



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

SPECIFICATION

MODEL: B09022-LAP-Philips RC-5-M

PART NO: _____

VERSION: **V1.01**

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



Content

1	Software Download.....	3
2	Software Installation	6
3	User Interface.....	10
4	Operating Instructions.....	11



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.

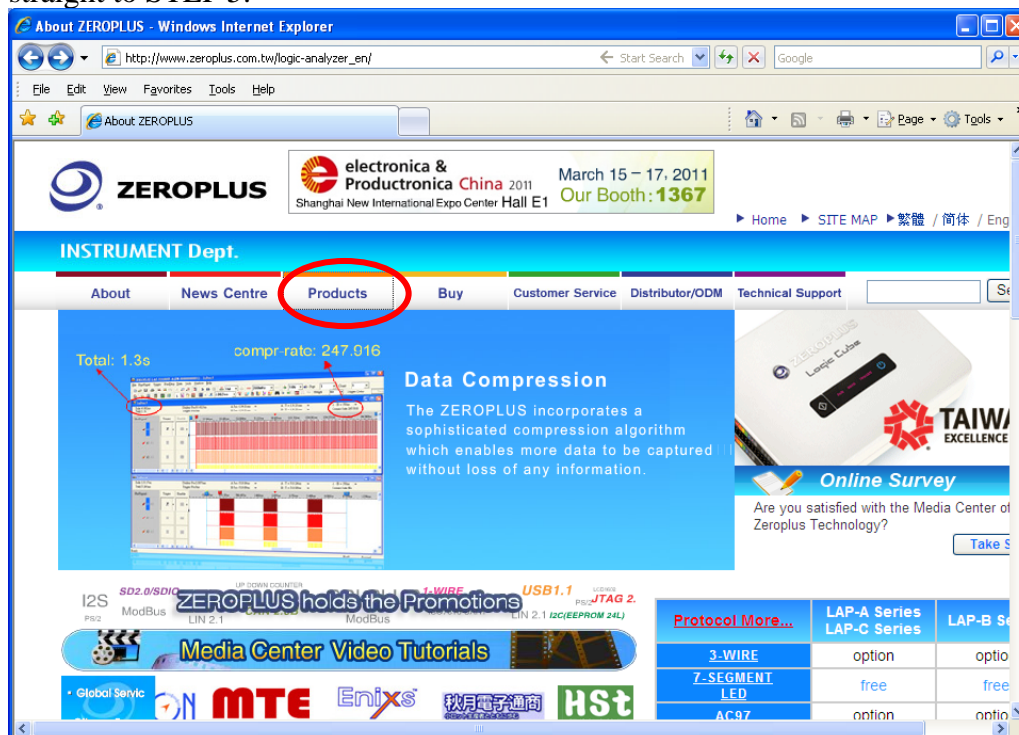
STEP 1. Visit the website of ZeroPlus: <http://www.zeroplus.com.tw>.

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

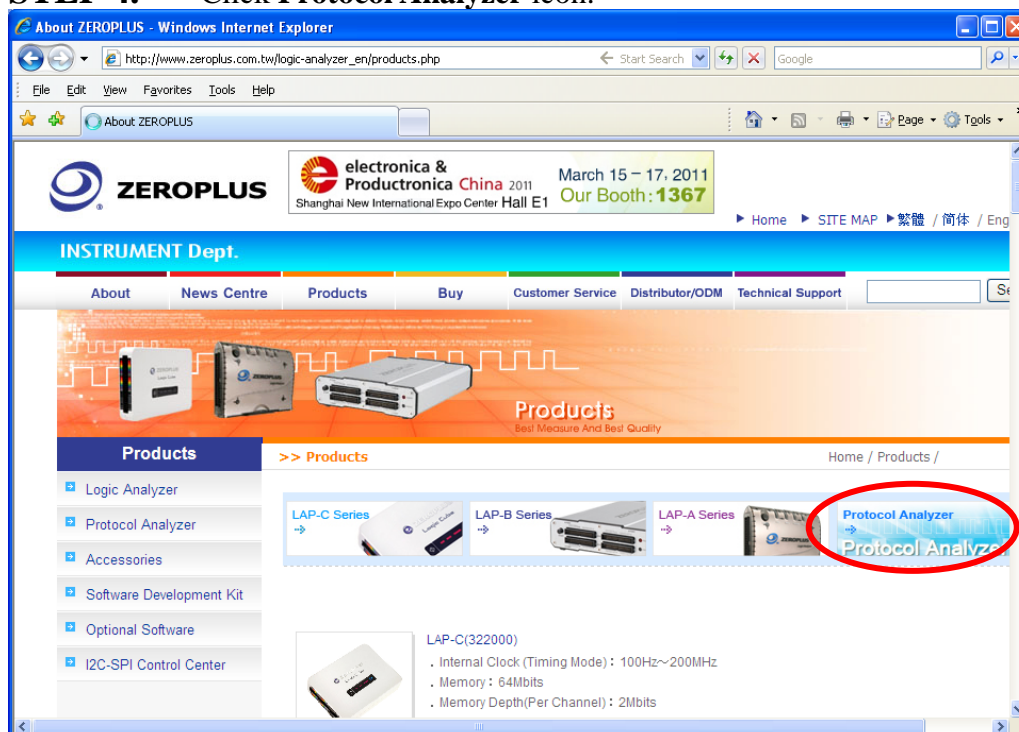




STEP 3. Click **Products** menu or select Protocol Analyzer item from its pull-down menu to go straight to STEP 5.

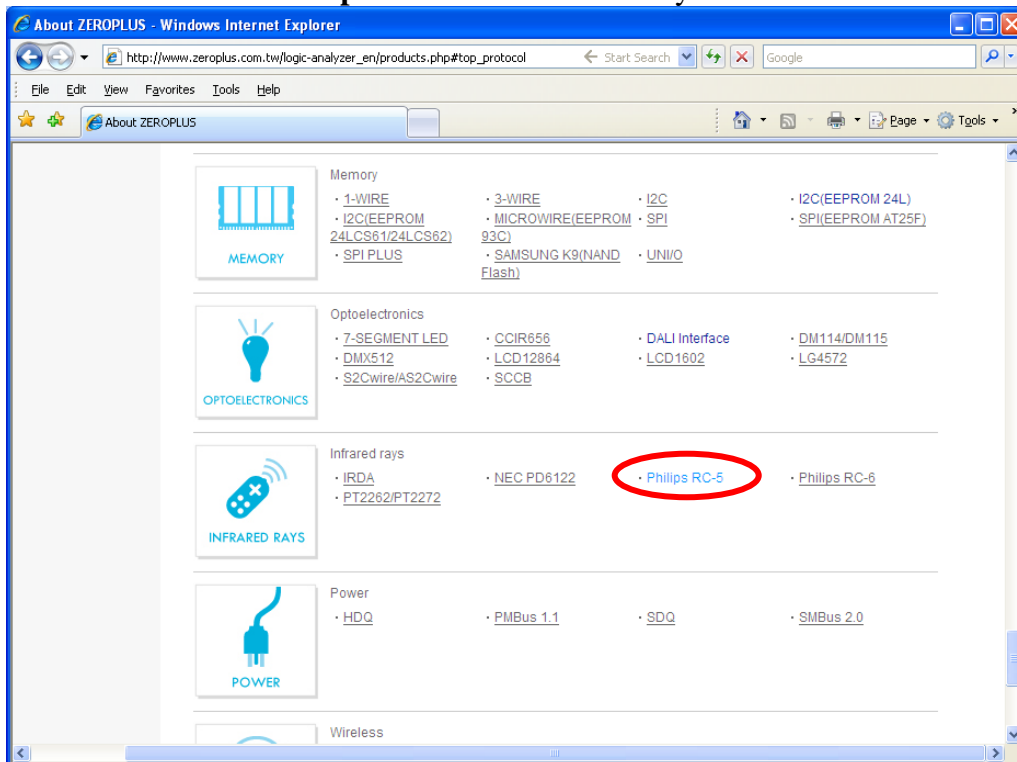


STEP 4. Click **Protocol Analyzer** icon.

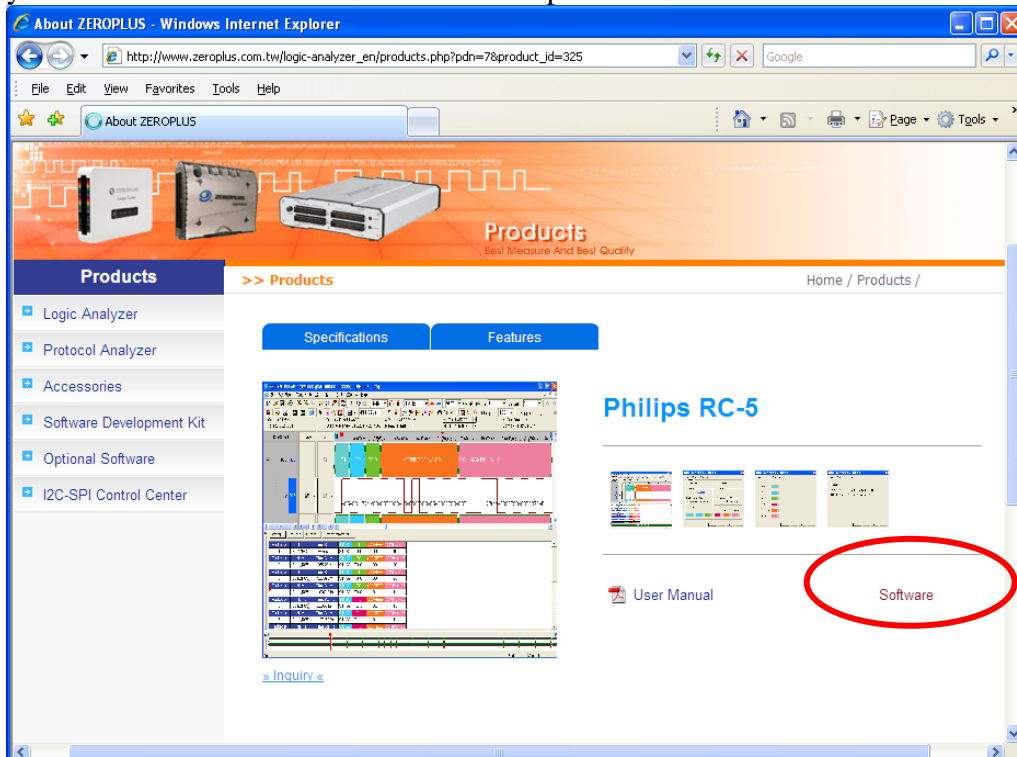




STEP 5. Click **Philips RC-5** in the Infrared rays.



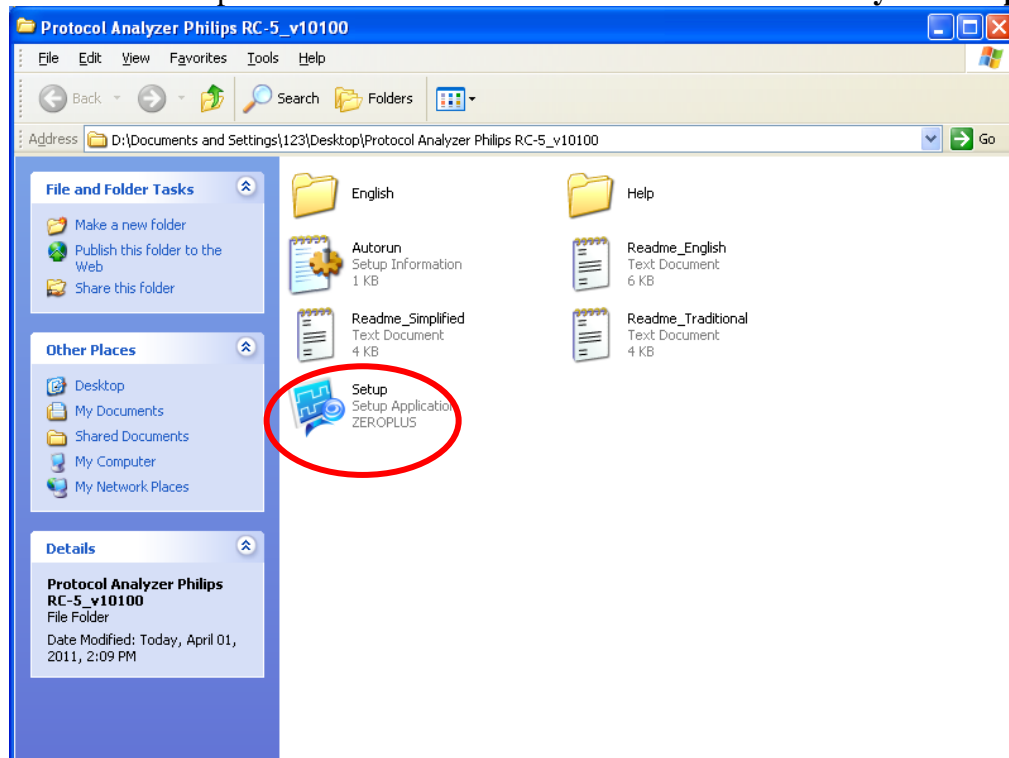
STEP 6. Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed folder.



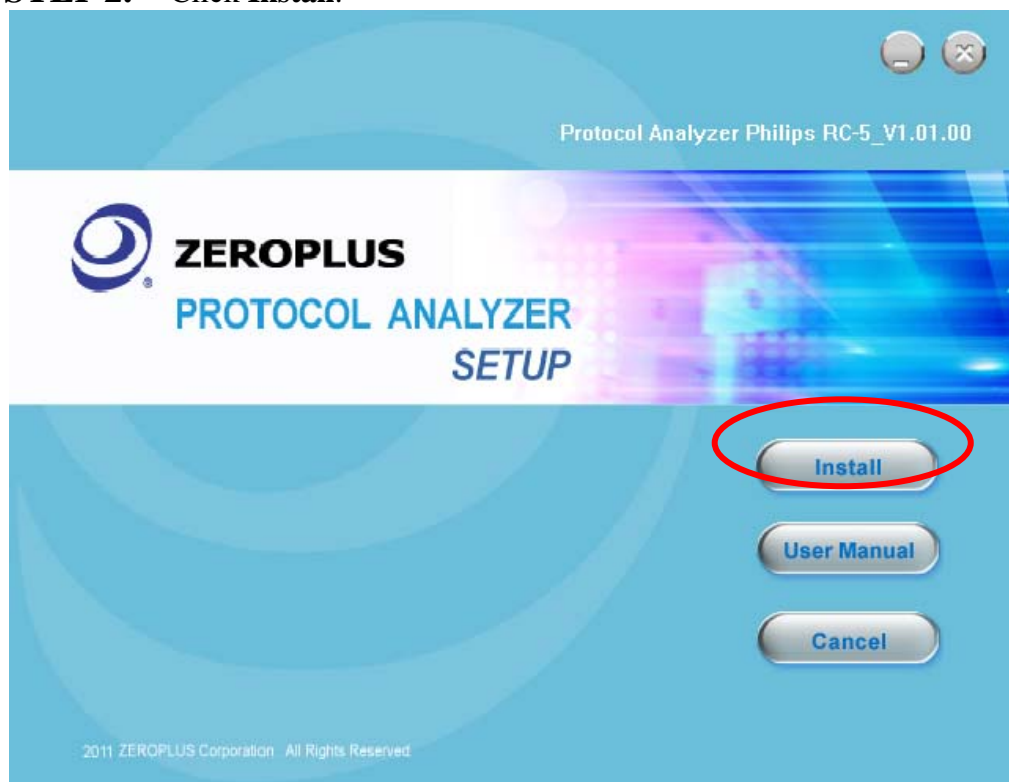


2 Software Installation

STEP 1. Open the downloaded folder to install **Protocol Analyzer Philips RC-5**.

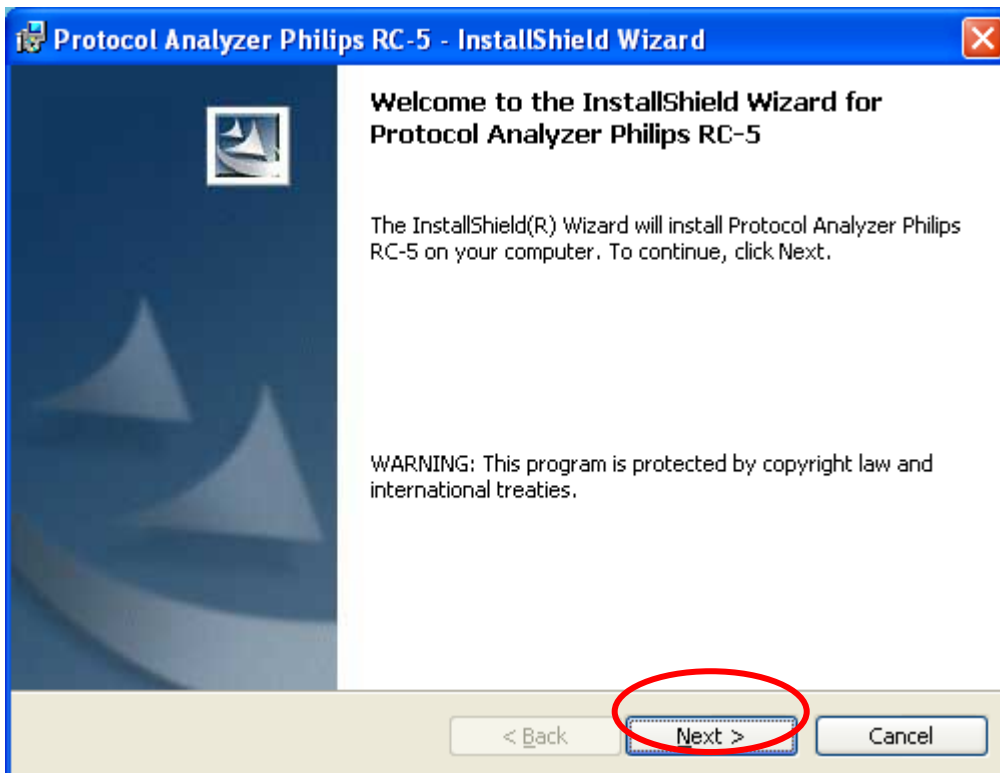


STEP 2. Click **Install**.

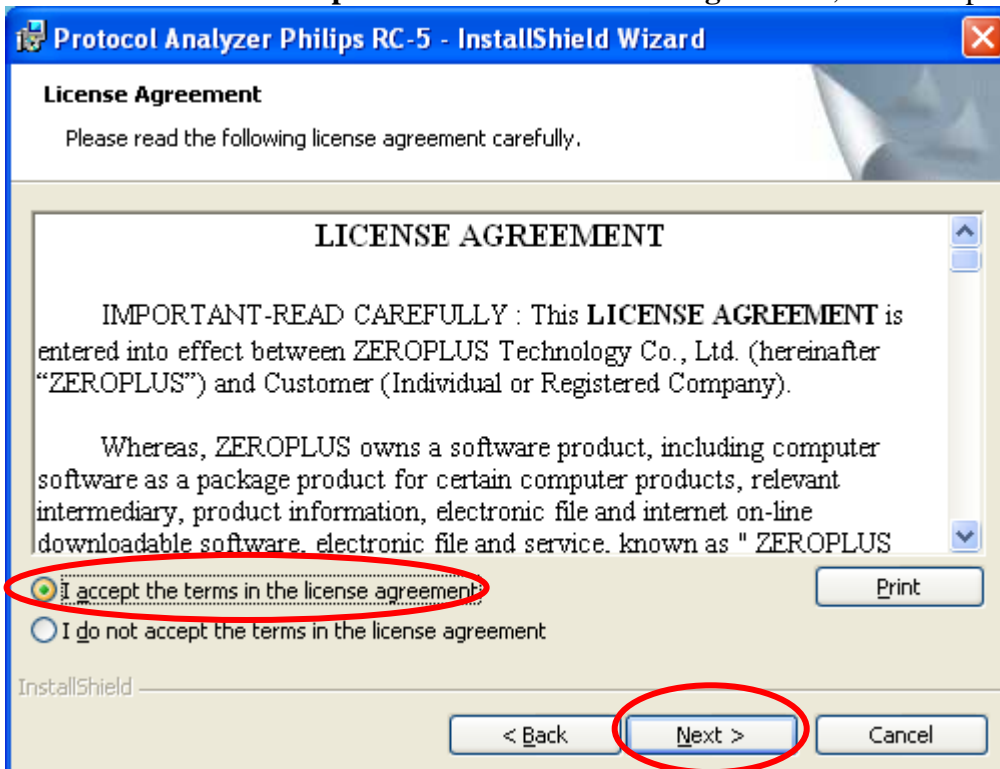




STEP 3. Click Next.



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**.

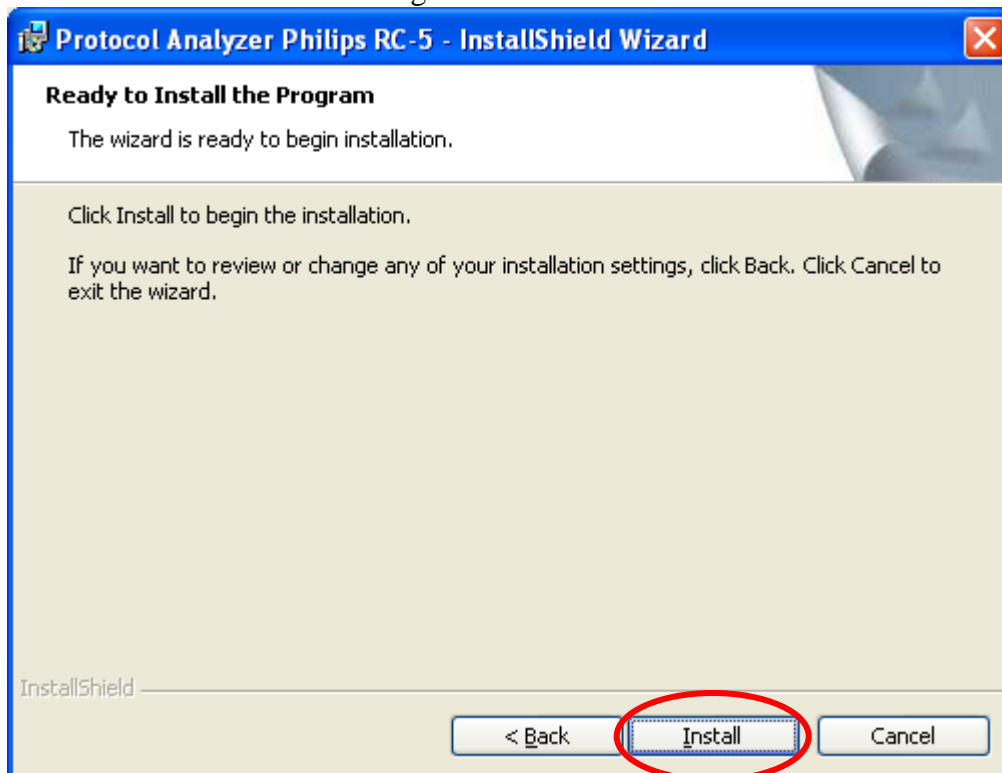
The screenshot shows the 'Customer Information' screen of the 'Protocol Analyzer Philips RC-5 - InstallShield Wizard'. The title bar is blue with the application icon and text. The main area has a light beige background. At the top, it says 'Customer Information' and 'Please enter your information.' Below this are two text input fields: 'User Name:' with 'kelly' entered, and 'Organization:' with 'kelly' entered. Further down, it says 'Install this application for:' followed by two radio button options: 'Anyone who uses this computer (all users)' (which is selected) and 'Only for me (kelly)'. At the bottom, there is a status bar with the 'InstallShield' logo. To the right of the status bar are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is circled in red.

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

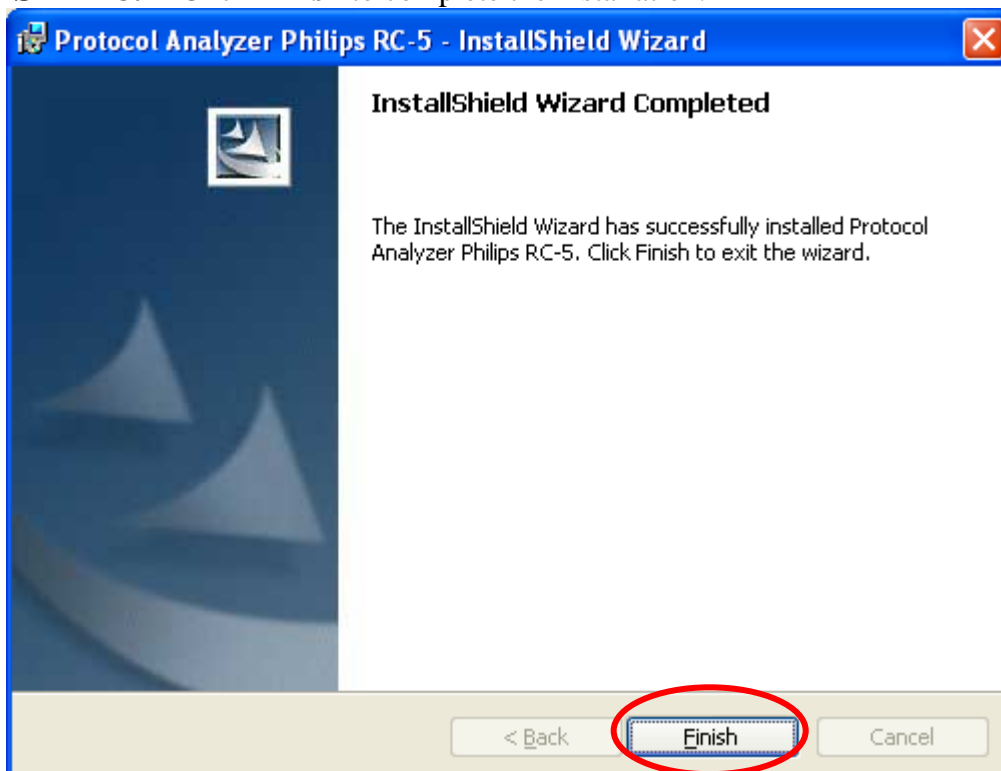
The screenshot shows the 'Setup Type' screen of the 'Protocol Analyzer Philips RC-5 - InstallShield Wizard'. The title bar is blue with the application icon and text. The main area has a light beige background. At the top, it says 'Setup Type' and 'Choose the setup type that best suits your needs.' Below this, it says 'Please select a setup type.' There are two radio button options: 'Complete' (which is selected) and 'Custom'. Each option has a small icon of a computer tower. The 'Complete' option has the text 'All program features will be installed. (Requires the most disk space.)' and the 'Custom' option has the text 'Choose which program features you want installed and where they will be installed. Recommended for advanced users.' At the bottom, there is a status bar with the 'InstallShield' logo. To the right of the status bar are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is circled in red.



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



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





3 User Interface

In the configuration, please refer to the below images to select options of setting Philips RC-5 Module.

Philips RC-5 Configuration Dialog Box

Item	Color	Data Format
S1		Default
S2		Default
T0		Default
T1		Default
Address		Default
Command		Default

Pin Assignment:

Channel: It only needs one channel to decode the signals.

Protocol Analyzer Property:

Mode Selection: Set the Mode to Receive or Transmit, and the default is Receive.

S2 is the Extended Bit of Command: When selecting this option, S2 is the Extended Bit of Command, S2 is added to the last bit of the Command, and the default is disabled by default.

Baud Rate:

Auto: When selecting the option, Auto, the Baud Rate will be calculated automatically by decoding, and the calculated correct value will also be displayed.

Manual Input: The default of the Baud Rate Setting is Manual Input, and the default value is 562.50, which is the usual transmission speed. Users can enter the value from 1bps to 10Mbps.

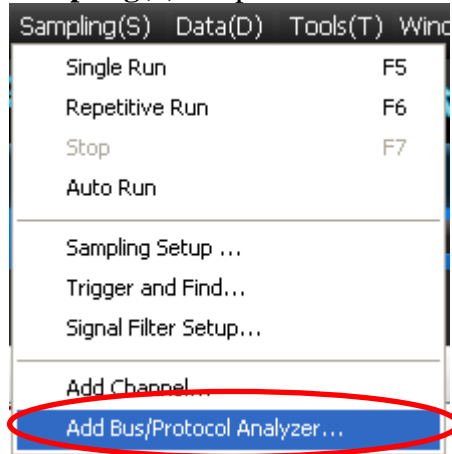
Protocol Analyzer Format:

The Color of each Item can be varied as the users' requirements. The Items (Command and Address) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of these Items (Command and Address) in the Waveform Display Area and Packet List is controlled by the Protocol Analyzer. The default Data Format is controlled by the main program and the Data Format of these items (Command and Address) is the Default.

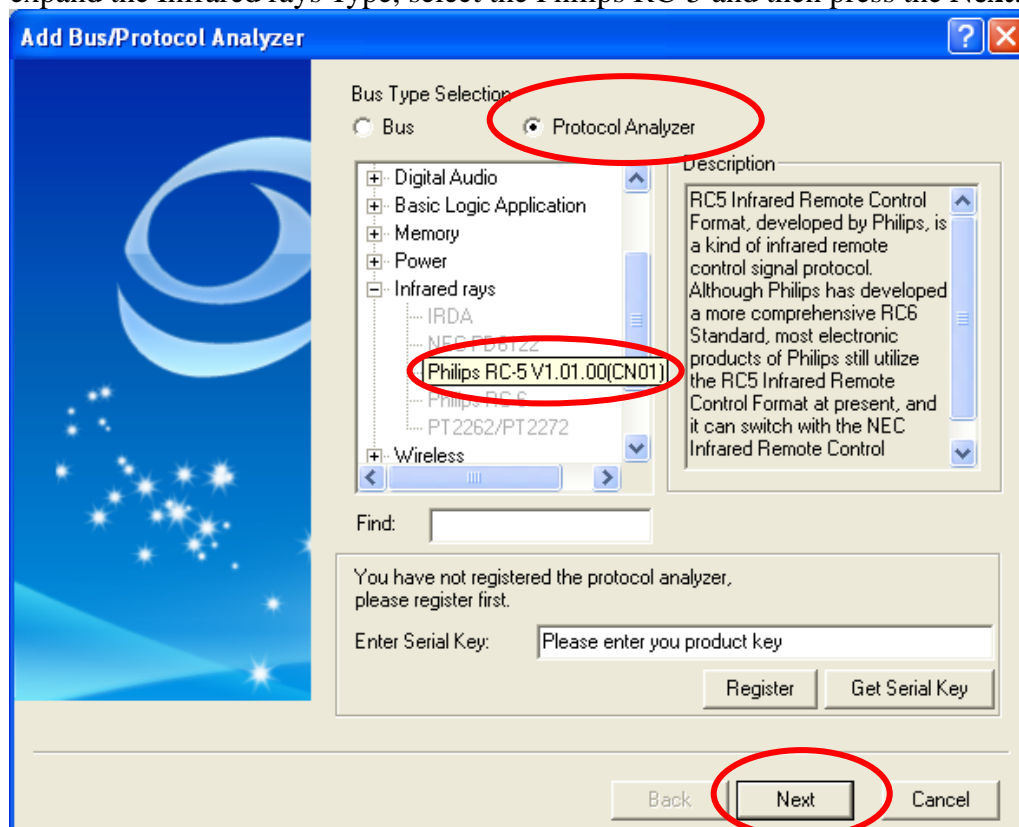


4 Operating Instructions

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.

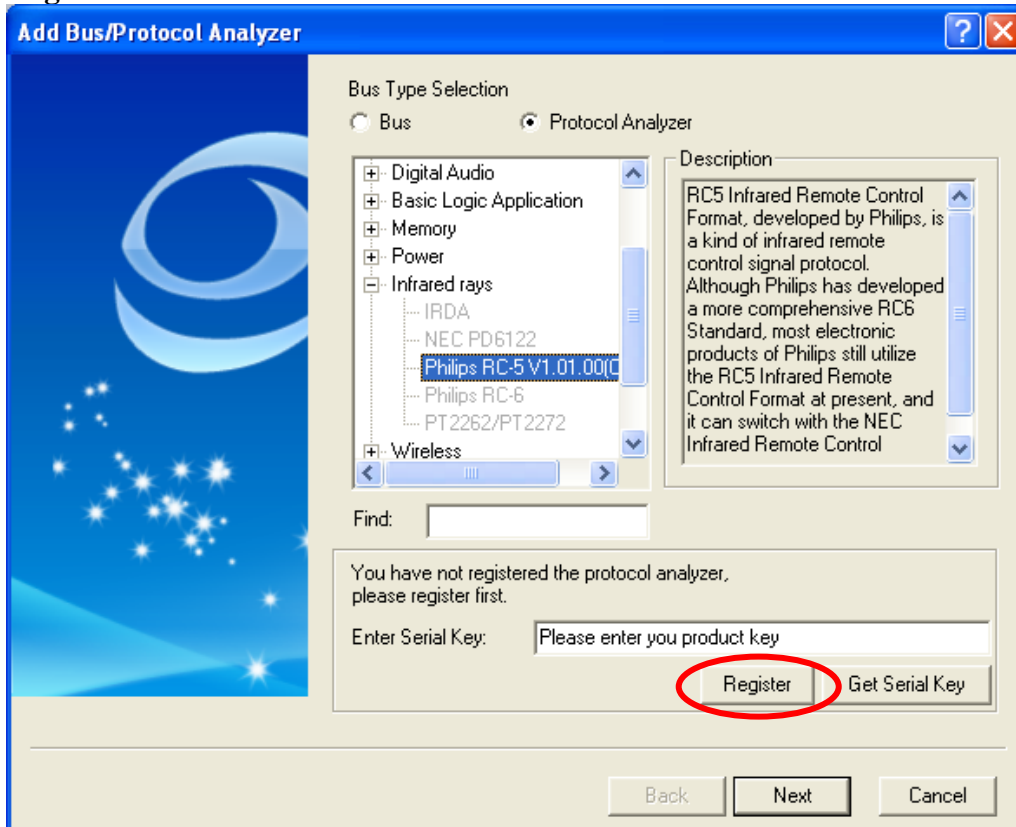


STEP 2. Select the Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Infrared rays Type, select the Philips RC-5 and then press the **Next**.

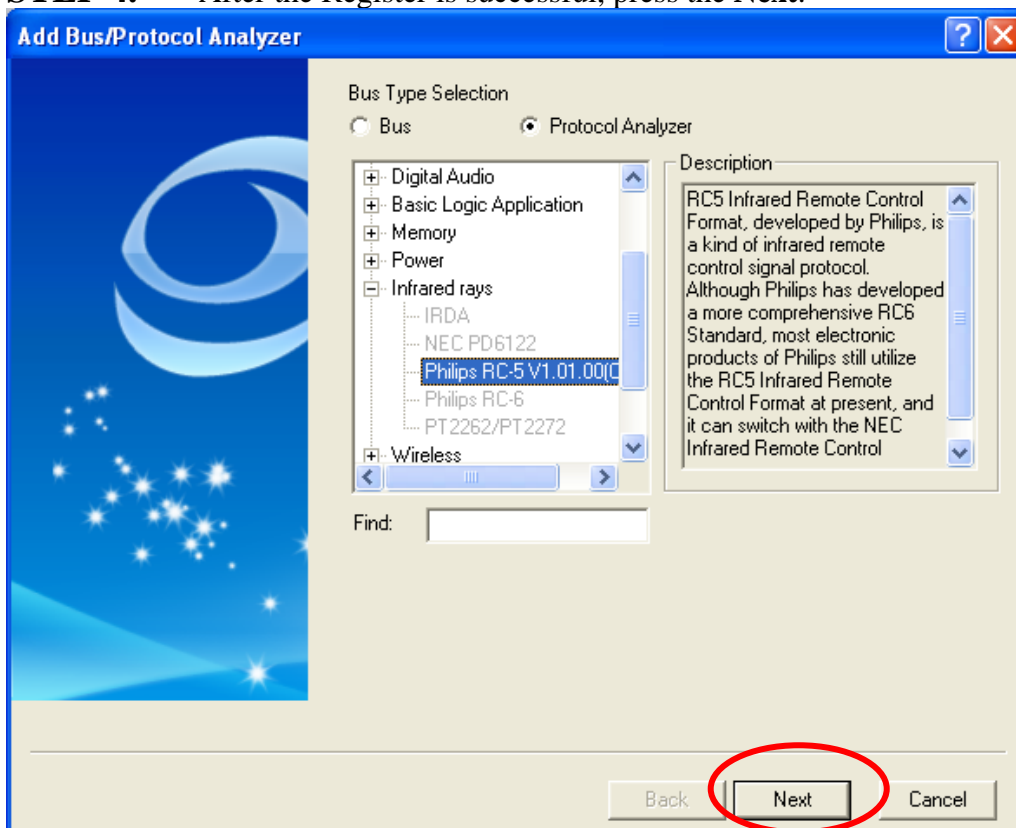




STEP 3. Enter the Serial Key of the Philips RC-5 under this Model, and then press the **Register**.



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





STEP 5. Open the PROTOCOL ANALYZER Philips RC-5 dialog box and set the **Channel**.

PROTOCOL ANALYZER Philips RC-5

Pin Assignment
Channel: A0

Protocol Analyzer Property
Mode Selection: Receive Baud Rate: 562.50 ☐ Auto
☐ S2 is the Extended Bit of Command (Min:1,Max:10000000)

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
S1		Default	T1		Default
S2		Default	Address		Default
T0		Default	Command		Default

Default Back Next Cancel

STEP 6. Set the **Mode Selection** to Receive or Transmit.

PROTOCOL ANALYZER Philips RC-5

Pin Assignment
Channel: A0

Protocol Analyzer Property
Mode Selection: Receive Baud Rate: 562.50 ☐ Auto
☐ S2 is the Extended Bit of Command (Min:1,Max:10000000)

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
S1		Default	T1		Default
S2		Default	Address		Default
T0		Default	Command		Default

Default Back Next Cancel



STEP 7. Set the **S2 is the Extended Bit of Command**.

PROTOCOL ANALYZER Philips RC-5

Pin Assignment
Channel: A0

Protocol Analyzer Property
Mode Selection: Receive
☒ S2 is the Extended Bit of Command
Baud Rate: 562.50 ☐ Auto
(Min:1,Max:10000000)

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
S1		Default	T1		Default
S2		Default	Address		Default
T0		Default	Command		Default

Default Back Next Cancel

STEP 8. Set the **Baud Rate** in the range from 1bps to 10Mbps, and the default is 562.50.

PROTOCOL ANALYZER Philips RC-5

Pin Assignment
Channel: A0

Protocol Analyzer Property
Mode Selection: Receive
☒ S2 is the Extended Bit of Command
Baud Rate: 562.50 ☐ Auto
(Min:1,Max:10000000)

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
S1		Default	T1		Default
S2		Default	Address		Default
T0		Default	Command		Default

Default Back Next Cancel



STEP 9. Set the Color of each Item and the Data Format of the Items (Command and Address).

PROTOCOL ANALYZER Philips RC-5

Pin Assignment:
Channel: A0

Protocol Analyzer Property:
Mode Selection: Receive Baud Rate: 562.50 ☐ Auto
☒ S2 is the Extended Bit of Command (Min:1,Max:10000000)

Protocol Analyzer Format:

Item	Color	Data Format	Item	Color	Data Format
S1		Default	T1		Default
S2		Default	Address		Default
T0		Default	Command		Default

Default Back Next Cancel

STEP 10. Press the **Next** to finish all settings.

PROTOCOL ANALYZER Philips RC-5

Pin Assignment:
Channel: A0

Protocol Analyzer Property:
Mode Selection: Receive Baud Rate: 562.50 ☐ Auto
☒ S2 is the Extended Bit of Command (Min:1,Max:10000000)

Protocol Analyzer Format:

Item	Color	Data Format	Item	Color	Data Format
S1		Default	T1		Default
S2		Default	Address		Default
T0		Default	Command		Default

Default Back **Next** Cancel



STEP 11. Please enter the Bus Name, select **Yes, please delete** or **No, please reserve** and then press **Finish**.

Add Bus/Protocol Analyzer

Please input the Bus name

BUS

Do you want to delete the other Buses and channels in the software?

☐ Yes, please delete

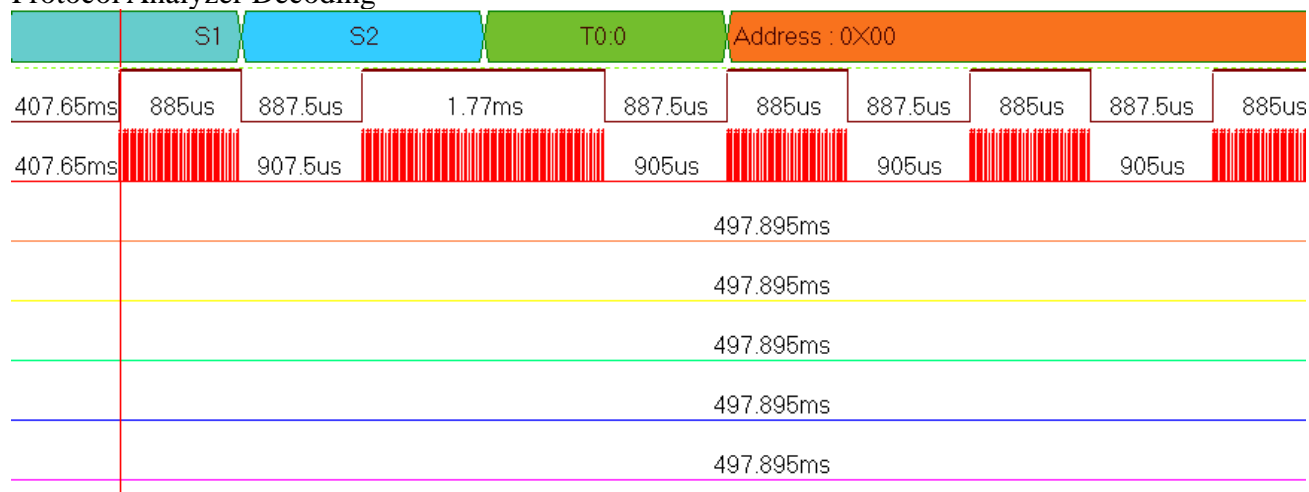
☒ No, please reserve

Back Finish Cancel



STEP 12. Following pictures show the completion of the protocol analyzer decoding and the packet list. The Compression function is activated. The trigger condition is to set as Either Edge; the memory depth is 2K; the sampling frequency is 400 KHz (the sampling frequency should be more than 4 times higher than the signal to be tested).

Protocol Analyzer Decoding



Packet List

Navigator Packet List Statistics Memory Analyzer							
X S A B							
Packet #	Name	TimeStamp	S1	S2	T0	Address	Command
1	Bus1(Philips RC-5)	-0.8875ms	S1	S2	T0:0	00	10