



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

SPECIFICATION

MODEL: B10008-LAP-SHT11-M

PART NO: _____

VERSION: V1.00

| Approver | | Check | Design |
|----------|----|-------|--------|
| GM | PM | | |
| | | | |

| Customer Confirm |
|------------------|
| |

*Please fax the file to Zeroplus Technology after signing.

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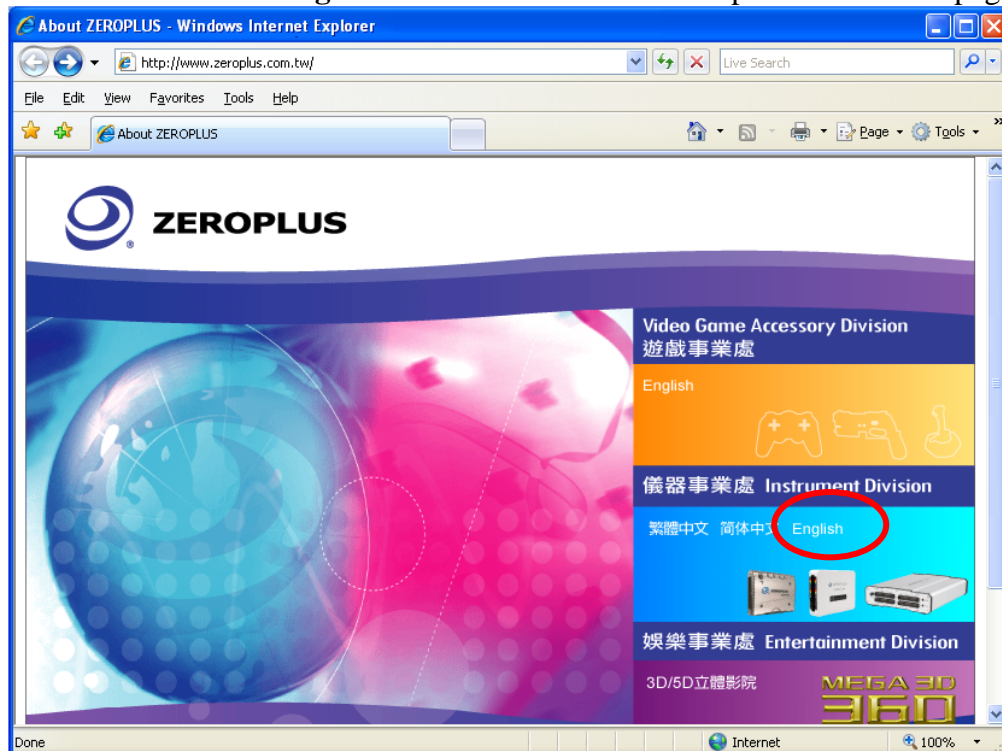
1 Software Download

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.

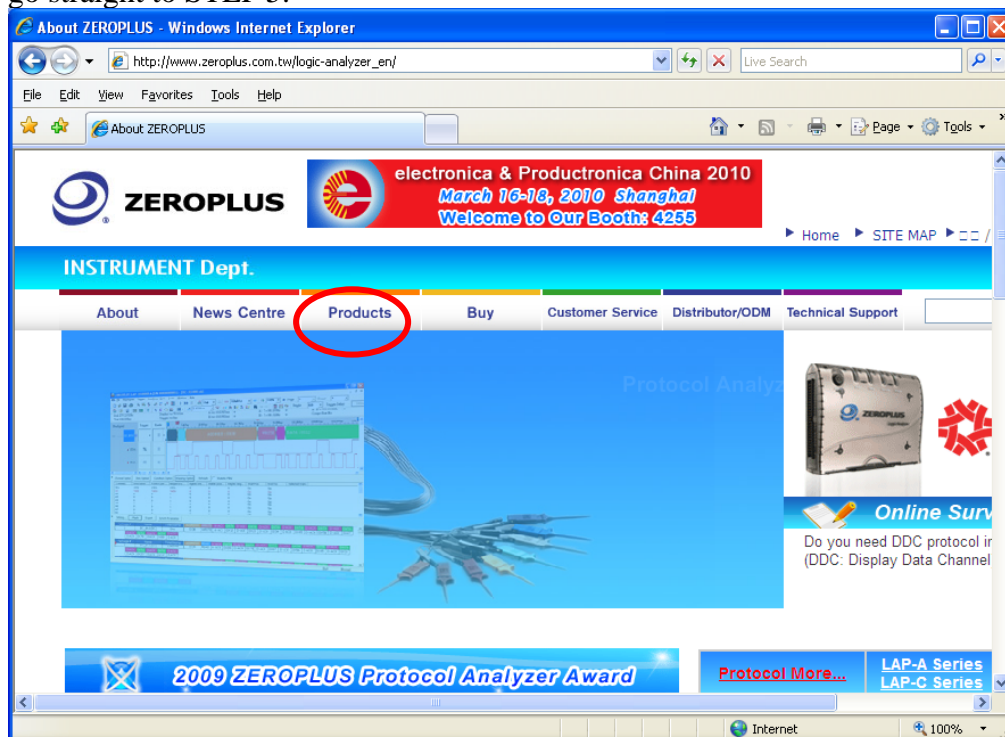
STEP 1. Visit the website of ZeroPlus: <http://www.zeroplus.com.tw>.

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

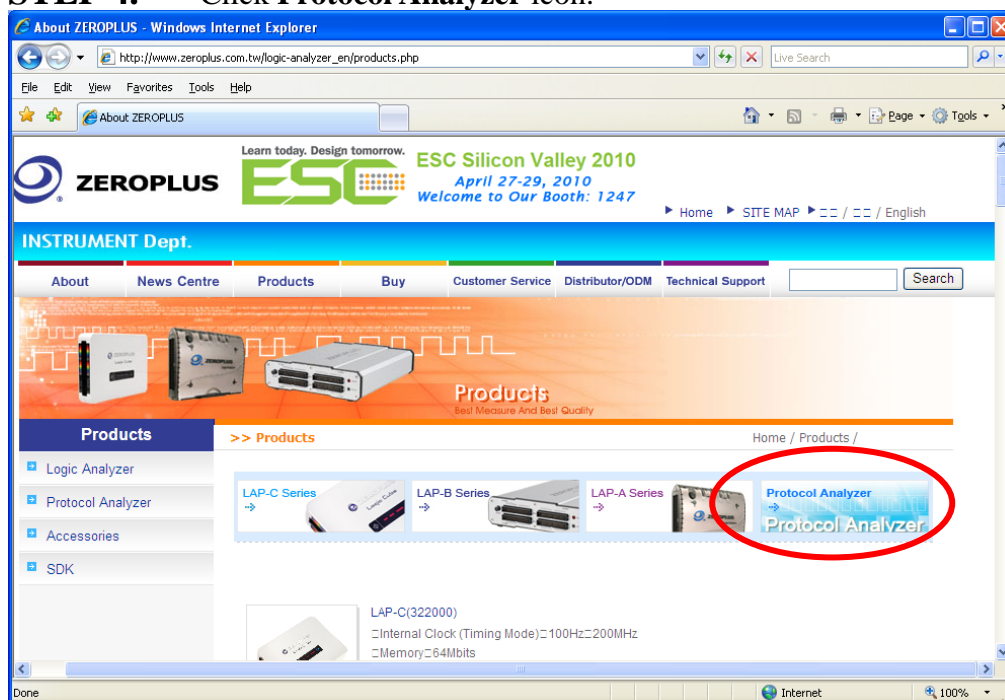




STEP 3. Click **Products** menu or select **Protocol Analyzer** item from its pull-down menu to go straight to STEP 5.

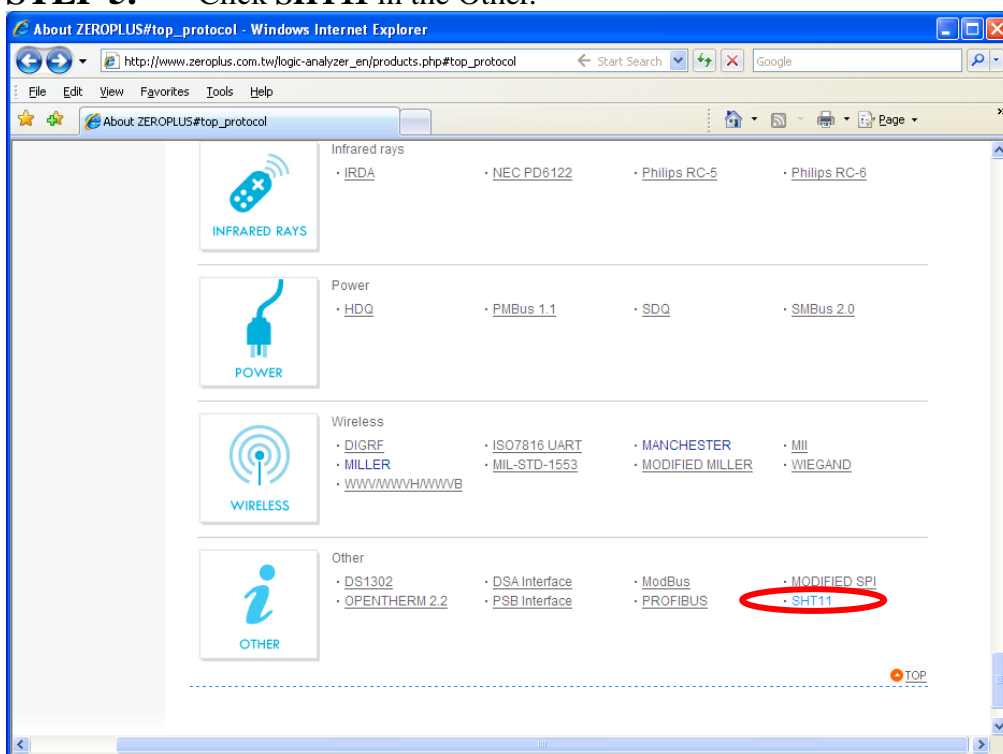


STEP 4. Click **Protocol Analyzer** icon.

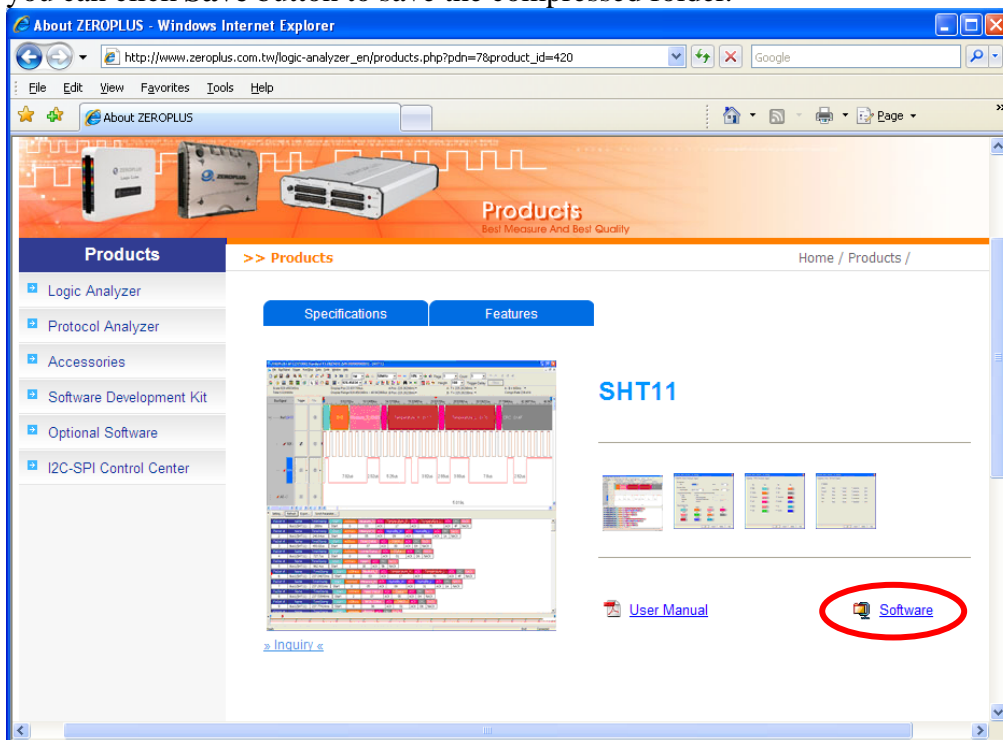




STEP 5. Click **SHT11** in the Other.



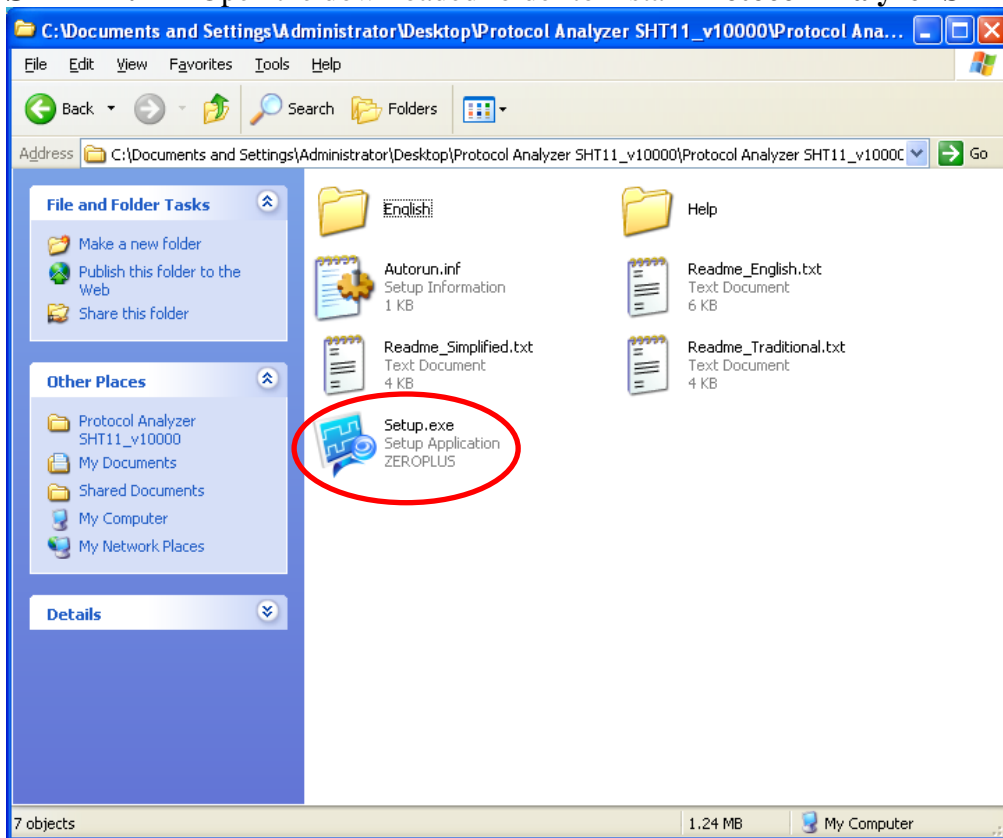
STEP 6. Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed folder.



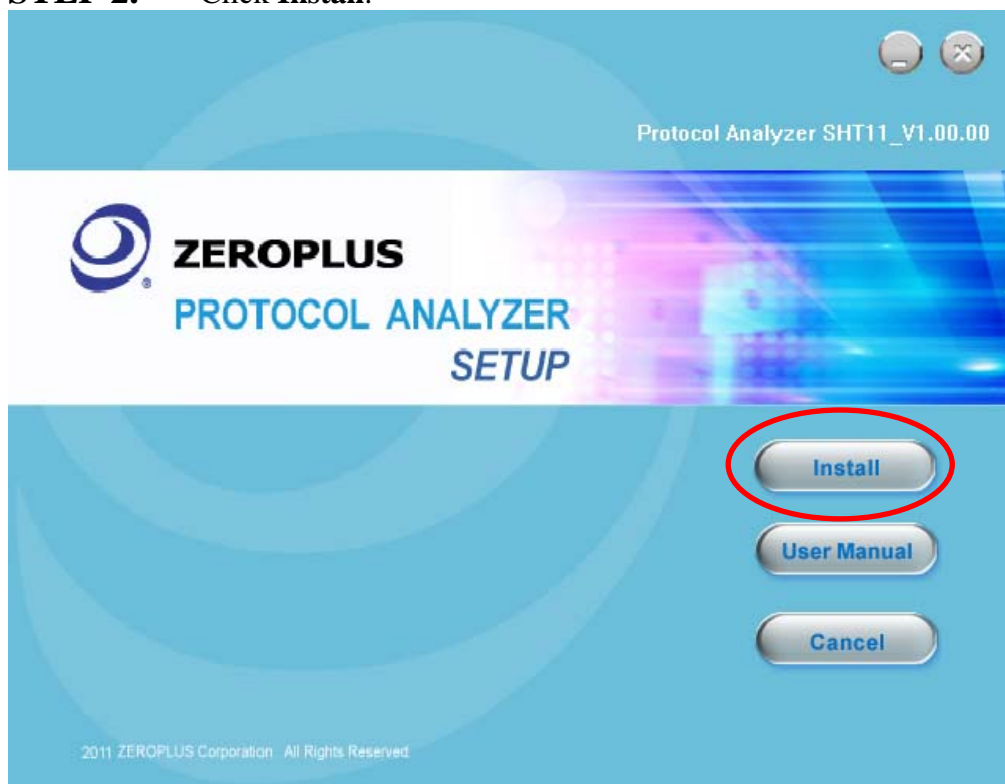


2 Software Installation

STEP 1. Open the downloaded folder to install **Protocol Analyzer SHT11**.

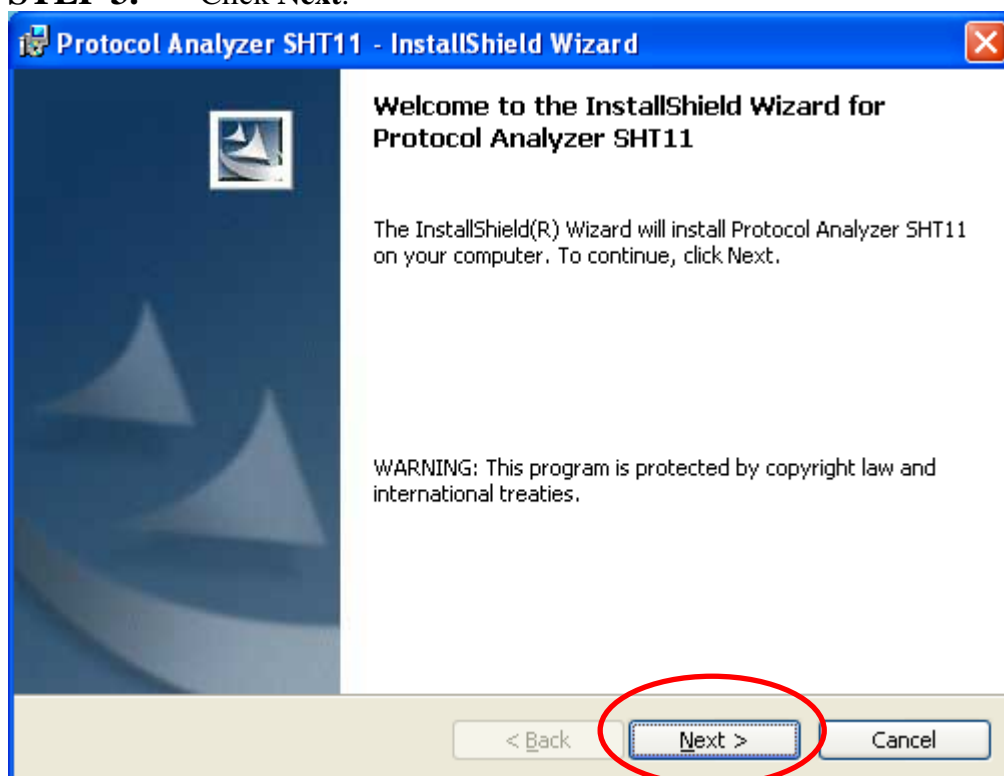


STEP 2. Click **Install**.

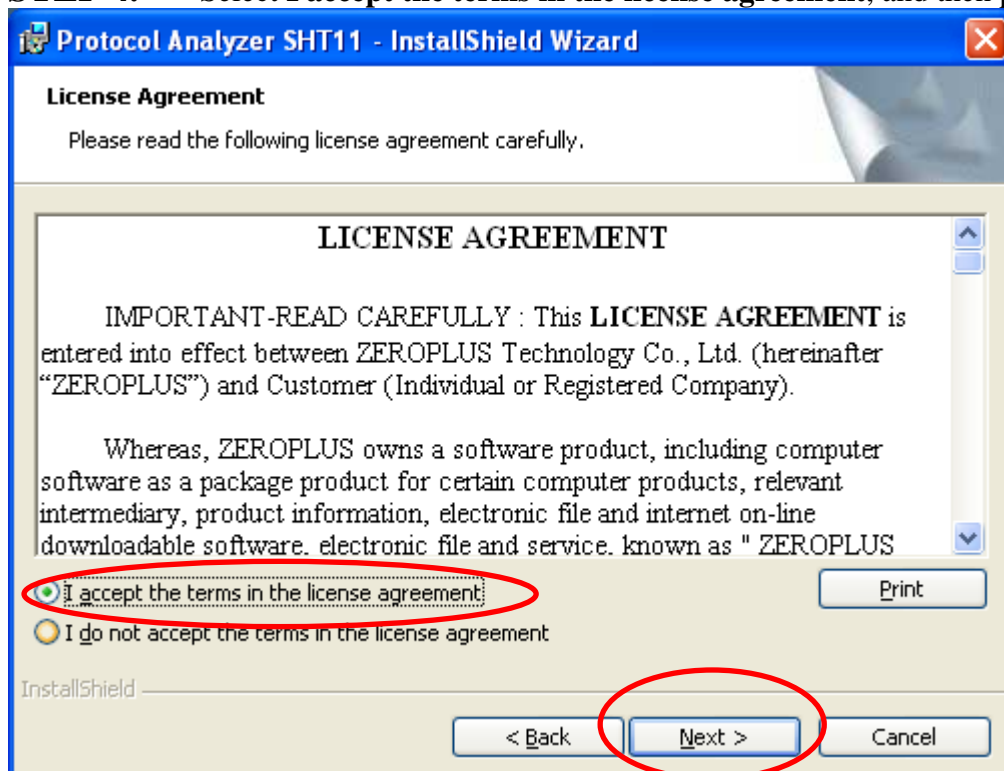




STEP 3. Click Next.



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**.

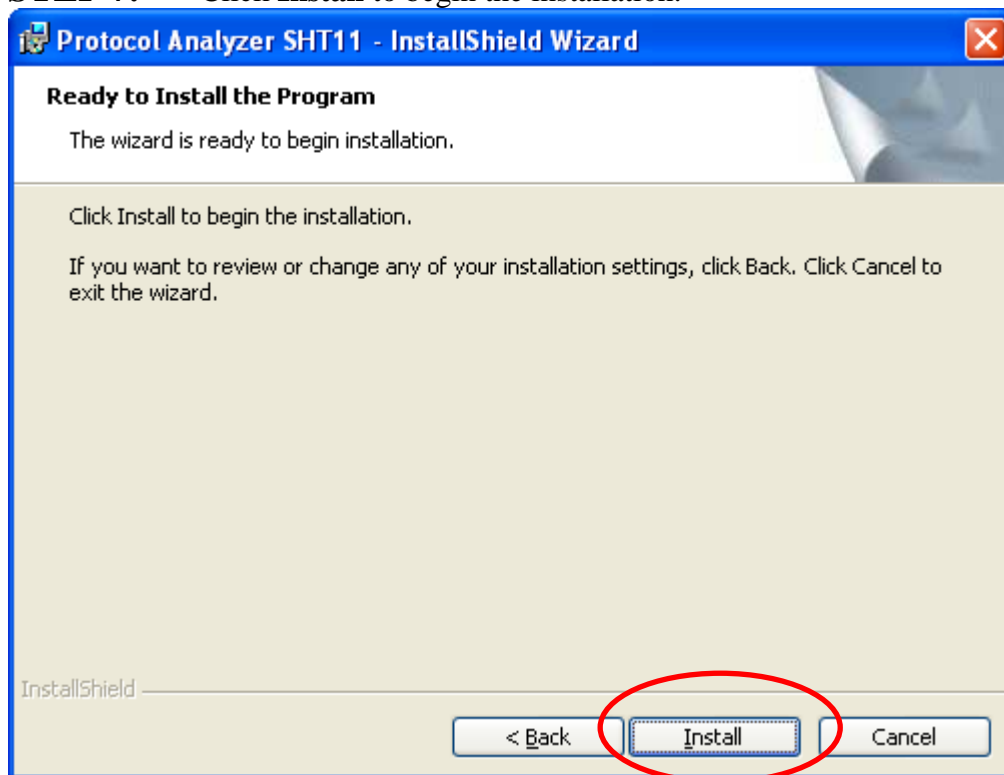
The dialog box is titled "Protocol Analyzer SHT11 - InstallShield Wizard". It has a blue header bar with a close button (X) in the top right corner. The main area is titled "Customer Information" and contains the text "Please enter your information." Below this, there are two text input fields: "User Name:" with "Microsoft" entered, and "Organization:" with "User" entered. Below the input fields, there is a section titled "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 of the dialog, 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. First, select **Complete** and then click **Next**.

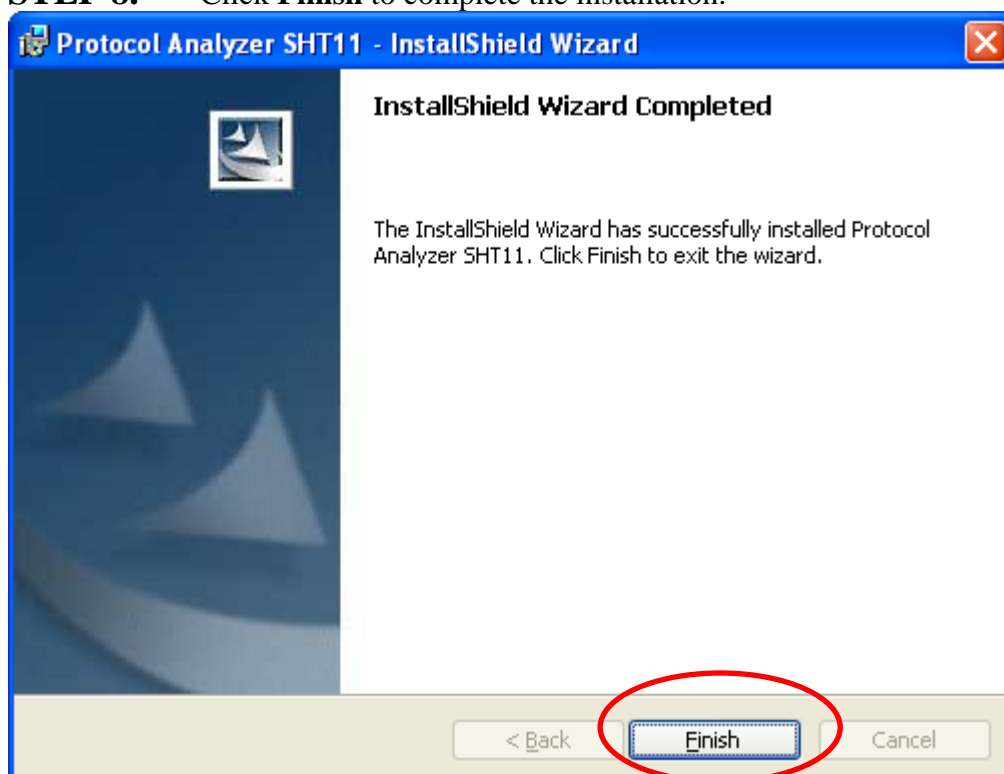
The dialog box is titled "Protocol Analyzer SHT11 - InstallShield Wizard". It has a blue header bar with a close button (X) in the top right corner. The main area is titled "Setup Type" and contains the text "Choose the setup type that best suits your needs." Below this, there is a section titled "Please select a setup type." with two radio button options: "Complete" (which is selected) and "Custom". The "Complete" option has a small icon of a computer with a red 'X' and the text "All program features will be installed. (Requires the most disk space.)". The "Custom" option has a small icon of a computer with a red 'X' and the text "Choose which program features you want installed and where they will be installed. Recommended for advanced users." At the bottom of the dialog, 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.



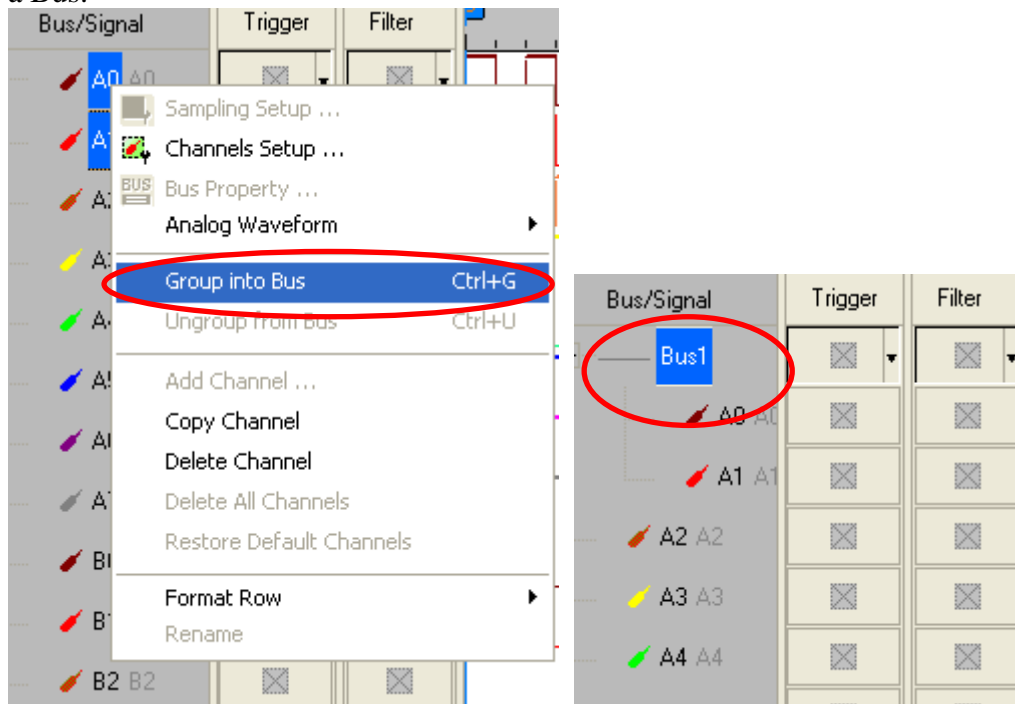
STEP 8. Click **Finish** to complete the installation.



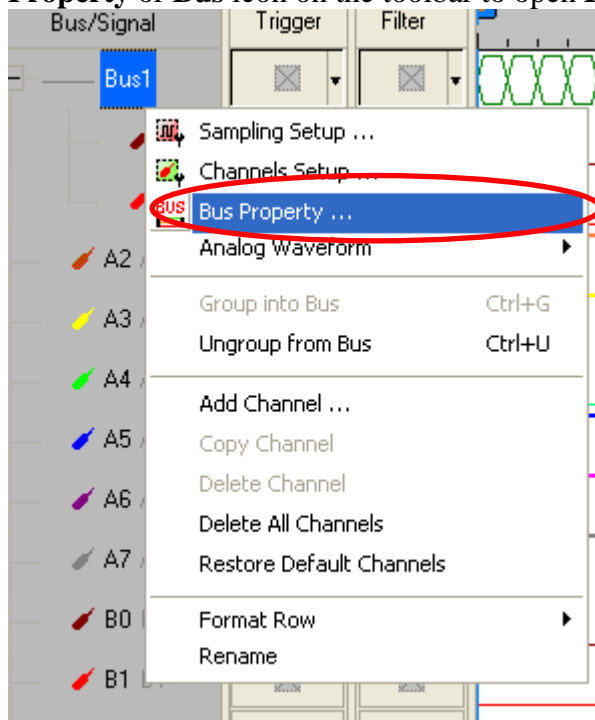


3 Software Register

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. SHT11 needs two channels to decode signals, so it is necessary to group two or more channels into a Bus.

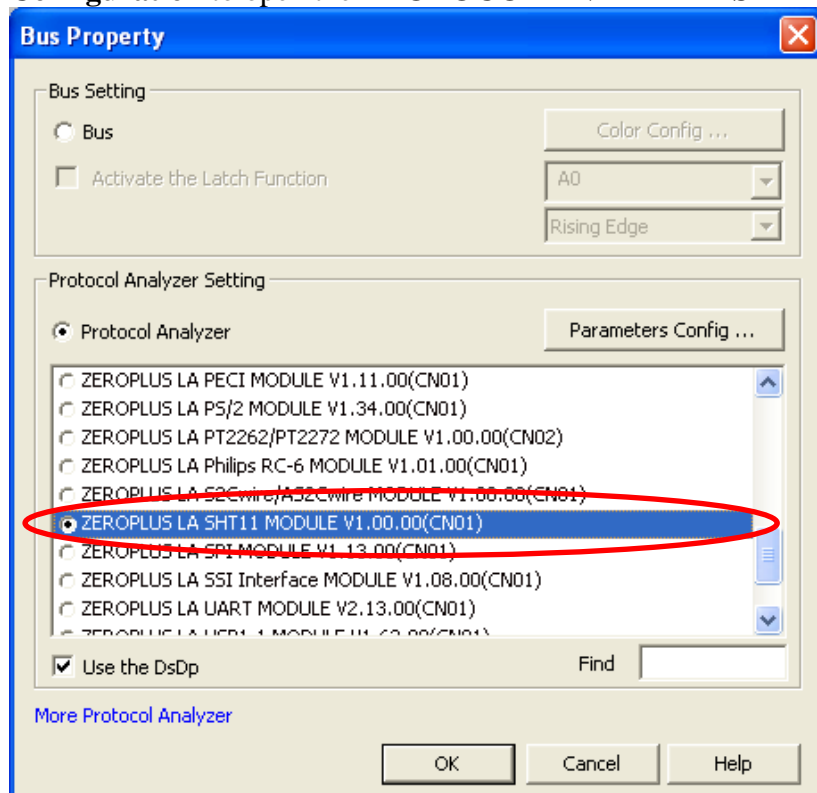


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

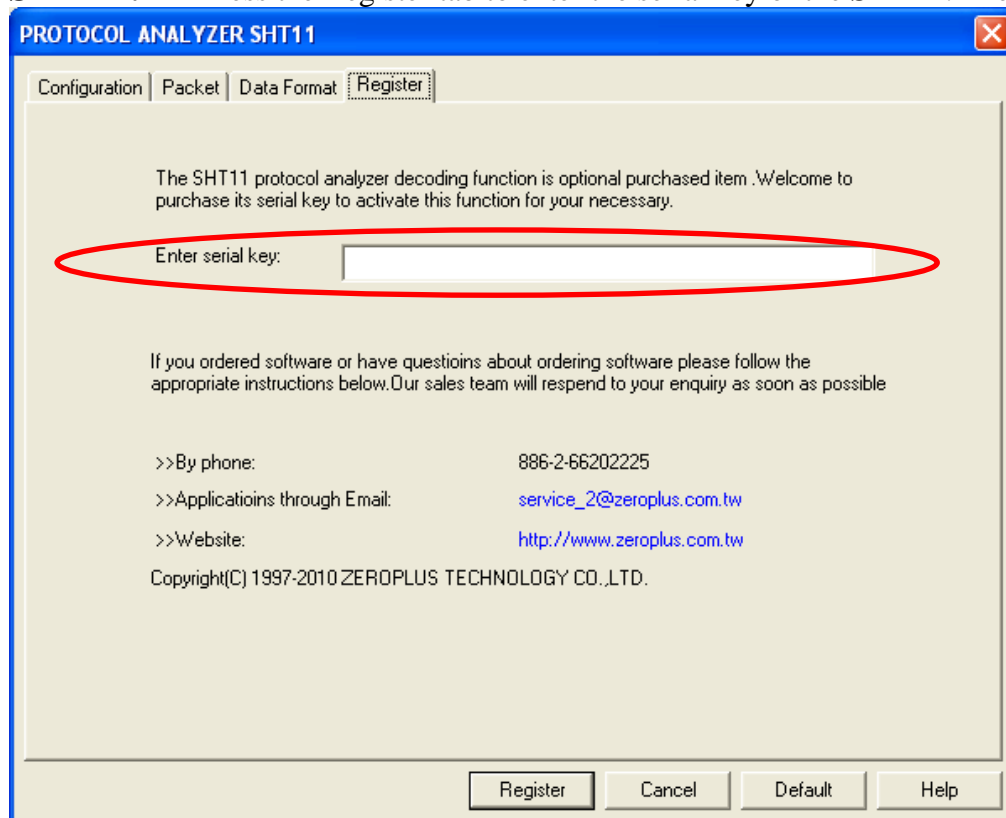




STEP 3. For Protocol Analyzer SHT11 Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA SHT11 MODULE V1.00.00 (CN01)**. Next click **Parameters Configuration** to open the **PROTOCOL ANALYZER SHT11** dialog box.

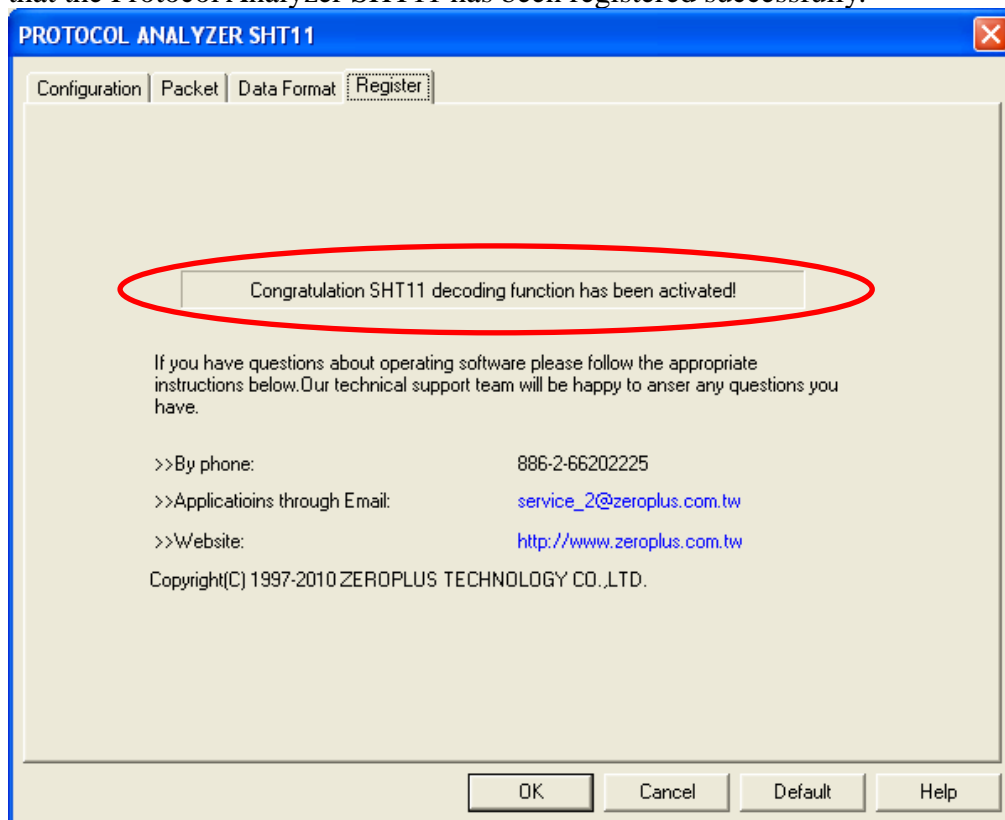


STEP 4. Press the Register tab to enter the serial key of the SHT11. Then, press **Register**.





STEP 5. After pressing the Register button, the following dialog box will appear; it denotes that the Protocol Analyzer SHT11 has been registered successfully.

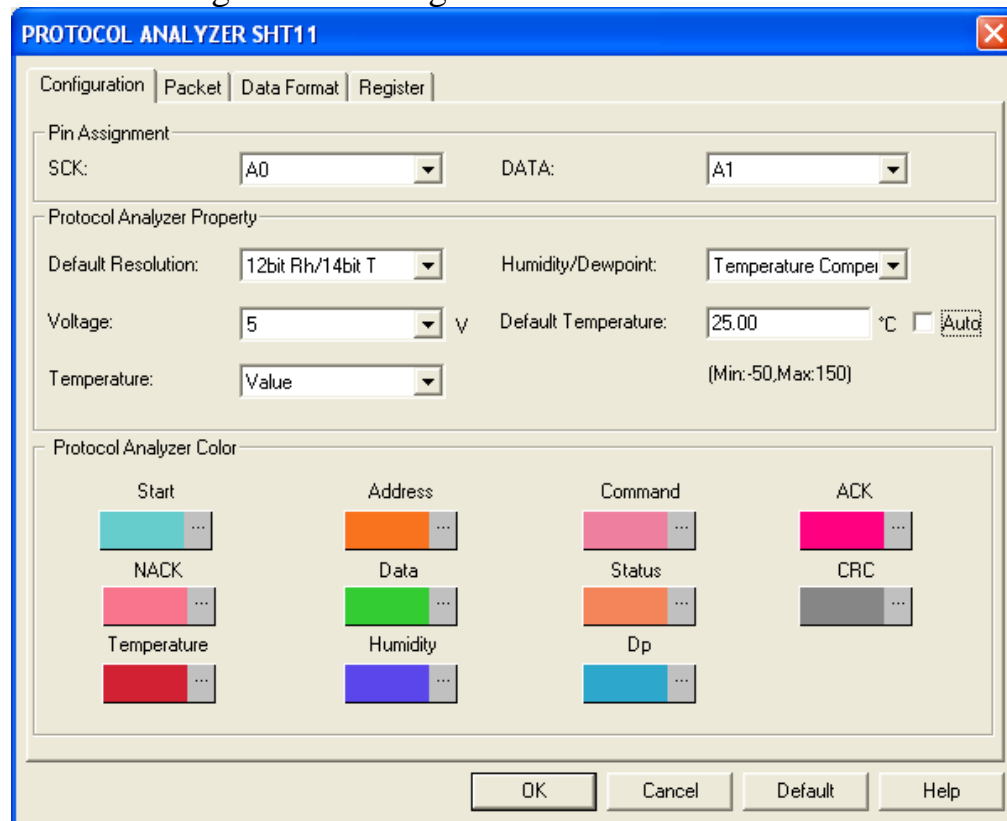




4 User Interface

In the configuration, please refer to below images to select options of SHT11 module.

SHT11 Configuration Dialog Box



Pin Assignment

SHT11 needs two channels to decode signals.

SCK: It is the Clock channel.

DATA: It is the Data channel.

Protocol Analyzer Property

Default Resolution: The Default Resolution can be set as 12bit Rh/14bit T or 8bit Rh/12bit T, and the default is 12bit Rh/14bit T.

Voltage: The Voltage should be selected as the best Working Voltage that can be selected from the options, 2.5, 3, 3.5, 4 and 5; and the default is 5.

Temperature: The Decoding Mode can be selected as Value, Celsius, Fahrenheit and Kelvin, and the default is Value.

Humidity/Dewpoint: The Decoding Mode can be selected as Value, Linear Compensation, Temperature Compensation and Dewpoint, and the default is Value.

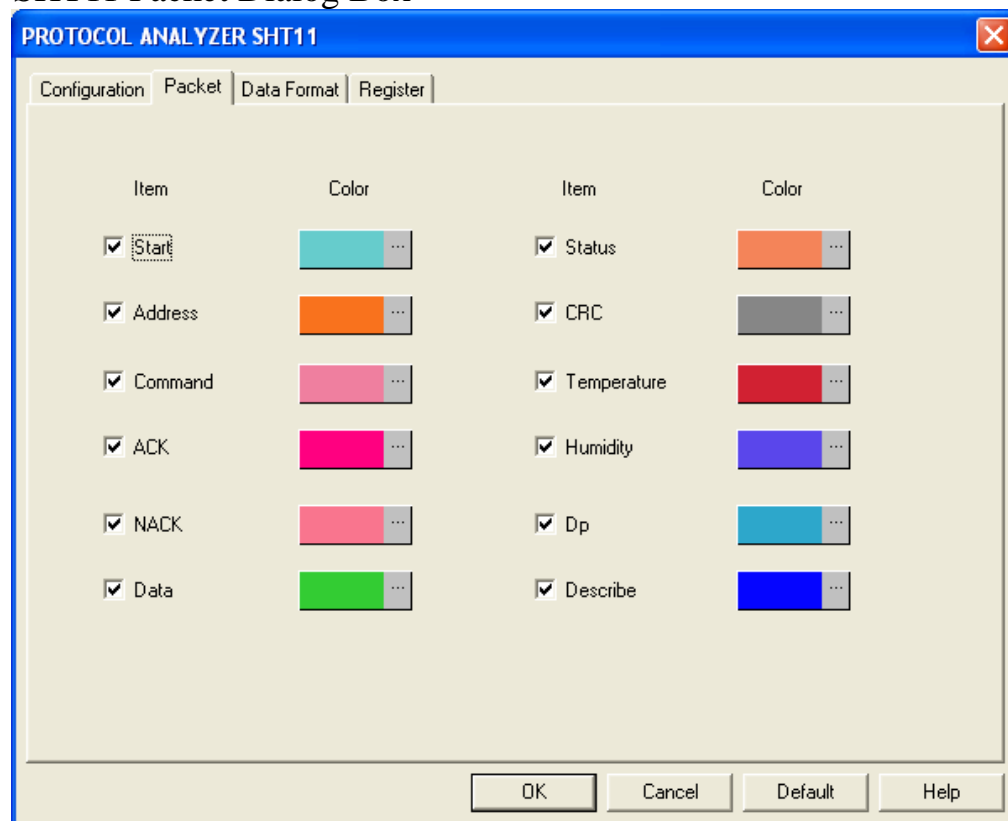
Default Temperature: The Temperature which is used to calculate all Temperature Compensation and the Dewpoint can be entered as the users' requirements or can be Auto according to the decoding. The entered value should be in the range from -50.00 to 150.00, and the default is 25.



Protocol Analyzer Color

Users can vary the colors of the decoded packet.

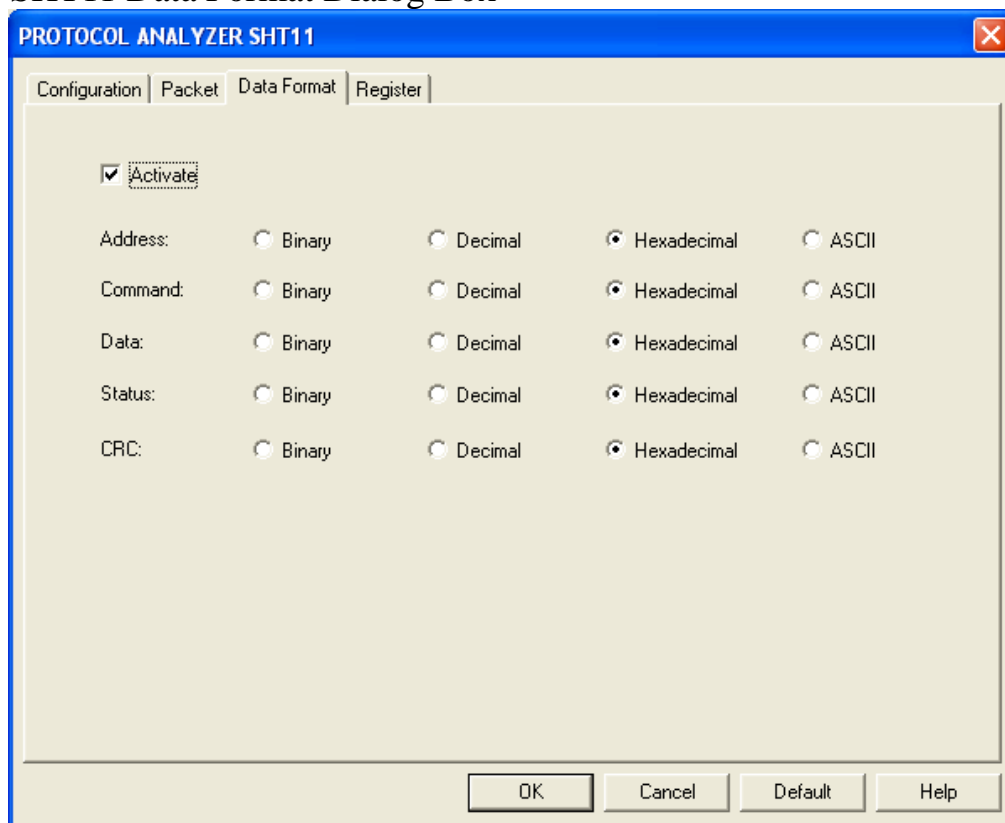
SHT11 Packet Dialog Box



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



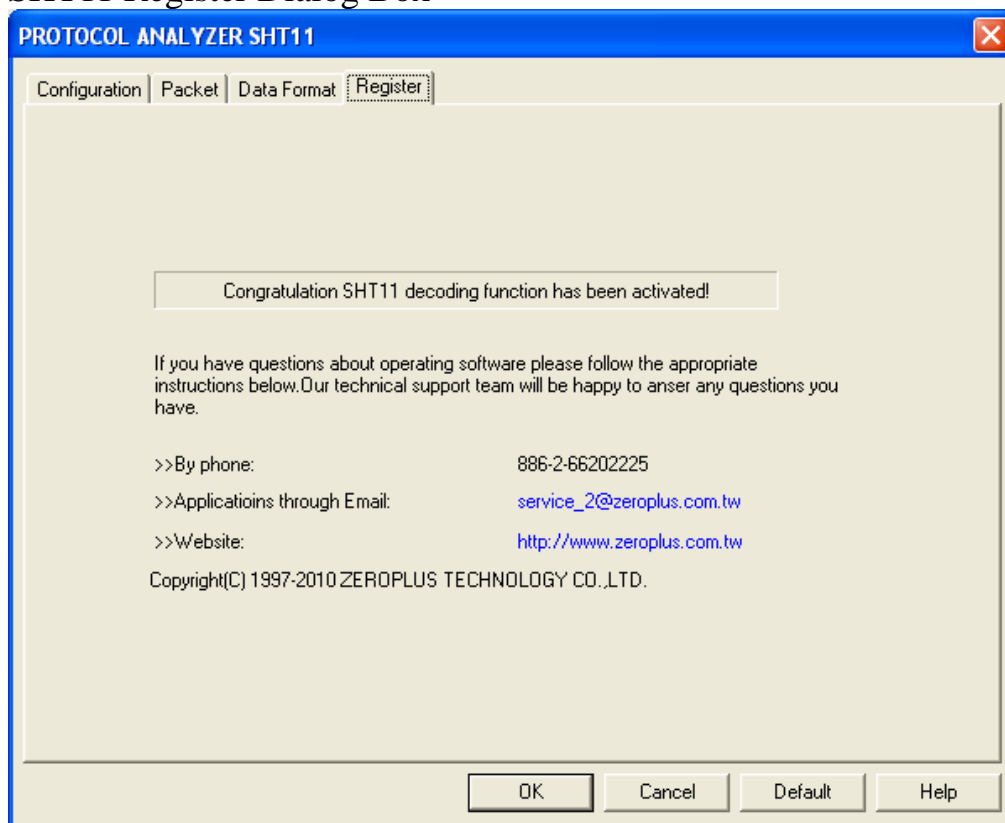
SHT11 Data Format Dialog Box



Users can set the Data Format of the Address, Command, Data, Status and CRC 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.



SHT11 Register Dialog Box

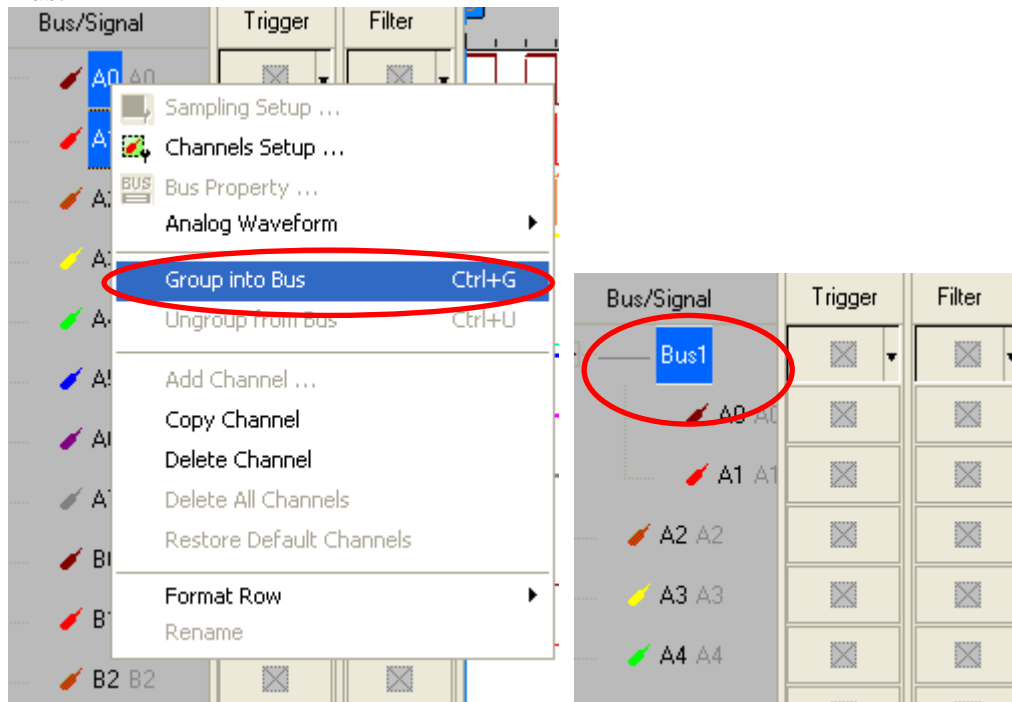


There is ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

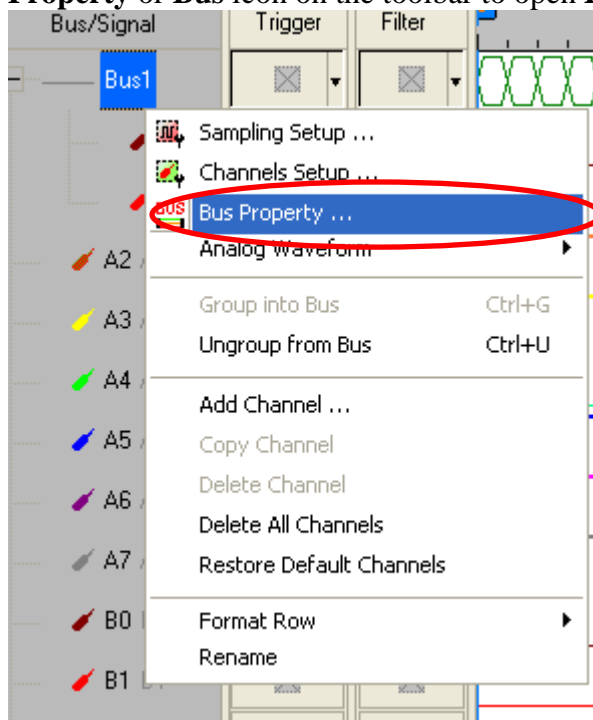


5 Operating Instructions

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. SHT11 needs two channels to decode signals, so it is necessary to group two or more channels into a Bus.

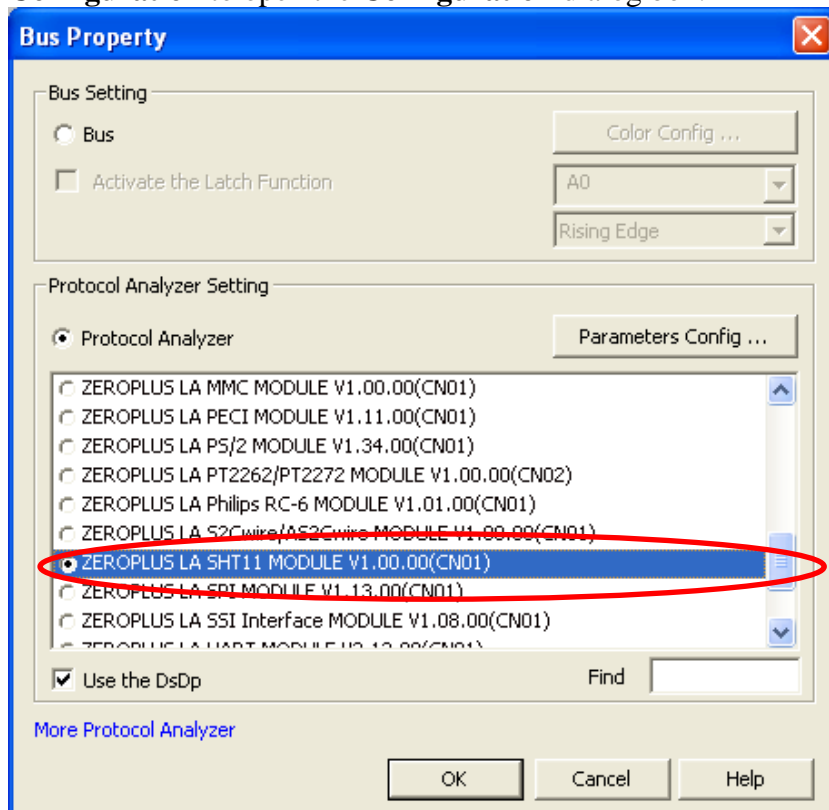


STEP 2. Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

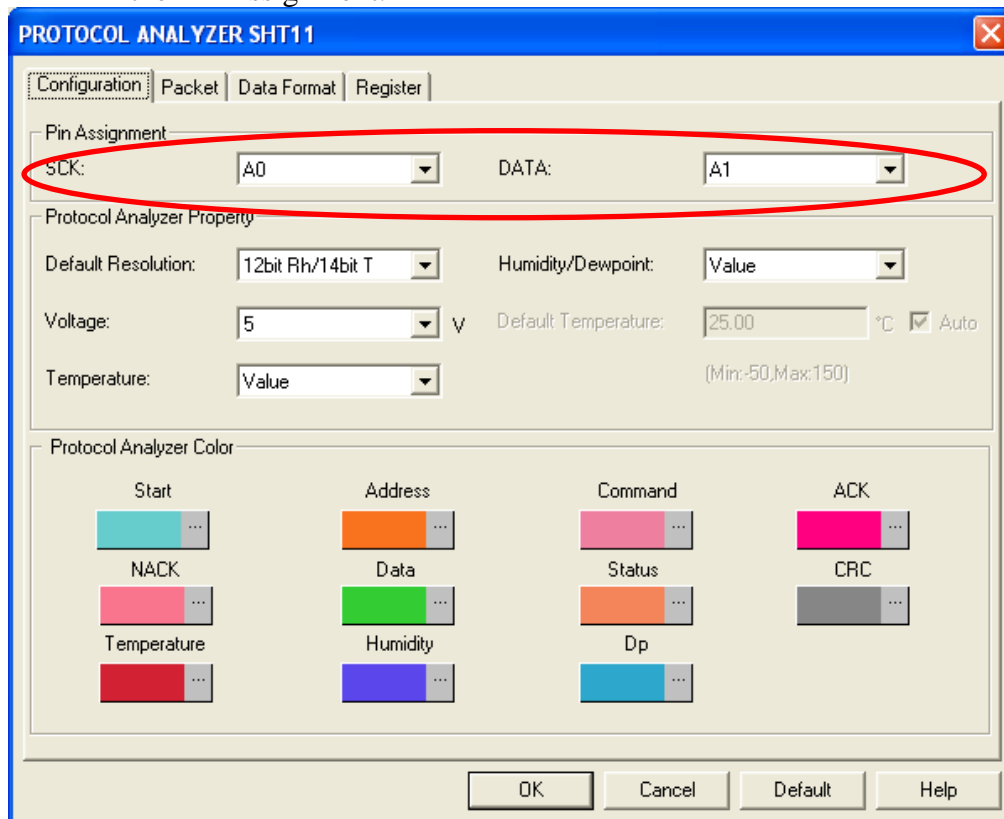




STEP 3. For Protocol Analyzer SHT11 Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA SHT11 MODULE V1.00.00 (CN01)**. Next click **Parameters Configuration** to open the **Configuration** dialog box.



STEP 4. Open the **Configuration** dialog box, and set the channels for the SCK and the DATA in the Pin Assignment.





STEP 5. Select the Default Resolution from the pull-down menu.

PROTOCOL ANALYZER SHT11

Configuration | Packet | Data Format | Register

Pin Assignment
SCK: A0 DATA: A1

Protocol Analyzer Property
Default Resolution: 12bit Rh/14bit T Humidity/Dewpoint: Value
Voltage: 5 V Default Temperature: 25.00 °C ☒ Auto
Temperature: Value (Min:-50,Max:150)

Protocol Analyzer Color
Start Address Command ACK
NACK Data Status CRC
Temperature Humidity Dp

OK Cancel Default Help

STEP 6. Select the Voltage from the pull-down menu.

PROTOCOL ANALYZER SHT11

Configuration | Packet | Data Format | Register

Pin Assignment
SCK: A0 DATA: A1

Protocol Analyzer Property
Default Resolution: 12bit Rh/14bit T Humidity/Dewpoint: Value
Voltage: 5 V Default Temperature: 25.00 °C ☒ Auto
Temperature: Value (Min:-50,Max:150)

Protocol Analyzer Color
Start Address Command ACK
NACK Data Status CRC
Temperature Humidity Dp

OK Cancel Default Help



STEP 7. Set the Temperature Mode from the pull-down menu.

The screenshot shows the 'PROTOCOL ANALYZER SHT11' configuration window. The 'Configuration' tab is selected. In the 'Protocol Analyzer Property' section, the 'Temperature' dropdown menu is highlighted with a red circle. The 'Default Resolution' is set to '12bit Rh/14bit T', 'Humidity/Dewpoint' is set to 'Value', 'Voltage' is set to '5 V', and 'Default Temperature' is set to '25.00 °C' with the 'Auto' checkbox checked. The 'Protocol Analyzer Color' section shows color-coded buttons for Start, Address, Command, ACK, NACK, Data, Status, CRC, Temperature, Humidity, and Dp. The 'OK', 'Cancel', 'Default', and 'Help' buttons are at the bottom.

STEP 8. Set the Humidity/Dewpoint. When the Temperature Compensation or the Dewpoint is selected, the Default Temperature can be set.

The screenshot shows the 'PROTOCOL ANALYZER SHT11' configuration window. The 'Configuration' tab is selected. In the 'Protocol Analyzer Property' section, the 'Humidity/Dewpoint' dropdown menu is highlighted with a red circle. The 'Default Resolution' is set to '12bit Rh/14bit T', 'Temperature' is set to 'Value', 'Voltage' is set to '5 V', and 'Default Temperature' is set to '25.00 °C' with the 'Auto' checkbox checked. The 'Protocol Analyzer Color' section shows color-coded buttons for Start, Address, Command, ACK, NACK, Data, Status, CRC, Temperature, Humidity, and Dp. The 'OK', 'Cancel', 'Default', and 'Help' buttons are at the bottom.



STEP 9. Set the Protocol Analyzer Color.

PROTOCOL ANALYZER SHT11

Configuration | Packet | Data Format | Register

Pin Assignment
SCK: A0 DATA: A1

Protocol Analyzer Property
Default Resolution: 12bit Rh/14bit T Humidity/Dewpoint: Value
Voltage: 5 V Default Temperature: 25.00 °C ☒ Auto
Temperature: Value (Min:-50,Max:150)

Protocol Analyzer Color

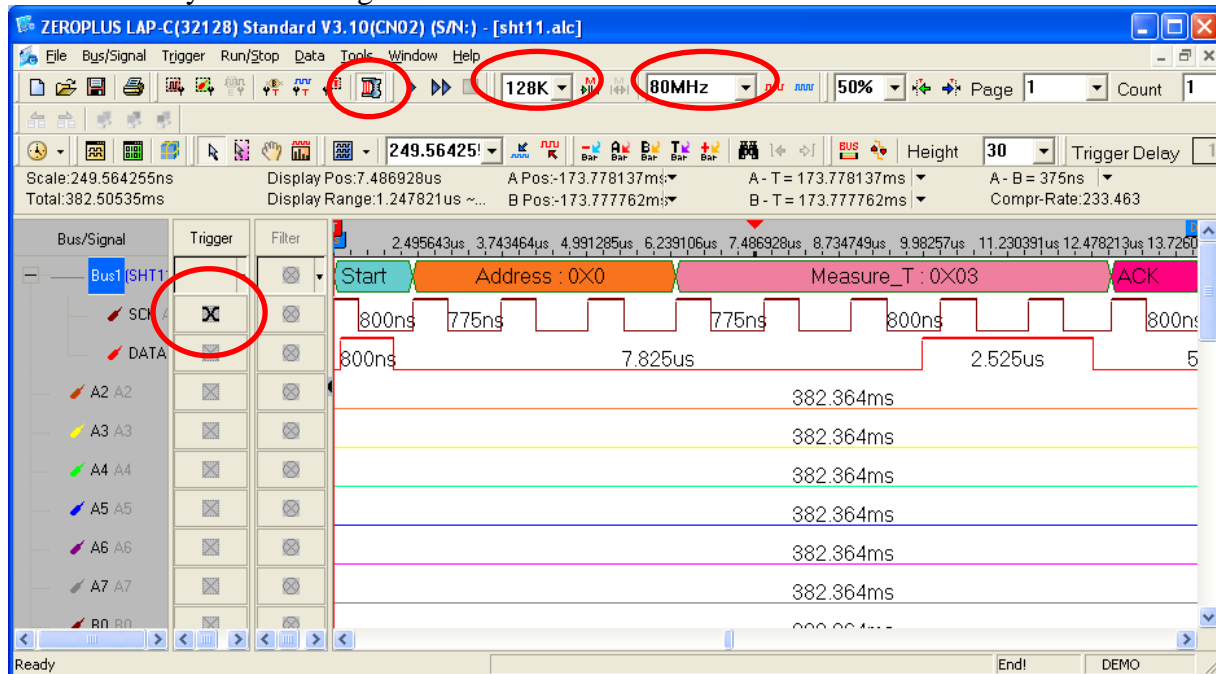
| | | | |
|-------------|----------|---------|-----|
| Start | Address | Command | ACK |
| NACK | Data | Status | CRC |
| Temperature | Humidity | Dp | |

OK Cancel Default Help



STEP 10. Following pictures show the completion of the protocol analyzer decoding and packet list. The Compression is activated. And the memory depth is 128K; 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

