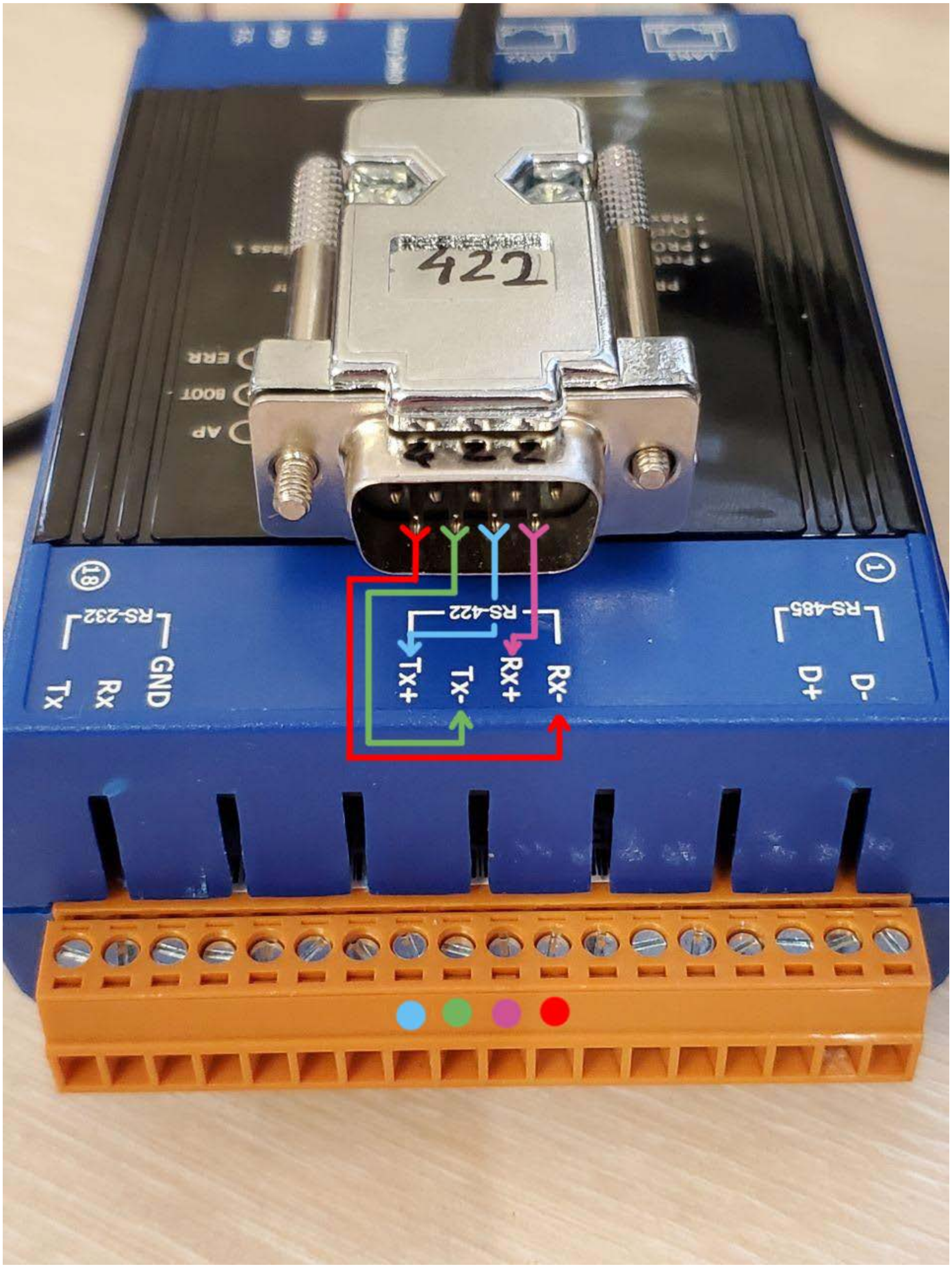
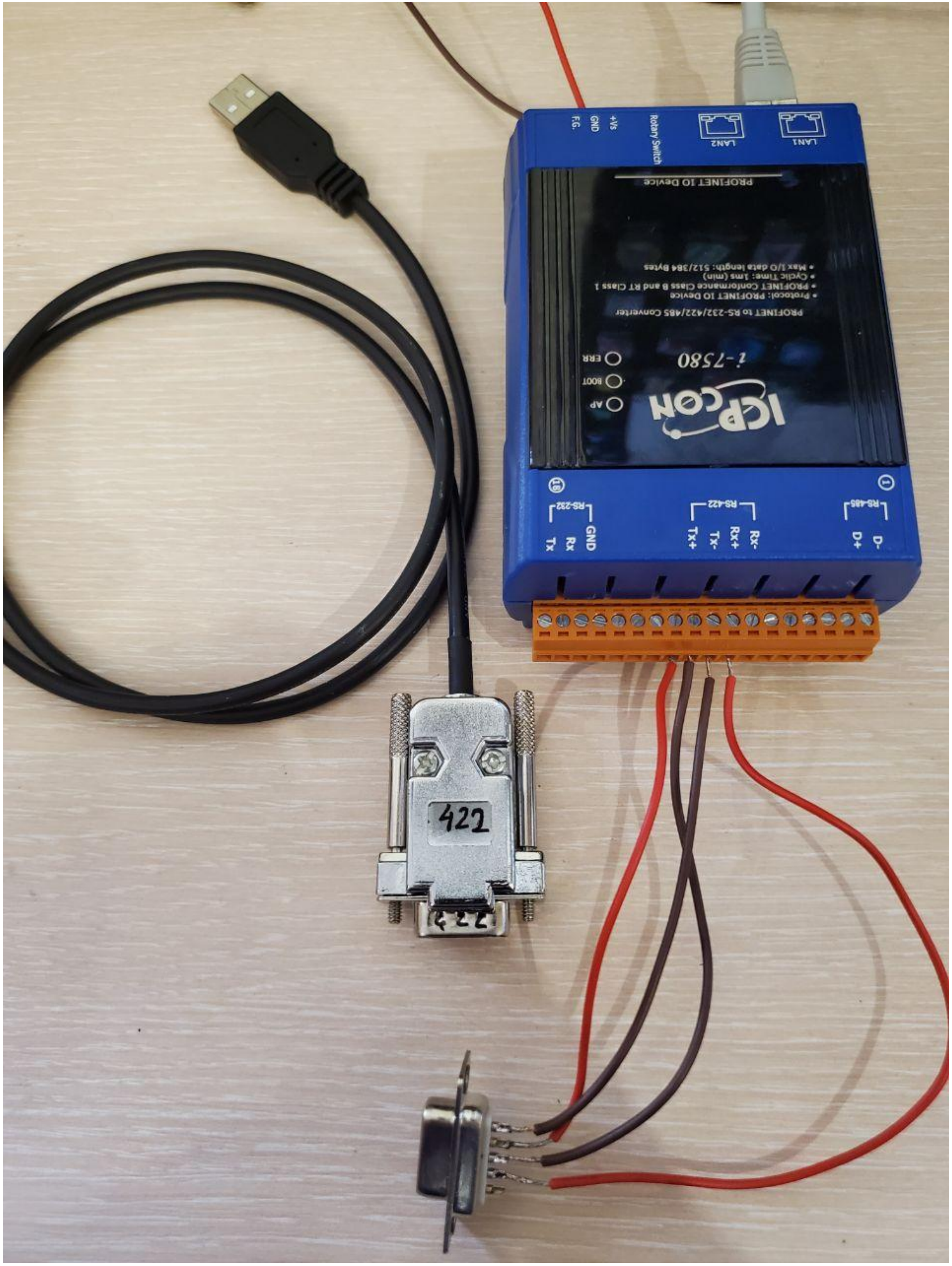
Little help in connecting the converter and checking its performance

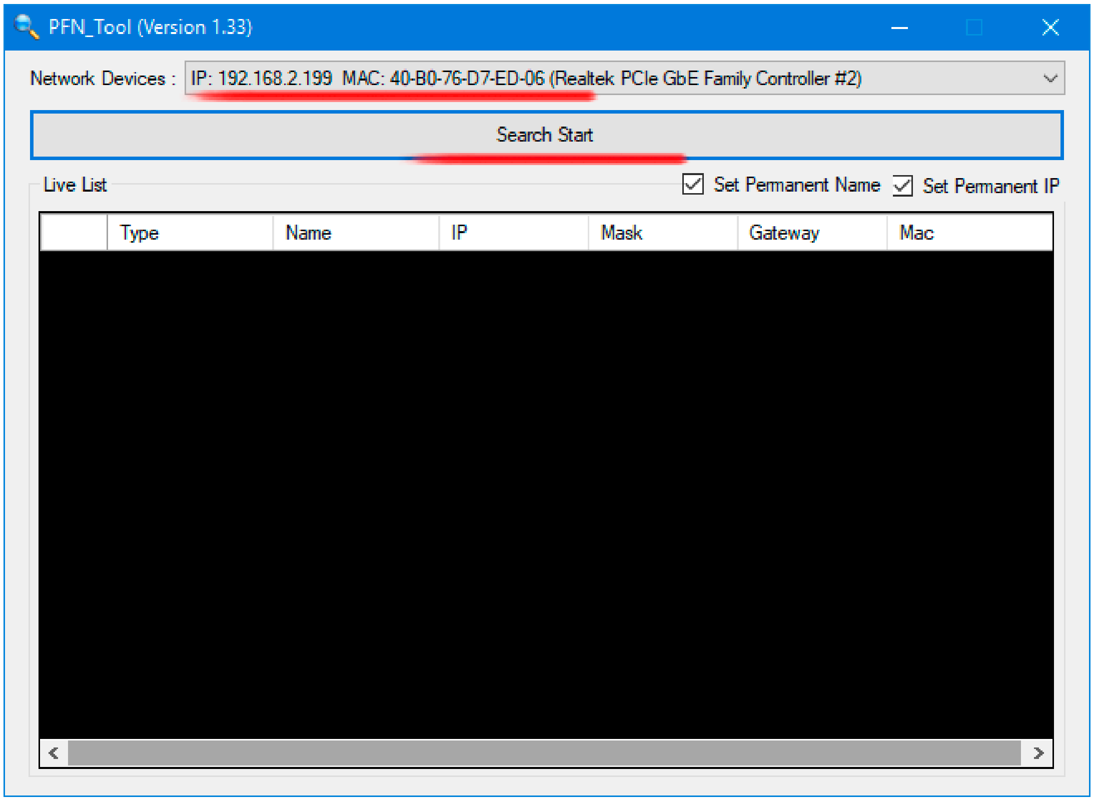


How to test the device

1) First, you should to apply 24V power to the I-7580 converter and then to connect converter via rj45 and rs422 (or 232, or 485) to your PC.



2) Open PFN_Tool software and start searching as shown in the pictures

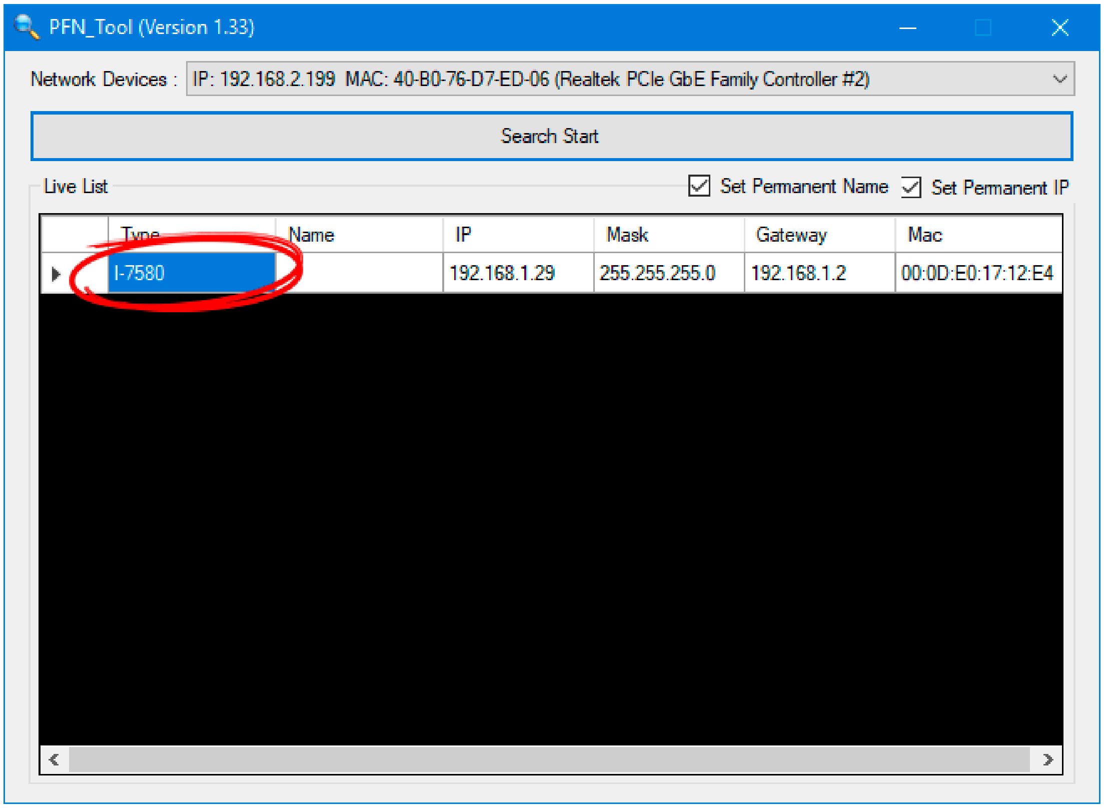


Network Devices : IP: 192.168.2.199 MAC: 40-B0-76-D7-ED-06 (Realtek PCIe GbE Family Controller #2)

☑ Set Permanent Name ☑ Set Permanent IP

	Type	Name	IP	Mask	Gateway	Mac

3) Select the discovered device by double clicking

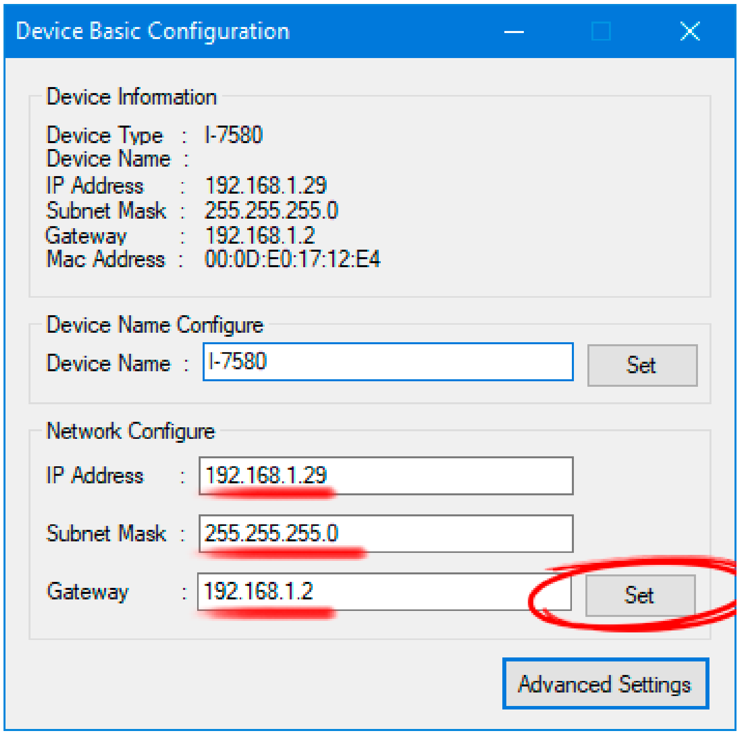


Network Devices : IP: 192.168.2.199 MAC: 40-B0-76-D7-ED-06 (Realtek PCIe GbE Family Controller #2)

☑ Set Permanent Name ☑ Set Permanent IP

	Type	Name	IP	Mask	Gateway	Mac
▸	I-7580		192.168.1.29	255.255.255.0	192.168.1.2	00:0D:E0:17:12:E4

4) Configure the device according to your adapter settings



Device Basic Configuration

Device Information

Device Type : I-7580
Device Name :
IP Address : 192.168.1.29
Subnet Mask : 255.255.255.0
Gateway : 192.168.1.2
Mac Address : 00:0D:E0:17:12:E4

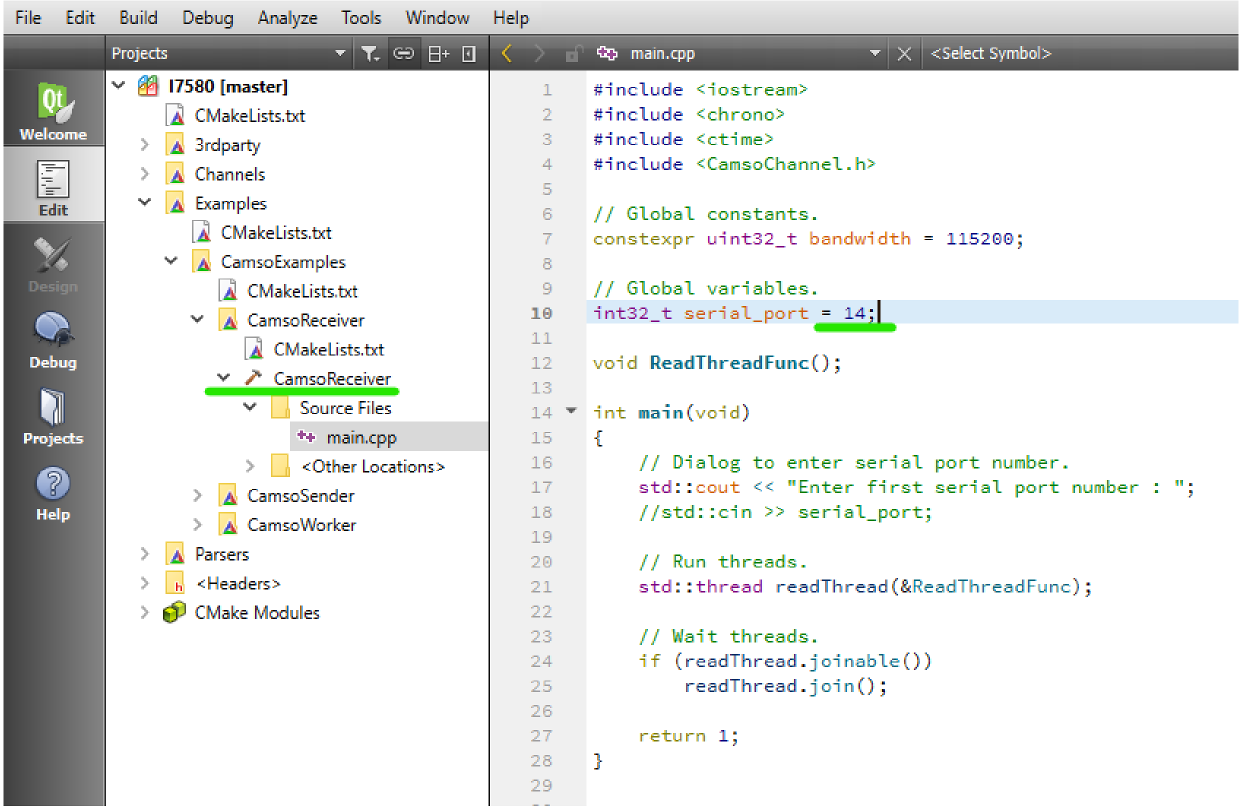
Device Name Configure

Device Name : I-7580

Network Configure

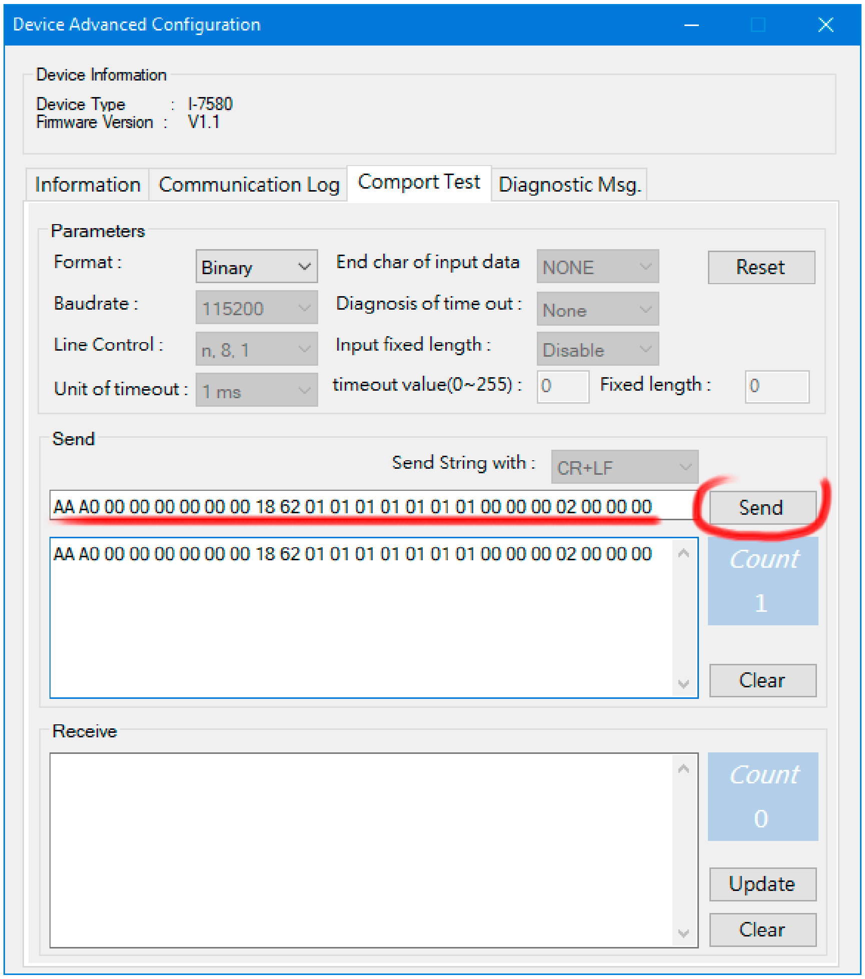
IP Address : 192.168.1.29
Subnet Mask : 255.255.255.0
Gateway : 192.168.1.2

5) Run the sample receiver program (before that, specify in the program the number of the com-port to which the converter is connected)



```
#include <iostream>
#include <chrono>
#include <ctime>
#include <CamsoChannel.h>

// Global constants.
constexpr uint32_t bandwidth = 115200;

// Global variables.
int32_t serial_port = 14;

void ReadThreadFunc();

int main(void)
{
    // Dialog to enter serial port number.
    std::cout << "Enter first serial port number : ";
    //std::cin >> serial_port;

    // Run threads.
    std::thread readThread(&ReadThreadFunc);

    // Wait threads.
    if (readThread.joinable())
        readThread.join();

    return 1;
}
```

6) If you send this data (AA A0 00 00 00 00 00 00 18 62 01 01 01 01 01 01 01 00 00 00 02 00 00 00) from I-7580 Converter to PC:



Device Information

Device Type : I-7580
Firmware Version : V1.1

Format : Binary

End char of input data NONE

Baudrate : 115200

Diagnosis of time out : None

Line Control : n, 8, 1

Input fixed length : Disable

Unit of timeout : 1 ms

timeout value(0~255) : 0

Fixed length : 0

Send String with : CR+LF

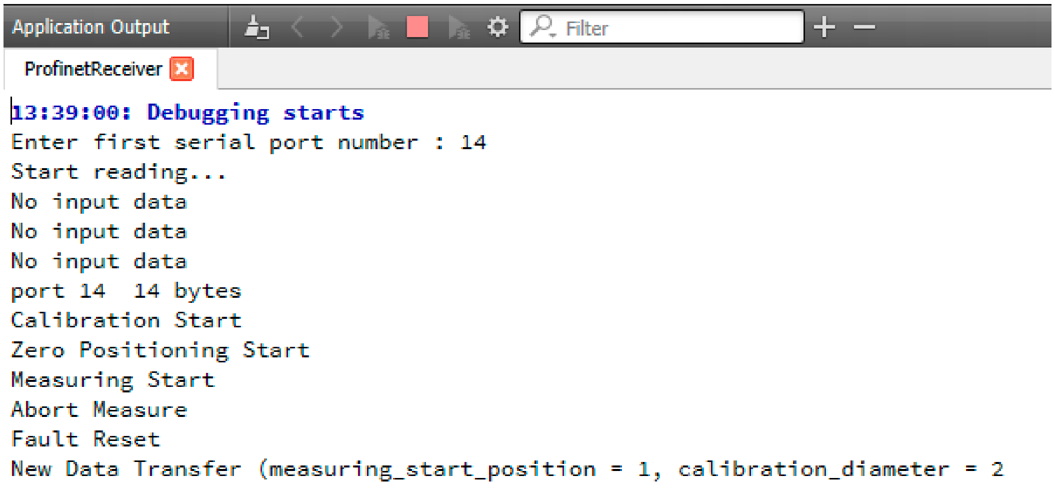
AA A0 00 00 00 00 00 00 18 62 01 01 01 01 01 01 01 00 00 00 02 00 00 00

AA A0 00 00 00 00 00 00 18 62 01 01 01 01 01 01 01 00 00 00 02 00 00 00

Count 1

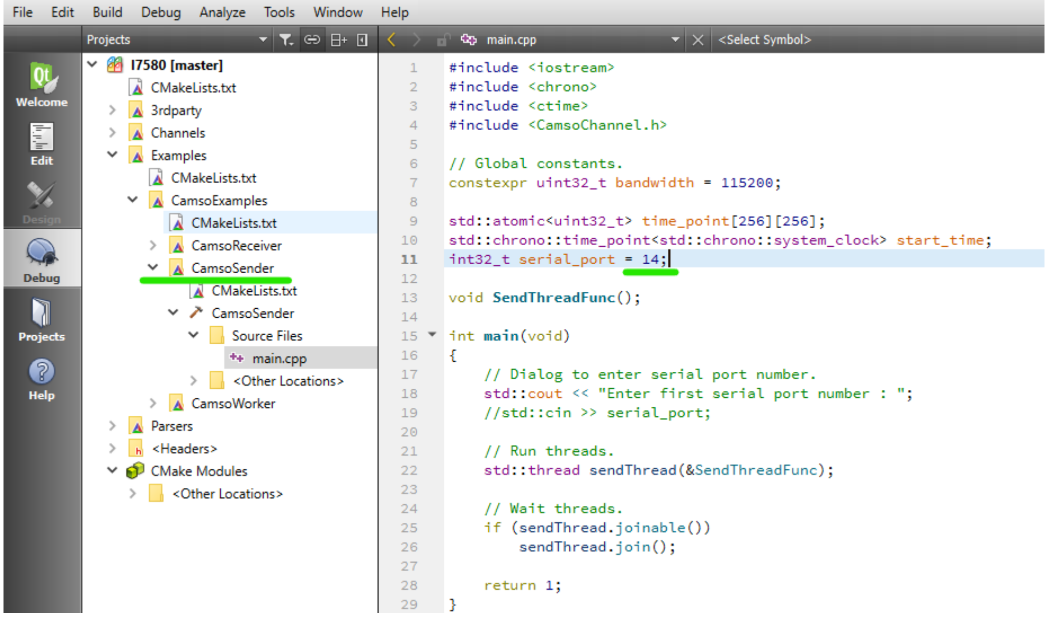
Count 0

Then in in the sample receiver program you can see this output information



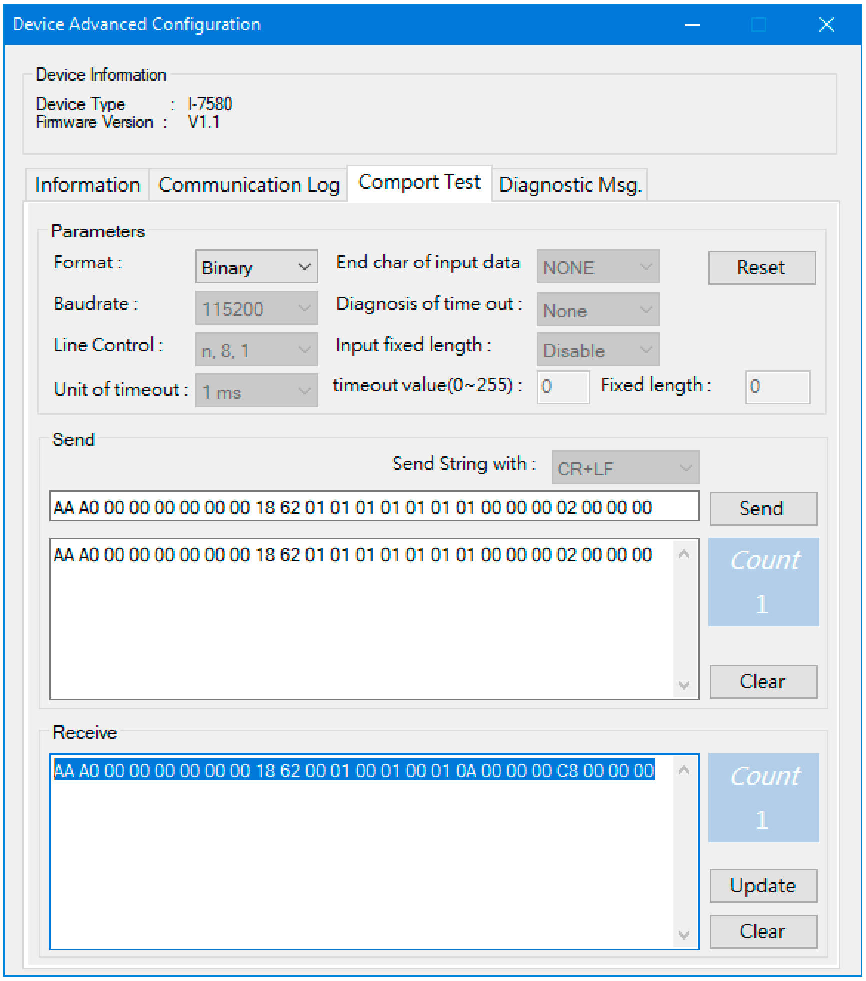
```
13:39:00: Debugging starts
Enter first serial port number : 14
Start reading...
No input data
No input data
No input data
port 14  14 bytes
Calibration Start
Zero Positioning Start
Measuring Start
Abort Measure
Fault Reset
New Data Transfer (measuring_start_position = 1, calibration_diameter = 2
```

7) You can also check the sending of data in the opposite direction, from the PC to the converter. For this you can run the sample sender program (before that, specify in the program the number of the com-port to which the converter is connected)



```cpp
#include <iostream>
#include <chrono>
#include <ctime>
#include <CamsoChannel.h>

// Global constants.
constexpr uint32_t bandwidth = 115200;

std::atomic<uint32_t> time_point[256][256];
std::chrono::time_point<std::chrono::system_clock> start_time;
int32_t serial_port = 14;

void SendThreadFunc();

int main(void)
{
    // Dialog to enter serial port number.
    std::cout << "Enter first serial port number : ";
    //std::cin >> serial_port;

    // Run threads.
    std::thread sendThread(&SendThreadFunc);

    // Wait threads.
    if (sendThread.joinable())
        sendThread.join();

    return 1;
}
```

On the converter side, you should receive the following message:



Device Information

Device Type : I-7580
Firmware Version : V1.1

Parameters

Format : Binary
End char of input data NONE
Baudrate : 115200
Diagnosis of time out : None
Line Control : n, 8, 1
Input fixed length : Disable
Unit of timeout : 1 ms
timeout value(0~255) : 0
Fixed length : 0

Send

Send String with : CR+LF

```
AA A0 00 00 00 00 00 00 18 62 01 01 01 01 01 01 01 00 00 00 02 00 00 00
```

```
AA A0 00 00 00 00 00 00 18 62 01 01 01 01 01 01 01 00 00 00 02 00 00 00
```

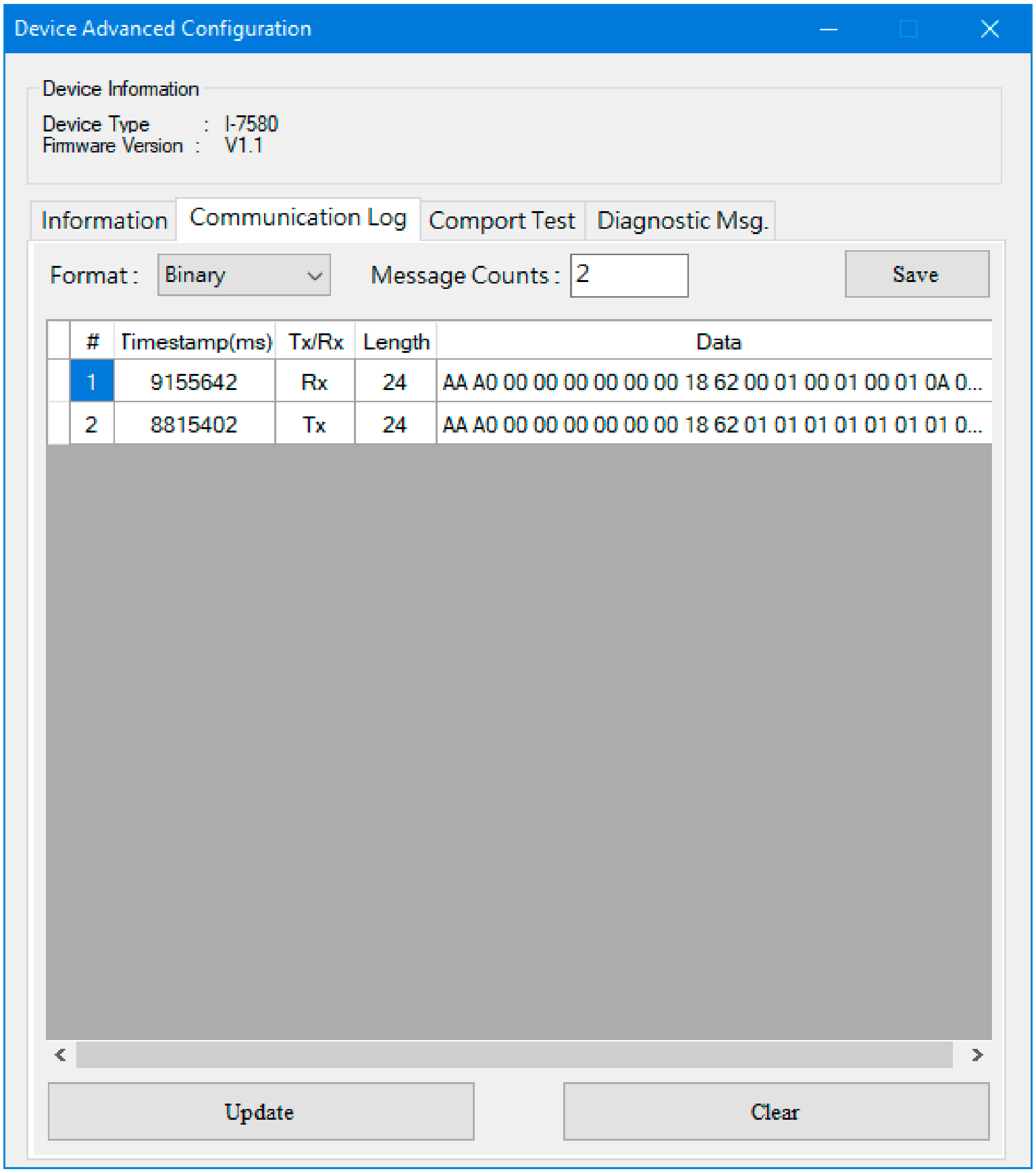
Count
1

Receive

```
AA A0 00 00 00 00 00 00 18 62 00 01 00 01 00 01 0A 00 00 00 C8 00 00 00
```

Count
1

8) You can also track all traffic between the converter and PC



Device Information

Device Type : I-7580
Firmware Version : V1.1

Format : Binary

Message Counts : 2

#	Timestamp(ms)	Tx/Rx	Length	Data
1	9155642	Rx	24	AA A0 00 00 00 00 00 00 18 62 00 01 00 01 00 01 0A 0...
2	8815402	Tx	24	AA A0 00 00 00 00 00 00 18 62 01 01 01 01 01 01 01 0...