>**=4): **+QMMRR: 4,<charset>,<title data>** **OK** The following is the format to list append file (**<operate>**=5; **<para>** is omitted):

	+QMMRR: 5,<file index>,<file name>,<charset>,<file size> **[…]** **OK** The following is the format to read the content of a file (AT command **AT+QMMRR=6, <mms index>,<para>** is entered): **CONNECT** TA switches to data mode, and the bin data of the file will be outputted. After the file is read, TA will return to command mode and reply the following codes: **+QMMRR: 6,<download size>,<checksum>** **OK** The following is the format to copy the content of file to UFS (AT command **AT+QMMRR=6,<mms index>,<para>,<file name>** is entered): **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<operate>	Operation type 1 View origination address 2 View “TO address” 3 View “CC address” 4 View MMS title 5 List “Append file” 6 Read append file data of MMS message
<mms index>	Serial number of receiving MMS message. The minimum value of the parameter is 1.
<para>	If **<operate>** is 6, it indicates file index. If **<operate>** is 4, it indicates output mode. 0 PDU (HEX) mode 1 Text (BIN) mode If **<operate>** is not 4 or 6, **<para>** is omitted.
<file name>	It is valid only if **<operate>** is 6
<download size>	The size of the downloaded data
<checksum>	The checksum of the downloaded data. **<checksum>** is 16 bit checksum based on bitwise XOR.
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.9. AT+QMMRECV Receive an MMS Message from MMSC

AT+QMMRECV Receive an MMS Message from MMSC	
Test Command **AT+QMMRECV=?**	Response **+QMMRECV:** (list of supported **<mms index>**s),(list of supported **<operate>**s) **OK**
Write Command **AT+QMMRECV=<mms index >,<operate>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<mms index>	MMS message index which starts from 1
<operate>	Operation type 1 Start to receive MMS message
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

NOTES

1. The response **OK** means starting to receive MMS message. When MMS message receiving has finished, an unsolicited result code "**+QMMNOTIFY: 2,<mms index>,<error code>**" will be returned.
2. If **<error code>** equals to 0, it means receiving MMS message successfully.

2.10. AT+QMMPRI Set Priority of MMS Message and Call

AT+QMMPRI Set Priority of MMS Message and Call	
Test Command **AT+QMMSRI=?**	Response **+QMMSRI:** (list of supported **<pri>**s) **OK**
Read Command **AT+QMMSRI?**	Response **+QMMSRI: <pri>** **OK**
Write Command **AT+QMMSRI=<pri>**	Response **OK**

	If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<pri>	Priority 0 Call has higher priority than MMS message 1 MMS message has higher priority than call
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.11. AT+QMMDUR Set DUR Attribute Value in the SMIL Script

AT+QMMDUR Set DUR Attribute Value in the SMIL Script	
Test Command **AT+QMMDUR=?**	Response **+QMMDUR:** (list of supported **<durattribute>**s) **OK**
Read Command **AT+QMMDUR?**	Response **+QMMDUR: <durattribute>** **OK**
Write Command **AT+QMMDUR=<durattribute>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<durattribute>	DUR attribute value. The range is 0-4294967295, and the default value is 120000. Unit: ms.
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

2.12. AT+QMMSMS Set MMS's SMS Transactor

AT+QMMSMS Set MMS's SMS Transactor	
Test Command **AT+QMMSMS=?**	Response **+QMMSEND:** (list of supported **<smstosim>**s) **OK**
Read Command **AT+QMMSMS?**	Response **+QMMSMS: <smstosim>** **OK**
Write Command **AT+QMMSMS=<smstosim>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<smstosim>	Set MMS's SMS transactor to handle the received MMS 0 Handle the received MMS as MMS messages 1 Handle the received MMS as SMS messages
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

NOTE

When **AT+QMMSMS=1**, all the MMS AT commands in this document cannot be used to download and read the MMS.

2.13. AT+QMMCTYP Enable to Output TEXT in UCS2

AT+QMMCTYP Enable to Output TEXT in UCS2	
Test Command **AT+QMMCTYP=?**	Response **+QMMCTYP:** (list of supported **<enableucs2>**s)**,**(list of supported **<bigendian>**s) **OK**
Read Command **AT+QMMCTYP?**	Response +QMMCTYP: <enableucs2>,<bigendian>

	OK
Write Command **AT+QMMCTYP=<enableucs2>,<bigendian>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**

Parameter

<enableucs2>	Whether to enable to output TEXT in UCS2 or not 0 Disable 1 Enable
<bigendian>	Endianness 0 UCS2 big endian 1 UCS2 little endian
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

NOTE

If **<enableucs2>** is set as 1, when reading MMS, the following content will be outputted as UCS2 format:

1) Title with ASCII and UTF8 encoding (when MMS is read by **AT+QMMRR=4,<mms index>[,<output mode>]**)
2) Text file with UTF8 encoding (when MMS is read by **AT+QMMRR=5,<mms index>** and **AT+QMMRR=6,<index>,<fileindex>**).

The following example shows the details about the NOTE above.

Example

```
1) Set AT+QMMCTYP=0,0
AT+QMMRR=4,1                    //Read ASCII TXT MMS title.
+QMMRR: 4,"ASCII",6D7574692066696C6500

OK
AT+QMMRR=5,1                    //List appended file list +QMMRR: 5,1,"s.smil","UTF8",880,13.
+QMMRR: 5,2,"cont1.txt","UTF8",5,3

+QMMRR: 5,5,"pic1.jpg","",17068,7

OK
AT+QMMRR=6,1,2                  //Read UTF8 file.
test1
```

```
+QMMRR: 6,5,3611

OK

2) Set AT+QMMCTYP=1,1
AT+QMMRR=4,1                    //Output MMS title using UCS2 encoding.
+QMMRR: 4,"UCS2","6D007500740069002000660069006C0065000000"

OK
//List appended file list. For UTF8 file, <charset> and <file size> are changed to UCS2 attributes.
AT+QMMRR=5,1
+QMMRR: 5,1,"s.smil","UCS2",1760,13

+QMMRR: 5,2,"cont1.txt","UCS2",10,3

+QMMRR: 5,5,"pic1.jpg","",17068,7

OK
AT+QMMRR=6,1,2                  //Use UCS2 format to output TXT file content.
test1
+QMMRR: 6,10,2700

OK
```

2.14. AT+QMMFTYP Output File Style

AT+QMMFTYP Output File Style	
Test Command **AT+QMMFTYP=?**	Response **+QMMFIYP:** (list of supported **<outputstyle>**s) **OK**
Read Command **AT+QMMFTYP?**	Response **+QMMFTYP: <outputstyle>** **OK**
Write Command **AT+QMMFTYP=<outputstyle>**	Response **OK** If there is an error related to ME functionality: **+CME ERROR: <err>**
Reference	When set **AT+QMMFTYP=1**, run **AT+QMMRR=5,<mmsindex>**

	to list file, respond: **+QMMRR: 5,<fileindex>,<file name>,<charset>,<filesize>,<filetype>** Parameter description: **<filetype>:** 0 Unknown type 1 Text 2 Text/html 3 Text/plain 4 Text/xml 5 Image 6 Image/gif 7 Image/jpeg 8 Image/tiff 9 Image/pnp 10 Image/wbmp 11 Audio 12 Video 13 SMIL

Parameter

<outputstyle>	Whether to output file style 0 Not output 1 Output
<err>	Integer type. The error code of the operation. Please refer to ***Chapter 7***.

3 Description of URC

URC	Meaning
+QMMNOTIFY: 1,<mms index>,0	Sending MMS message successfully, and **<mms index>** is 0.
+QMMNOTIFY: 1,<mms index>,<error code>	Sending MMS message failed, and **<mms index>** is 0. For **<error code>**, please refer to ***Chapter 7***.
+QMMNOTIFY: 2,<mms index>,0	Receiving MMS message successfully.
+QMMNOTIFY: 2,<mms index>,<error code>	Receiving MMS message failed. For **<error code>**, please refer to ***Chapter 7***.
+QMMNOTIFY: 3,<mms index>,0	A new MMS message has arrived, and **AT+QMMRECV** can be used to receive it.
+QMMNOTIFY: 4,0,<error code>	Received a Service Indication (SI) message. For example, when a new MMS message has arrived, but it has not been received via the command **AT+QMMRECV**, MMSC will send an SI message to inform customers. Of course, other service applications also send SI messages, such as push email, stock information, news, or some advertising, etc. Customers can ignore these messages.

4 Reliable Transmission

For reliable transmission when using "**AT+QMMRR=6, …**" command to download the content of a file, it's recommended that users turn on hardware flow control capabilities, while also open MCU hardware flow control function. Use **AT+IFC=2,2<CRLF>** command to open the hardware flow control function.

Generally, serial transmission is reliable, bur for further reliability, Quectel provides additional ways to verify the data transmission reliability by the command's response information.

When using "**AT+QMMRR=6, …**" command to download a file, the module will report "**+QMMRR: 6,<download size>,<checksum>**" information tips at the end of data transmission. Then MCU can judge whether the data has been lost by comparing the value of **<download size>** and **<checksum>**.

<download size> is the data length that the module downloaded. MCU compares **<download size>** with the actual length of the file that MCU has received. If the two unequal, it means the module lost data.

<checksum> is calculated by doing XOR for every 2 bytes. Similarly MCU calculates the actual file's checksum as the example below, and then compares this value with **<checksum>** which module reports. If the two checksums are not equal, the received data may be problematic. Users can re-download data.

Example for calculating checksum:
If the data length of the downloaded file is 9, the 16 hex values are as follows:
0x23 0x13 0x65 0x B6 0x76 0x88 0xA3 0xEF 0x55

So, checksum is calculated as follows:
checksum = 0x2313 XOR 0x65B6 XOR 0x7688 XOR 0xA3EF XOR 0x5500

Every two data form a group and do XOR with another group. If the last group is less than 2 bytes, supplement it with 0x00.

5 Examples

5.1. Configure Parameters

```
AT+QIFGCNT=0
OK

AT+QICSGP=1,"CMWAP"                          //Set APN.
OK

AT+QMMURL=”http://mmsc.monternet.com”        //Set the MMSC URL.
OK

AT+QMMPROXY=1,“10.0.0.172”,80                //Use HTTP protocol to send MMS message. Set the IP
                                             address and port of MMS proxy to “10.0.0.172” and 80.
OK
```

5.2. File Transmission Operation

For more details, please refer to ***document [4]***.

```
AT+QFUPL=”test.txt”,3222                     //Upload the text file test.txt.
CONNECT
<input file bin data>
+QFUPL: 3222,B3E4

OK

AT+QFDWL=”test.txt”                          //Download the file test.txt.
CONNECT
<output file bin data>
+QFDWL: 3222,B3E4

OK

AT+QFUPL=”test2.txt”,4222                    //Upload the text file test2.txt.
```

```
CONNECT
<input file bin data>
+QFUPL: 4222,13E4

OK

AT+QFUPL=”pic1.jpg”,13222          //Upload the picture file pic1.jpg.
CONNECT
<input file bin data>
+QFUPL: 13222,D5E4

OK
```

5.3. Write and Send an MMS Message

```
AT+QMMSW=0                         //Clean the content of MMS message.
OK

AT+QMMSW=1,1,"13072168083"         //Add the first "TO address".
OK

AT+QMMSW=1,1,"13156789900"         //Add the second "TO address".
OK

AT+QMMSW=1,1,”jay.xin@yahoo.com”   //Add the third "TO address".
OK

AT+QMMSCS="UTF8",1                 //The character set is UTF8, and the input mode is Text
                                   (BIN) mode.
OK

AT+QMMSW=4,1                       //Input MMS message title.
>abcd<Ctrl-Z>
OK

AT+QMMSW=5,1,"pic1.jpg"            //Add the first file to MMS message, and this file is jpg
                                   file.
OK

AT+QMMSCS="UTF8"                   //Character set must be selected before adding text file.
OK

AT+QMMSW=5,1,"test.txt"            //Add the second file to MMS message, and the character
```

```
                                        set of this file is UTF8
OK

AT+QMMSW=5,1,"test2.txt"                //Add the third file to MMS message, and the character
                                         set of this file is UTF8
OK

AT+QMMSEND=1                            //Send the MMS message.
OK

+QMMNOTIFY: 1,0,0                       //Send the MMS message successfully.

AT+QIDEACT                              //Deactivate GPRS context.
DEACT OK
```

5.4. Receive MMS Message

```
+QMMNOTIFY: 3,1          //Receive an MMS push message, indicating a new MMS, and the index is 1.
AT+QMMRECV=1,1           //Receive MMS message from MMSC.
OK

+QMMNOTIFY: 2,1,0        //Receive MMS message successfully.

AT+QIDEACT               //Deactivate GPRS context.
DEACT OK
```

5.5. Manage Received MMS Message

```
AT+QMMRM=1                                          //List MMS message.
+QMMRM: 1,"+8613950062882",1,"7/23/2009","0:39:4",3745

OK

AT+QMMRR=1,1                                        //Read MMS message “Original address”.
+QMMRR: 1,” +8613950062882”

OK

AT+QMMRR=4,1,1                                      //Read MMS message title.
+QMMRR: 4,”UTF8”,”abcde”

OK
```

```
AT+QMMRR=5,1                    //List the files in the MMS message.
+QMMRR: 5,1,"test.txt","UTF8",3222    //It includes one file whose index is 1.

OK

AT+QMMRR=6,1,1                  //Get the data of the file 1 (defined by the second "1" in
                                the parameter) in the MMS 1 (defined by the first "1" in
                                the parameter).
CONNECT
<output file bin data>
+QMMRR: 6,3222,B3E4

OK
```

6 Appendix A Reference

Table 1: Related Documents

SN	Document Name	Remark
[1]	Quectel_Mxx_AT_Commands_Manual	The introduction of AT commands for Mxx modules
[2]	Quectel_GSM_TCP(IP)_Application_Note	The introduction of how to use the internal TCP/IP stack for GSM modules
[3]	wap-209-mmsencapsulation-20020105-a	WAP MMS protocol standard package of documents
[4]	Quectel_GSM_File_AT_Commands_Manual	The introduction of the AT commands of the file system for GSM modules

Table 2: Terms and Abbreviations

Abbreviation	Description
BIN	Output/input data is the content of the binary data
DUR	The DUR attribute defines the duration of displaying file in SMIL script
HEX	"HEX" Character strings consist only of hexadecimal numbers from 00 to FF, e.g. string “Hello” HEX is “48656C6C6F”
MCU	Microcontroller Unit
MMS	Multimedia Message Service
MMSC	Multimedia Message Service Center
MMS Proxy-Relay	A server which provides access to various messaging systems. It may operate as WAP origin server in which case it may be able to utilize features of the WAP system
SMIL	Synchronized Multimedia Integration Language
URL	Uniform Resource Locator
UFS	User File Storage

XOR	Exclusive OR

7 Appendix B Summary of Error Codes

Final result code **+CME ERROR: <err>** indicates an error related to mobile equipment or network. The operation is similar to **ERROR** result code. None of the following commands in the same command line is executed. Neither **ERROR** nor **OK** result code shall be returned. The listed **<err>** codes here are just related with MMS. About other **<err>** codes, please refer to ***document [1]***.

Table 3: Different Coding Schemes of +CME ERROR: <err>

Code of <err>	Meaning
3901	Timeout
3902	URL too long
3903	Invalid URL
3904	Unsupported proxy
3905	Invalid proxy address
3906	IP address error
3907	DNS error
3908	Parameter error
3909	TO addresses exceeded
3910	CC addresses exceeded
3911	BCC addresses exceeded
3912	Appended file capacity exceeded
3913	File name too long
3914	The number of files exceeded
3915	Non-existent address
3916	UFS storage full

3917	Drive full
3918	Drive error
3919	File not found
3920	Invalid file name
3921	File already existed
3922	Failed to create file
3923	Failed to write file
3924	Failed to open file
3925	Failed to read file
3926	MMS busy
3927	Sending MMS busy
3928	Sending MMS stopped
3929	Already stopped to send
3930	Receiving MMS busy
3931	Receiving MMS stopped
3932	Already stopped to receive
3933	HTTP response failure
3934	Invalid MMS response
3935	MMS response error
3936	Invalid push message
3937	Already downloaded
3938	Network busy
3939	Failed to open network
3940	Network no configured
3941	Network deactivated
3942	Network error

3943	Network shutdown
3944	UART busy
3945	UART escaped
3946	Failed to create socket
3947	Failed to connect socket
3948	Failed to read socket
3949	Failed to write socket
3950	Socket closed
3951	MMS length error
3952	Failed to encode MMS
3953	Failed to decode MMS
3954	Failed to decode HTTP
3955	Failed to decode push message
3956	PDU (HEX) align error
3957	PDU (HEX) character error
3958	String too long
3959	MMS full
3960	Non-existent MMS
3961	Invalid address
3962	Voice call busy
3963	ALLOC memory failed
3901	Timeout
3902	URL too long
3903	Invalid URL
3904	Unsupported proxy
3905	Invalid proxy address

3906	IP address error
3907	DNS error
3908	Parameter error
3909	TO addresses exceeded
3910	CC addresses exceeded
3911	BCC addresses exceeded
3912	Appended file capacity exceeded