



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

SPECIFICATION

MODEL: 023-LAP-LPC-SERIRQ-M

PART NO: _____

VERSION: V1.05

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to Zeroplus Technology after signing.

2F, NO.123, Jian Ba Rd,
Chung Ho City, Taipei Hsian, R.O.C.

Tel:+886-2-66202225
Fax:+886-2-22234362



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1 Software Download

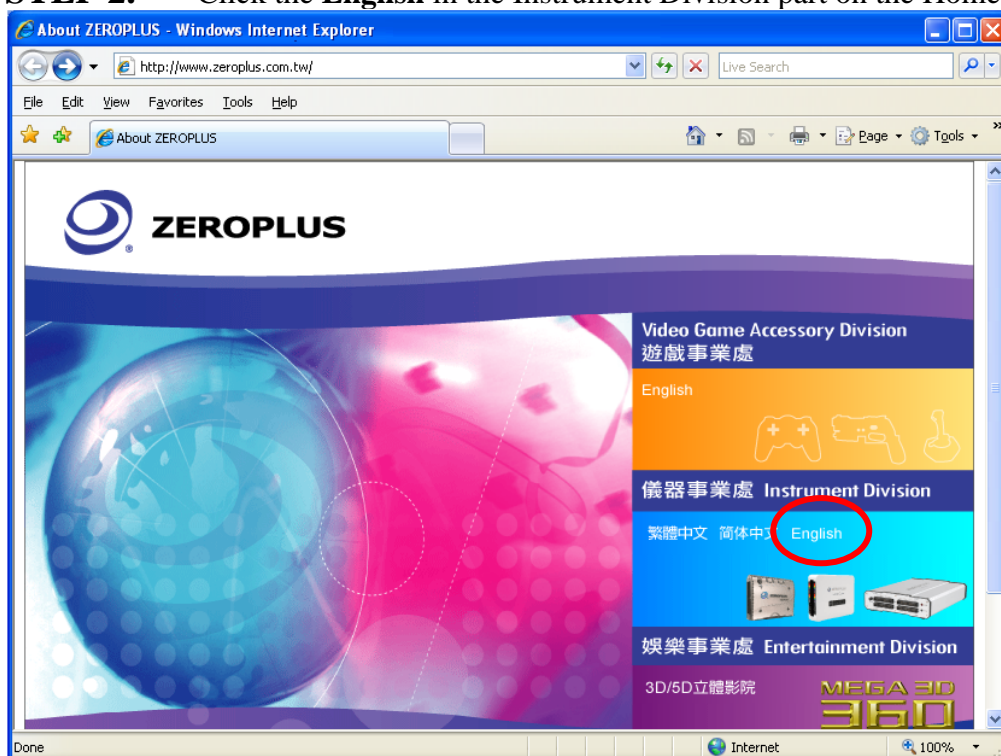


Please download the software as the following steps:

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>.

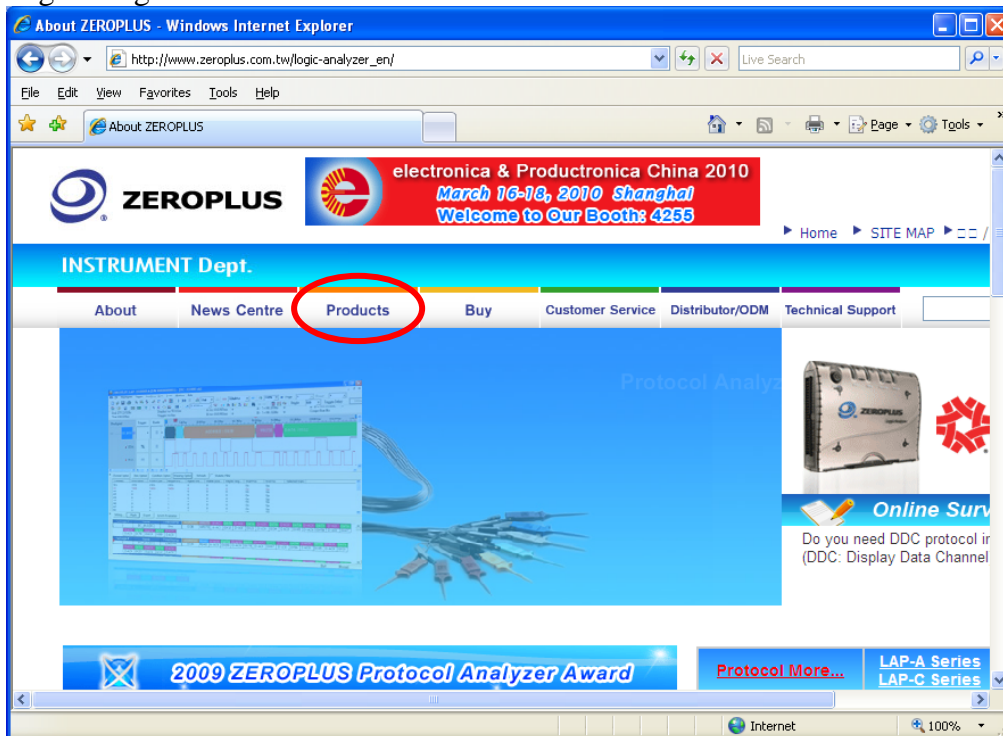
STEP 2. Click the **English** in the Instrument Division part on the Homepage.



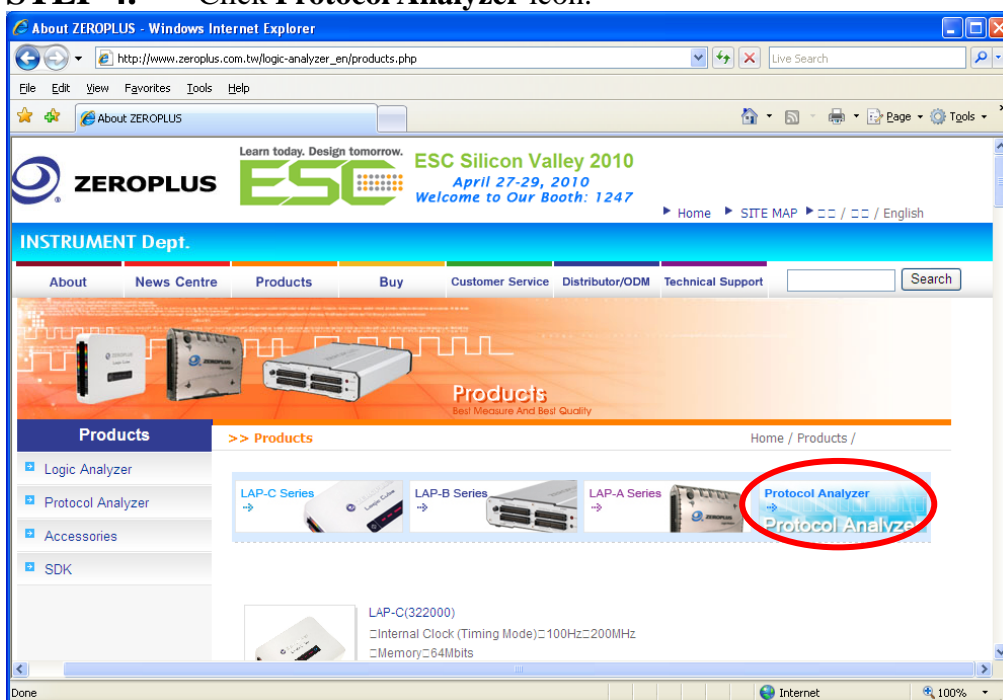
STEP 3. Click **Products** menu or select **Protocol Analyzer** item from its pull-down menu



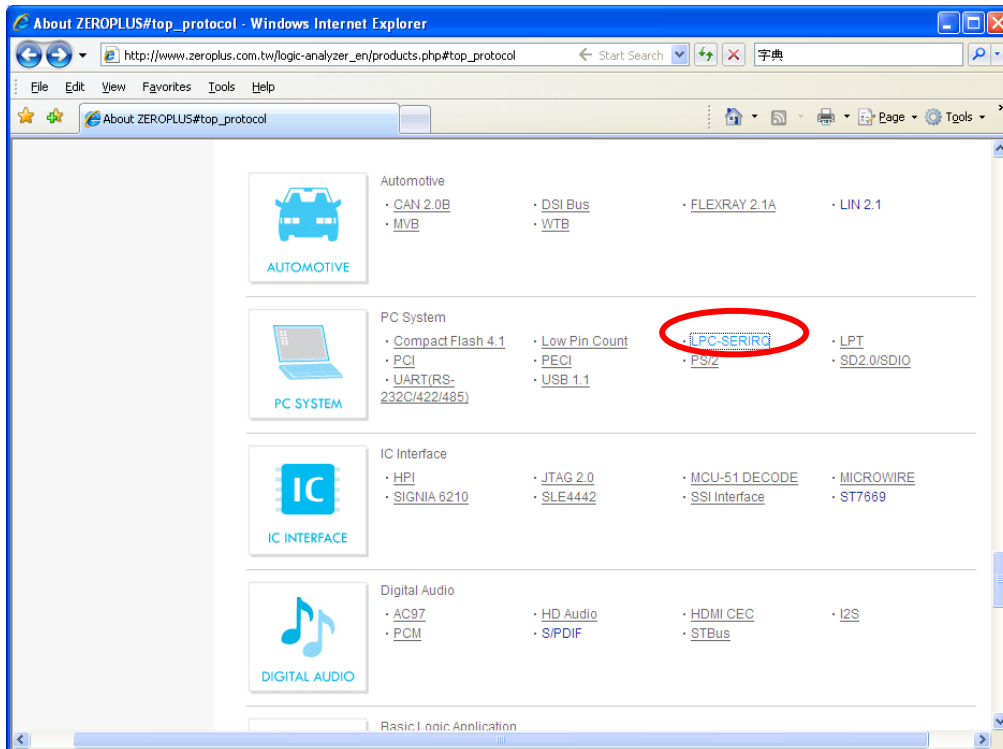
to go straight to STEP 5.



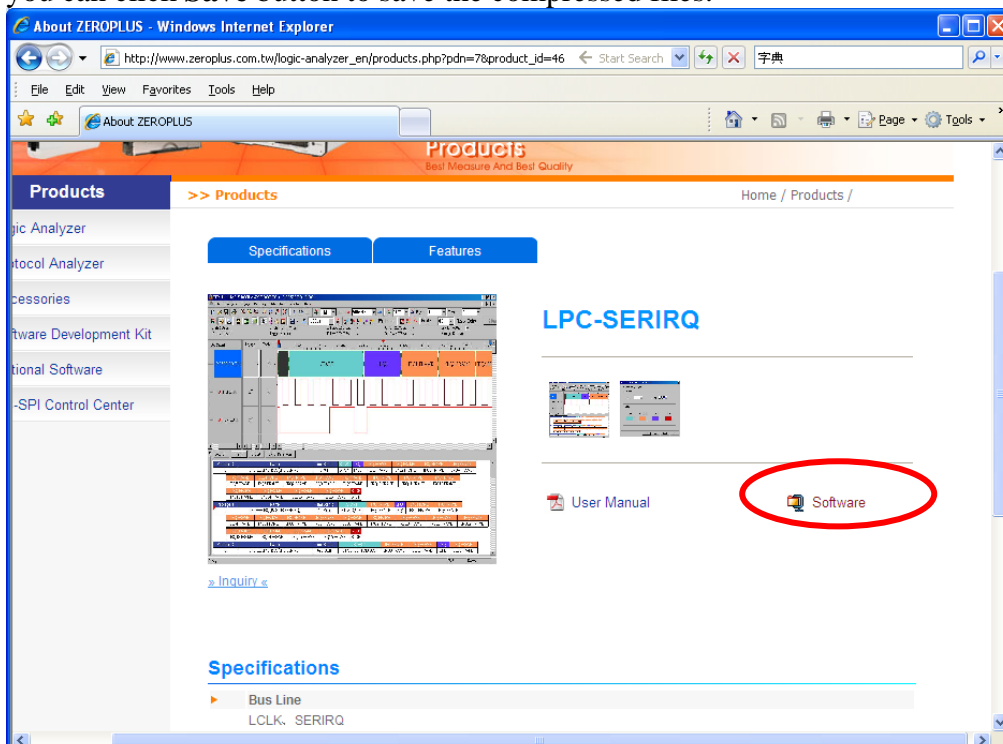
STEP 4. Click **Protocol Analyzer** icon.



STEP 5. Click **LPC-SERIRQ** in the **PC System**.



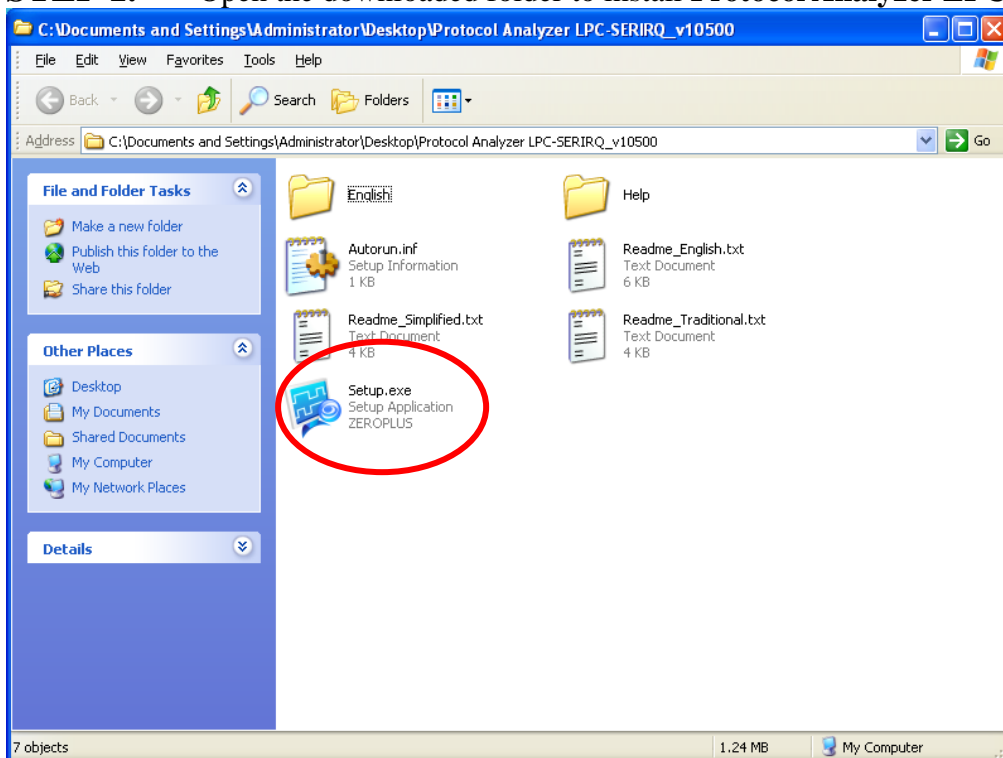
STEP 6. Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed files.



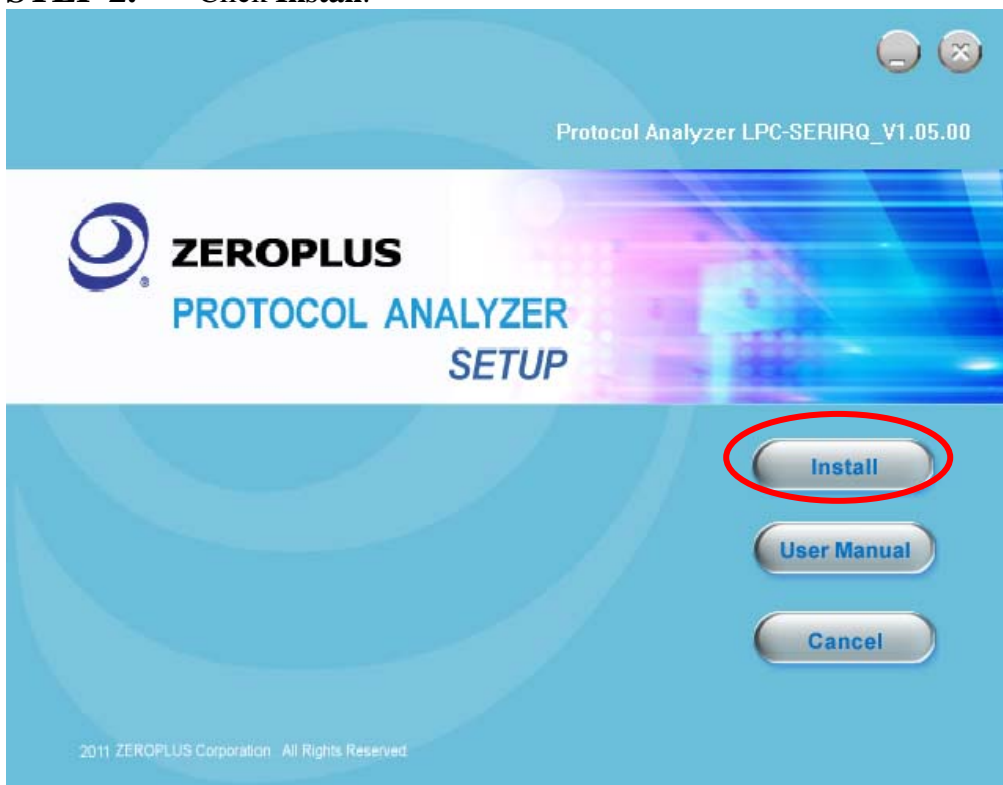


2 Software Installation

STEP 1. Open the downloaded folder to install **Protocol Analyzer LPC-SERIRQ**.

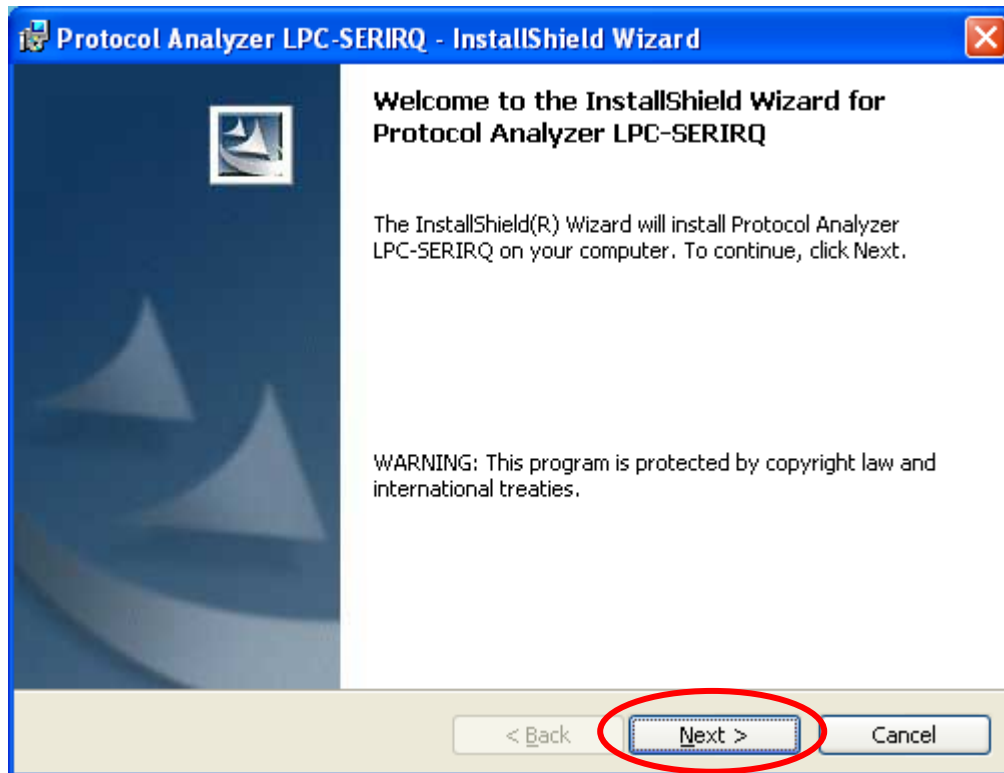


STEP 2. Click **Install**.

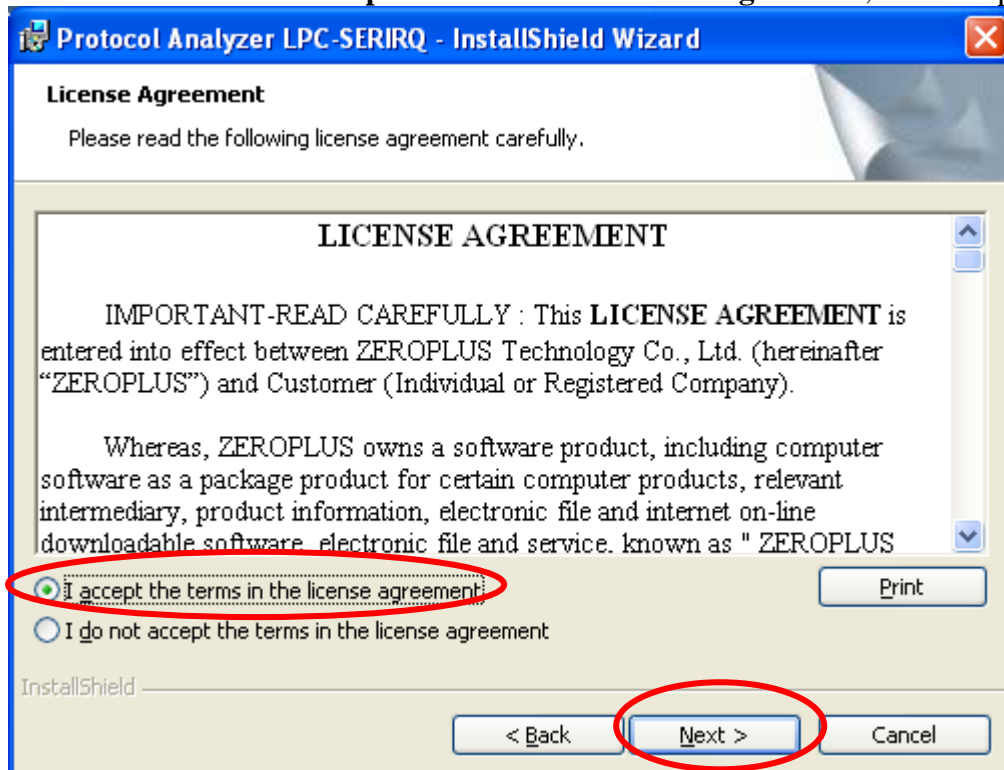




STEP 3. Click Next.



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**.

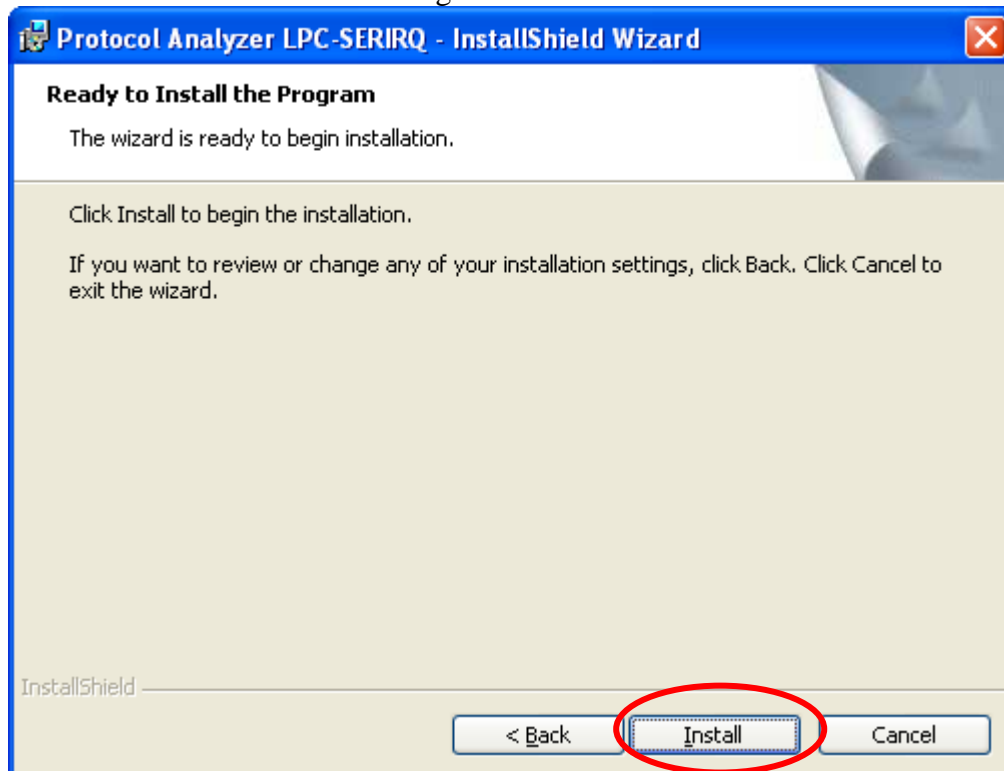
The dialog box is titled "Protocol Analyzer LPC-SERIRQ - InstallShield Wizard". It has a "Customer Information" section with the instruction "Please enter your information." Below this, there are two text input fields: "User Name:" with "Microsoft" entered, and "Organization:" with "User" entered. Further down, 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**.

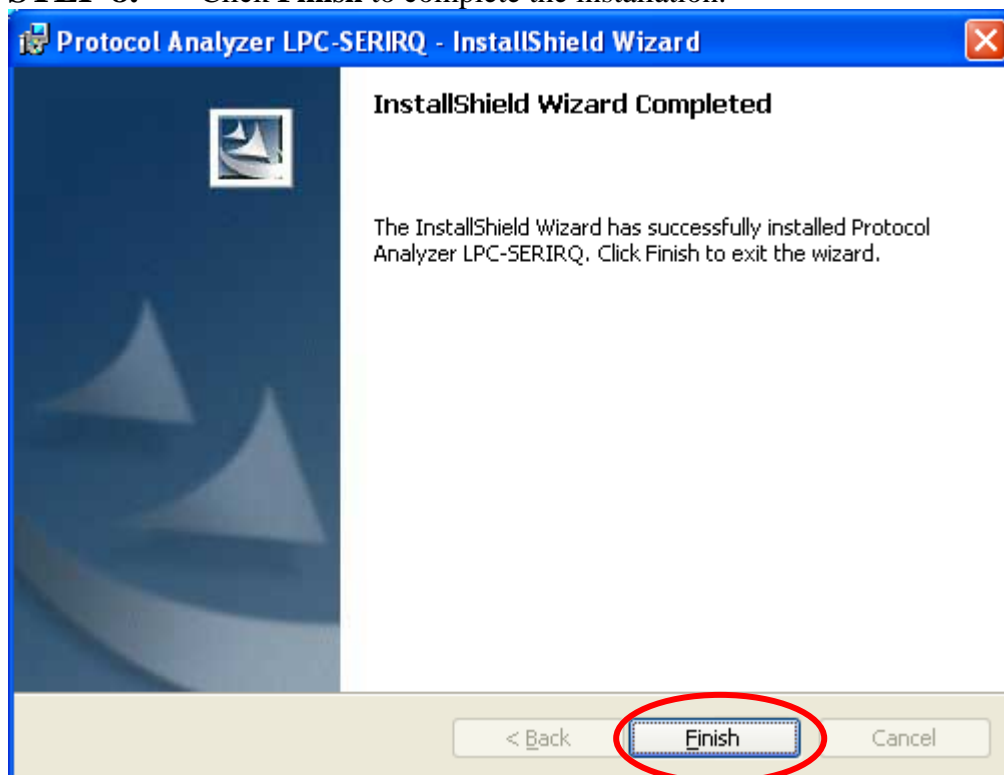
The dialog box is titled "Protocol Analyzer LPC-SERIRQ - InstallShield Wizard". It has a "Setup Type" section with the instruction "Choose the setup type that best suits your needs." Below this, there is a text input field with "Please select a setup type." and two radio button options: "Complete" (which is selected) and "Custom". The "Complete" option has a description: "All program features will be installed. (Requires the most disk space.)" and is accompanied by a small icon of a computer with a red 'X'. The "Custom" option has a description: "Choose which program features you want installed and where they will be installed. Recommended for advanced users." and is accompanied by a small icon of a computer with a red 'X'. 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.

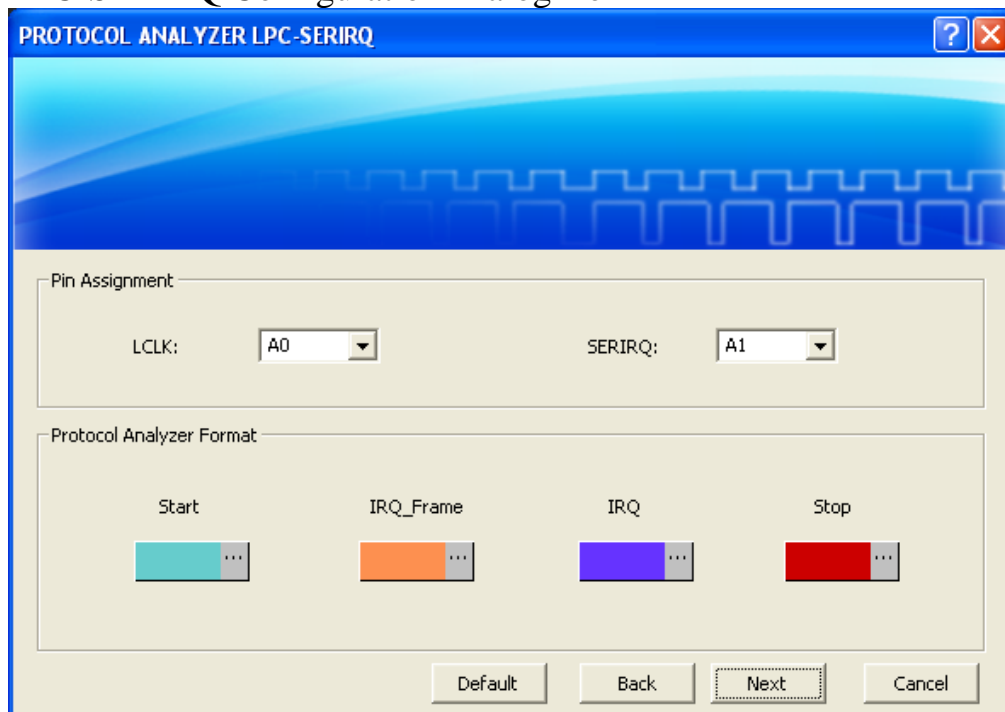




3 User Interface

Please refer to the below images to select options of setting **LPC-SERIRQ** Module.

LPC-SERIRQ Configuration Dialog Box



Pin Assignment:

LCLK: It is the Clock channel, and the default is A0.

SERIRQ: It is the Interrupt Request channel, and the default is A1.

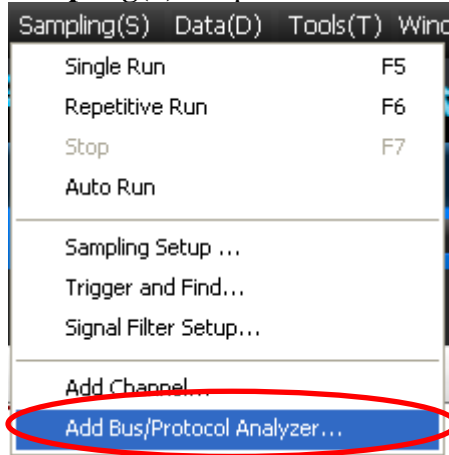
Protocol Analyzer Format:

The protocol analyzer format can be varied by users.

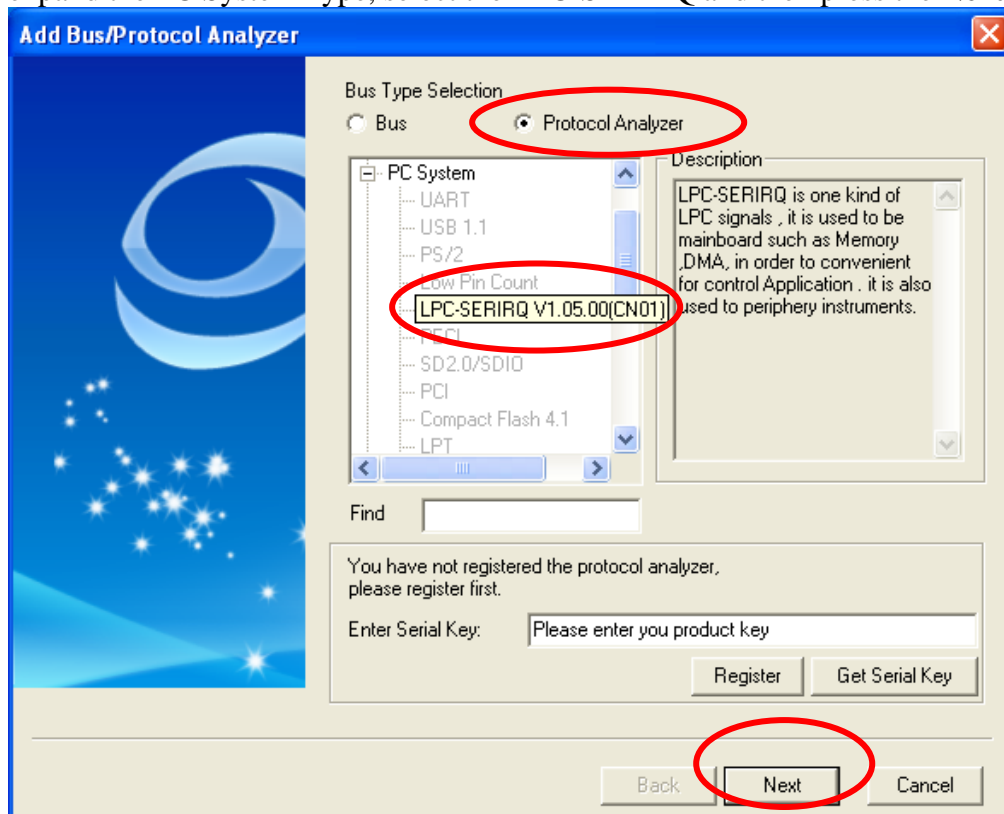


4 Operating Instructions

STEP 1. Select the **Add Bus/Protocol Analyzer** item on the pull-down menu of the **Sampling(S)** to open the **Add Bus/Protocol Analyzer** dialog box.

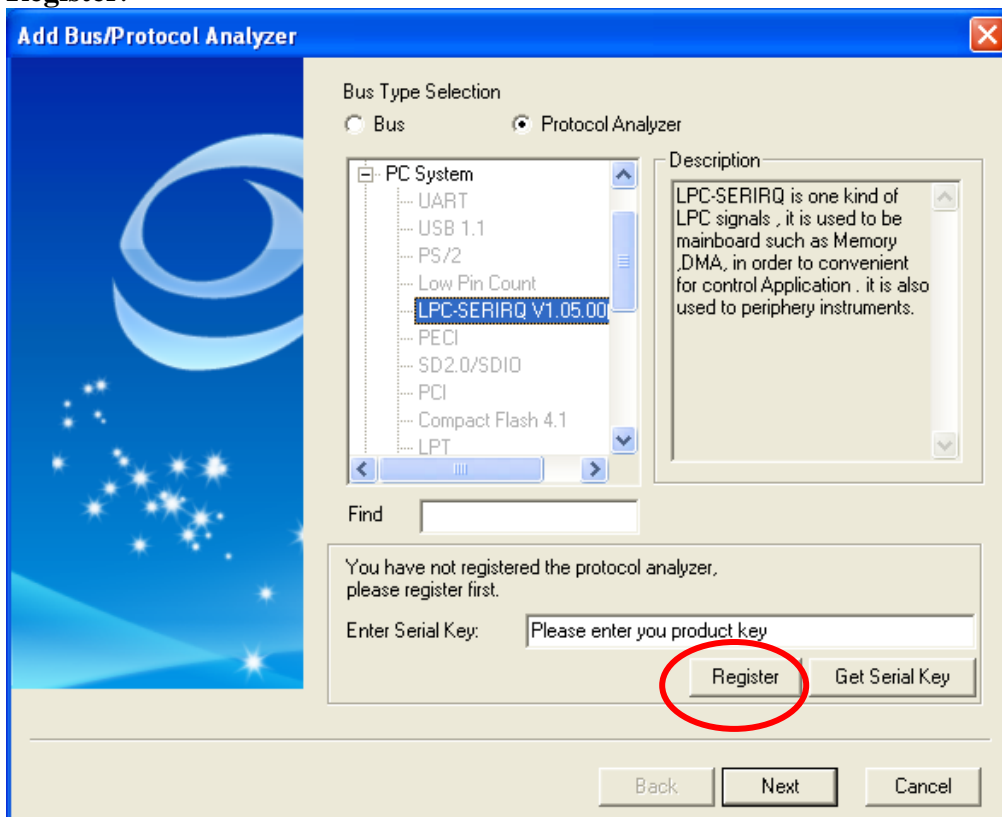


STEP 2. Select the Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the PC System Type, select the LPC-SERIRQ and then press the **Next**.

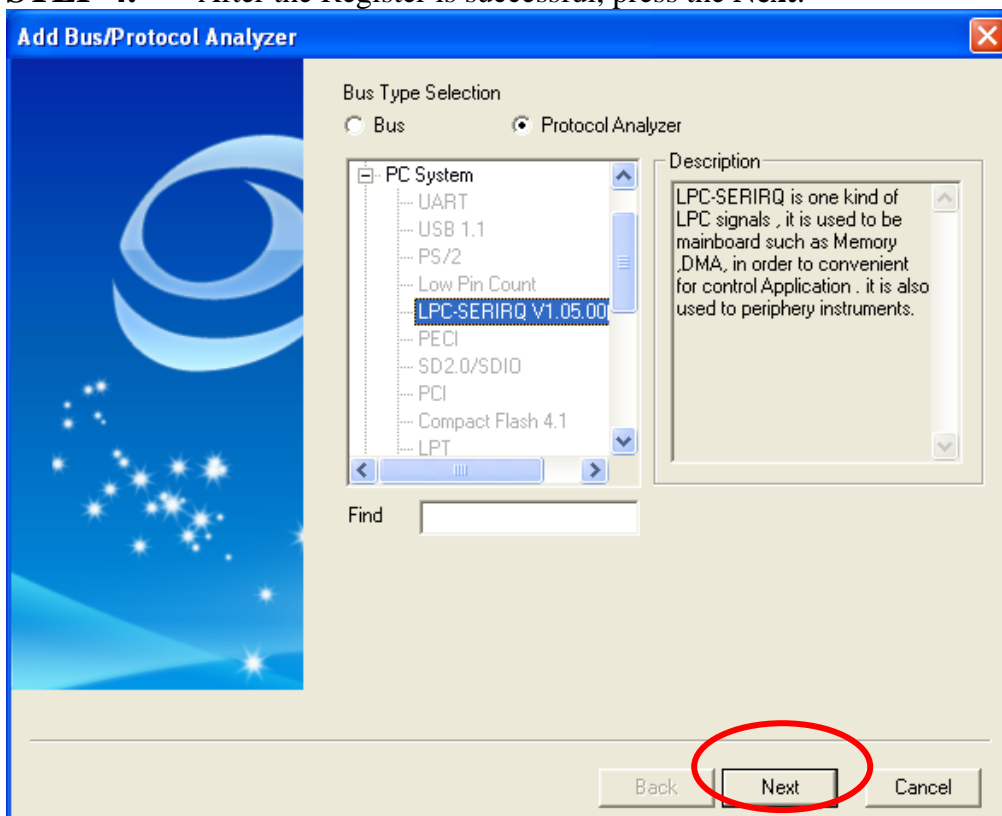




STEP 3. Enter the Serial Key of the LPC-SERIRQ under this Model, and then press the Register.

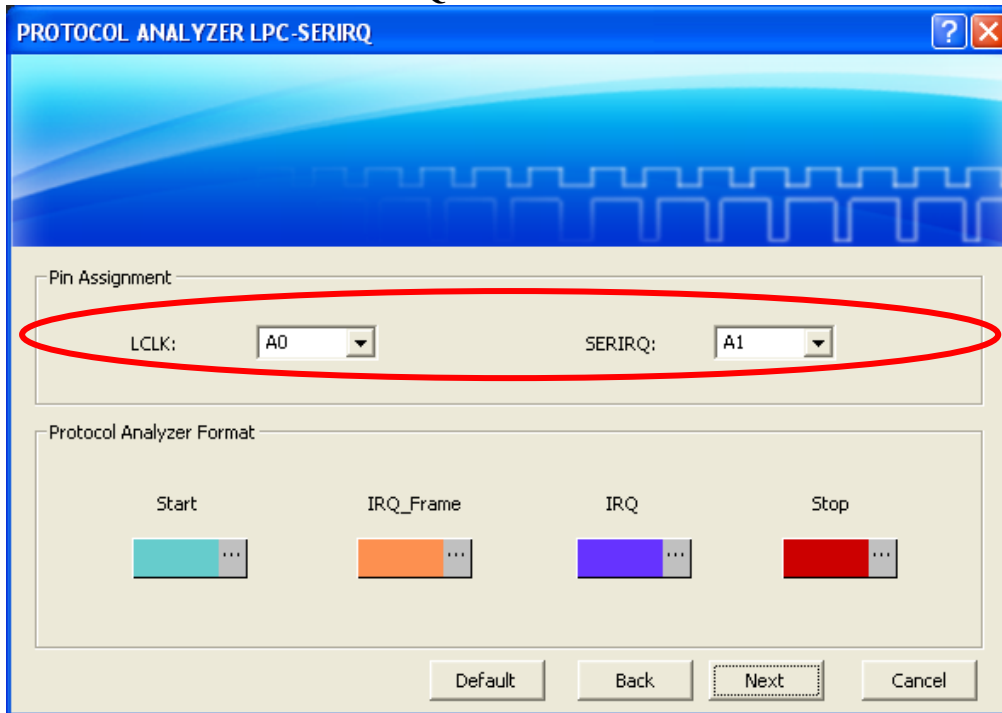


STEP 4. After the Register is successful, press the Next.

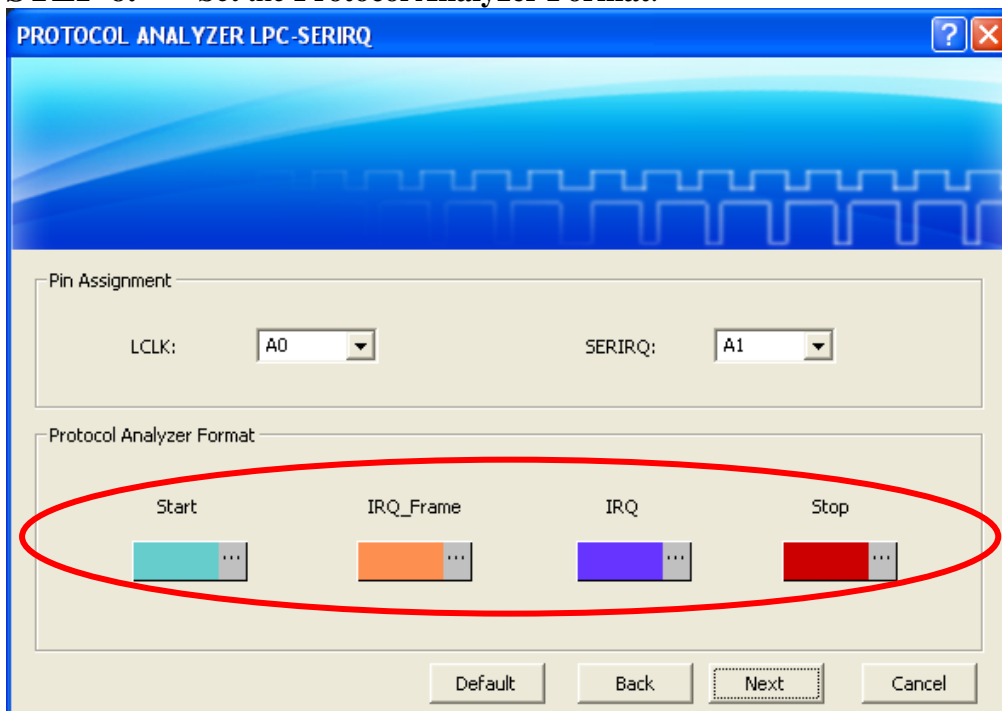




STEP 5. Open the PROTOCOL ANALYZER LPC-SERIRQ dialog box and set the channels for **LCLK** and **SERIRQ**.

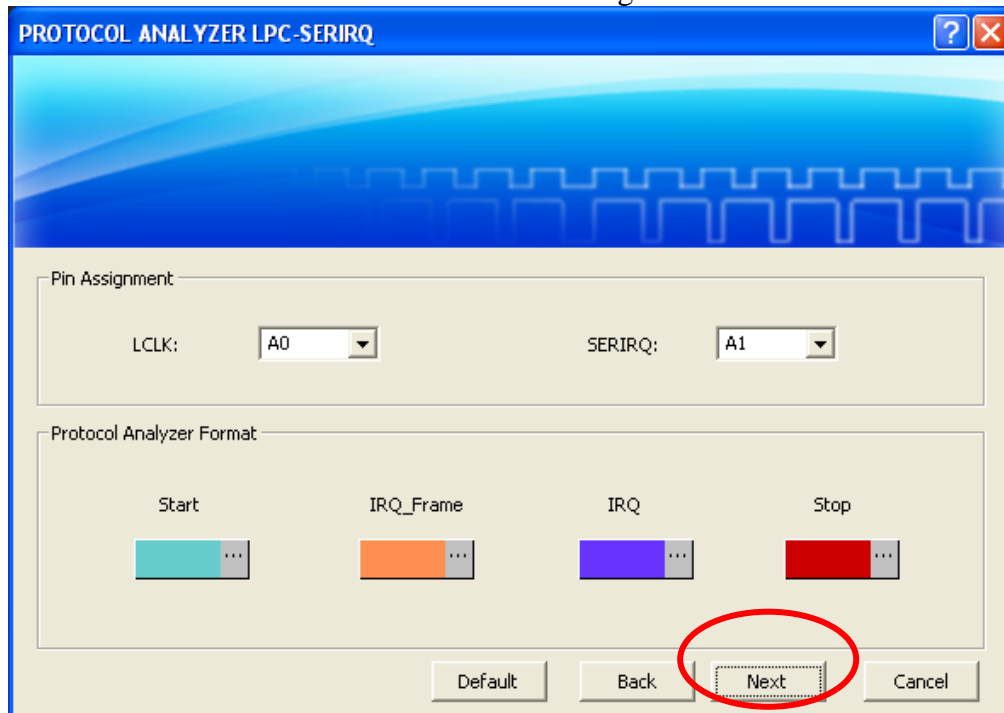


STEP 6. Set the **Protocol Analyzer Format**.

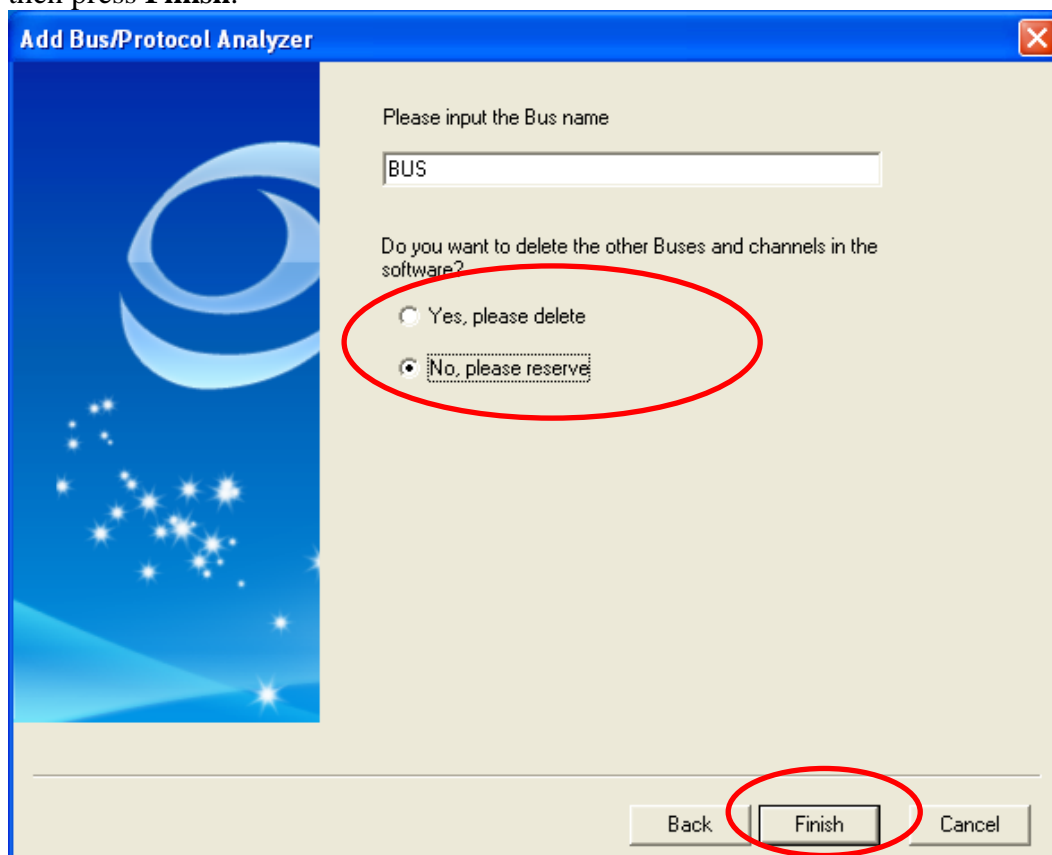




STEP 7. Press the **Next** to finish all settings.



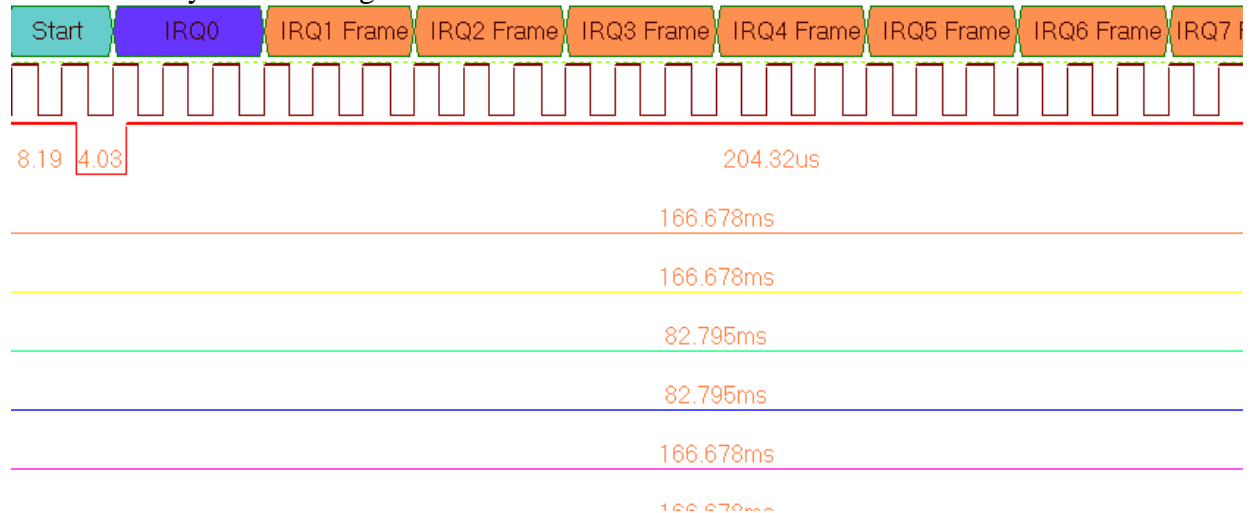
STEP 8. Please enter the Bus Name, select **Yes, please delete** or **No, please reserve** and then press **Finish**.





STEP 9. 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 200MHz (the sampling frequency should be more than six times higher than the signal to be tested).

Protocol Analyzer Decoding



Packet List

Navigator

Packet List

Statistics

Memory Analyzer

Setting...

Refresh

Export...

Synch. Parameter...

Packet #	Name	TimeStamp	Start	IRQ	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame
1	Bus1(LPC-SERIRQ)	0.0037ms	Start	IRQ0	IRQ1 Frame	IRQ2 Frame	IRQ3 Frame	IRQ4 Frame	IRQ5 Frame	IRQ6 Frame
					IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame
					IRQ7 Frame	IRQ8 Frame	IRQ9 Frame	IRQ10 Frame	IRQ11 Frame	IRQ12 Frame
					IRQ13 Frame	IRQ14 Frame	IRQ15 Frame			
					IRQ_Frame	Stop				
					IRQ16 Frame	Stop				
Packet #	Name	TimeStamp	Start	IRQ	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame	IRQ_Frame
2	Bus1(LPC-SERIRQ)	0.24546ms	Start Quiet	IRQ0	IRQ0 Frame	IRQ1	IRQ2 Frame	IRQ3 Frame	IRQ4 Frame	IRQ5 Frame
					IRQ6 Frame	IRQ7 Frame	IRQ8 Frame	IRQ9 Frame	IRQ10 Frame	IRQ11 Frame
					IRQ12 Frame	IRQ13 Frame	IRQ14 Frame	IRQ15 Frame		
					IRQ_Frame	Stop				
					IRQ16 Frame	Stop				
Packet #	Name	TimeStamp	Start	IRQ	IRQ_Frame	IRQ_Frame	IRQ	IRQ_Frame	IRQ_Frame	IRQ_Frame
3	Bus1(LPC-SERIRQ)	0.49537ms	Start Continuous		IRQ0 Frame	IRQ1 Frame	SMI	IRQ3 Frame	IRQ4 Frame	IRQ5 Frame
					IRQ6 Frame	IRQ7 Frame	IRQ8 Frame	IRQ9 Frame	IRQ10 Frame	IRQ11 Frame