



SIM7080 Series_Email_Application Note

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Related Documents

[1] SIM7080 Series AT Command Manual V1.02

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1 Purpose of this document

Based on module AT command manual, this document will introduce Email application process.

Developers could understand and develop application quickly and efficiently based on this document.

2 AT Commands for Email

1. SIM7080 series supports to send an Email with an attachment via SMTP protocol. It also supports carbon copy (abbreviated Cc:) recipient and blind carbon copy (abbreviated Bcc:) recipient.
2. SIM7080 series supports to retrieve and delete the Email via POP3 protocol, the Email may be with attachments.
3. SIM7080 series supports all of POP3 commands but APOP. By these POP3 commands, you can get the specific Email's size and unique-id.
4. SIM7080 series does not support that SMTP and POP3 operations are executed at the same time.

2.1 Overview

Command	Description
AT+EMAILCID	Set Email bearer profile identifier
AT+EMAILTO	Set timeout value of SMTP/POP3 server response
AT+SMTPSRV	Set SMTP server address and port
AT+SMTPAUTH	Set user name and password for SMTP authentication
AT+SMTPFROM	Set sender address and name
AT+SMTPRCPT	Set the Email recipient(to/cc/bcc) address and name
AT+SMTPSUB	Set the Email subject
AT+SMTPBODY	Set the Email body
AT+SMTPFILE	Set the Email attachment
AT+SMTPSEND	Send the Email
AT+SMTPPFT	Transfer the Email attachment
AT+SMTPPCS	Set the Email charset
AT+POP3SRV	Set POP3 server and account
AT+POP3IN	Log in POP3 server
AT+POP3NUM	Get Email number and total size

AT+POP3LIST	Get the specific Email size
AT+POP3UIDL	Get the specific Email unique-id
AT+POP3CMD	Get multi-line response
AT+POP3READ	Read multi-line response
AT+POP3DEL	Mark the specific Email to delete
AT+POP3RSET	Unmark the emails that be marked as deleted
AT+POP3OUT	Log out POP3 server
AT+EMAILSSL	Set Email SSL function

2.2 Detailed Descriptions of Commands

2.2.1 AT+EMAILCID Set Email Bearer Profile Identifier

AT+EMAILCID Set Email Bearer Profile Identifier	
Test Command AT+EMAILCID=?	Response +EMAILCID: (range of supported <cid>s) OK Parameters See Write Command
Read Command AT+EMAILCID?	Response +EMAILCID: <cid> OK Parameters See Write Command
Write Command AT+EMAILCID=<cid>	Response OK If error is related to ME functionality: ERROR Parameters <cid> Bearer profile identifier refer to AT+CNACT
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.2 AT+EMAILTO Set Timeout Value of SMTP/POP3 Server

Response

AT+EMAILTO Set Timeout Value of SMTP/POP3 Server Response	
Test Command AT+EMAILTO=?	Response +EMAILTO: (range of supported <timeout>s) OK
	Parameters See Write Command
Read Command AT+EMAILTO?	Response +EMAILTO: <timeout> OK
	Parameters See Write Command
Write Command AT+EMAILTO=<timeout>	Response OK If error is related to ME functionality: ERROR
	Parameters <timeout> The timeout value of SMTP/POP3 server response, in 1 second unit. 10-120 Default: 30(seconds)
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.3 AT+SMTPSRV Set SMTP Server Address and Port

AT+SMTPSRV Set SMTP Server Address and Port	
Test Command AT+SMTPSRV=?	Response +SMTPSRV: <smtpServerLength>,(range of supported <smtpPort>s) OK

	Parameters See Write Command
Read Command AT+SMTPSRV?	Response +SMTPSRV: <smtpServer>,<smtpPort> OK
	Parameter See Write Command
Write Command AT+SMTPSRV=<smtpServer>[,<smtpPort>]	Response OK If error is related to ME functionality: ERROR
	Parameters <smtpServer> SMTP server address, string type. This parameter can be either: - IP address in the format: xxx.xxx.xxx.xxx - Host name to be solved with a DNS query <smtpPort> The SMTP port 1-65535 Default: 25 <smtpServerLength> The max length of <smtpServer>
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.4 AT+SMTPAUTH Set User Name and Password for SMTP Authentication

AT+SMTPAUTH Set User Name and Password for SMTP Authentication	
Test Command AT+SMTPAUTH=?	Response +SMTPAUTH: (range of supported<authType>s),<userNameLength>,<passwordLength> OK
	Parameters See Write Command

Read Command AT+SMTPAUTH?	Response +SMTPAUTH: <authType>,<userName>,<password> OK
	Parameters See Write Command
Write Command AT+SMTPAUTH=<authType>[,<userName>,<password>]	Response OK If error is related to ME functionality: ERROR
	Parameters <authType> The type of SMTP authentication 0 SMTP server does not request authentication. <userName> and <password> must not be given. 1 SMTP server requests authentication <userName> The user name for SMTP authentication. <userNameLength> The max length of <userName> . <password> The password for SMTP authentication. <passwordLength> The max length of <password> .
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.5 AT+SMTPFROM Set Sender Address and Name

AT+SMTPFROM Set Sender Address and Name	
Test Command AT+SMTPFROM=?	Response +SMTPFROM: <senderAddressLength>,<senderNameLength> OK
	Parameters See Write Command
Read Command AT+SMTPFROM?	Response +SMTPFROM: <senderAddress>,<senderName> OK
	Parameter See Write Command

Write Command AT+SMTPFROM=<senderAddress>[,<senderName>]	Response OK If error is related to ME functionality: ERROR
	Parameters <senderAddress> The Email sender address,string type. <senderAddressLength> The max length of <senderAddress> <senderName> The Email sender name,string type. <senderNameLength> The max length of <senderName>
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.6 AT+SMTPRCPT Set the Email Recipient(TO/CC/BCC) Address and Name

AT+SMTPRCPT Set the Email Recipient(TO/CC/BCC) Address and Name	
Test Command AT+SMTPRCPT=?	Response +SMTPRCPT: (range of supported <rcptType>s),(range of supported <index>s),<rcptAddressLength>,<rcptNameLength> OK
	Parameters See Write Command
Read Command AT+SMTPRCPT?	Response [+SMTPRCPT: <rcptType>,<index>,<rcptAddress>,<rcptName>[<CR><LF>+SMTPRCPT: <rcptType>,<index>,<rcptAddress>,<rcptName>[...]]] OK
	Parameter See Write Command
Write Command AT+SMTPRCPT=<rcptType>[,<index>[,<rcptAddress>[,<rcptName>]]]	Response OK If error is related to ME functionality: ERROR
	Parameters

	<p><rcptType> The type of recipient, the types of TO and CC are used to construct e-mail header in the field:"To:" or "Cc:".</p> <p>0 TO, Normal Recipient.</p> <p>1 CC, Carbon Copy recipient.</p> <p>2 BCC, Blind Carbon Copy recipient.</p> <p><index> Index of the type of recipient, decimal format</p> <p><rcptAddress> The Email recipient address.</p> <p><rcptName> The Email recipient name.</p> <p><rcptAddressLength> The max length of <rcptAddress>.</p> <p><rcptNameLength> The max length of <rcptName>.</p>
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	<p>Note</p> <ul style="list-style-type: none"> ● If only <rcptType> is given, it will delete all items of <rcptType>. ● If only <rcptType> and <index> are given, it will delete the <index> item of <rcptType>.

2.2.7 AT+SMTPSUB Set the Email Subject

AT+SMTPSUB Set the Email Subject	
<p>Test Command</p> <p>AT+SMTPSUB=?</p>	<p>Response</p> <p>+SMTPSUB: <subjectLength></p> <p>OK</p> <p>Parameters</p> <p>See Write Command</p>
<p>Read Command</p> <p>AT+SMTPSUB?</p>	<p>Response</p> <p>+SMTPSUB: <subject></p> <p>OK</p> <p>Parameter</p> <p>See Write Command</p>
<p>Write Command</p> <p>AT+SMTPSUB=<subject></p>	<p>Response</p> <p>OK</p> <p>If error is related to ME functionality:</p> <p>ERROR</p> <p>Parameters</p> <p><subject> The Email subject, string type. It will be present in the header of the Email sent by SMTP client in the field:</p>

		"Subject:" <subjectLength> The max length of <subject>.
Parameter Saving Mode		NO_SAVE
Max Response Time		-
Reference		Note If the Email charset is not ASCII,<subject> must be in hexadecimal format.

2.2.8 AT+SMTPBODY Set the Email Body

AT+SMTPBODY Set the Email Body		
Test Command AT+SMTPBODY=?		Response +SMTPBODY: <bodyLength> OK
		Parameters See Write Command
Write Command AT+SMTPBODY=<length>		Response DOWNLOAD OK If error is related to ME functionality: ERROR
		Parameters <length> The length of Email body.
Parameter Saving Mode		NO_SAVE
Max Response Time		-
Reference		Note <ul style="list-style-type: none"> ● If the Email charset is not ASCII, the body of Email must be in hexadecimal format. ● After URC string "DOWNLOAD", User can input email's body.

2.2.9 AT+SMTPFILE Set the Email Attachment

AT+SMTPFILE Set the Email Attachment

Test Command AT+SMTPFILE=?	Response +SMTPFILE: (range of <fileType>s),<fileNameLength>,(range of <encodeType>s) OK
	Parameters See Write Command
Read Command AT+SMTPFILE?	Response +SMTPFILE: <fileType>,<fileName>,<encodeType> OK
	Parameter See Write Command
Write Command AT+SMTPFILE=<fileType>[,<fileName>,<encodeType>]	Response OK If error is related to ME functionality: ERROR
	Parameters <fileType> The type of the Email attachment. 0 No attachment 1 Attach a txt file 2 Attach a binary file (bmp, mp3, video...) <fileName> The name of the Email attachment. <fileNameLength> The max length of <fileName>. <encodeType> Content-Transfer-Encoding used for attachment 0 "7bit" means data all represented as short lines of US-ASCII data 1 "base64" designed to represent arbitrary sequences of octets in a form that need not be humanly readable
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note <ul style="list-style-type: none"> ● If a txt file (<fileType>=1) is attached, <encodeType> must be 0. ● If a binary file (<fileType>=2) is attached, <encodeType> must be 1.

2.2.10 AT+SMTPSEND Send the Email

AT+SMTPSEND Send the Email

Test Command AT+SMTPSEND=?	Response OK
	Parameters
Execution Command AT+SMTPSEND	Response OK If error is related to ME functionality: ERROR If send successfully or not, return: +SMTPSEND: <code>
	Parameters <code> The result of sending Email. 1 The Email has been sent successfully. 61 Network error. 62 DNS resolve error 63 SMTP TCP connection error. 64 Timeout of SMTP server response 65 SMTP server response error 66 Not authentication 67 Authentication failed. SMTP user name or password may be not right. 68 Bad recipient.
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.11 AT+SMTPFT Transfer the Email Attachment

AT+SMTPFT Transfer the Email Attachment	
Test Command AT+SMTPFT=?	Response OK
	Parameters See Write Command
Write Command AT+SMTPFT=<reqLength>	Response When the URC below is reported, the attachment can be transferred: +SMTPFT: 1,<maxLength> If <reqLength> is not 0 and send data successfully:

	<p>+SMTPFT: 2,<cnfLength> //Input data OK</p> <p>If <reqLength> is not 0 and send data unsuccessfully: +SMTPFT: 2,<cnfLength> //Input data ERROR</p> <p>If <reqLength> is 0,it indicates that transferring the attachment have finished: OK</p> <p>If error is related to ME functionality: ERROR</p> <p>If some error occur: +SMTPSEND: <code></p>
	<p>Parameters</p> <p><reqLength> Requested number of data bytes(0-<maxLength>) to be transmitted</p> <p><cnfLength> Confirmed number of data bytes to be transmitted</p> <p><maxLength> The max length of data can be sent at a time. It depends on the network status.</p> <p><code> See AT+SMTPSEND</p>
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	<p>Note</p> <ul style="list-style-type: none"> ● <reqLength> does not be greater than <maxLength>. ● When "+SMTPFT: 1,<maxLength>" is reported, then use "AT+SMTPFT=<reqLength>" to send data.

2.2.12 AT+SMTPCS Set the Email Charset

AT+SMTPCS Set the Email Charset	
Test Command	Response
AT+SMTPCS=?	+SMTPCS: <charsetLength>
	OK
	Parameters
	See Write Command

Read Command AT+SMTPCS?	Response +SMTPCS: <charset> OK
	Parameter See Write Command
Write Command AT+SMTPCS=<charse t>	Response OK If error is related to ME functionality: ERROR
	Parameters <charset> The Email charset, string type. It shows which charset the subject and the body are encoded in. If <charset> is not ASCII but UTF-8 or other, the subject and the body must be in hexadecimal format (e.g. "TEST" should be converted to "54455354"). The default charset is ASCII. <charsetLength> The max length of <charset>.
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.13 AT+POP3SRV Set POP3 Server and Account

AT+POP3SRV Set POP3 Server and Account	
Test Command AT+POP3SRV=?	Response +POP3SRV: <pop3ServerLength>,<userNameLength>,<password-Leng th>,(range of supported <pop3Port>s) OK
	Parameters See Write Command
Read Command AT+POP3SRV?	Response +POP3SRV: <pop3Server>,<userName>,<password>,<pop3Port> OK
	Parameters See Write Command

Write Command AT+POP3SRV=<pop3Server>,<userName>,<password>[,<pop3Port>]	Response OK If error is related to ME functionality: ERROR
	Parameters <pop3Server> POP3 server address, string type. This parameter can be either: - IP address in the format: xxx.xxx.xxx.xxx - Host name to be solved with a DNS query <userName> The user name to log in POP3 server, string type. <password> The password to log in POP3 server, string type. <pop3Port> The port of POP3 server. 1-65535 Default: 110 <pop3ServerLength> The max length of <pop3Server>. <userNameLength> The max length of <userName>. <passwordLength> The max length of <password>.
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.14 AT+POP3IN Log in POP3 Server

AT+POP3IN Log in POP3 Server	
Test Command AT+POP3IN=?	Response OK
	Parameters
Execution Command AT+POP3IN	Response OK If error is related to ME functionality: ERROR If logging in POP3 server or not, return: +POP3IN: <code>
	Parameters <code> The result of logging in POP3 server 1 Log in POP3 server successfully 61 Network error 62 DNS resolve error

		63 POP3 TCP connection error
		64 Timeout of POP3 server response
		65 POP3 server response error
		66 POP3 server rejects to log in
		67 Incorrect user name
		68 Incorrect user name or password
		69 Timeout of read data
Parameter Saving Mode		NO_SAVE
Max Response Time		-
Reference		Note

2.2.15 AT+POP3NUM Get Email Number and Total Size

AT+POP3NUM Get Email Number and Total Size	
Test Command AT+POP3NUM=?	Response OK
	Parameter
Execution Command AT+POP3NUM	<p>Response</p> <p>OK</p> <p>If error is related to ME functionality: ERROR</p> <p>If POP3 server issues a positive response: +POP3NUM: 1,<totalNumber>,<totalSize></p> <p>If POP3 server issues a negative response: +POP3NUM: 0</p> <p>If some error occur: +POP3OUT: <code></p> <p>Parameters</p> <p><totalNumber> The Email number on the POP3 server, decimal format.</p> <p><totalSize> The total size of all Email and the unit is in byte.</p> <p><code> The result of logging out POP3 server</p> <ul style="list-style-type: none"> 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response
Parameter Saving	NO_SAVE

Mode	
Max Response Time	-
Reference	Note

2.2.16 AT+POP3LIST Get the Specific Email Size

AT+POP3LIST Get the Specific Email Size	
Test Command AT+POP3LIST=?	Response +POP3LIST: (range of supported <msgNumber>s) OK
	Parameter See Write Command
Write Command AT+POP3LIST=<msgNumber>	Response OK If error is related to ME functionality: ERROR If POP3 server issues a positive response: +POP3LIST: 1,<msgNumber>,<size> If POP3 server issues a negative response: +POP3LIST: 0 If some error occur: +POP3OUT: <code>
	Parameters <msgNumber> The message number of Email. <size> The size of Email <msgNumber> and the unit is in byte. <code> The result of logging out POP3 server 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.17 AT+POP3UIDL Get the Specific Email Unique-id

AT+POP3UIDL Get the Specific Email Unique-id	
Test Command AT+POP3UIDL=?	<p>Response</p> <p>+POP3UIDL: (range of supported <msgNumber>s)</p> <p>OK</p> <p>Parameters</p> <p>See Write Command</p>
Write Command AT+POP3UIDL=<msgNumber>	<p>Response</p> <p>OK</p> <p>If error is related to ME functionality:</p> <p>ERROR</p> <p>If POP3 server issues a positive response:</p> <p>+POP3UIDL: 1,<msgNumber>,<uid></p> <p>If POP3 server issues a negative response:</p> <p>+POP3UIDL: 0</p> <p>If some error occur:</p> <p>+POP3OUT: <code></p> <p>Parameters</p> <p><msgNumber> The message number of Email .</p> <p><UID> The Email unique-id, the unique-id is an arbitrary server-determined string, consisting of 1 to 70 characters in the range 0x21 to 0x7E, which uniquely identifies a message within a maildrop and which persists across sessions.</p> <p><code> The result of logging out POP3 server</p> <ul style="list-style-type: none"> 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.18 AT+POP3CMD Get Multi-line Response

AT+POP3CMD Get Multi-line Response

<p>Test Command AT+POP3CMD=?</p>	<p>Response +POP3CMD: (range of supported <cmdType>s),(range of supported <msgNumber>s),(range of supported <lineNumber>s)</p> <p>OK</p> <p>Parameters See Write Command</p>
<p>Write Command AT+POP3CMD=<cmdType>[,<msgNumber>[,<lineNumber>]]</p>	<p>Response OK</p> <p>If error is related to ME functionality: ERROR</p> <p>If POP3 server issues a positive response: +POP3CMD: 1</p> <p>If POP3 server issues a negative response: +POP3CMD: 0</p> <p>If some error occur: +POP3OUT: <code></p> <p>Parameters <cmdType> The values that supported POP3 user command</p> <ol style="list-style-type: none"> 1 List command The "List" command returns a multi-line "scan listing". For each message on the maildrop list of the server the POP3 service returns a line containing the message number and its size in bytes. A final "dotline" will be printed at the end of the "scan listing". If there are no messages on the maildrop list of the server, the POP3 service returns a positive response, i.e. It does not issue an error response, but the "scan listing" will be empty. In either case, each scan listing will be finished by so-called "dotline", i.e. a new line with just a single dot. <msgNumber> and <lineNumber> must not be given. 2 Uidl command The "Uidl" command returns a multi-line "unique-id Listing". For each message on the maildrop list of the Server the POP3 service returns a line containing the message number and its unique-id. A final "dotline" will be printed at the end of the "unique-id listing" If there are no messages on the maildrop list of the server. The POP3 service returns a positive response, i.e. It does not issue an error response, but the "unique-id listing" will be empty. In either case, each unique-id listing will be finished by so-called "dotline", i.e.a new line with just a singledot. <msgNumber> and <lineNumber>

		<p>must not be given.</p> <p>3 Top command The command retrieves the number of lines of the message's body from the POP3 server's maildrop list. The POP3 server sends the headers of the message, the blank line separating the headers from the body, and then the number of lines of the message's body. If the number of lines requested by The POP3 client is greater than the number of lines in the body, then the POP3 server sends the entire message. If no such message exists on the server the POP3 service issues an error response to the user. Each email will be finished by a so-called "dotline", i.e. a new line with just a single dot. <msgNumber> and <lineNumber> must be given.</p> <p>4 Retrieve command The command retrieves the related message from the POP3 server's maildrop list. If no such message exists on the server the POP3 service issues an error response to the user. Each email will be finished by a so-called "dotline", i.e. a new line with just a single dot. <msgNumber> must be given.</p> <p><msgNumber> The message number of Email. <lineNumber> The number of lines of the message body. <code> The result of logging out POP3 server</p> <ul style="list-style-type: none"> 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response
Parameter Saving Mode	NO_SAVE	
Max Response Time	-	
Reference	Note	After sending these POP3 commands and POP3 server issuing a positive response, you can get the response by "AT+POP3READ".

2.2.19 AT+POP3READ Read Multi-line Response

AT+POP3READ Read Multi-line Response

<p>Test Command AT+POP3READ=?</p>	<p>Response +POP3READ: (range of supported <reqLength>s)</p> <p>OK</p> <p>Parameters See Write Command</p>
<p>Write Command AT+POP3READ=<reqLength></p>	<p>Response</p> <p>If the data of response not to be read completely: +POP3READ: 1,<cnfLength></p> <p>If the data of response to be read completely: +POP3READ: 2,<cnfLength></p> <p>If some data need to be read,the URC below is reported: +POP3READ: 3,<dataLength></p> <p>If error is related to ME functionality: ERROR</p> <p>If some error occur: +POP3OUT: <code></p> <p>Parameters</p> <p><reqLength> Requested number of data bytes (1-1460) to be read</p> <p><cnfLength> Confirmed number of data bytes to be read, which may be less than <reqLength>. 0 indicates that no data can be read.</p> <p><dataLength> Received number of data bytes.</p> <p><code> The result of logging out POP3 server</p> <ul style="list-style-type: none"> 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 tcp connection error 64 Timeout of POP3 server response 69 Read data timeout
<p>Parameter Saving Mode</p>	<p>NO_SAVE</p>
<p>Max Response Time</p>	<p>-</p>
<p>Reference</p>	<p>Note</p> <ul style="list-style-type: none"> ● Other AT commands (but "AT+POP3OUT") do not be executed until the data of response are read completely. ● If <cnfLength> is less than <reqLength>, you should wait for a URC "+POP3READ: 3,<dataLength>" reported. Then you may continue to read data by "AT+POP3READ". ● If the module has some unread data, the URC "+POP3READ: 3,<dataLength>" is reported every once in a while. After some time, these data are not still been read, the module will quit the POP3 process.

2.2.20 AT+POP3DEL Mark the Specific Email to Delete

AT+POP3DEL Mark the Specific Email to Delete	
Test Command AT+POP3DEL=?	<p>Response</p> <p>+POP3DEL: (range of supported <msgNumber>s)</p> <p>OK</p> <p>Parameters</p> <p>See Write Command</p>
Write Command AT+POP3DEL=<msgNumber>	<p>Response</p> <p>OK</p> <p>If error is related to ME functionality:</p> <p>ERROR</p> <p>If POP3 server issues a positive response:</p> <p>+POP3DEL: 1</p> <p>If POP3 server issues a negative response:</p> <p>+POP3DEL: 0</p> <p>If some error occur:</p> <p>+POP3OUT: <code></p> <p>Parameters</p> <p><msgNumber> The message number of Email</p> <p><code> The result of logging out POP3 server</p> <ul style="list-style-type: none"> 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	<p>Note</p> <p>The POP3 server marks the Email as deleted. Any future reference to the message-number associated with the Email in a POP3 command generates an error. The POP3 server does not actually delete the Email until the POP3 client logs out POP3 server and closes the session normally.</p>

2.2.21 AT+POP3RSET Unmark the Emails that Be Marked as Deleted

AT+POP3RSET Unmark the Emails that Be Marked as Deleted	
Test Command AT+POP3RSET=?	Response OK
	Parameter
Execution Command AT+POP3RSET	Response OK If error is related to ME functionality: ERROR If POP3 server issues a positive response: +POP3RSET: 1 If POP3 server issues a negative response: +POP3RSET: 0 If some error occur: +POP3OUT: <code>
	Parameters <code> The result of logging out POP3 server 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.22 AT+POP3OUT Log Out POP3 Server

AT+POP3OUT Log Out POP3 Server	
Test Command AT+POP3OUT=?	Response OK
	Parameters

Execution Command AT+POP3OUT	Response OK If error is related to ME functionality: ERROR If the process is completed, return: +POP3OUT: <code>
	Parameters <code> The result of logging out POP3 server 1 Normally log out POP3 server 61 Network error 62 DNS resolve error 63 POP3 TCP connection error 64 Timeout of POP3 server response 69 Timeout of read data
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

2.2.23 AT+EMAILSSL Set Email SSL function

AT+EMAILSSL Set Email SSL function	
Test Command AT+EMAILSSL=?	Response +EMAILTO: (list of supported <ssltype>s), (list of supported <index>s),<len_calist>,<len_certname> OK
	Parameters See Write Command
Read Command AT+EMAILSSL?	Response +EMAILSSL: <ssltype>,<index>,<ca list>,<cert name> OK
	Parameters See Write Command
Write Command AT+EMAILSSL=<ssltype>,<index>,<calist>,<certname>	Response OK If error is related to ME functionality: ERROR

	Parameters
	<p><ssltype> email ssl type:startssl/ssl/no ssl</p> <p><index> CSSLCFG set Configure index <ctxindex></p> <p><ca list> Ca Certificate name</p> <p><cert name> Cert Certificate name</p> <p><len_calist> Interger type.Maximum length of parameter <ca list>.</p> <p><len_certname> Interger type.Maximum length of parameter <cert name>.</p>
Parameter Saving Mode	NO_SAVE
Max Response Time	-
Reference	Note

3 ExampIs

3.1 Network Register

AT Command	Response	Description
AT+CPIN?	+CPIN:READY OK	Check SIM card status
AT+CSQ	+CSQ: 20,0 OK	Check RF signal
AT+CGATT?	+CGATT: 1 OK	Check PS service. 1 indicates PS has attached.
AT+COPS?	+COPS: 0,0,"CHN-CT",9 OK	Query Network information, operator and network mode 9, NB-IOT network

3.2 Bearer profile

AT Command	Response	Description
AT+CGNAPN	+CGNAPN: 1,"ctnb" OK	Query CAT-M or NB-IOT network after the successful registration of APN
AT+CNACT=0,1	OK	Activating network bearing

	+APP PDP: 0,ACTIVE	
AT+CNACT?	+CNACT: 0,1,"10.94.36.44" +CNACT: 1,0,"0.0.0.0" +CNACT: 2,0,"0.0.0.0" +CNACT: 3,0,"0.0.0.0"	Get local IP
	OK	

3.3 Synchronize time

AT Command	Response	Description
AT+CNTPCID?	+CNTPCID: 1 OK	Query GPRS bearer profile's ID
AT+CNTTP="ntp1.aliyun.com",32	OK	Set server and time zone
AT+CNTTP	OK	Synchronize Network Time
	+CNTTP: 1,"2018/12/26,10:36:49"	
AT+CCLK?	+CCLK: "18/12/26,10:36:57+32" OK	Query clock time

3.4 Send an Email

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+SMTPSRV="mail.sim.com",25	OK	Set SMTP server address and port
AT+SMTPAUTH=1,"john","123456"	OK	Set user name and password
AT+SMTPFROM="john@sim.com" ,"john"	OK	Set sender address and name
AT+SMTPRCPT=0,0,"john@sim.co m","john"	OK	Set the recipient(To:)
AT+SMTPRCPT=1,0,"john@sim.co m","john"	OK	Set the recipient(Cc:)
AT+SMTPRCPT=2,0,"john@sim.co m","john"	OK	Set the recipient(Bcc:)
AT+SMTPSUB="Test"		Set the subject
AT+SMTPBODY=19	DOWNLOAD This is a new Email	Set the body

	OK	
AT+SMTPSEND	OK	Send the Email
	+SMTPSEND: 1	

3.5 Send an Email with an attachment

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+SMTPSRV="mail.sim.com",25	OK	Set SMTP server address and port
AT+SMTPAUTH=1,"john","123456"	OK	Set user name and password
AT+SMTPFROM="john@sim.com", "john"	OK	Set sender address and name
AT+SMTPRCPT=0,0,"john@sim.co m","john"	OK	Set the recipient (To:)
AT+SMTPRCPT=1,0,"john@sim.co m","john"	OK	Set the recipient (Cc:)
AT+SMTPRCPT=2,0,"john@sim.co m","john"	OK	Set the recipient (Bcc:)
AT+SMTPSUB="Test"	OK	Set the subject
AT+SMTPBODY=19	DOWNLOAD This is a new Email OK	Set the body
AT+SMTPFILE=1,"test.txt",0	OK	Set the attachment
AT+SMTPSEND	OK	Send the Email
	+SMTPFT: 1,1360	URC indicates that the attachment may be send.1360 is the max length of data which can be sent at a time. It depends on the network status.
AT+SMTPFT=100	+SMTPFT: 2,100 //Input data OK	SMTP client requests to send 100 bytes. Response will indicates that user must input 100 bytes for transferring now.
	+SMTPFT: 1,1360	URC indicates that more data can be sent
AT+SMTPFT=0	OK	The attachment has been transferred completely.
	+SMTPSEND: 1	URC indicates that the entire email has been send successfully

3.6 Send a UTF-8 Email

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+SMTPCS="UTF-8"	OK	Set the mail charset
AT+SMTPSRV="mail.sim.com",25	OK	Set SMTP server address and port
AT+SMTPAUTH=1,"john","123456"	OK	Set user name and password
AT+SMTPFROM="john@sim.com";john"	OK	Set sender address and name
AT+SMTPRCPT=0,0,"john@sim.com";john"	OK	Set the recipient(To:)
AT+SMTPRCPT=1,0,"john@sim.com";john"	OK	Set the recipient(Cc:)
AT+SMTPRCPT=2,0,"john@sim.com";john"	OK	Set the recipient(Bcc:)
AT+SMTPSUB="54455354"		Set the subject
AT+SMTPBODY=40	DOWNLOAD 38546869732069732061206E6 57720456D61696C OK	Set the body
AT+SMTSEND	OK +SMTSEND: 1	Send the Email

3.7 Retrieve the Email

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+POP3SRV="mail.sim.com","john","123456",110	OK	Set POP3 server and account
AT+POP3IN	OK +POP3IN: 1	Log in POP3 server
AT+POP3NUM	OK +POP3NUM: 1,2,11124	Get Email number and total size
AT+POP3LIST=1	OK +POP3LIST: 1,1,5556	Get the specific Email's size

AT+POP3CMD=4,1	OK	Retrieve the specific Email
	+POP3CMD: 1	
AT+POP3READ=1460	+POP3READ: 1,1460	Get the Email content
	...	
	OK	
AT+POP3READ=1460	+POP3READ: 1,1460	
	...	
	OK	
AT+POP3READ=1460	+POP3READ: 2,1183	The Email's content is read completely
	...	
	OK	
AT+POP3OUT	OK	Log out POP3 SERVER
	+POP3OUT: 1	

3.8 Delete the Email

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+POP3SRV="mail.sim.com","jo hn","123456",110	OK	Set POP3 server and account
AT+POP3IN	OK	Log in POP3 server
	+POP3IN: 1	
AT+POP3NUM	OK	Get Email number and total size
	+POP3NUM: 1,2,11124	
AT+POP3DEL=1	OK	Mark the Email to delete
	+POP3DEL: 1	
AT+POP3OUT	OK	Log out POP3 SERVER
	+POP3OUT: 1	

3.9 Get the Email's size and unique-id

AT Command	Response	Description
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AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+POP3SRV="mail.sim.com","john","123456",110	OK	Set POP3 server and account
AT+POP3IN	OK	Log in POP3 server
	+POP3IN: 1	
AT+POP3NUM	OK	Get Email number and total size
	+POP3NUM: 1,2,35797	
AT+POP3LIST=1	OK	Get the specific Email's size
	+POP3LIST: 1,1,16601	
AT+POP3UIDL=1	OK	Get the specific Email's unique-id
	+POP3UIDL: 1,1,AAAFOpdCAAav60+tkSFqRqk3/6ogog+g	
AT+POP3OUT	OK	Log out POP3 SERVER
	+POP3OUT: 1	

3.10 Email Send Encrypted Mail with Normal Port

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+EMAILSSL=2,0,"email.cer","email.pem"	OK	Set EMAIL begin encrypt transmission with normal port
AT+SMTPSRV="SMTP.GMAIL.COM"	OK	Set SMTP server address, port is omitted, means use the default ports: 25
AT+SMTPAUTH=1,"account","password"	OK	Set user name and password
AT+SMTPFROM="account@GMAIL.COM","account"	OK	Set sender address and name
AT+SMTPSUB="Test"	OK	Set the subject
AT+SMTPRCPT=0,0,"john@sim.com","john"	OK	Set the recipient (To:)
AT+SMTPBODY=19	DOWNLOAD This is a new Email OK	Set the body

AT+SMTPSEND	OK	Send the Email
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+SMTPSEND: 1

3.11 Email Send Encrypted Mail with Encryption Port

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+EMAILSSL=1,0,"email.cer","email.pem"	OK	Set EMAIL begin encrypt transmission with normal port
AT+SMTPSRV="SMTP.GMAIL.COM"	OK	Set SMTP server address, port is omitted, means use the default ports: 465
AT+SMTPAUTH=1,"account","password"	OK	Set user name and password
AT+SMTPFROM="account@GMAIL.COM","account"	OK	Set sender address and name
AT+SMTPSUB="Test"	OK	Set the subject
AT+SMTPRCPT=0,0,"john@sim.com","john"	OK	Set the recipient (To:)
AT+SMTPBODY=19	DOWNLOAD This is a new Email	Set the body
	OK	
AT+SMTPSEND	OK	Send the Email

+SMTPSEND: 1

3.12 Email Receive Encrypted Mail with Encryption Port

AT Command	Response	Description
AT+EMAILCID=0	OK	Set parameters of Email
AT+EMAILTO=30	OK	Set parameters of Email
AT+EMAILSSL=1,0,"email.cer","email.pem"	OK	Set EMAIL begin encrypt transmission with normal port
AT+POP3SRV="mail.sim.com","john","123456"	OK	Set POP3 server and account, port is omitted, means use the default ports 110
AT+POP3IN	OK	Log in POP3 server

+POP3IN: 1

AT+POP3NUM	OK	Get Email number and total size
	+POP3NUM: 1,2,11124	
AT+POP3LIST=1	OK	Get the specific Email's size
	+POP3LIST: 1,1,5556	
AT+POP3CMD=4,1	OK	Retrieve the specific Email
	+POP3CMD: 1	
AT+POP3READ=1460	+POP3READ: 1,1460 ...	Get the Email content
	OK	
AT+POP3READ=1460	+POP3READ: 2,1183 ...	The Email's content is read completely
	OK	
AT+POP3OUT	OK	Log out POP3 SERVER
	+POP3OUT: 1	

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