



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

SPECIFICATION

MODEL: B09017-LAP-DSI Bus-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 Download

Please download 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 **English** in the Instrument Division part on the Homepage.

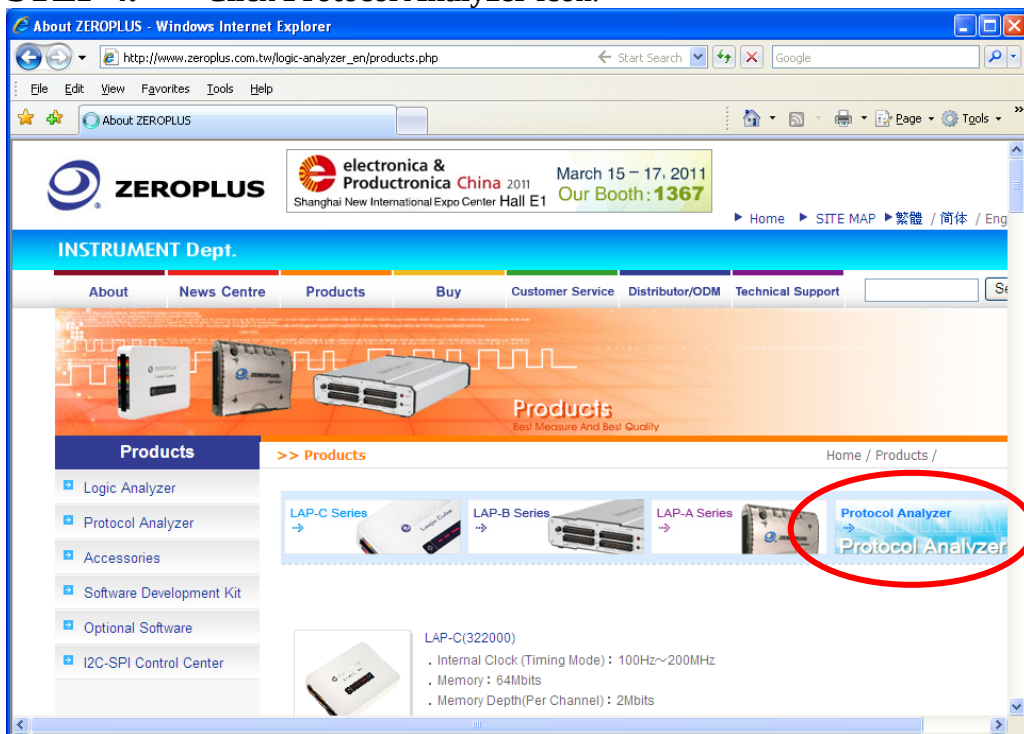




STEP 3. Click **Products** menu or select Protocol Analyzer item from its pull-down menu to go straight to STEP 5.

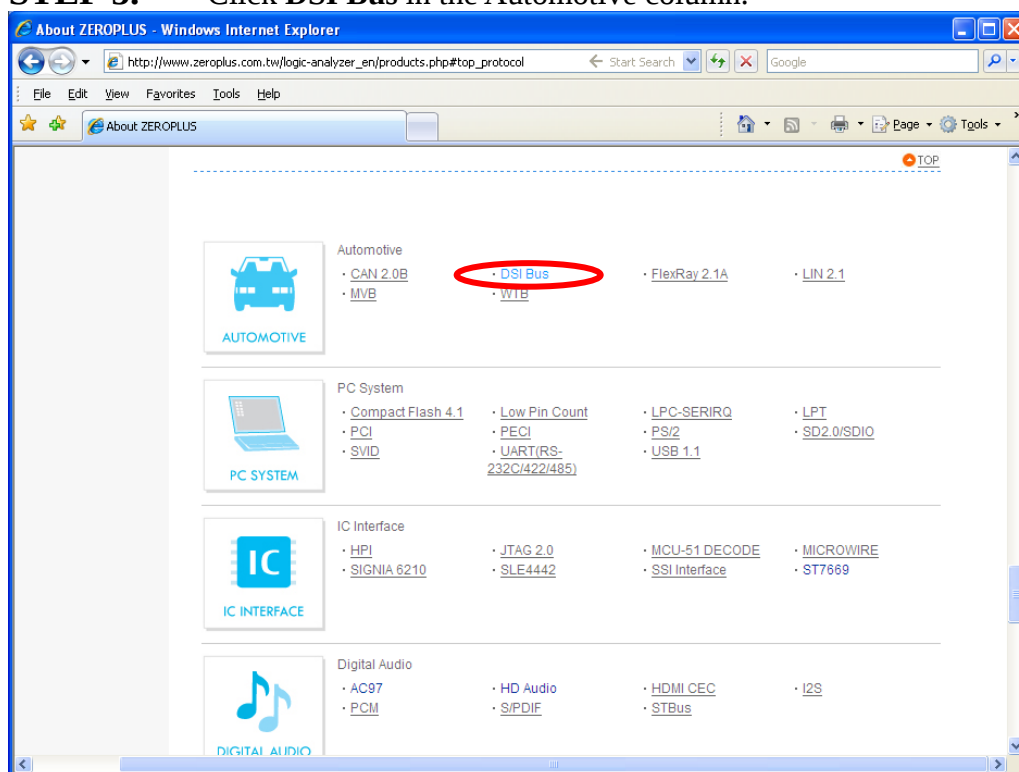


STEP 4. Click **Protocol Analyzer** icon.

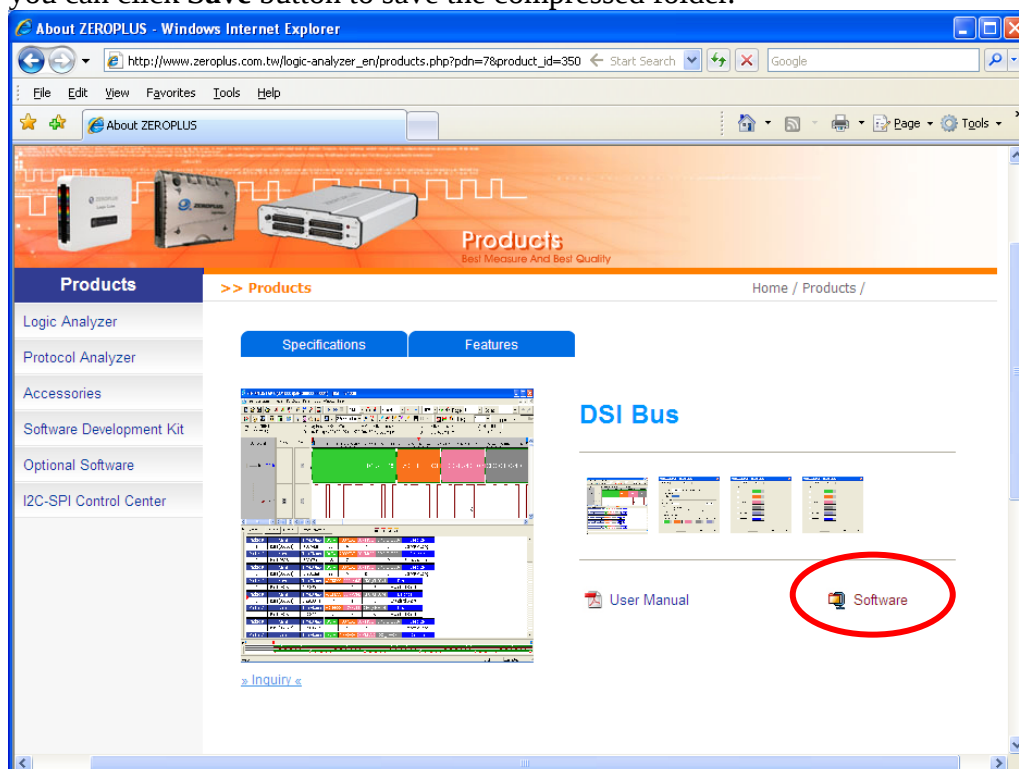




STEP 5. Click **DSI Bus** in the Automotive column.



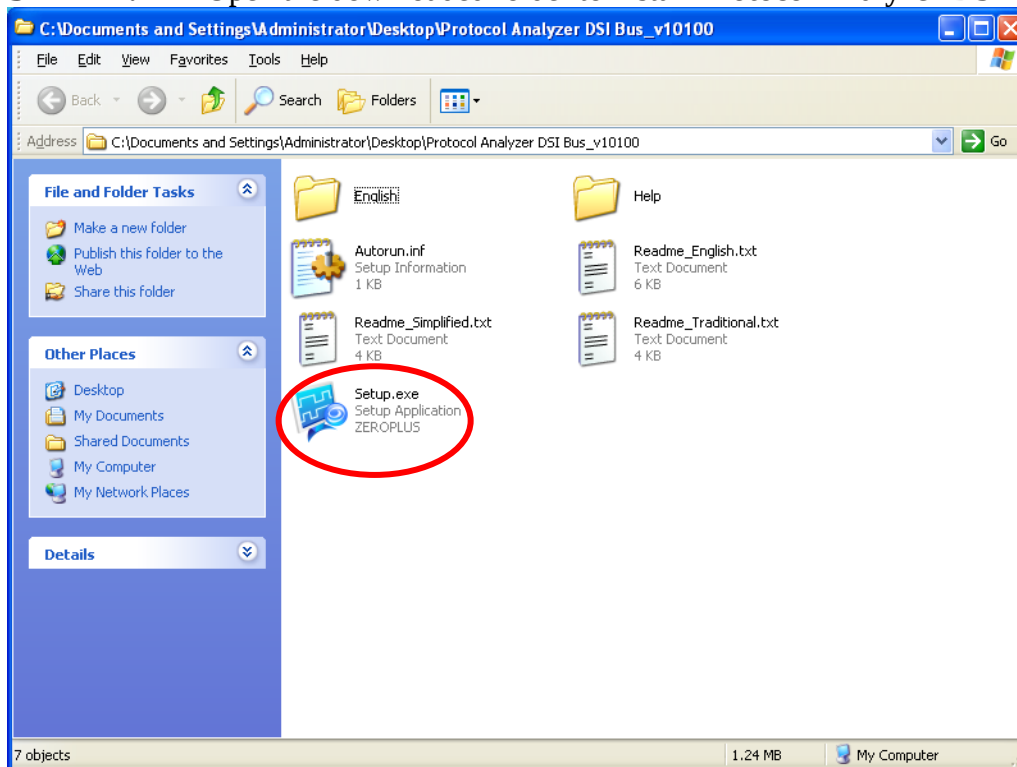
STEP 6. Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed folder.



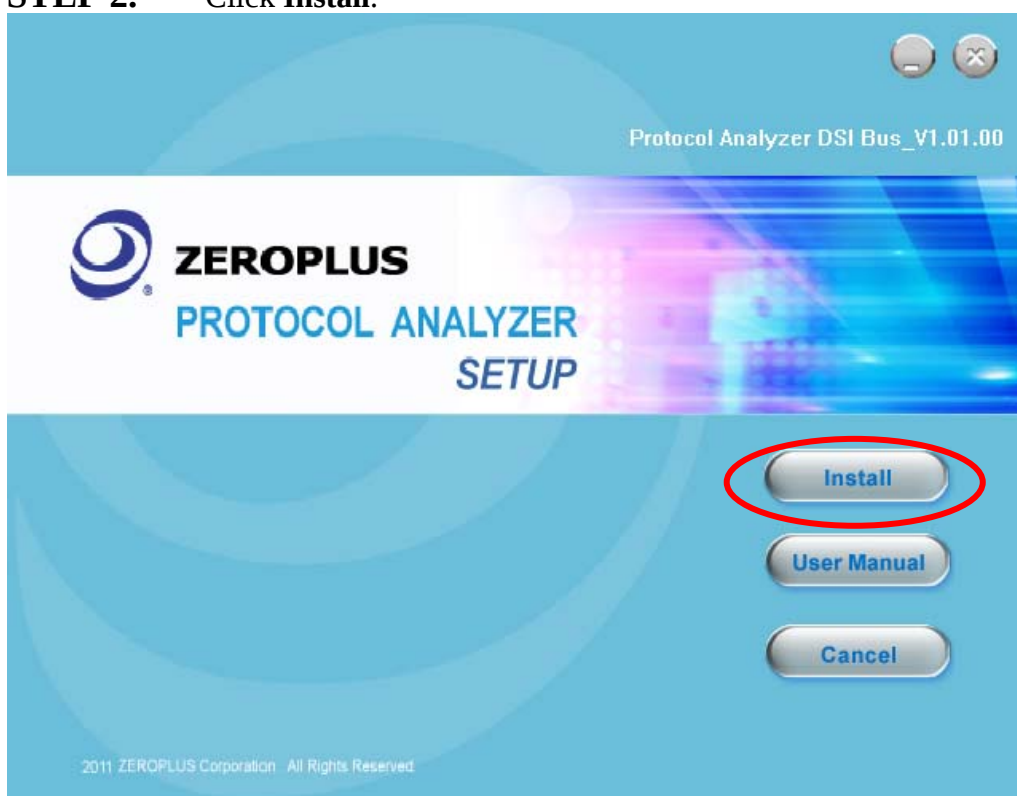


2 Software Installation

STEP 1. Open the downloaded folder to install **Protocol Analyzer DSI Bus**.

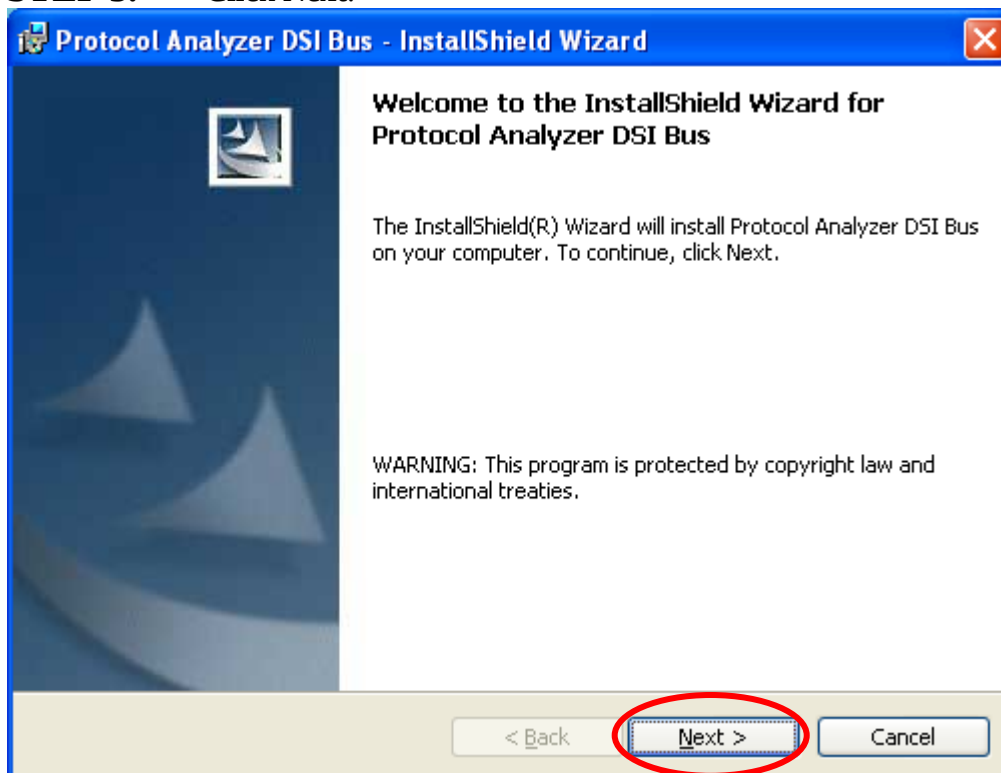


STEP 2. Click **Install**.

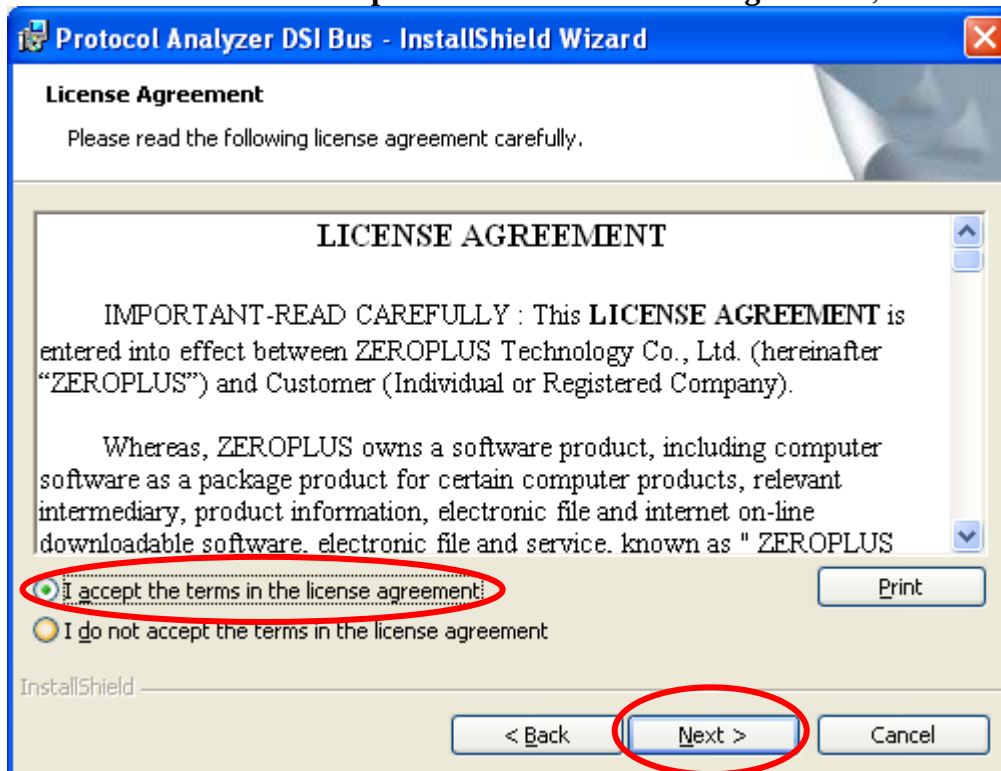




STEP 3. Click Next.



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**.

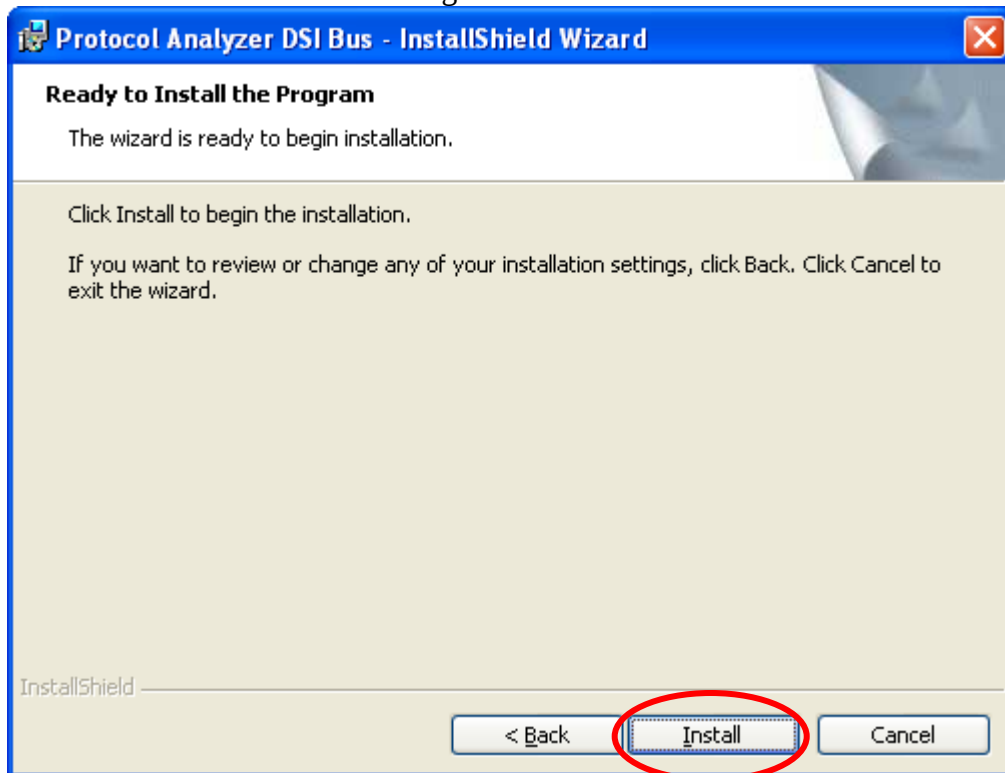
The dialog box is titled "Protocol Analyzer DSI Bus - InstallShield Wizard". It contains a section titled "Customer Information" with the instruction "Please enter your information." Below this, there are two text input fields: "User Name:" with "Microsoft" entered, and "Organization:" with "User" entered.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

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

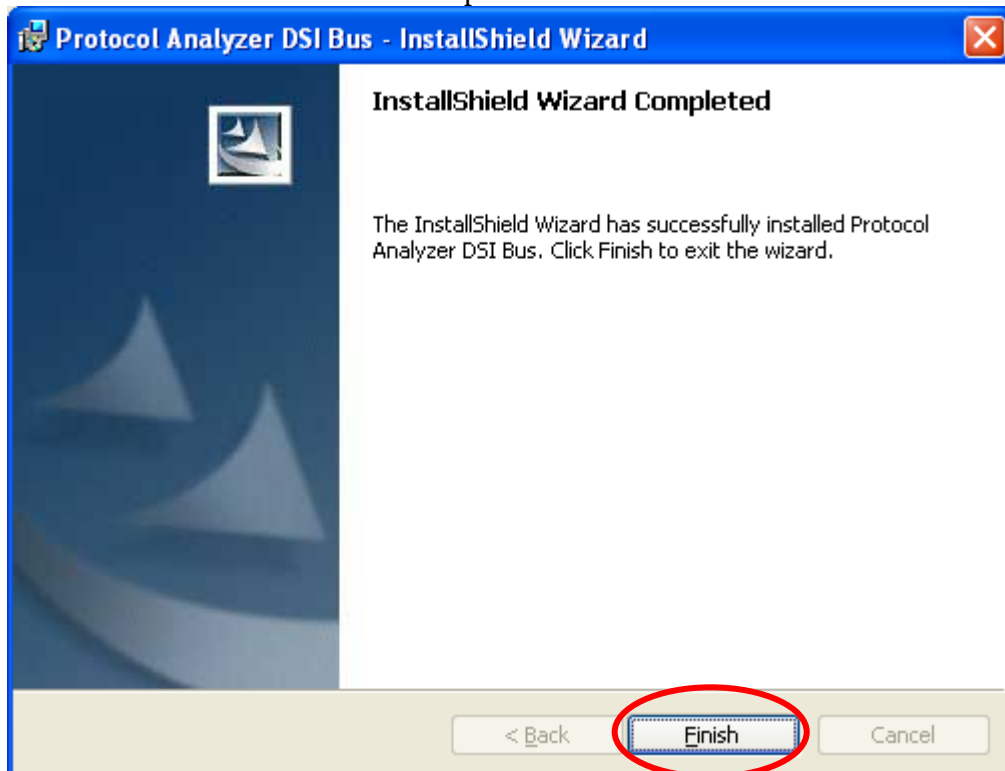
The dialog box is titled "Protocol Analyzer DSI Bus - InstallShield Wizard". It contains a section titled "Setup Type" with the instruction "Choose the setup type that best suits your needs." Below this, there is a text input field with "Please select a setup type." Underneath, there are two radio button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



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



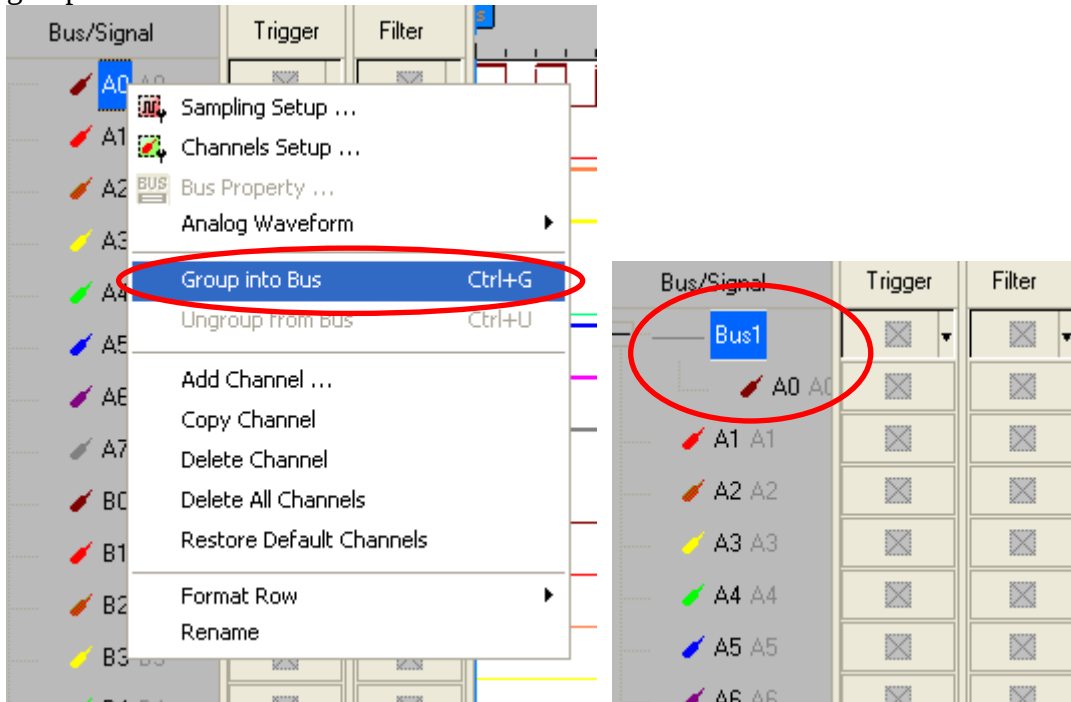
STEP 8. Click **Finish** to complete the installation.



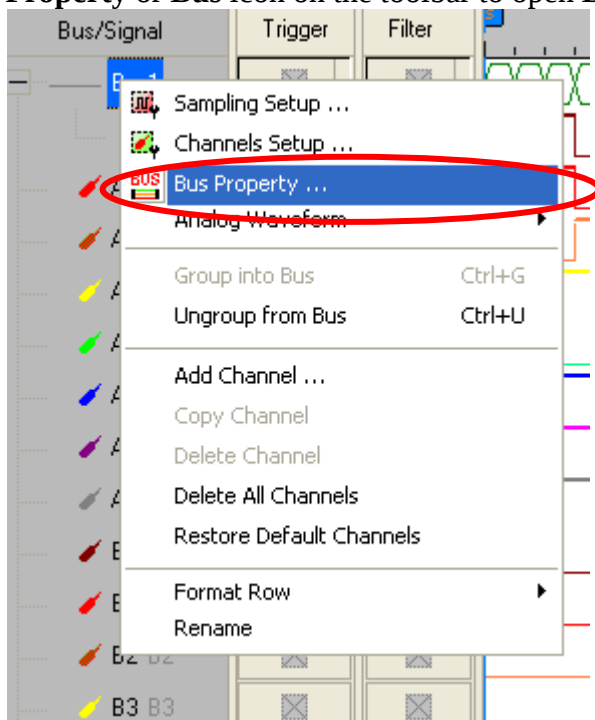


3 Software Register

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

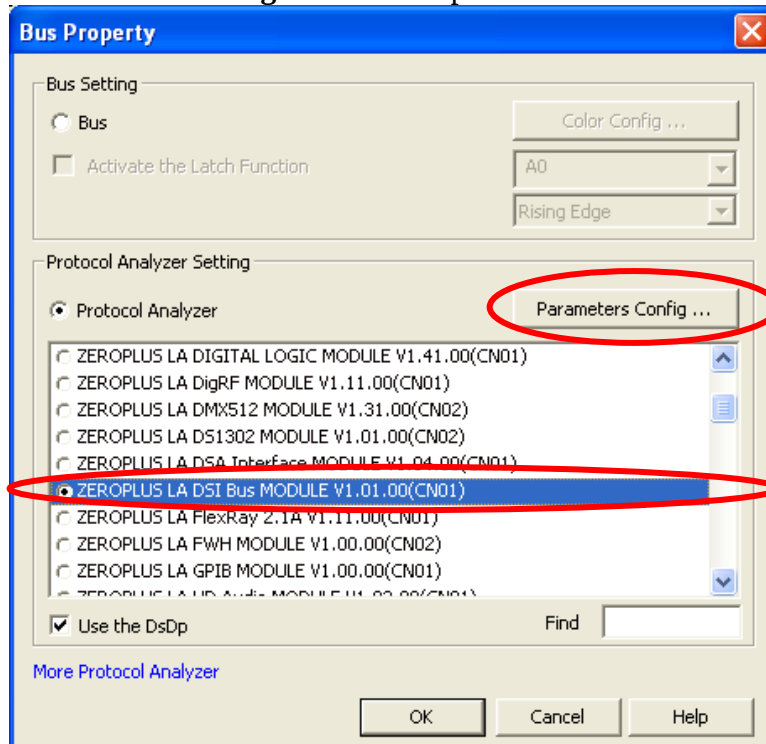


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

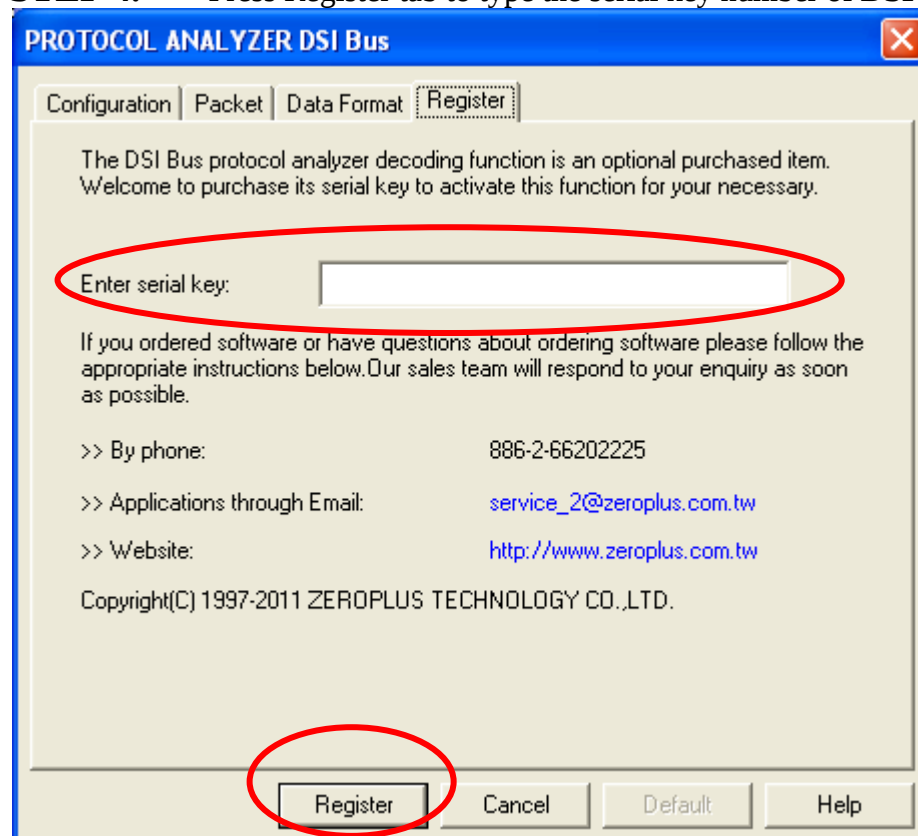




STEP 3. For Protocol Analyzer DSI Bus Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA DSI Bus MODULE V1.01.00(CN01)**. Next click **Parameters Configuration** to open the **PROTOCOL ANALYZER DSI Bus** dialog box.

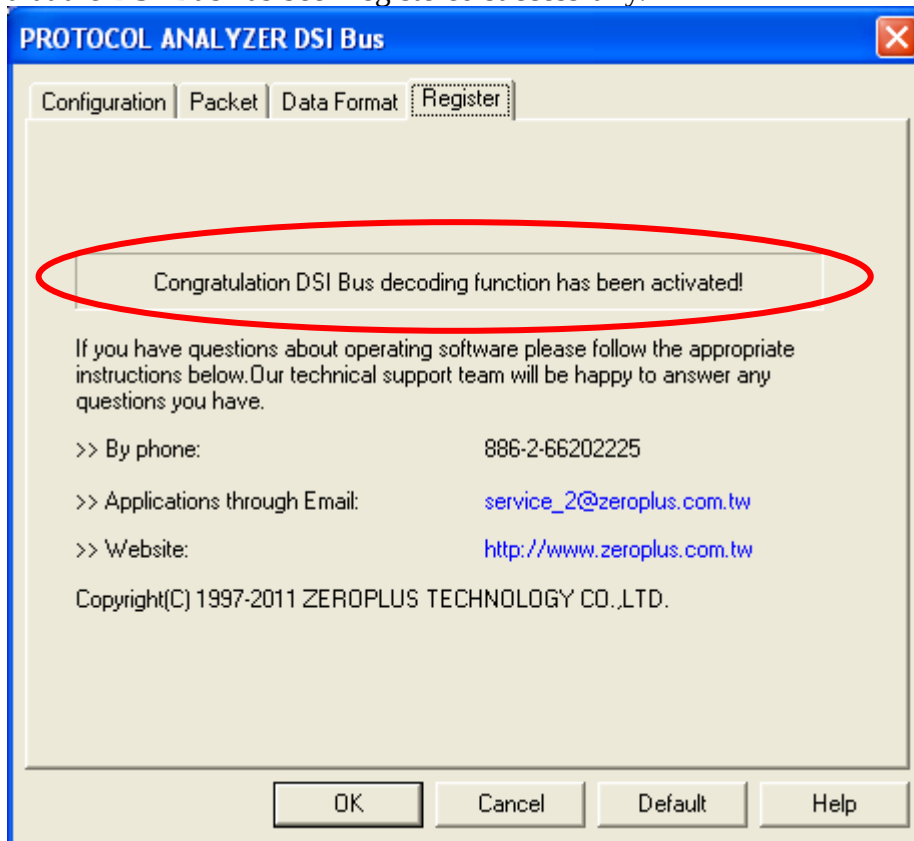


STEP 4. Press Register tab to type the serial key number of **DSI Bus**. Then, press **Register**.





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

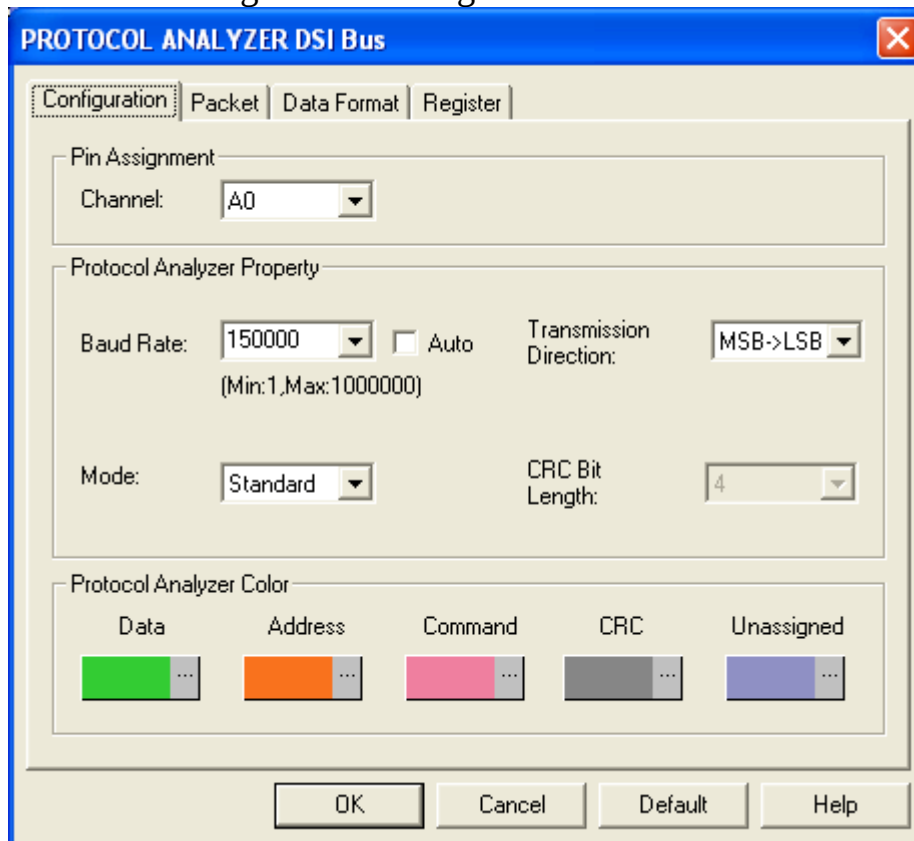




4 User Interface

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

DSI Bus Configuration Dialog Box



Pin Assignment: The DSI Bus only needs one channel to decode signals.

Baud Rate: Users can enter a value in the range from 1 to 10000000 or select a value (1500, 5000, 15000, 50000, 150000, 500000, 1500000 or 5000000) from the pull-down menu, and the default is 150000. Meanwhile, users can enable the option, **Auto**, and then the value of the Baud Rate will be displayed automatically.

Transmission Direction: Set the Direction to **MSB->LSB** or **LSB->MSB**.

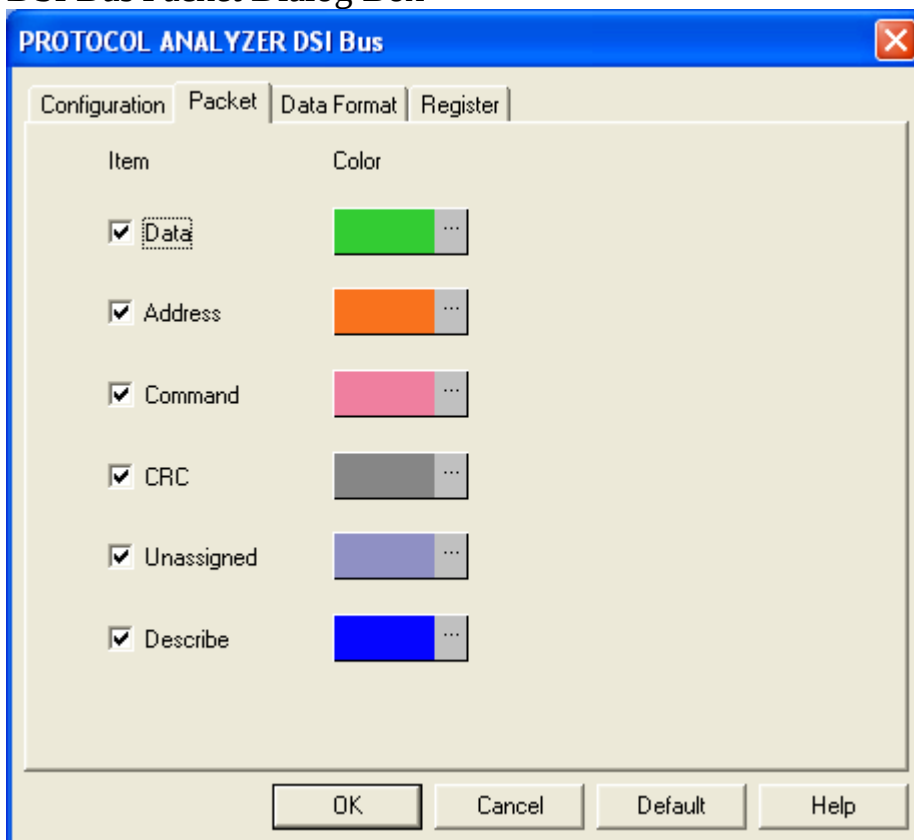
Mode: Set the Mode to **Standard** or **Enhanced**. In the Standard mode, the CRC Bit Length is 4, and the Column of the CRC Bit Length is disabled.

CRC Bit Length: Set the Length in the range from 0 to 8.

Protocol Analyzer Color: Set the displayed color for every packet in the Protocol Analyzer.

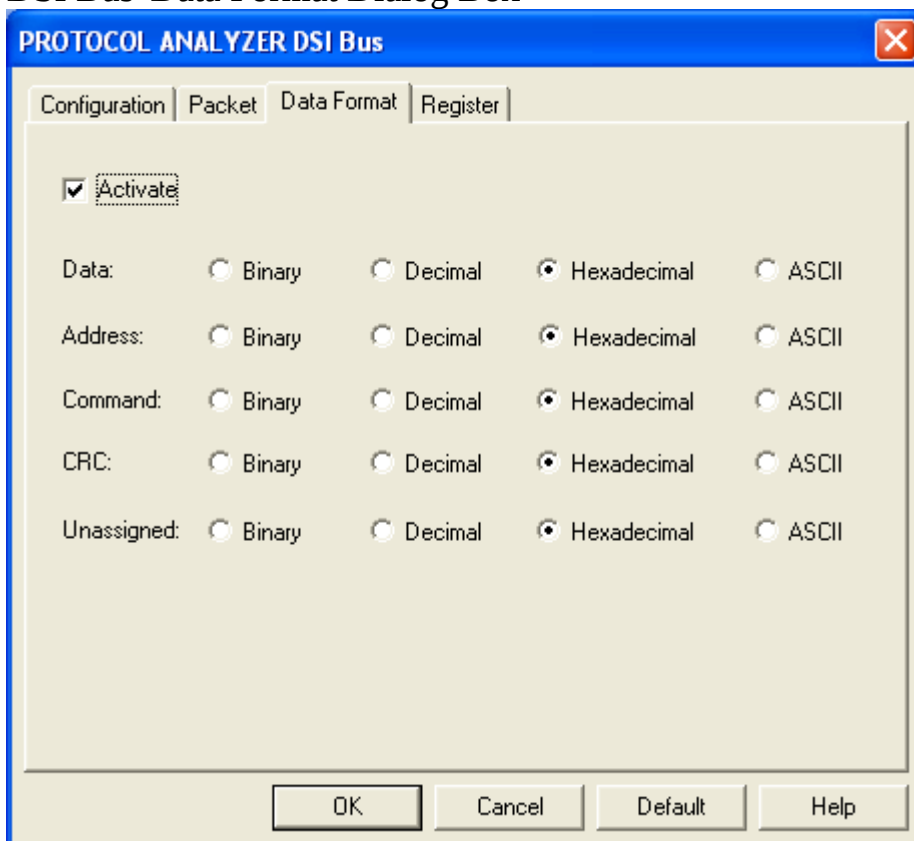


DSI Bus Packet Dialog Box



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

DSI Bus Data Format Dialog Box

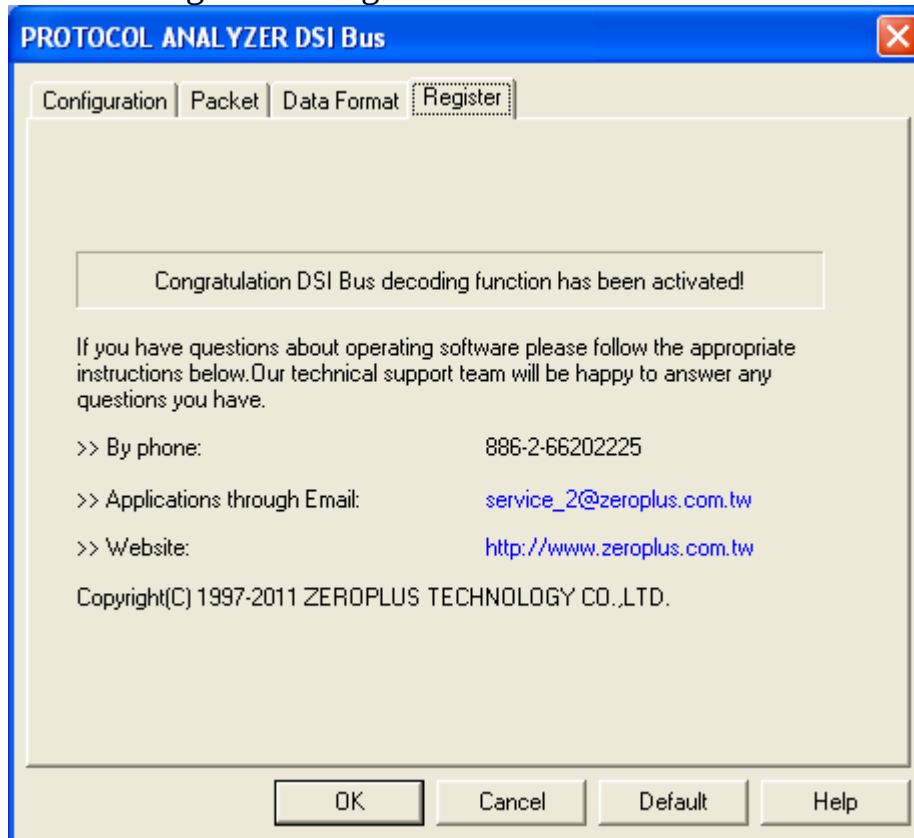


Users can set the Data Format of the Data, Address, Command, CRC and Unassigned as their



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.

DSI Bus Register Dialog Box

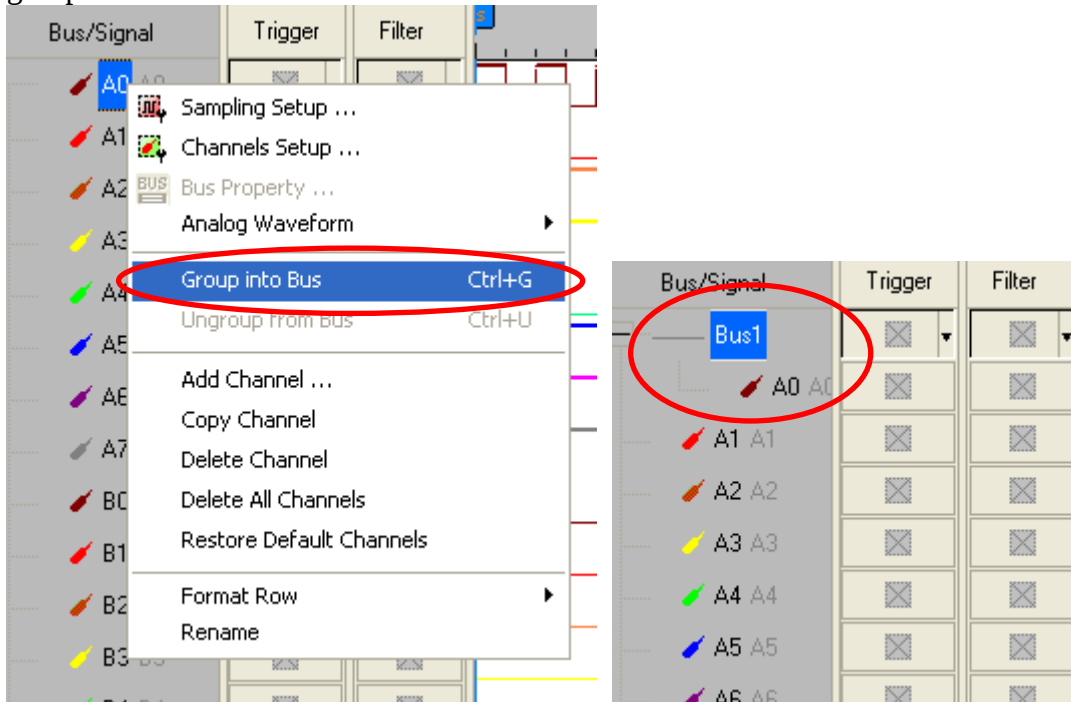


There is written ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

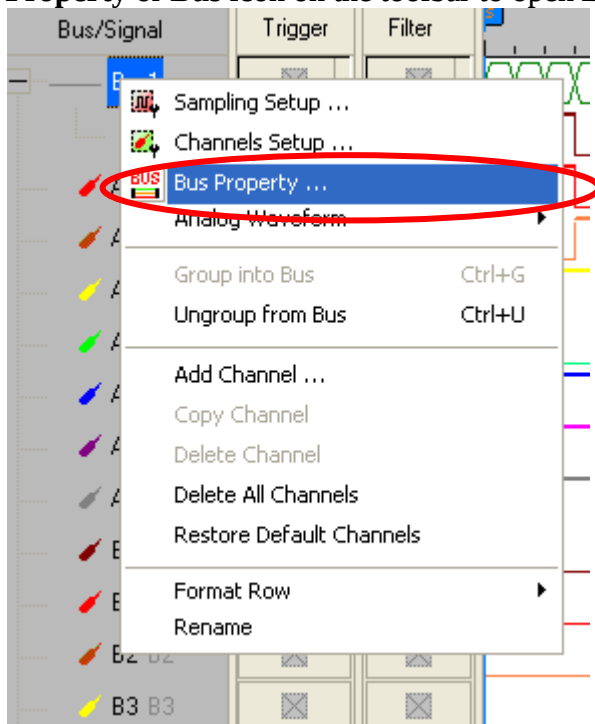


5 Operating Instructions

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

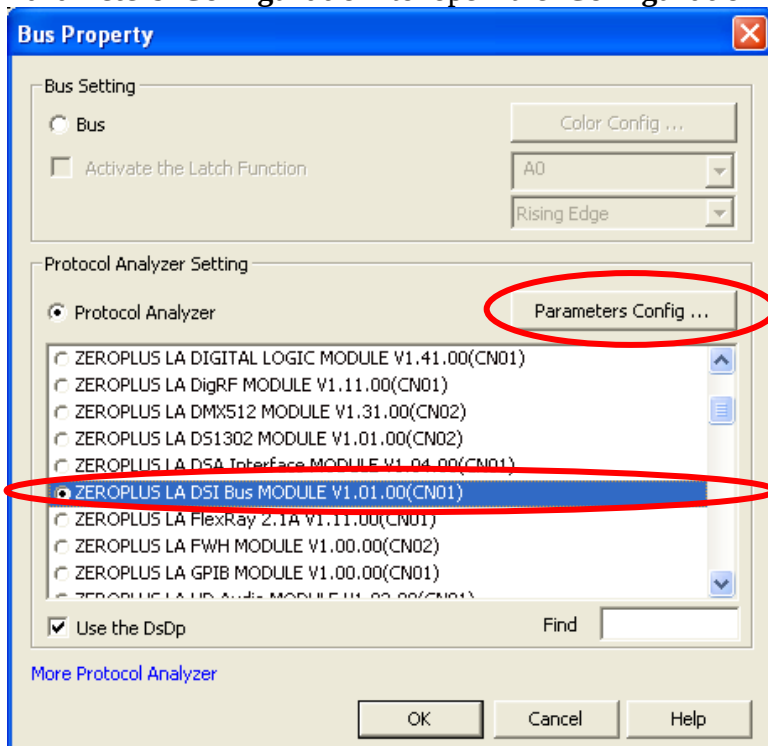


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

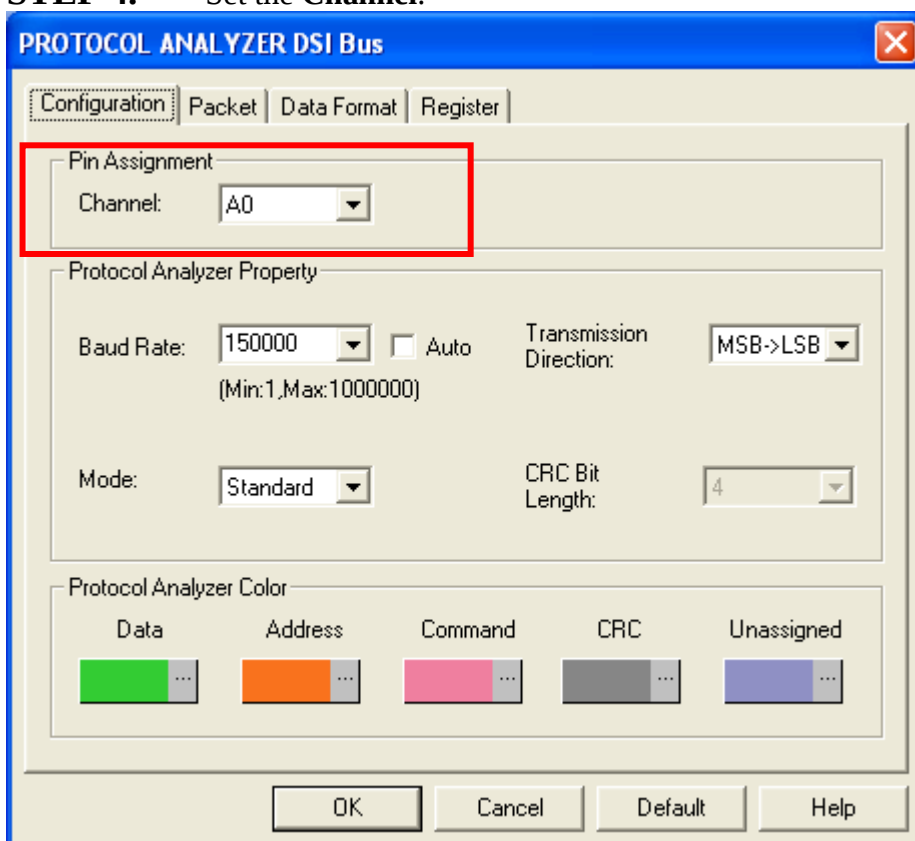




STEP 3. For Protocol Analyzer DSI Bus Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA DSI Bus MODULE V1.01.00(CN01)**. Next click **Parameters Configuration** to open the **Configuration** dialog box.

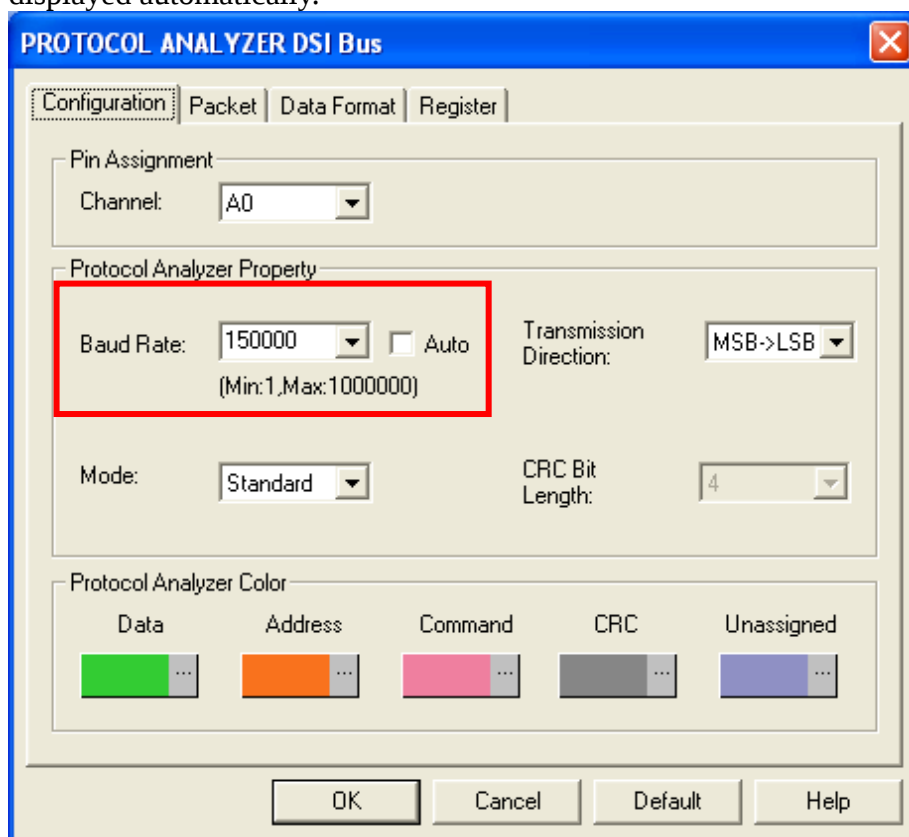


STEP 4. Set the **Channel**.

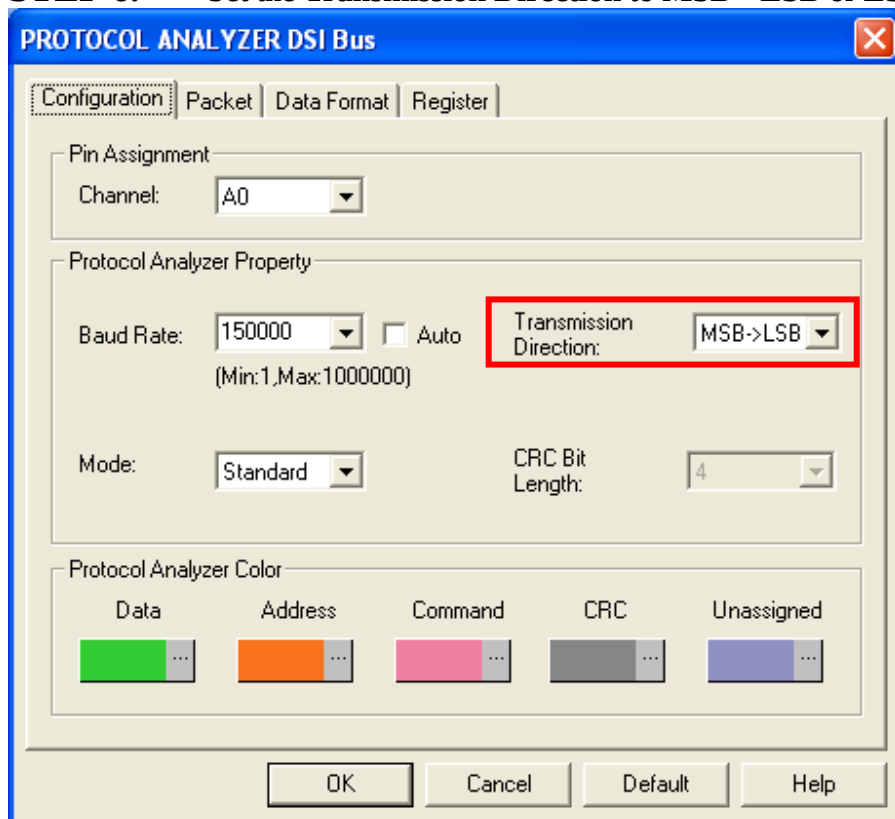




STEP 5. Users can enter a value in the range from 1 to 10000000 or select a value (1500, 5000, 15000, 50000, 150000, 500000, 1500000 or 5000000) from the pull-down menu, and the default is 150000. Meanwhile, users can enable the option, **Auto**, and then the value of the Baud Rate will be displayed automatically.

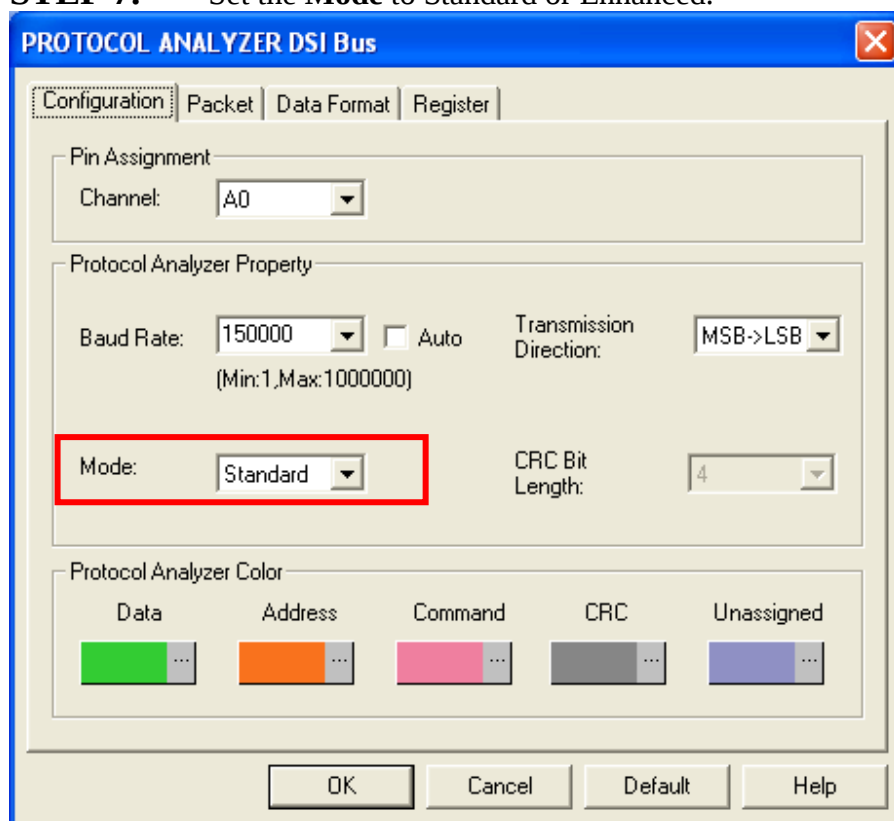


STEP 6. Set the **Transmission Direction** to **MSB->LSB** or **LSB->MSB**.

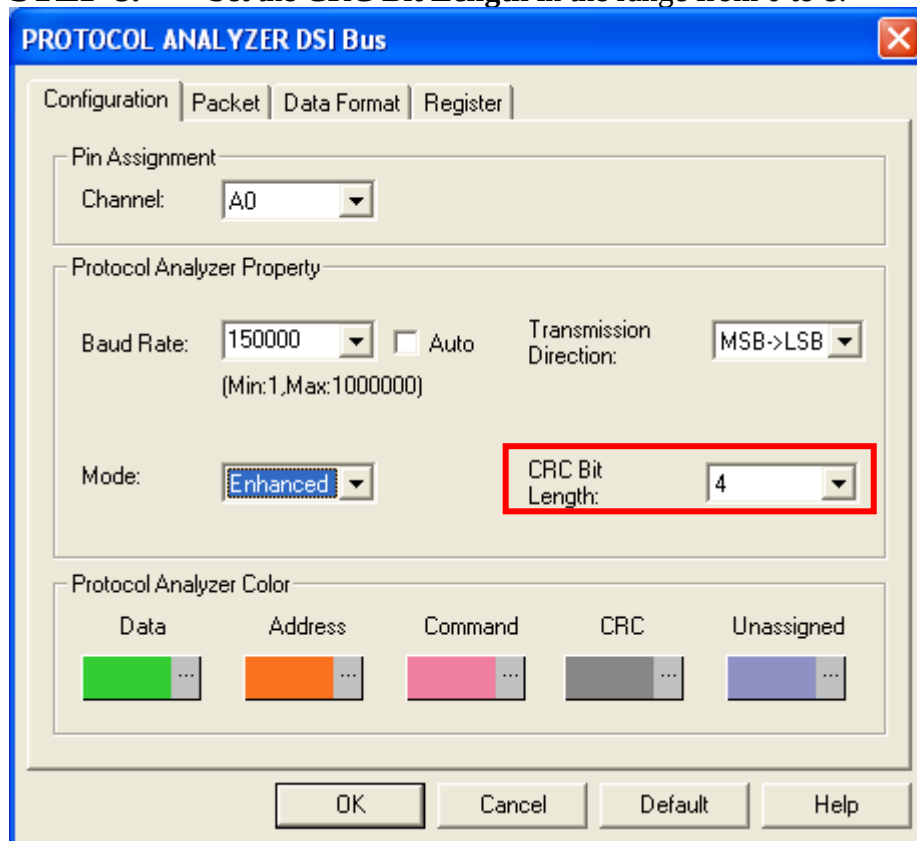




STEP 7. Set the **Mode** to Standard or Enhanced.

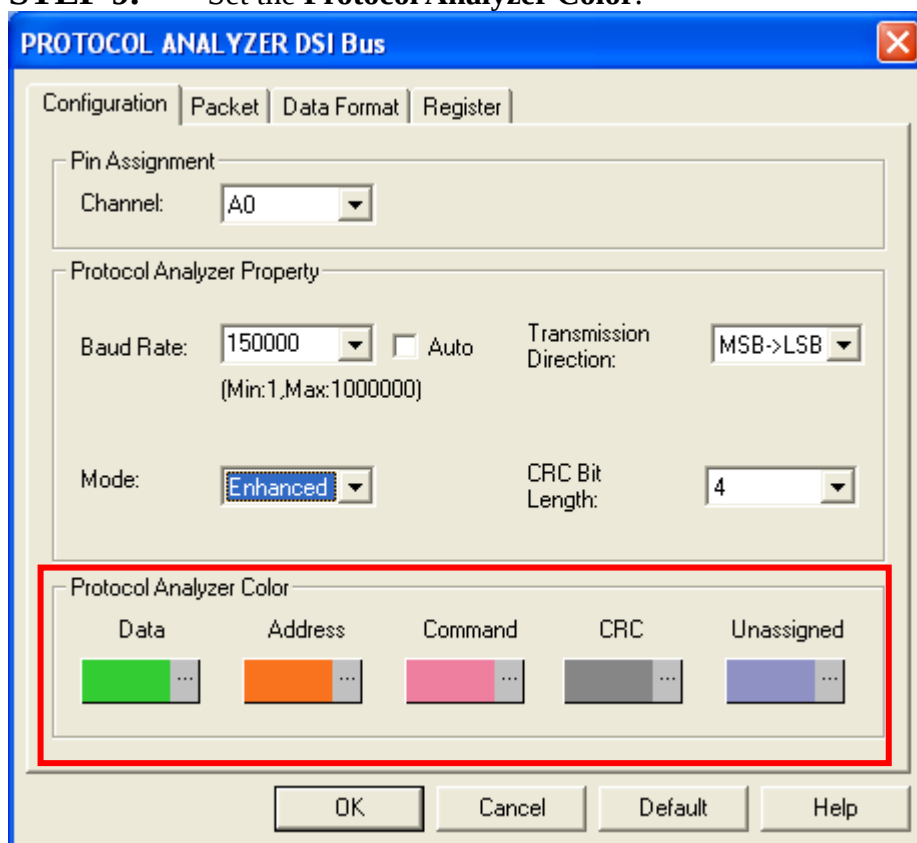


STEP 8. Set the **CRC Bit Length** in the range from 0 to 8.



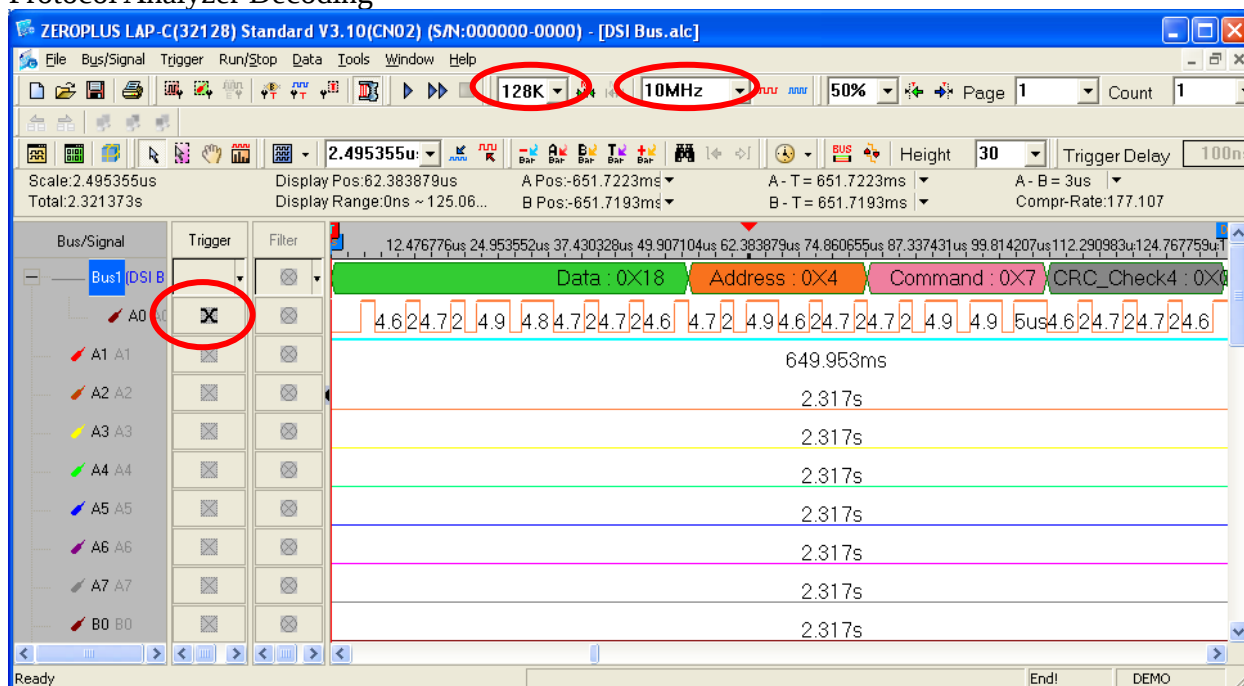


STEP 9. Set the Protocol Analyzer Color.



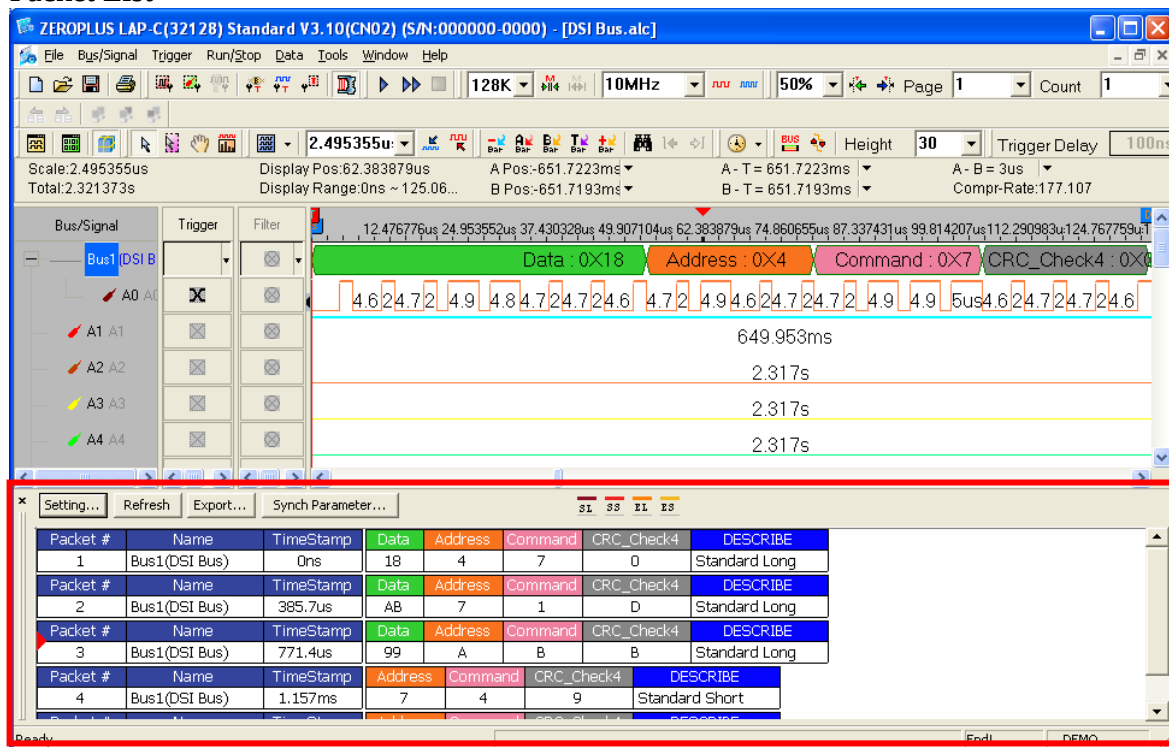
STEP 10. Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Either Edge; the memory depth is 128K; the sampling frequency is 10MHz (the sampling frequency should be more than ten times higher than the signal to be tested).

Protocol Analyzer Decoding





Packet List



Support the function of Packet Format Select:

1. When pressing the Standard Long (SL), Standard Short (SS), Enhanced Long (EL) or Enhanced Short (ES) button, only the corresponding packet will be displayed in the Packet List; when any of the buttons isn't pressed, all the packets will be displayed.