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

SPECIFICATION

MODEL: 013-LAP-S/PDIF-M

PART NO： _____

VERSION： V1.20

Approver		Check	Design
GM	PM		

Customer Confirm

＊ Please fax the file to Zeroplus Technology after signing .

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Content

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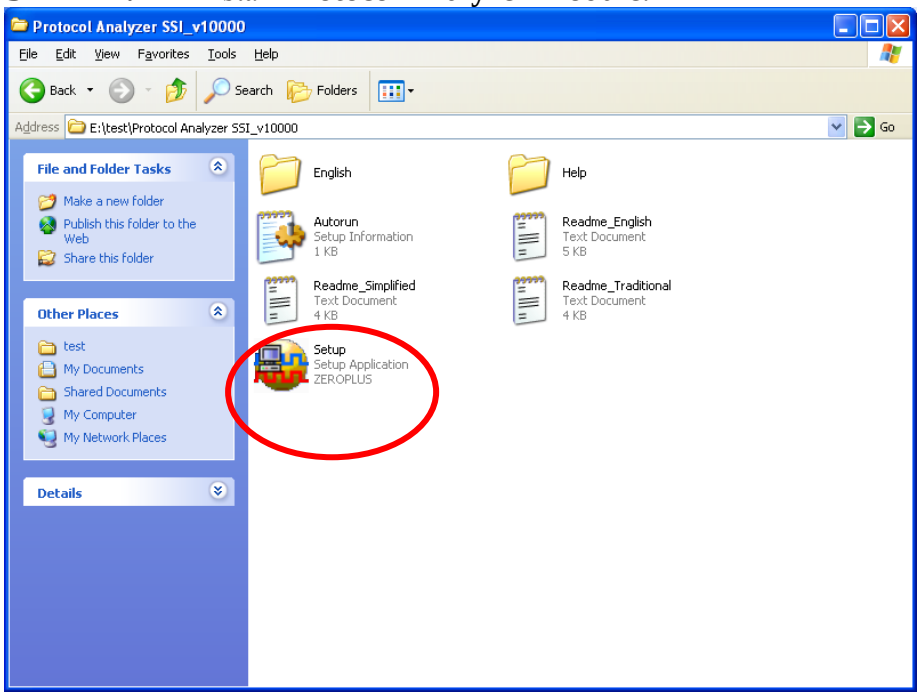
1 Software Installation

Please install the software as the following steps:

※ Remark: 1. The installation steps for all protocol analyzers are the same; you can complete the installation by following procedures. Following is an example on how to install protocol analyzer SSI.

※ Remark: 2. 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. Install **Protocol Analyzer Module**.



STEP 2. Click **Install**.

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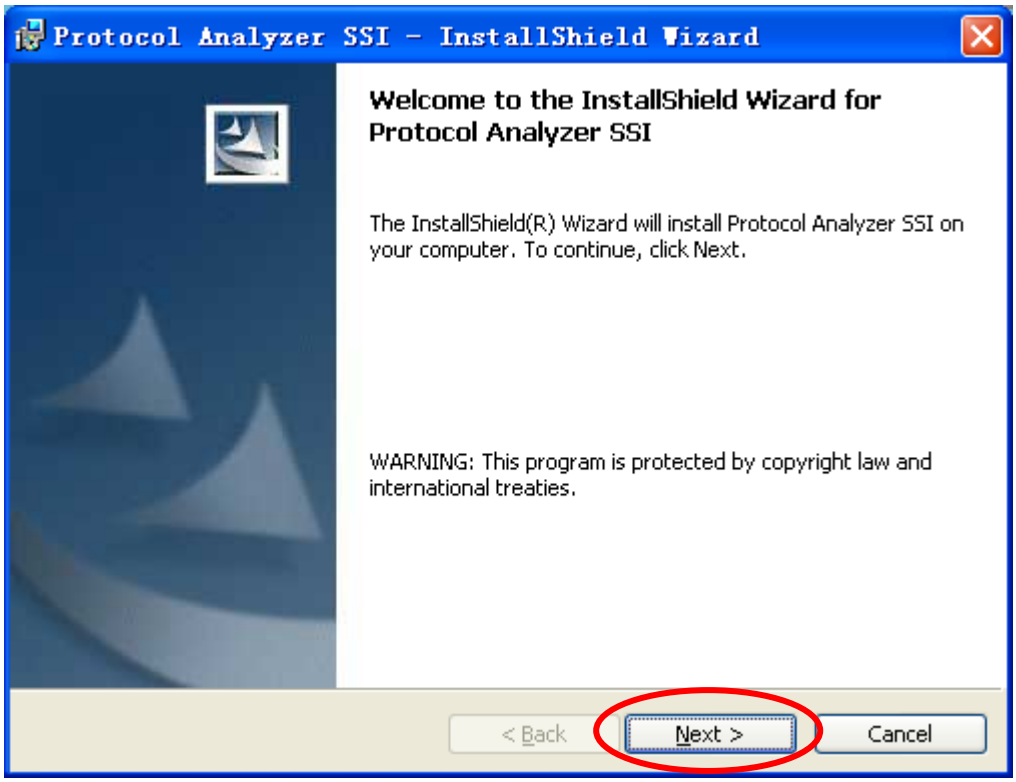
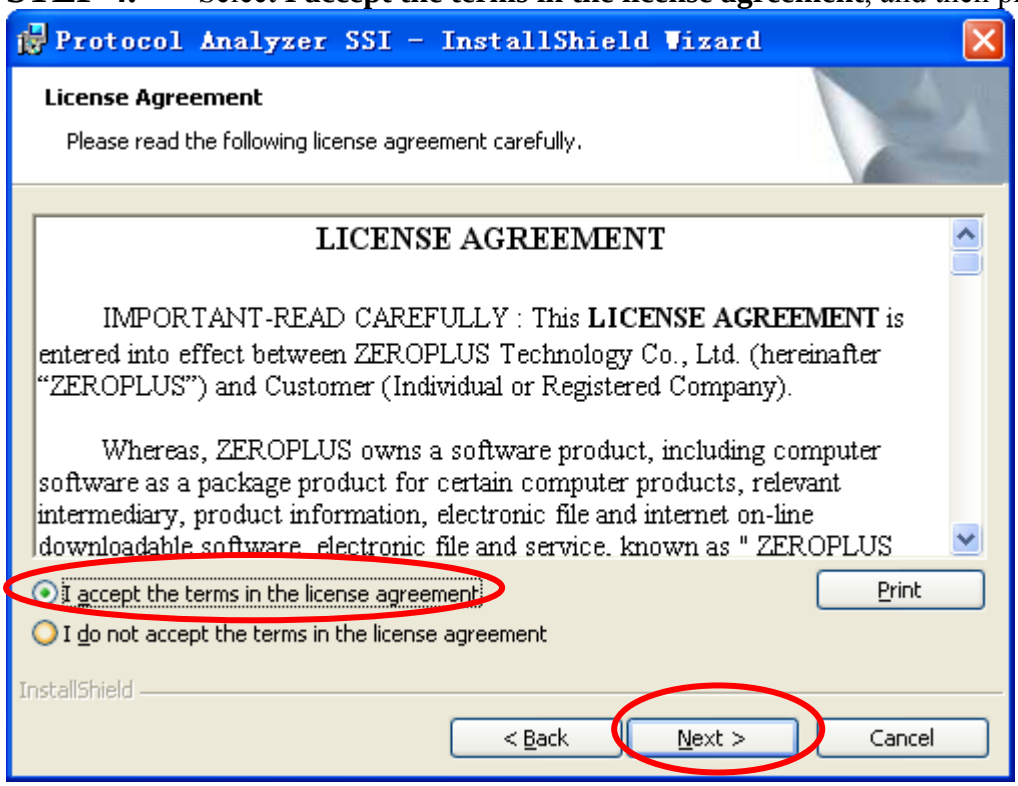
STEP 3. Click **Next**.



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



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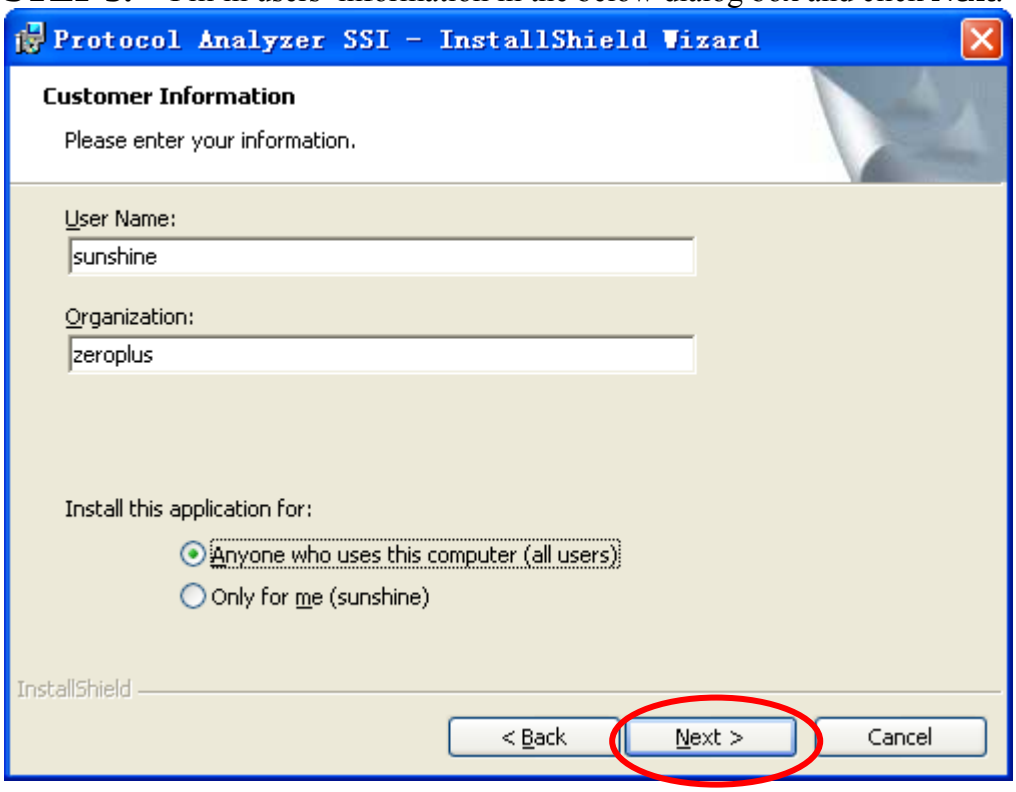
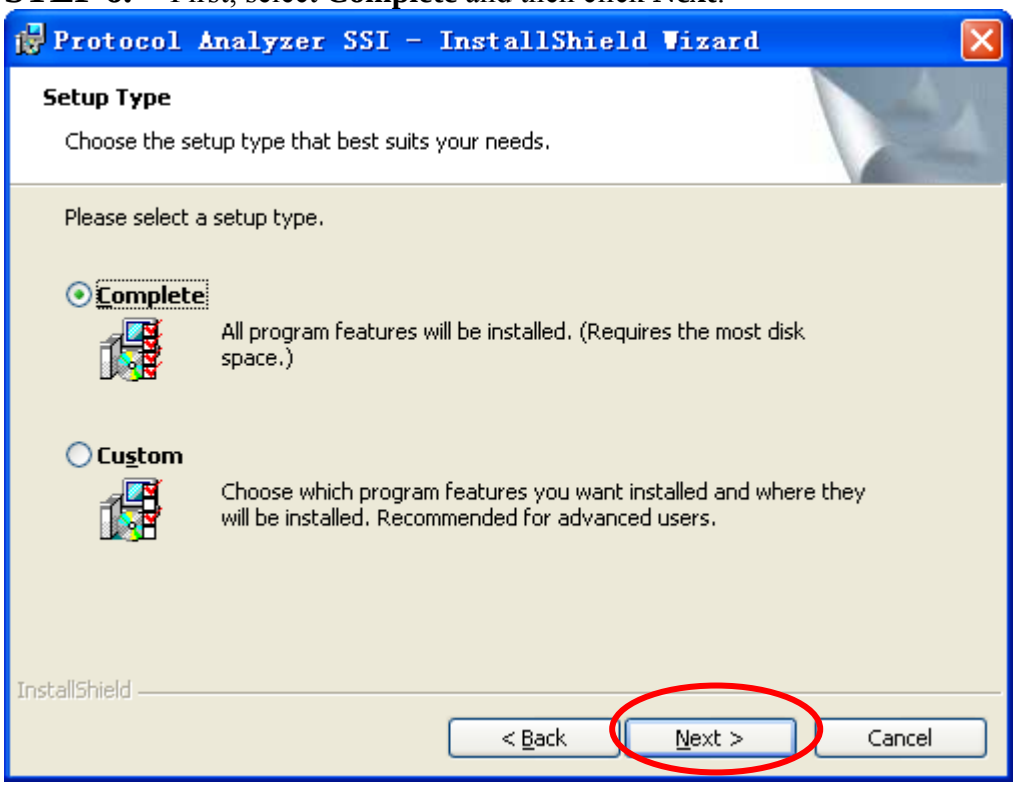
STEP 5. Fill in users' information in the below dialog box and click **Next**.



STEP 6. First, select **Complete** and then click **Next**.



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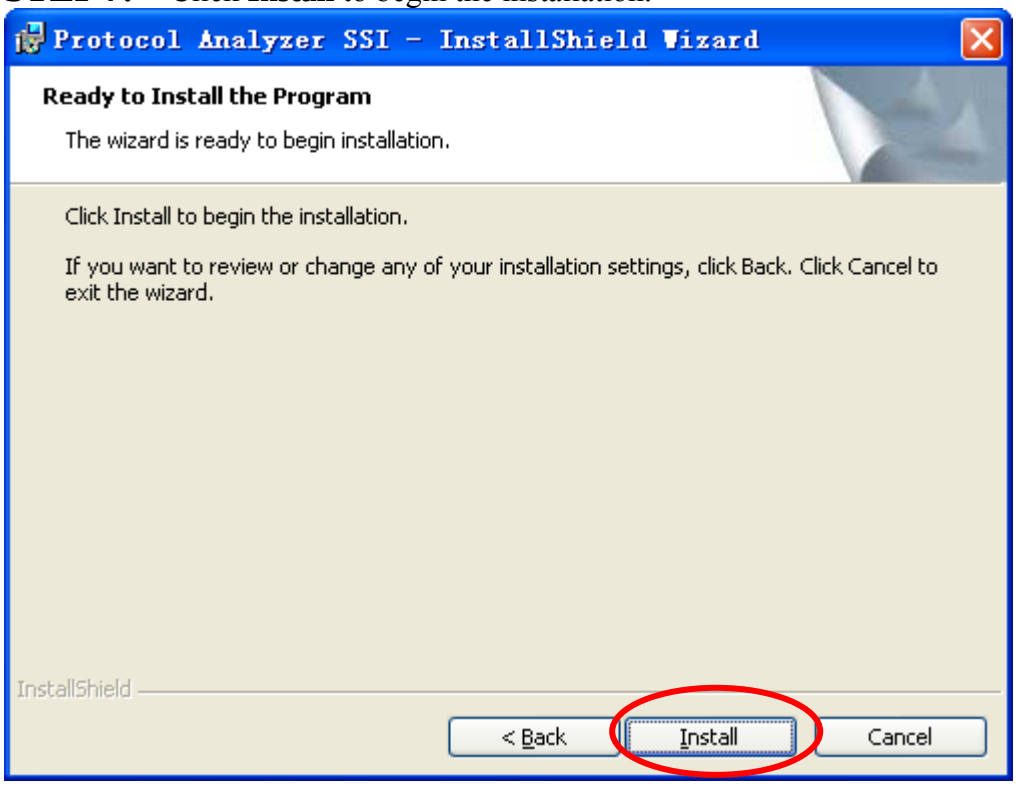
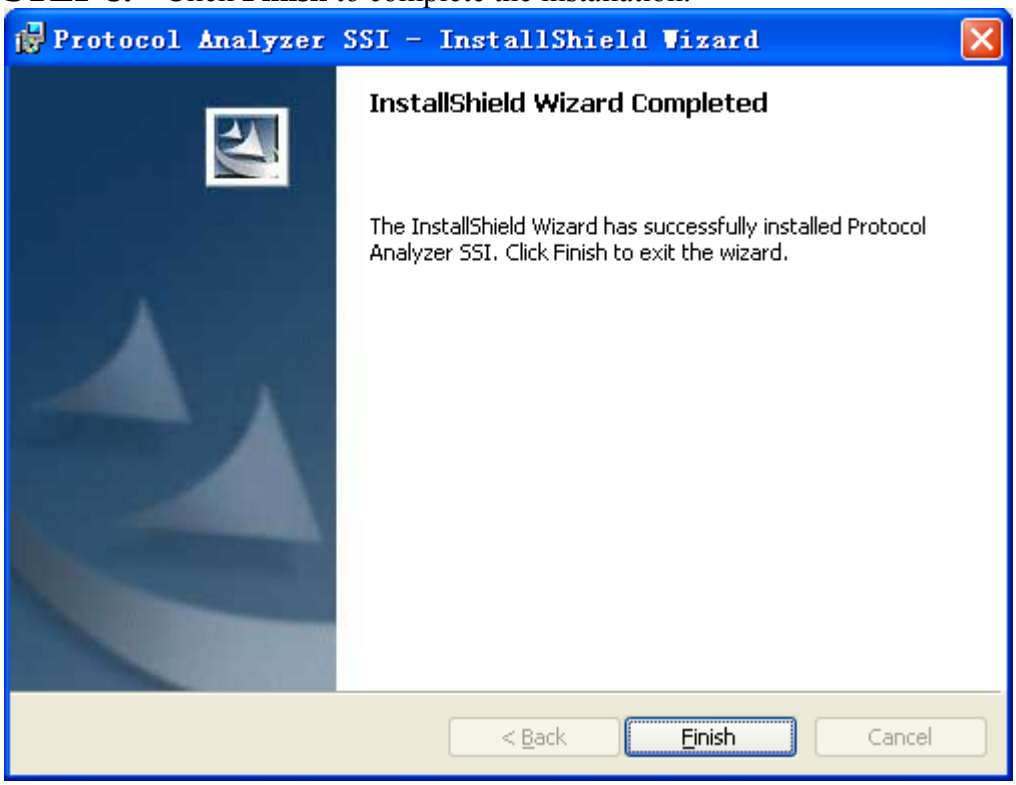
STEP 7. Click **Install** to begin the installation.



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



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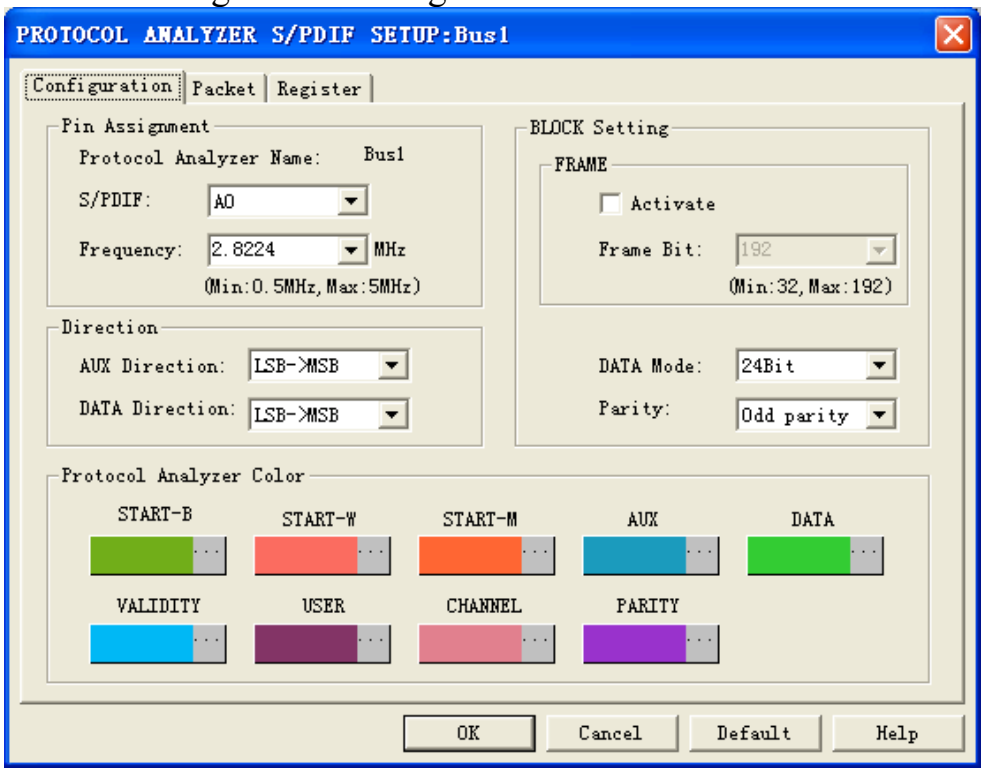
2 User Interface

In the configuration, please refer to below images to select options of setting **S/PDIF**.

S/PDIF Configuration Dialog Box



S/PDIF Pin Assignment:
Protocol Analyzer Channel: The default is A0.
Frequency:
There are three choices, 2.8224MHZ, 3.0720MHZ and 2.0480MHZ（The default is 2.8224MHZ）.
DATA Mode:
There are three modes, 24Bit, 20Bit and 16Bit（The default is 24 Bit）.
DATA Direction:
LSB→MSB and MSB→LSB can be selected（The default is LSB→MSB）.
AUX Direction:
LSB→MSB and MSB→LSB can be selected（The default is LSB→MSB）.
Frame Bit:
If you select this function, it strictly decodes signals according to BLOCK format protocol; if you don't select this function, it can decode as long as it accords with Sumframe format. Usually the range of BLOCK is 32 ~ 192Frame (Generally BLOCK is 192) (The default of the column is not selected.)
Parity:
There are two choices, Odd parity and Even parity (The default is Odd parity).

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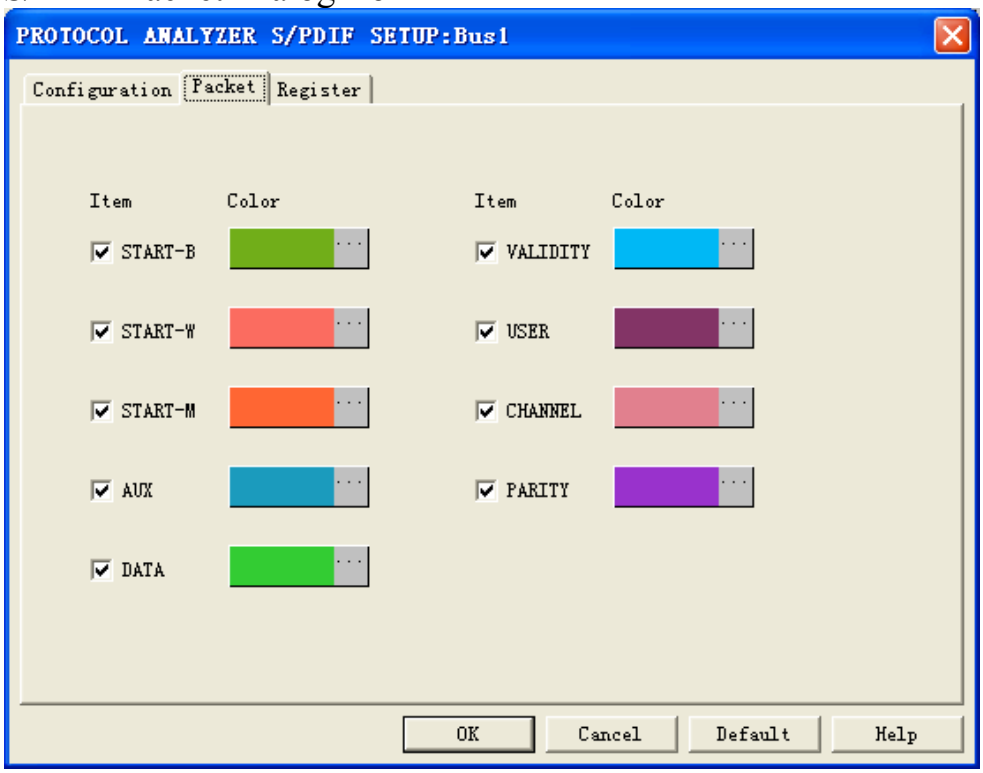
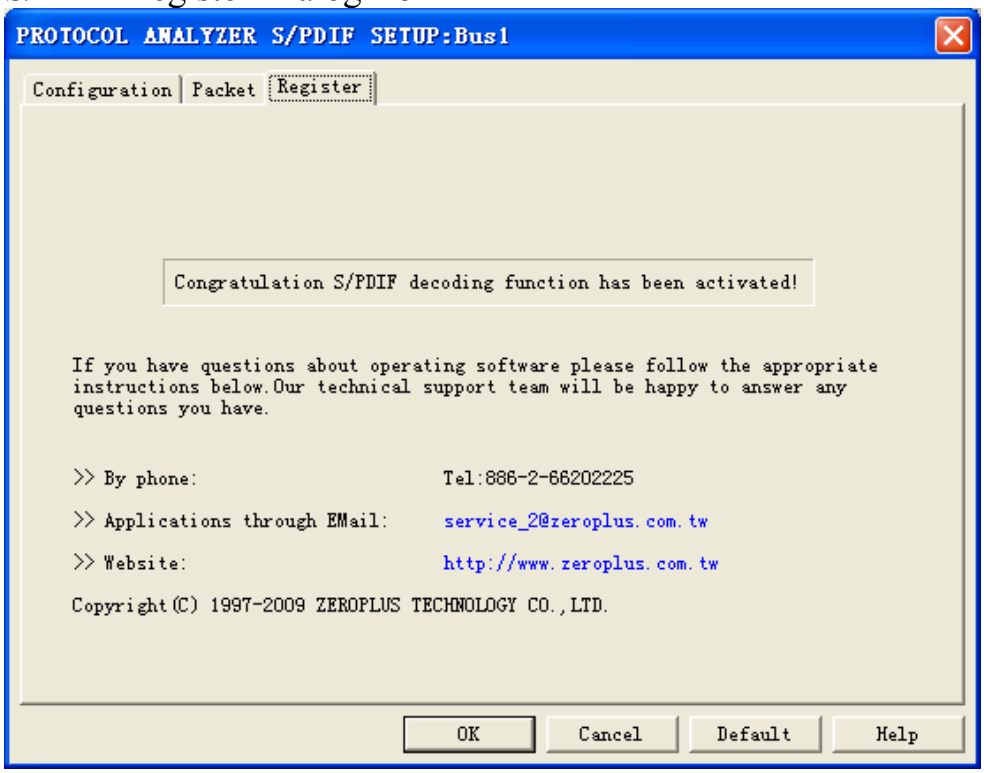
S/PDIF Packet Dialog Box



Packet colors can be varied by users.

S/PDIF Register Dialog Box



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

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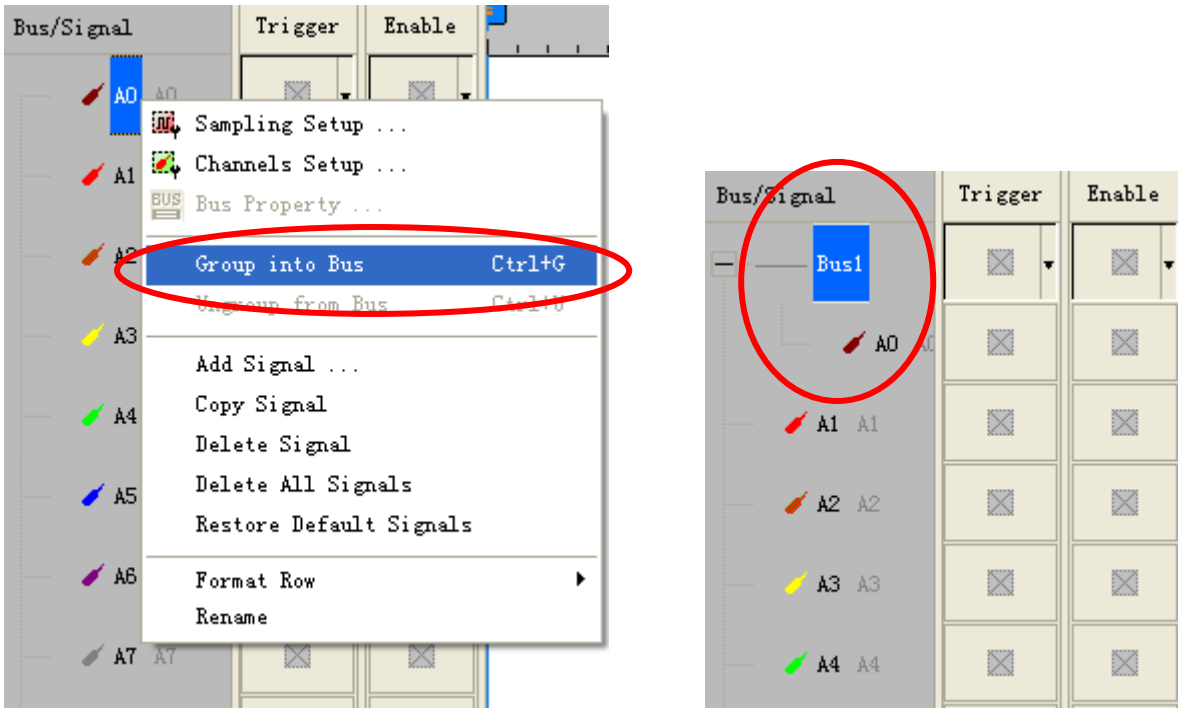
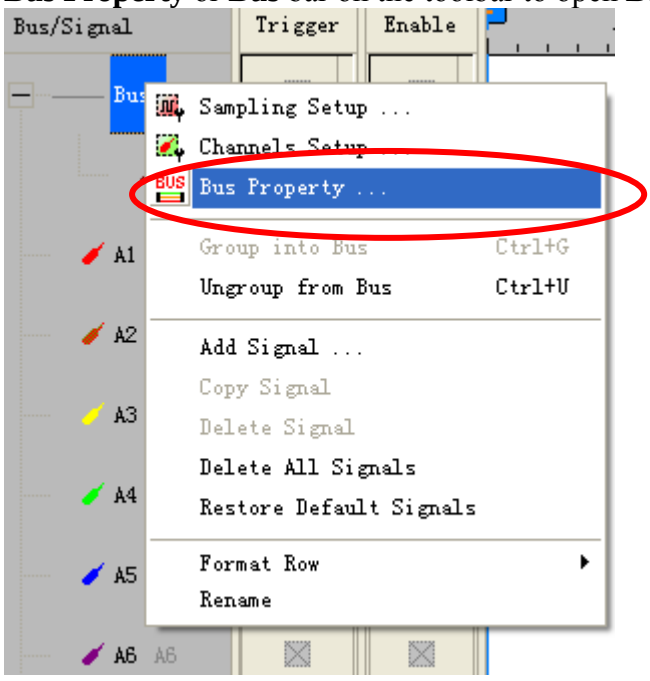
3 Operating Instructions

STEP 1. Group the unanalyzed channel into **Bus 1** by pressing the **Right Key** on the mouse.



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.



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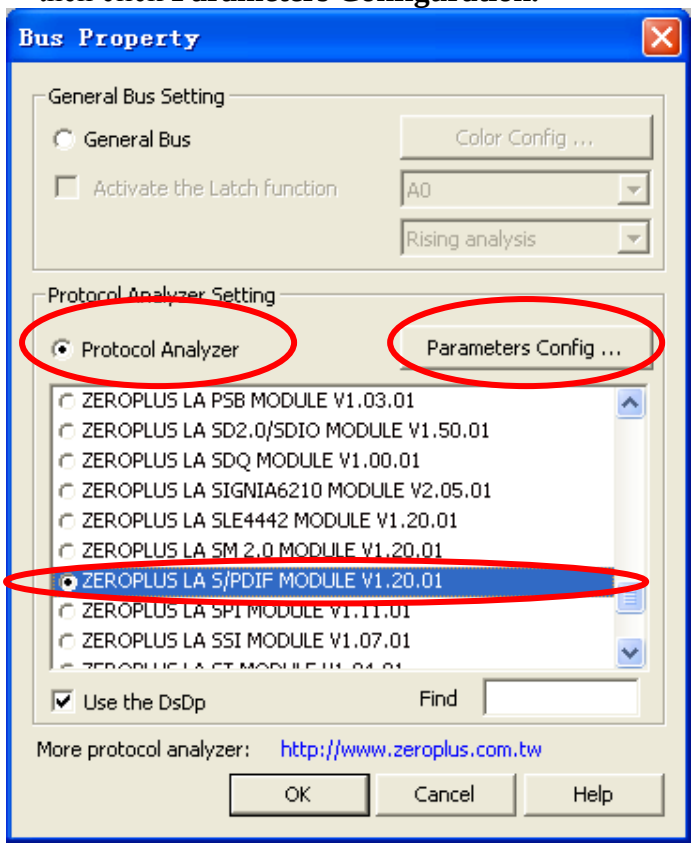
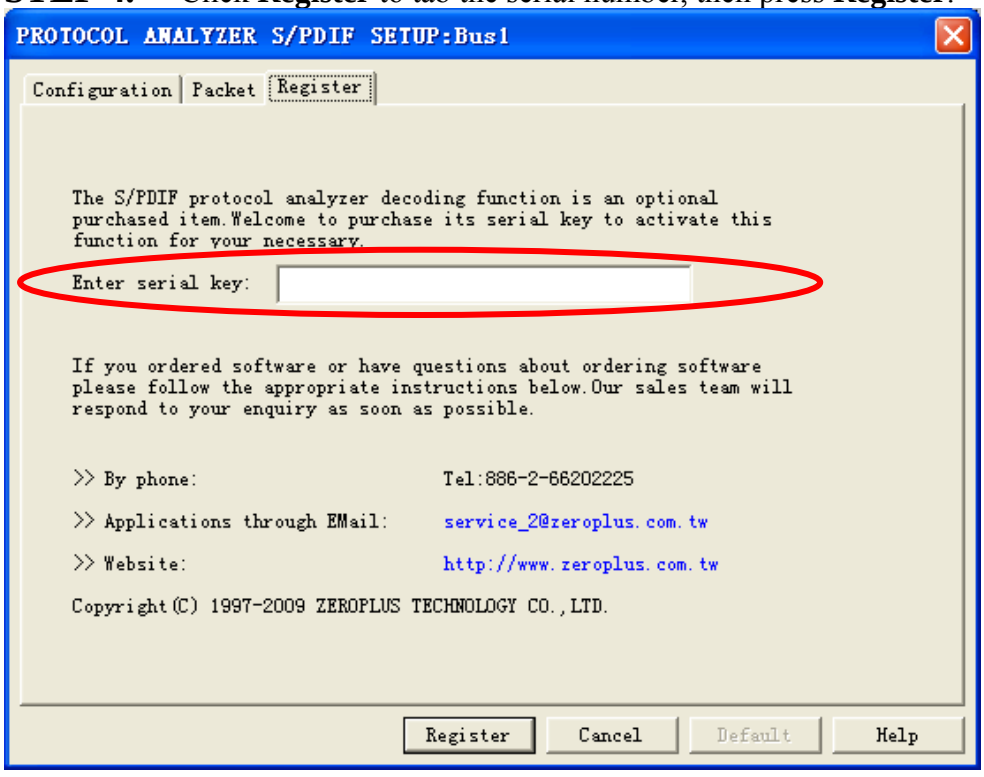
STEP 3. Click Protocol Analyzer and choose **ZEROPLUS LA S/PDIF MODULE V1.20.01**, then click **Parameters Configuration.**



STEP 4. Click **Register** to tab the serial number, then press **Register**.



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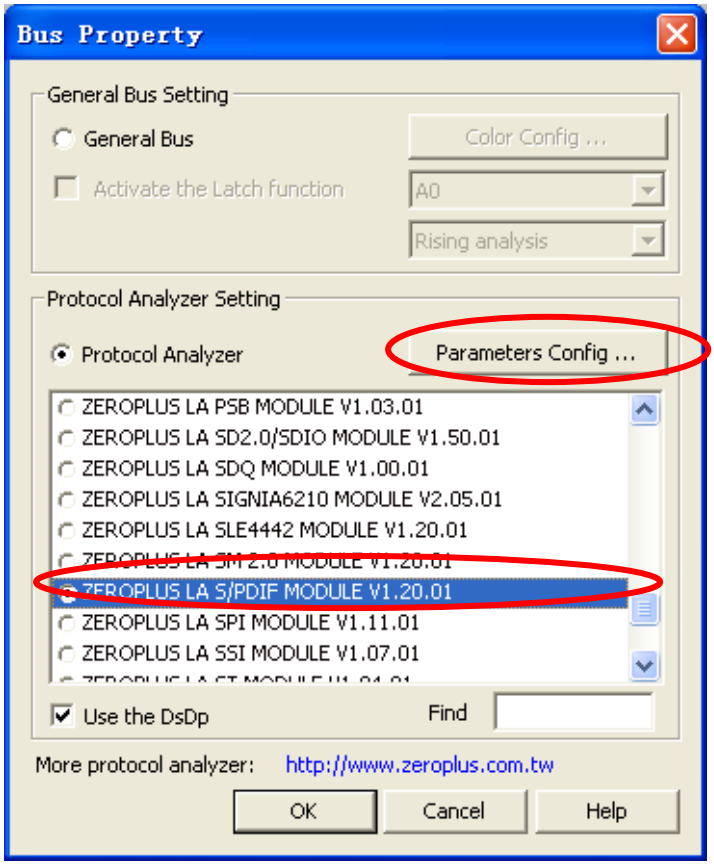
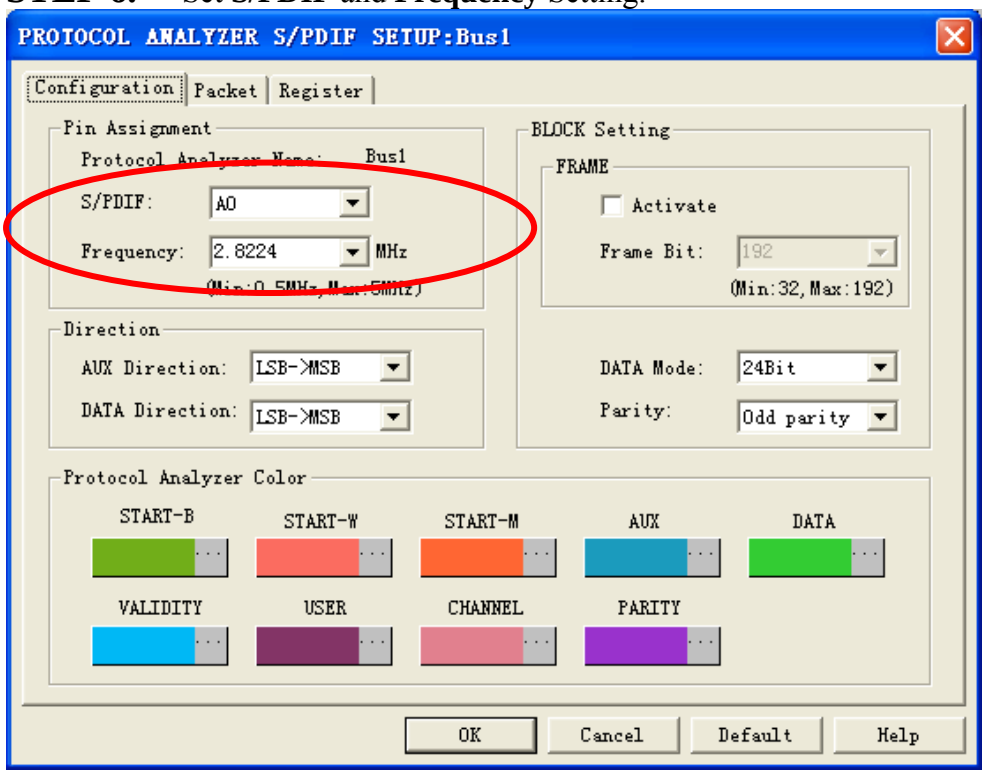
STEP 5. After completing register, click **Parameters Configuration** and set **Protocol Analyzer S/PDIF**.



STEP 6. Set **S/PDIF** and **Frequency** Setting.



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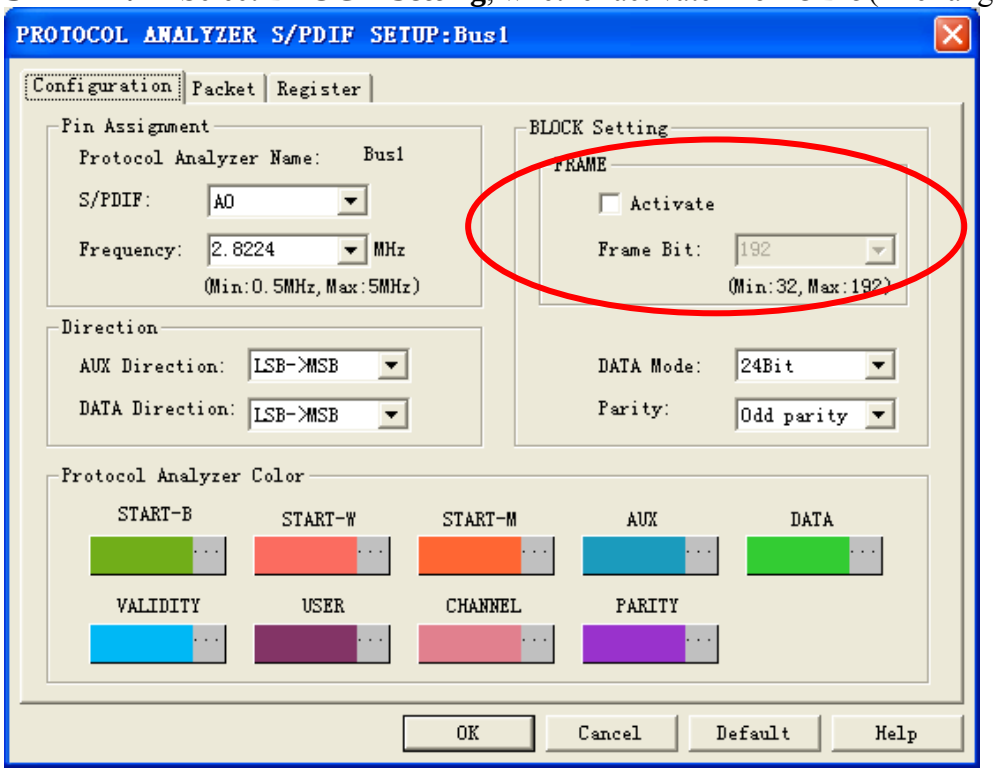
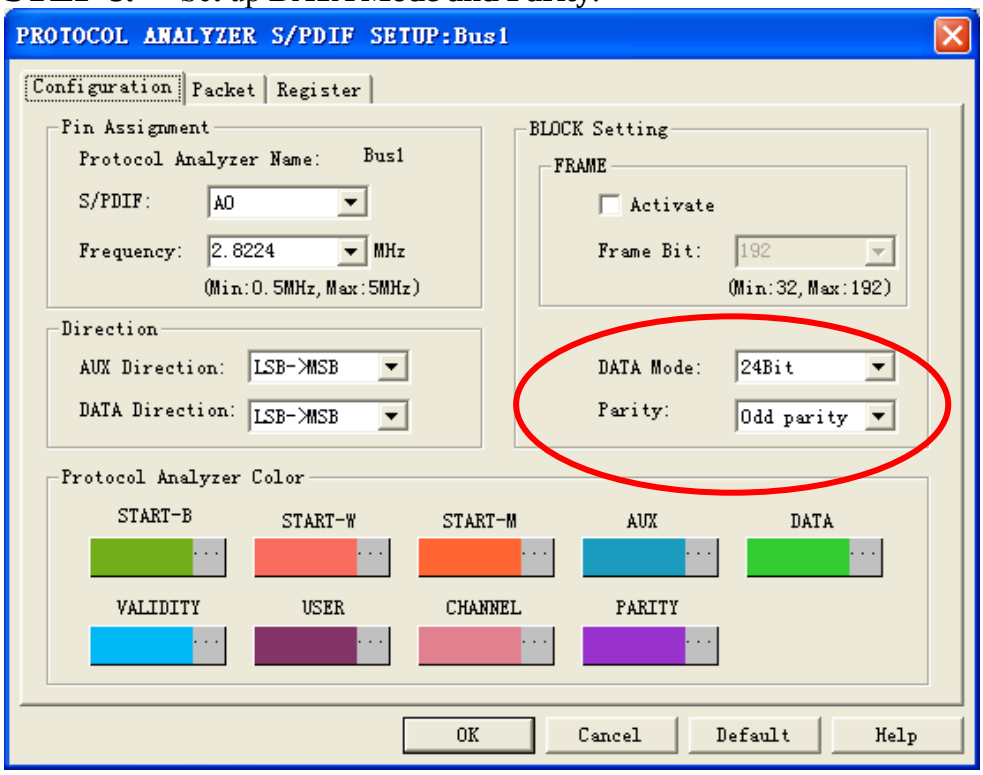
STEP 7. Select **BLOCK Setting**, whether activate **Frame Bit** (The range is from 32 to192).



STEP 8. Set up **DATA Mode and Parity**.



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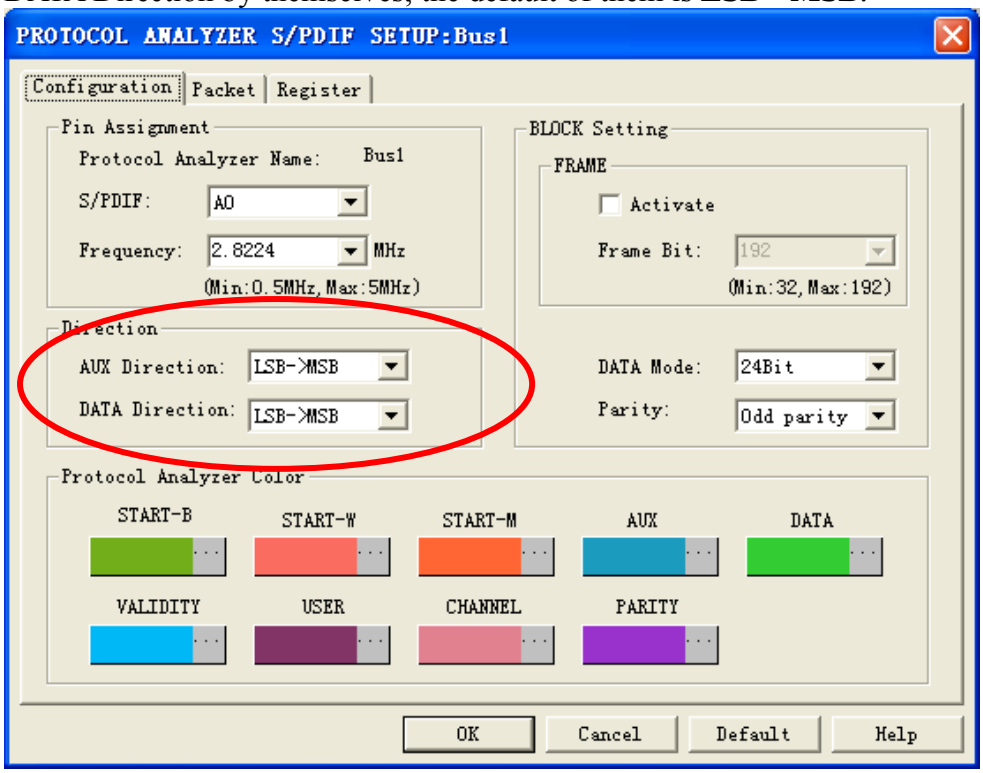
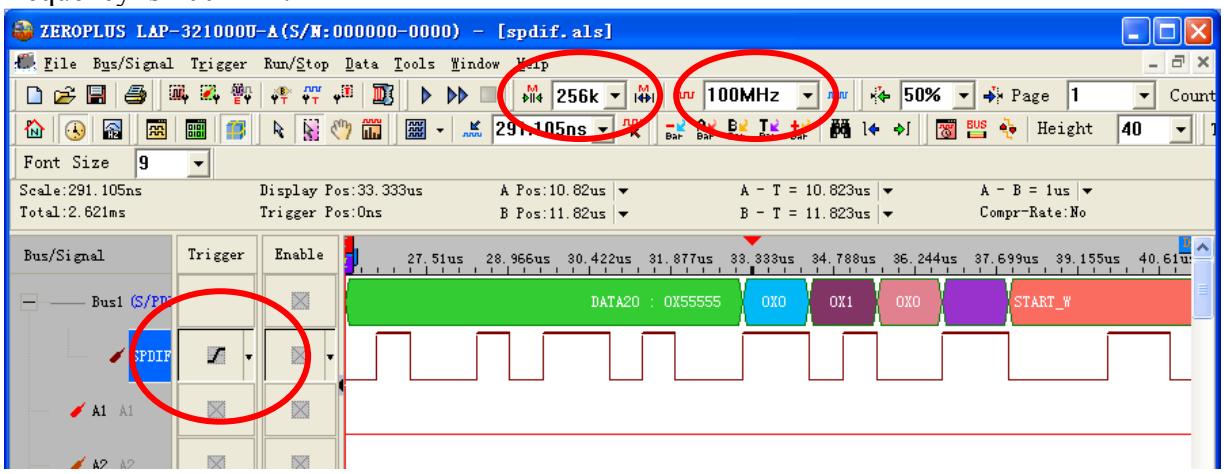
STEP 9. As to the aspect of the data setting, users can set AUX Direction and DATA Direction by themselves; the default of them is **LSB->MSB**.



STEP 10. Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is Rising Edge; the memory depth is 256K; the sampling frequency is 100MHz.



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The below picture is the waveform display with the packet list.