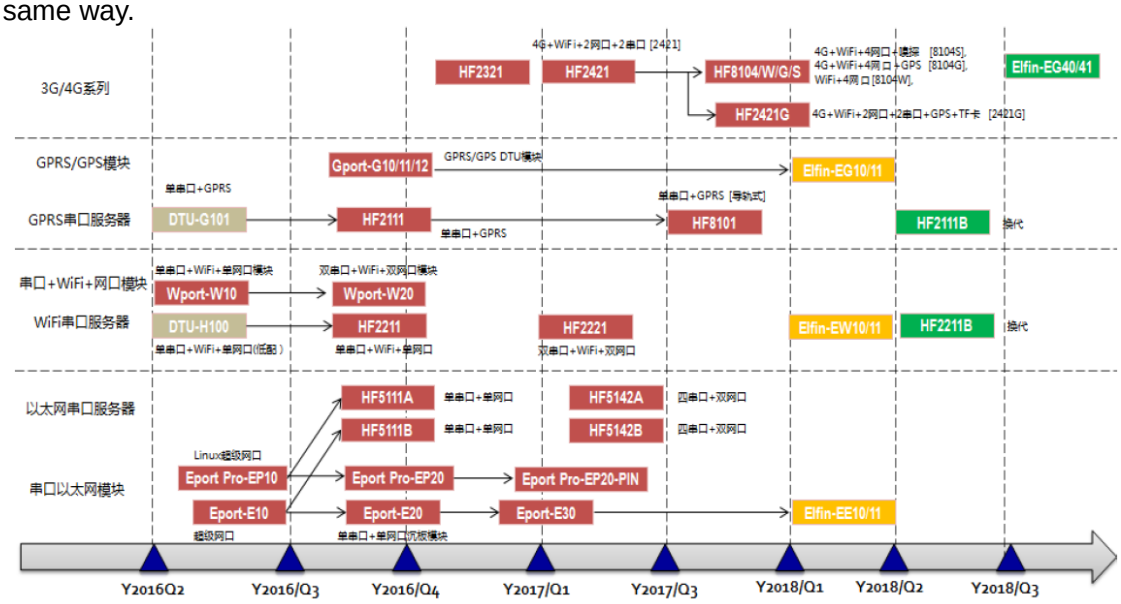
User Manual and Test Guide

HTTP

Content

1. DEVELOPMENT KIT INTRODUCTION

This document is applicable to High Flying's IoT equipment. The specific supported models are as follows. This document introduces HF5111B. Other products are used in the same way.



2. HARDWARE REQUIREMENTS

- HF5111B 1 Pcs

4. HTTP TEST

4.1. Device Connection

Connect PC and HF5111B to router LAN.

Sending data in HTTP format to HTTP server (Set product socket to HTTP by IOTService software or webpage). When device socket works in HTTP mode. All received UART data will automaticly transform to HTTP format (add HTTP header) and send to HTTP server. For the received HTTP data from HTTP server, it will automatically remove HTTP header and only output the data packet to UART.

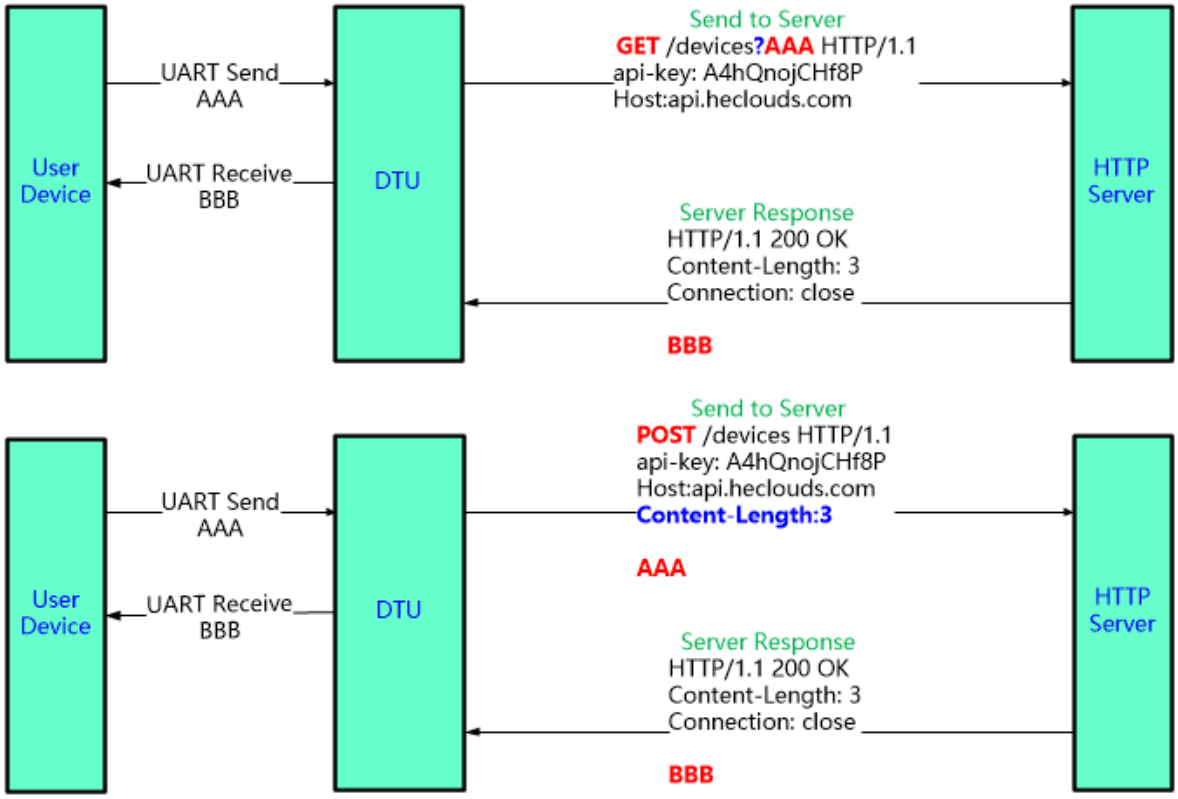


Figure 1. HTTP Request

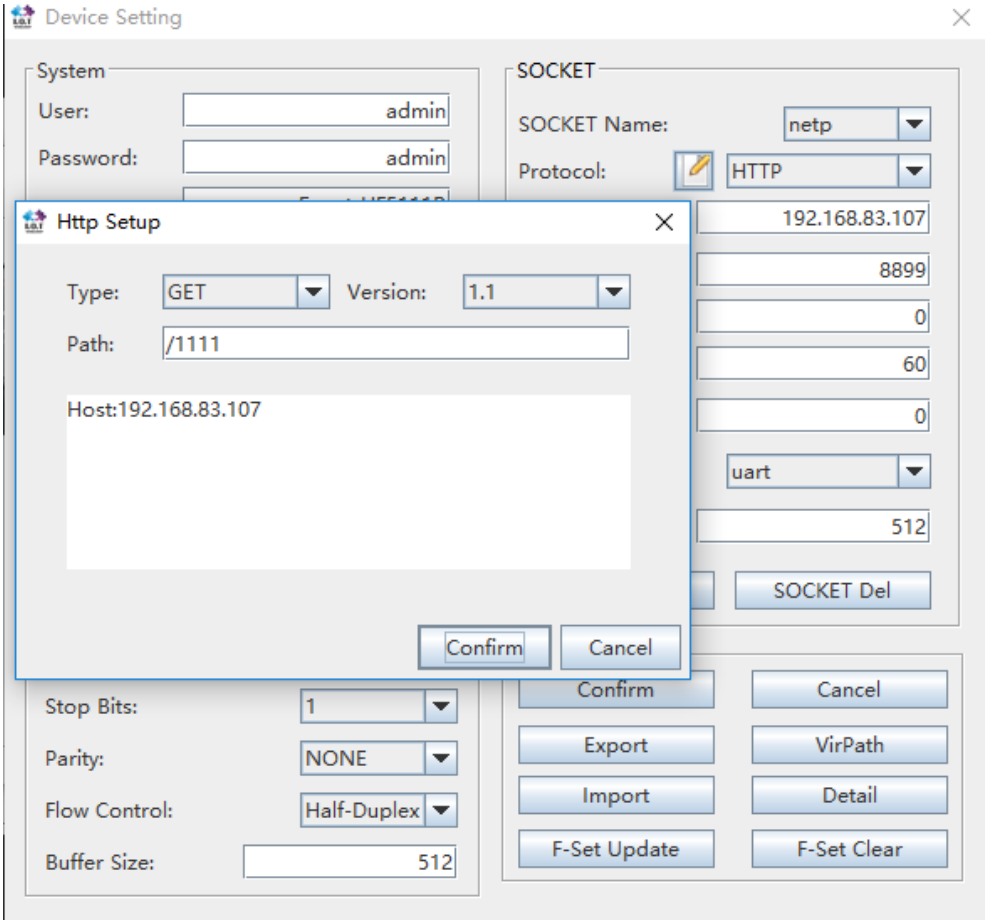


Figure 2. IOTService Configure

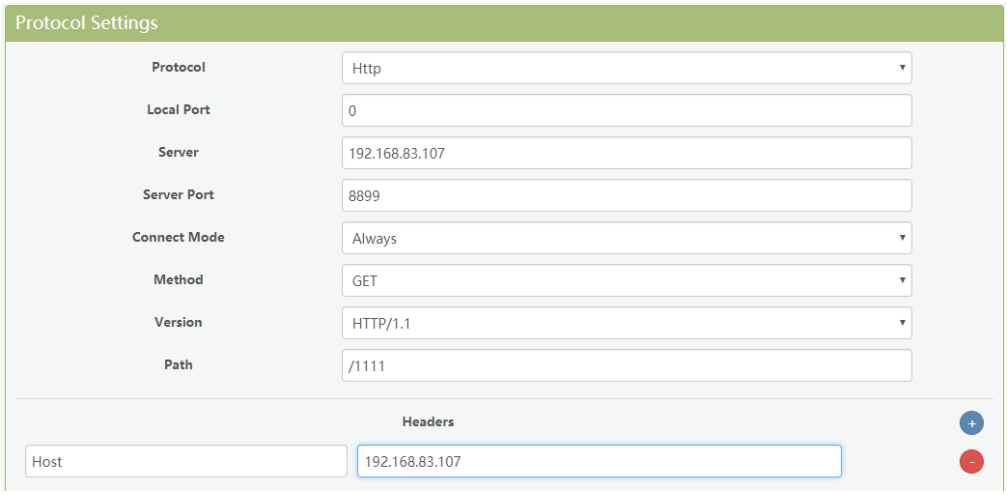


Figure 3. Webpage Configure

For GET request, the received UART packet AAA will put after the HTTP path (auto add "?" between path and parameters), for POST request, packet is put in the content (auto add Content-Length header information).

Product will send the below data to HTTP Server when UART receive "pppp" data for GET request.

GET /1111?pppp HTTP/1.1

Host: 192.168.83.107

Product will output “DDDDD” when get response from the HTTP server.

HTTP/1.1 200 OK

Server: nginx

DDDDD

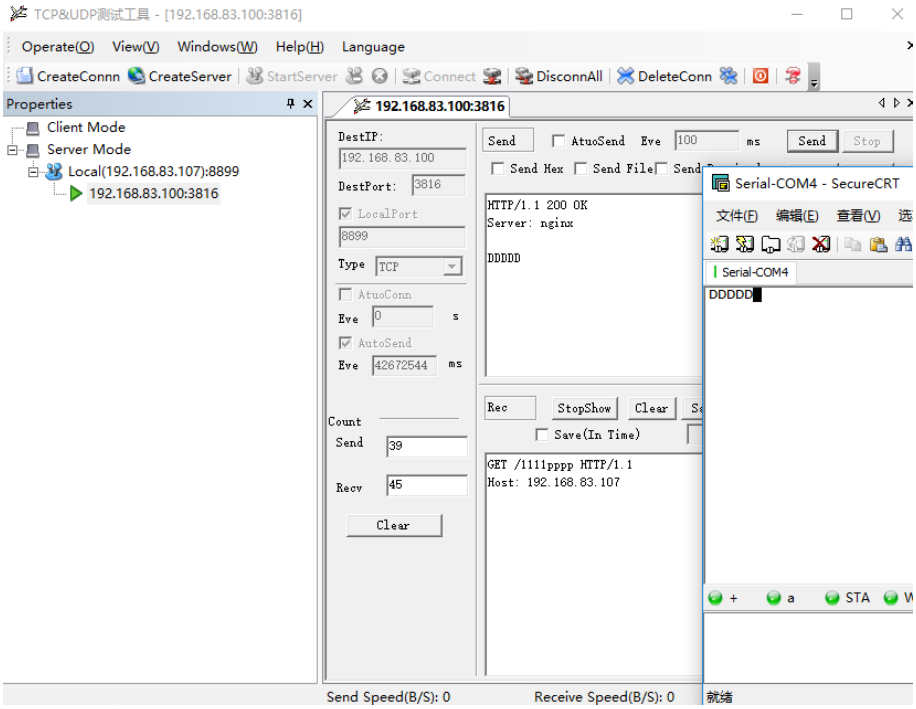


Figure 4. HTTP GET Request Example

Product will send the below data to HTTP Server when UART receive “pppp” data for POST request.

POST /1111 HTTP/1.1

Host: 192.168.83.107

Content-Length:4

pppp

Product will output “DDDD” when get response from the HTTP server.

HTTP/1.1 200 OK

Content-Length: 4

Connection: close

DDDD

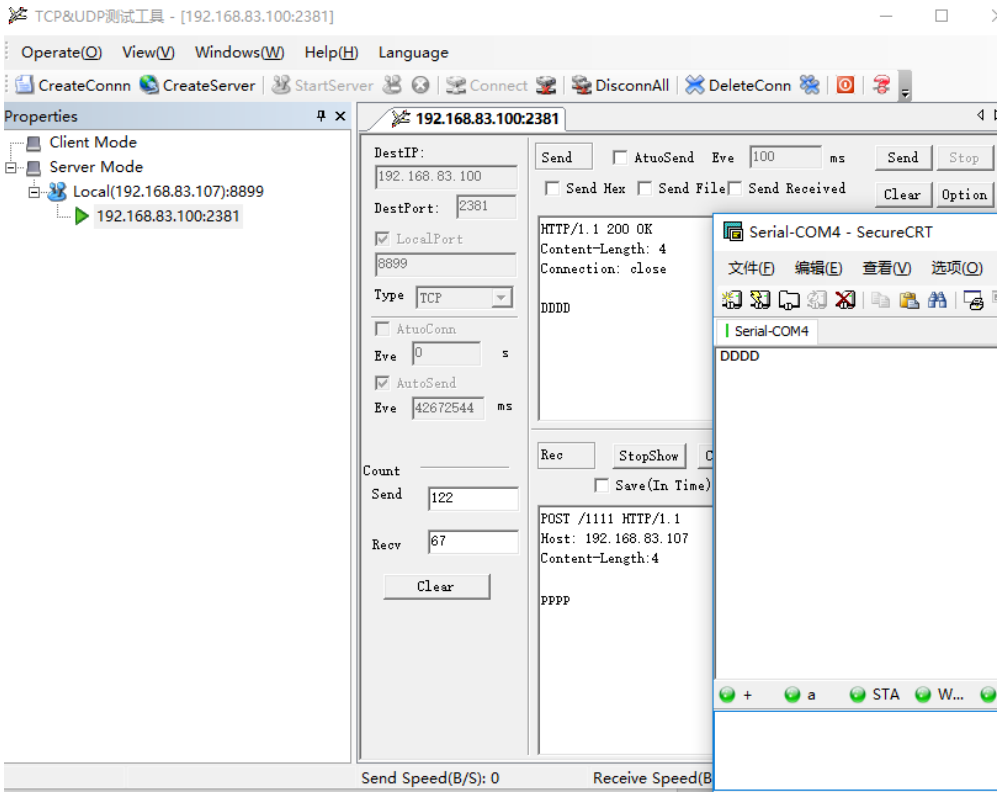
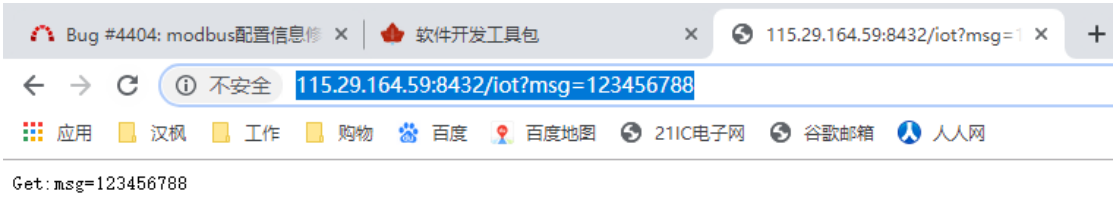


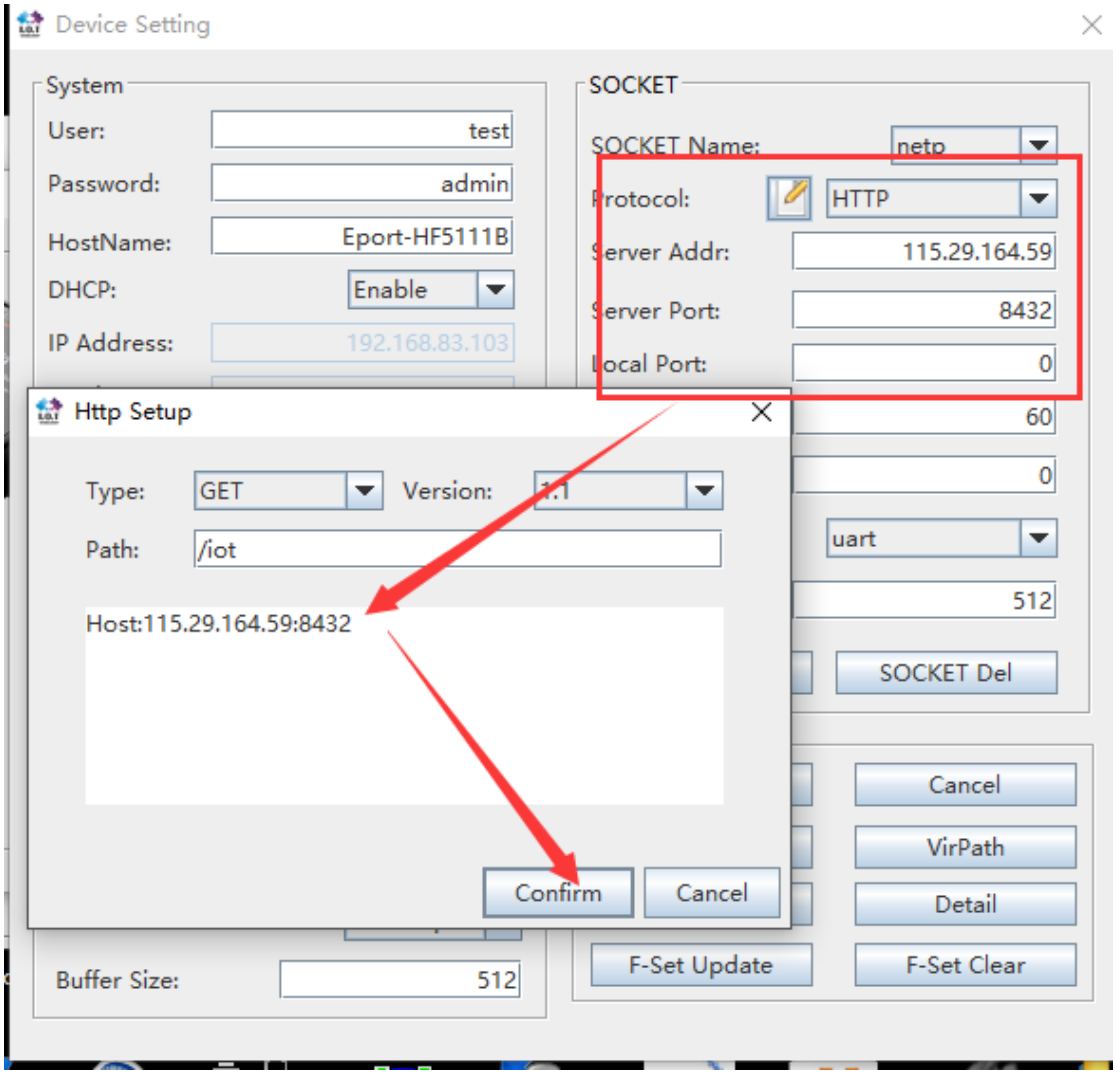
Figure 5. HTTP POST Request Example

4.2. HTTP Test

Step 1: Browser open http://115.29.164.59:8432/iot?msg=123456788, got the response as following:

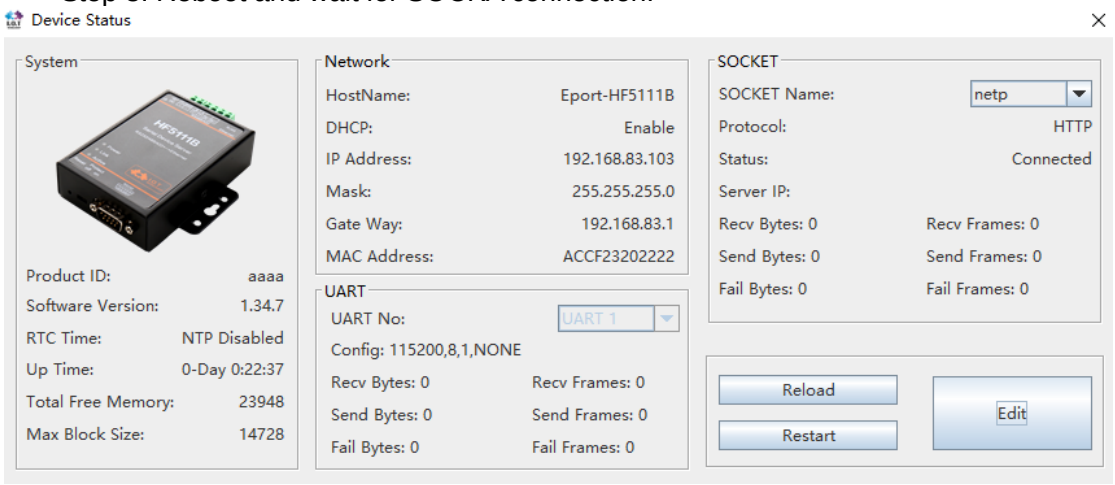


Step 2: Input the HTTP parameters as the following steps.

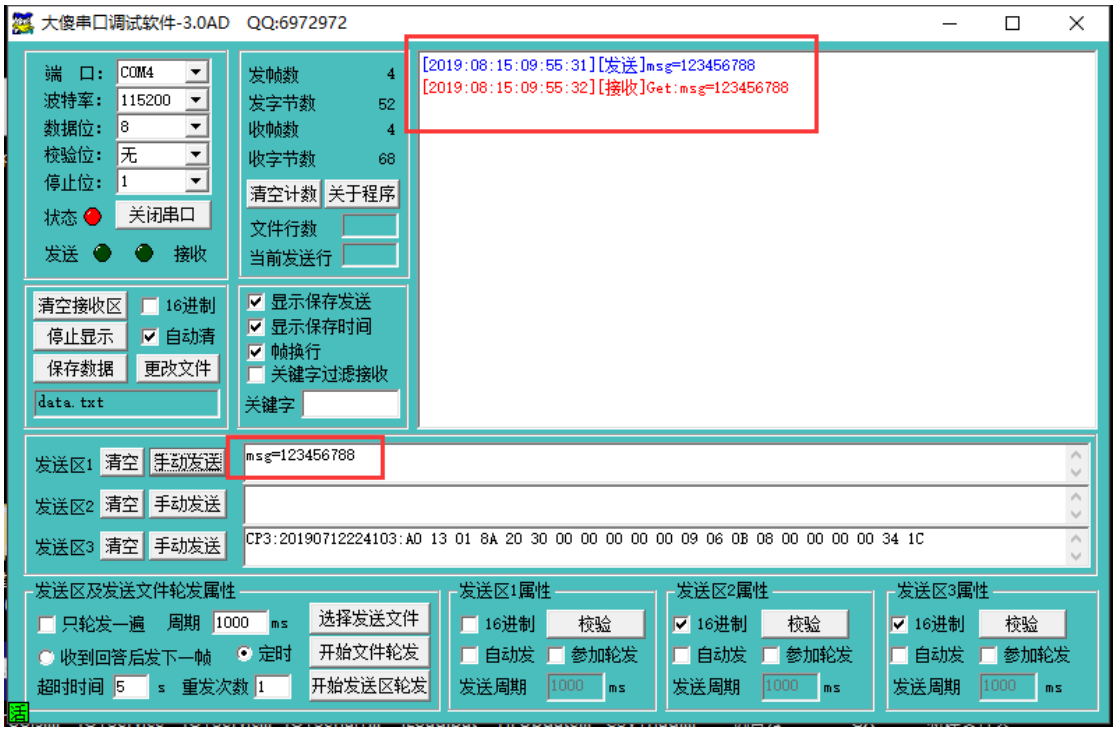


Protocol: HTTP
Server Addr: Server address, IP or domain name.
Server Port: Server port.
Type: HTTP Type, GET or POST.
Version: HTTP Version, 1.1.
Path: HTTP path
HTTP header input: Input HTTP header. Usually is Host information.

Step 3: Reboot and wait for SOCKA connection.



Step 4: UART send data id=1, and got response of the server.

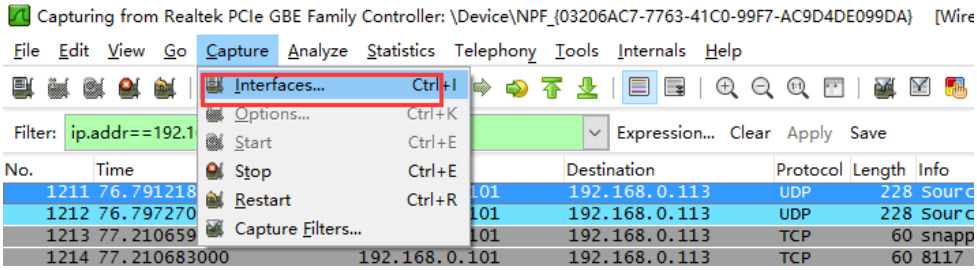


5. WIRESHARK PACKAGE CAPTURING SOFTWARE

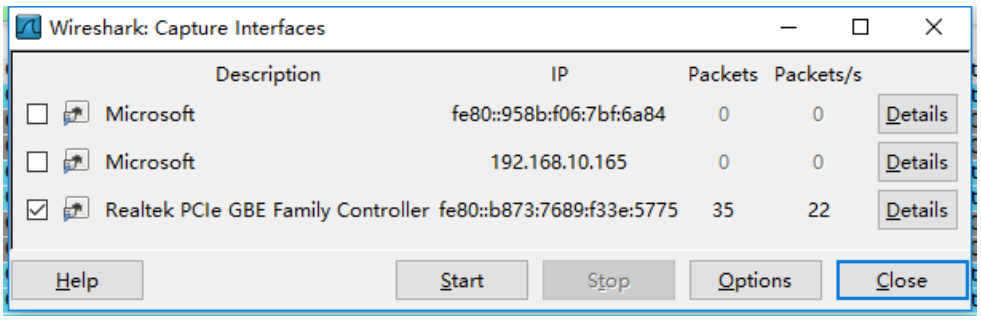
5.1. Tool Introduction

Wireshark can be used to analyze network packages about sending and receiving data. Please download and install this software from searching tools.

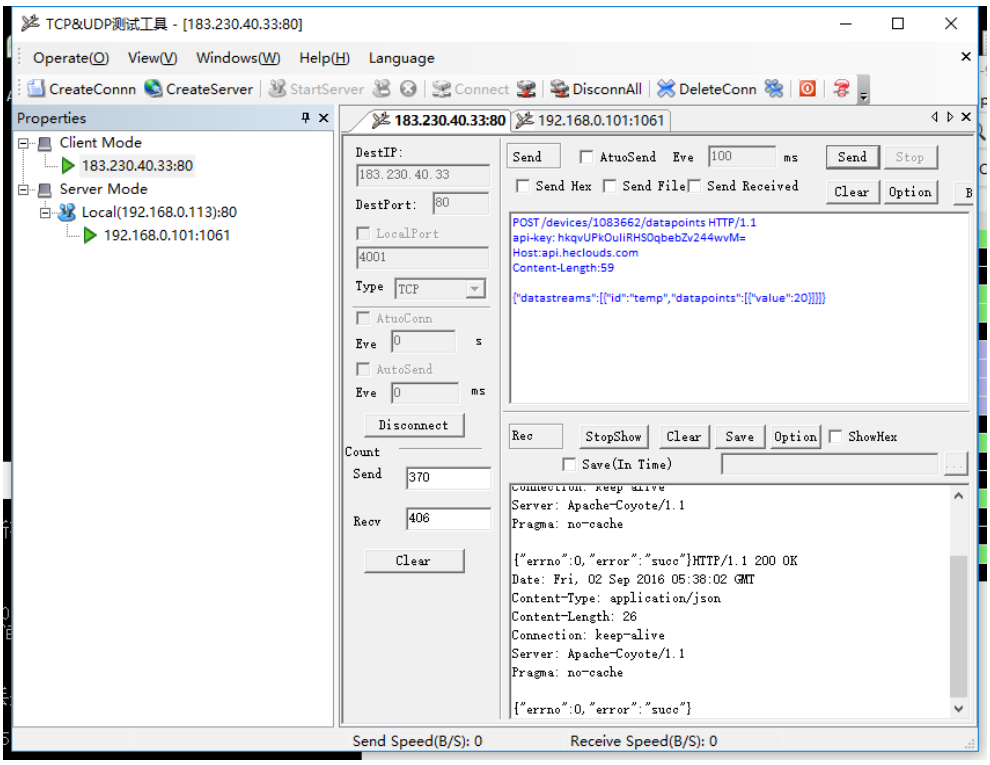
Step 1： Open wireshark tool and click interface tab control.



Step 2：Tick related PC network card and click Start button.



Step 3：Send test data by TCP&UDP tool.



Step 4： Input filter option. The following color marked packets are captured by this tool, which is from device uploading and server reposing.