



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

SPECIFICATION

MODEL: B08022-LAP-UP DOWN COUNTER-M

PART NO : _____

VERSION : V1.03

Approver		Check	Design
GM	PM		

Customer Confirm

* Please fax the file to
Zeroplus Technology after
signing .

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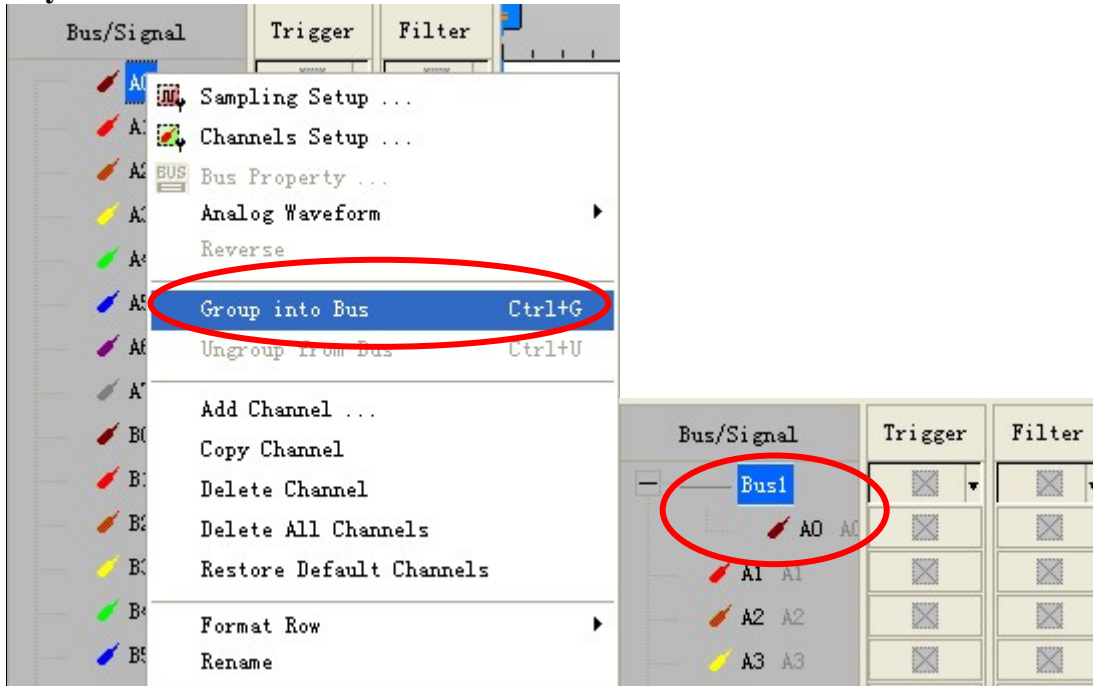
1. Software Register

Please register the software as the following steps:

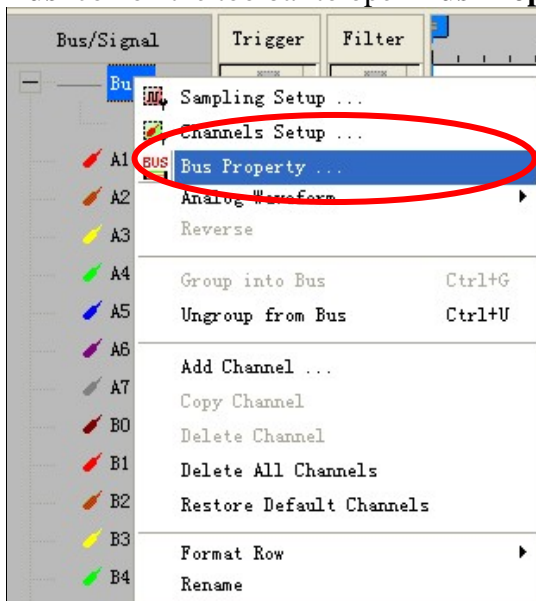
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

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

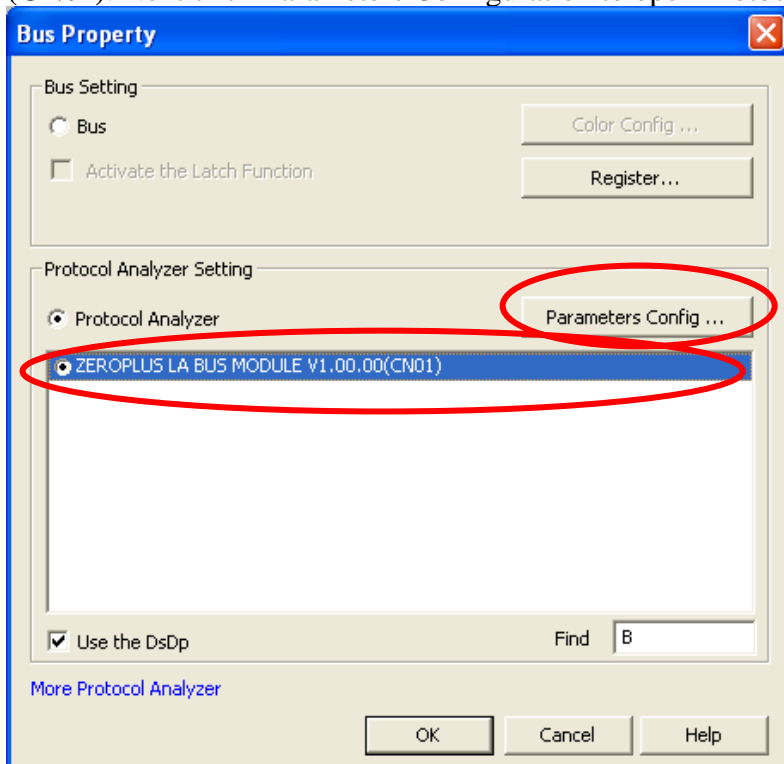


STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

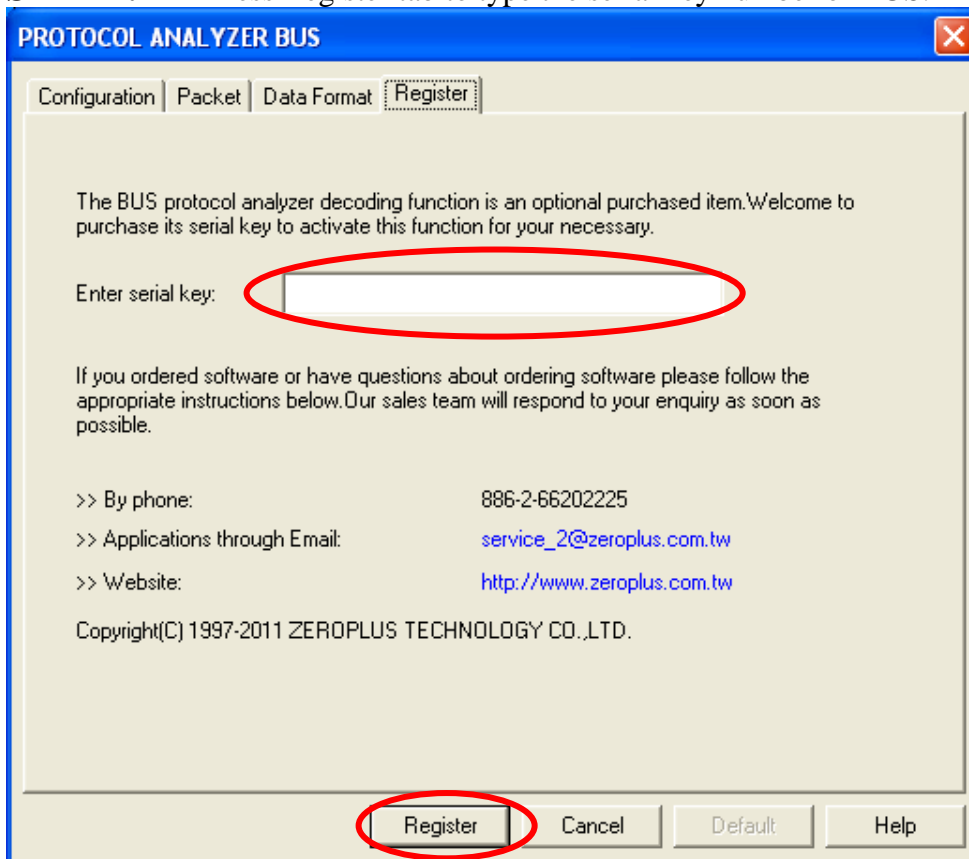




STEP 3. Select the Protocol Analyzer, and then choose **ZEROPLUS LA BUS MODULE V1.00.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.

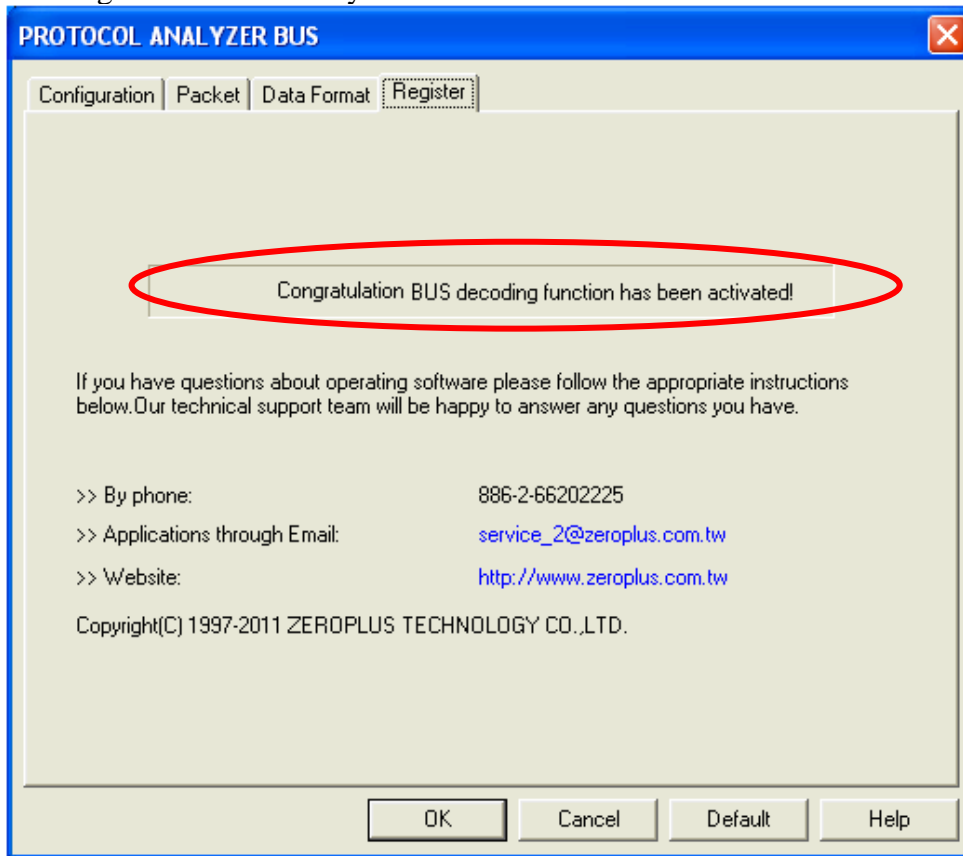


STEP 4. Press Register tab to type the serial key number of BUS. Then press Register.





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

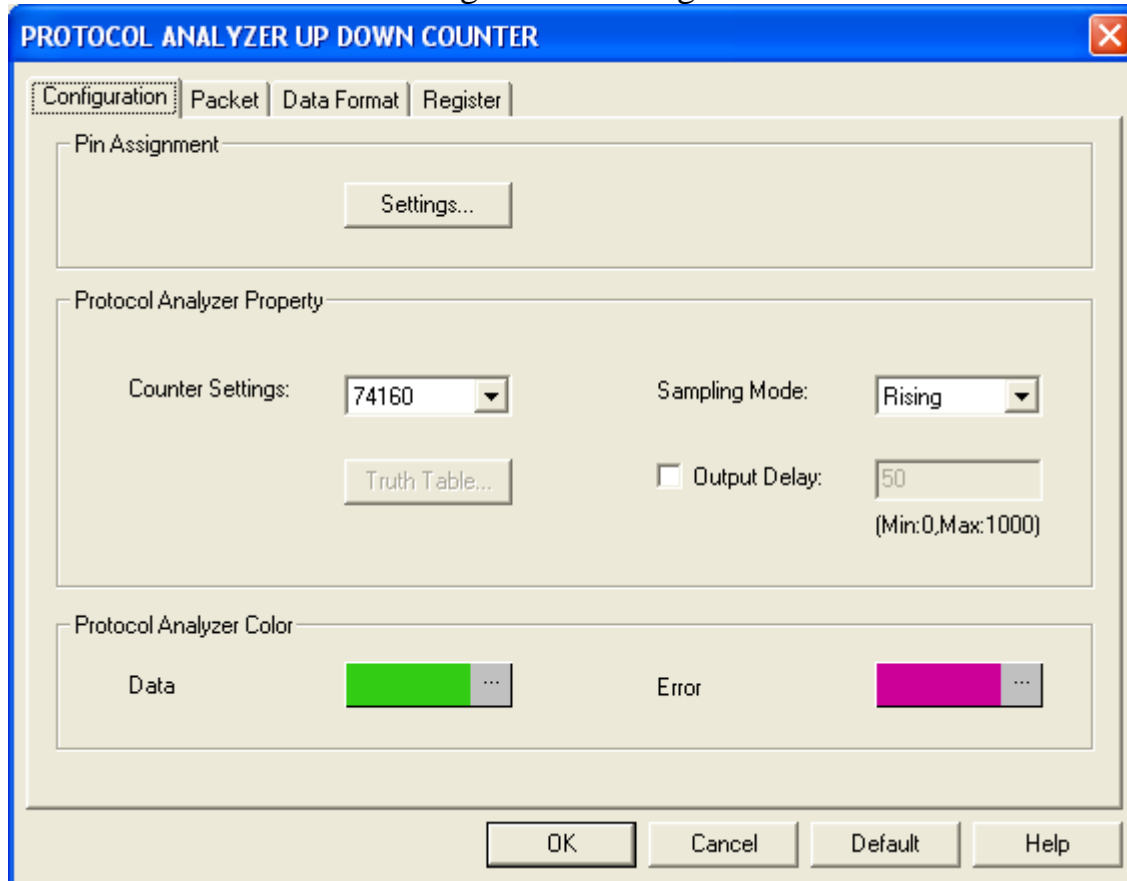




2. User Interface

In the configuration dialog box, please refer to the below images to select options of setting **UP DOWN COUNTER MODULE**.

UP DOWN COUNTER Configuration Dialog Box



Protocol Analyzer Property:

Counter Settings: Select the required type of IC, or select the Truth Table. As long as the User Defined is selected, the button, the Truth Table Settings, is enabled. The default of IC is 74160.

Sampling Mode: Set the CLK sampling mode as Rising or Falling.

Output Delay: The default of the upper limit of delay time is 50ns, and the max. upper limit is 1000ns.

Protocol Analyzer Color: The **Protocol Analyzer Color** can be varied by users.

Pin Assignment:

Settings: Set the channel as users' requirements. When the different IC is selected, the corresponding dialog box of Settings will appear, for instance, select 74160 in the column. Users can set the Input Channel and Output Channel in the Pin Assignment.



The dialog box is titled "74160" and contains two main sections: "Input Channel" and "Output Channel".

Input Channel:

Label	Value
CR:	A0
CTT:	A3
D2:	A6
LD:	A1
D0:	A4
D3:	A7
CTP:	A2
D1:	A5
CP:	B0

Output Channel:

Label	Value
Q0:	
Q1:	
Q2:	
Q3:	

At the bottom, there is a checkbox labeled "Virtual output decoding mode" which is currently unchecked. To the right of the checkbox are three buttons: "OK", "Cancel", and "Default".

Virtual output decoding mode: There is a **Virtual output decoding mode** in the bottom of all Pin Assignment dialog boxes. When it is selected, all output channels will be disabled.

Truth Table Settings: When the User Defined is selected, the Truth Table Settings will be enabled. Click the Truth Table Settings; the dialog box of Truth Table Settings will appear, then users can edit the Truth Value. See the image below:

The dialog box is titled "Truth Table Settings" and contains a section for "Truth Table Value".

Truth Value Mode Settings:

There are three radio buttons: "Binary", "Decimal", and "Hexadecimal". The "Hexadecimal" button is selected.

Below the radio buttons is a large text area for inputting the truth value. Below the text area is a message: "Please input the truth value with the semicolon (;), such as 1; 2; 4; 5; 6...125".

At the bottom, there is a checkbox labeled "Activate the cycle" which is currently unchecked. To the right of the checkbox is a text box containing the number "10" and the word "times".

At the bottom right are two buttons: "Ok" and "Cancel".

Binary: It indicates that the input value in the below column is a binary value.

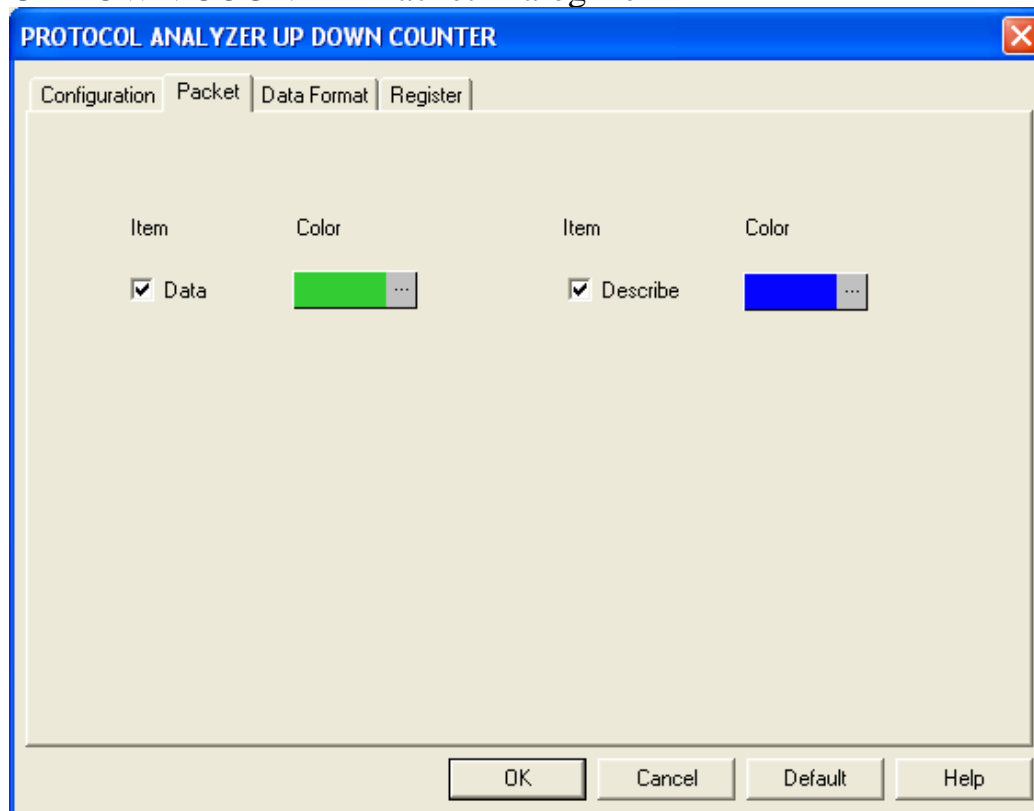
Decimal: It indicates that the input value in the below column is a decimal value.

Hexadecimal: It indicates that the input value in the below column is a hexadecimal value.

Activate the cycle: When the data has the character of cycling, users only need input a group of data, and fill in the times of the cycle after activating the check box.

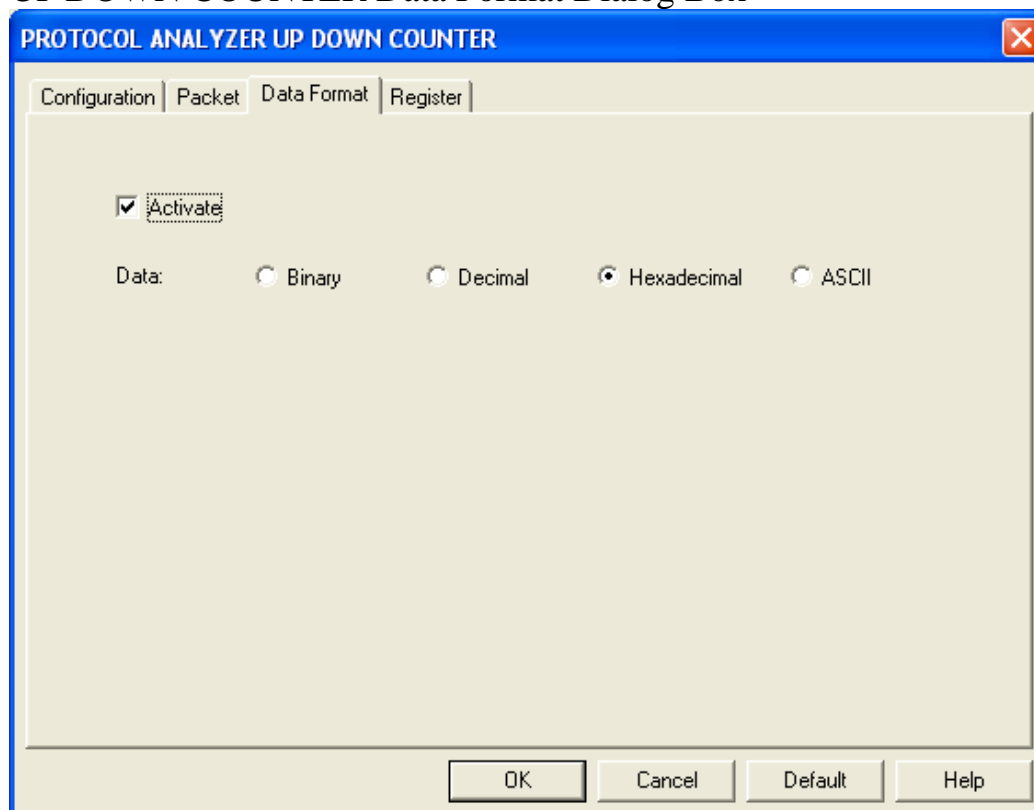


UP DOWN COUNTER Packet Dialog Box



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

UP DOWN COUNTER Data Format Dialog Box

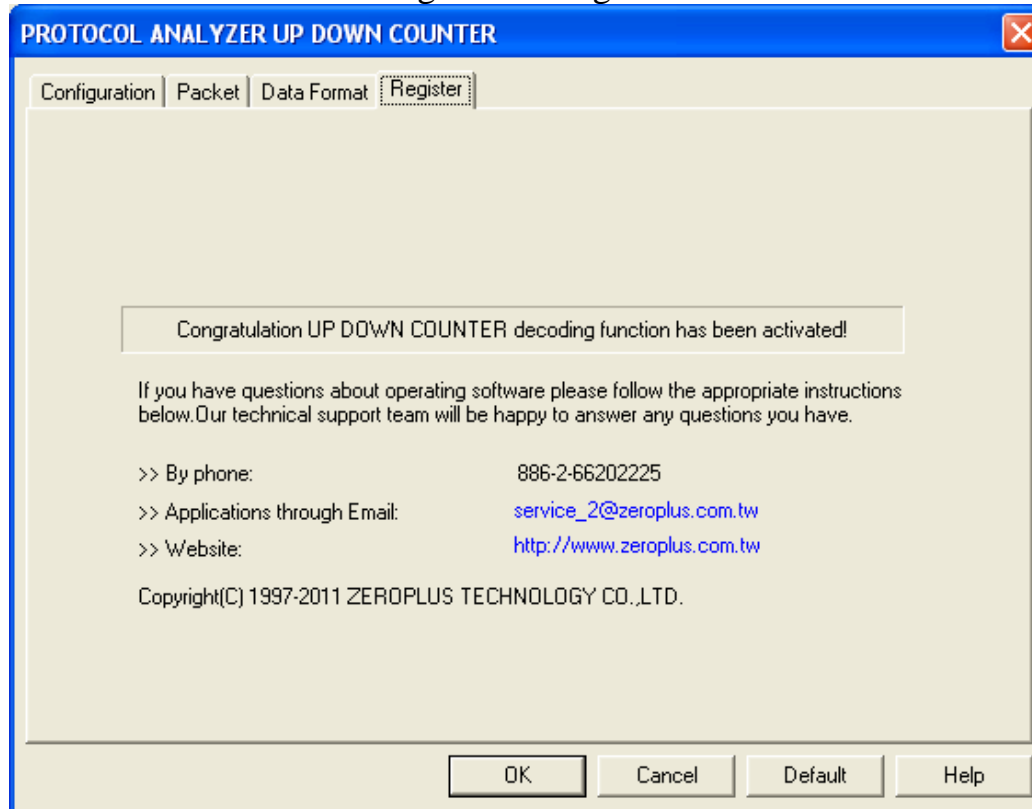


Users can set the Data Format of the Data as their requirements. When selecting the option, Activate, the data formats are decided by the settings in the Protocol Analyzer; when not selecting the option, Activate, the data



formats are decided by the settings in the main program.

UP DOWN COUNTER Register Dialog Box

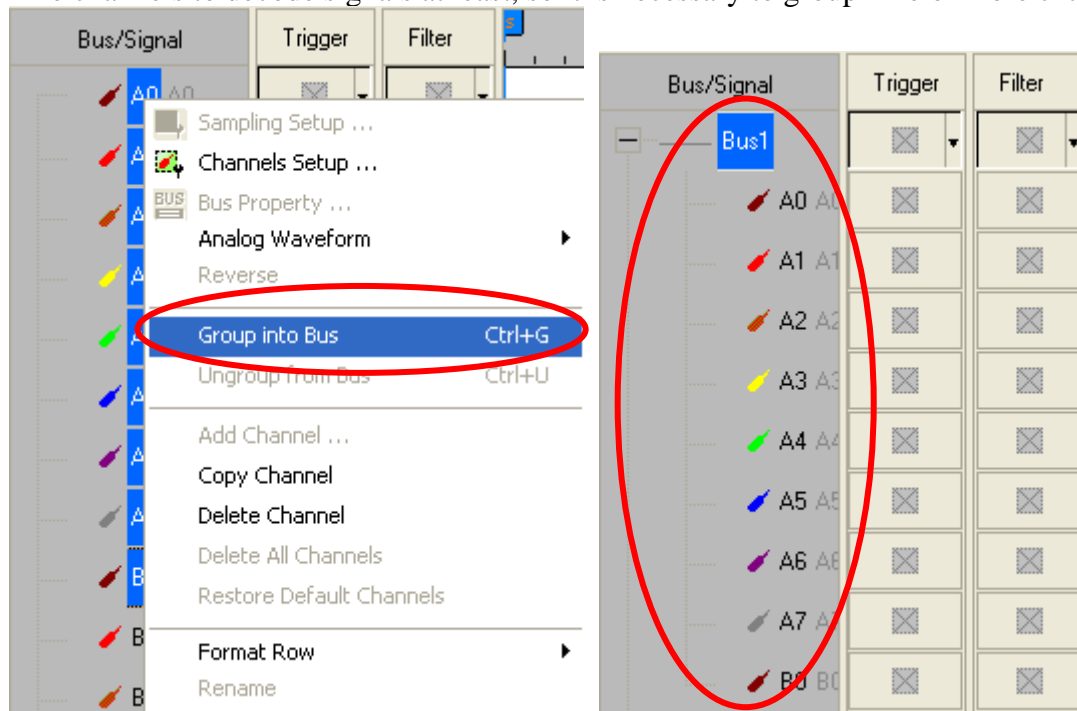


There is written ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

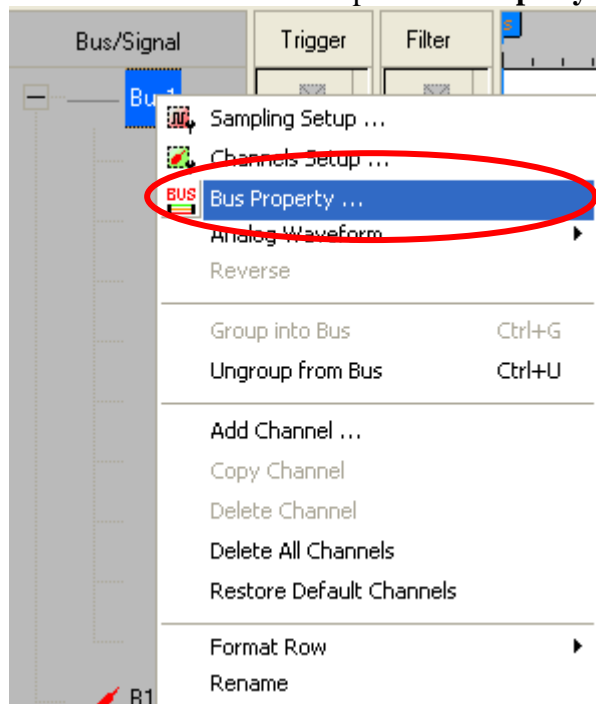


3. Operating Instructions

STEP 1. Group A0-B0 into **Bus1** by pressing the **Right Key** on the mouse. UP DOWN COUNTER needs nine channels to decode signals at least, so it is necessary to group nine or more channels into a Bus.

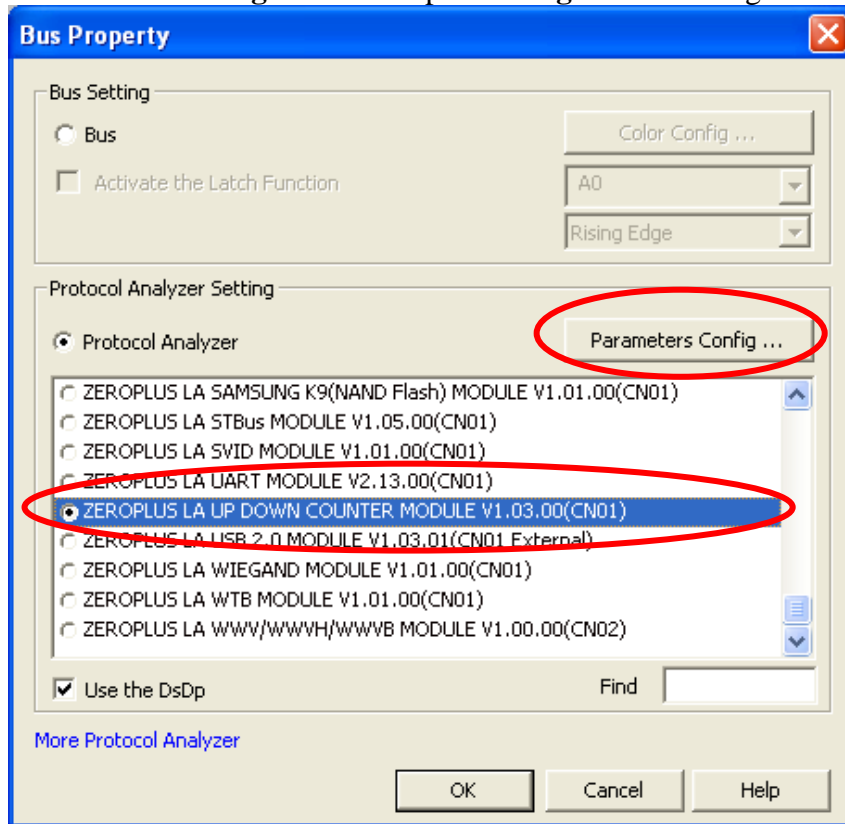


STEP 2. Select **Bus1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.

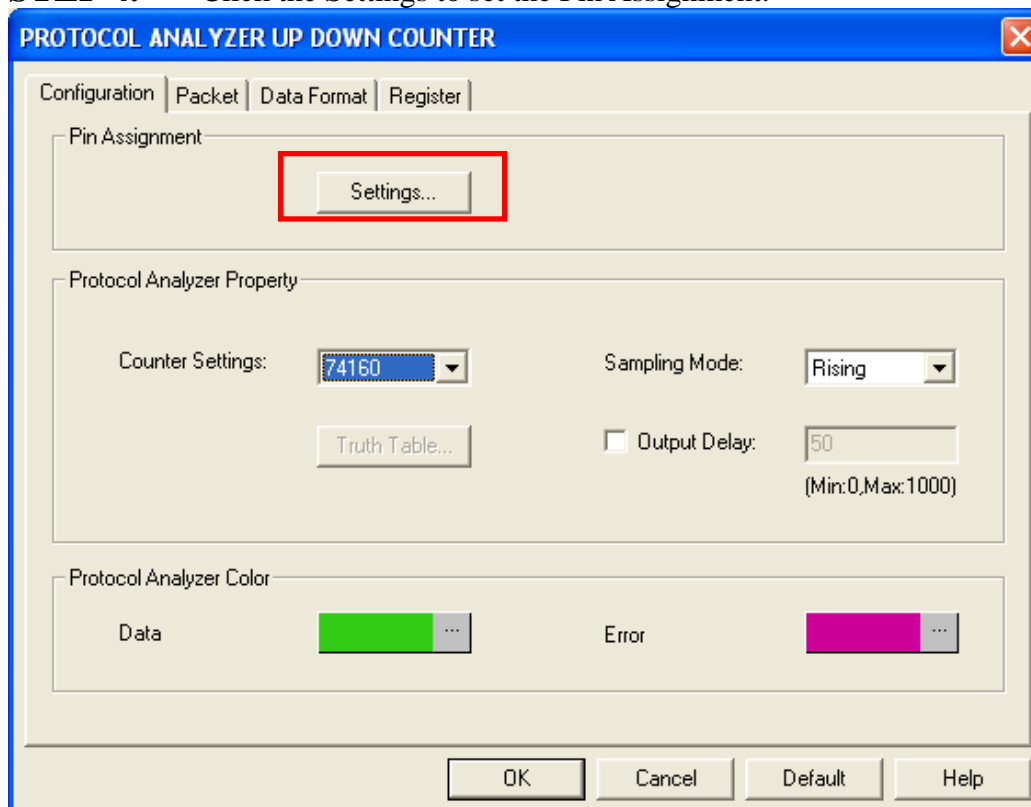




STEP 3. For Protocol Analyzer UP DOWN COUNTER Parameters Configuration, select Protocol Analyzer, and then select **ZEROPLUS LA UP DOWN COUNTER MODULE V1.03.00(CN01)**. Next click **Parameters Configuration** to open **Configuration** dialog box.



STEP 4. Click the Settings to set the Pin Assignment.





STEP 5. Set the Protocol Analyzer Property.

PROTOCOL ANALYZER UP DOWN COUNTER

Configuration | Packet | Data Format | Register

Pin Assignment

Settings...

Protocol Analyzer Property

Counter Settings: 74160 Sampling Mode: Rising

Truth Table... ☐ Output Delay: 50 (Min:0,Max:1000)

Protocol Analyzer Color

Data [Green] Error [Magenta]

OK Cancel Default Help

STEP 6. Set the Protocol Analyzer Color.

PROTOCOL ANALYZER UP DOWN COUNTER

Configuration | Packet | Data Format | Register

Pin Assignment

Settings...

Protocol Analyzer Property

Counter Settings: 74160 Sampling Mode: Rising

Truth Table... ☐ Output Delay: 50 (Min:0,Max:1000)

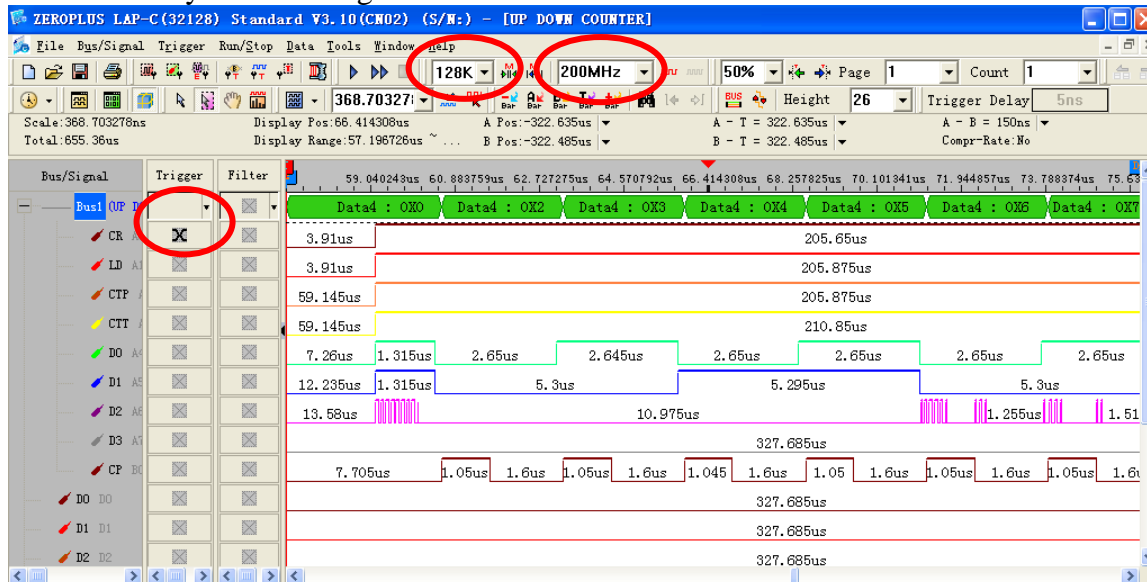
Protocol Analyzer Color

Data [Green] Error [Magenta]

OK Cancel Default Help

STEP 7. Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Either Edge; the memory depth is 128K; the sampling frequency is 200MHz. (The sampling frequency should be more than eight times higher than the signal to be tested)

Protocol Analyzer Decoding



Packet List

