L506 TCPIP AT USER GUIDE

L506 Module Series

Version： V1.2

Date：2018-02-22

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Version History

Date	Version	Description of change	Author
2018-02-22	V1.2	Add Initial Process	Linda

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1. Overview

This document targets TCP/IP application developers in L506 module. It provides information on how to use the TCPIP feature.

2. Initial Process

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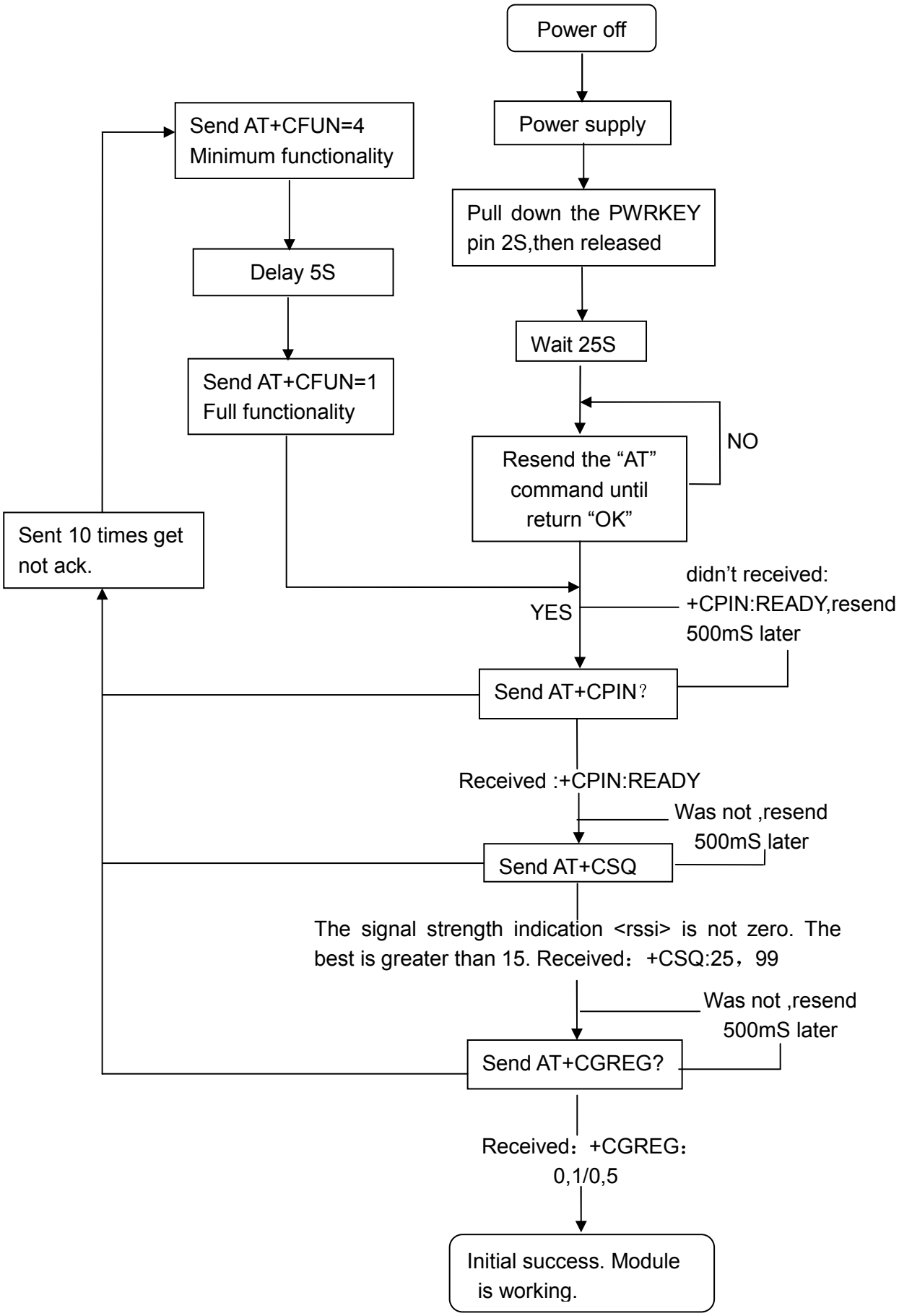

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3. Initial

```
AT+CPIN?                    // Check the status of SIM
+CPIN:READY
OK
AT+CREG?      // +CREG: 0,1 means registered; +CREG: 5,1 means remote netwok
+CREG: 0,1                  // +CREG: 0,0 means no registered
AT+CREG=1                           // For auto network status update, use command
OK
AT+CGATT?                   // Check GPRS attached status
+CGATT: 1                   // 1: GPRS attached;
// 0: no attached, if no attached, check again later
OK
```

4. Create TCP or UDP connection

```
AT+CIPTIMEOUT=30000,20000,40000,50000     //timeout parameter settings
OK
AT+CIPMODE=0                                        //transmit mode setting
OK
AT+NETOPENOK
+NETOPEN:SUCCESS
AT+IPADDR                                           //Get IP address
+IPADDR:SUCCESS,10.168.66.183
OK
AT+CIPRXGET=0,1                                     //Receiving mode setting
OK
at+cipopen=1,"tcp","195.34.89.241",7,0      // Create one TCP socket connection
OK
+CIPOPEN:SUCCESS,1
OK
AT+CIPOPQUERY=1                     //query link 1 connect status.
+CIPOPQUERY:
1：2
OK
```

5. Send data

```
AT+CIPSEND=1,4                      //send 4 bytes via No.1
>2233
OK
+CIPRXGET:SUCCESS,1,4 ,4,
```

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6. Receive data

AT+CIPRXGET=0,1 //Get data from TCP/IP server in automatic mode.
+CIPRXGET: SUCCESS,0,1,15,
ddddddddddddddf

7. TCP connection maintenance

TCP is a reliable data delivery service that guarantees delivery of data streams sent from one side to another without duplication or losing data. But network is very complicated so that some unknown errors occur when using the TCP based the network. These issues affect the performance of TCP connection. So it is necessary to check whether the TCP connection is OK and whether the sent data has been received by the server. The chapter Exception handling' recommends several methods to maintain TCP connection and detect the status of TCP connection.

It is recommended to send a small data packet to the remote end and then wait for a moment to check whether the packet has been received by the remote end.

8. UDP connection maintenance

When using UDP, customer need to detect the connect by their own application protocol; When Ack overtimes more than a certian number(for example 3 times), it's recommended to close the socket like the chapter ' Exception handling ' in this document.

For UDP, it also need to send a small data packet to the remote end through and then check the ACK from server to maintain the resource;

9. Close connection

AT+CIPCLOSE=1 //Close link N0.1

OK
+CIPCLOSE: SUCCESS,1
ATNETCLOSE //Close net

OK
+NETCLOSE: SUCCESS

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