communicating protocol

1. communication interface

The PC connection through USB, using the serial port for communication, port rate 9600,1 bit stop bit, 8 bit data bit, no parity.

2. realize function

2.1 PC sends instructions (0x01) to the lower computer to transmit real-time data

2.2 The PC terminal will send instructions (0x00) to the lower computer computer, stop the data transmission, and return the model and version number

2.3 The PC sends instructions (0x02) to the lower computer to transmit the recorded data

2.4 The PC terminal sends instructions (0x03) to the lower computer to achieve timestamp synchronization

.5 2PC sends instructions (0x04) to the lower computer to realize function setting

2.6 The lower bit computer sends real-time temperature data to the PC (only once)

2.7 The lower computer sends record temperature data to PC (until delivery, up to 64 bytes at a time, redundant bytes are divided into two frames)

2.8 The lower position computer sends the model and version number data

3. protocol

Frame head	instruct	Frame length	time stamp	data	…	Sum verification
16bits (low bytes before)	8bits	8bits (the length of one frame data, excluding the frame header, in bytes (8bits), no more than 62 bytes)	32 Positions unix time stamp In seconds (send in low bytes before)	16 The Actual data expanded 10 times (send in low bytes before)	…	8bits (calculate from the frame head, retain the last 8 bits)

3.1 Interpretation of special data

3.1

Temperature data for the remaining 3 channels

3.2 Upper computer frame data

3.2.1 Start the real-time sending instruction frame

Frame head	instruct	Frame length	Sum
0x55AA	0x01	0x03	0x03

3.2.2. Stop the instruction frame

Frame head	instruct	Frame length	Sum
0x55AA	0x00	0x03	0x02

3.2.3. Start sending the recording data instruction frame

Frame head	instruct	Frame length	Sum
0x55AA	0x02	0x03	0x04

3.2.4. Time synchronization instruction frame

Frame head	instruct	Frame length	time stamp	Sum
0x55AA	0x03	0x07	7*8bits	x

The timestamp is BCD code, sent to the next machine in the order of "second", "minute,", "," time "," week "," day "," month "," year ".

3.2.5. Functions to set the data frame

Frame head	instruct	Frame length	set up parameters	…	Sum
0x55AA	0x04	8bits	x	…	8bits

1 Set the parameter details

Detailed interpretation of data

1. Real-time data frames

Frame head	instruct	Frame length	Channel data	Sum
0xAA55	0x01	x	16bits * 4channel	x

According to the order of channel 1, channel 2, channel 3 and channel 4.

2. Model number and version number frame

Frame head	instruct	Frame length	model	version number	Sum
0xAA55	0x00	0x06	16bits	16bits	0x06

2.1 Detailed explanation

Decimal 0D 612 is 16 decimal 0x 264

2.2 Version No

Version number: 16bits, 100 times expansion, 0 is no version number

For example, V1.00 is a decimal of 100

3. Record the data frames

Frame head	instruct	Frame length	Channel data	Sum
0xAA55	0x02	N	16bits * 4channel	X

5. instance

The computer terminal connects the device through XCOM serial port assistant, and the connection parameters are port rate 9600,1 bit stop bit, 8 bit data bit, no parity;

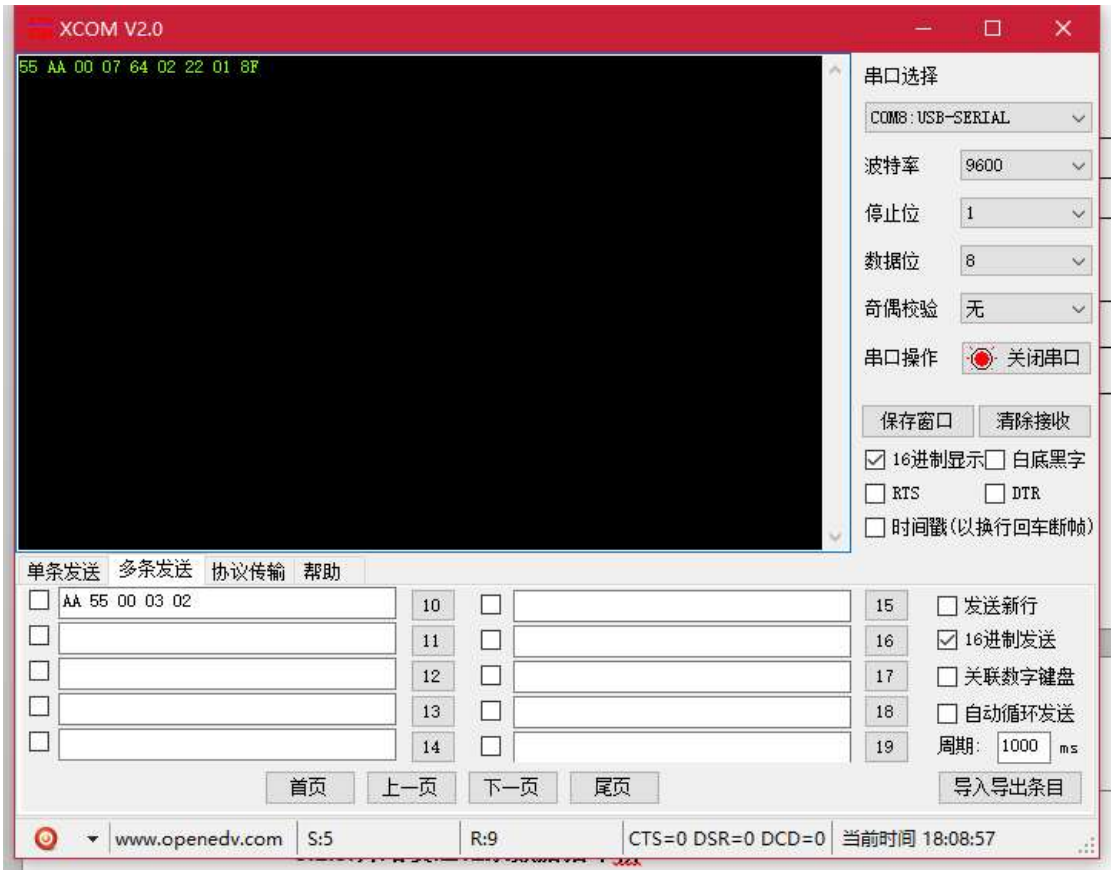
1. Get device information

Send 16 decimal data through XCOM: AA 55 00 03 02;

TA612 return: 55 AA 00 07 64 02 22 01 8F;

Where 0x 64 and 0x02 constitute 0x 0264, the decimal system is 612, representing TA612;

Where 0x 22 and 0x01 form 0x 0122; the decimal system is 290, representing V2.90;



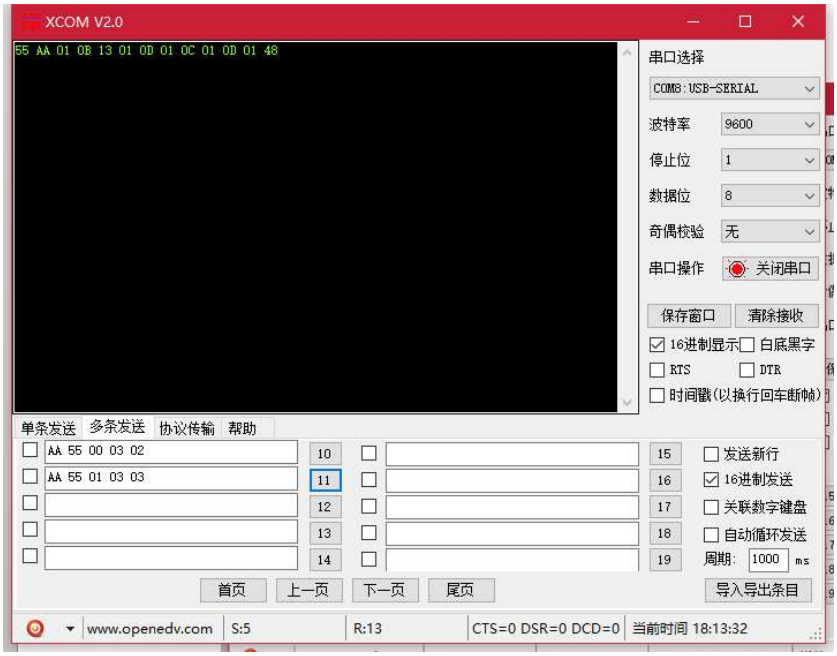
2. Get real-time data

Send 16 decimal data through XCOM: AA 55 01 03 03;

TA612 return: 55 AA 01 0B 13 01 0D 01 0C 01 0D 01 48;

0x 13 and 0x 01 constitute 0x 0113, decimal is 275,10 times smaller, 27.5, the default unit is ℃;

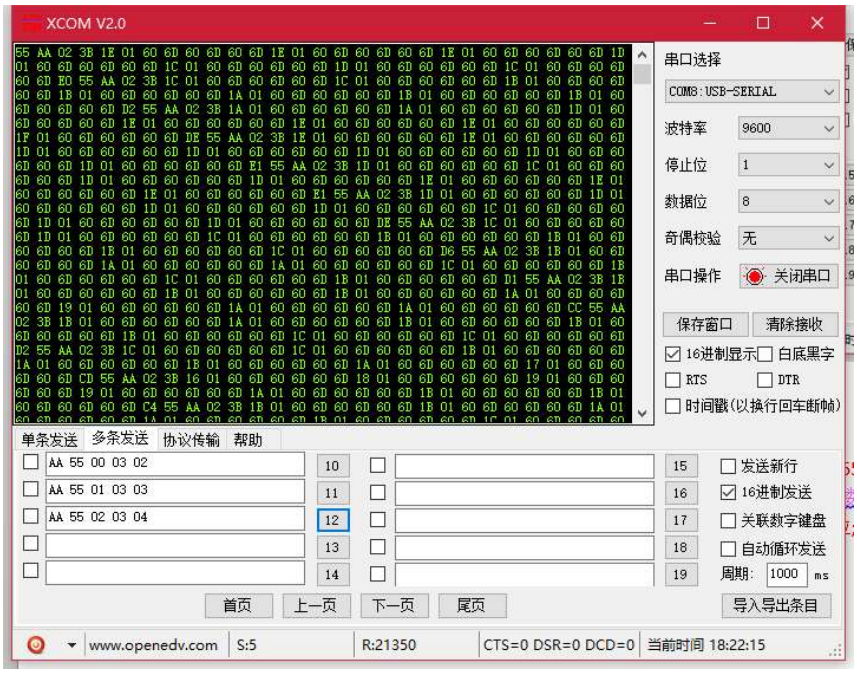
The remaining bytes successively form 0x 010D, 0x010C, 0x010D, representing the temperature values of channel 2,3, and 4



3. Get the record value

Send 16 decimal data through XCOM: AA 55 02 03 04;

The device returns multiple packets, each packet is 64 bytes, the starting data of each packet is 55 AA 02, data frame length, channel 1 data, channel 2 data, channel three data; channel 1 data, channel three data; channel 1 data, channel 2 data, channel 4 data; data, data frame check bit;


XCOM V2.0
串口选择
COM3:USB-SERIAL
波特率
9600
停止位
1
数据位
8
奇偶校验
无
串口操作
关闭串口
保存窗口
清除接收
16进制显示
白底黑字
RTS
DTR
时间戳(以换行回车断帧)
单条发送
多条发送
协议传输
帮助
AA 55 00 03 02
AA 55 01 03 03
AA 55 02 03 04
发送新行
16进制发送
关联数字键盘
自动循环发送
周期:
1000
ms
首页
上一页
下一页
尾页
导入导出条目
www.openedv.com
S:5
R:21350
CTS=0 DSR=0 DCD=0
当前时间 18:22:15