



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

SPECIFICATION

MODEL: 034-LAP-MII-M

PART NO: _____

VERSION: V1.07

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to Zeroplus Technology after signing.

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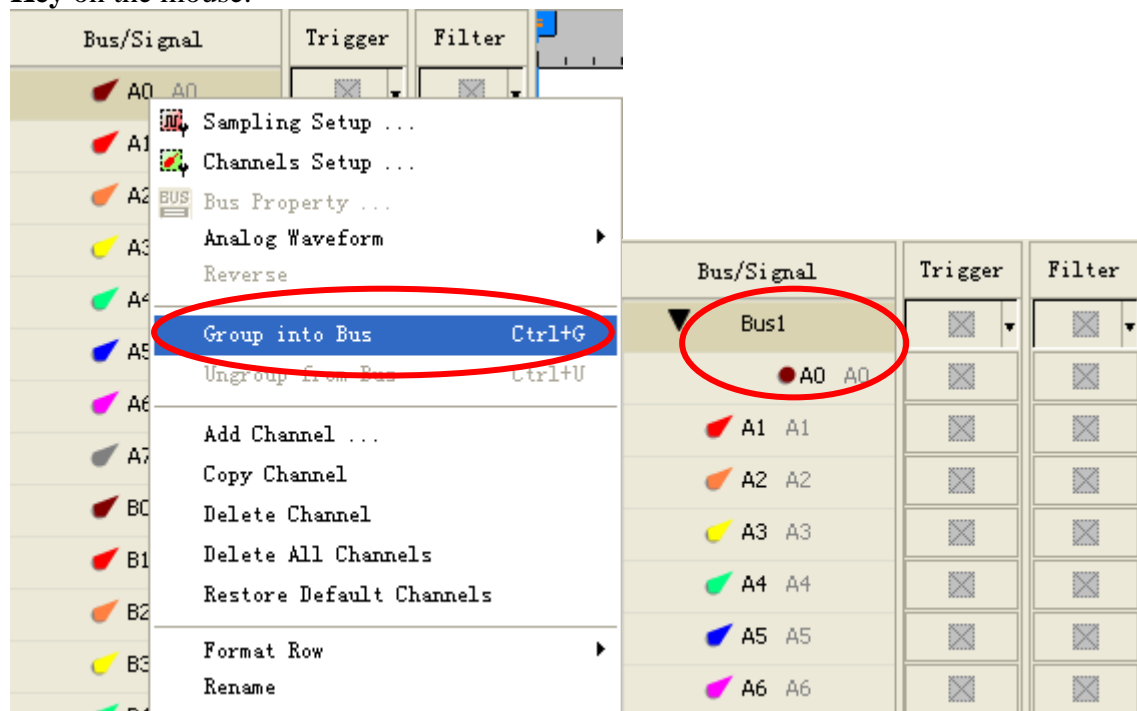
1. Software Registration

Please register the software as the following steps:

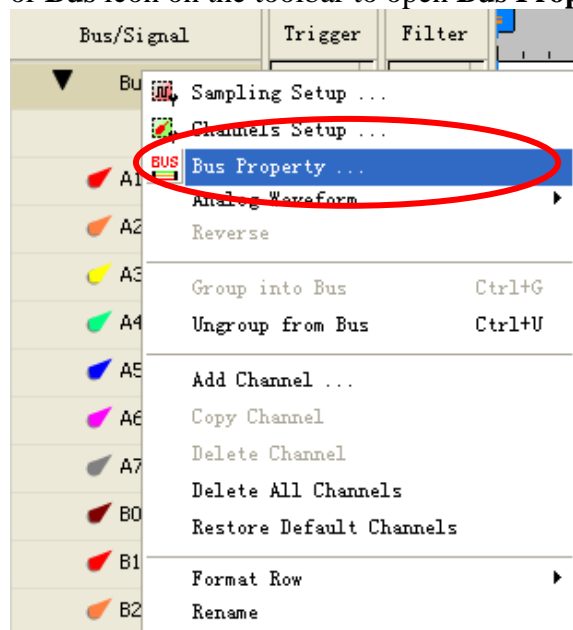
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.

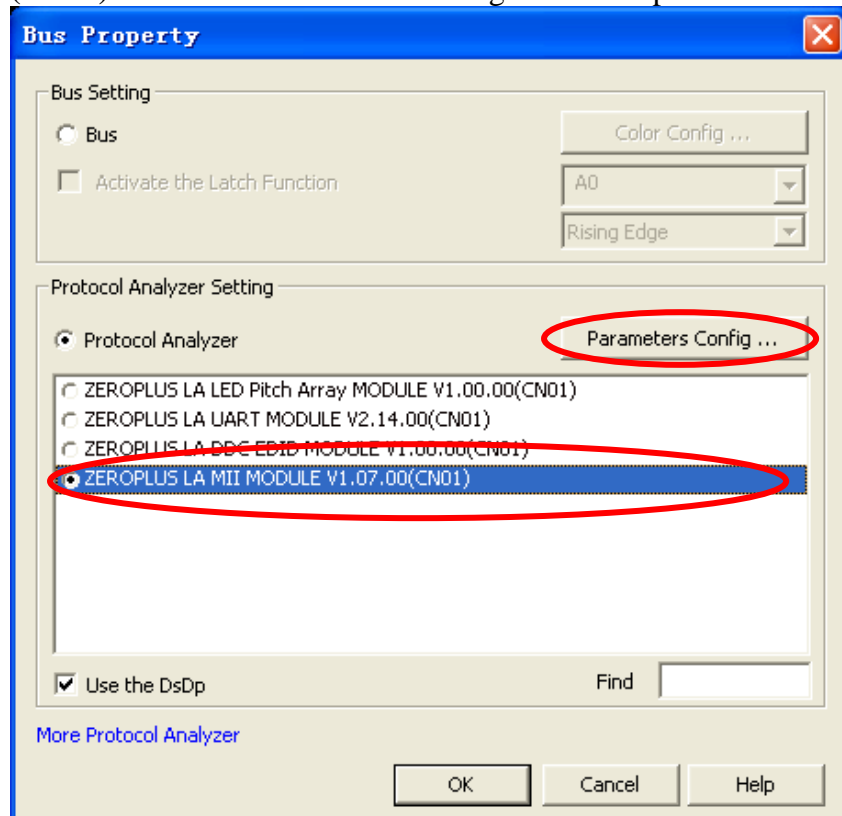


STEP 2. Select **Bus 1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

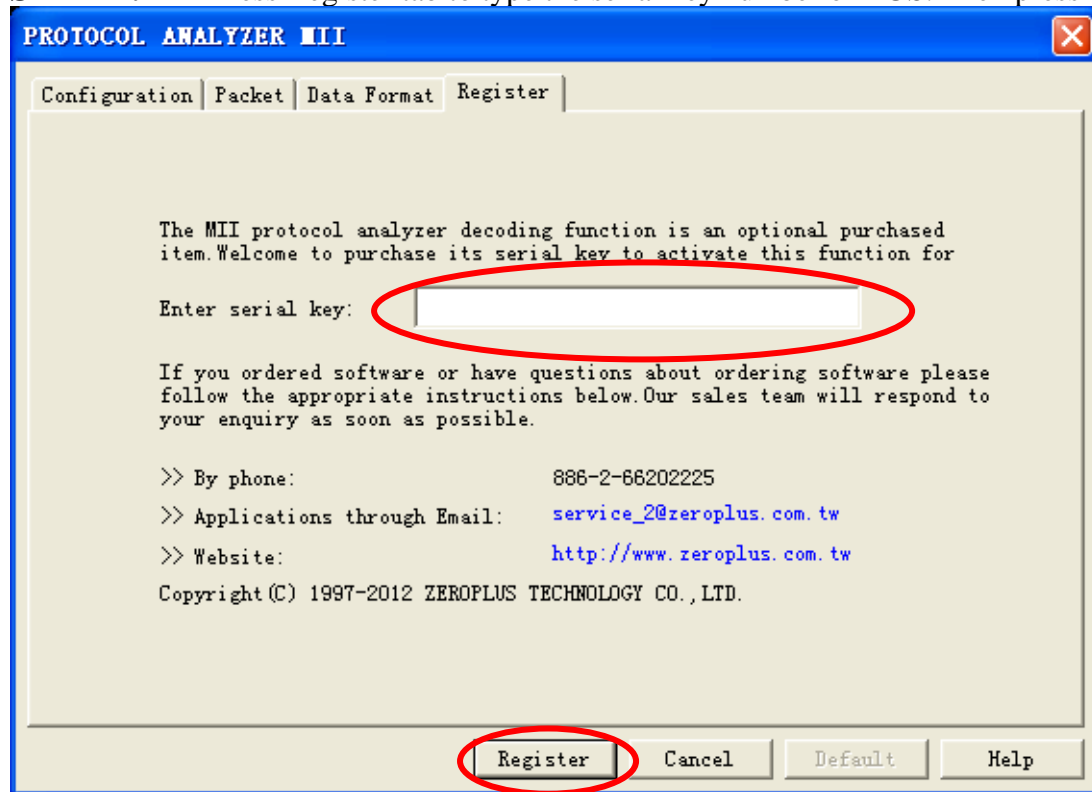




STEP 3. Select the Protocol Analyzer, and then choose **ZEROPLUS LA MII MODULE V1.07.00 (CN01)**. Next click Parameters Configuration to open Protocol Analyzer Bus dialog box.

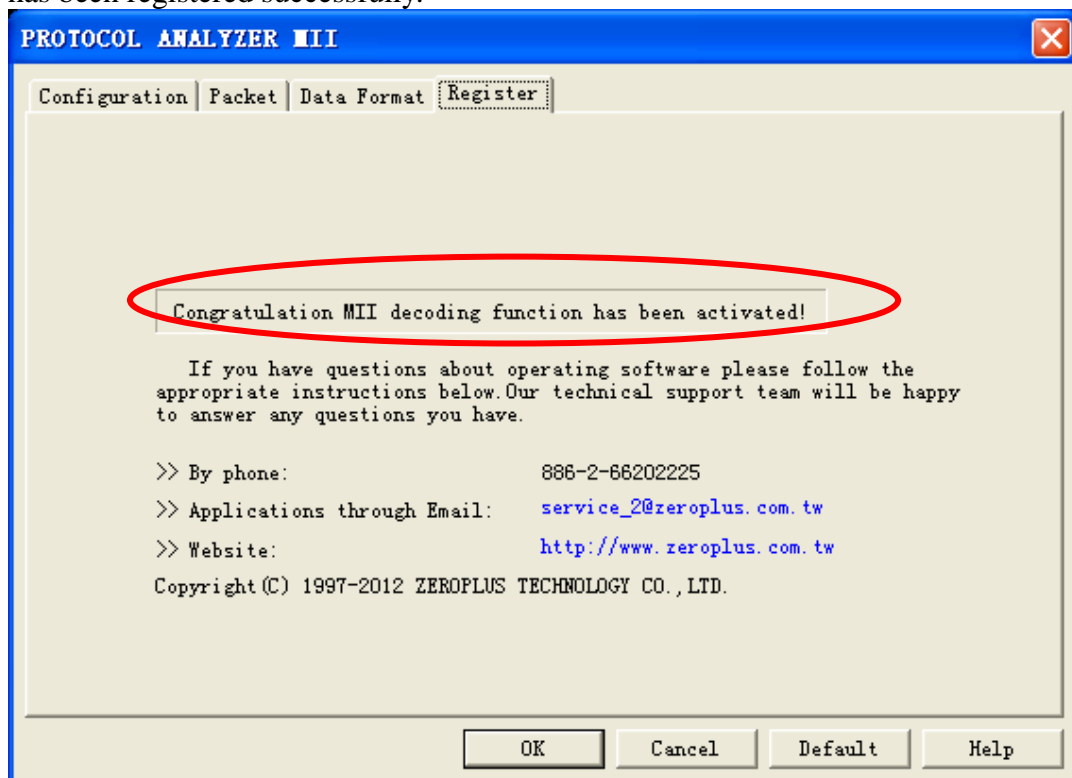


STEP 4. Press Register tab to type the serial key number of BUS. Then press Register.





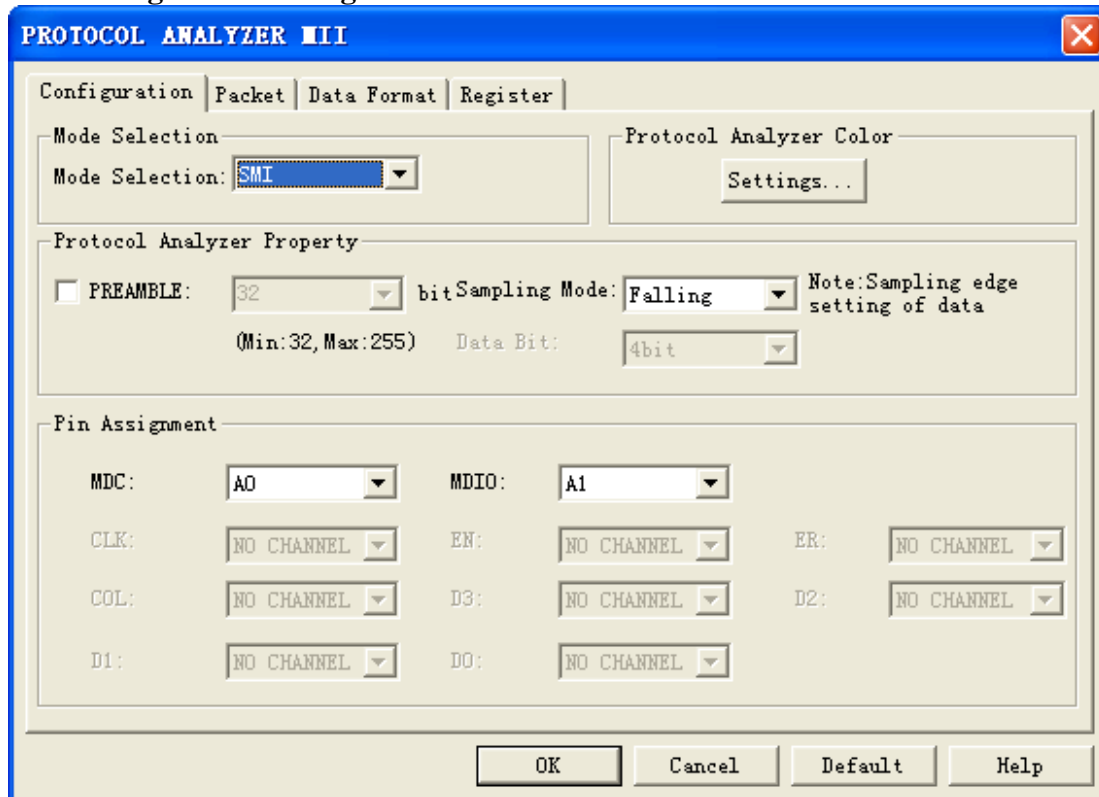
STEP 5. After pressing the Register button, following dialog box will appear, it denotes that the BUS has been registered successfully.



2. User Interface

In the Configuration dialog box, please refer to the below images to do settings of **MII** module.

MII Configuration dialog box



Mode Selection:

Mode Selection: Set the Mode to SMI, MII Transport Mode, MII Receive Mode, RMII Transport Mode or RMII Receive Mode. When the different Mode is selected, the different dialog box will appear.

Protocol Analyzer Property:

PREAMBLE: It is only available for the SMI mode. When it is selected, it can be set in the range from 32 to 255 bit.

Sampling Mode: When the MII Mode or RMII Mode is selected, it can be set to Rising or Falling.

Data Bit: When the MII Transport Mode or MII Receive Mode is selected, it can be set to 4 bit or 8 bit. The Data Bit can't be set in the RMII Mode, and the fixed value is 8bit.

Pin Assignment:

In the SMI Mode, it needs two lines (MDC and MDIO) to decode the signals.

In the MII Transport Mode, it needs eight lines (CLK, EN, ER, COL and D0~D3) to decode the signals.

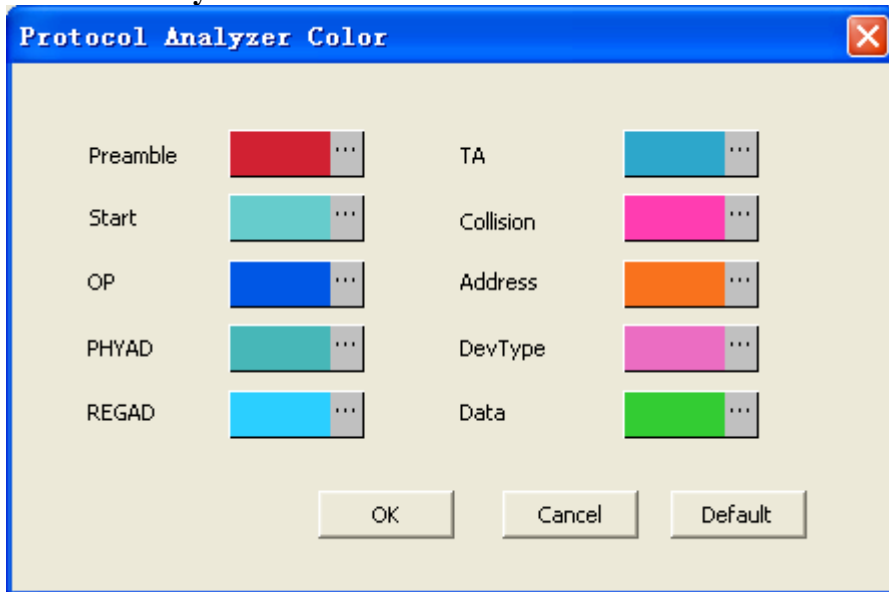
In the MII Receive Mode, it needs seven lines (CLK, DV, ER, and D0~D3) to decode the signals.

In the RMII Transport Mode, it needs six lines (CLK, EN, ER, COL, D0~D1) to decode the signals.

In the RMII Receive Mode, it needs five lines (CLK, DV, ER, D0~D1) to decode the signals.

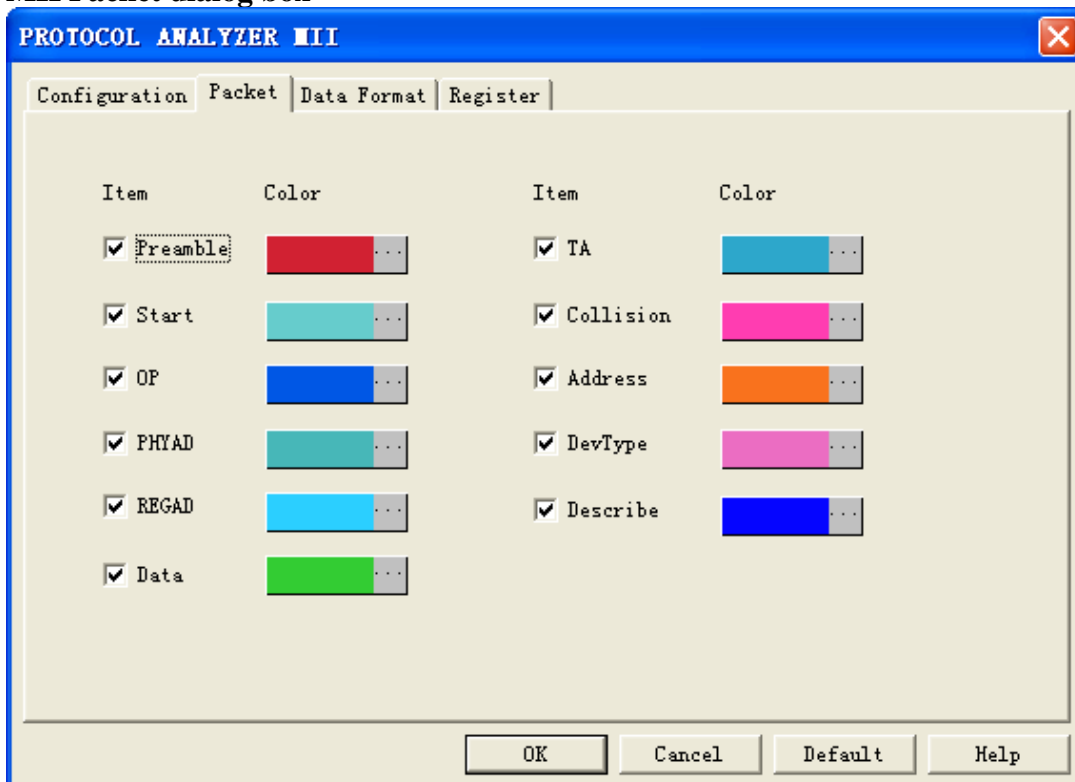


Protocol Analyzer Color



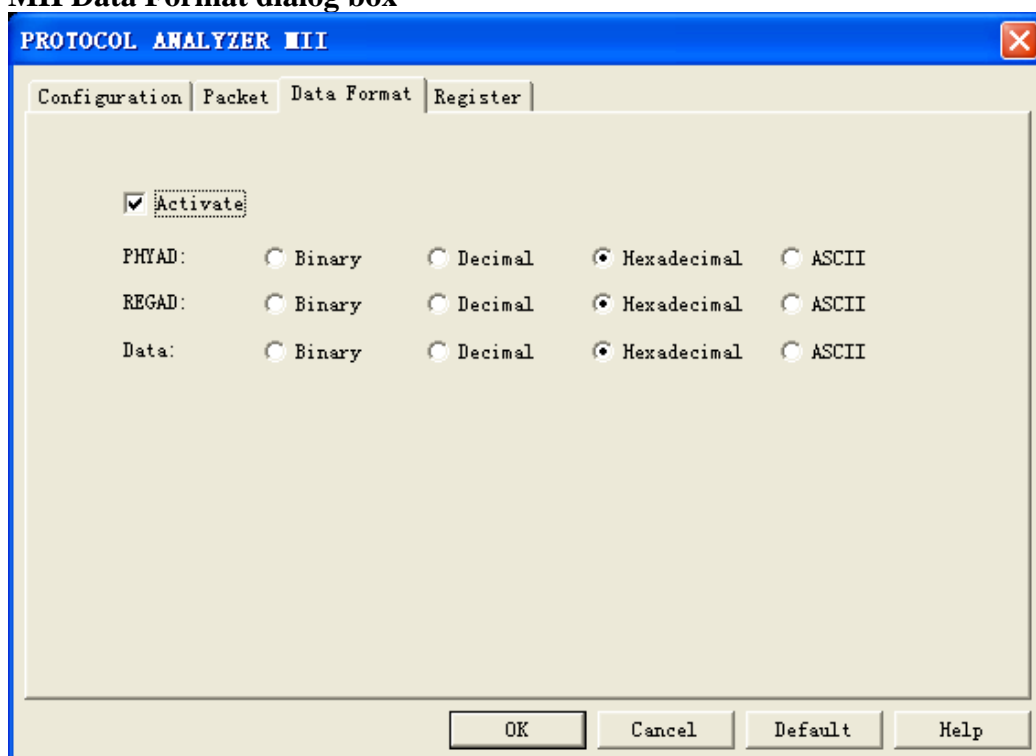
Press the **Settings** to open the Protocol Analyzer Color dialog box. The color can be varied by users.

MII Packet dialog box



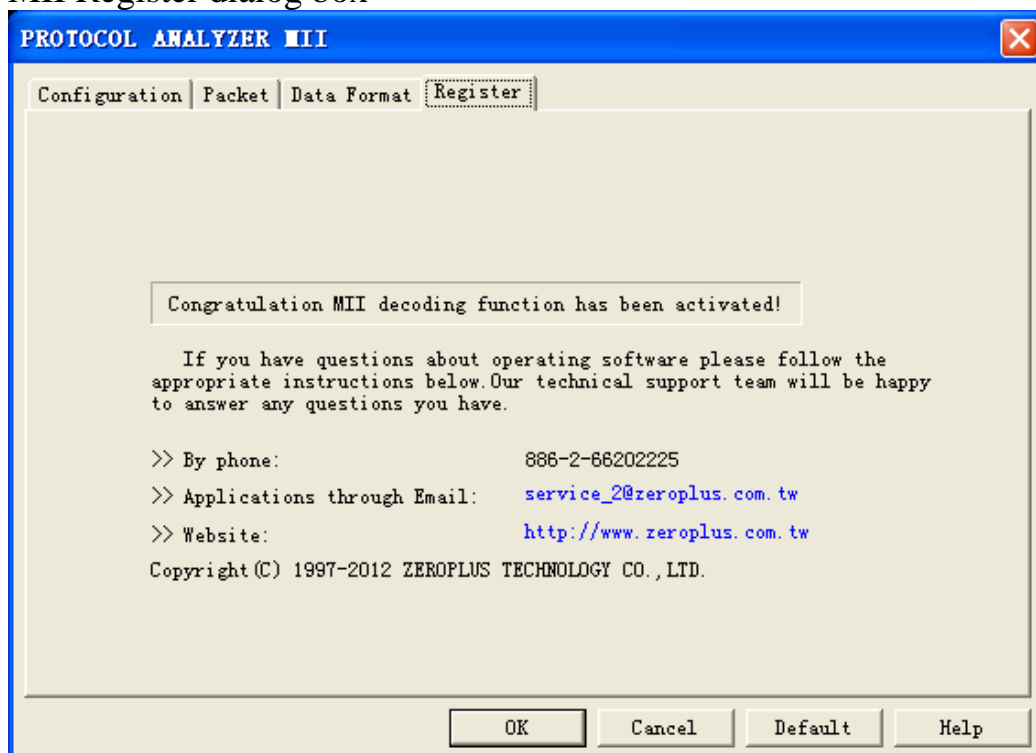
In the Packet dialog box, users can select the items to be displayed and the colors as their requirements.

MII Data Format dialog box



Users can set the Data Format of the PHYAD, REGAD and Data as their requirements. When selecting the Activate, the data format is decided by the settings in the Protocol Analyzer; when not selecting the Activate, the data format is decided by the settings in the main program.

MII Register dialog box

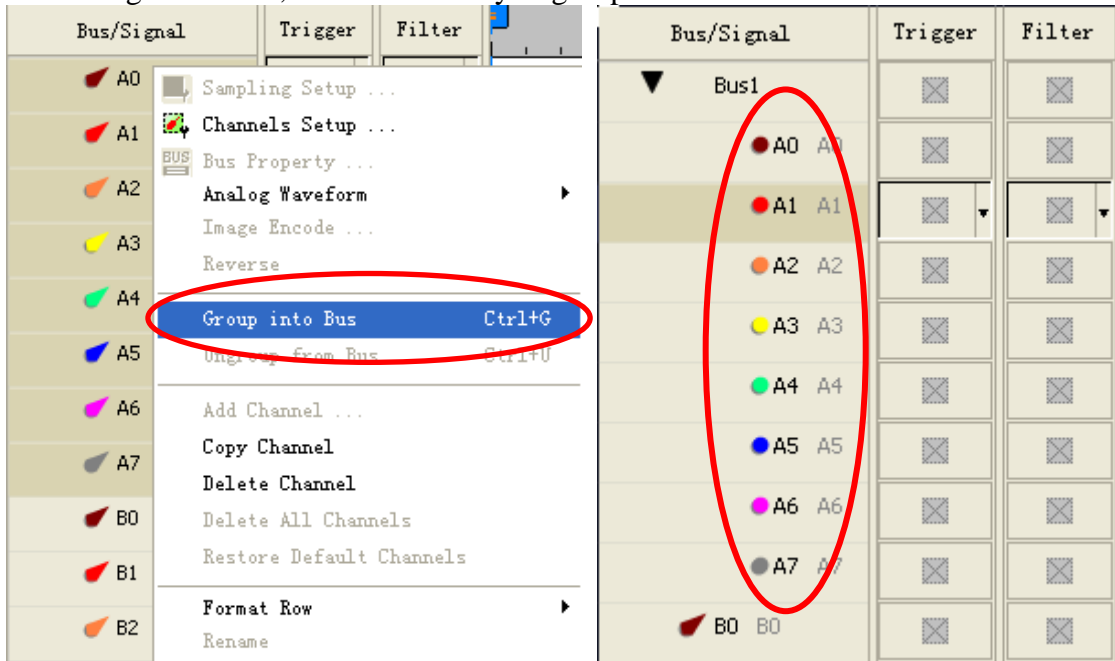


There is ZeroPlus company information. If you have questions about software operations, you can contact ZeroPlus by Telephone or Email.

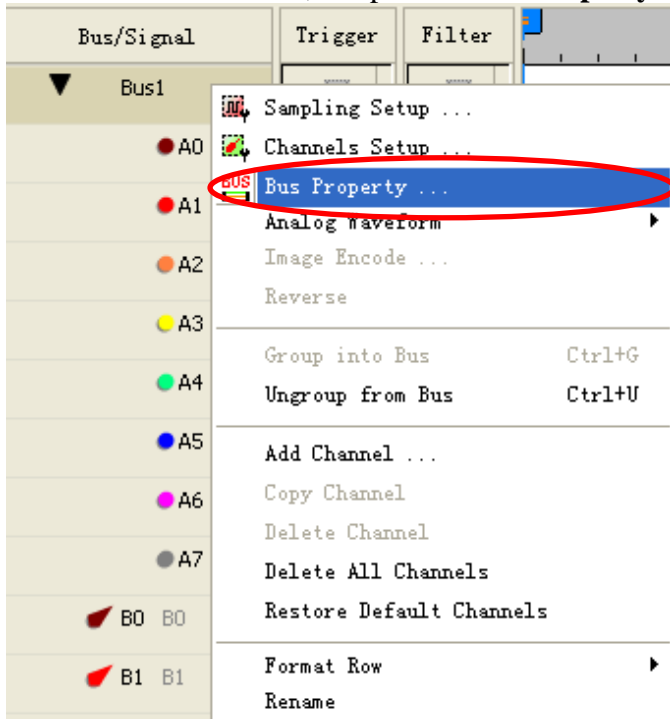


3. Operating Instructions

STEP 1. Group A0-A7 into **Bus1** by pressing the **Right Key** on the mouse. **MII** needs two channels to decode signal at least, so it is necessary to group two or more channels into a Bus.

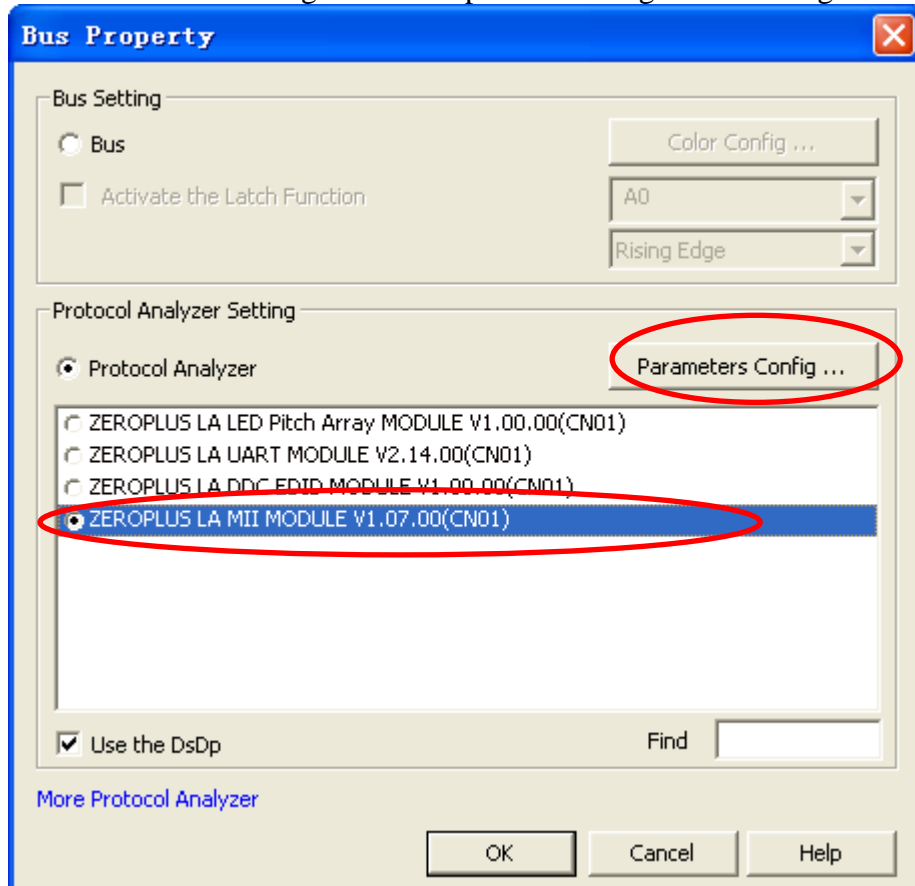


STEP 2. Select **Bus1**, press the **Right Key** and select **Bus Property** from the popped menu, or click the **Bus** icon on the toolbar, to open the **Bus Property** dialog box.

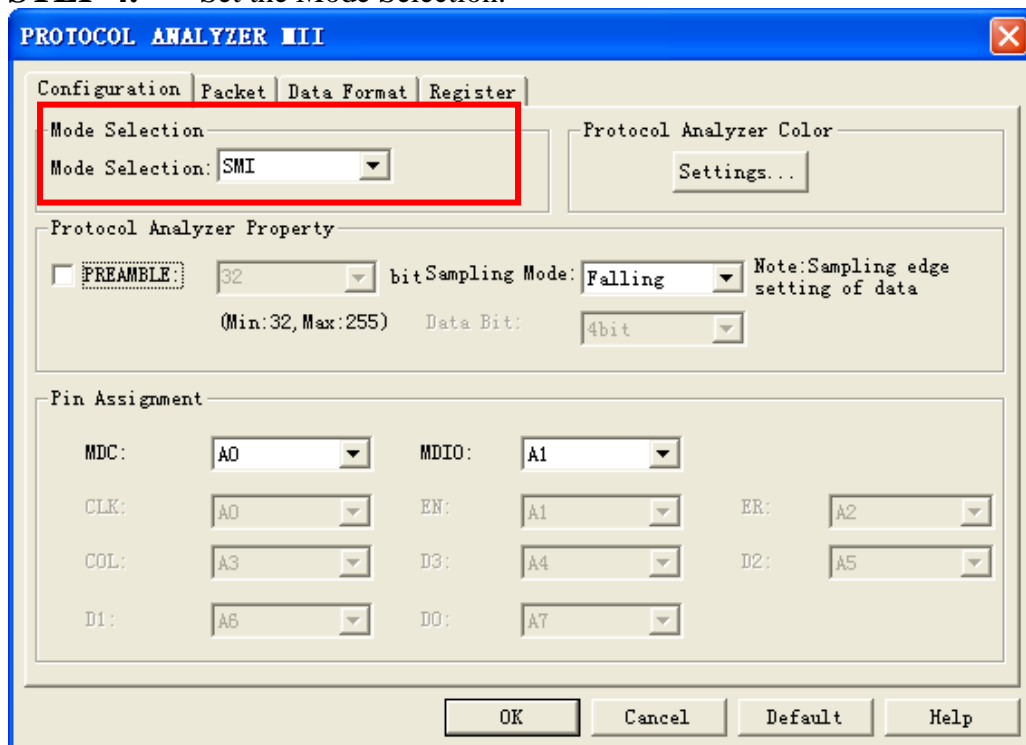




STEP 3. Select Protocol Analyzer, and select ZEROPLUS LA MII MODULE V1.07.00 (CN01). Then click Parameters Configuration to open the Configuration dialog box.



STEP 4. Set the Mode Selection.





STEP 5. Set the PREAMBLE in the SMI Mode.

PROTOCOL ANALYZER III

Configuration | Packet | Data Format | Register

Mode Selection: SMI | Protocol Analyzer Color: Settings...

Protocol Analyzer Property

☒ PREAMBLE: 32 bit (Min:32, Max:255) | Sampling Mode: Falling | Note: Sampling edge setting of data | Data Bit: 4bit

Pin Assignment

MDC: A0 | MDIO: A1 | CLK: A0 | EN: A1 | ER: A2 | COL: A3 | D3: A4 | D2: A5 | D1: A6 | D0: A7

OK | Cancel | Default | Help

STEP 6. Set the Sampling Mode.

PROTOCOL ANALYZER III

Configuration | Packet | Data Format | Register

Mode Selection: SMI | Protocol Analyzer Color: Settings...

Protocol Analyzer Property

☒ PREAMBLE: 32 bit (Min:32, Max:255) | Sampling Mode: Falling | Note: Sampling edge setting of data | Data Bit: 4bit

Pin Assignment

MDC: A0 | MDIO: A1 | CLK: A0 | EN: A1 | ER: A2 | COL: A3 | D3: A4 | D2: A5 | D1: A6 | D0: A7

OK | Cancel | Default | Help



STEP 7. Set the Data Bit in the MII Transport Mode or MII Receive Mode.

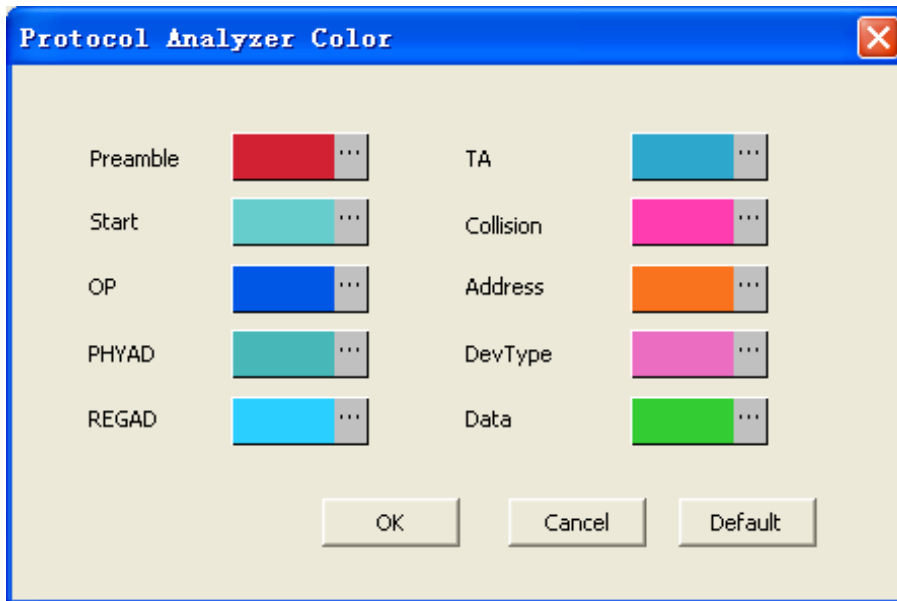
The screenshot shows the 'PROTOCOL ANALYZER III' window with the 'Configuration' tab selected. The 'Mode Selection' dropdown is set to 'MII Transpor'. The 'Protocol Analyzer Property' section shows 'PREAMBLE' checked, 'bitSampling Mode' set to 'Rising', and 'Data Bit' set to '4bit' (highlighted with a red box). The 'Pin Assignment' section shows various pins assigned to addresses A0 through A7. The 'OK' button is highlighted.

STEP 8. Set the Pin Assignment.

The screenshot shows the 'PROTOCOL ANALYZER III' window with the 'Configuration' tab selected. The 'Pin Assignment' section is highlighted with a red box, showing pins MDC, MDIO, CLK, EN, ER, COL, D3, D2, D1, and D0 assigned to addresses A0 through A7. The 'OK' button is highlighted.

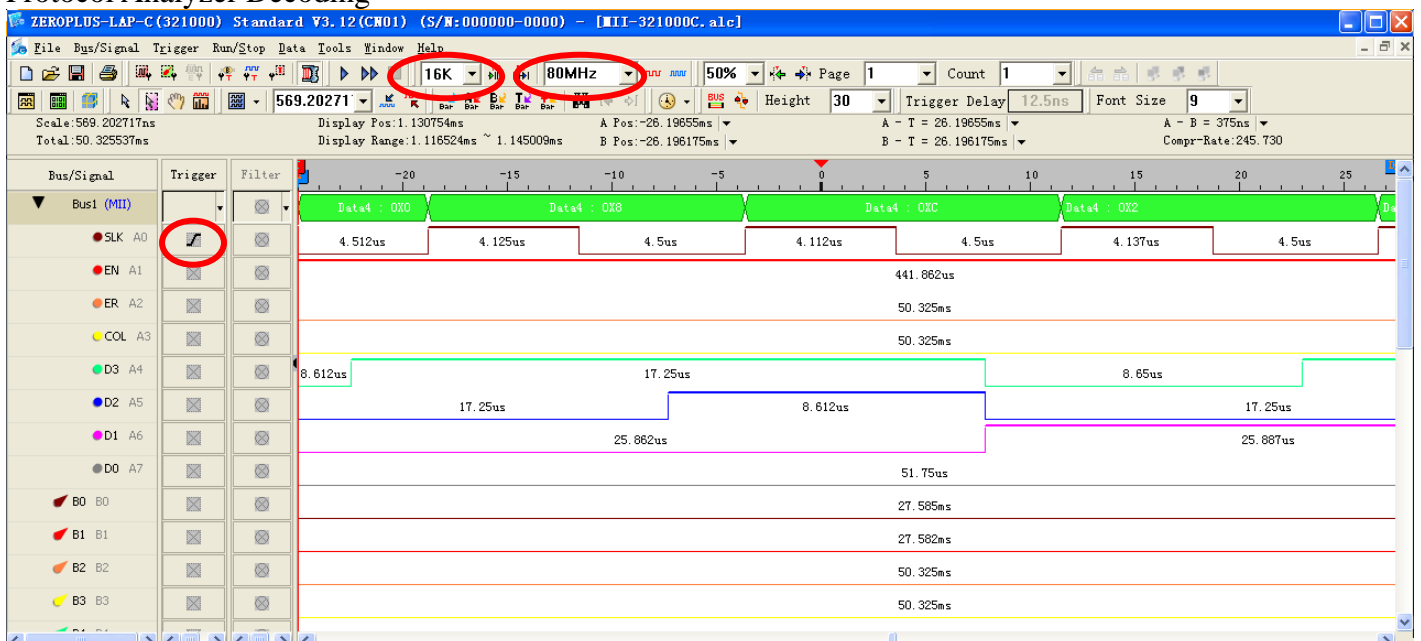


STEP 9. Press the **Settings** to open the Protocol Analyzer Color dialog box and set the color for each item.



STEP 10. 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 16K; the Sampling frequency is 80MHz (the sampling frequency should be more than eight times higher than the signal to be tested).

Protocol Analyzer Decoding





Packet List

