



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

# SPECIFICATION

**MODEL: B09026-LAP-HDMI CEC-M**

**PART NO:** \_\_\_\_\_

**VERSION:** V1.00

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

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

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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.

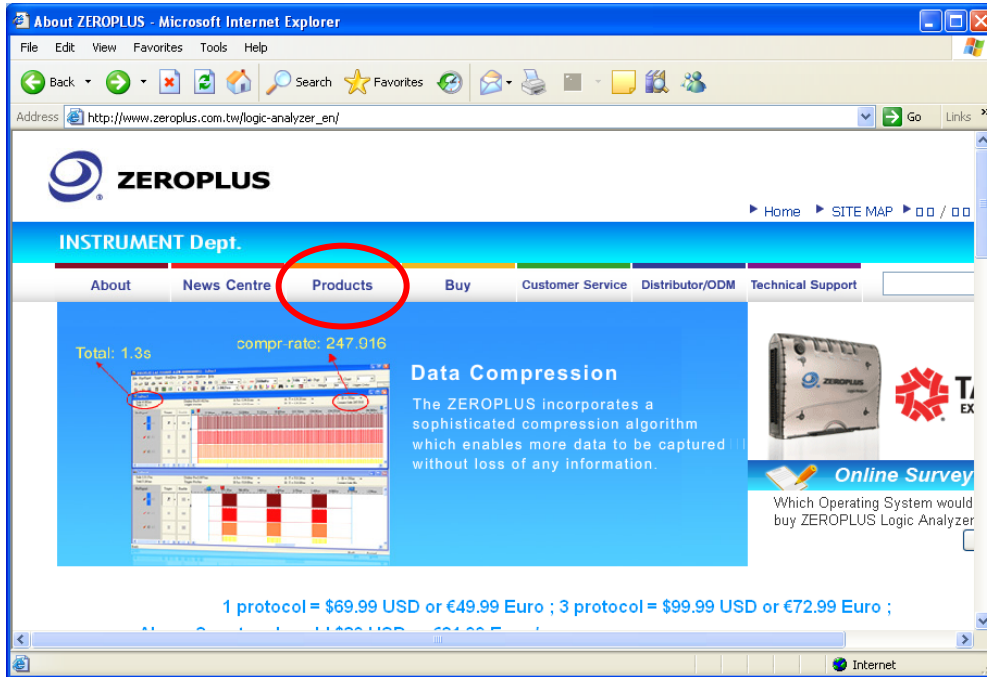
**STEP 1.** Visit the website of ZeroPlus: <http://www.zeroplus.com.tw>.

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

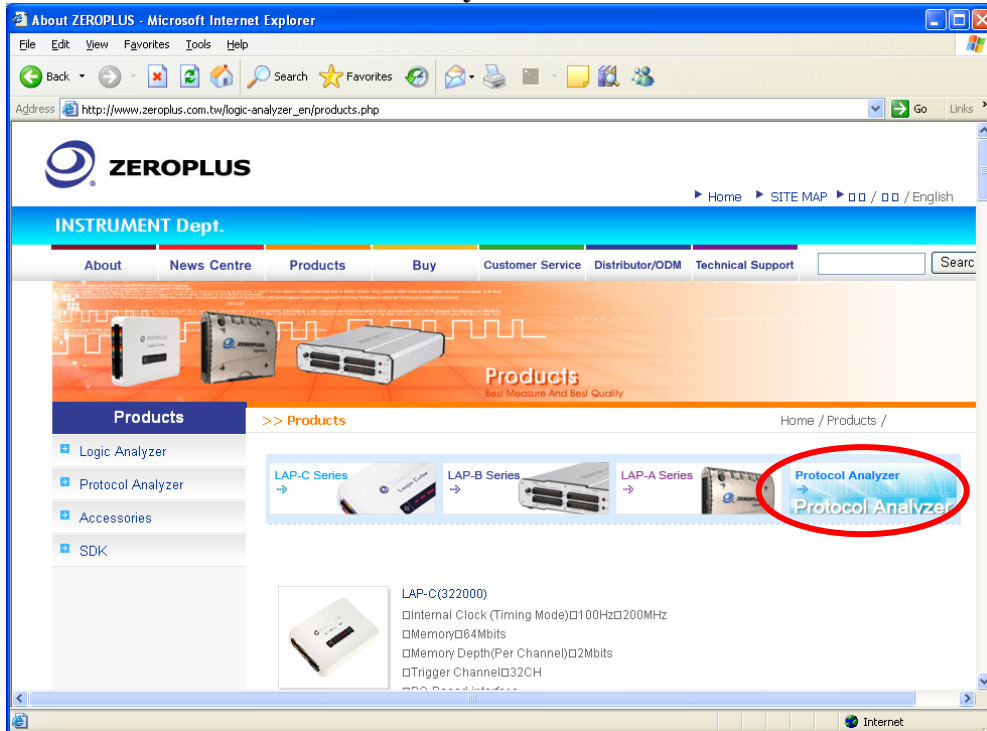




**STEP 3.** Click **Products** menu.

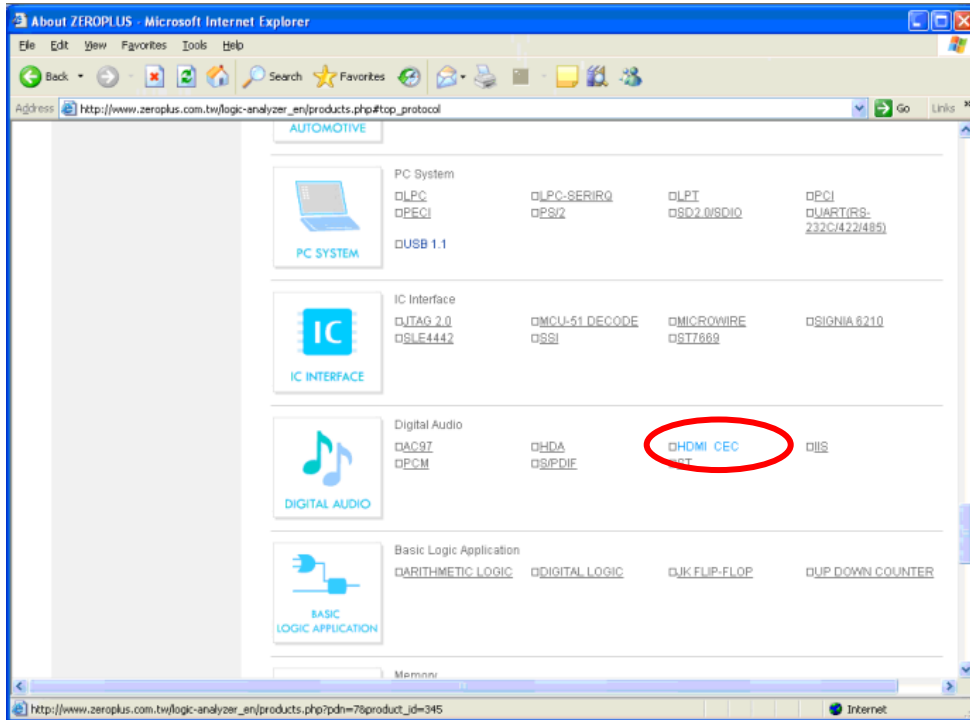


**STEP 4.** Click **Protocol Analyzer** icon.

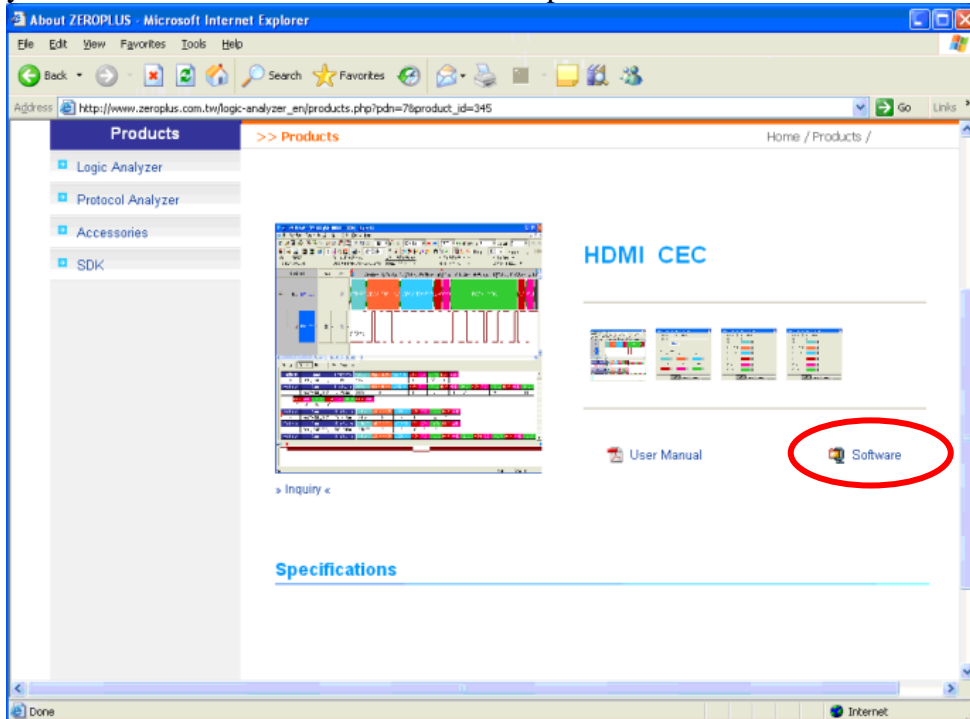




**STEP 5.** Click **HDMI CEC** in the **DIGITAL AUDIO** column.

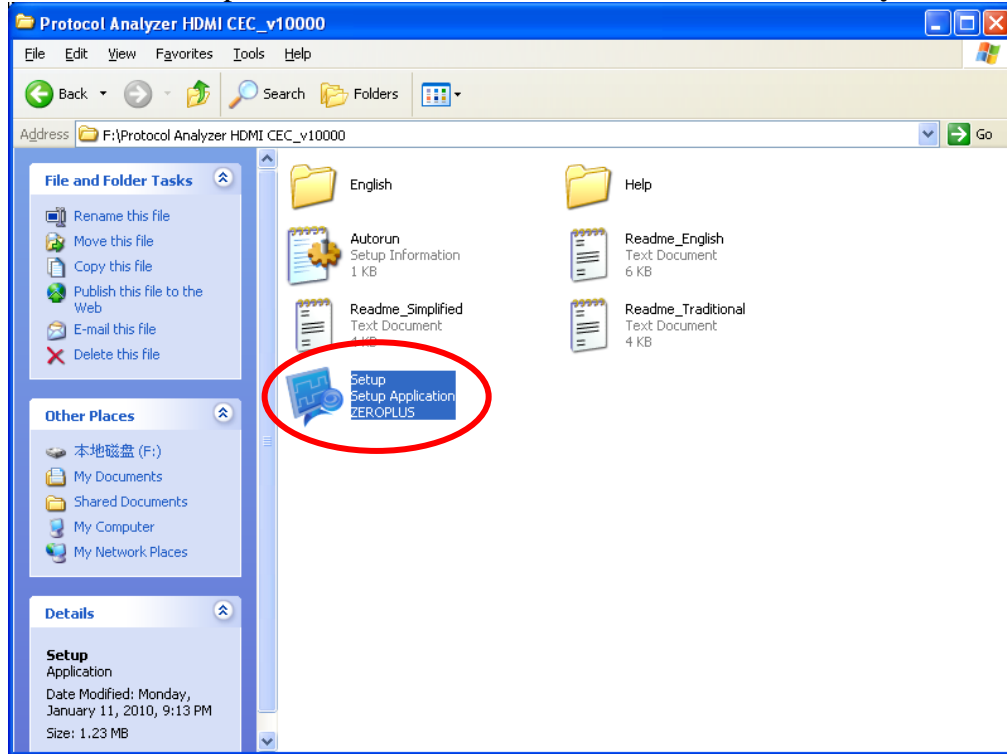


**STEP 6.** Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed folder.

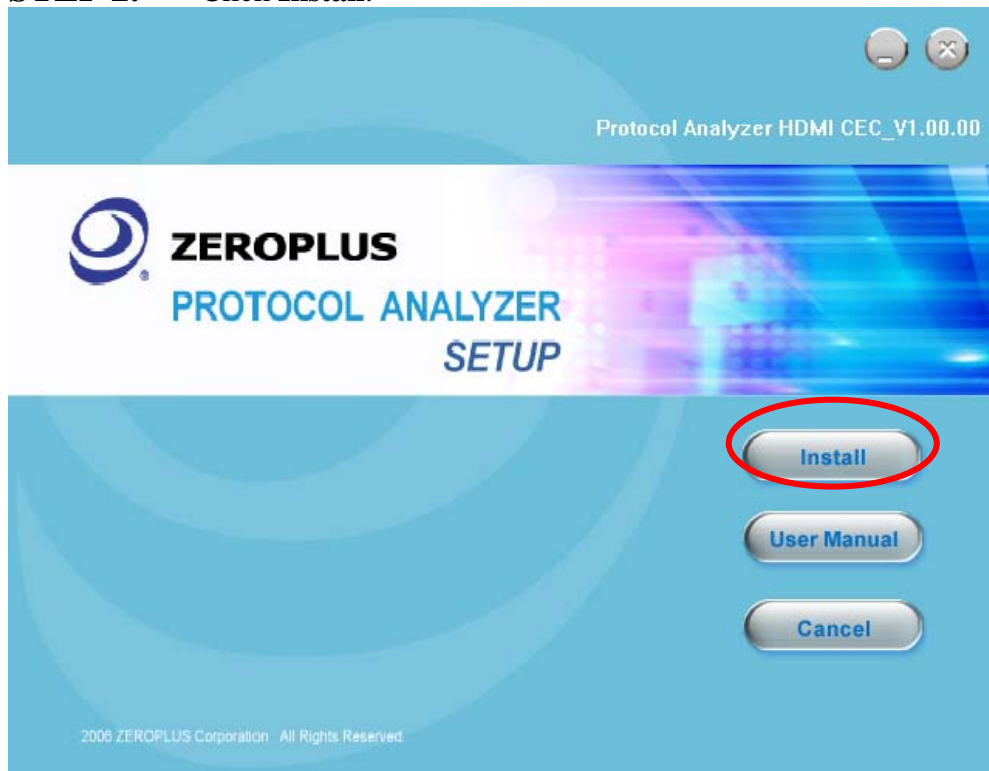


## 2 Software Installation

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

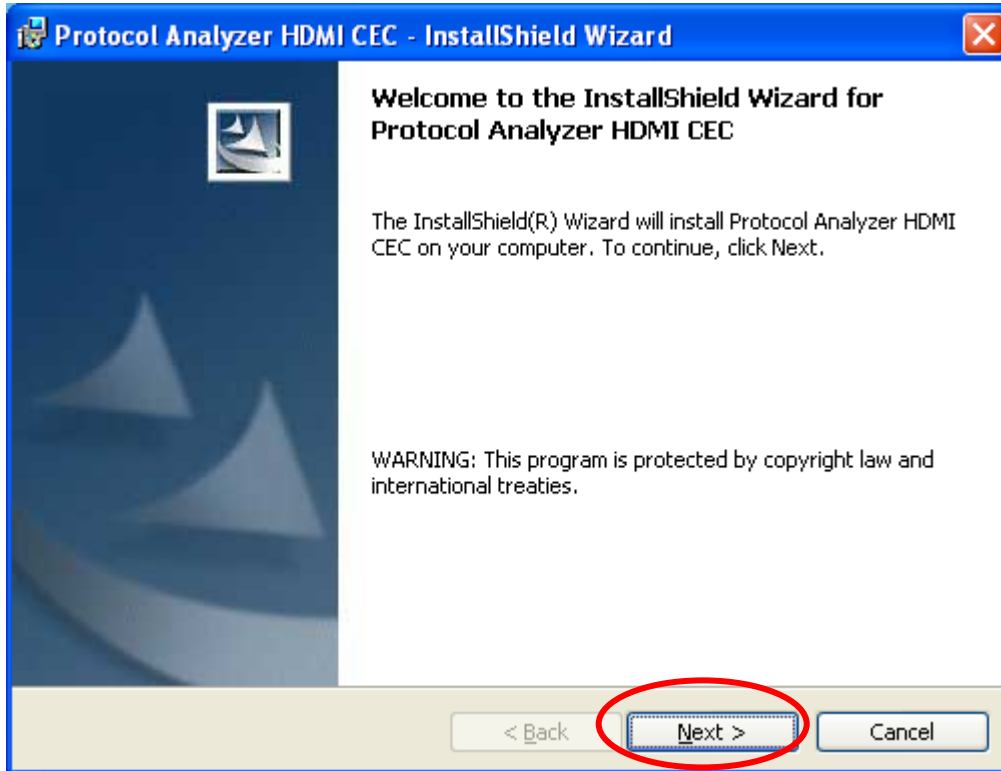


**STEP 2.** Click **Install**.

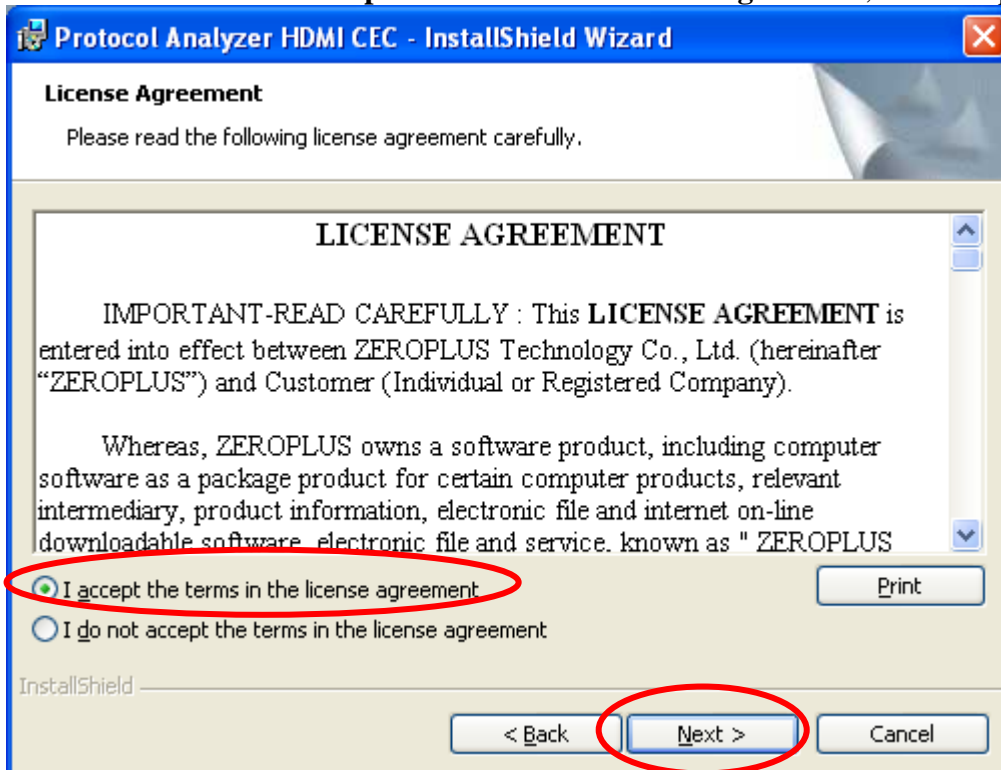




**STEP 3.** Click Next.



**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 HDMI CEC - InstallShield Wizard**

**Customer Information**

Please enter your information.

User Name: kelly

Organization: kelly

Install this application for:

Anyone who uses this computer (all users)

Only for me (kelly)

InstallShield

< Back   **Next >**   Cancel

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

**Protocol Analyzer HDMI CEC - 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.

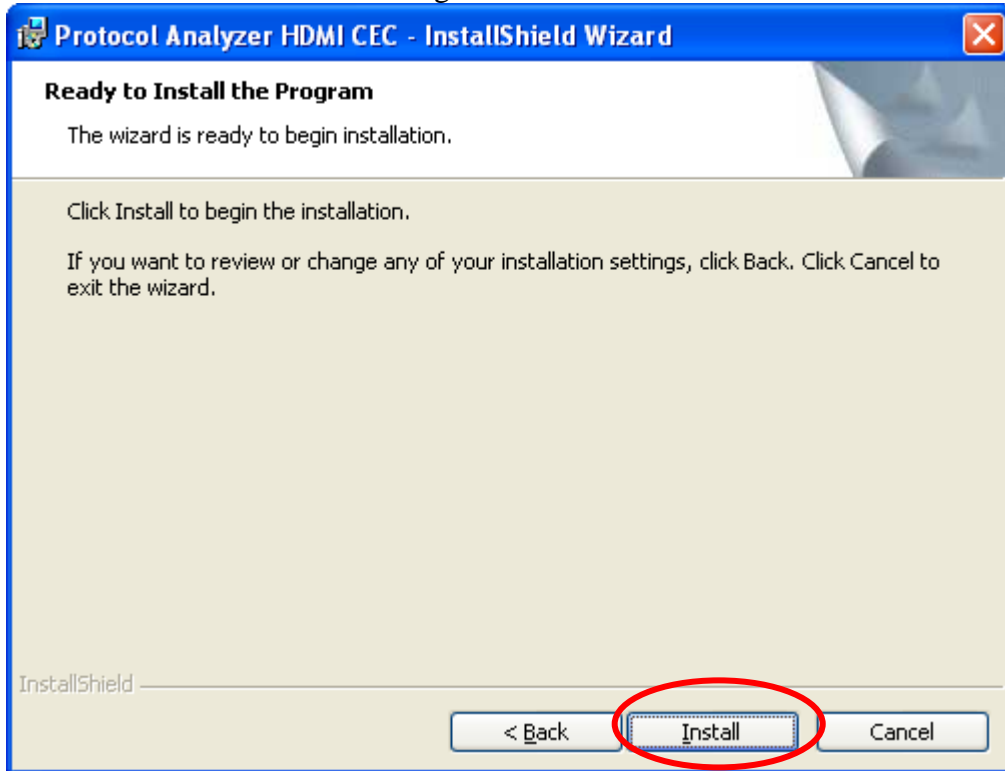
InstallShield

< Back   **Next >**   Cancel

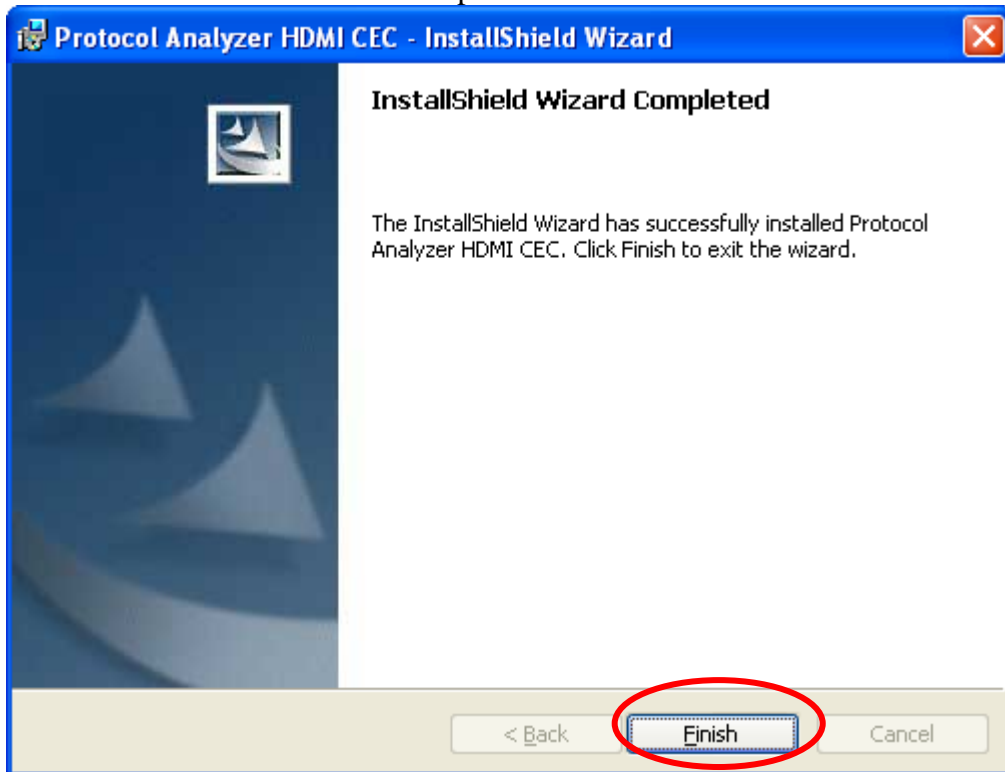




**STEP 7.** Click **Install** to begin the installation.

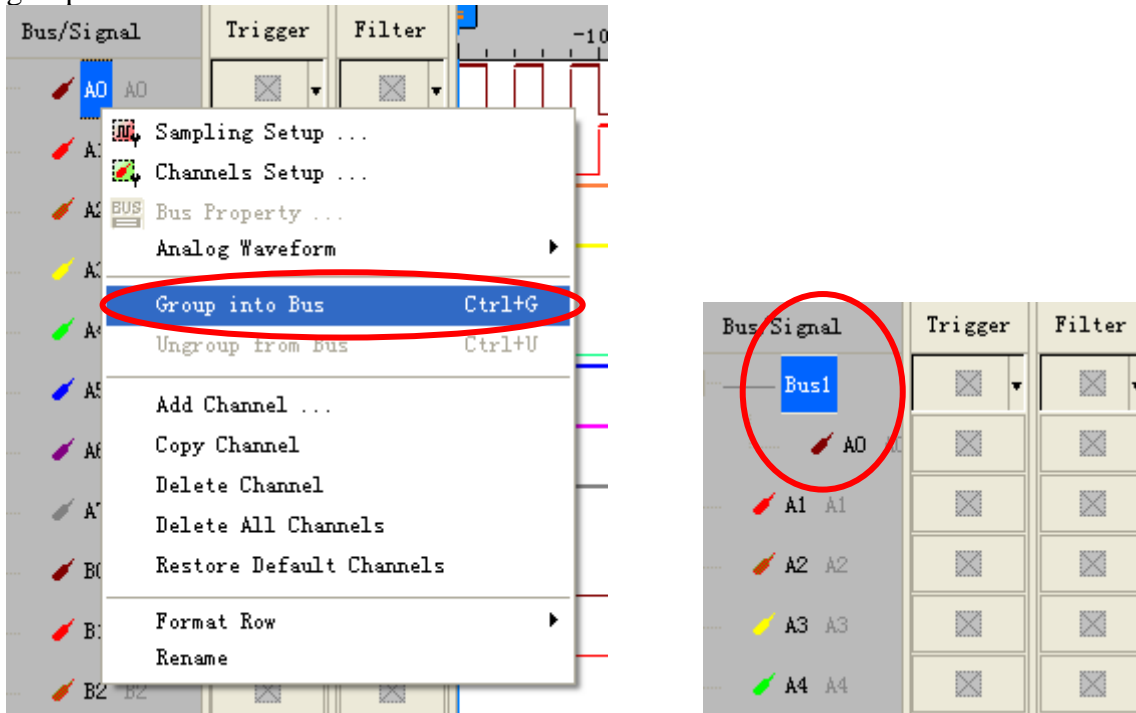


**STEP 8.** Click **Finish** to complete the installation.

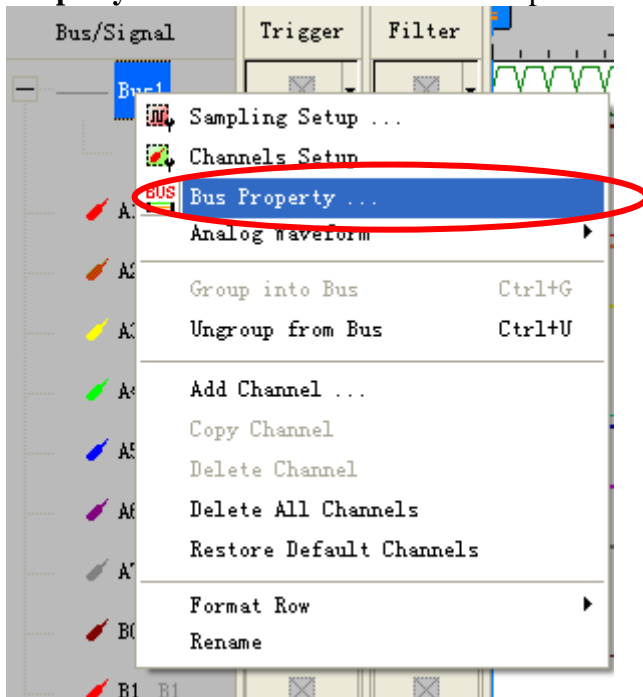


### 3 Software Register

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

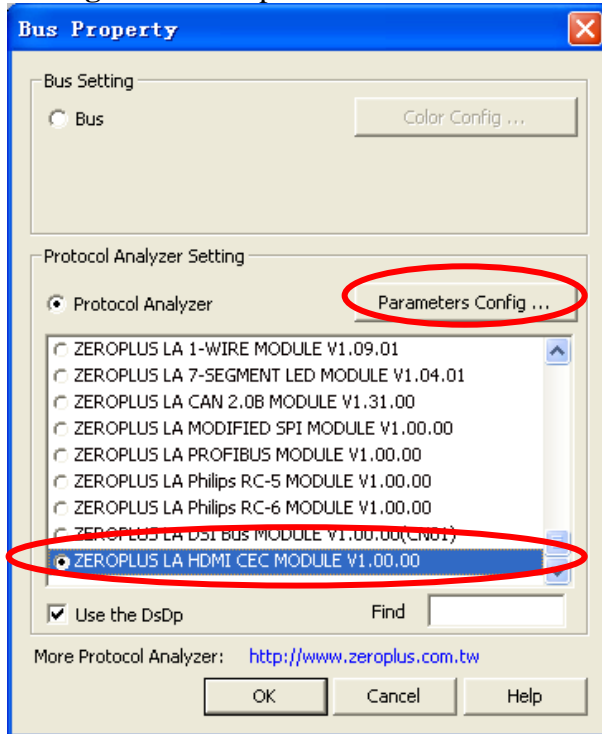


**STEP 2.** Select **Bus1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

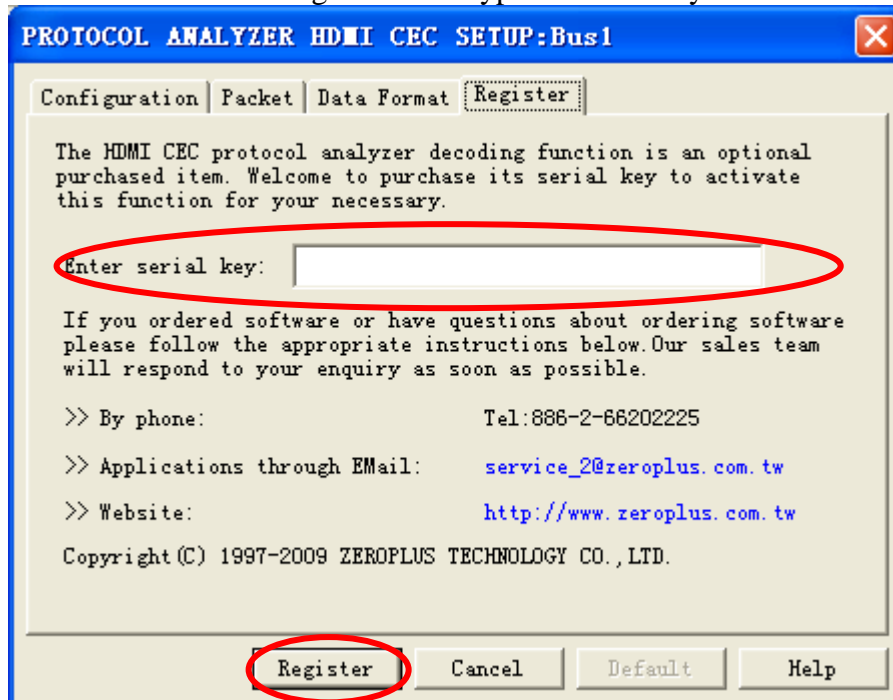




**STEP 3.** For Protocol Analyzer HDMI CEC Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA HDMI CEC MODULE V1.00.00**. Next click **Parameters Configuration** to open the **PROTOCOL ANALYZER HDMI CEC SETUP** dialog box.

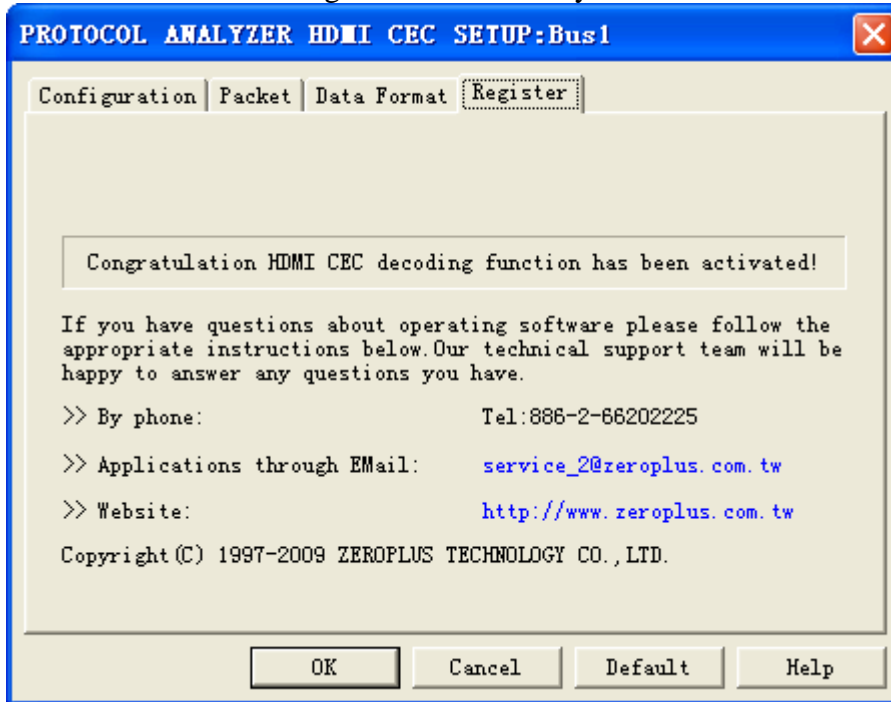


**STEP 4.** Press Register tab to type the serial key number of **HDMI CEC**. Then, press **Register**.





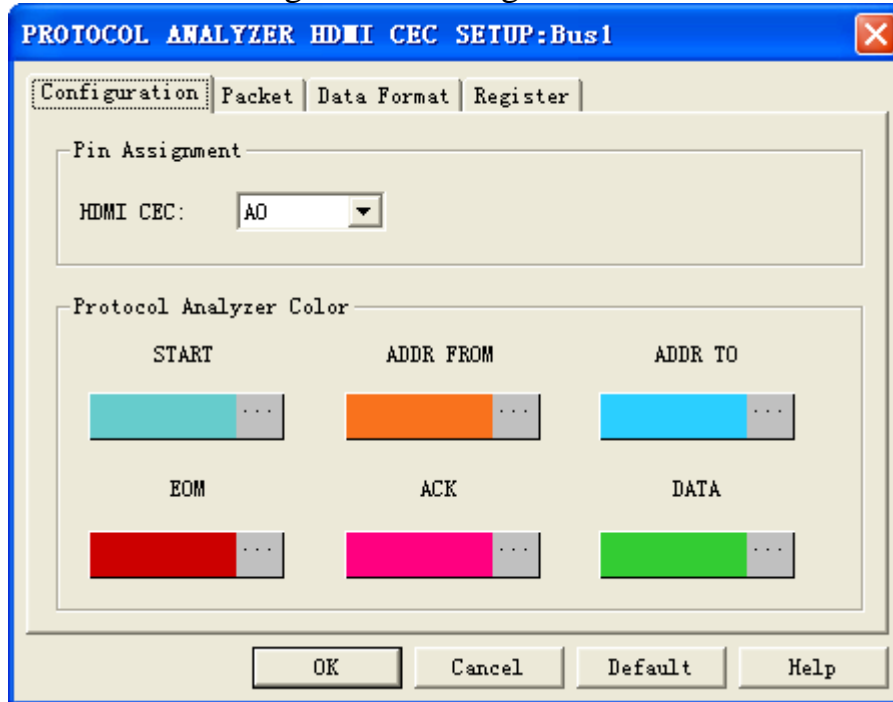
**STEP 5.** After pressing the Register button, following dialog box will appear; it denotes that the HDMI CEC has been registered successfully.



## 4 User Interface

In the configuration, please refer to below images to select options of setting **HDMI CEC**.

### HDMI CEC Configuration Dialog Box

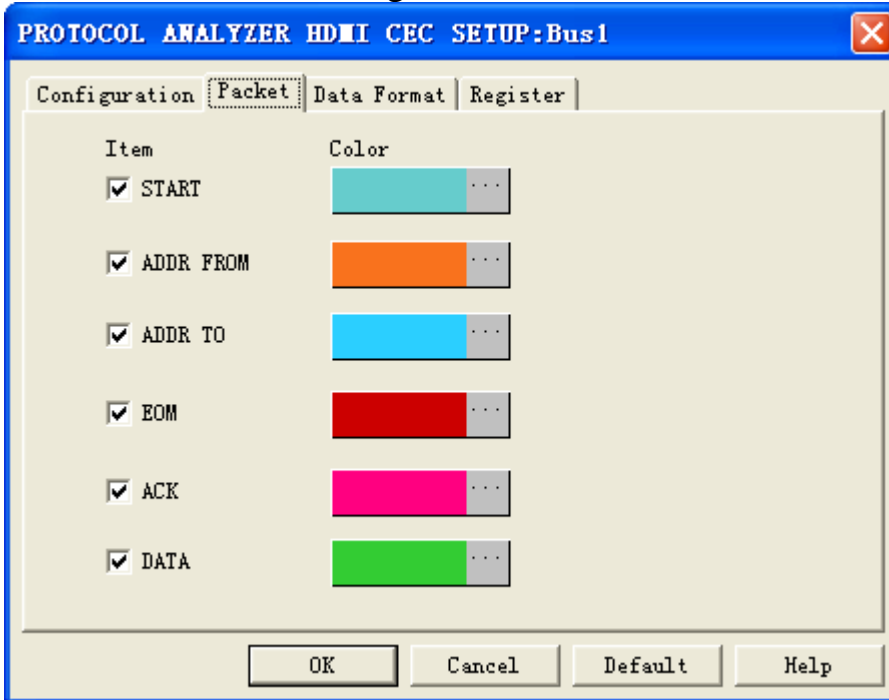


**Pin Assignment:** HDMI CEC only needs one channel to decode the signal.

**Protocol Analyzer Color:** The protocol analyzer colors can be varied by users.

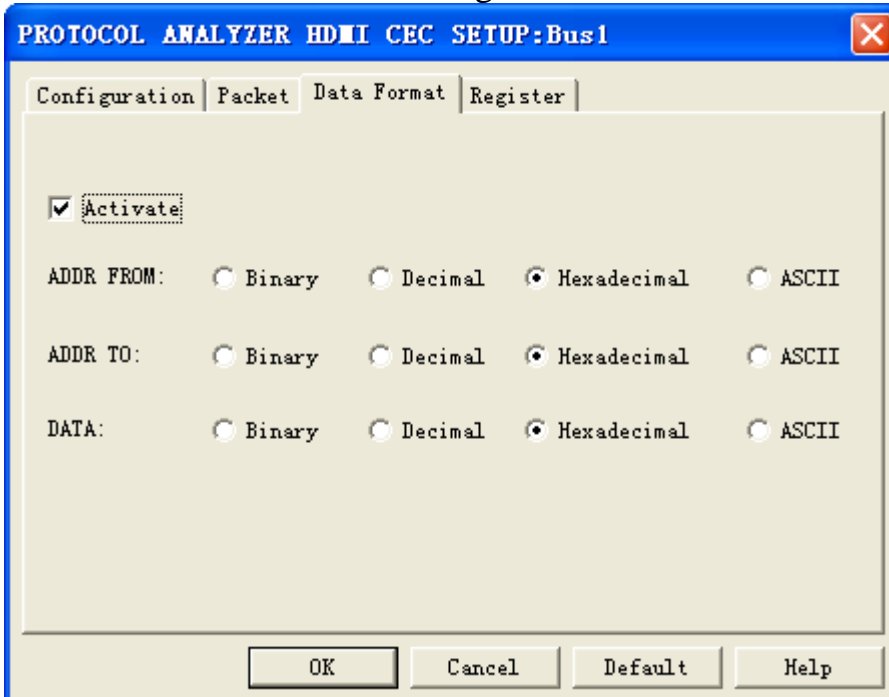


## HDMI CEC Packet Dialog Box



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

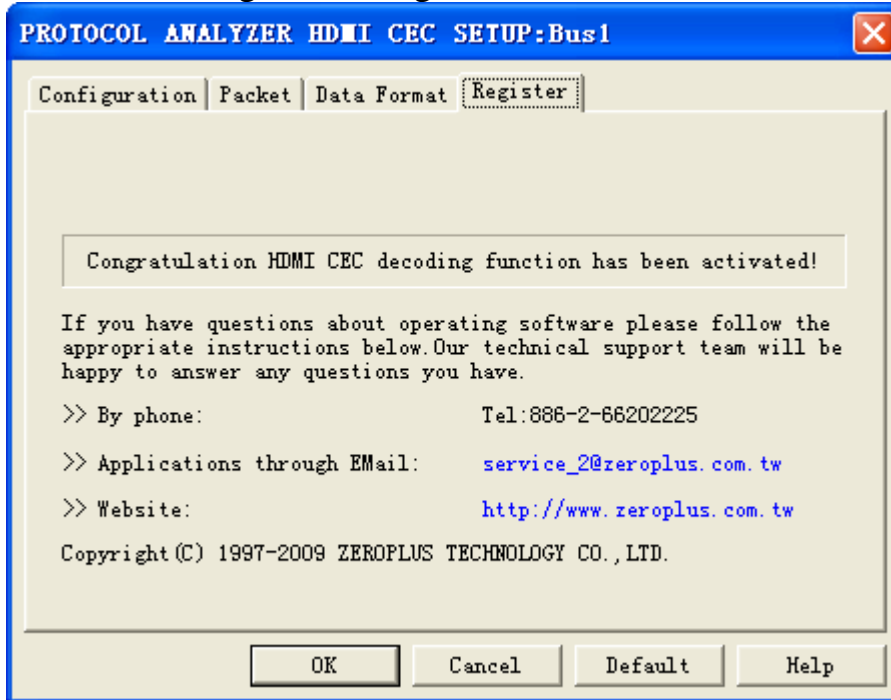
## HDMI CEC Data Format Dialog Box



Users can set the Data Format of the ADDR FROM, ADDR TO and DATA 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.



## HDMI CEC Register Dialog Box

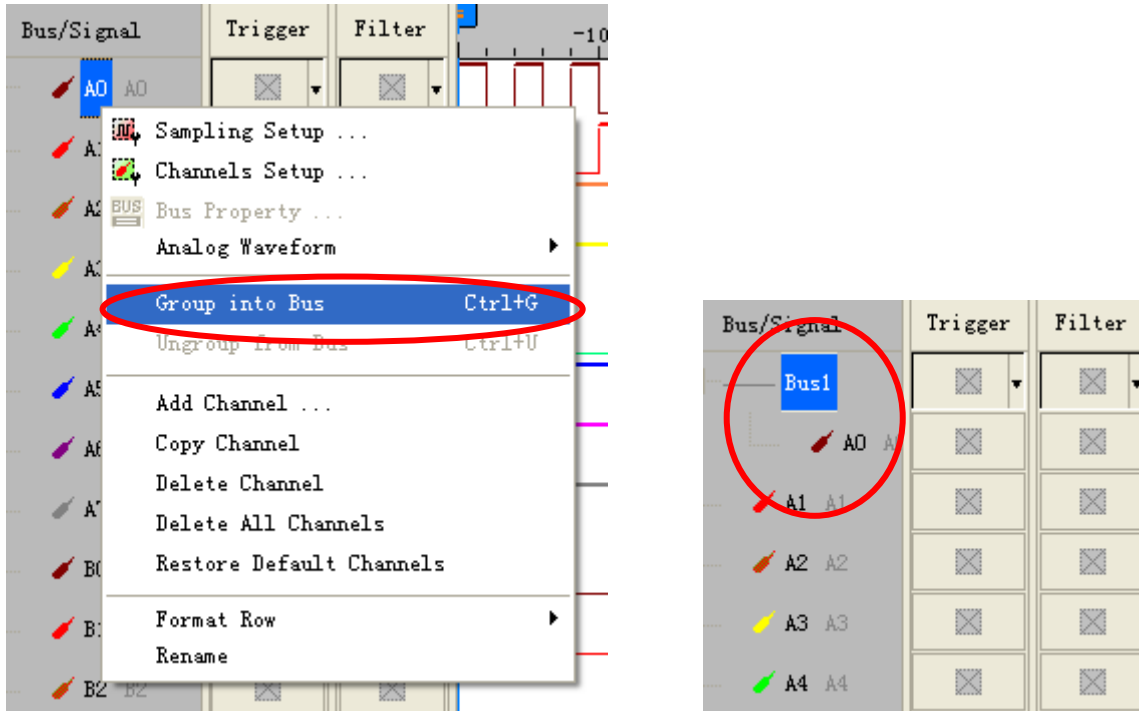


There is ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

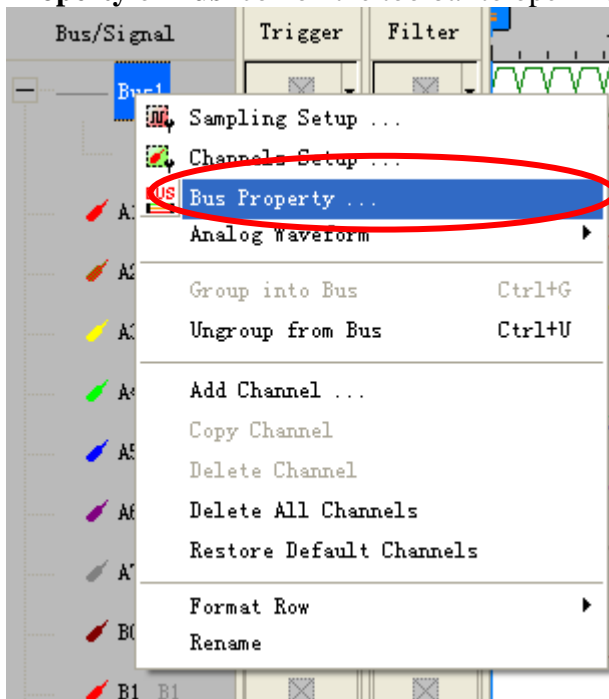


## 5 Operating Instructions

**STEP 1.** Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. HDMI CEC only needs one channel to decode signals, so it is necessary to group one channel into a Bus.

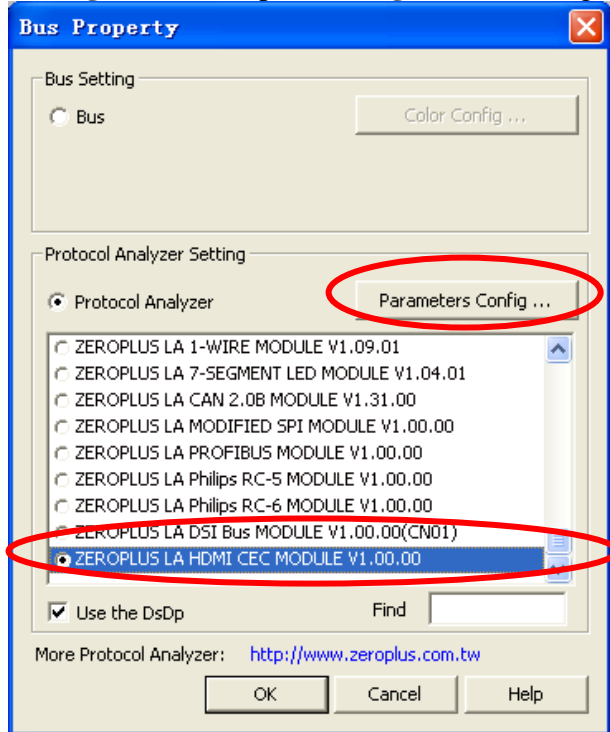


**STEP 2.** Select **Bus1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** icon on the toolbar to open **Bus Property** dialog box.

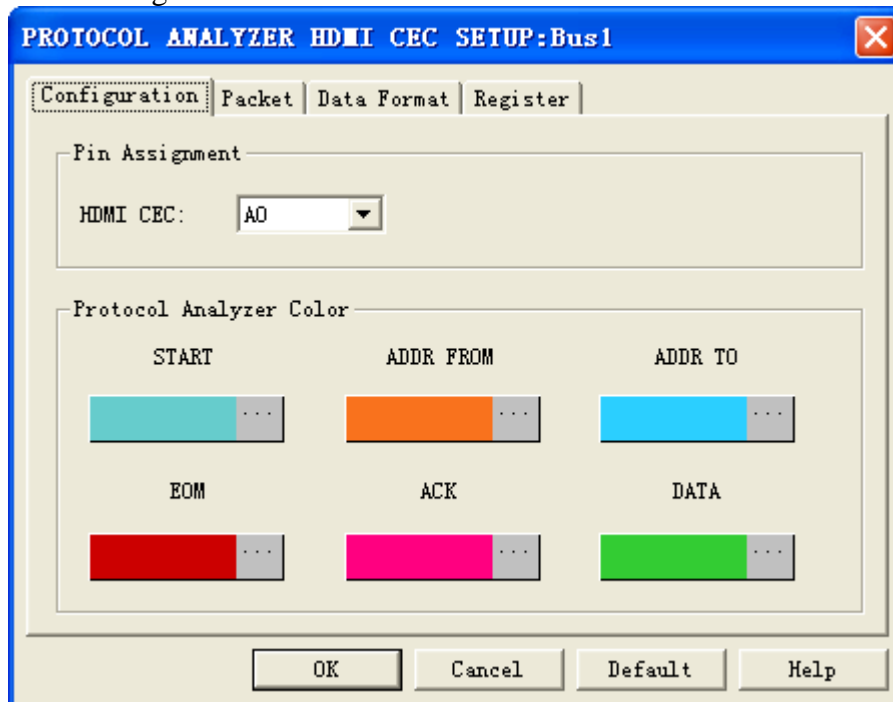




**STEP 3.** For Protocol Analyzer HDMI CEC Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA HDMI CEC MODULE V1.00.00**, next click **Parameters Configuration** to open **Configuration** dialog box.

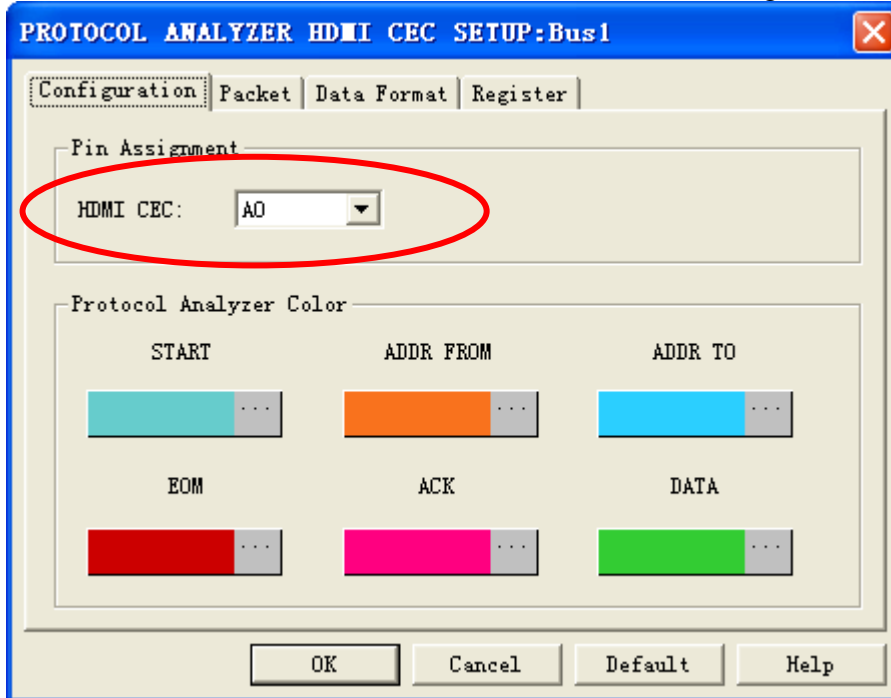


**STEP 4.** Click **Parameters Configuration** to open the **HDMI CEC Configuration** dialog box as following.

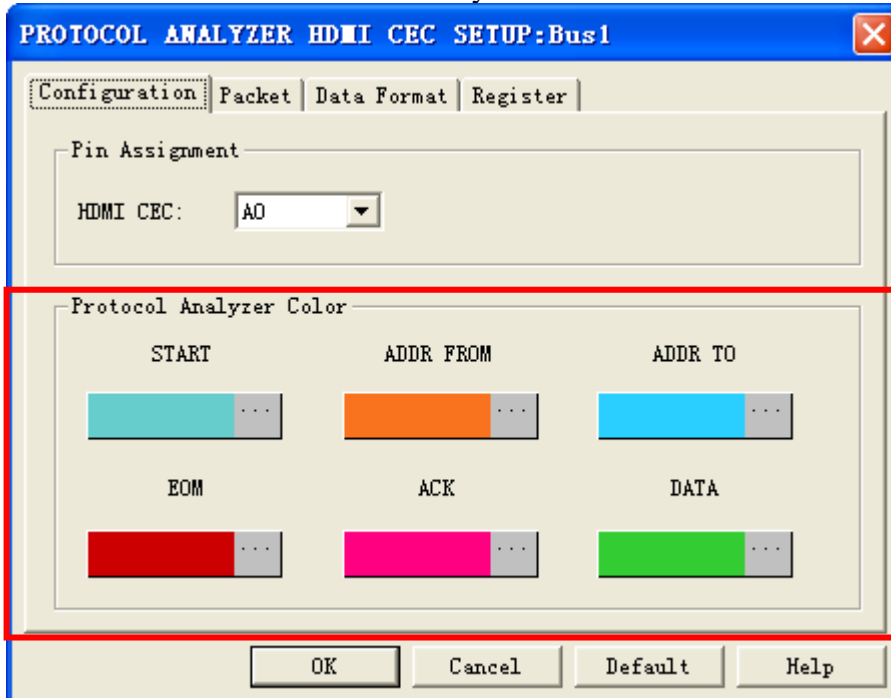




**STEP 5.** Set the channel for HDMI CEC in the Configuration dialog box

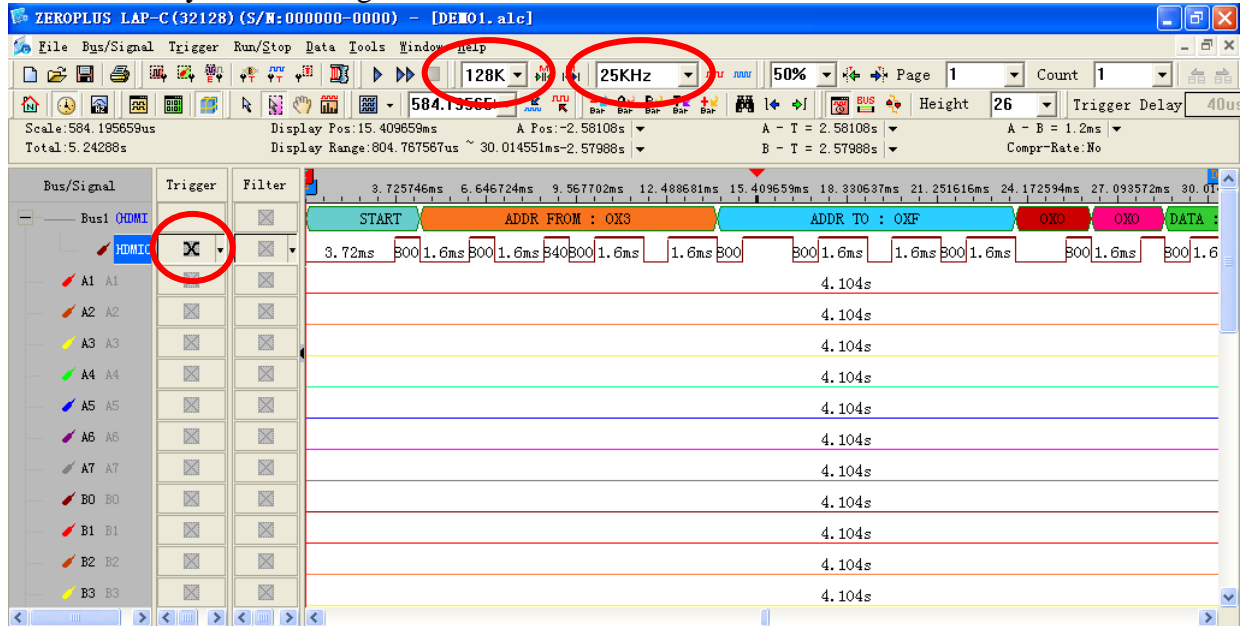


**STEP 6.** Set the Protocol Analyzer Color.



**STEP 7.** Following pictures show the completion of the protocol analyzer decoding and packet list. The trigger condition is set as Either Edge; the memory depth is 128K; the sampling frequency is 25KHz (the sampling frequency should be more than 4 times higher than the signal to be tested).

**Protocol Analyzer Decoding**





### Packet List

