



**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

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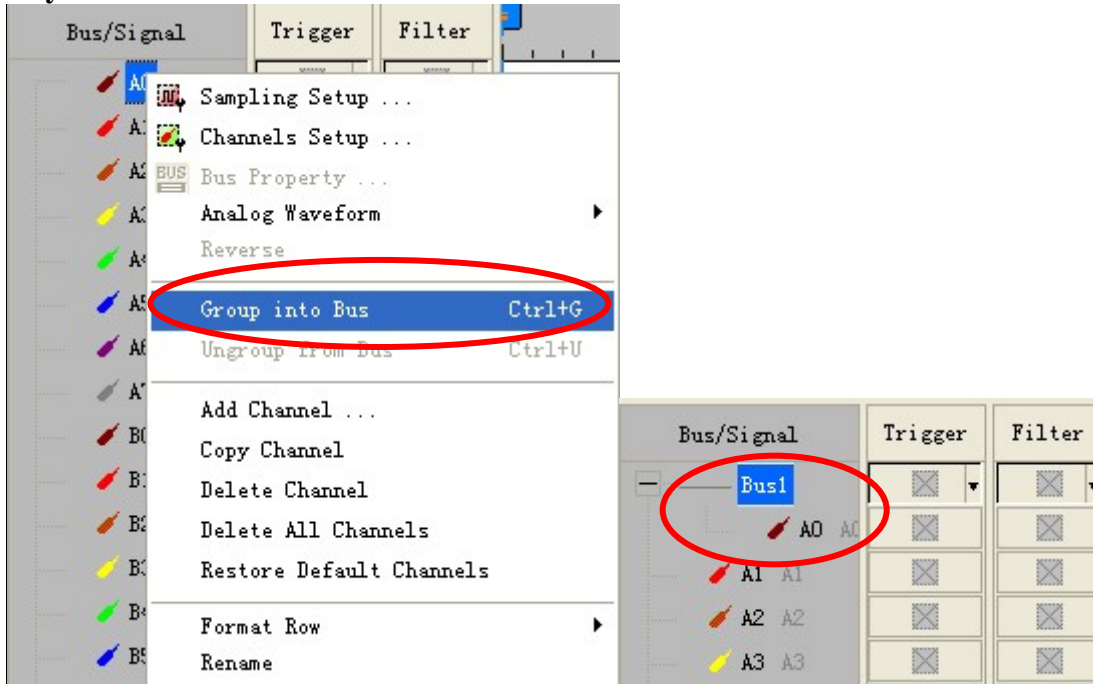
## 1 Software Register

Please register the software as the following steps:

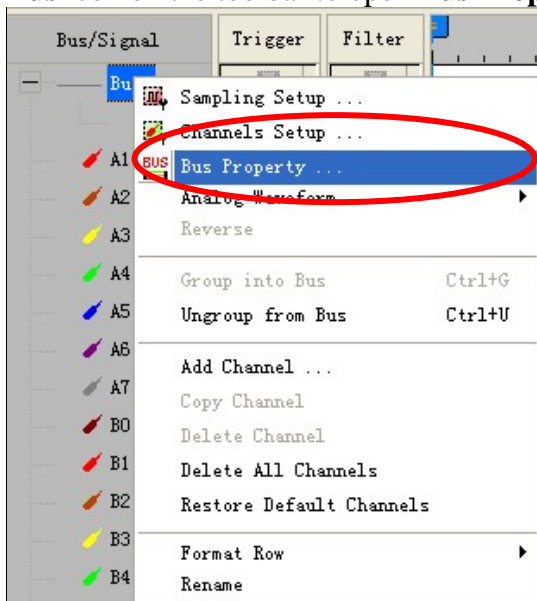
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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 group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse.

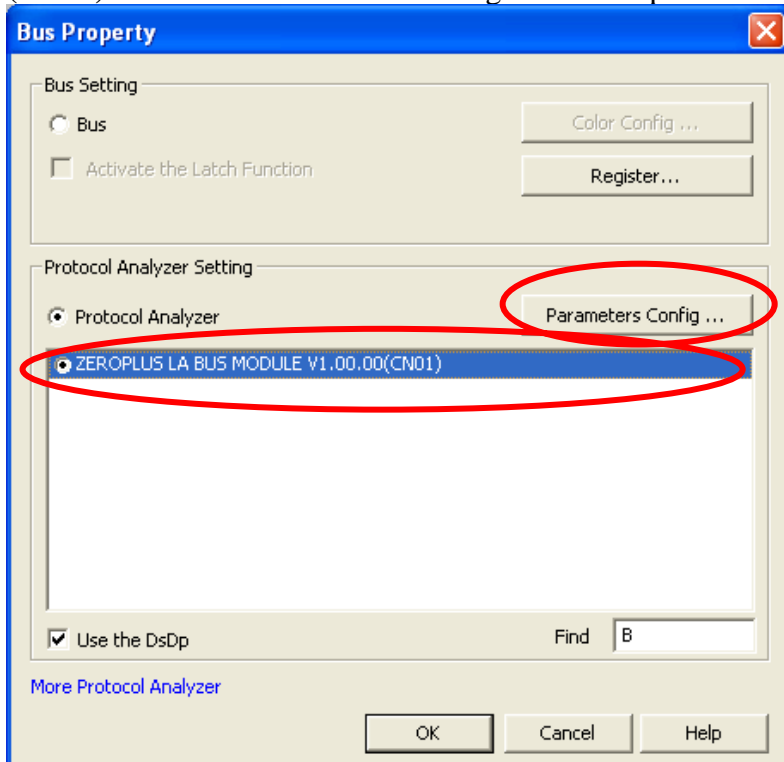


**STEP 2.** Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

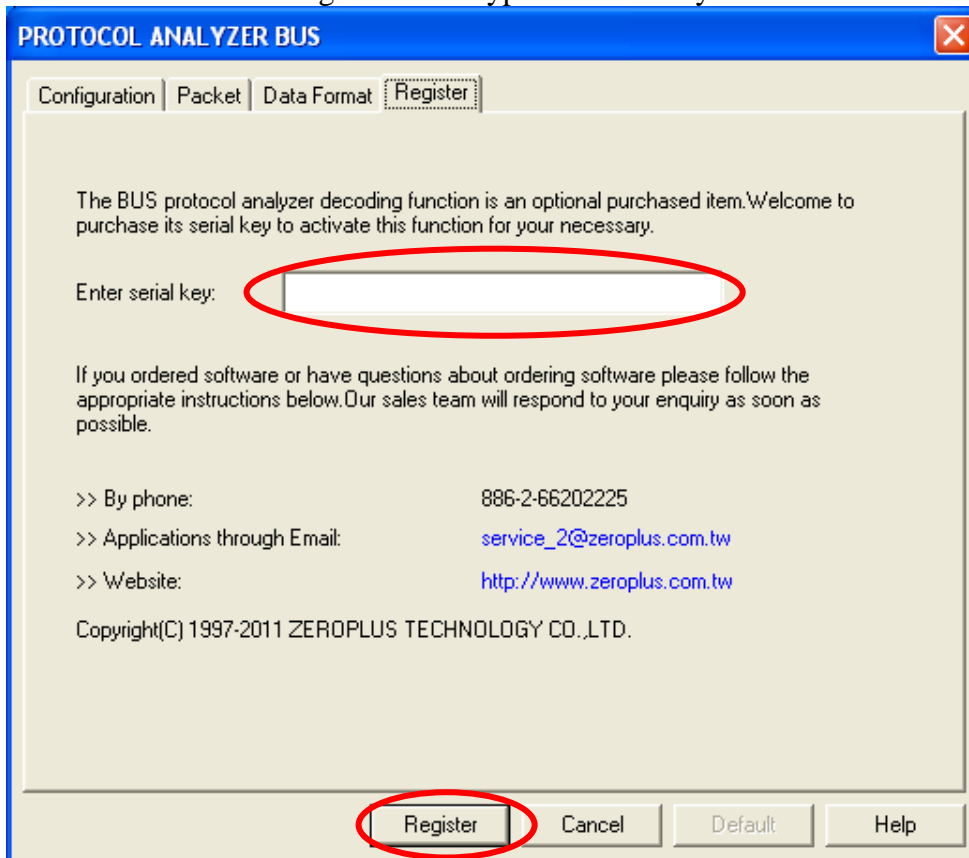




**STEP 3.** Select the Protocol Analyzer, and then choose **ZEROPLUS LA BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.

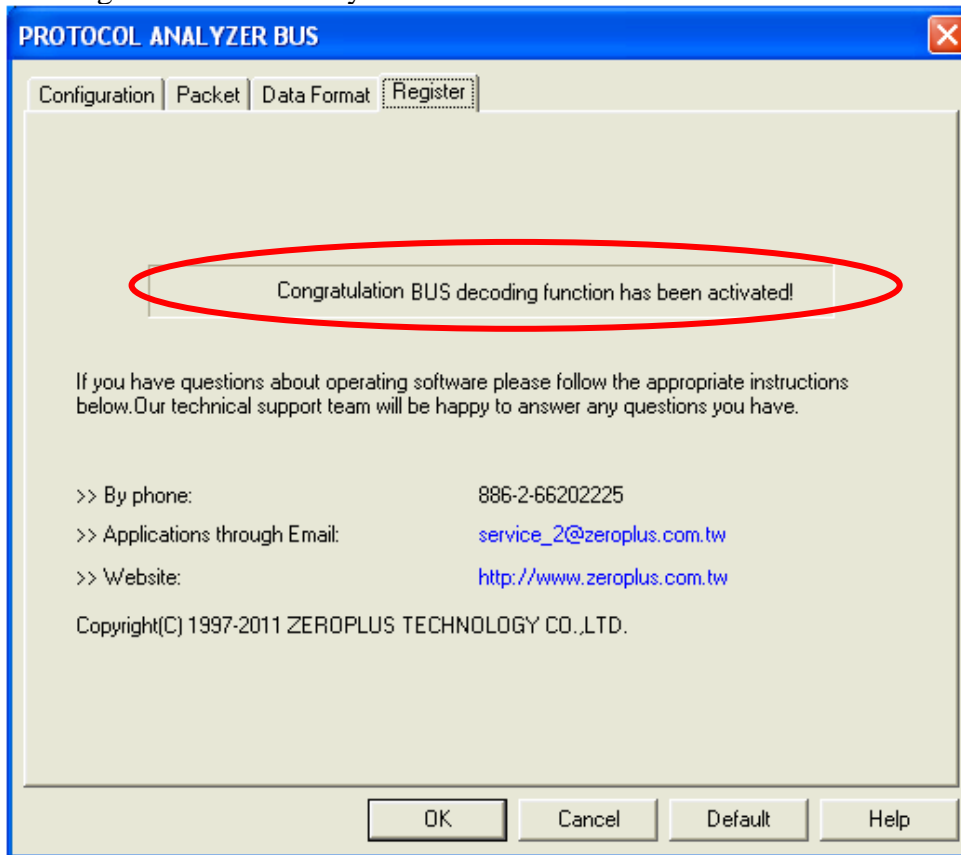


**STEP 4.** Press Register tab to type the serial key number of BUS. Then press Register.





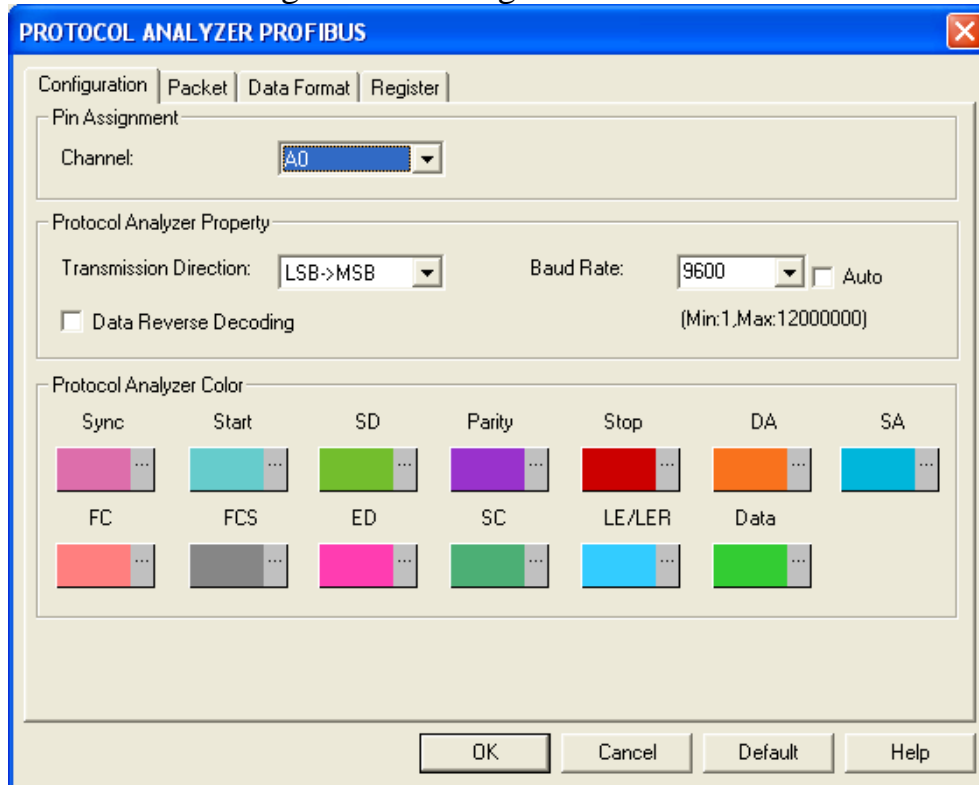
**STEP 5.** After pressing the Register button, following dialog box will appear, it denotes that the BUS has been registered successfully.



## 2 User Interface

In the configuration, please refer to the below images to select options of setting PROFIBUS module.

### PROFIBUS Configuration Dialog Box



**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 Color:** Users can set the color for each data segment in this part.



## PROFIBUS Packet Dialog Box

Item	Color	Item	Color
<input checked="" type="checkbox"/> Sync	[Pink]	<input checked="" type="checkbox"/> FC	[Red]
<input checked="" type="checkbox"/> Start	[Cyan]	<input checked="" type="checkbox"/> FCS	[Grey]
<input checked="" type="checkbox"/> SD	[Green]	<input checked="" type="checkbox"/> ED	[Magenta]
<input checked="" type="checkbox"/> Parity	[Purple]	<input checked="" type="checkbox"/> SC	[Dark Green]
<input checked="" type="checkbox"/> Stop	[Red]	<input checked="" type="checkbox"/> LE/LER	[Light Blue]
<input checked="" type="checkbox"/> DA	[Orange]	<input checked="" type="checkbox"/> Data	[Light Green]
<input checked="" type="checkbox"/> SA	[Light Blue]	<input checked="" type="checkbox"/> Describe	[Blue]

In the Packet part, users can set the items and colors as users' requirements.

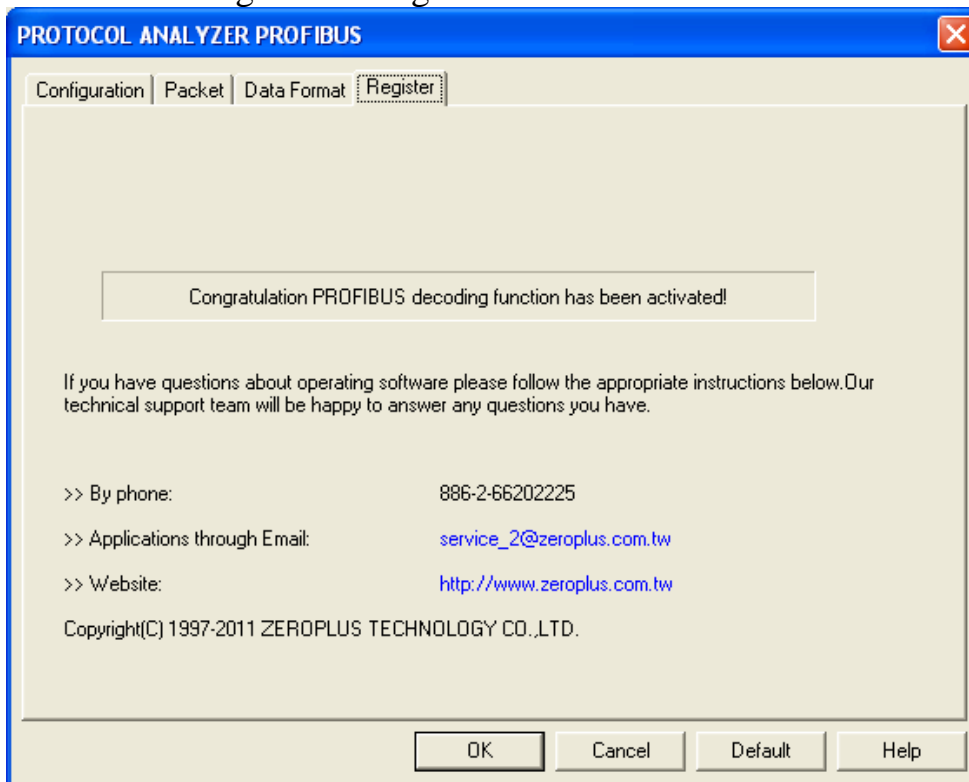
## PROFIBUS Data Format Dialog Box

Item	Binary	Decimal	Hexadecimal	ASCII
<input checked="" type="checkbox"/> Activate				
SD:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
DA:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
FC:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
FCS:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
ED:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
SC:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
LE/LER:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Data:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
SA:	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Users can set the Data Format of the SD, DA, FC, FCS, ED, SC, LE/LER, Data and SA as their requirements. When selecting the option, Activate, the data formats are decided by the settings in the Protocol Analyzer; when not selecting the option, Activate, the data formats are decided by the settings in the main program.



## PROFIBUS Register Dialog Box



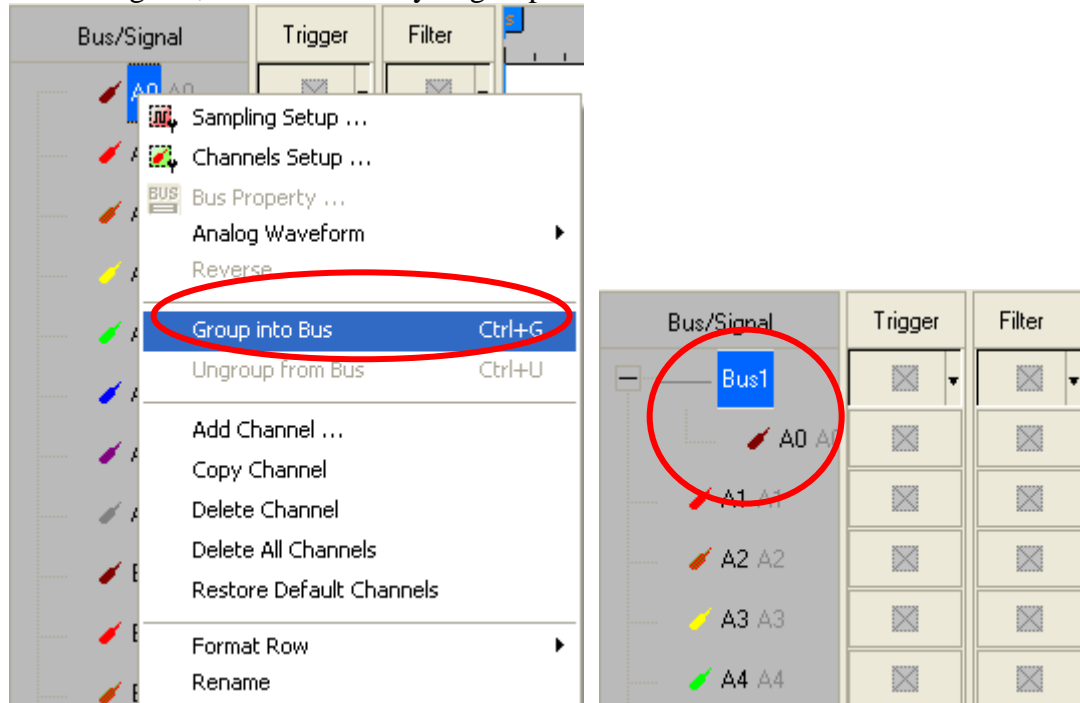
There is written ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.



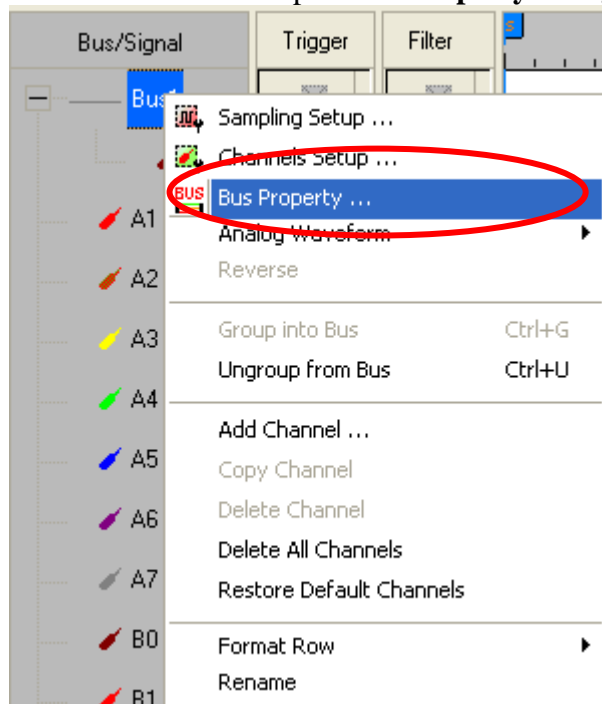


### 3 Operating Instructions

**STEP 1.** Group A0 into **Bus1** by pressing the **Right Key** on the mouse. PROFIBUS needs one channel to decode signals, so it is necessary to group one or more channels into a Bus.

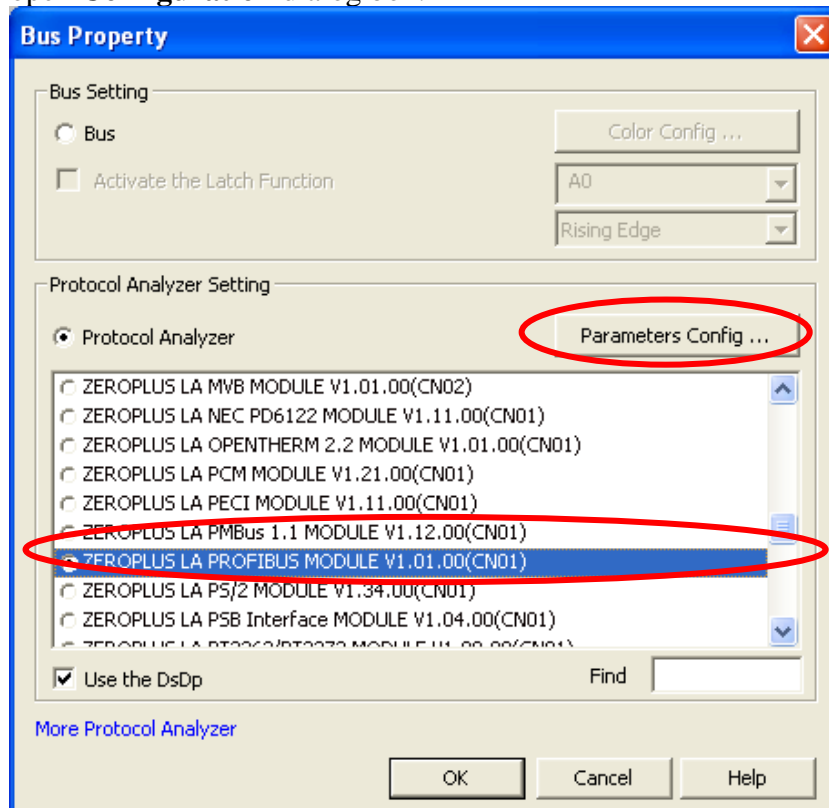


**STEP 2.** Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.

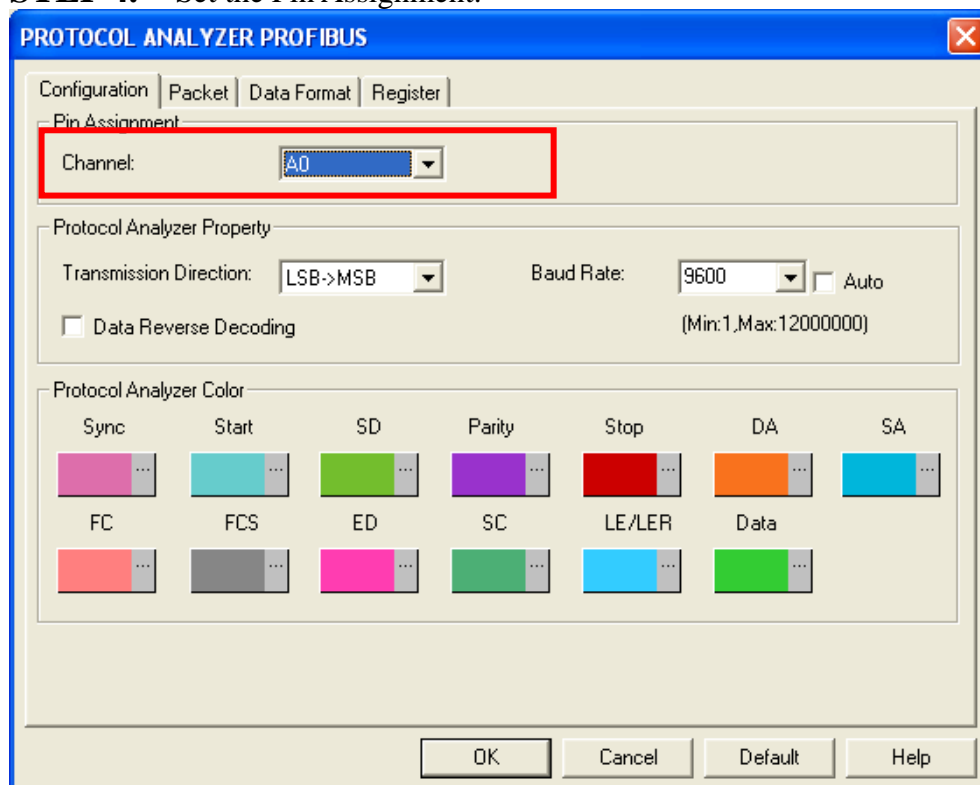




**STEP 3.** For Protocol Analyzer PROFIBUS Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA PROFIBUS MODULE V1.01.00 (CN01)**. Next click **Parameters Configuration** to open **Configuration** dialog box.

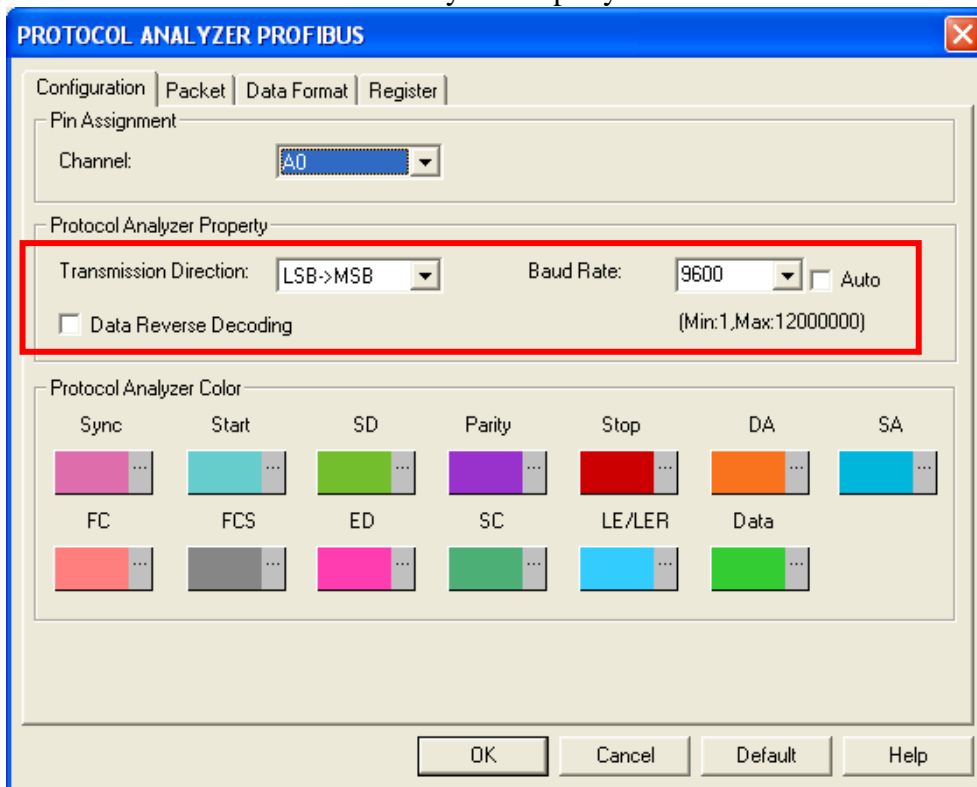


**STEP 4.** Set the Pin Assignment.

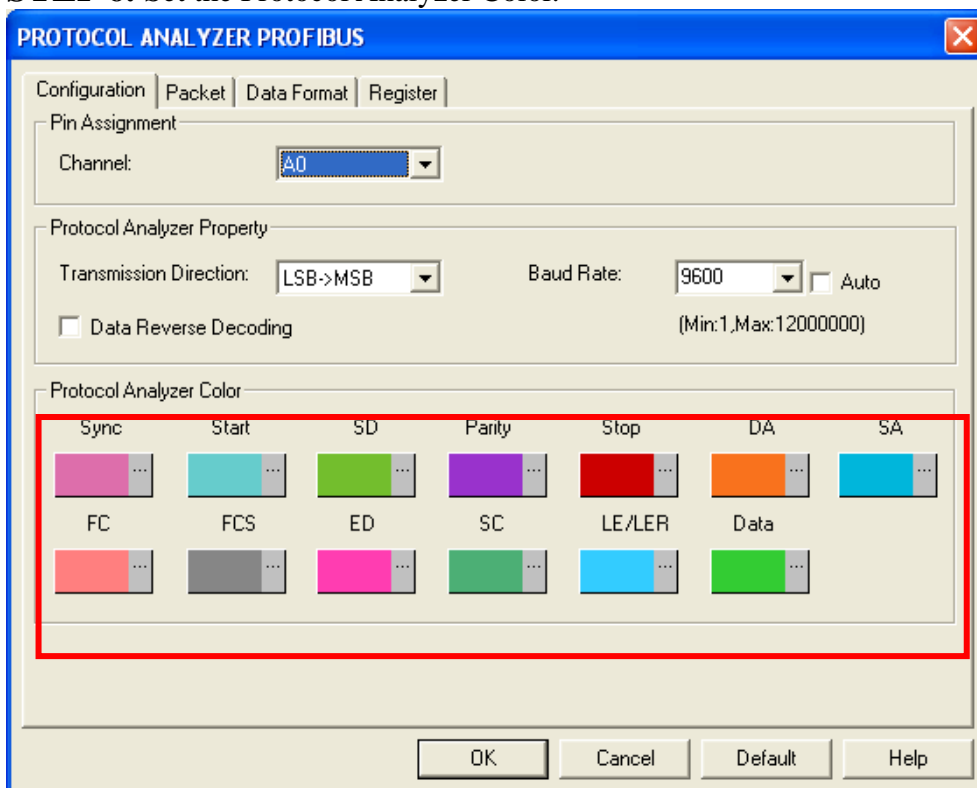




## STEP 5. Set the Protocol Analyzer Property.



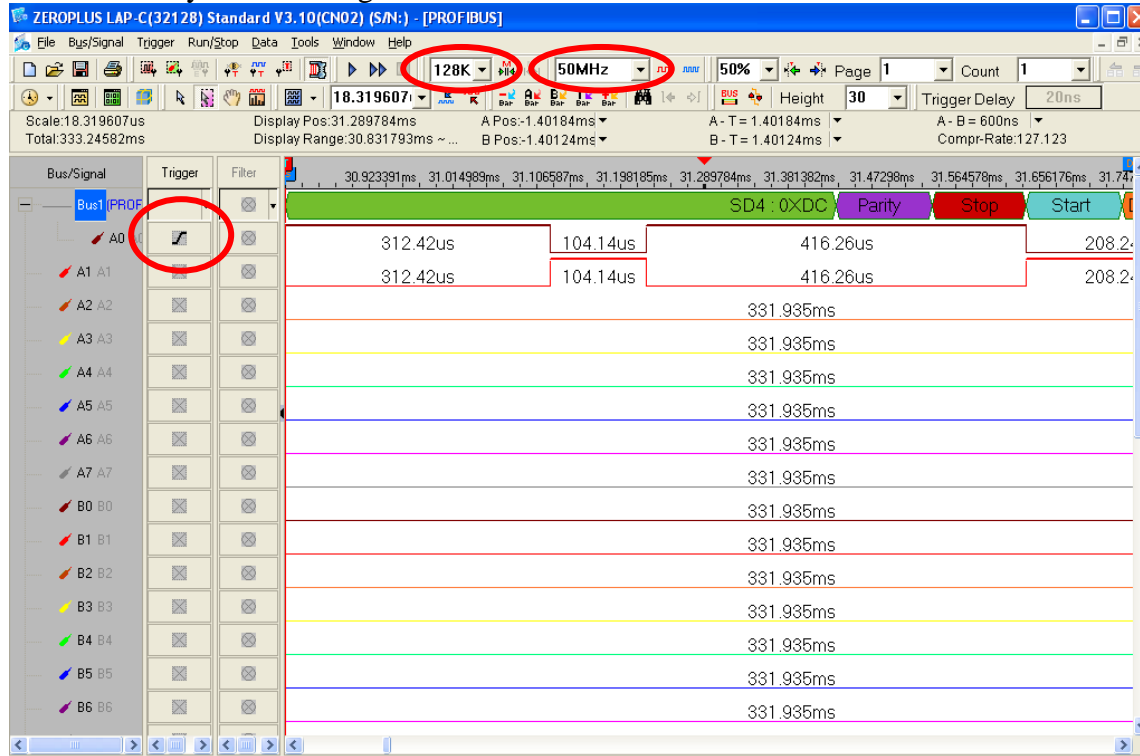
## STEP 6. Set the Protocol Analyzer Color.





**STEP 7.** Following pictures show the completion of the protocol analyzer decoding and the 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 four times higher than the signal to be tested)

### Protocol Analyzer Decoding



### Packet List

