



孕龍科技股份有限公司
Zeroplus Technology Co., Ltd.

SPECIFICATION

MODEL: B09023-LAP-PROFIBUS-M

PART NO : _____

VERSION : V1.01

Approver		Check	Design
GM	PM		

Customer Confirm

* Please fax the file to
Zeroplus Technology after
signing.

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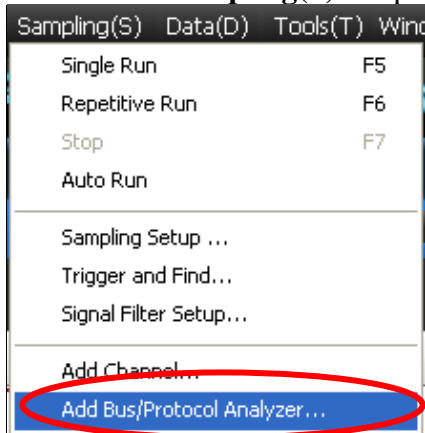
1 Software Register

Please register the software as the following steps:

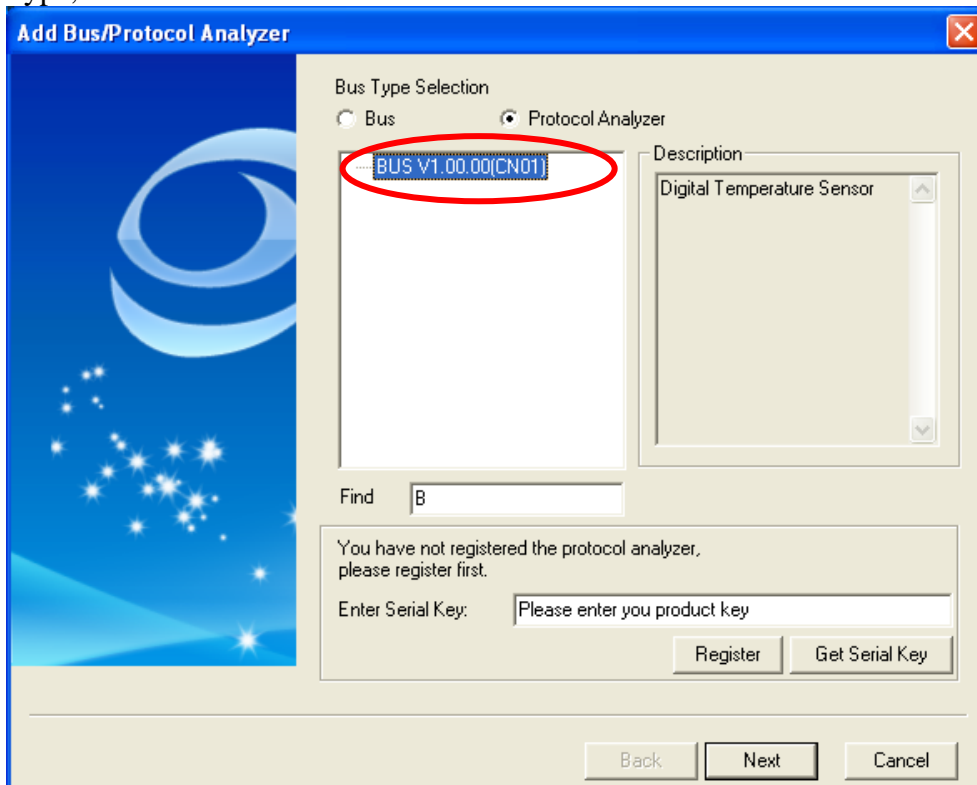
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ Remark2: We won't have additional notice for you, when there is any modification of the module specification. If there is some unconformity caused by the module version upgrade, users should take the module software as the standard.

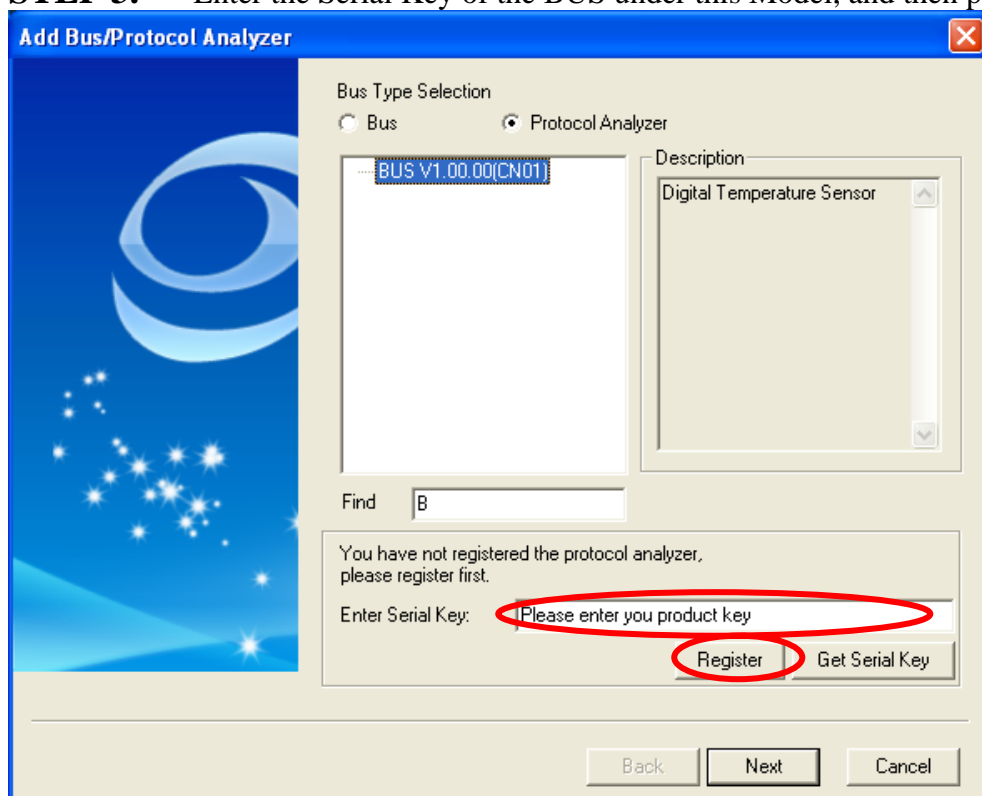
STEP 1. Open the Logic Analyzer and select the **Add Bus/Protocol Analyzer** item on the pull-down menu of the **Sampling(S)** to open the **Add Bus/Protocol Analyzer** dialog box.



STEP 2. Select Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Other Type, and select the BUS.



STEP 3. Enter the Serial Key of the BUS under this Model, and then press the **Register**.



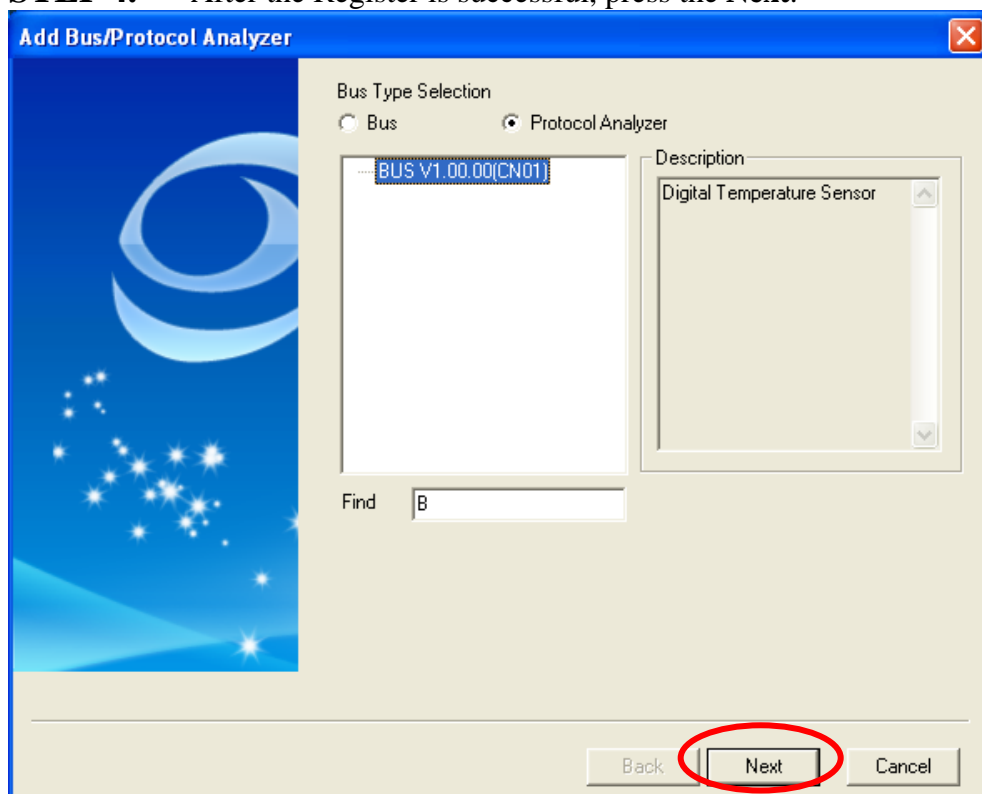
Bus Type Selection
☐ Bus ☒ Protocol Analyzer

Find

You have not registered the protocol analyzer,
please register first.

Enter Serial Key:

STEP 4. After the Register is successful, press the **Next**.

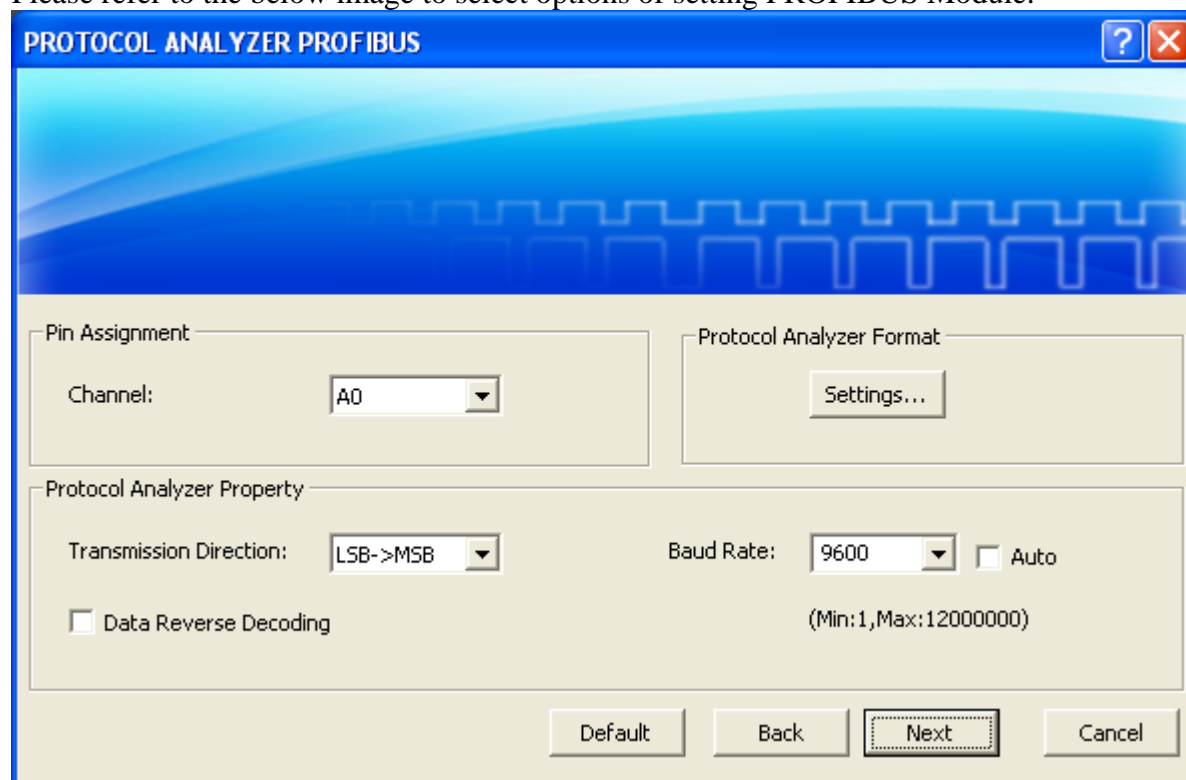


Bus Type Selection
☐ Bus ☒ Protocol Analyzer

Find

2 User Interface

Please refer to the below image to select options of setting PROFIBUS Module.



Pin Assignment: It only needs one channel to decode the PROFIBUS data, and the decoding mode is on the basis of UART.

Protocol Analyzer Property:

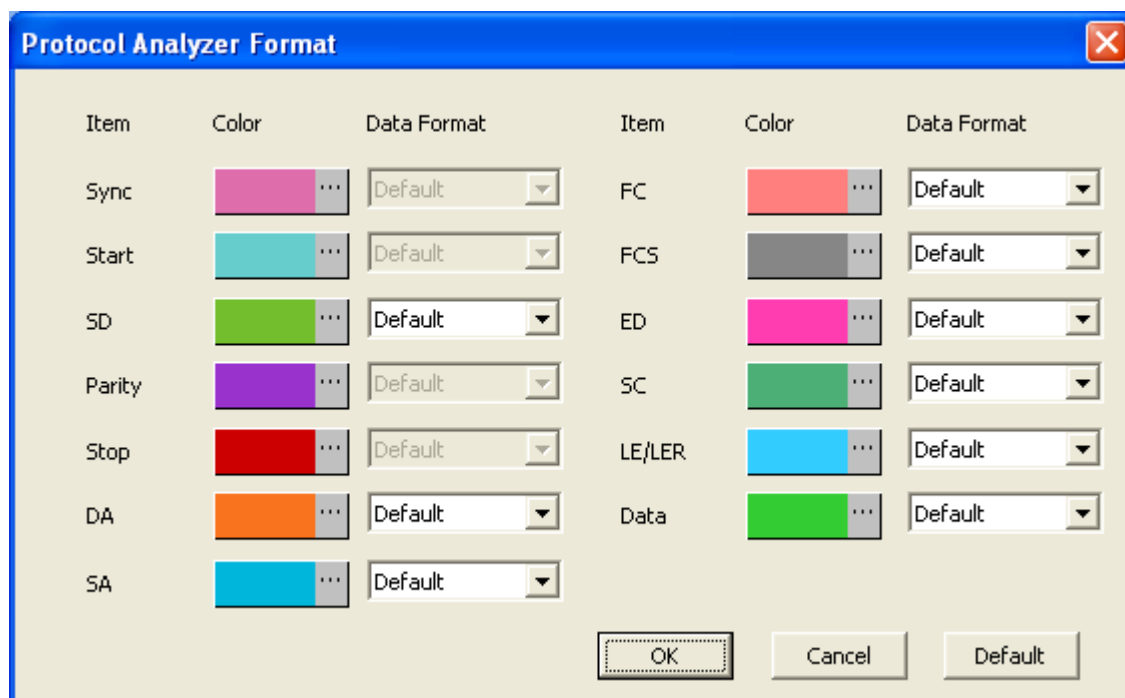
Transmission Direction: On the basis of the Data Direction of UART, users can select LSB->MSB or MSB->LSB from the pull-down menu; the default is LSB->MSB.

Data Reverse Decoding: When selecting this option, it can do the reverse decoding for the data line.

Baud Rate: Users can fill or select the value of the Baud Rate; the selectable values are 110, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 460800 and 921600. Users can also input the value between 1 and 12000000. The default is 9600.

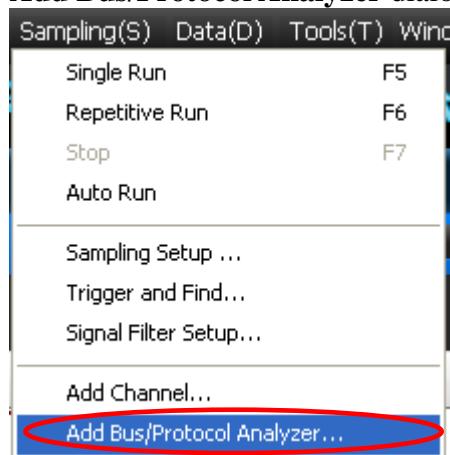
Auto: When selecting this option, it can calculate the baud rate automatically and display the calculated value.

Protocol Analyzer Format: Users can set the color of the packet as their requirements. The Items (SD, DA, SA, FC, FCS, ED, SC, LE/LER, Data) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of the Items (SD, DA, SA, FC, FCS, ED, SC, LE/LER, Data) in the Waveform Display Area and Packet List is controlled by the Protocol Analyzer. The default Data Format is controlled by the main program and the Data Format of the Item is the Default.

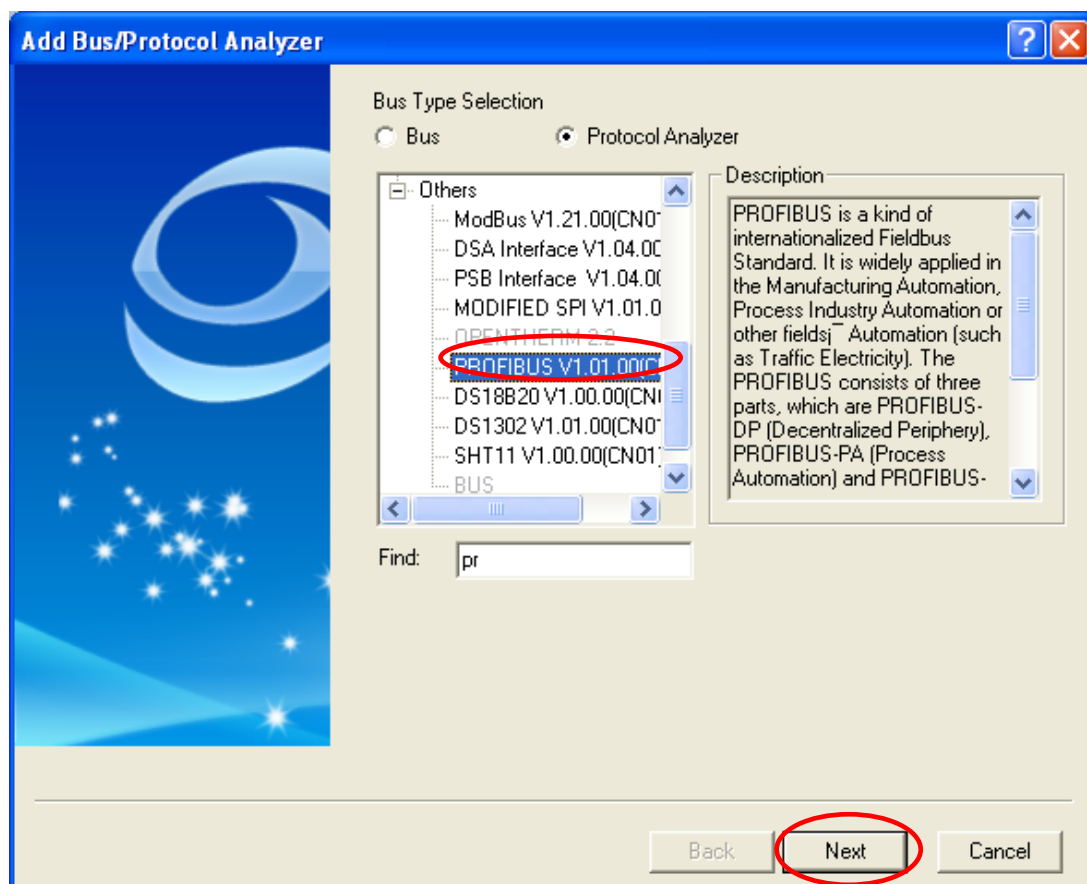


3. Operating Instructions

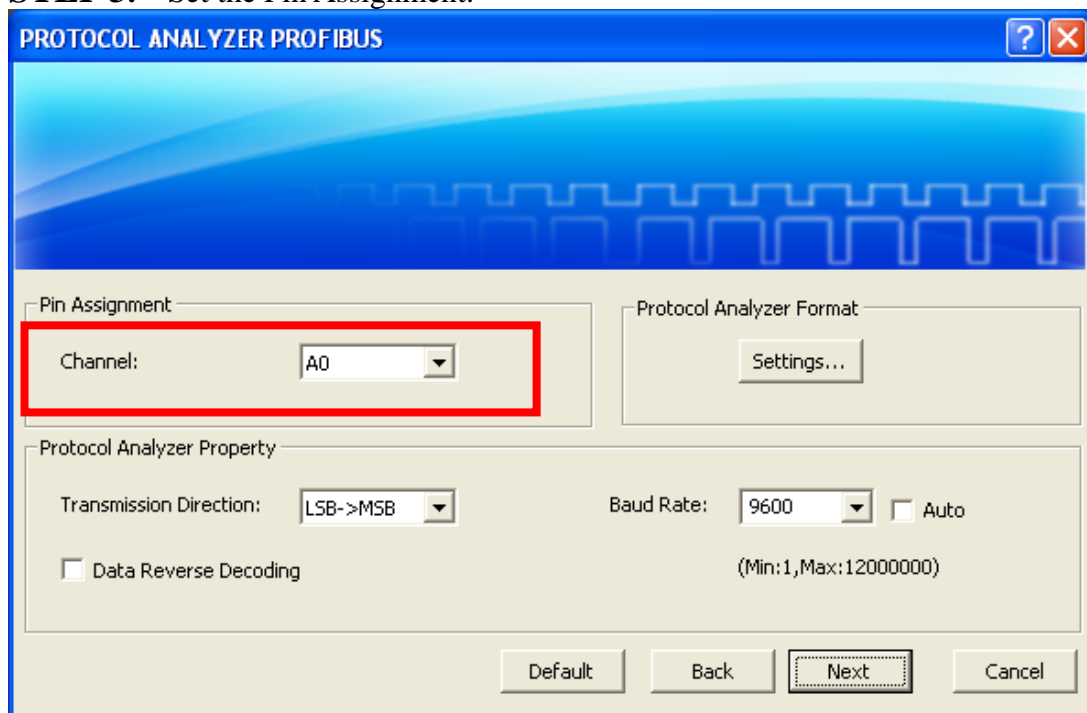
STEP 1. Select the **Add Bus/Protocol Analyzer** item on the pulldown menu of the **Sampling(S)** to open the **Add Bus/Protocol Analyzer** dialog box.



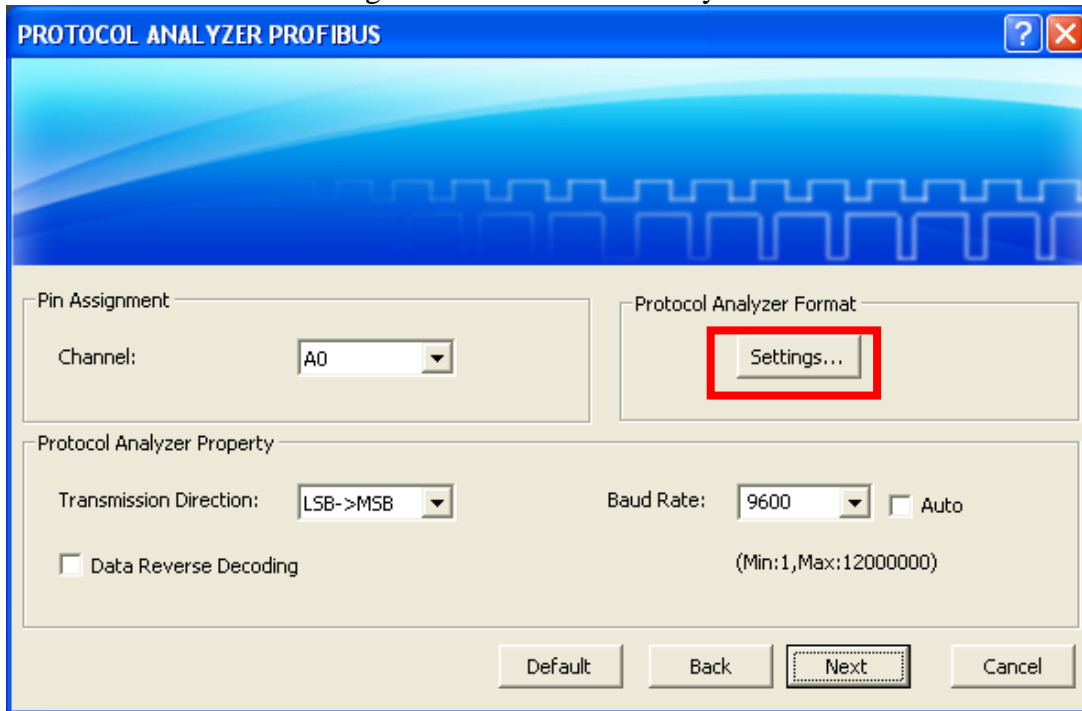
STEP 2. Select the Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Others, select the PROFIBUS, and then press the **Next**.



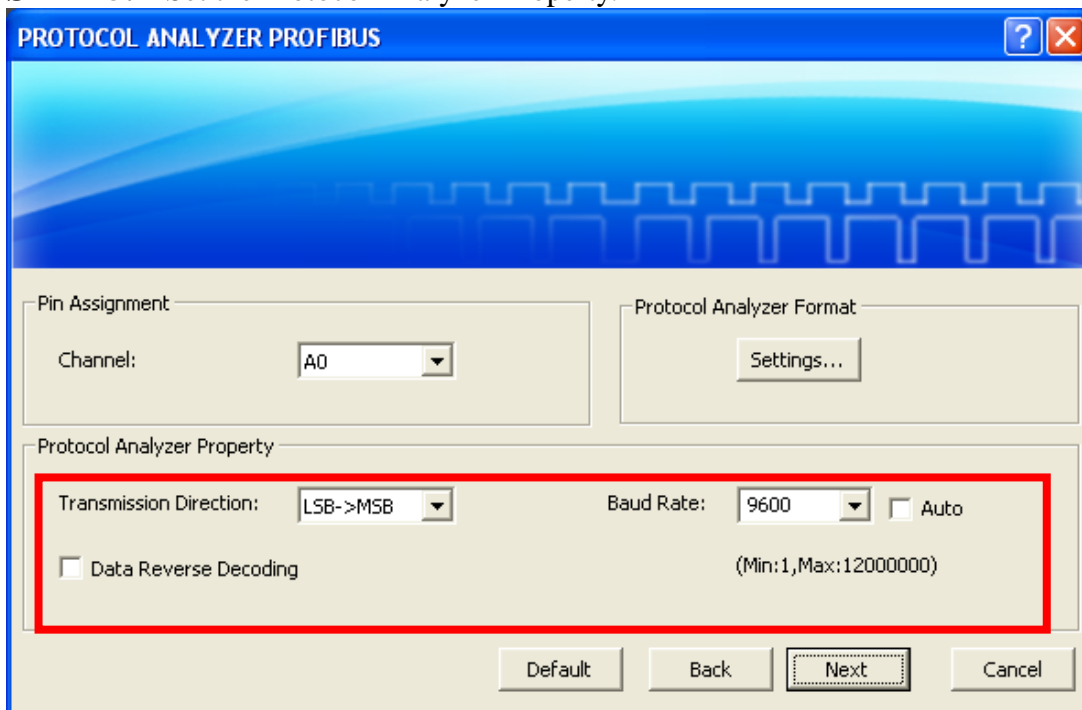
STEP 3. Set the Pin Assignment.



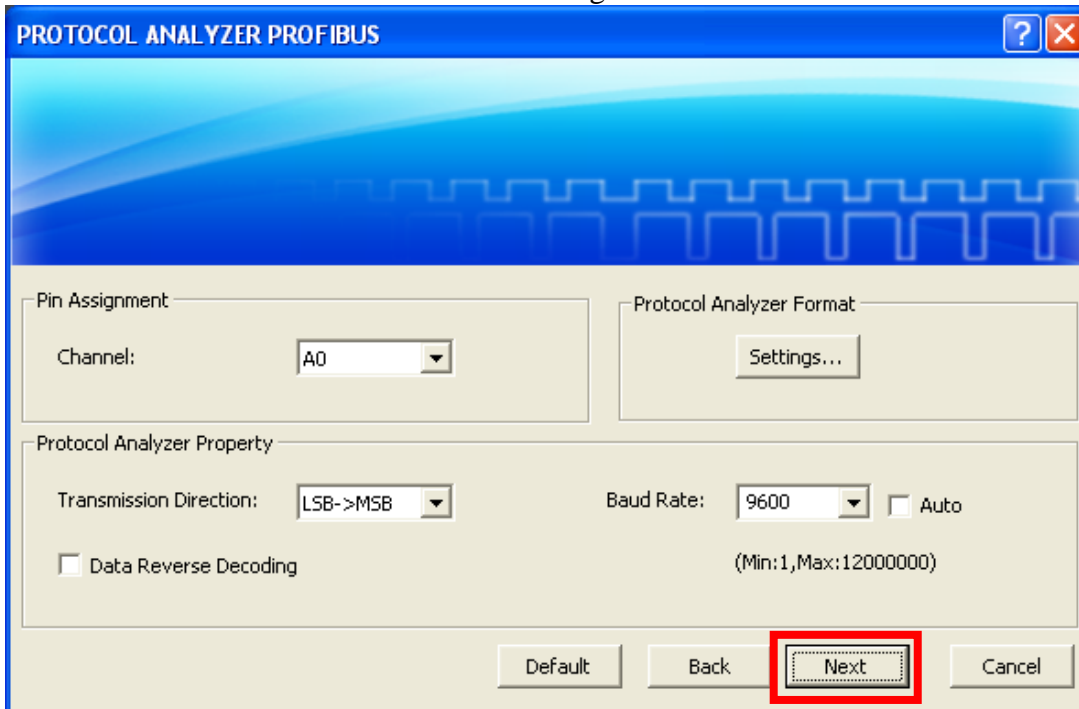
STEP 4. Click the Settings to set the Protocol Analyzer Format.



STEP 5. Set the Protocol Analyzer Property.



STEP 6. Press the **Next** to finish all settings.



PROTOCOL ANALYZER PROFIBUS

Pin Assignment

Channel: A0

Protocol Analyzer Format

Settings...

Protocol Analyzer Property

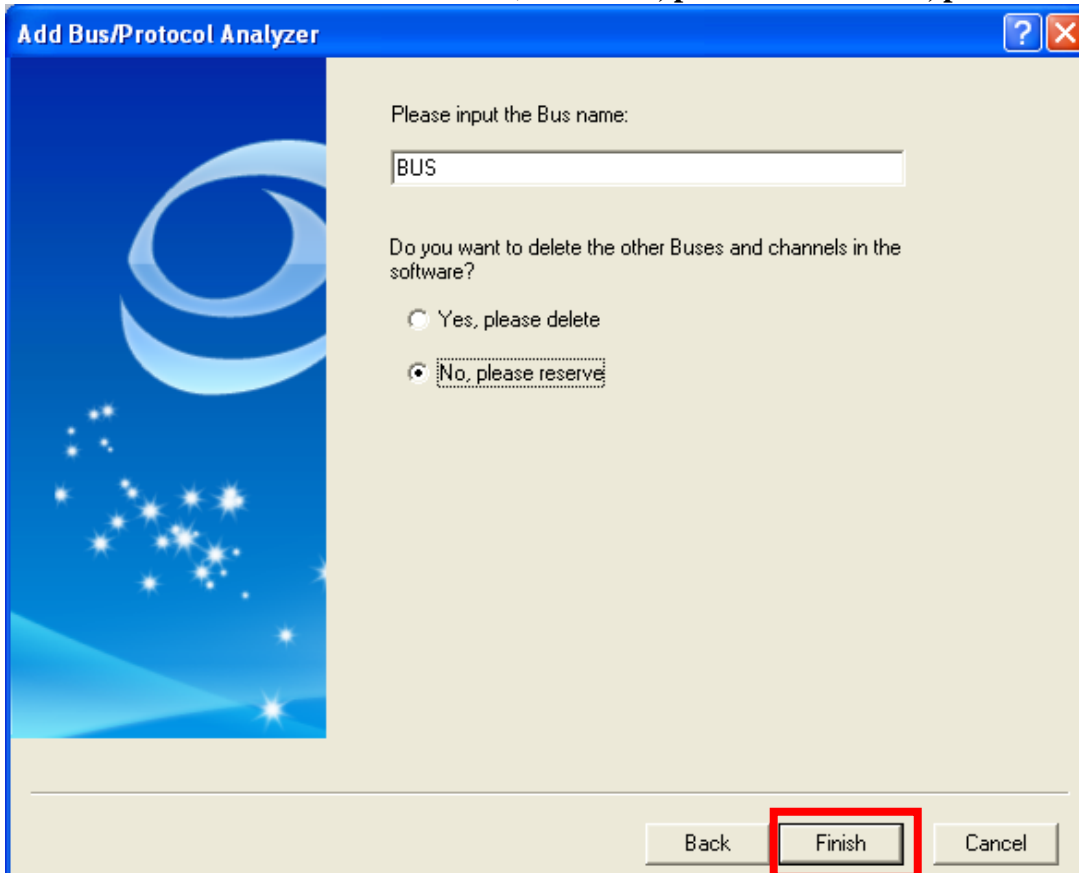
Transmission Direction: LSB->MSB

Baud Rate: 9600 ☐ Auto

☐ Data Reverse Decoding (Min:1,Max:12000000)

Default Back **Next** Cancel

STEP 7. Please enter the Bus Name, select **Yes, please delete** or **No, please reserve** and then press **Finish**.



Add Bus/Protocol Analyzer

Please input the Bus name:

BUS

Do you want to delete the other Buses and channels in the software?

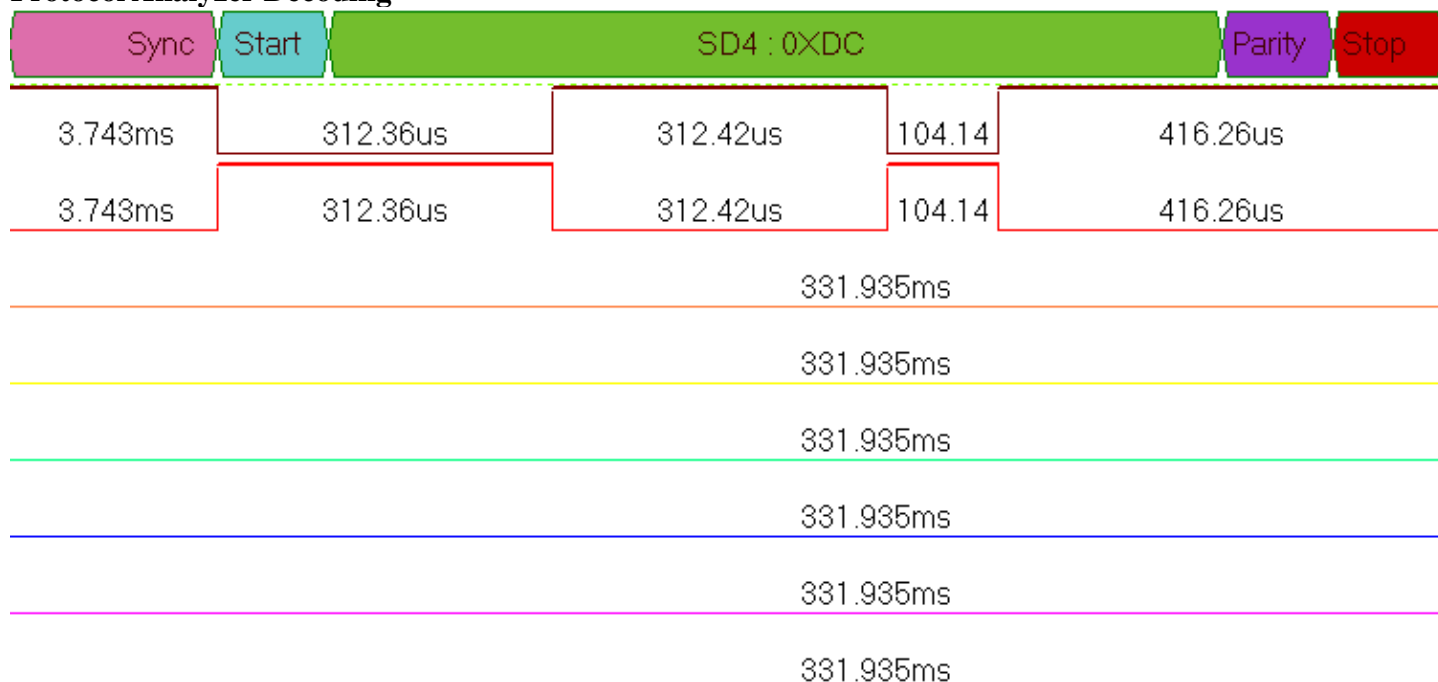
☐ Yes, please delete

☒ No, please reserve

Back **Finish** Cancel

STEP 8. Following pictures show the completion of the protocol analyzer decoding and packet list. The trigger condition is set as Rising Edge; the memory depth is 128K; the sampling frequency is 50MHz. (the sampling frequency should be more than 4 times higher than the signal to be tested.)

Protocol Analyzer Decoding



Packet List

Packet #	Name	TimeStamp	Sync	Start	SD4	Parity	Stop	Start	DA	Parity	Stop	Start	SA	Parity	Stop
1	Bus1(PROFIBUS)	26.7542ms	Sync	Start	DC	Parity	Stop	Start	DA	Parity	Stop	Start	2A	Parity	Stop
2	Bus1(PROFIBUS)	33.9335ms	Sync	Start	10	Parity	Stop	Start	00	Parity	Stop	Start	05	Parity	Stop
3	Bus1(PROFIBUS)	44.5473ms	Start	10	Parity	Stop	Start	00	Parity	Stop	Start	05	Parity	Stop	Start
4	Bus1(PROFIBUS)	51.6261ms	Start	E5	Parity	Stop									