

EC20 MMS AT Commands Manual

LTE Module Series

Rev. EC20_MMS_AT_Commands_Manual_V1.0

Date: 2015-06-15



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Quectel Wireless Solutions Co., Ltd.

Office 501, Building 13, No.99, Tianzhou Road, Shanghai, China, 200233 Tel: +86 21 5108 6236 Mail: <u>info@quectel.com</u>

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Revision	Date	Author	Description
1.0	2015-06-15	Jonathan WEN	Initial
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1 Introduction

EC20 provides MMS application interface for sending messages including multimedia objects (image, audio, rich text, etc.). This document is a reference guide to all the AT commands defined for MMS.

1.1. General Process of Sending MMS Message

Step 1: Configure and activate the PDP context.

- Configure the PDP context parameters of <apn>, <username>, <password> and other parameters by AT+QICSGP (Please refer to Quectel_EC20_TCPIP_AT_Commands_Manual). If QoS settings need to be updated, configure them by commands AT+CGQMIN, AT+CGEQMIN, AT+CGQREQ and AT+CGEQREQ (Please refer to Quectel_EC20_AT_Commands_Manual).
- 2) Activate the PDP context by AT+QIACT.
- 3) Configure the PDP context ID for MMS by AT+QMMSCFG="contextid",<contextID>.
- **Step 2:** Configure the URL and proxy of MMSC.
 - 1) Configure the URL of MMSC by AT+QMMSCFG="mmsc",<URL>.
 - 2) Configure the proxy of MMSC by AT+QMMSCFG="proxy",<gateway>,<port>.
- Step 3: Configure the sending parameters. Configure the sending parameters by AT+QMMSCFG="sendparam",<valid>,<pri>,<sendrep>, <visible>,<class>.
- Step 4: Edit the MMS message.
 - 1) Add recipient address by AT+QMMSEDIT=1,1,<optstring>.
 - 2) Add CC recipient address by AT+QMMSEDIT=2,1,<optstring>.
 - 3) Add BCC recipient address by AT+QMMSEDIT=3,1,<optstring>.
 - 4) Edit the title by AT+QMMSEDIT=4,1,<optstring>. You should specify the character set as title by AT+QMMSCFG="character ",<charset> first.
 - 5) Add attachments by AT+QMMSEDIT=5,1,<optstring>. The attachments can be RAM files. And you can upload a file to RAM by AT+QFUPL command (Please refer to Quectel_EC20 _FILE_AT_Commands_Manual). After sending MMS message successfully, you should delete the file by AT+QFDEL command (Please refer to Quectel_EC20_FILE_AT_Commands_Manual). If the attachment is a text file, you should specify the character set by AT+QMMSCFG="character",<charset> first.

- Step 5: Send MMS message by AT+QMMSEND=<timeout>. It may take some time to send MMS message successfully. You should not send MMS message again before "+QMMSEND: <err>,<httprsp>[,<mmsrsp>]" which indicates the ending of MMS message sending.
- **Step 6:** Clear the content of MMS message by AT+QMMSEDIT=0 and delete the files as attachments by AT+QFDEL (Please refer to *Quectel_EC20_FILE_AT_Commands_Manual*).

Step 4 to step 6 can be repeated. And step 2 to step 6 can be repeated too.

1.2. Error Handling

1.2.1. Executing MMS AT Command Fails

If you execute MMS AT command and receive response "ERROR" from EC20 module, please check if the SIM card is inserted and CPIN is in "+CPIN: READY" status by executing command "AT+CPIN?".

1.2.2. PDP Activation Fails

If you failed to activate PDP context by AT+QIACT command, please check the following aspects:

- 1. Query whether the PS domain is attached by AT+CGATT? command or not. If not, please execute AT+CGATT=1 command to attach PS domain.
- 2. Query the PS domain status by AT+CGREG? and make sure the PS domain is registered.
- 3. Query the PDP context parameters by AT+QICSGP command and make sure the APN of specified PDP context is set.
- 4. Make sure the specified PDP context ID is neither used by PPP nor activated by AT+CGACT.
- 5. According to 3GPP specification, it only supports three PDP contexts activated simultaneously, so you must make sure the number of activated PDP contexts is less than 3.

If the result of checking is OK, but you still fail to activate PDP context by executing AT+QIACT command, please reboot the module to resolve this issue. After booting the module, please check the terms mentioned above at least three times and each time at an interval of 10 minutes to avoid frequently rebooting the module.

1.2.3. Error Response of AT+QMMSEND

+QMMSEND: <err>,<httprsp>[,<mmsrsp>] will be returned after operating AT+QMMSEND. If <err> is not 0, it indicates the sending is failed, please resend it. If resending is not successfully, you should deactivate the PDP context by AT+QIDEACT command, and try again. (Please refer to Chapter 1.2.2).



2 Description of AT Command

2.1. AT+QMMSCFG Configure the Parameters of MMS

You can configure the PDP context ID, MMSC, proxy, character type and sending parameter of MMS by AT+QMMSCFG.

AT+QMMSCFG Configure the Parameters of MMS	
Test Command AT+QMMSCFG=?	Response +QMMSCFG: "contextid",(1-16) +QMMSCFG: "mmsc", <url> +QMMSCFG: "proxy",<gateway>,(1-65535) +QMMSCFG: "character",("ASCII", "UTF8", "UCS2", "GBK") +QMMSCFG: "sendparam"[, (0-6),(0-3),(0,1),(0,1),(0-2),(0-4)] OK</gateway></url>
Write Command AT+QMMSCFG="contextid"[, <contex tID>]</contex 	Response If <contextid> is not omitted, OK or +CME ERROR: <err> Else, query the current settings, +QMMSCFG: "contextid",<contextid> OK</contextid></err></contextid>
Write Command AT+QMMSCFG="mmsc"[, <url>]</url>	Response If <url> is not omitted, OK or +CME ERROR: <err></err> Else, query the current settings, +QMMSCFG: "mmsc",<url></url></url>



	ОК
Write Command	Response
AT+QMMSCFG="proxy"[, <gateway>,</gateway>	If <gateway> and <port> are not omitted,</port></gateway>
<port>]</port>	OK
	or
	+CME ERROR: <err></err>
	Else, query the current settings,
	+QMMSCFG: "proxy", <gateway>,<port></port></gateway>
	ОК
Write Command	Response
AT+QMMSCFG="character"[, <charse< td=""><td>If <charset> is not omitted,</charset></td></charse<>	If <charset> is not omitted,</charset>
t>]	ОК
	or
	+CME ERROR: <err></err>
	Else, query the current settings,
	+QMMSCFG: "character", <charset></charset>
	OK
Write Command	Response
AT+QMMSCFG="sendparam"[, <valid< td=""><td>If <valid>,<pri>,<sendrep>,<readrep>,<visible>,<class> are</class></visible></readrep></sendrep></pri></valid></td></valid<>	If <valid>,<pri>,<sendrep>,<readrep>,<visible>,<class> are</class></visible></readrep></sendrep></pri></valid>
>, <pri>,<sendrep>,<readrep>,<visibl< td=""><td>not omitted,</td></visibl<></readrep></sendrep></pri>	not omitted,
e>, <class>]</class>	ОК
	or
	+CME ERROR: <err></err>
	Else, query the current settings,
	+QMMSCFG: "sendparam", <valid>,<pri>,<sendrep>,</sendrep></pri></valid>
	<readrep>,<visible>,<class></class></visible></readrep>
	OK

Parameter

<contextid></contextid>	Integer type, PDP context ID, the range is 1-16, default value is 1		
<url></url>	String type, the address of MMSC, the maximum length of URL is 100 bytes		
<gateway></gateway>	String type, the IP address of MMS proxy, the maximum length of gateway is 50 bytes		
<port></port>	Integer type, the port of MMS proxy. The range is 1-65535		
<charset></charset>	String type, indicates the type of character		
	" <u>ASCII</u> " 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
<valid></valid>	Integer type	e, the validity period of MMS message
	0	1 hour
	1	12 hours
	2	24 hours
	3	2 days
	4	1 week
	5	Maximum
	<u>6</u>	Use the network configuration
<pri></pri>	Integer type	e, priority
	0	Low
	1	Normal
	2	High
	<u>3</u>	Use the network configuration
<sendrep></sendrep>	Integer typ	e, whether need to delivery report
	<u>0</u>	No
	1	Yes
<readrep></readrep>	Integer typ	e, whether need to read report
	<u>0</u>	No
	1	Yes
<visible></visible>	Integer typ	e, whether to hide address
	0	Hide any address
	1	Show even BCC address
	<u>2</u>	Use the network configuration
<class></class>	Integer typ	e, the class of the MMS message
	0	Personal
	1	Advertisement
	2	Informational
	3	Auto
	<u>4</u>	Use the network configuration
<err></err>	Integer type	e, indicates the type of error, please refer to Chapter 4

2.2. AT+QMMSEDIT Edit MMS Message

You can add recipient address, edit title and add attachments for MMS message by AT+QMMSEDIT. The character set of title or a text file is specified by AT+QMMSCFG="character",<charset>. For example, if the content of a text file uses UTF8 character set, AT+QMMSCFG="character", "UTF8" must be executed first.



AT+QMMSEDIT Edit MMS Message	
Test Command AT+QMMSEDIT=?	Response +QMMSEDIT: (0-5),(0,1), <optstring> OK</optstring>
Write Command AT+QMMSEDIT=0	Delete all content about MMS message, response: OK or +CME ERROR: <err></err>
Write Command AT+QMMSEDIT= <function> <function> is not 0</function></function>	Query the specified settings of <function>, response: List of [+QMMSEIDT: <function>,<optstring>] OK or +CME ERROR: <err></err></optstring></function></function>
Write Command AT+QMMSEDIT= <function>,0</function>	Delete the specified settings of <function>, response: OK or +CME ERROR: <err></err></function>
Write Command AT+QMMSEDIT= <function>,1,<optstring></optstring></function>	Configure the specified settings of <function>, response: OK or +CME ERROR: <err></err></function>

Parameter

<function></function>	Integer type, operated function	
	0 Delete all	
	1 Operate "TO address"	
	2 Operate "CC address"	
	3 Operate "BCC address"	
	4 Operate title	
	5 Operate file as attachment	
<optstring></optstring>	String type	
If <function>=1, 2, 3, it is recipient address. The maximum number of "TO ad</function>		
"CC address" and "BCC address" is 6 respectively. The maximum length		
	50 bytes	
	If <function>=4, it is the title. The maximum length of title is 200 bytes</function>	
	If <function>=5, it is the file name of attachments. If the file name is started with "RAM:",</function>	
	the file is from "RAM". It is strongly recommended to use RAM file to upload the	
	attachments. The max length of file name is 80 bytes, the maximum number of	



attachments is 12, and the maximum size of total attachments is restricted by the operator Integer type, indicates the type of error, please refer to Chapter 4

<err>

The following examples show how to edit a MMS message.

2.2.1. Add the Recipient Address

//You can add phone number or email address as recipients. The maximum number of recipients address is 6.

AT+QMMSEDIT=1,1,"13856122546"	//Add a phone number as recipient.
ОК	
AT+QMMSEDIT=1,1,"recipient .test@quectel.com"	//Add an email address as recipient.
ОК	
AT+QMMSEDIT=1	//Query recipient address.
+QMMSEDIT: 1,"13856122546"	
+QMMSEDIT: 1,"recipient.test@quectel.com"	
ок	
//Of course, if you want to delete the recipient address, you can	run AT+QMMSEDIT=1,0 as follows:

AT+QMMSEDIT=1,0 //Delete recipient. OK AT+QMMSEDIT=1 //Query recipient address. OK

2.2.2. Add CC Recipient or BCC Recipient

//Add CC recipient or BCC recipient. The operation is the same as adding recipient address, the difference is <function> value. For CC recipient, the <function> value is 2, for BCC recipient, it is 3.

AT+QMMSEDIT=2,1,"13856122546" //Add a phone number as CC recipient. OK AT+QMMSEDIT=2 //Query CC recipient address. +QMMSEDIT: 2,"13856122546" OK

//Of course, if you want to delete the CC recipient address, you can run AT+QMMSEDIT=2,0 as follows:

AT+QMMSEDIT=2,0 OK AT+QMMSEDIT=2 OK

//Delete CC recipient.

//Query CC recipient address.



2.2.3. Edit the Title of MMS Message

//The character set of title is set by AT+QMMSCFG="character",<charset>. If the <charset> is "ASCII", add title as follows:

 AT+QMMSCFG="character", "ASCII"
 //Set the charset as "ASCII".

 OK
 //Edit the title of MMS message.

 OK
 //Edit the title of MMS message.

 OK
 //Query the title of MMS message.

 +QMMSEDIT=4, "ASCII", "test EC20 mms"
 //Query the title of MMS message.

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//If the <charset> is not ASCII, the <optstring> should be the hex string of the inputted data.

AT+QMMSCFG="character","UTF8" OK	//Set the charset as "UTF8".
AT+QMMSEDIT=4,1,"746573742065633230206D6D73"	<pre>//Edit the title of MMS message, "746573742075633230206D6D73" is the hex string of "test ec20 mms" in UTF8.</pre>
OK AT+QMMSEDIT=4 +QMMSEDIT: 4,"UTF8","746573742065633230206D6D73	//Query the title of MMS message.
ок	
//Of course, if you want to delete the title, you can run AT+Q	MMSEDIT=4,0.
AT+QMMSEDIT=4,0	//Delete the title of MMS message.
OK AT+QMMSEDIT=4 +QMMSEDIT: 4,"UTF8",""	//Query the title of MMS message.

ΟΚ

2.2.4. Add Attachment

//You can add attachments for MMS message. The attachments can be RAM files. It is strongly recommended to use RAM file to upload the attachments. The maximum number of attachments is 12, and the maximum length of file name is 80 bytes. The total size of attachments may be restricted by the Operator. In the following example, the attachment is a RAM text file:

AT+QFUPL="RAM:test_mms.txt",100,200,1

//Upload a file to RAM, the file will be saved as "test_mms.txt" and the maximum size of file is 100 bytes. 200 indicates timeout, 1 indicates ACK mode.



	(Please refer to Quectel_EC20_FILE_AT_	
CONNECT	Commands_Manual).	
<pre><input 100="" bytes="" data=""/></pre>		
+QFUPL: 100,0		
e //		
OK AT+QFLST="RAM:*"	//Query the file list of RAM.	
+QFLST: "RAM:test_mms.txt",100		
OK		
AT+QMMSCFG="character","ASCII" OK	//Set the charset as "ASCII" for "RAM:test_mms.txt".	
AT+QMMSEDIT=5,1,"RAM:test_mms.txt"	//Add attachment for MMS message.	
ок	Ŭ	
AT+QMMSEDIT=5	//Query the attachments.	
+QMMSEDIT: 5,"RAM:test_mms.txt"		
ок		
//In the following example, the attachment is a I	RAM JPG file	
AT+QFUPL="RAM:test_pic.jpg",200,300,1	<pre>//Upload a file to RAM, the file will be saved as "test_pic.jpg" and the maximum size of file is 200 bytes.</pre>	
	300 indicates timeout, 1 indicates ACK mode. (Please	
	refer to Quectel_EC20_FILE_AT_Commands_Manual).	
CONNECT		
<input 200="" bytes="" data=""/> +QFUPL: 200,0		
TQI 01 L. 200,0		
ОК		
AT+QFLST="RAM:*"	//Query the file list of RAM.	
+QFLST: "RAM:test_mms.txt",100 +QFLST: "RAM:test_pic.jpg",200		
fer con realized pro.jpg ,200		
ок		
AT+QMMSEDIT=5,1,"RAM:test_pic.jpg"	<pre>//"RAM:test_pic.jpg" is not text file, you need not specify the character set.</pre>	
ок		
AT+QMMSEDIT=5	//Query the attachments.	
+QMMSEDIT: 5,"RAM:test_mms.txt" +QMMSEDIT: 5,"RAM:test_pic.jpg"		
, , , , , , , , , , , , , , , , ,		
ок		
//If you want to delete the attachments, do as follows:		



AT+QMMSEDIT=5,0	<pre>//Delete attachments for MMS message, all attachments will be deleted.</pre>
OK AT+QMMSEDIT=5 OK	//Query the attachments.
//After sending MMS message successfully, you should delete the files by AT+QFDEL.	
AT+QFDEL="RAM:test_mms.txt"	//Delete the RAM file.
OK AT+QFDEL="RAM:test_pic.jpg" OK	//Delete the RAM file.
AT+QFLST="RAM:*"	//Query the file list of RAM.

ок

2.2.5. Clear all the Content of MMS Message

//AT+QMMSEDIT=0 will delete the recipient, CC recipients, BCC recipients, title and attachments of MMS
message.

AT+QMMSEDIT=0 OK	//Clear all the content of MMS message.
AT+QMMSEDIT=1 OK	//Query the recipients.
AT+QMMSEDIT=2 OK	//Query the CC recipients.
AT+QMMSEDIT=3 OK	//Query the BCC recipients.
AT+QMMSEDIT=4 +QMMSEDIT: 4,"ASCII",""	//Query the title of MMS message.
OK AT+QMMSEDIT=5 OK	//Query the attachments.

2.3. AT+QMMSEND Send MMS Message

AT+QMMSEND is used to send MMS message. You should not re-execute AT+QMMSEND until "+QMMSEND: <err>,<httprsp>,<mmsrsp>" is returned. When the <timeout> is reached, but the process of sending MMS message has not finished yet, MMS sending will be interrupted.



AT+QMMSEND Send MMS Message	
Test Command	Response
AT+QMMSEND=?	+QMMSEND: (1-65535)
	ОК
Write Command	Response
AT+QMMSEND= <timeout></timeout>	OK
	+QMMSEND: <err>,<httprsp>[,<mmsrsp>]</mmsrsp></httprsp></err>
	or
	+CME ERROR: <err></err>

Parameter

<timeout></timeout>	Integer type, the maximum time to send MMS. The unit is second. The range is 1-65535.	
<err></err>	If you send MMS successfully, <err> is 0, else <err> indicates the type of error, please</err></err>	
	refer to Chapter 4	
<httprsp></httprsp>	Integer type, the reply code of HTTP, for reference only. For example, 200 indicates	
	HTTP posts data successfully, please refer to Chapter 5	
<mmsrsp></mmsrsp>	String type, the reply string from MMSC when sending MMS message failed, for	
	reference only	

Example

AT+QMMSEND=100 OK //Send MMS message.

+QMMSEND: 0,200

//Indicate the result of sending MMS message.





3.1. Send MMS Message

//Step 1: Configure and activate the PDP context.

AT+QICSGP=1,1,"UNIWAP","",1

OK AT+QIACT=1 OK AT+QIACT? +QIACT: 1,1,1,"10.7.157.1"

OK AT+QMMSCFG="contextid",1 //Configure PDP context 1, APN is "UNIWAP" for China Unicom.

//Activate PDP context 1. //Activate successfully. //Query the state of PDP context.

OK AT+QMMSCFG="contextid" +QMMSCFG: "contextid",1

OK

//Step 2: Configure the URL and proxy of MMSC.

AT+QMMSCFG="mmsc","mmsc.myuni.com"

OK

AT+QMMSCFG="mmsc" +QMMSCFG: "mmsc", "mmsc.myuni.com"

OK

AT+QMMSCFG="proxy","10.0.0.172",80

OK

AT+QMMSCFG="proxy" +QMMSCFG: "proxy","10.0.0.172",80 must be activated first.

//Set the PDP context ID as 1. The PDP context ID

//Query the PDP context ID.

//Configure the URL of MMSC, "mmsc.myuni.com" is for China Unicom.

//Query the URL of MMSC.

//Configure the proxy address and port of MMSC "10.0.0.172:80" is for China Unicom.

//Query the proxy address and port of MMSC.

OK



//Step 3: Configure sending parameter.	
AT+QMMSCFG="sendparam",6,2,0,0,2,4 OK AT+QMMSCFG="sendparam" +QMMSCFG: "sendparam",6,2,0,0,2,4	//Configure the sending parameters. //Query the sending parameters.
ок	
//Step 4: Edit the MMS message.	
AT+QMMSEDIT=1,1,"13856122546" OK	//Add a phone number as recipient.
AT+QMMSEDIT=2,1,"copy.test@quectel.com" OK	//Add an email address as CC recipient.
AT+QMMSEDIT=3,1,"secret.test@quectel.com" OK	//Add an email address as BCC recipient.
AT+QMMSEDIT=1 +QMMSEDIT: 1,"13856122546"	//Query recipient address.
OK AT+QMMSEDIT=2 +QMMSEDIT: 2,"copy.test@quectel.com"	//Query CC recipient address.
OK AT+QMMSEDIT=3 +QMMSEDIT: 3,"secret.test@quectel.com"	//Query BCC recipient address.
OK AT+QMMSCFG="character","ASCII" OK	//Configure the character type as ASCII for title.
AT+QMMSEDIT=4,1,"test EC20 mms" OK	//Edit the title of MMS message.
AT+QMMSEDIT=4 +QMMSEDIT: 4,"ASCII","test EC20 mms"	//Query the title of MMS message.
ок	
//Add attachments.	
AT+QFUPL="RAM:test_ram.txt",100,300,1	<pre>//Upload a file to RAM, the file will be saved as "test_ram.txt" and the maximum size of file is 100. 300 indicates timeout, 1 indicates ACK mode. (For more details, please refer to Quectel_EC20_FILE_AT_Commands_Manual).</pre>
CONNECT <input 100="" bytes="" data=""/>	



+QFUPL: 100,0

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AT+QFLST="RAM:*"

+QFLST: "RAM:test_ram.txt",100

ΟΚ

AT+QMMSCFG="character","ASCII"

OK

AT+QMMSEDIT=5,1,"RAM:test_ram.txt"

ΟΚ

AT+QMMSEDIT=5 +QMMSEDIT: 5,"RAM:test_ram.txt"

AT+QFUPL="RAM:test_pic.jpg",200,300,1

CONNECT <Input 200 bytes data> +QFUPL: 200,0

OK

AT+QFLST="RAM:*"

+QFLST: "RAM:test_mms.txt",100 +QFLST: "RAM:test_pic.jpg",200

ΟΚ

AT+QMMSEDIT=5,1,"RAM:test_pic.jpg"

ΟΚ

AT+QMMSEDIT=5 +QMMSEDIT: 5,"RAM:test_mms.txt" +QMMSEDIT: 5,"RAM:test_pic.jpg"

OK

//Step 5: Send MMS message.

AT+QMMSEND=100

//Query the file list of RAM.

- //Add attachment for MMS message, "test_ram.txt"
 is RAM file.

//Query the attachments.

//Upload a file to RAM, the file will be saved as "test_pic.jpg" and the maximum size of file is 200 bytes. 300 indicates timeout, 1 indicates ACK mode. (For more details, please refer to Quectel_EC20_FILE_AT_Commands_Manual).

//Query the file list of RAM.

//"RAM:test_pic.jpg" is not text file, you do not need to specify the character set.

//Query the attachments.

//Send MMS message.



OK

+QMMSEND: 0,200

//Step 6: Clear the content of MMS message.

AT+QMMSEDIT=0 OK AT+QFDEL="RAM:test_ram.txt" OK AT+QFDEL="RAM:test_pic.jpg" OK //Indicate the result of sending MMS message.

//Clear the contents of MMS message.

//Delete the RAM file.

//Delete the RAM file.



4 Summary of Error Codes

<err> indicates an error related to mobile equipment or network. The details about <err> are described in the following table.

Table 1: Summary of Error Codes

<err></err>	Meaning
751	Unknown error
752	URL length error
753	URL error
754	Proxy type invalid
755	Proxy address error
756	Invalid parameter
757	Recipient address full
758	CC recipient address full
759	BCC recipient address full
760	Attachments full
761	File error
762	No recipient
763	File not found
764	MMS busy
765	Server response failed
766	Error response of HTTP post
767	Invalid report of HTTP post
768	Activate PDP fail



769	PDP deactivated
770	Socket create fail
771	Socket connect fail
772	Socket read fail
773	Socket write fail
774	Socket closed
775	Timeout
776	Encode data error
777	HTTP decode data error



5 Description of HTTP Response Codes

The HTTP response error code <httprsp> indicates an error replied from MMSC. Please refer to RFC2616 (Hypertext Transfer Protocol--HTTP/1.1). The details about <httprsp> are described in the following table.

Table 2: Description of HTTP Response Code

<httprsp></httprsp>	Meaning
200	ОК
400	Bad request
403	Forbidden
404	Not found
409	Conflict
411	Length required
500	Internal server error
502	Bad gate way



6 Appendix A Reference

Table 3: Related Documents

SN	Document Name	Remark
[1]	Wap-209-mmsencapsulation-20020105-a	Wap MMS protocol standard package of documents
[2]	RFC2616	Hypertext Transfer ProtocolHTTP/1.1
[3]	Quectel_EC20_FILE_AT_Commands_Manual	Introduction about EC20 FILE AT commands
[4]	Quectel_EC20_TCPIP_AT_Commands_Manual	Introduction about EC20 TCPIP AT commands
[5]	Quectel_EC20_AT_Commands_Manual	EC20 AT commands manual

Table 4: Terms and Abbreviations

Abbreviation	Description
MMS	Multimedia Messaging Service
MMSC	Multimedia Messaging Service Center
HTTP	Hypertext Transfer Protocol
CC	Carbon Copy
BCC	Blind Carbon Copy
PDP	Packet Data Protocol
URL	Uniform Resource Locator