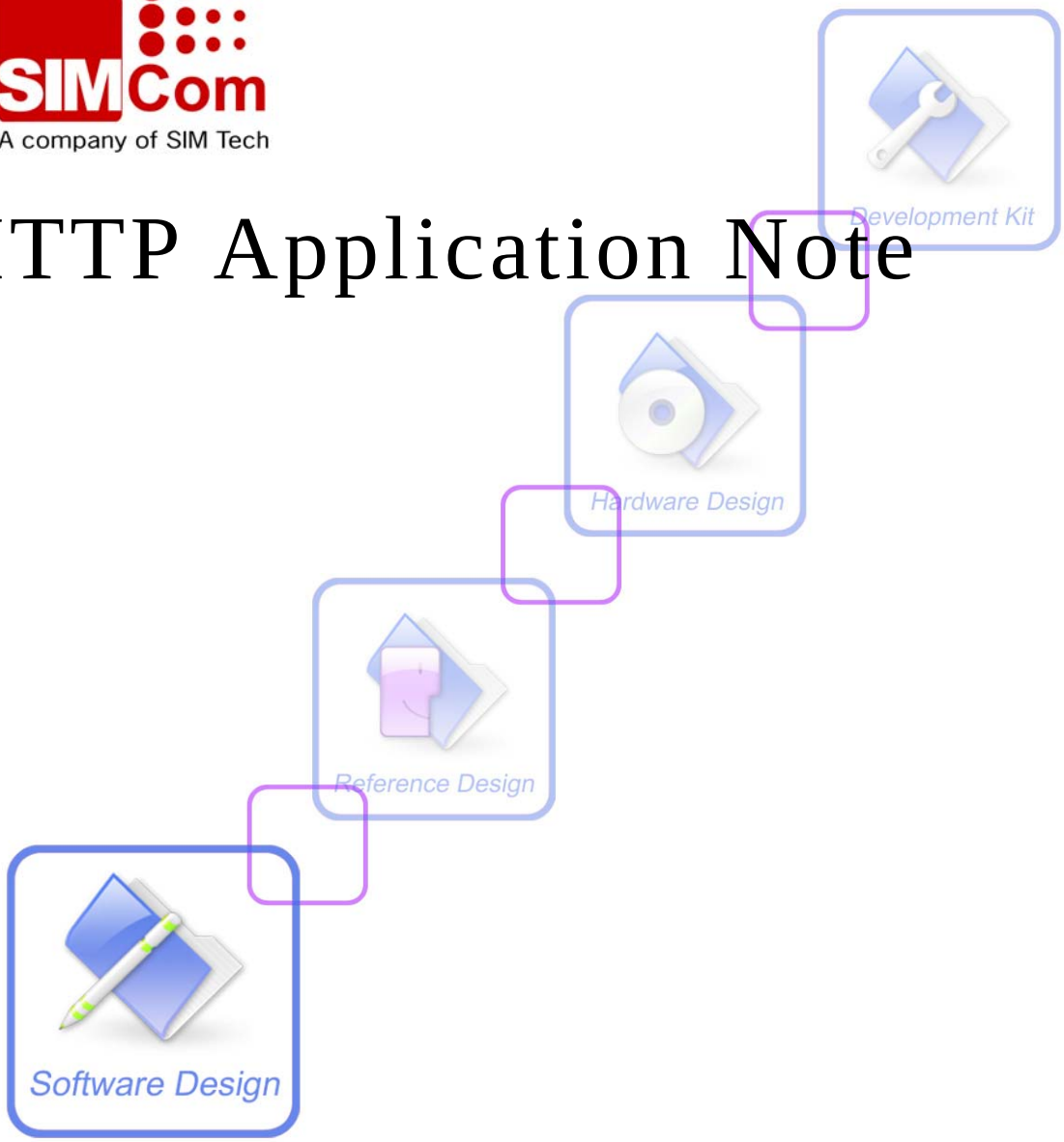
HTTP Application Note



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Version History

Version	Chapter	Comments
V0.01	New Version	

Contents

1. Introduction

1.1 Overview

This document gives the usage of SIM52XX HTTP functions. User can get useful information about the SIM52XX HTTP functions quickly through this document.

The HTTP functions are provided in AT command format, and they are designed for customers to design their HTTP applications easily. User can access the HTTP AT command through UART/ USB interface which communicates with SIM52XX module.

SIM52XX HTTP features:

- Basic HTTP GET and POST operation.
- Support transferring file between internal EFS and FTP server
- Support HTTP URL parsing using DNS

1.2 References

The present document is based on the following documents:

[1] SIMCOM_SIM5360_ATC_EN_V0.05.doc.

1.3 Terms and Abbreviations

For the purposes of the present document, the following abbreviations apply:

- AT ATtention; the two-character abbreviation is used to start a command line to be sent from TE/DTE to TA/DCE
- TA Terminal Adaptor; e.g. a data card (equal to DCE)
- TE Terminal Equipment; e.g. a computer (equal to DTE)
- UMTS Universal Mobile Telecommunications System
- URC Unsolicited Result Code
- USIM Universal Subscriber Identity Module
- WCDMA Wideband Code Division Multiple Access

2. Transfer a File

3.1 Send GET command to HTTP Server

The following command gets the html web page from http://www.mywebsite.com:80/:

1) TE inputs AT+CHTTPACT command

AT+CHTTPACT=”www.mywebsite.com”,80

2) Module reports +CHTTPACT: REQUEST to indicate that HTTP server has been connected successfully, and TE can input the HTTP request now.

+CHTTPACT: REQUEST

3) TE inputs HTTP request. If the request data contains character with decimal value of 03 or 26, it should convert it to 03 03 or 03 26 which contains two characters.

GET /index.html HTTP/1.1
Host: www.mywebsite.com
User-Agent: MY WEB AGENT
Content-Length: 0

4) TE inputs <CTRL+Z> with decimal value 26 to indicate end of the HTTP request data.

<CTRL+Z>

5) Module reports OK.

OK

6) Module reports +CHTTPACT: DATA, <len>\r\n<data> to indicate that module has received new data from HTTP server. The <len> is the the length of <data> part. The <data> part contains the data received from HTTP server. This unsolicited result may be reported for multiple times which depends on the real size of the file transferred using HTTP.

+CHTTPACT: DATA, 1024
…

+CHTTP: DATA, 1024

…

7) Module reports +CHTTPACT: <result>

+CHTTPACT: 0

3.2 Send POST command to HTTP Server

The following command sends a POST command to the HTTP server:

1) TE inputs AT+CHTTPACT command

AT+CHTTPACT=”www.mywebsite.com”,80

2) Module reports +CHTTPACT: REQUEST to indicate that HTTP server has been connected successfully, and TE can input the HTTP request now.

+CHTTPACT: REQUEST

3) TE inputs HTTP request. If the request data contains character with decimal value of 03 or 26, it should convert it to 03 03 or 03 26 which contains two characters.

+CHTTPACT: REQUEST
POST http://www.mywebsite.com/mydir/test.jsp HTTP/1.1
Host: www.mywebsite.com
User-Agent: MY WEB AGENT
*Accept: */**
Content-Type: application/x-www-form-urlencoded
Cache-Control: no-cache
Accept-Charset: utf-8, us-ascii
Pragma: no-cache
Content-Length: 29

myparam1=test1&myparam2=test2

If the HTTP request data contains character with decimal value of 03 or 26, the character should be converted to 03 03 or 03 26 which contains two characters.

4) TE inputs <CTRL+Z> with decimal value 26 to indicate end of the HTTP request data.

<CTRL+Z>

5) Module reports OK.

OK

6) Module reports +CHTTPACT: DATA, <len>\r\n<data> to indicate that module has received new data from HTTP server. The <len> is the the length of <data> part. The <data> part contains the data received from HTTP server. This unsolicited result may be reported for multiple times which depends on the real size of the file transferred using HTTP.

+CHTTPACT: DATA, 1024
…

+CHTTP: DATA, 1024
…

7) Module reports +CHTTPACT: <result>

+CHTTPACT: 0

3.3 Timer values of HTTP transferring

Following are the timer value setting for FTP transferring:

Timer	Value
Socket connect	2 minutes
HTTP transferring timer	1 hours

3. Unsolicited Result Code of HTTP

Following is the unsolicited result code of +CHTTPACT and +CME RROR:

Code of <err>	Description
220	Unknown error for HTTP
221	HTTP task is busy
222	Failed to resolve server address
223	HTTP timeout
224	Failed to transfer data
225	Memory error
226	Invalid parameter
227	Network error

4. HTTP AT Command Samples

Get a html page from HTTP server	Comments
AT+CGSOCKCONT=1,"IP","myapn" OK	Set the PDP context profile.
AT+CHTTPACT=*"www.mywebsite.com",80* OK *+CHTTPACT: REQUEST* *GET /index.html HTTP/1.1* *Host: www.mywebsite.com* *User-Agent: MY WEB AGENT* *Content-Length: 0* ***<Ctrl+Z>*** *OK* *+CHTTPACT: DATA, 249* *HTTP/1.1 200 OK* *Content-Type: text/html* *Content-Language: zh-CN* *Content-Length: 57* *Date: Tue, 31 Mar 2009 01:56:05 GMT* *Connection: Close* *Proxy-Connection: Close* *<html>* *<header>test</header>* *<body>* *Test body* *</body>* *+CHTTPACT: 0*	Connect HTTP server http://www.mywebsite.com:80/ Get the http://www.mywebsite.com:80/index.html web page from HTTP server Module reports the web page content received from HTTP server.
Post data to HTTP server	**Comments**
AT+CGSOCKCONT=1,"IP","myapn" OK	Set the PDP context profile.
AT+CHTTPACT=*"www.mywebsite.com",80* OK *+CHTTPACT: REQUEST* *POST /mydir/test.jsp HTTP/1.1* *Host: www.mywebsite.com* *User-Agent: MY WEB AGENT* *Accept: */** *Content-Type:*	Connect HTTP server http://www.mywebsite.com:80/ Post data to http://www.mywebsite.com/mydir/test.jsp

application/x-www-form-urlencoded *Cache-Control: no-cache* *Accept-Charset: utf-8, us-ascii* *Pragma: no-cache* *Content-Length: 29* *myparam1=test1&myparam2=test2<**Ctrl+Z**>* *OK* *+CHTTPACT: DATA, 234* *HTTP/1.1 200 OK* *Content-Type: text/html* *Content-Language: zh-CN* *Content-Length: 54* *Date: Tue, 31 Mar 2009 01:56:05 GMT* *Connection: Close* *Proxy-Connection: Close* *<html>* *<header>result</header>* *<body>* *Result is OK* *</body>* *+CHTTPACT: 0*	Module reports the post response received from HTTP server.

5. Conflict AT Commands

Following AT commands cannot be used with HTTP AT commands together:

- TCP/IP Related AT Commands.
- MMS AT Commands
- GPS AT Commands

Contact us

Shanghai SIMCom Wireless Solutions Ltd.
Add: Building A, SIM Technology Building, No.633, Jinzhong Road, Changning District
200335
Tel: +86 21 3252 3300
Fax: +86 21 3252 3301
URL: http:/www.sim.com/wm/