



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

SPECIFICATION

MODEL: MICROWIRE Specification

PART NO : 011 _____

VERSION : V1.06 _____

Approver		Check	Design
GM	PM		

Customer Confirm

* Please fax the file to
ZeroPlus Technology after
signing .

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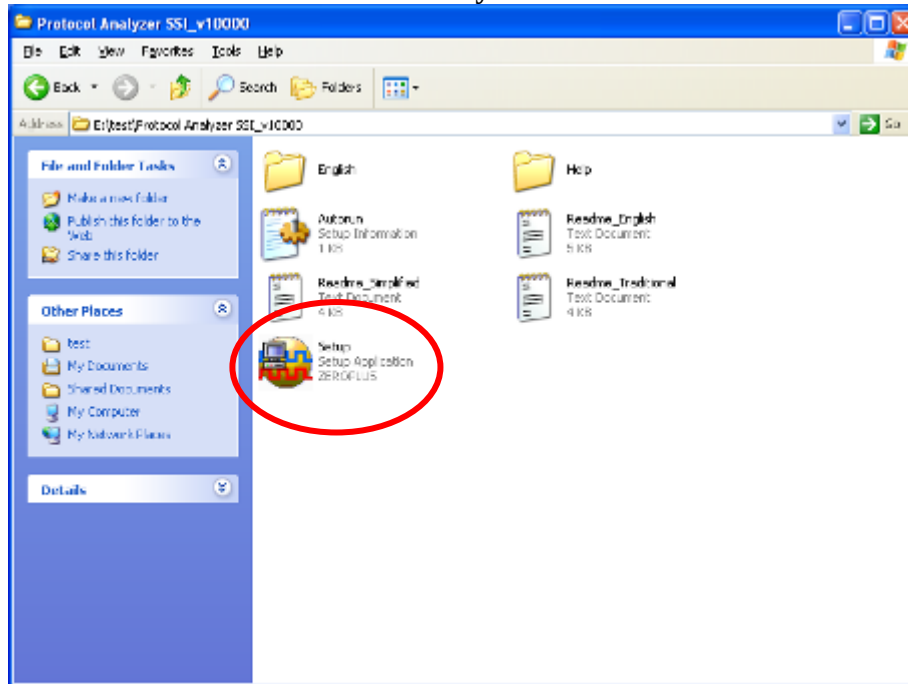


1 Software Installation

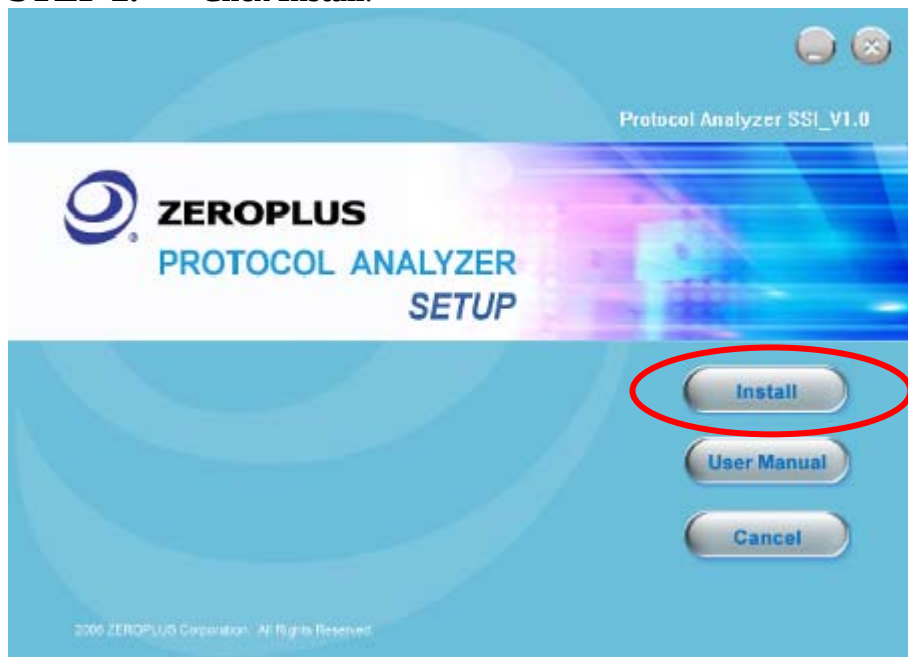
Please install the software as the following steps:

- ※ 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.

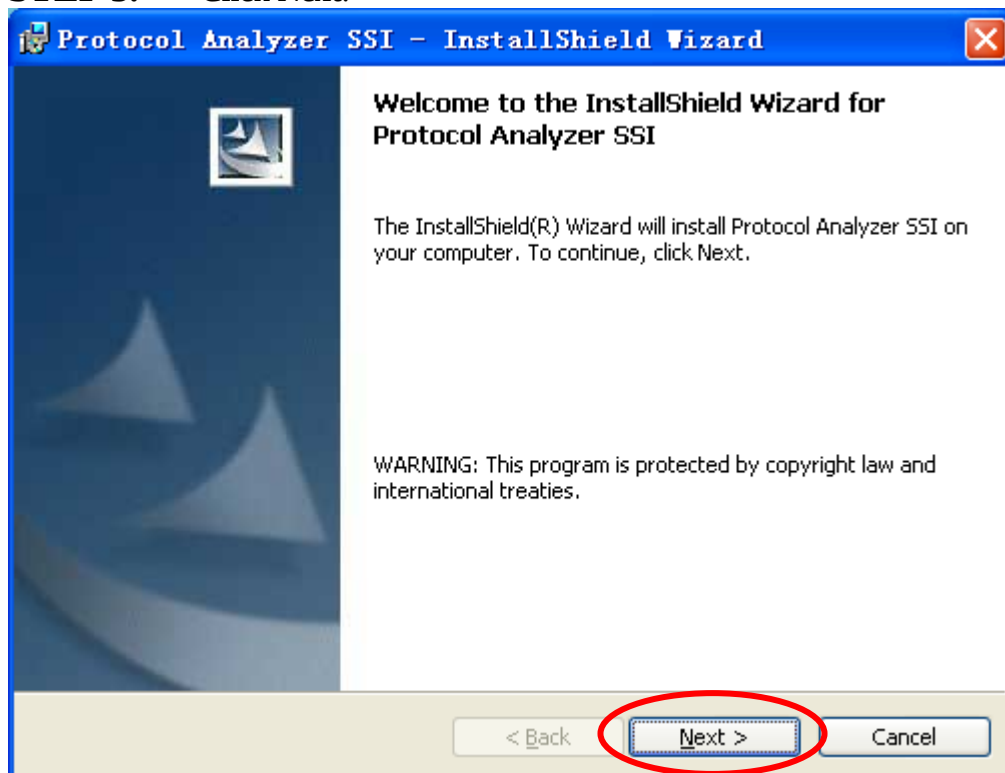


STEP 2. Click Install.

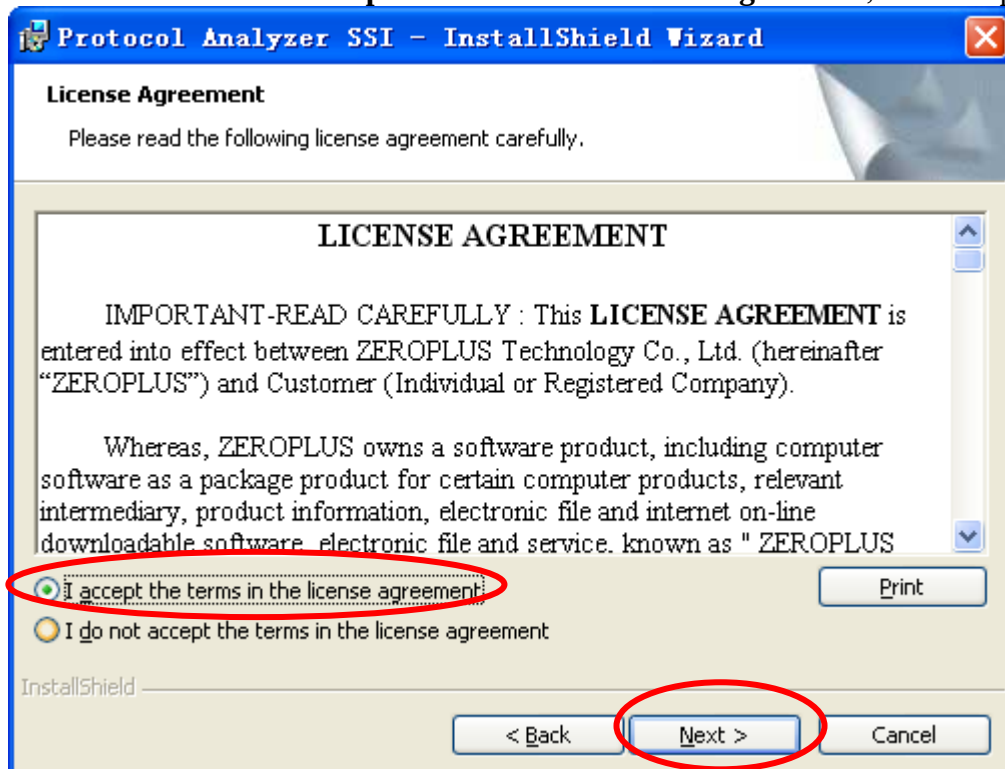




STEP 3. Click Next.



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**.

Protocol Analyzer SSI - InstallShield Wizard

Customer Information

Please enter your information.

User Name:
sunshine

Organization:
zeroplus

Install this application for:

☒ Anyone who uses this computer (all users)

☐ Only for me (sunshine)

InstallShield

< Back Next > Cancel

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

Protocol Analyzer SSI - InstallShield Wizard

Setup Type

Choose the setup type that best suits your needs.

Please select a setup type.

☒ **Complete**

 All program features will be installed. (Requires the most disk space.)

☐ **Custom**

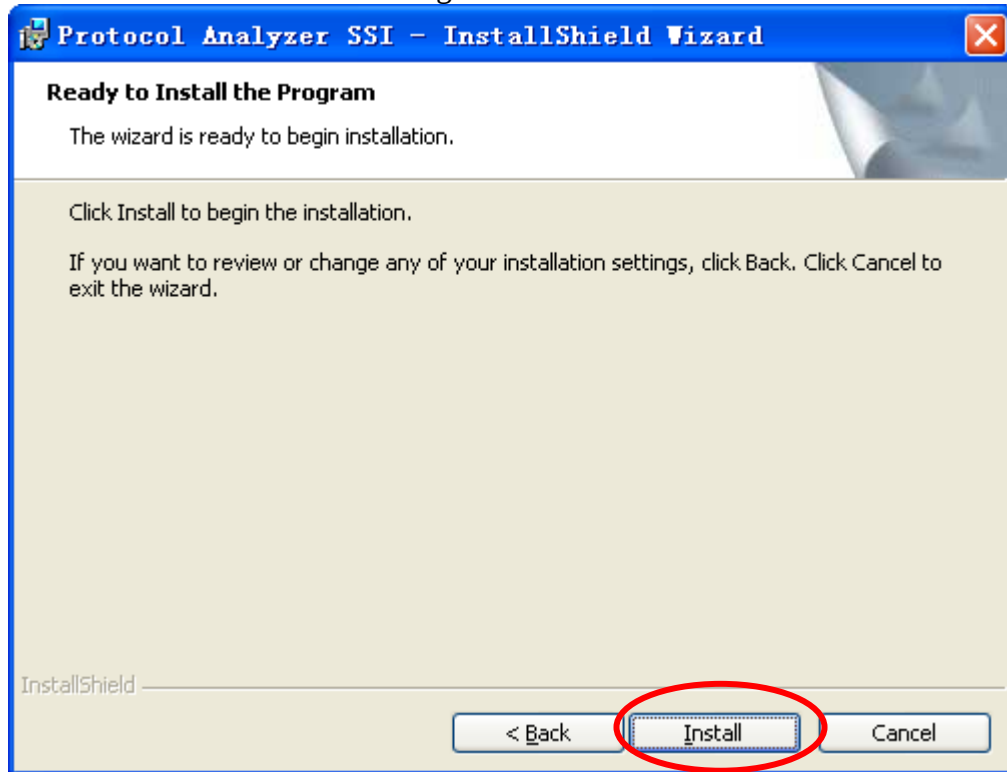
 Choose which program features you want installed and where they will be installed. Recommended for advanced users.

InstallShield

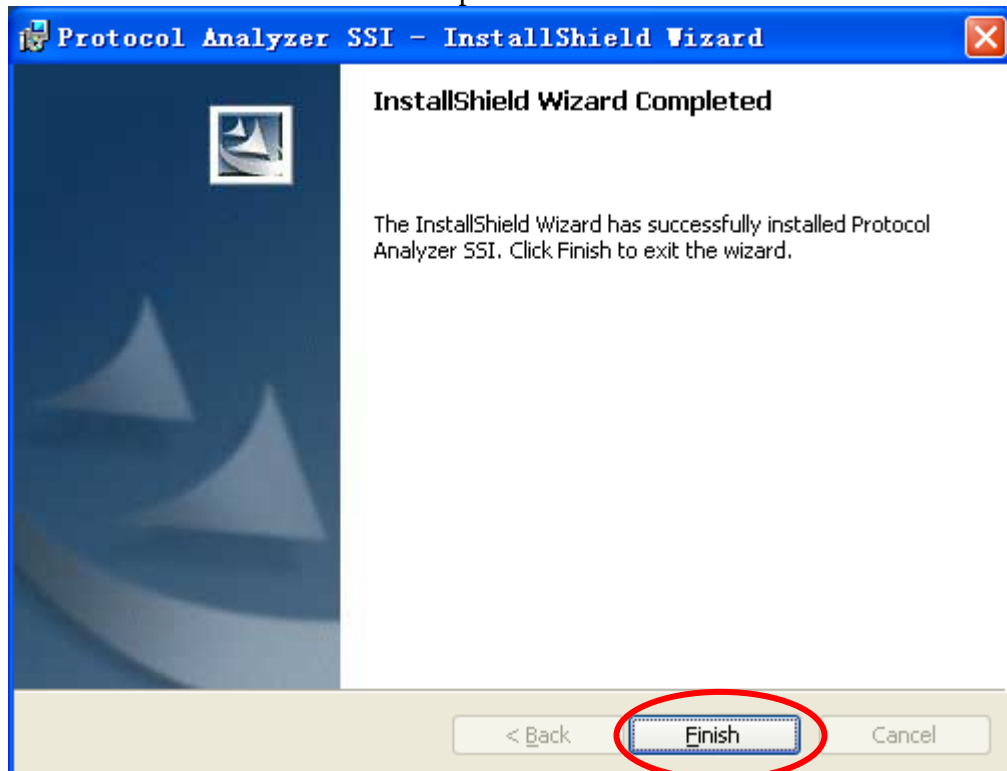
< Back Next > Cancel



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



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

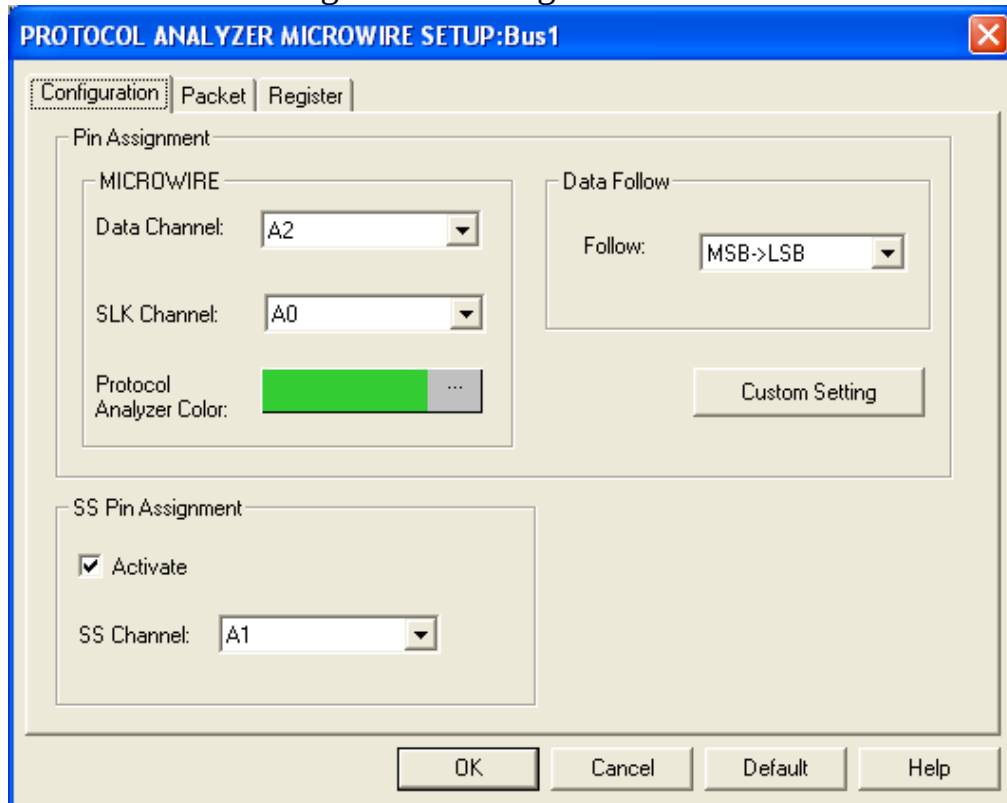




2 User Interface

Please refer to below images to select options for setting **MICROWIRE**.

MICROWIRE Configuration Dialog Box



MICROWIRE Pin Assignment:

SLK Channel: The default is A0.

Data Channel: The default is A2.

SS Pin Assignment: Select SS Channel; the default is A1.

Data Follow:

The default is MSB->LSB; LSB->MSB also can be selected.

Protocol Analyzer Color

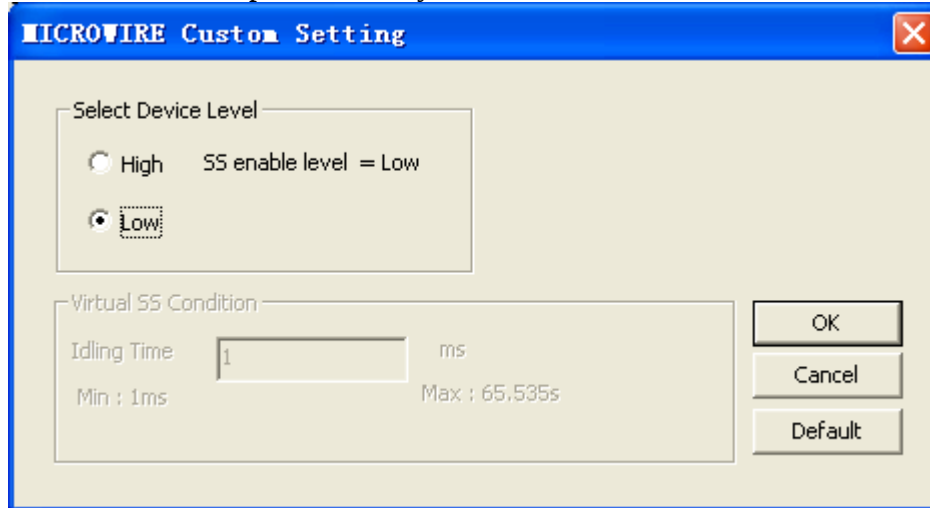
The default color is Green.



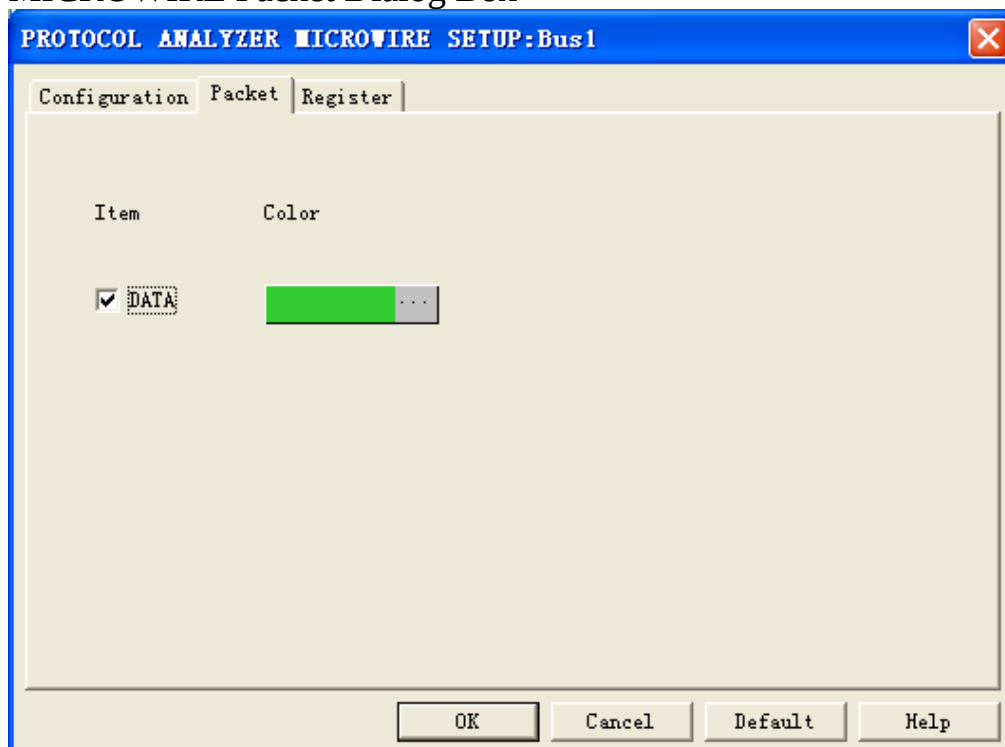
Custom Setting

Differences between the definition and SPI are that it is unnecessary to identify a bit due to the uncertain MICROWIRE bits. All bits can be decoded. Users can define the value according to their own requirements.

Moreover, the virtual SS protocol analyzer can proceed decoding issues caused from the reason without SS protocol analyzer.



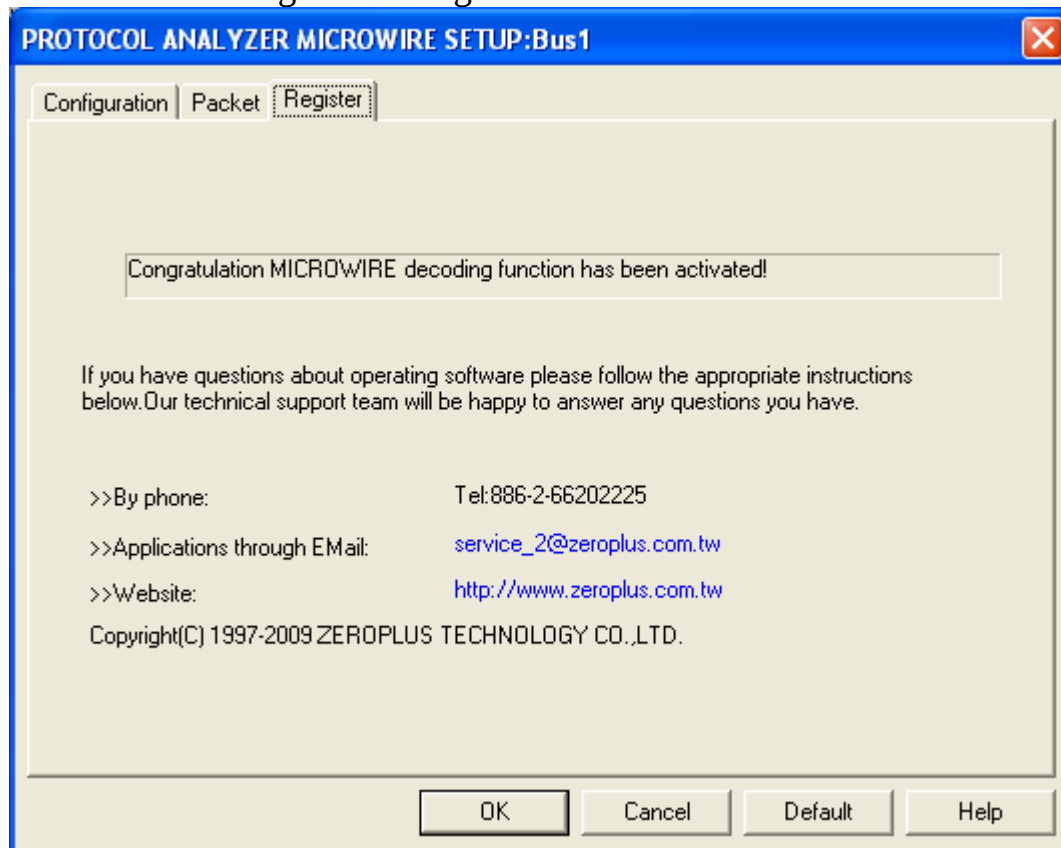
MICROWIRE Packet Dialog Box



In the packet part, users can vary the packet color.



MICROWIRE Register Dialog Box

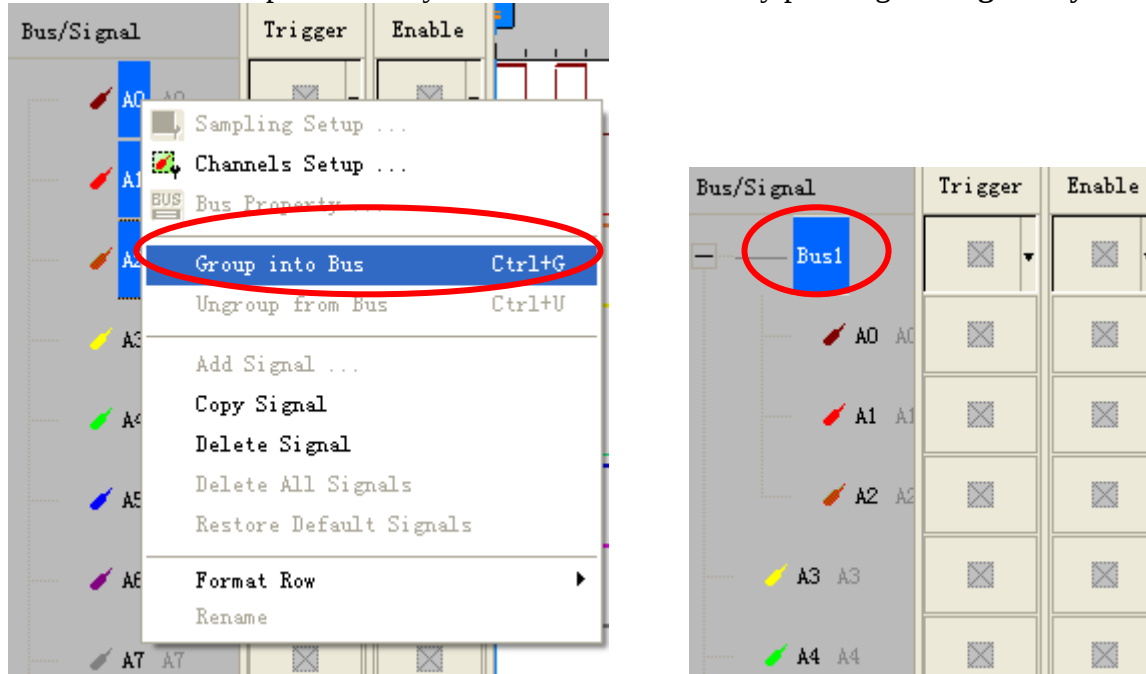


There is ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

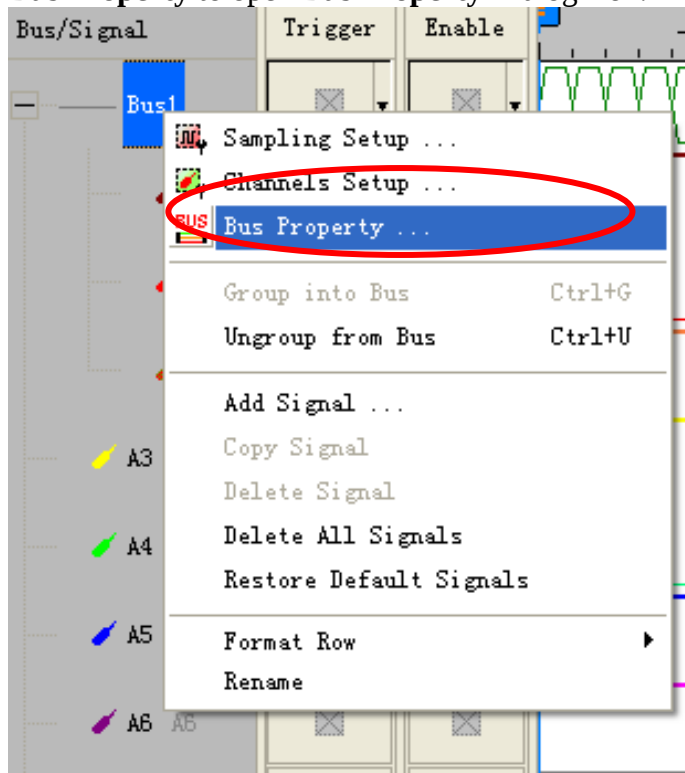


3 Operating Instructions

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse.

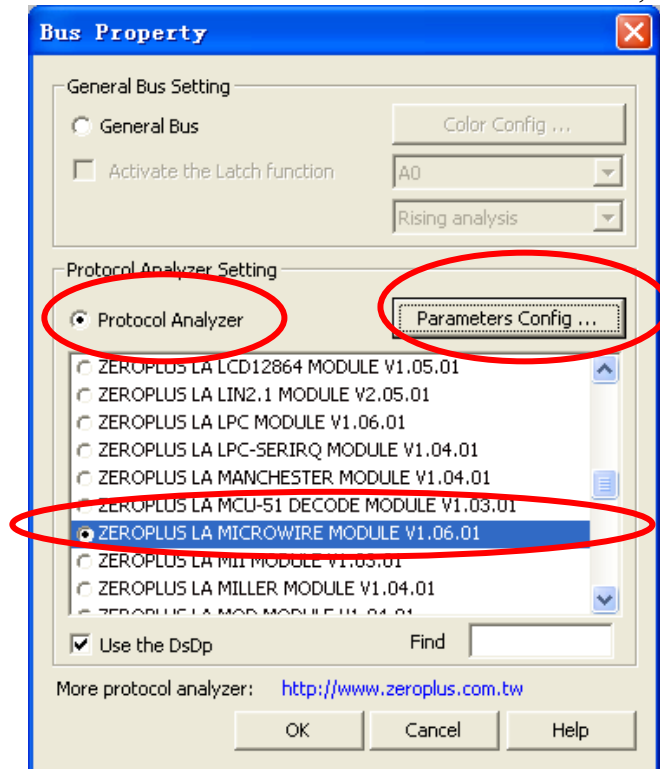


STEP 2. Select **Bus 1**, then, press **Right Key** on the mouse to list the menu. Next, click **Bus Property** to open **Bus Property** Dialog Box.

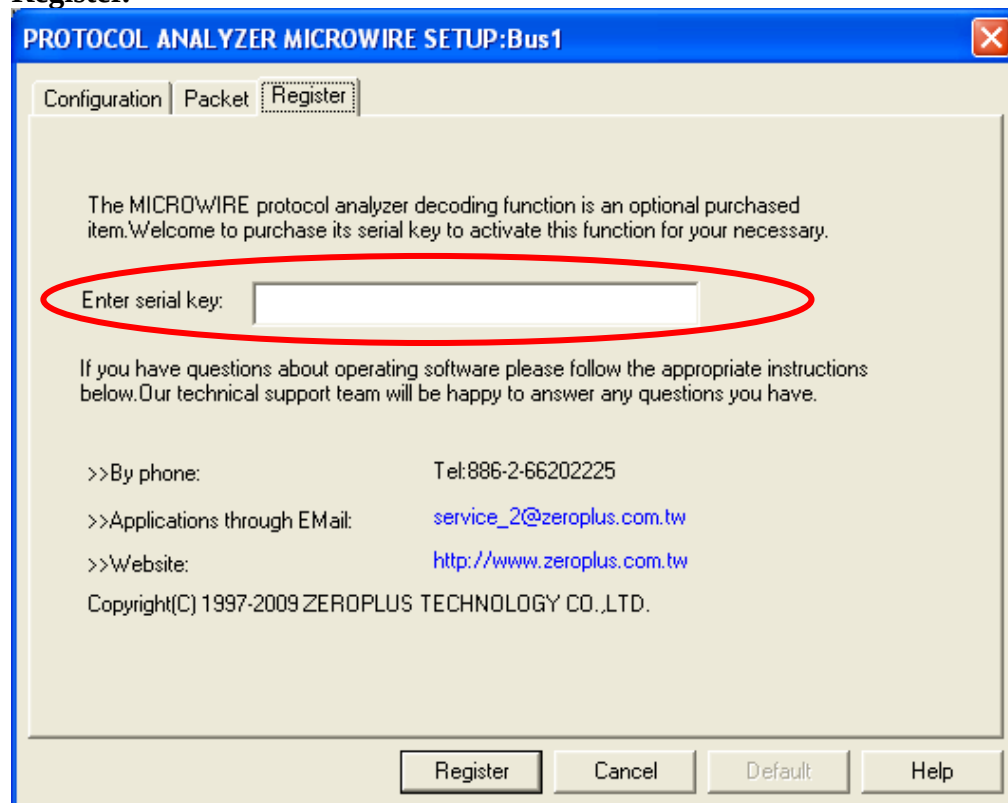




STEP 3. For Protocol Analyzer Setting, select Protocol Analyzer, then select **ZEROPLUS LA MICROWIRE MODULE V1.06.01**. Next, click **Parameters Configuration**.

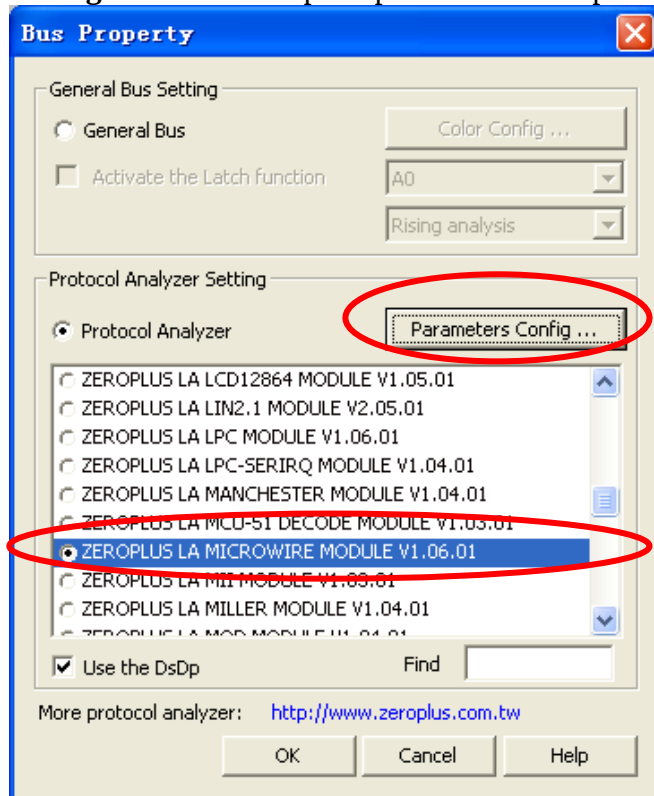


STEP 4. Register information. Key in the serial key number of MICROWIRE. Then, press **Register**.

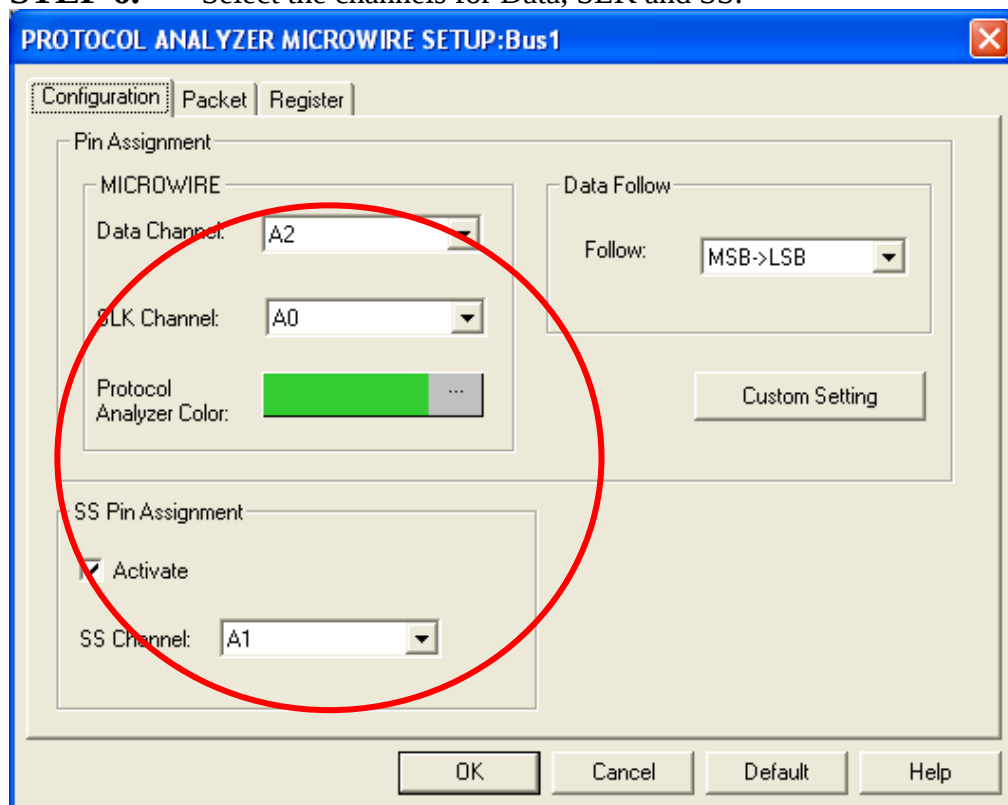




STEP 5. After completing it, turn to Bus Property dialogue box. Click **Parameters Configuration** to set up the parameter of the protocol analyzer.

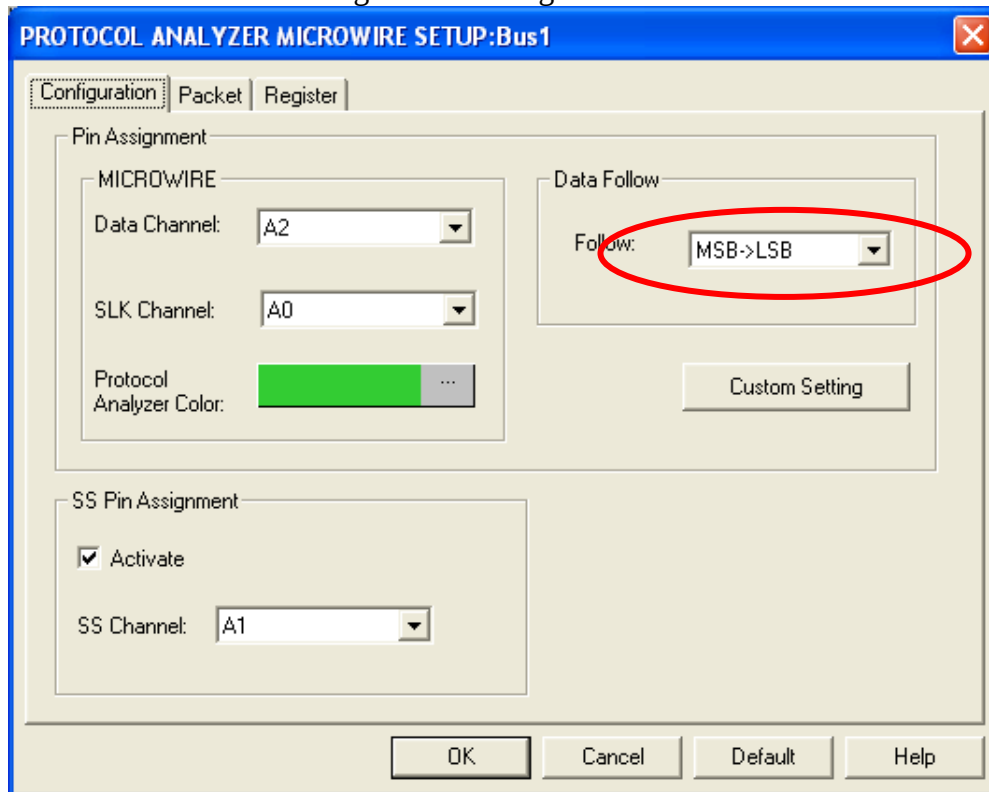


STEP 6. Select the channels for Data, SLK and SS.

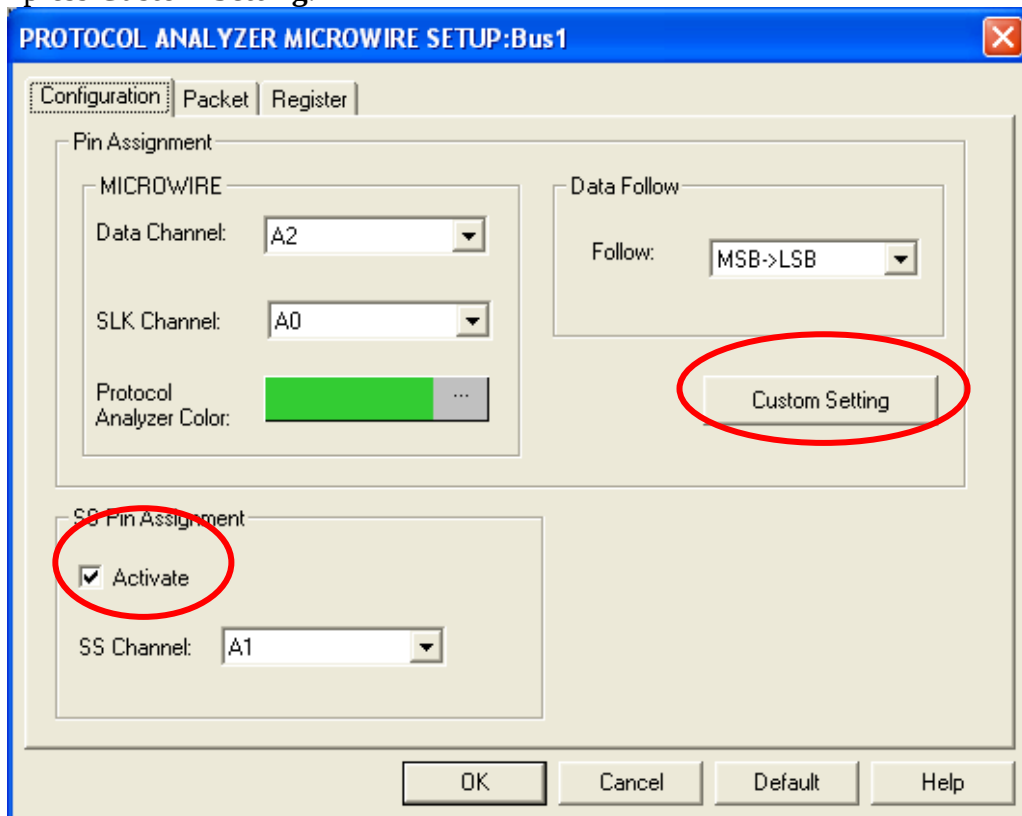




STEP 7. Start decoding after ensuring the follow direction.



STEP 8. When SS Pin Assignment is unnecessary, please do not select **Activate** option. Then, press **Custom Setting**.





STEP 9. Custom Setting. Set Idling Time. We suggest the duration should be longer than CLK. Press **OK** to complete setting.

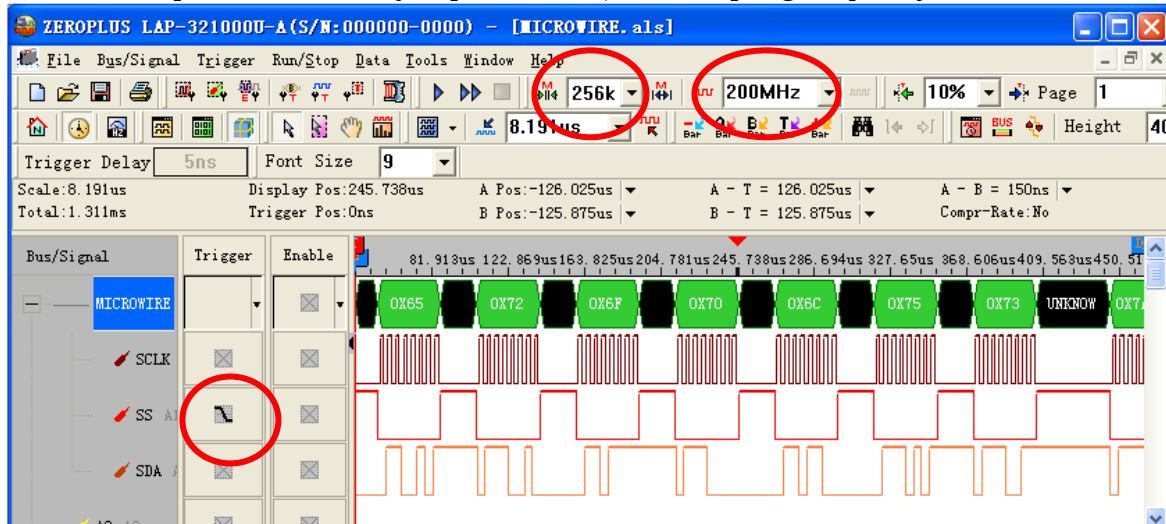
The dialog box is titled "MICROWIRE Custom Setting". It contains two main sections. The first section, "Select Device Level", has two radio buttons: "High" (with "SS enable level = Low" next to it) and "Low". The "Low" button is selected. The second section, "Virtual SS Condition", has a label "Idling Time" followed by a text input field containing "1" and a unit label "ms". Below this, it says "Min : 1ms" and "Max : 65.535s". To the right of these fields are three buttons: "OK", "Cancel", and "Default".

STEP 10. Press **OK** to start decoding.

The dialog box is titled "PROTOCOL ANALYZER MICROWIRE SETUP:Bus1". It has three tabs: "Configuration", "Packet", and "Register". The "Configuration" tab is active. It contains two main sections. The first section, "Pin Assignment", has a sub-section "MICROWIRE" with "Data Channel" set to "A2" and "SLK Channel" set to "A0". Below this is "Protocol Analyzer Color" with a green color swatch and a button "...". To the right is a "Data Follow" section with "Follow" set to "MSB->LSB" and a "Custom Setting" button. The second section, "SS Pin Assignment", has a checked "Activate" checkbox and "SS Channel" set to "A1". At the bottom, there are four buttons: "OK", "Cancel", "Default", and "Help". The "OK" button is circled in red.



STEP 11. Following picture shows the completion of the protocol analyzer decoding. The trigger condition is set as Falling Edge; the memory depth is 256K (If you use LAP-16128 or LAP-32128, please set memory depth as 128K); the sampling frequency is 200MHz.



Following picture shows the waveform display with the packet list.

