



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

SPECIFICATION

MODEL: 027-LAP-FlexRay 2.1A-M

PART NO: _____

VERSION: V1.11

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to ZeroPlus Technology after signing.

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1 Software Download

Please install the software as the following steps:

Remark: 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. Visit the website of ZeroPlus: <http://www.zeroplus.com.tw>.

STEP 2. Click the **English** in the Instrument Division part on the Homepage.

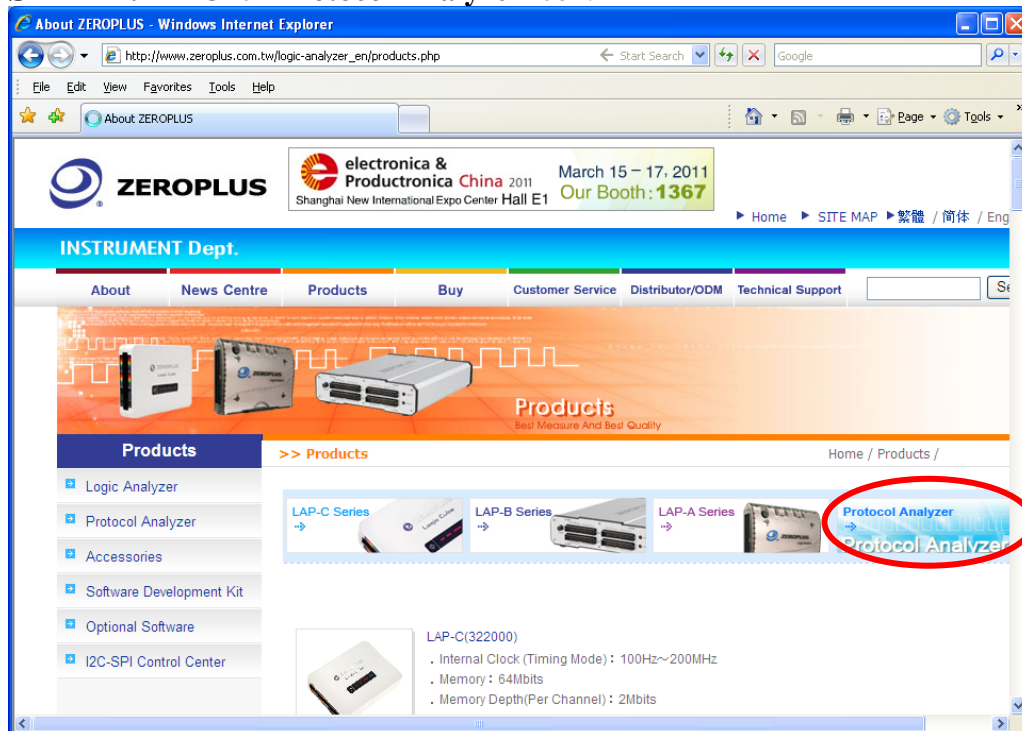




STEP 3. Click **Products** menu or select **Protocol Analyzer** item from its pull-down menu to go straight to STEP 5.

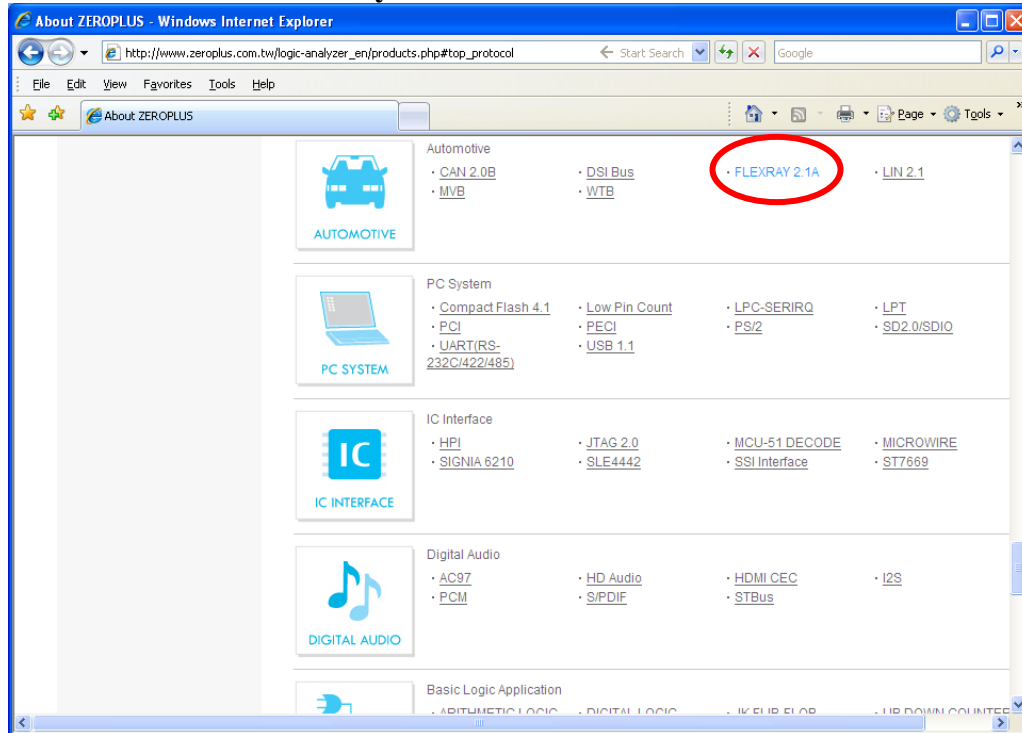


STEP 4. Click **Protocol Analyzer** icon.

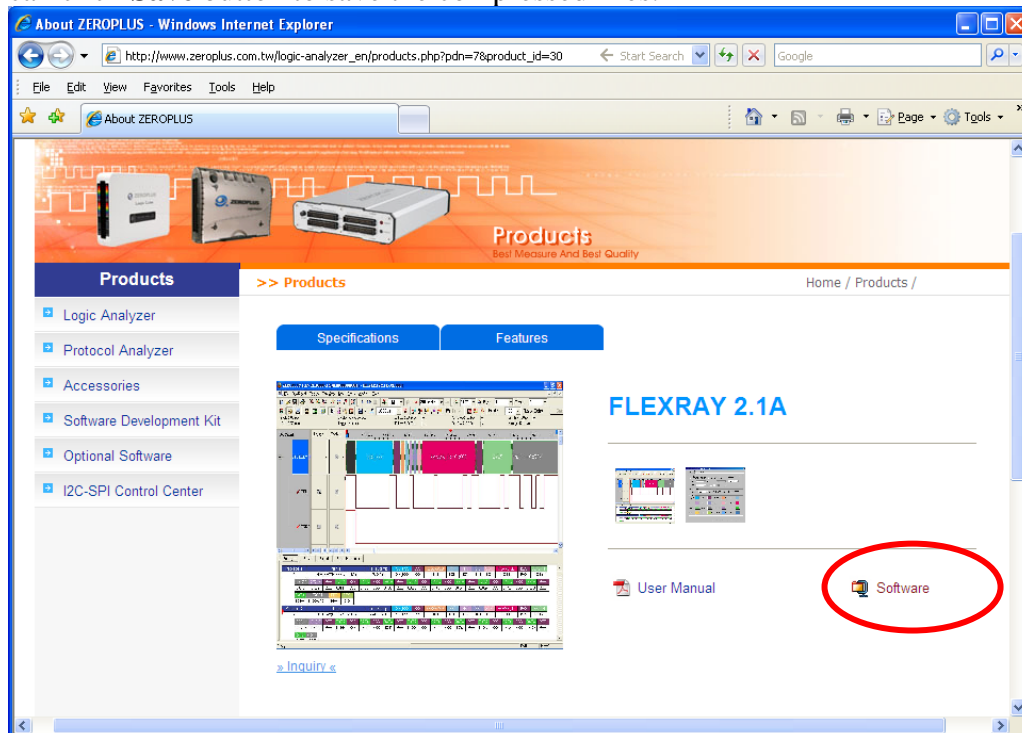




STEP 5. Click FlexRay 2.1A in the Automotive.



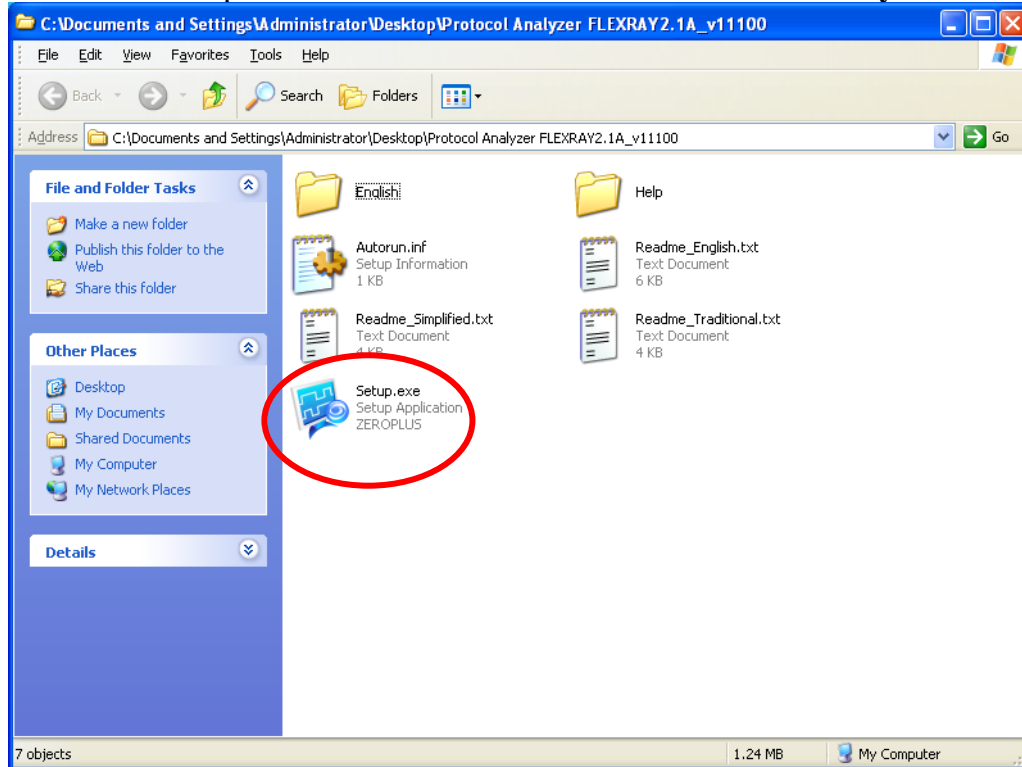
STEP 6. Click Software in the Products page. When the File Download dialog box appears, you can click Save button to save the compressed files.



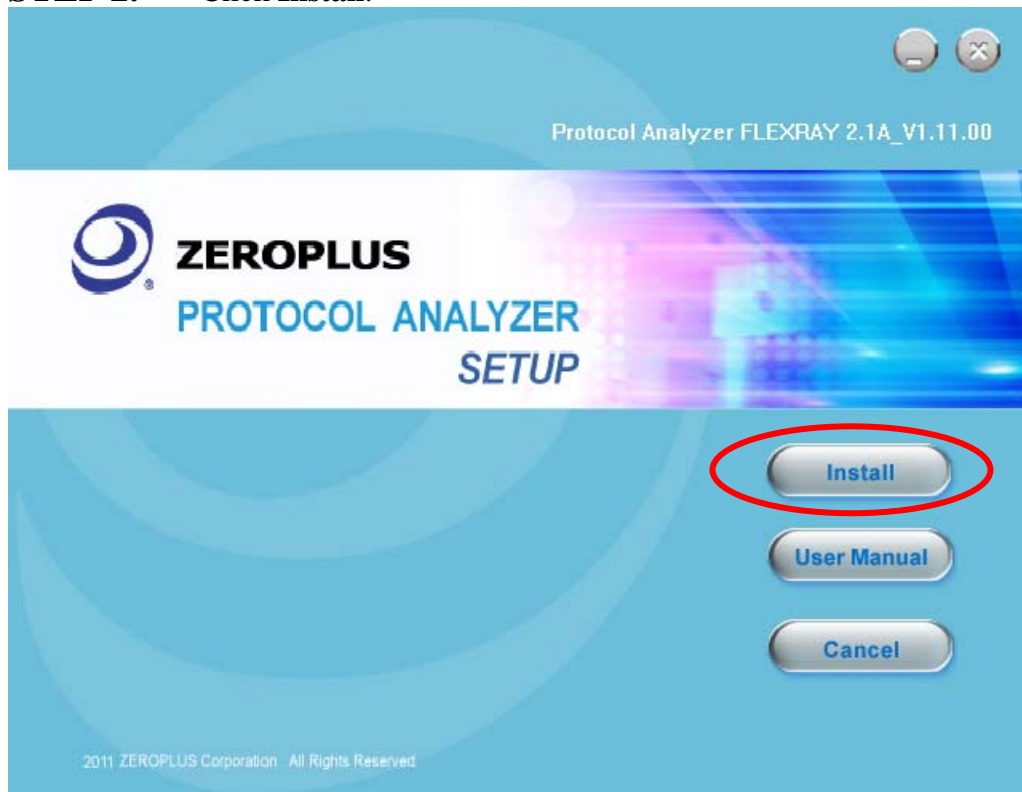


2 Software Installation

STEP 1. Open the downloaded folder to install **Protocol Analyzer FlexRay 2.1A**.

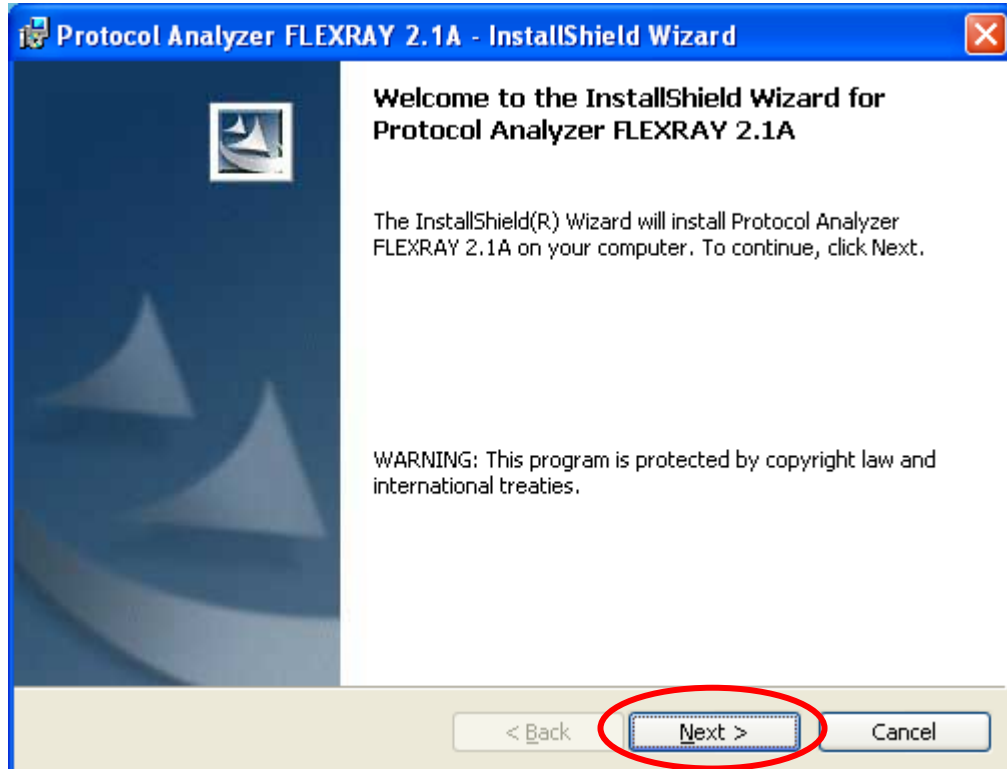


STEP 2. Click **Install**.

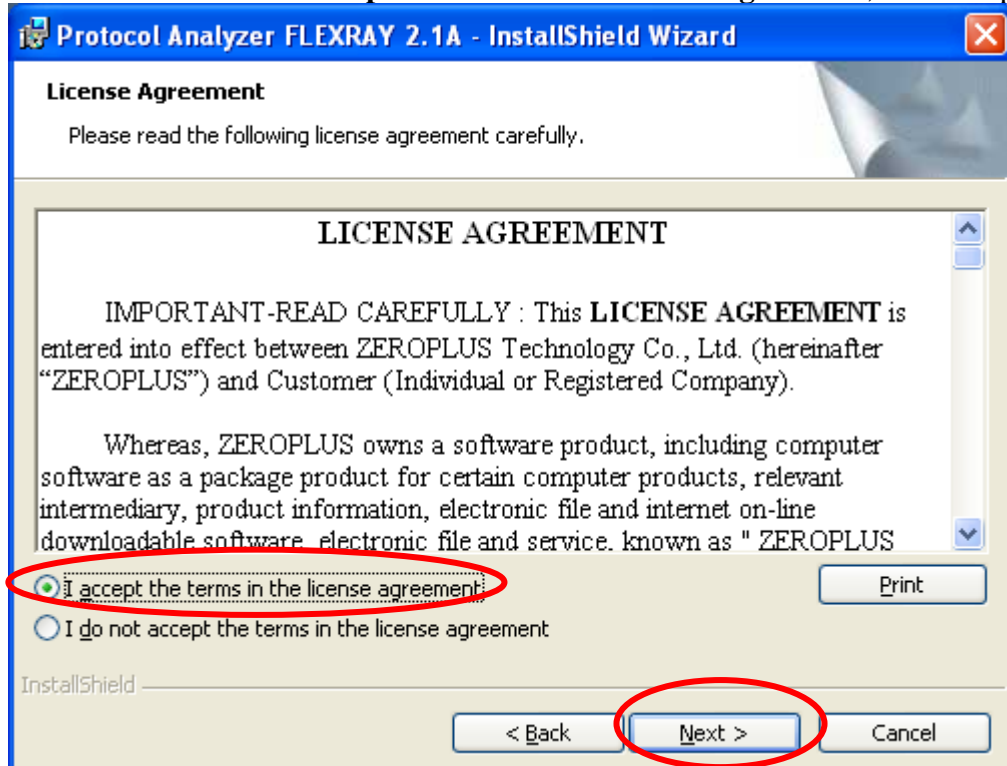




STEP 3. Click Next.



STEP 4. Select **I accept the terms in the license agreement**, and then press Next.





STEP 5. Fill in users' information in the below dialog box and click **Next**.

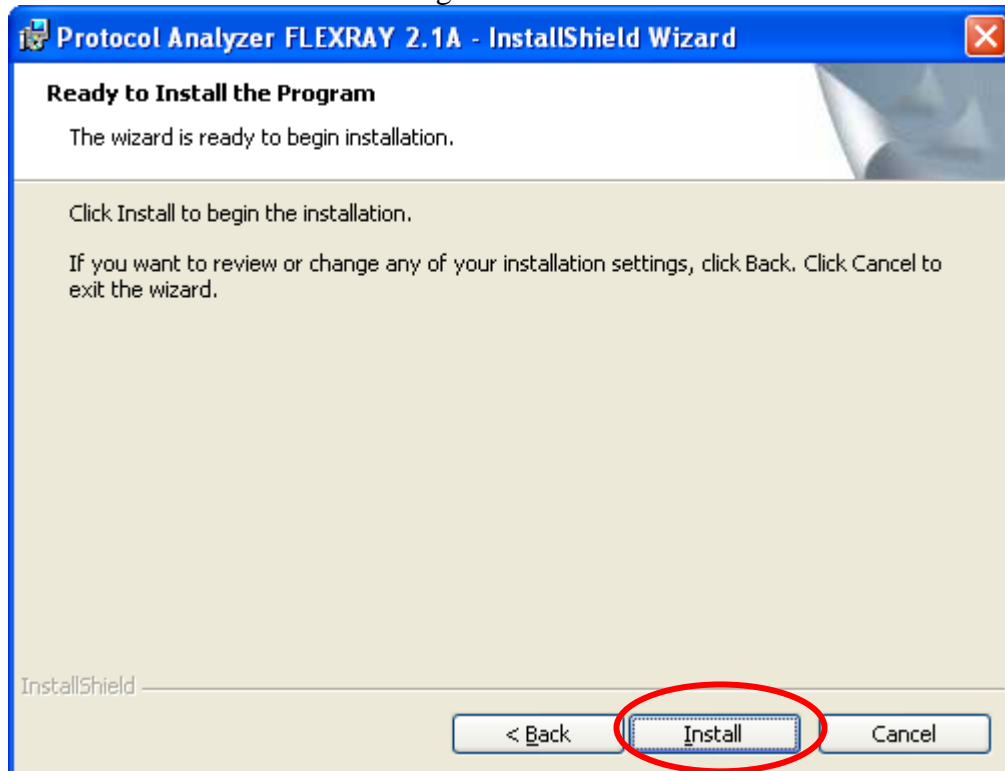
The dialog box is titled "Protocol Analyzer FLEXRAY 2.1A - InstallShield Wizard". It contains a section "Customer Information" with the instruction "Please enter your information." Below this are two text input fields: "User Name:" with "Microsoft" entered, and "Organization:" with "User" entered. There is a section "Install this application for:" with two radio button options: "Anyone who uses this computer (all users)" (selected) and "Only for me (Microsoft)". At the bottom, there are three buttons: "< Back", "Next >" (circled in red), and "Cancel".

STEP 6. Select **Complete** and then click **Next**.

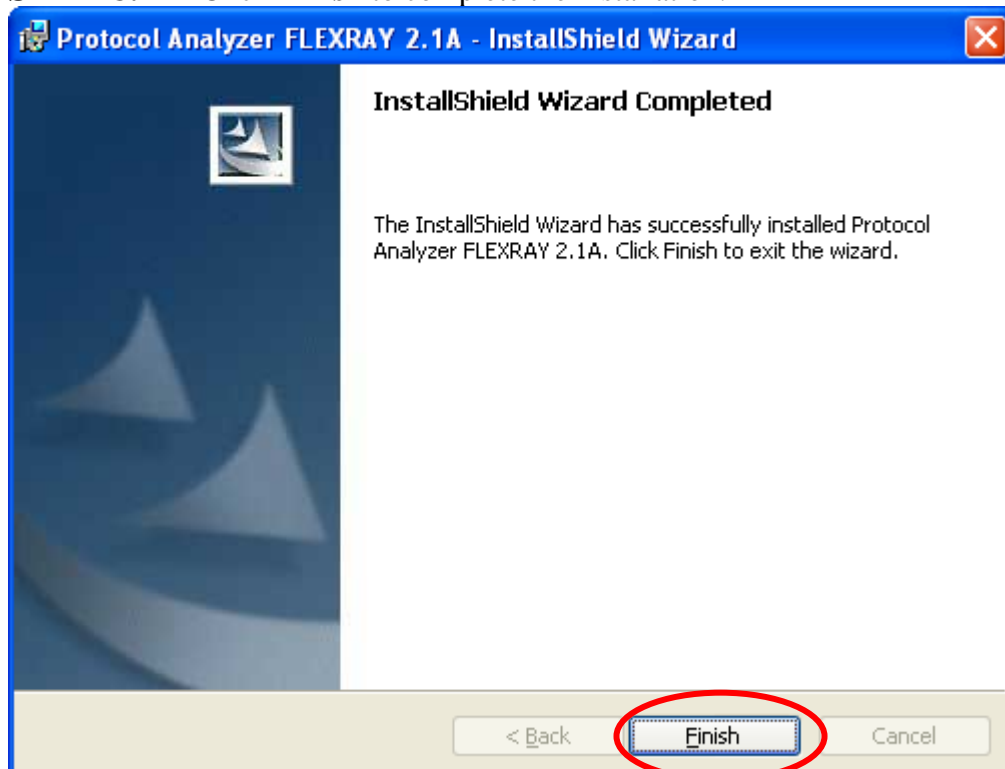
The dialog box is titled "Protocol Analyzer FLEXRAY 2.1A - InstallShield Wizard". It contains a section "Setup Type" with the instruction "Choose the setup type that best suits your needs." Below this is the text "Please select a setup type." There are two radio button options: "Complete" (selected) and "Custom". The "Complete" option has a description: "All program features will be installed. (Requires the most disk space.)" and an icon of a computer with a red 'X'. The "Custom" option has a description: "Choose which program features you want installed and where they will be installed. Recommended for advanced users." and an icon of a computer with a red 'X'. At the bottom, there are three buttons: "< Back", "Next >" (circled in red), and "Cancel".



STEP 7. Click **Install** to begin the installation.



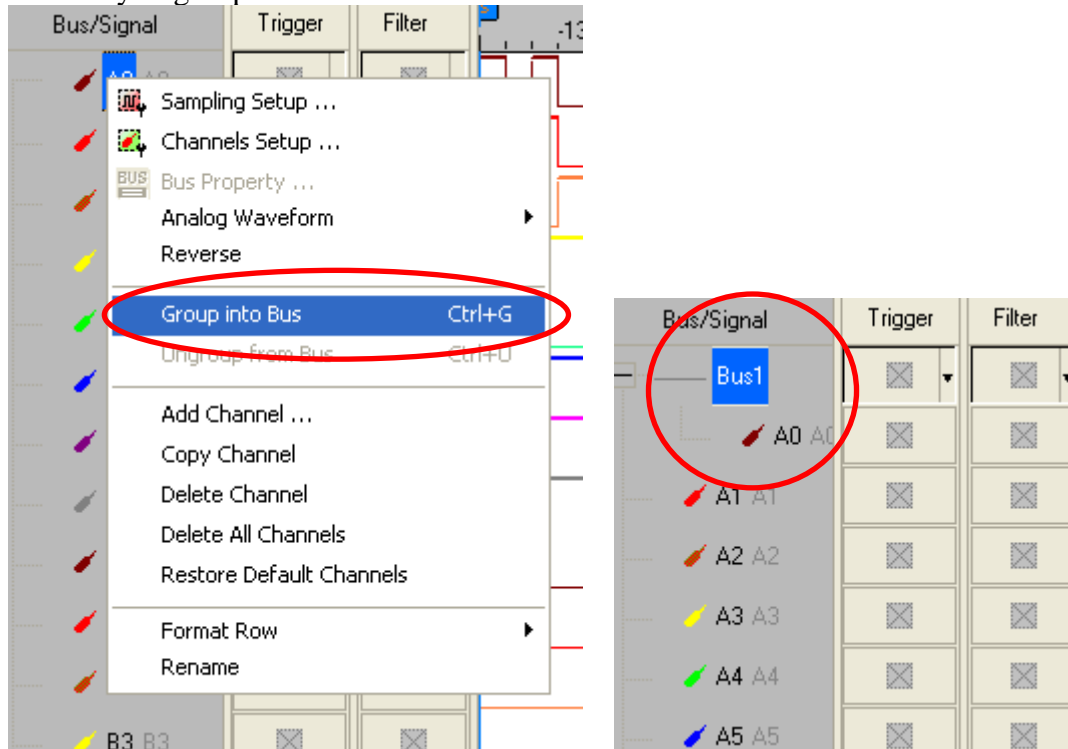
STEP 8. Click **Finish** to complete the installation.



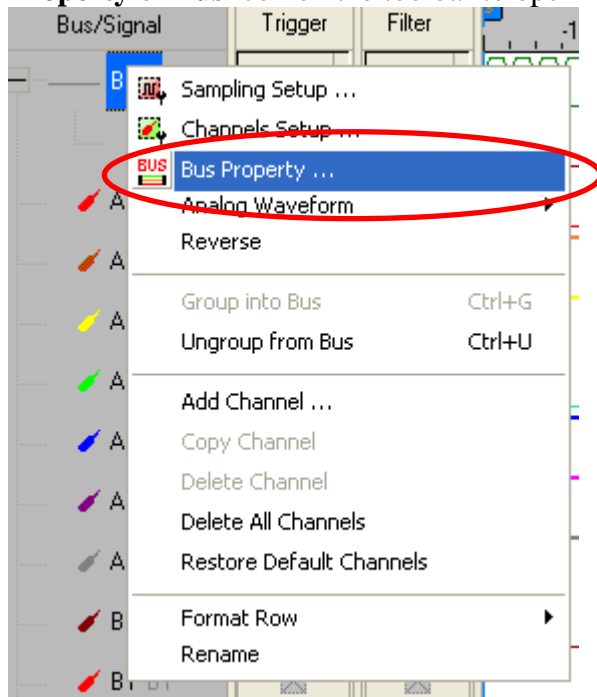


3 Software Register

STEP 1. Open the Logic Analyzer and group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. **FlexRay 2.1A** needs one or more channels to decode signals, so it is necessary to group one or more channels into a Bus.

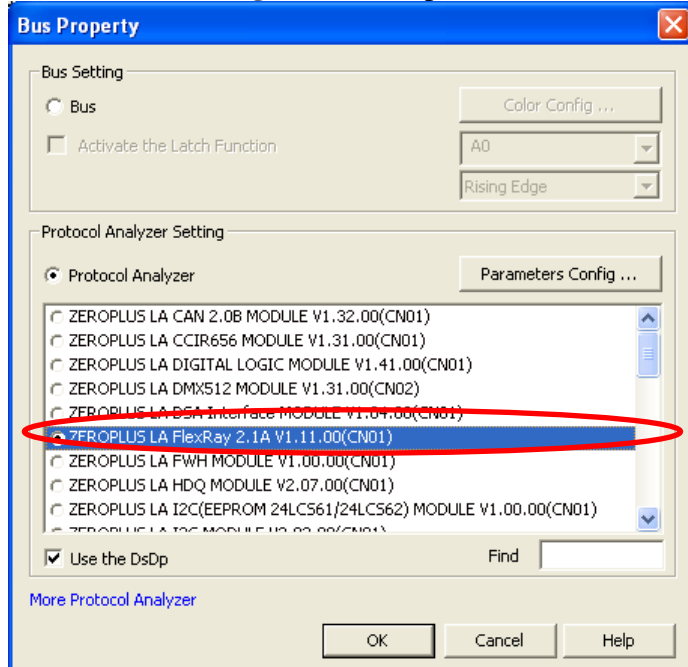


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

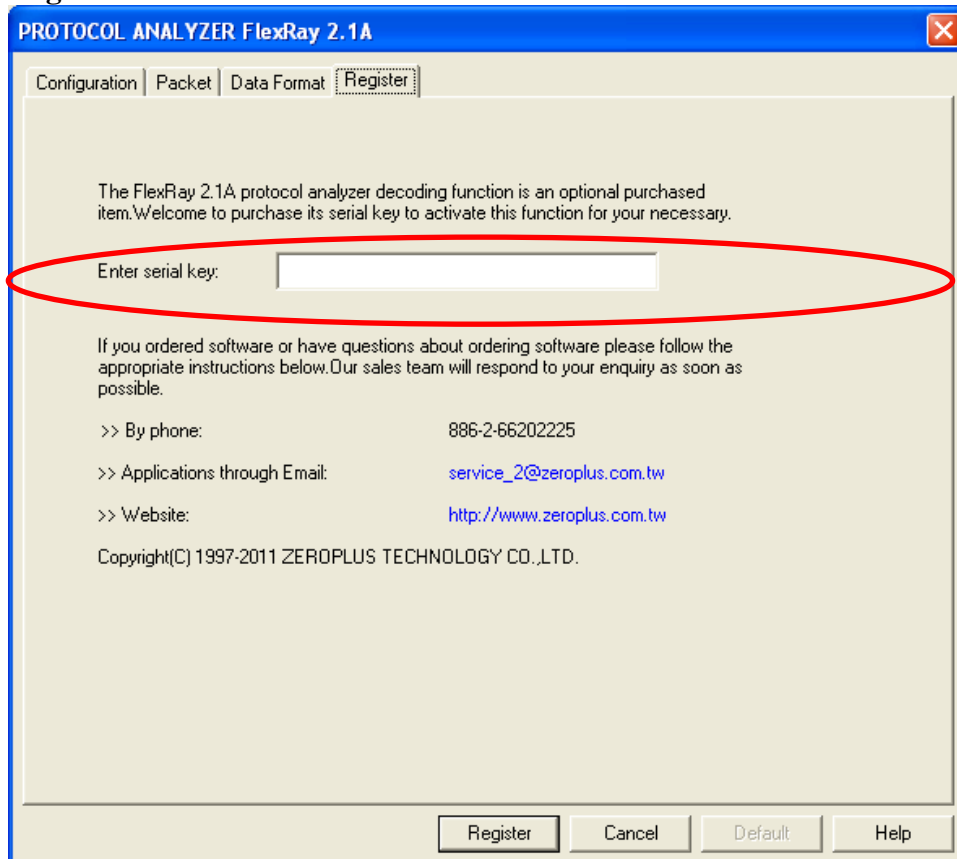




STEP 3. For Protocol Analyzer **FlexRay 2.1A** Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA FlexRay 2.1A MODULE V1.11.00(CN01)**. Next click **Parameters Configuration** to open the **PROTOCOL ANALYZER FlexRay 2.1A** dialog box.

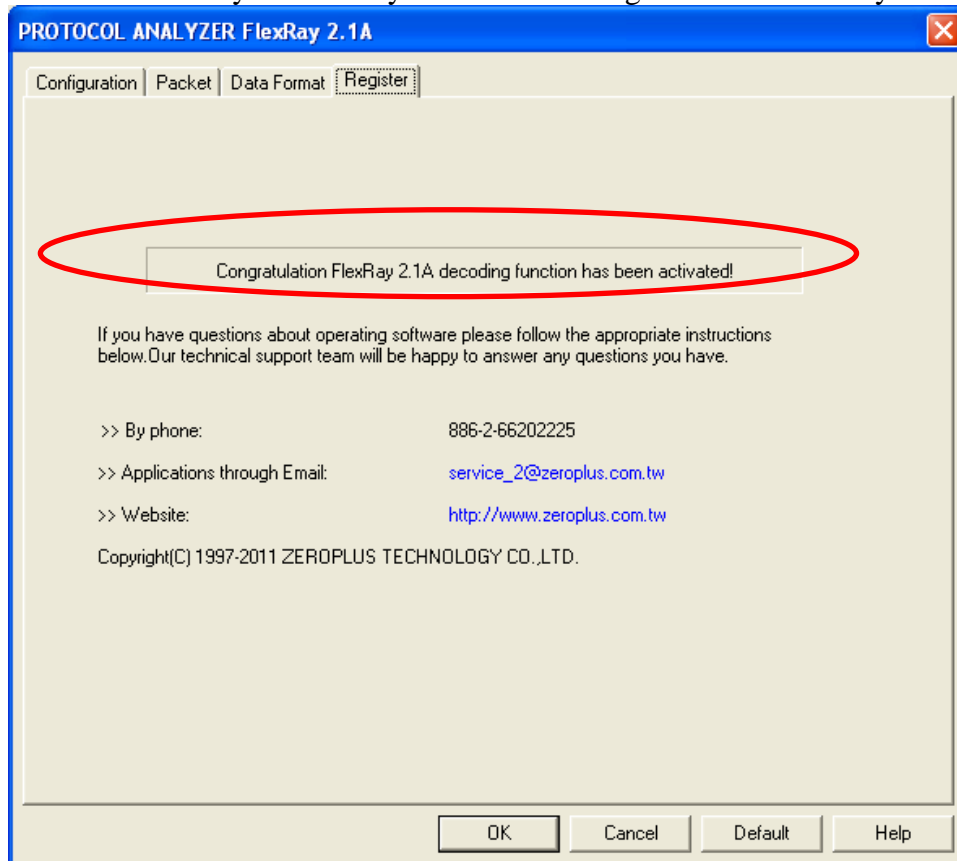


STEP 4. Press the Register tab to enter the serial key of the **FlexRay 2.1A**. Then, press **Register**.





STEP 5. After pressing the Register button, the following dialog box will appear; it denotes that the Protocol Analyzer FlexRay 2.1A has been registered successfully.

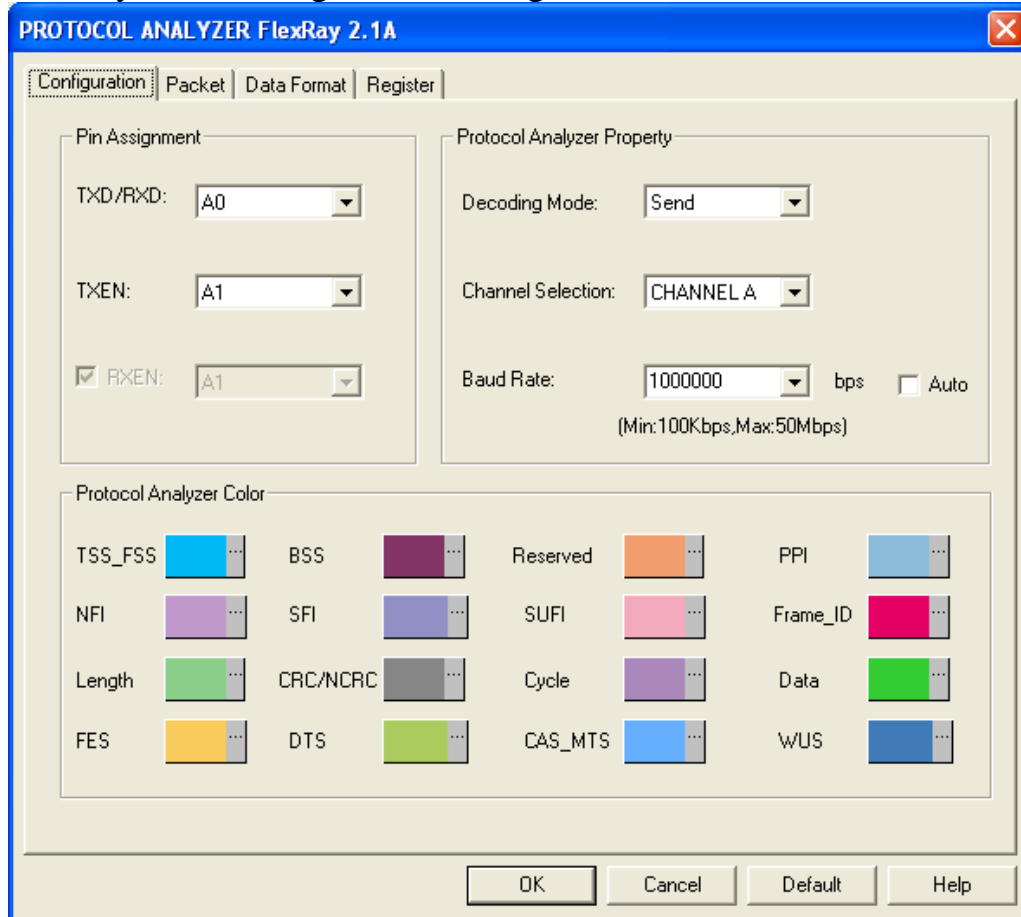




4 User Interface

Please refer to below images to select options of setting **FlexRay 2.1A Module**.

FlexRay 2.1A Configuration Dialog Box



Pin Assignment:

TXD/RXD is the Transmitted Data / Received Data line; TXEN is the Transmitted Enable line (It is available for the Low Level.); RXEN is the Received Enable line (It is available for the Low Level.). RXEN line is mostly designed in the Transmission and Receiving modules of the FlexRay 2.1A and it is not used to transmit any data, so it is unnecessary to consider the RXEN line during the decoding process. And the Channel Selection is related to the CRC initialization.

Protocol Analyzer Property:

Decoding Mode: Set the Mode to Send or Receive.

Channel Selection: Set the Channel to CHANNEL A or CHANNEL B.

Baud Rate: The Baud Rate is 1000000bps by default. And the Baud Rate can be set in the range from 100Kbps to 50Mbps or selected from the value (1000000, 2000000, 4000000, 6000000, 8000000 and 10000000) bps on the pull-down menu.

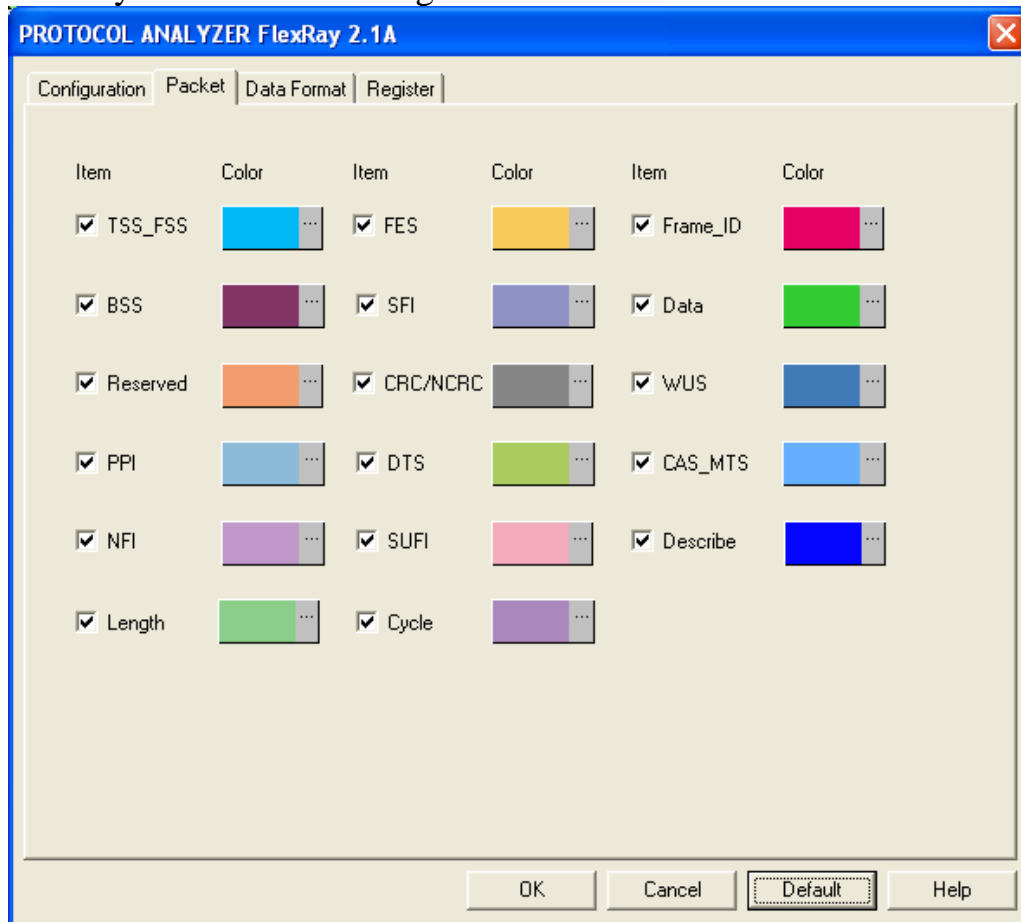
Auto: When it is selected, the Baud Rate can be judged and displayed on the Dialog Box by the Main Program.

Protocol Analyzer Color:

The protocol analyzer color can be varied by users.



FlexRay 2.1A Packet Dialog Box



In the Packet dialog box, users can vary the color of items and set the item to be displayed.



FlexRay 2.1A Data Format Dialog Box

PROTOCOL ANALYZER FlexRay 2.1A

Configuration | Packet | Data Format | Register

☒ Activate

Frame_ID: ☐ Binary ☐ Decimal ☒ Hexadecimal ☐ ASCII

Length: ☐ Binary ☐ Decimal ☒ Hexadecimal ☐ ASCII

CRC/NCRC: ☐ Binary ☐ Decimal ☒ Hexadecimal ☐ ASCII

Cycle: ☐ Binary ☐ Decimal ☒ Hexadecimal ☐ ASCII

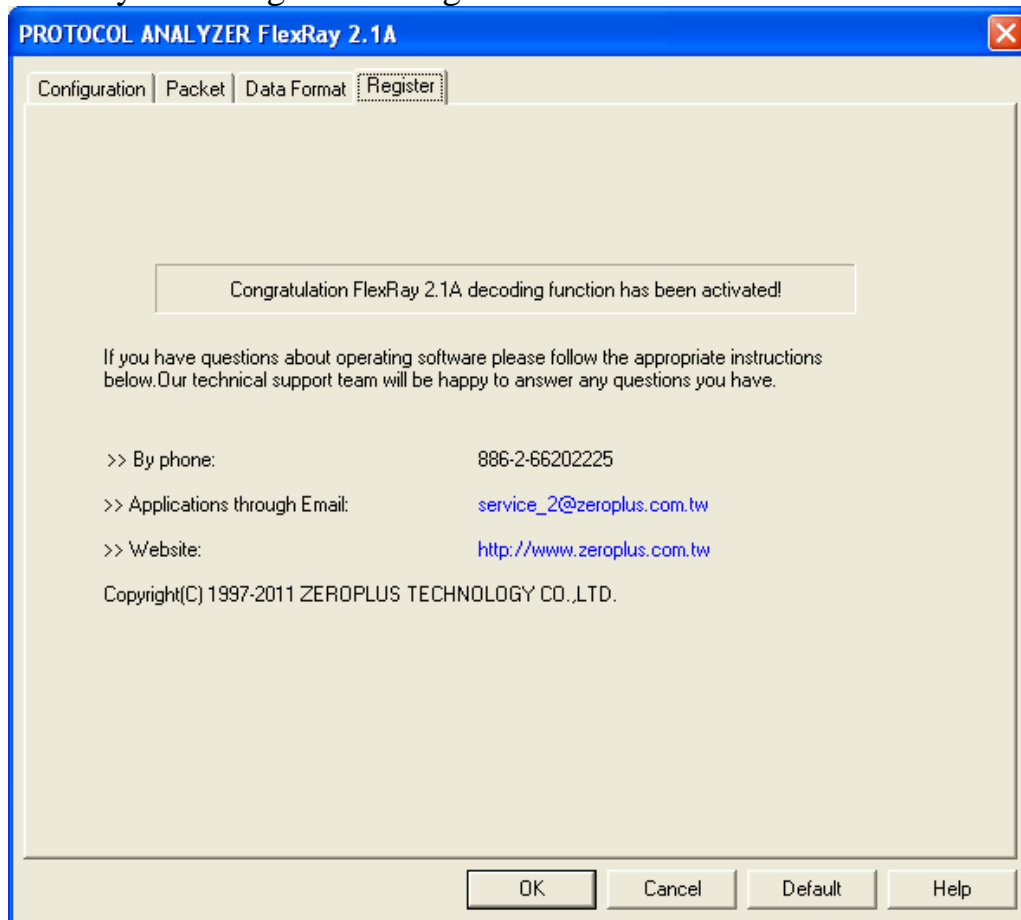
Data: ☐ Binary ☐ Decimal ☒ Hexadecimal ☐ ASCII

OK Cancel Default Help

Users can set the Data Format of the Frame_ID, Length, CRC/NCRC, Cycle and Data as their requirements. When selecting the option, Activate, the data format is decided by the settings in the Protocol Analyzer; when not selecting the option, Activate, the data format is decided by the settings in the main program.



FlexRay 2.1A Register Dialog Box

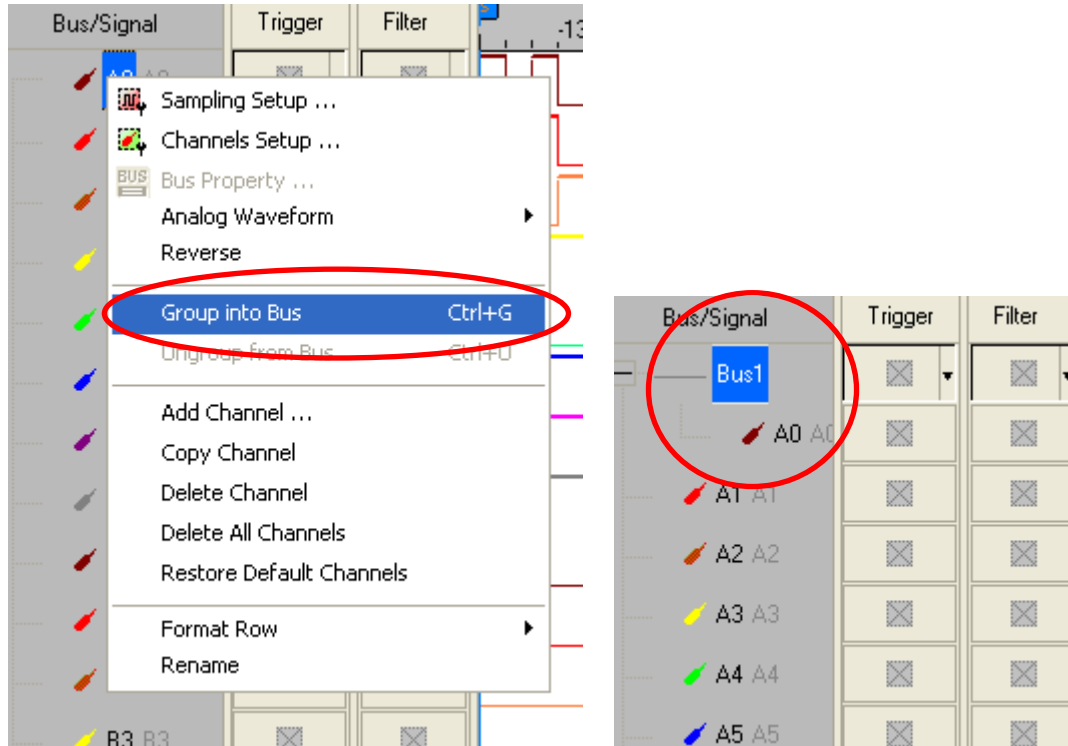


There is ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

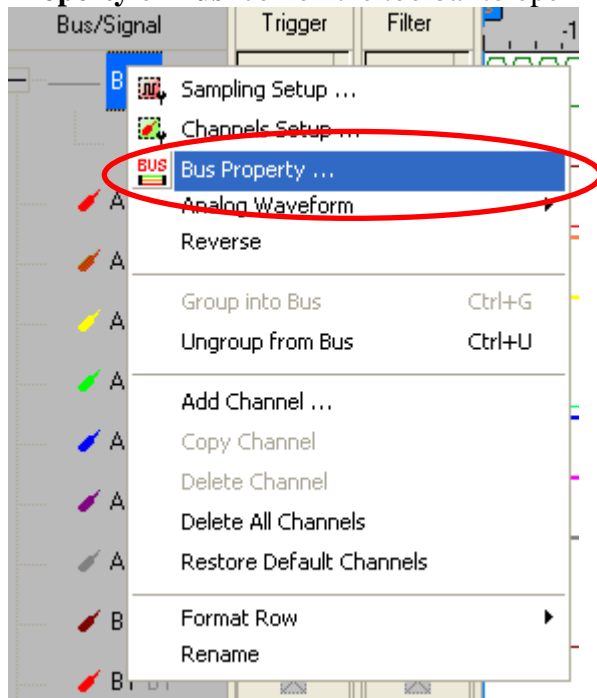


5 Operating Instructions

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. **FlexRay 2.1A** needs one or more channels to decode signals, so it is necessary to group one or more channels into a Bus.

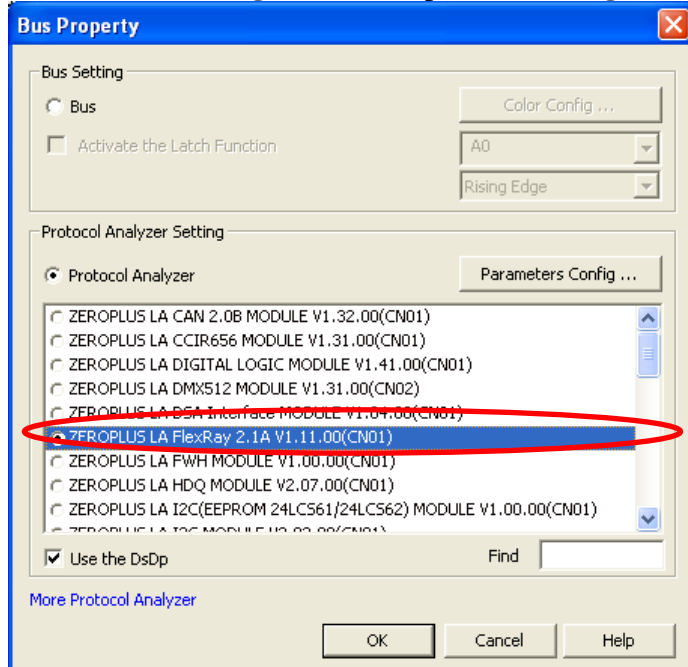


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

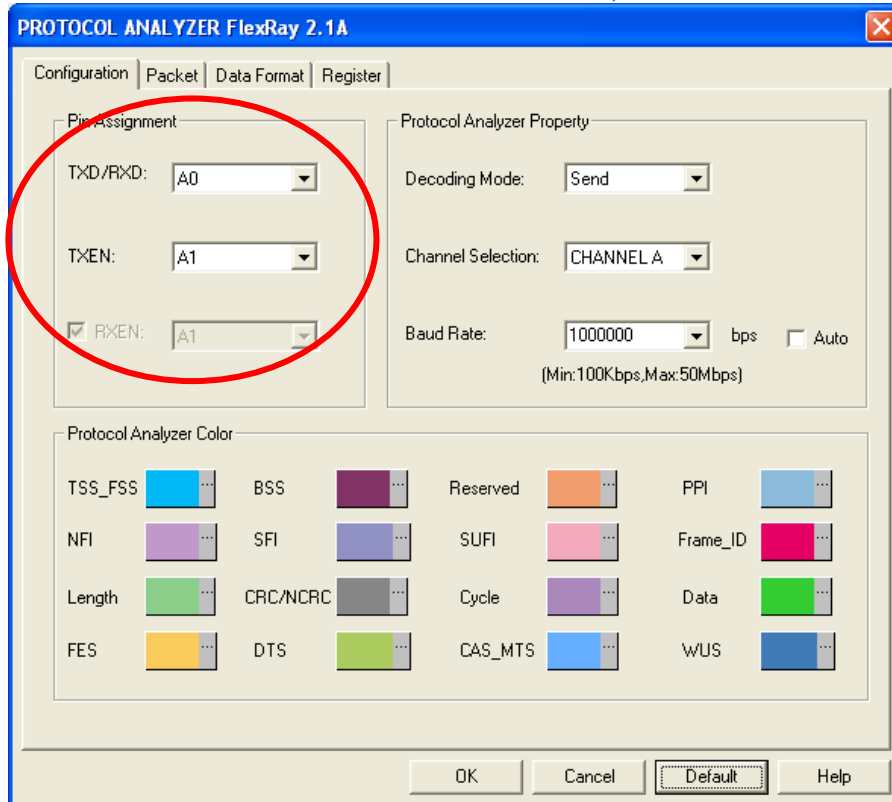




STEP 3. For Protocol Analyzer **FlexRay 2.1A** Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA FlexRay 2.1A MODULE V1.11.00(CN01)**. Next click **Parameters Configuration** to open the **Configuration** dialog box.

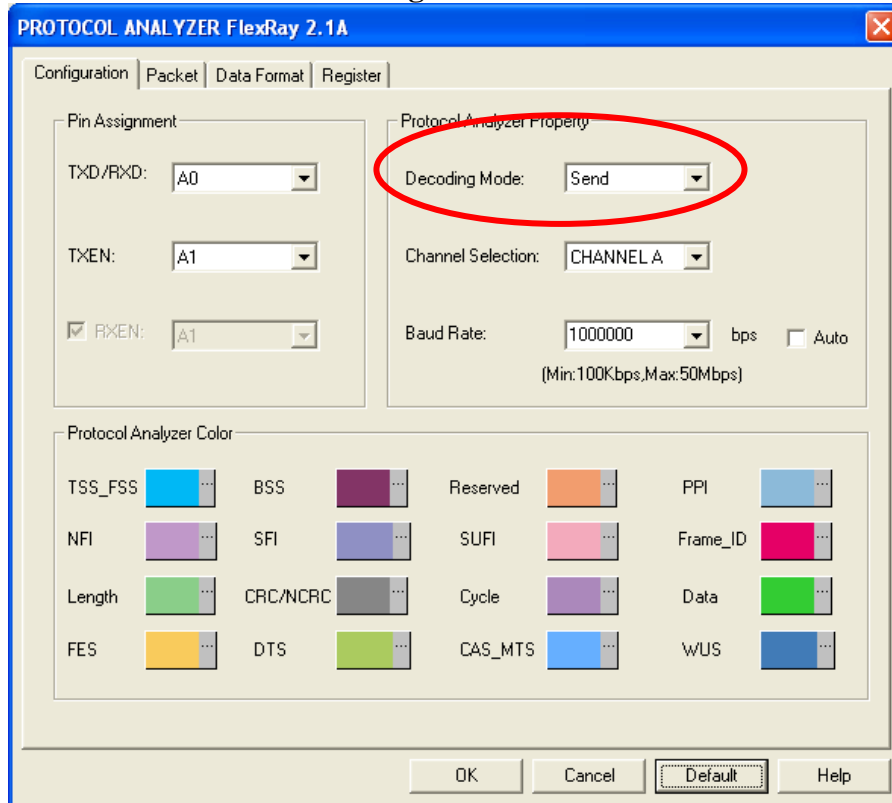


STEP 4. Set the Channels for TXD/RXD, TXEN and RXEN.

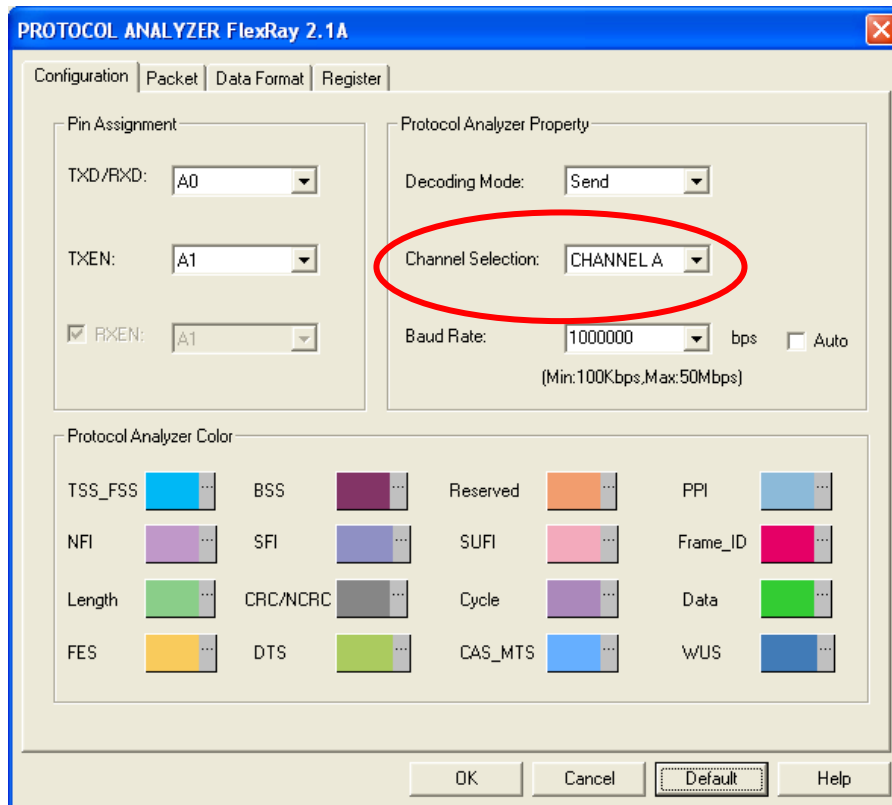




STEP 5. Set the Decoding Mode to Send or Receive.

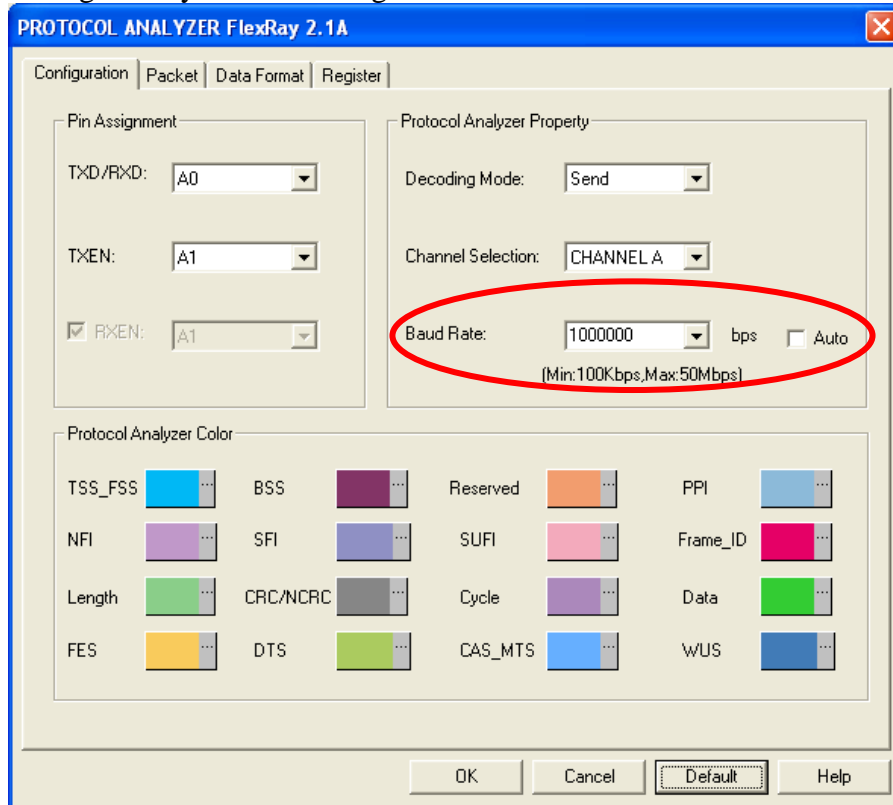


STEP 6. Set the Channel Selection to CHANNEL A or CHANNEL B.





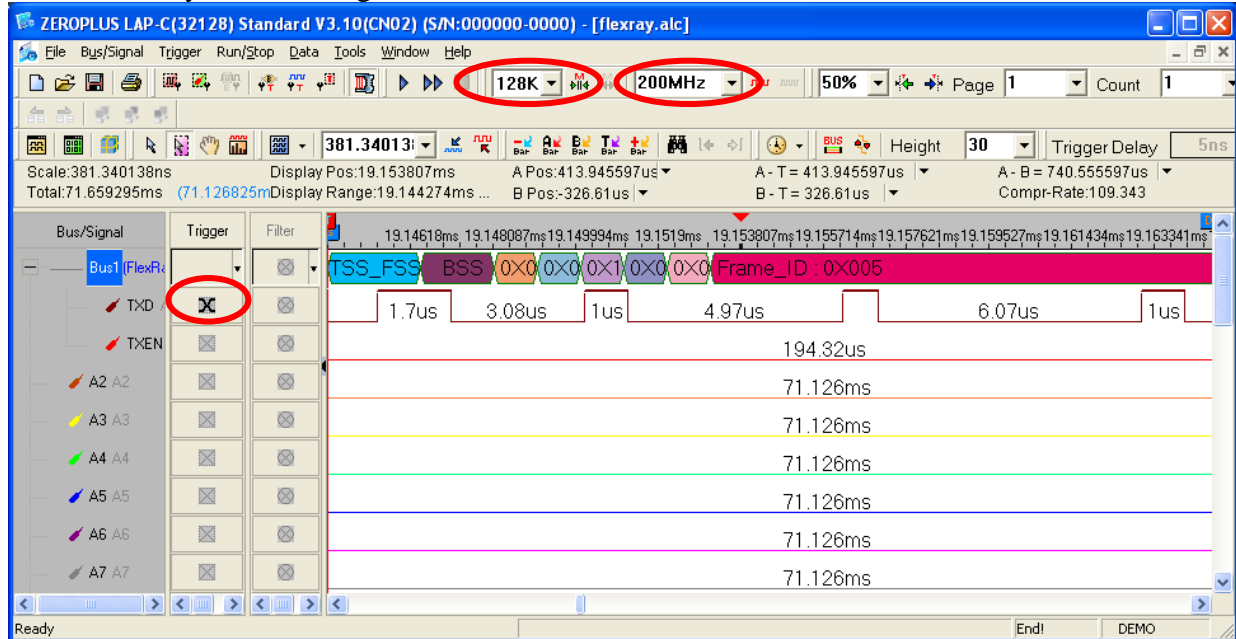
STEP 7. Select the Baud Rate from the pull-down menu or enter a value in the range from 100Kbps to 50Mbps. When the Auto is selected, the Baud Rate will be judged and displayed on the Dialog Box by the Main Program.





STEP 8. 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 five times higher than the signal to be tested).

Protocol Analyzer Decoding



Packet List

