New
UHF RFID Reader
Demo User Manual

Version control

Change Date	Version	Changes
2012-06-10	V1.0	Initial version
2015-01-29	V3.2	The new interface revision
2015-09-17	V3.3	Add new Communications
2016-07-12	V3.4	Update picture and part description

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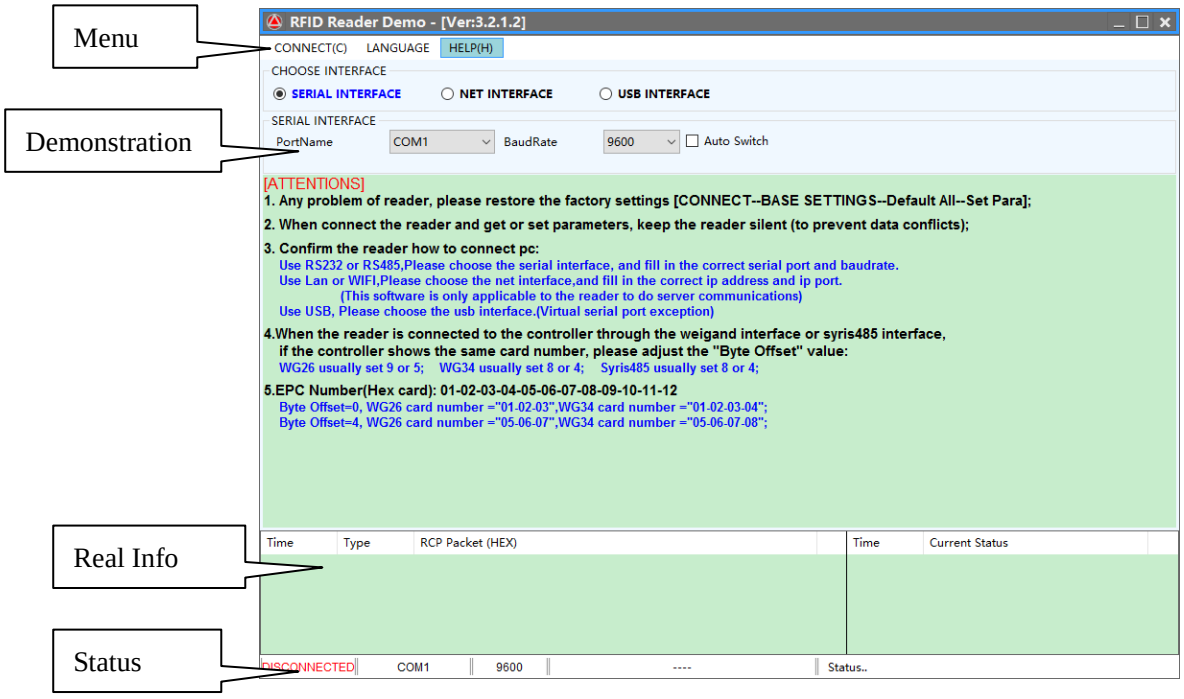
1. Introduction

This demo is used to read and write the 915MHz tags;

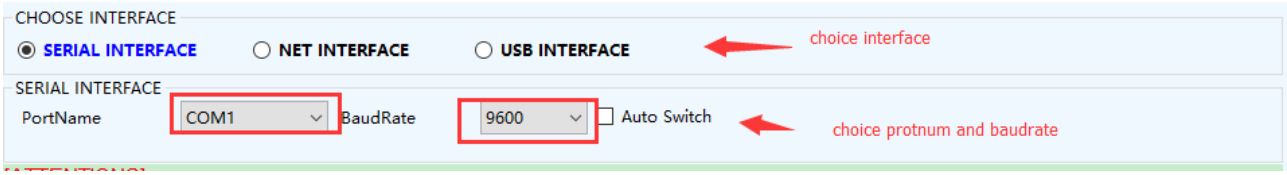


2. Communications

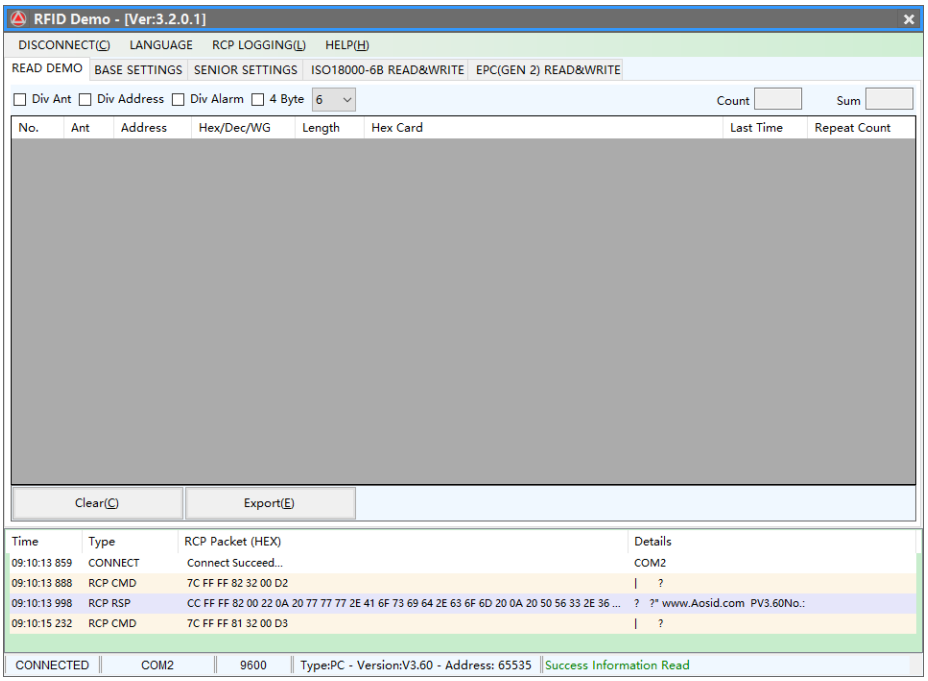
2.1. Serial Interface

2.1.1. Connect reader to the computer with serial port (make sure the right connections, and obtain the computer serial number);

2.1.2. Choice the method of communication to “Serial Interface”, select right port name and baud rate:



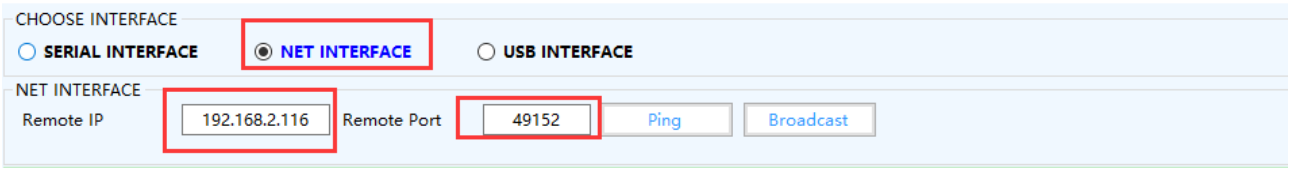
2.1.3. Click “CONNECT”, if be connected then screen is show as follow;



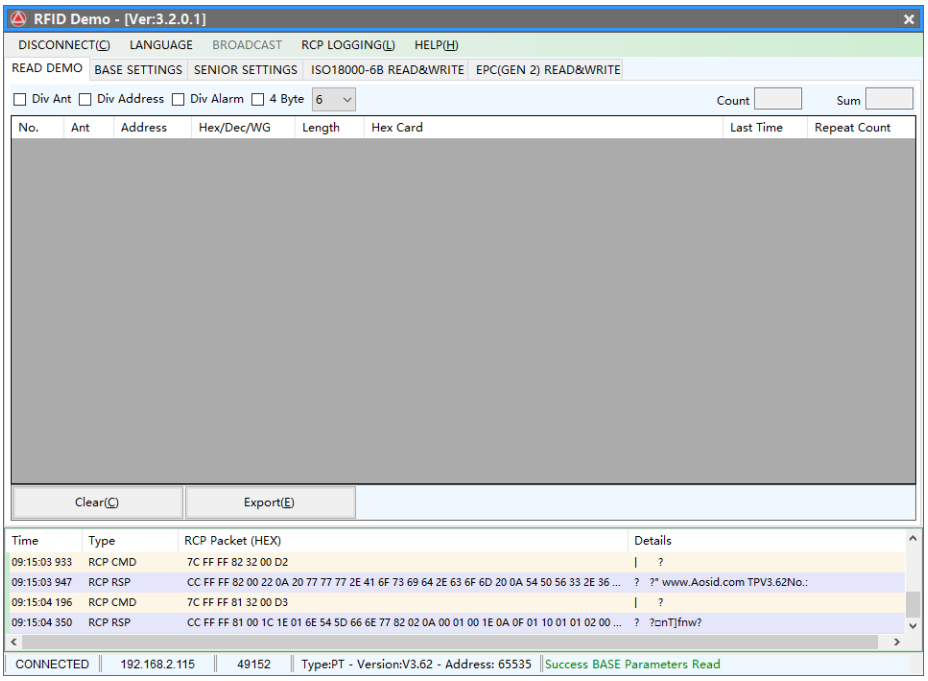
2.2. Net Work

2.2.1. Connect reader to LAN;

2.2.2. Choice the method of communication to “Net Work”, input reader IP Address and IP Port:

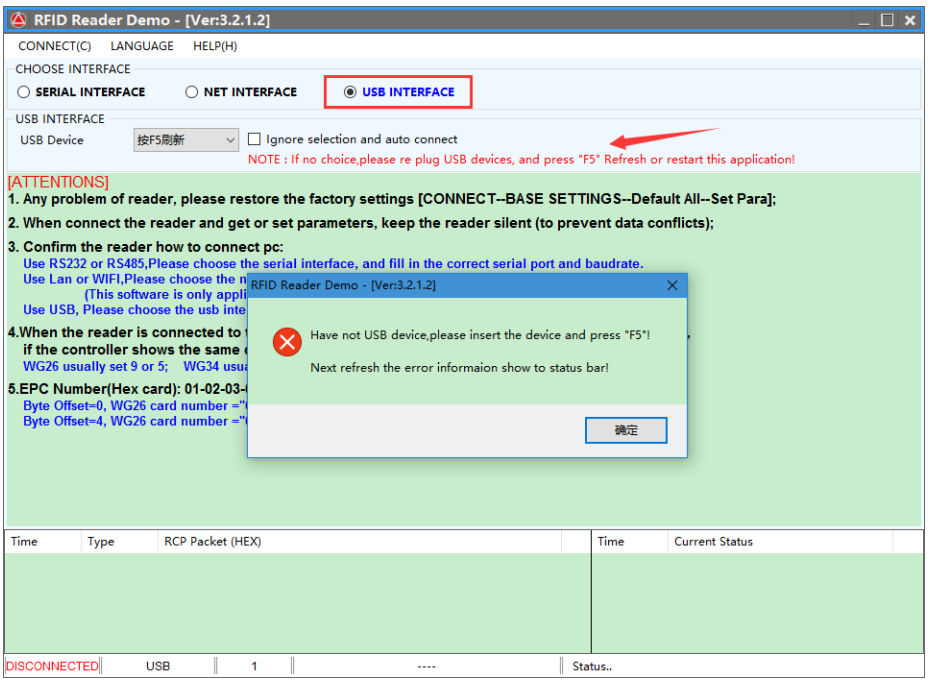


2.2.3. Click “CONNECT”, if be connected then screen is show as follow;

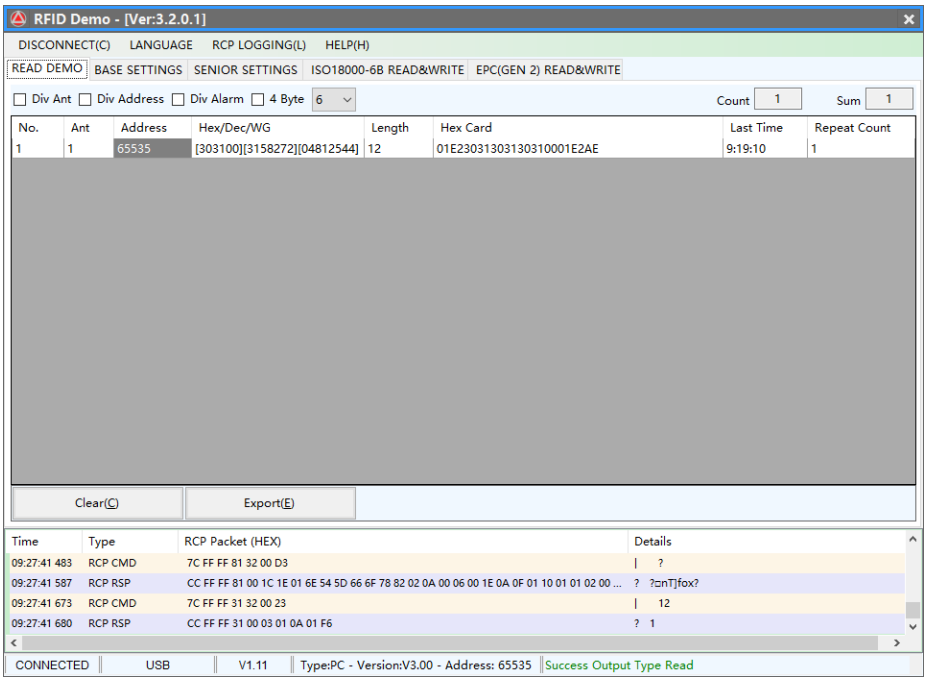


2.3. USB Interface

2.3.1. Choice the method of communication to “USB Interface”;

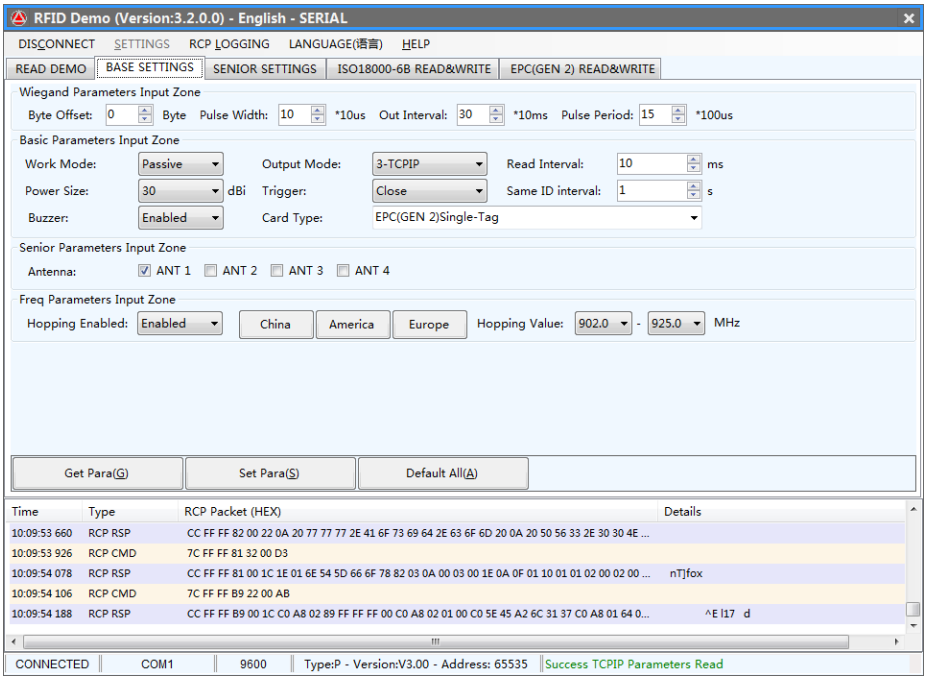


2.3.2. Click “OK”, and Re plug the USB, than Click “CONNECT” In 5 seconds. Until show follow form;


RFID Demo - [Ver:3.2.0.1]
DISCONNECT(C)
LANGUAGE
RCP LOGGING(L)
HELP(H)
READ DEMO
BASE SETTINGS
SENIOR SETTINGS
ISO18000-6B READ&WRITE
EPC(GEN 2) READ&WRITE
Div Ant
Div Address
Div Alarm
4 Byte
6
Count
1
Sum
1
No.
Ant
Address
Hex/Dec/WG
Length
Hex Card
Last Time
Repeat Count
1
1
65535
[303100][3158272][04812544]
12
01E23031303130310001E2AE
9:19:10
1
Clear(C)
Export(E)
Time
Type
RCP Packet (HEX)
Details
09:27:41 483
RCP CMD
7C FF FF 81 32 00 D3
?
09:27:41 587
RCP RSP
CC FF FF 81 00 1C 1E 01 6E 54 5D 66 6F 78 82 02 0A 00 06 00 1E 0A 0F 01 10 01 01 02 00 ...
?nT]fox?
09:27:41 673
RCP CMD
7C FF FF 31 32 00 23
12
09:27:41 680
RCP RSP
CC FF FF 31 00 03 01 0A 01 F6
1
CONNECTED
USB
V1.11
Type:PC - Version:V3.00 - Address: 65535
Success Output Type Read

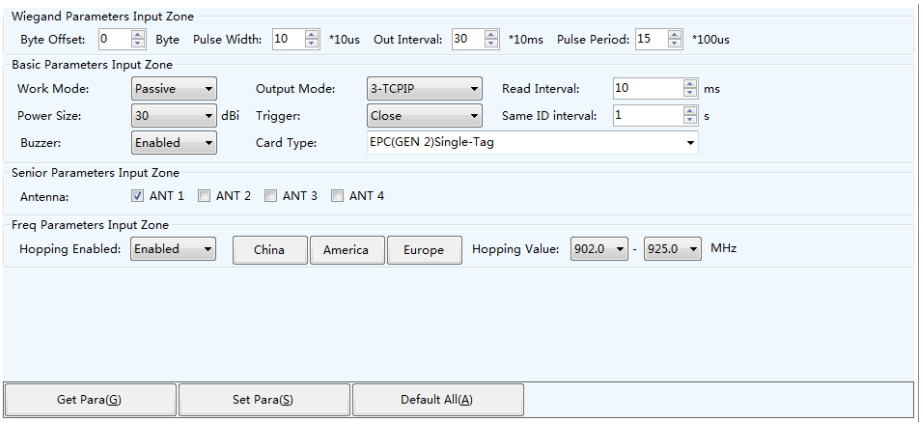
3. Parameters

The software must connect the reader then it can be set parameters, choice the “BASE SETTINGS” Table;



Change any parameters, need to click on "Set Para" button then the parameters of Reader will be changed;

3.1. Base Settings



3.1.1. Parameter specifies

3.1.1.1. Wiegand Parameters Input Zone

Wiegand Parameters is associated with the wiegand interface of controller, just when the output mode of reader is choice Wiegand26 or Wiegand34 then it can be effective.

Byte Offset: The EPC tag have 12 byte data, default output first 3 or 4 byte data, If you set a byte offset value, the output data will start from the set value;

Out Interval: invalid;

Pulse Width: be associated with the wiegand interface of controller;

Pulse Period: be associated with the wiegand interface of controller;

3.1.1.2. Basic Parameters Input Zone

Work Mode: Include Command, Active and Passive;

1. **Command**: Reader do not work, when PC send command to Reader then it work once, and response PC;
2. **Active**: Reader work, and if read the tag then auto send data to PC;
3. **Passive**: Reader work, do not auto send data to PC, when PC send command to reader then it send last data to PC;

Output Mode: Include RS232(USB)、RS485(WIFI)、TCPIP、CANBUS、Syris、Wiegand26 and Wiegand34;

1. **RS232(USB):** Serial Interface, main to connect PC, one serial interface just can be connect one reader;
2. **RS485(WIFI):** Serial Interface, main to connect PC, one serial interface just can be connect MULT reader(MAX 32);
3. **TCPIP:** Net Work，Through LAN or WAN for communication with PC;
4. **CANBUS:** Controller Area Net-work Bus;
5. **Syris:** Taiwan Syris controller protocol;
6. **Wiegand26:** Wiegand controller protocol;
7. **Wiegand34:** Wiegand controller protocol;

Data:

Wiegand	http：//baike.baidu.com/view/557637.html
RS485	http：//baike.baidu.com/view/196467.htm
RS232	http：//baike.baidu.com/view/196461.htm
TCPIP	http：//baike.baidu.com/view/7649.htm
CANBUS	http：//baike.baidu.com/view/985423.htm

Read Interval: the frequency of reader read tag;

Note: Usually more than 10 ms, too small will shorten the service life of the reader.

Power Size: Set the transmit power size, the maximum value of 30;

Trigger: Include Close and Low Trigger

1. ***Close:*** Close trigger to read tag;
2. ***Low Trigger:*** Trigger level lead connected to the low level effective;

Same id Interval: The same tag data is transmitted only once in the set time;

Buzzer: enabled the buzzer;

Read Type: type of tag can be read;

1. ***ISO18000-6B：*** just read the ISO18000-6B protocol tag;
2. ***EPC（GEN 2）Single – Tag：*** just read the EPC(GEN 2) protocol tag at a time;
3. ***ISO18000-6B + EPC（GEN 2）：*** read the EPC(GEN 2) protocol tag and ISO18000-6B protocol tag;
4. ***EPC（GEN 2）Multi – Tag：*** just read the EPC(GEN 2) protocol tag;
5. ***EPC（GEN 2）Multi – Data：*** just read the EPC(GEN 2) protocol tag, In addition to read default EPC District 12 byte of data can be read in other areas outside the data (select the category, can be in the advanced parameters set to read other areas of the location of the data length, a maximum of 12 bytes);

3.1.1.3. Senior Parameter Input Zone

Antenna: Aiming at the multi channel card reader application parameters (split card reader), the integration of the default 1card reader antenna;

Max Tags: when switch the read type to “EPC (GEN 2) Multi-Tag”, limit max tag count once read;

Other Memory: when switch the read type to “EPC (GEN 2) Multi-*Data*”, EPC data + Memory bank data;

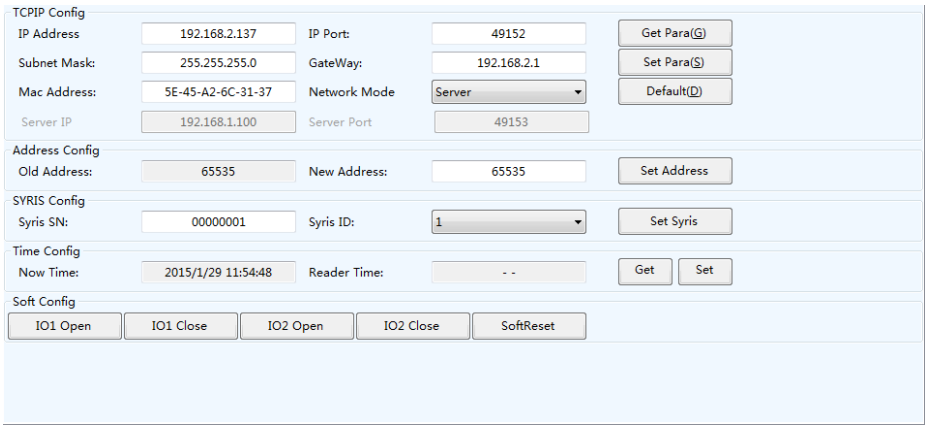
Start Address: when switch the read type to “EPC (GEN 2) Multi-*Data*”, Memory bank data start address;

Length: when switch the read type to “EPC (GEN 2) Multi-*Data*”, Memory bank data length;

3.1.1.4. Freq Parameter Input Zone

Hopping Enabled: Enabled hopping; usually choice enabled;

3.2. Senior Settings



3.2.1. Parameter specifies

3.2.1.1. TCPIP Config

IP Address: Local IP address;

IP Port: Local IP port;

Subnet Mask: Local subnet mask;

Gateway: Local gateway;

Mac Address: Local Mac address;

Network Mode: choice the reader run mode, include server and client;

Server IP: remote IP;

Server Port: remote port;

3.2.1.2. Address Config

Protocol address of reader, can be set;

3.2.1.3. SYRIS Config

Can be set the reader Syris No., this No. can be used when the output mode is “5-Syris”;

3.2.1.4. Time Config

Custom version reader can be used;

3.2.1.5. Soft Config

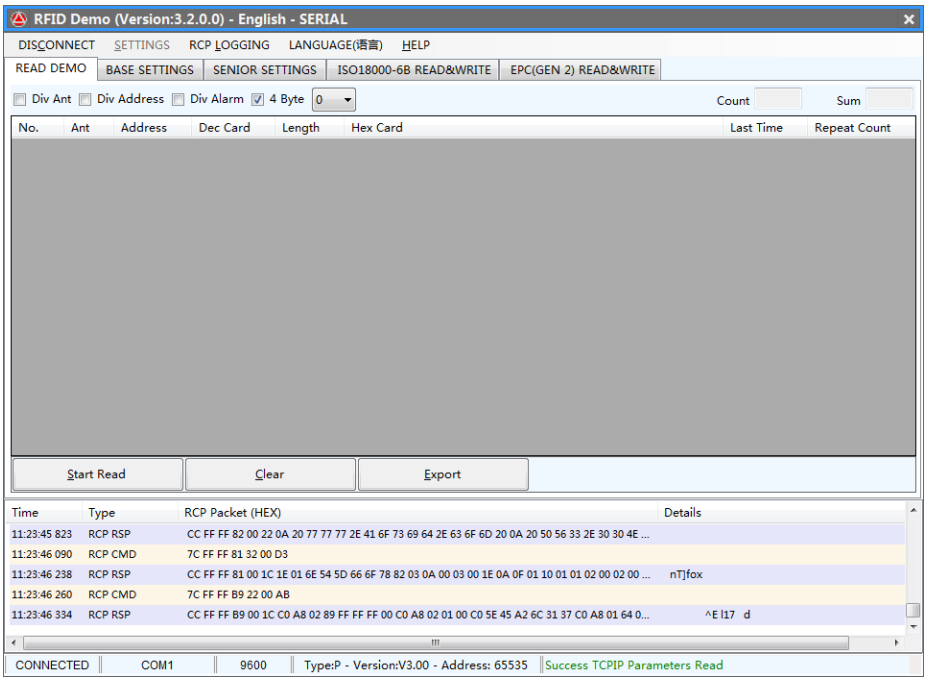
Custom version reader can be used;

Tables A. Write Card Number

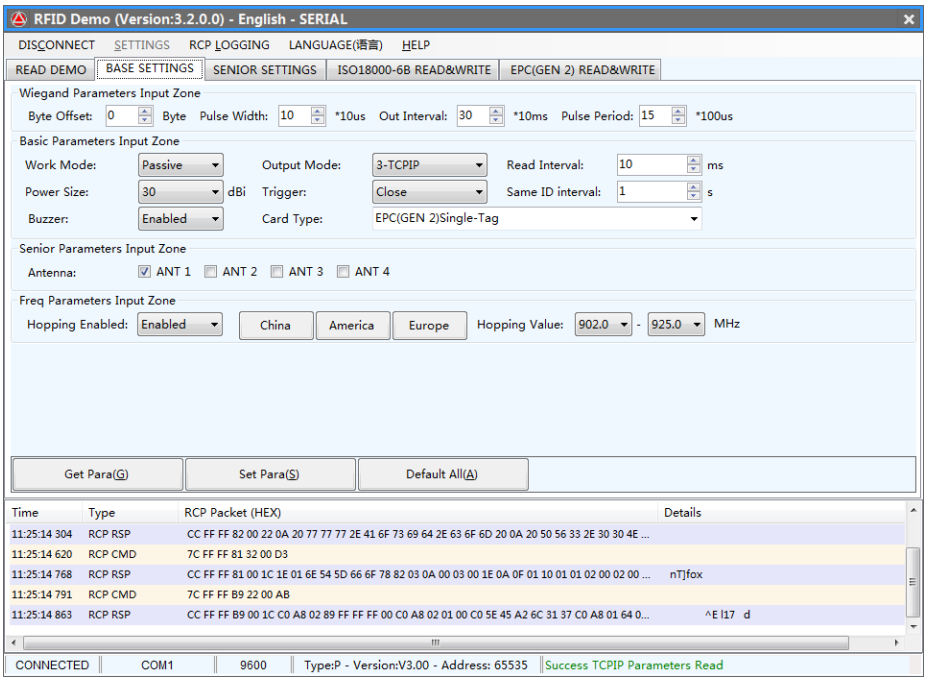
Wiegand26 Write Card（3 Byte Card）

1. Connect reader to the computer with serial port (make sure the right connections, and obtain the computer serial number);

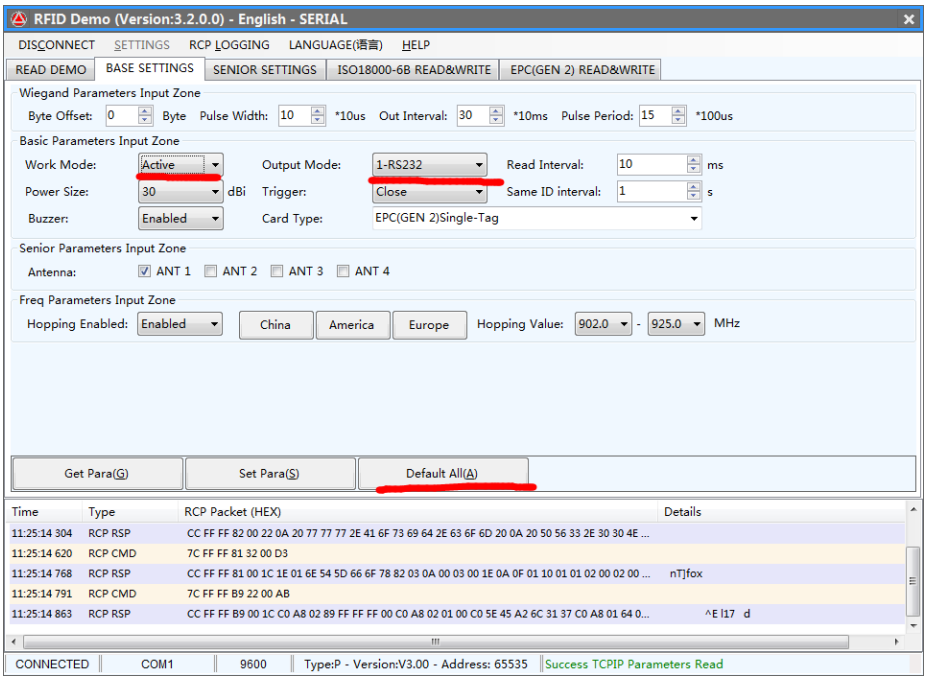
2. Open the “RFID Demo.exe”; Choice the right serial port, choice 9600 baud rate, and then press the “Connect” button;



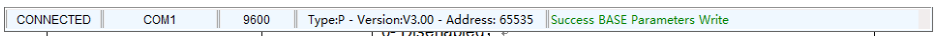
3. Choice table “BASE SETTINGS”;



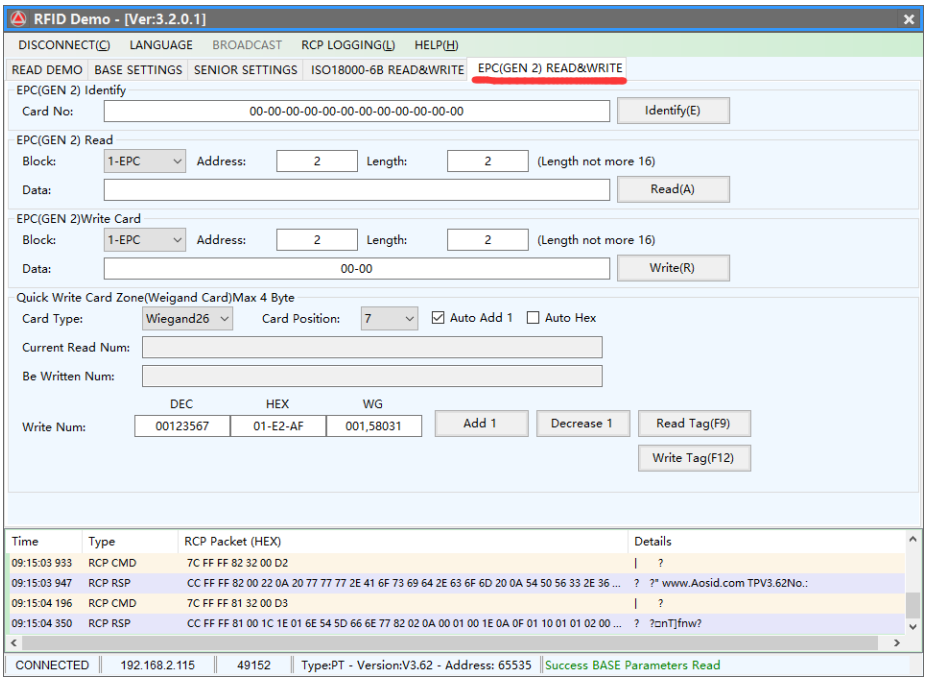
4. Press “Default All” button, and switch work mode to “Passive” and switch output mode to “1-RS232”;



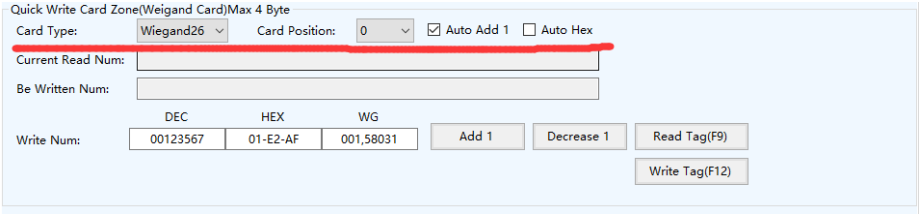
5. press “Set Para” button, if the current status show green than said set success, else said set fail;



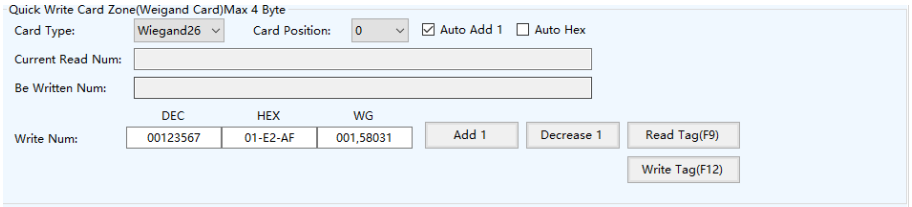
6. Choice table “EPC(GEN 2) READ&WRITE”, and press “F8” 5 times;



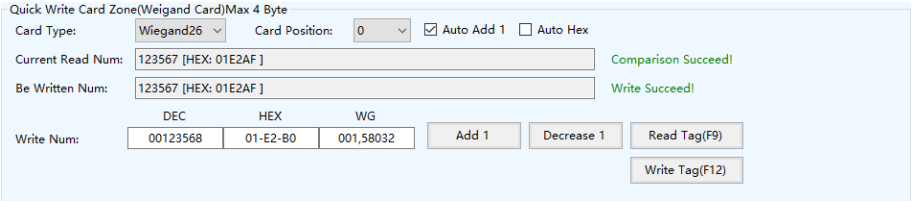
7. switch Card Type to “Wiegand26”, switch Card Position to “0” and checked the “Auto Add 1” ;



8. Input card number into textbox of “Written Num”;



9. Put the tag into the reader 's effective placed range, and press “Write Tag” button;



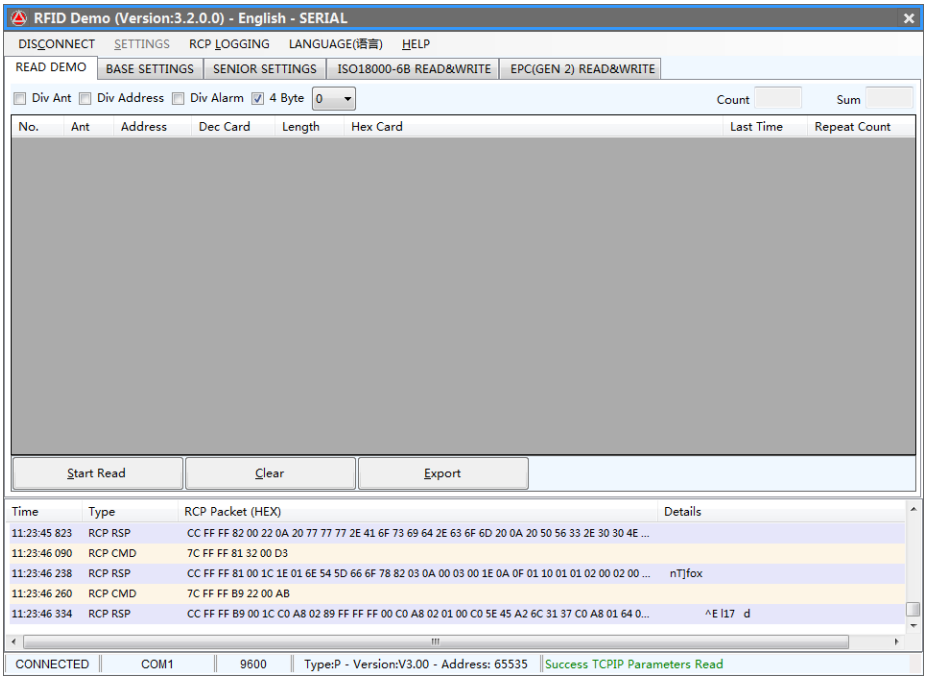
Write Succeed Status

10. Try to write card number again without succeed;

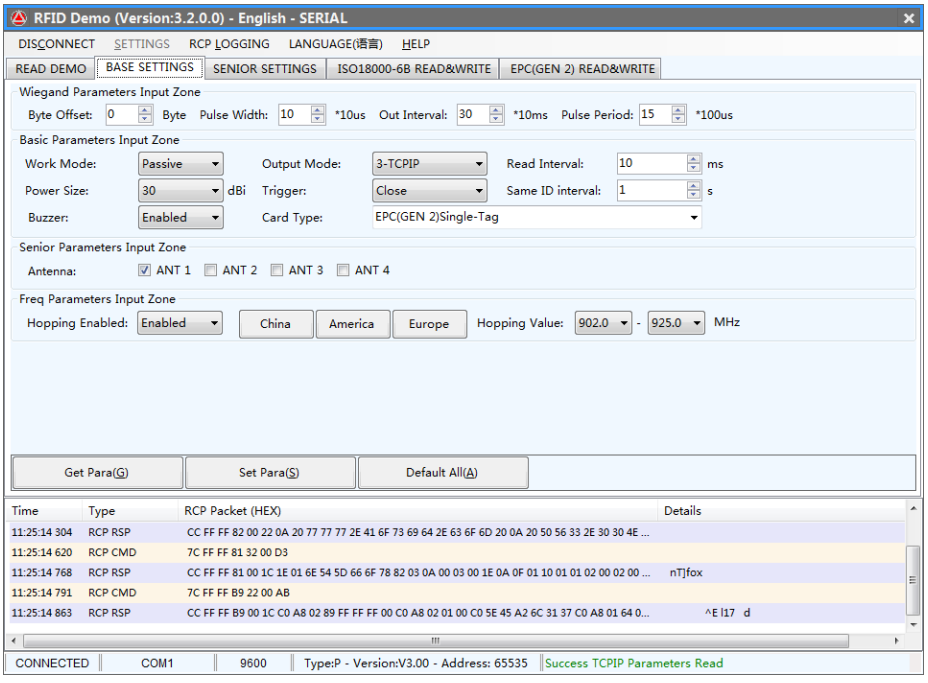
Wiegand34 Write Card（4 Byte Card）

1. Connect reader to the computer with serial port (make sure the right connections, and obtain the computer serial number);

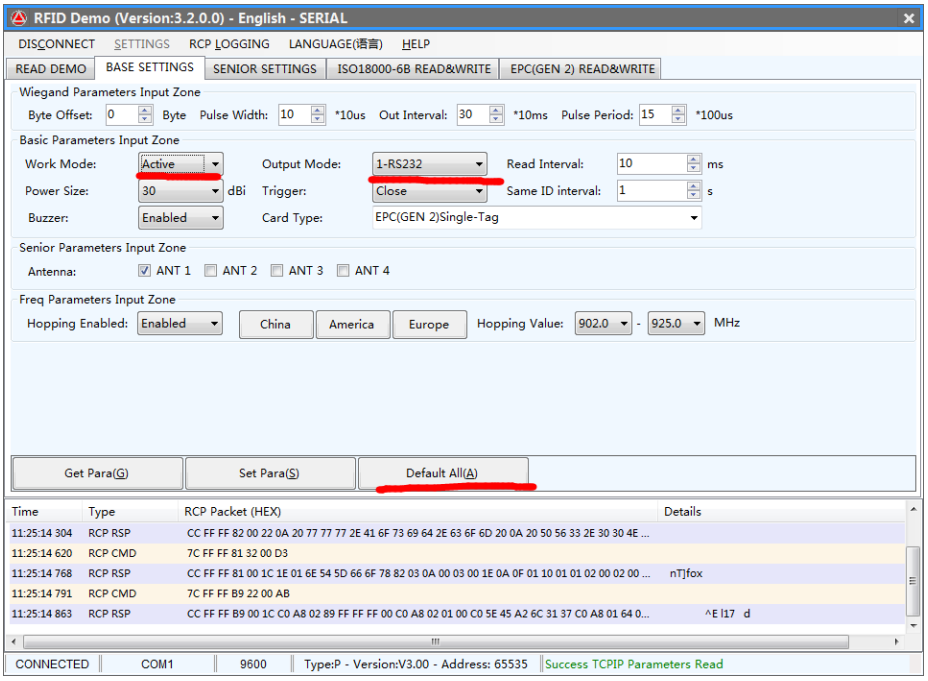
2. Open the “RFID Demo.exe”; Choice the right serial port, choice 9600 baud rate, and then press the “Connect” button;



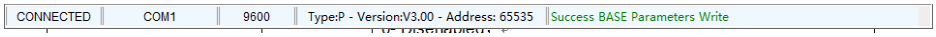
3. Choice table “BASE SETTINGS”;



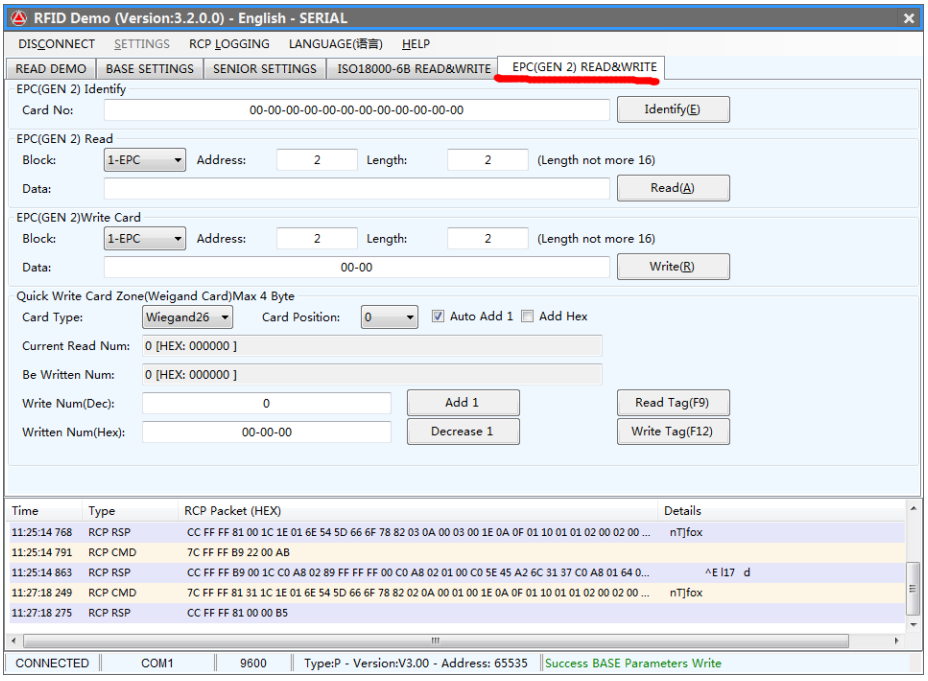
4. Press “Default All” button, and switch work mode to “Passive” and switch output mode to “1-RS232”;



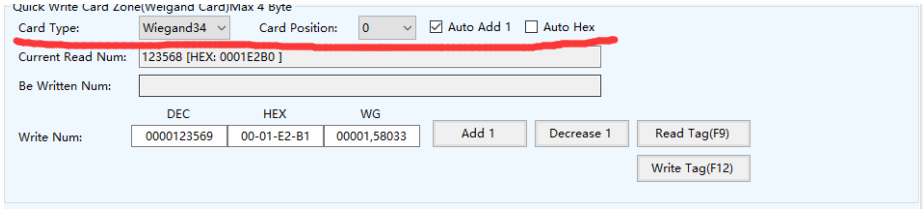
5. press “Set Para” button, if the current status show green than said set success, else said set fail;



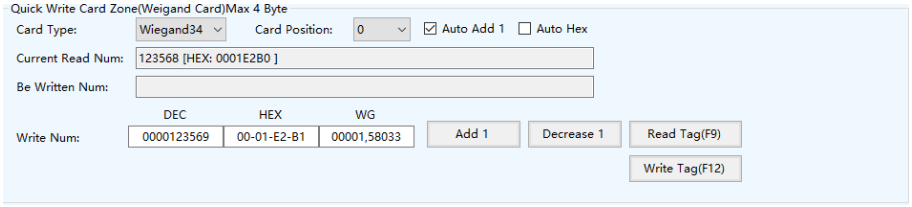
6. Choice table “EPC(GEN 2) READ&WRITE”, and press “F8” 5 times;



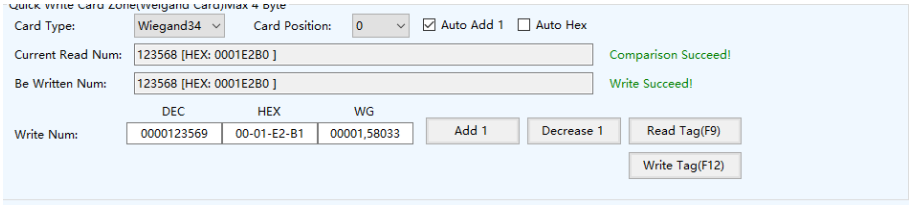
7. switch Card Type to “Wiegand34”, switch Card Position to “0” and checked the “Auto Add 1” ;



8. Input card number into textbox of “Written Num”;



9. Put the tag into the reader 's effective placed range, and press “Write Tag” button;

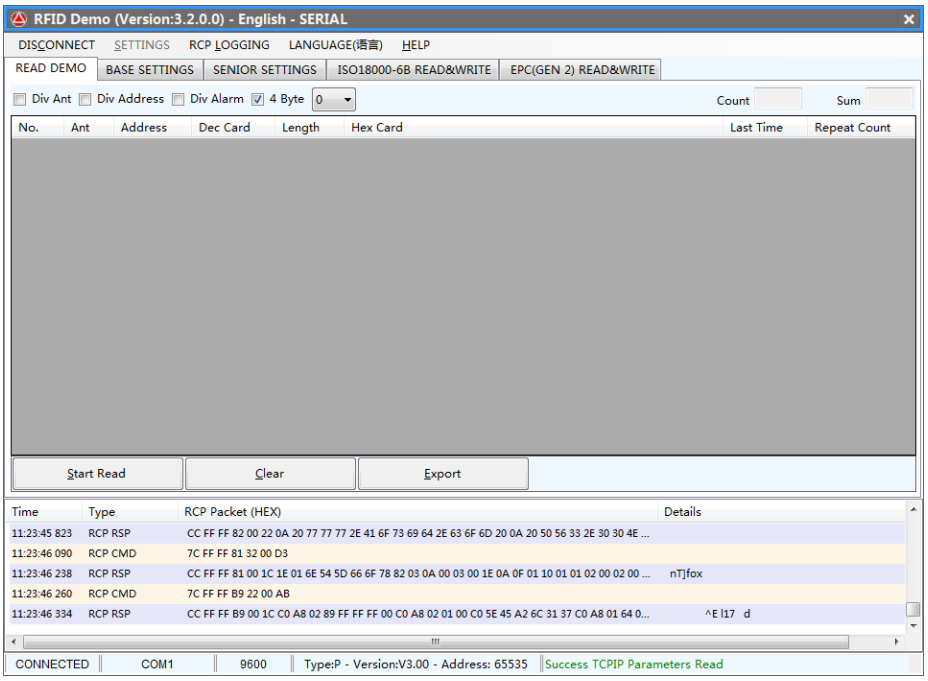


Write Succeed Status

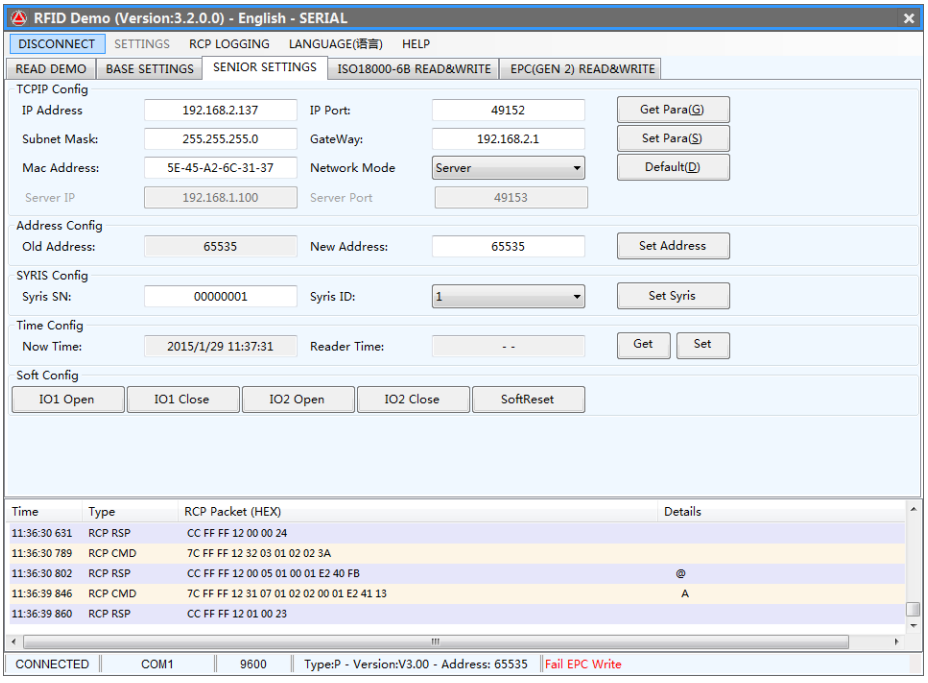
10. Try to write card number again without succeed;

Tables B. Change Reader TCPIP Configuration

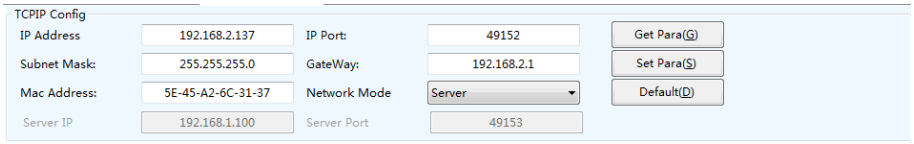
1. Connect 915MHz reader computer serial port (make sure the right connections, and obtain the computer serial number);
2. Open the “RFID Demo.exe”; Choice the right serial port, choice 9600 baud rate, and then press the “Connect” button;



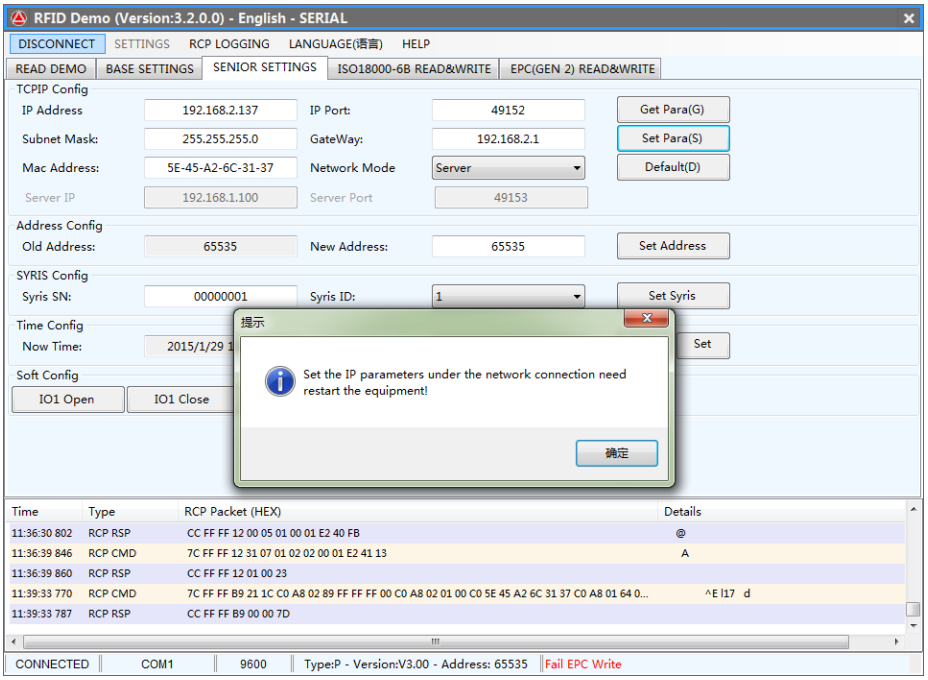
3. Choice table “SENIOR SETTINGS”;



4. change the parameters in “TCPIP Config” and Click “Set Para” button to set;



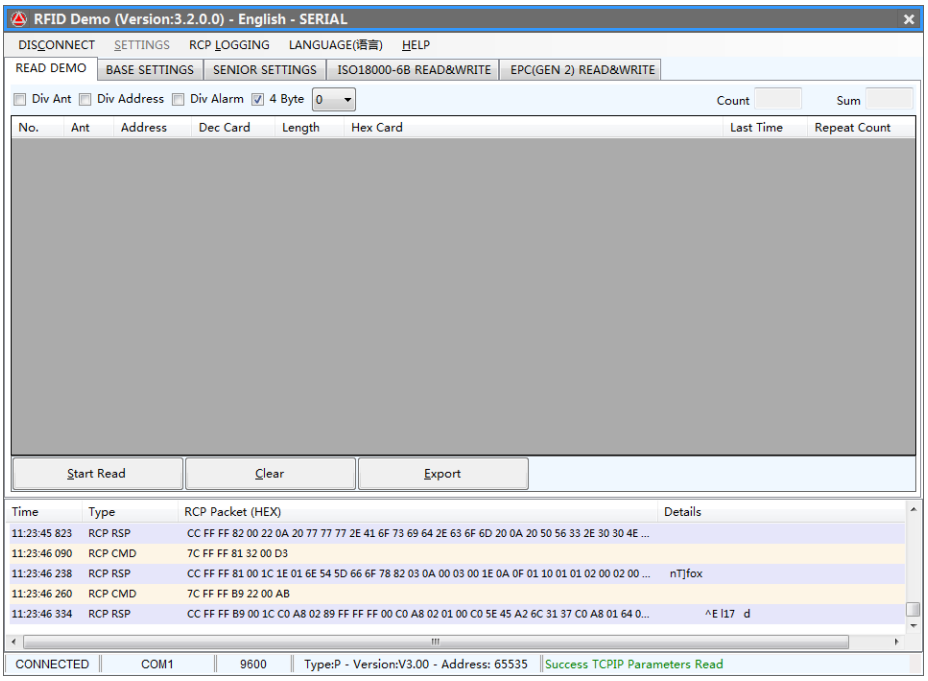
5. if pop Attention widows, you must reset reader power;



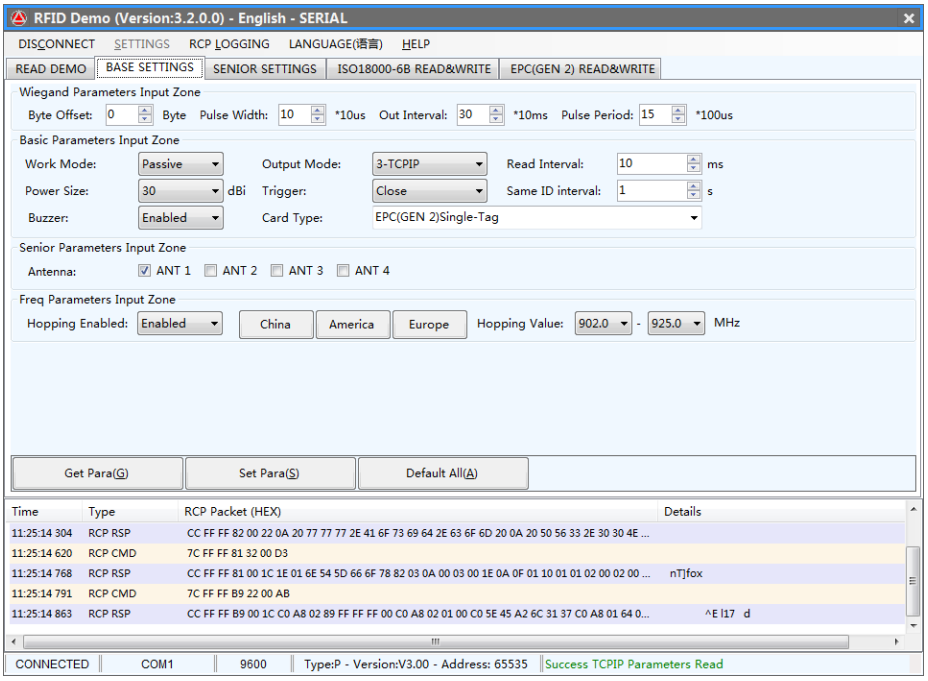
6. try again if set fail;

Tables C. Wiegand Configuration

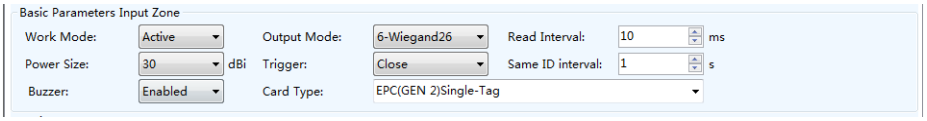
11. Connect reader to the computer with serial port (make sure the right connections, and obtain the computer serial number);
12. Open the “RFID Demo.exe”; Choice the right serial port, choice 9600 baud rate, and then press the “Connect” button;



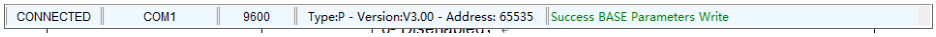
13. Choice table “BASE SETTINGS”;



14. Press “Default All” button, and switch output mode “6-Wiegand26”or“7-Wiegand34”;



15. press “Set Para” button, if the current status show green than said set success, else said set fail;

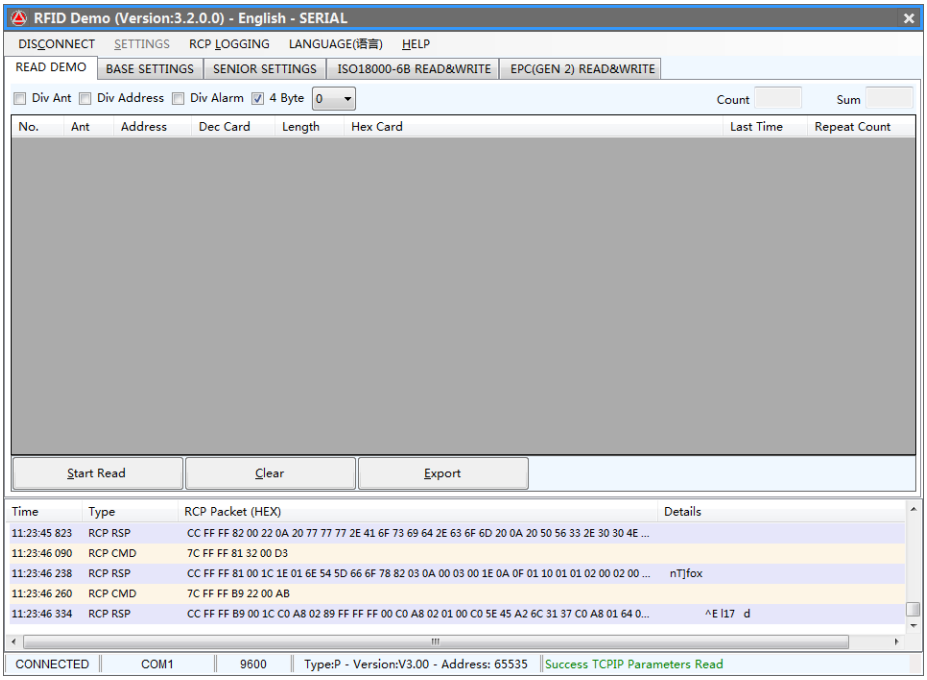


16. try again if set fail;

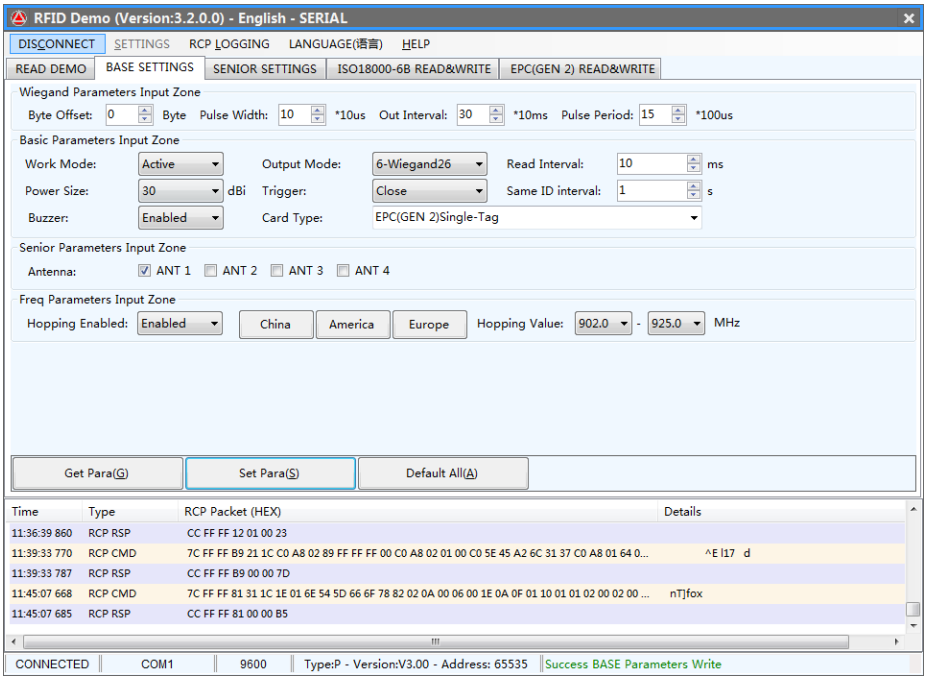
Tables D. Read Demo

1. Connect 915MHz reader computer serial port (make sure the right connections, and obtain the computer serial number);

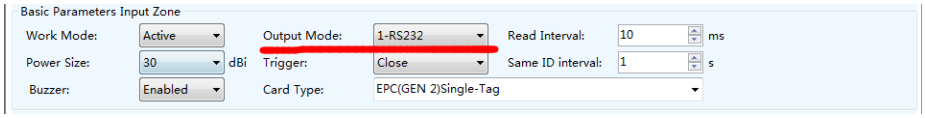
2. Open the “RFID Demo.exe”; Choice the right serial port, choice 9600 baud rate, and then press the “Connect” button;



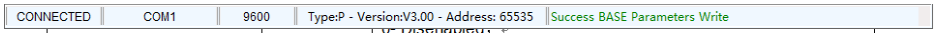
3. Choice table “BASE SETTINGS”;



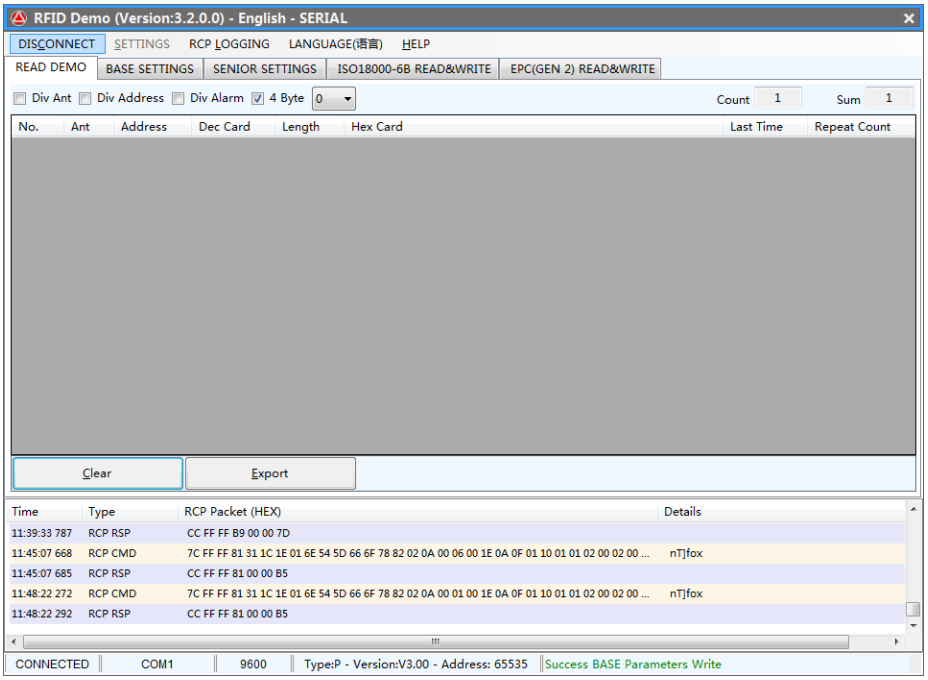
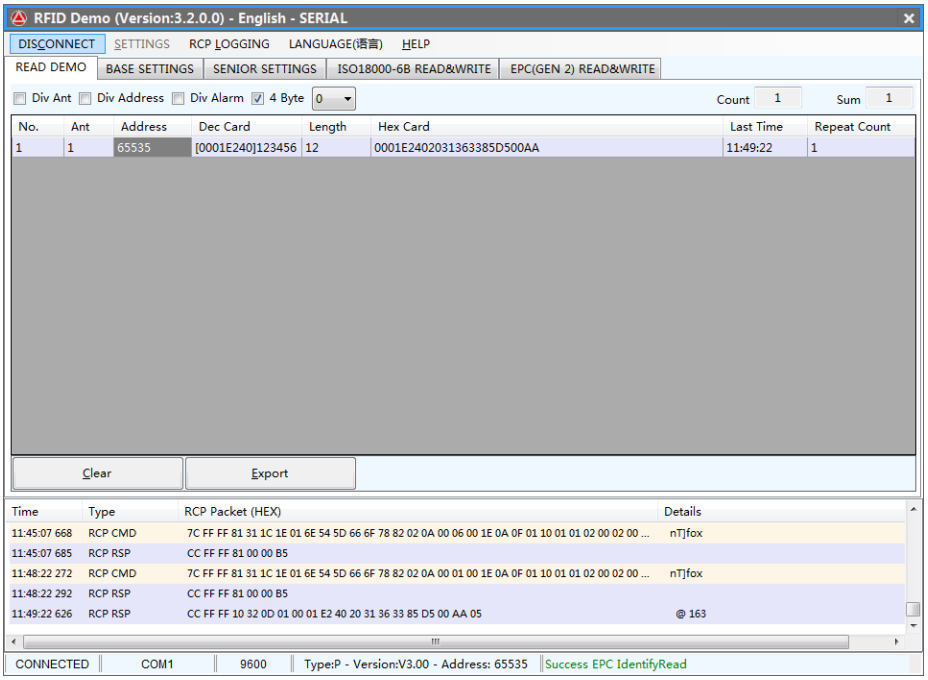
4. Press “Default All” button, and switch output mode to “1-RS232”;



5. Press “Set Para” button;



6. Switch table to “READ DEMO”;



7. scanning tag;