Content

1. External PPP Setting

Port: USB->modem / UART, Hardware flow control

AT command:
AT+CGDCONT=1,”IP”,”apn”
ATD*99#

Note, Sequence of +++ could be issued to exit data mode.

2. SIMCom Internal TCPIP Protocol

2.1 Network Environment

TCPIP application is based on GPRS network; so, ensure GPRS network is available before TCPIP setup. Following is the recommended steps.

AT+CSQ
+CSQ: 23,0

OK
AT+CREG?
+CREG: 0,1

OK
AT+CPSI?
+CPSI: GSM,Online,460-00 0x1816,63905,81 EGSM 900,-68,0,31-31

OK
AT+CGREG?
+CGREG: 0,1

OK

2.2 PDP Context Enable/Disable

APN setting：

```
AT+CGSOCKCONT=1,"IP","CMNET"
OK
AT+CSOCKSETPN=1
OK
```

Note, usually CSOCKAUTH and CSOCKSETPN parameter are kept default if not care about.

Enable PDP context:

```
AT+CIPMODE=0      // command mode, if not configured, it's 0 as default. If want data mode, please configure before Net open.
OK
AT+NETOPEN
OK

+NETOPEN: 0

AT+IPADDR
+IPADDR: 10.113.43.157

OK
```

Disable PDP context:

```
AT+NETCLOSE
OK

+NETCLOSE: 0
```

2.3 Command Mode (Non-transparent mode)

Command mode is sometimes called non-transparent mode, which is default configured by module. Multi sockets are available under this mode.

2.3.1 TCP Client

AT+CIPOPEN=0,"TCP","116.236.221.75",8011//only IP address is supported
OK

+CIPOPEN: 0,0

AT+CIPSEND=0,5 // *only supports fixed-length to send*
>HELLO
OK

+CIPSEND: 0,5,5

AT+CIPSEND=0, //the second parameter is empty means using <Ctrl+Z> to check the end
>HELLO<Ctrl+Z>
OK

+CIPSEND: 0,5,5

AT+CIPCLOSE=0 // *close by local*
OK

+CIPCLOSE: 0,0

Note, if connection closed by remote server, following URC will return:
+IPCLOSE: 0, 1
Here, the meaning of second parameter in this URC is following,
0 - closed by local, active
1 - closed by remote, passive
3 - Reset

2.3.2 UDP Connetion

One socket could communicate with multiple UDP channels.

AT+CIPOPEN=0,"UDP",,,9000//here 9000 is local port
+CIPOPEN: 0,0
OK

AT+CIPSEND=0,5,"16.236.221.75",9015