



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

SPECIFICATION

MODEL: B08008-LAP-DigRF-M

PART NO: _____

VERSION: V1.11

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to ZeroPlus Technology after signing.

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1 Software Download

Please install 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.

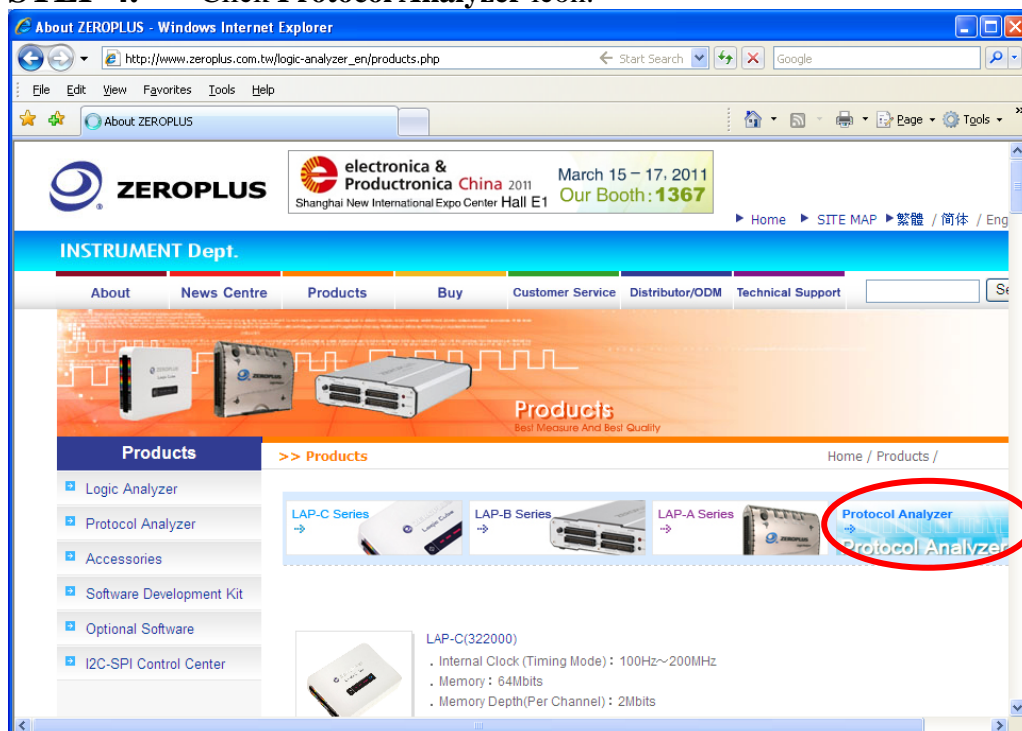




STEP 3. Click **Products** menu or select **Protocol Analyzer** item from its pull-down menu to go straight to STEP 5.

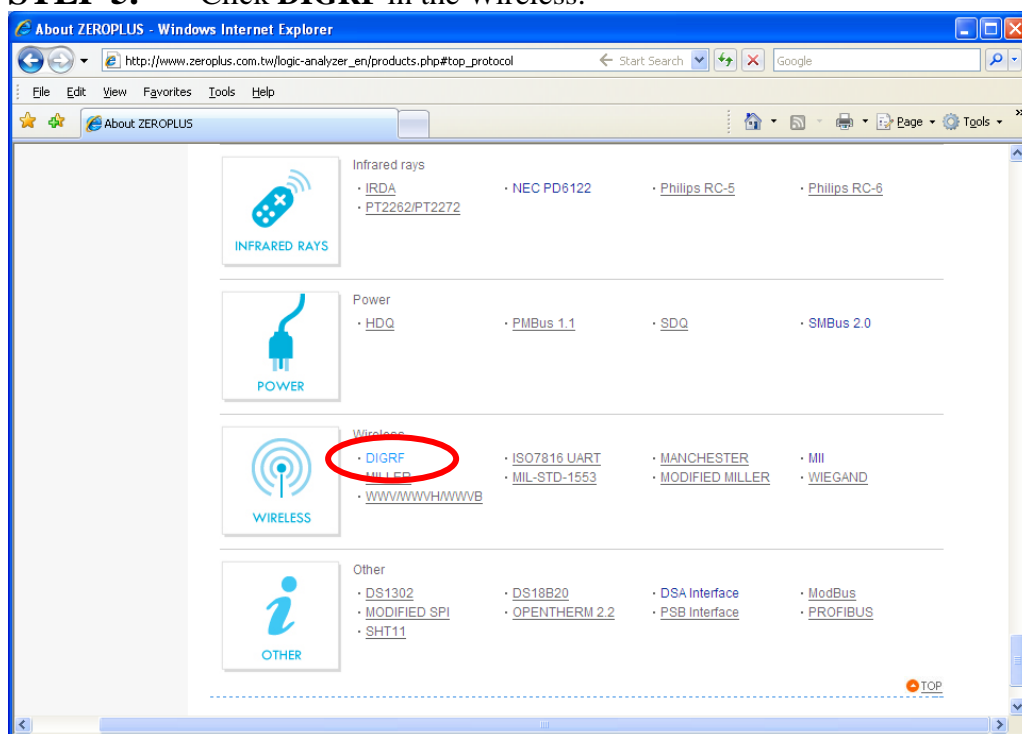


STEP 4. Click **Protocol Analyzer** icon.

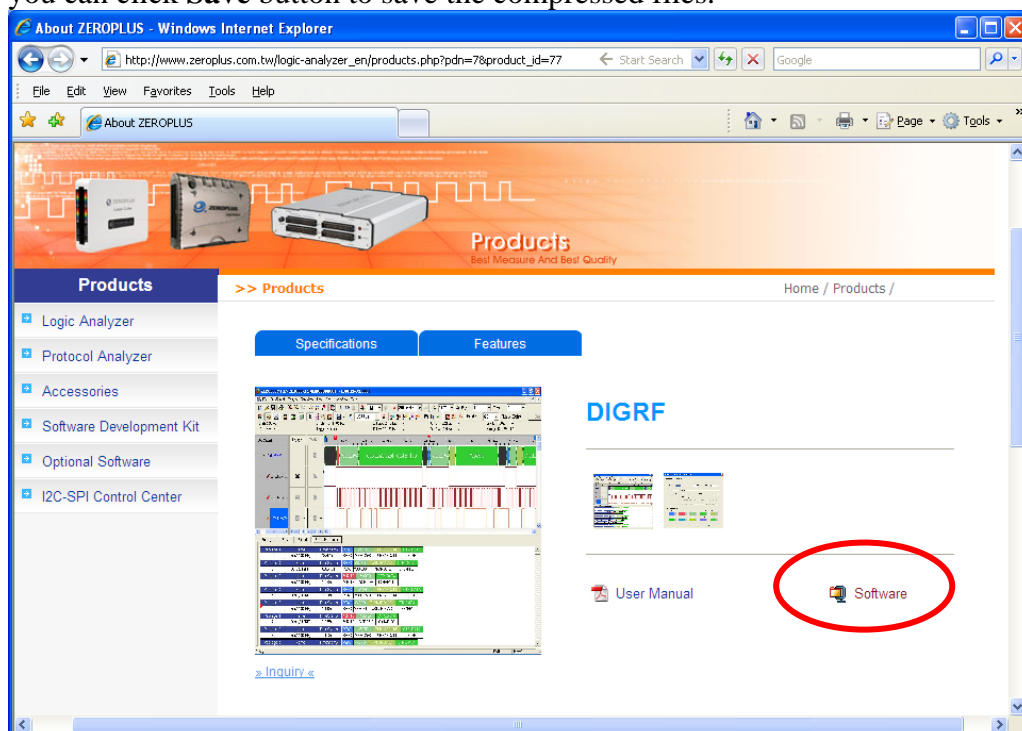




STEP 5. Click **DIGRF** in the Wireless.



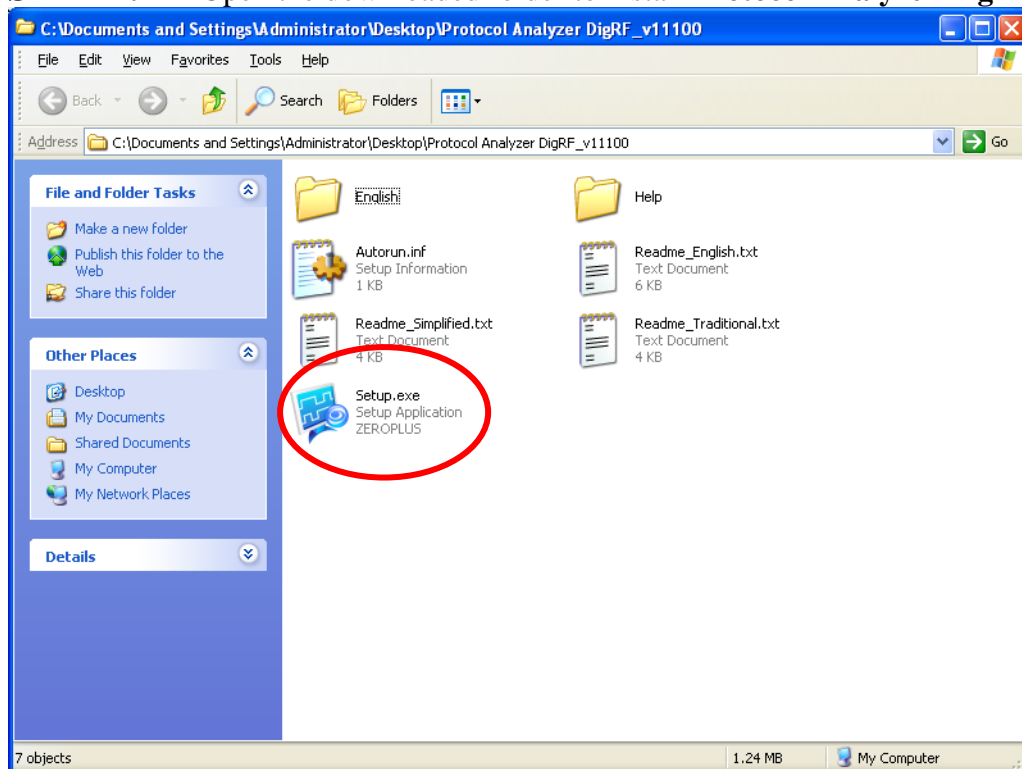
STEP 6. Click **Software** in the Products page. When the File Download dialog box appears, you can click **Save** button to save the compressed files.



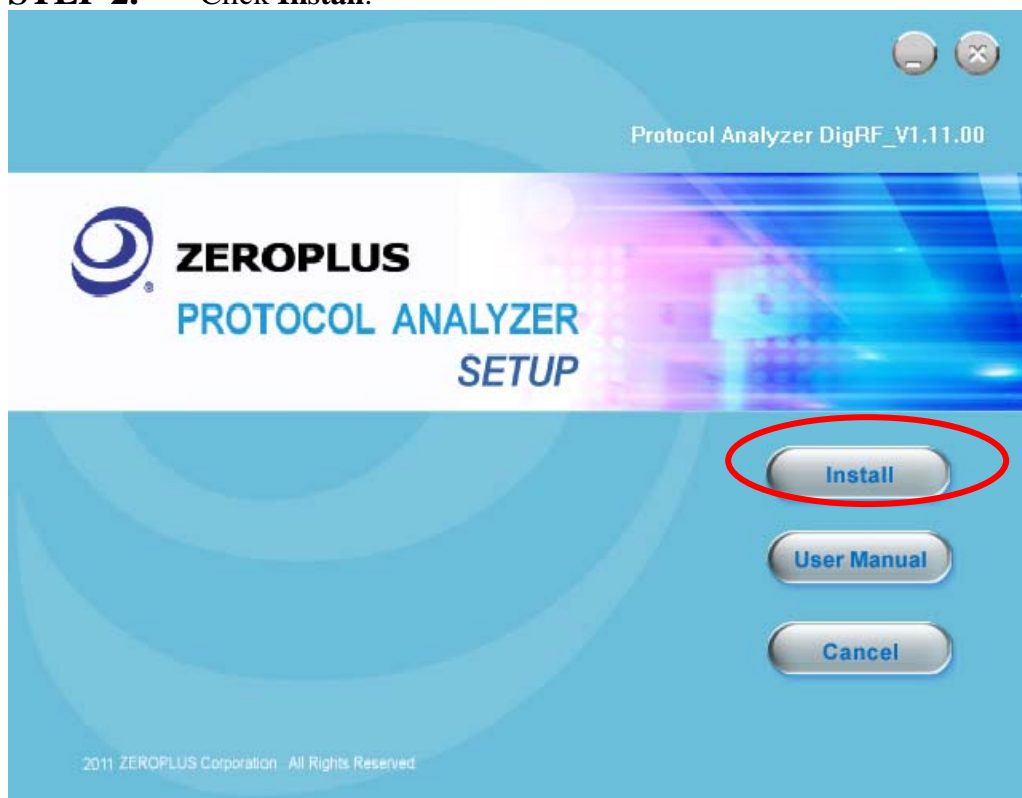


2 Software Installation

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

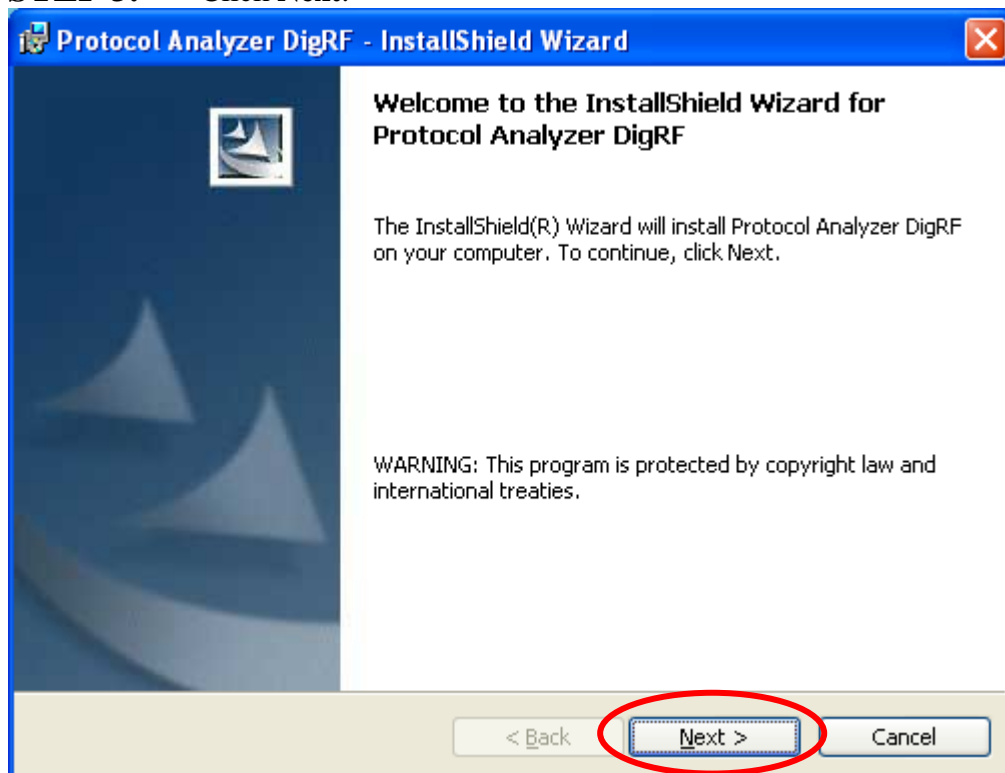


STEP 2. Click **Install**.





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**.

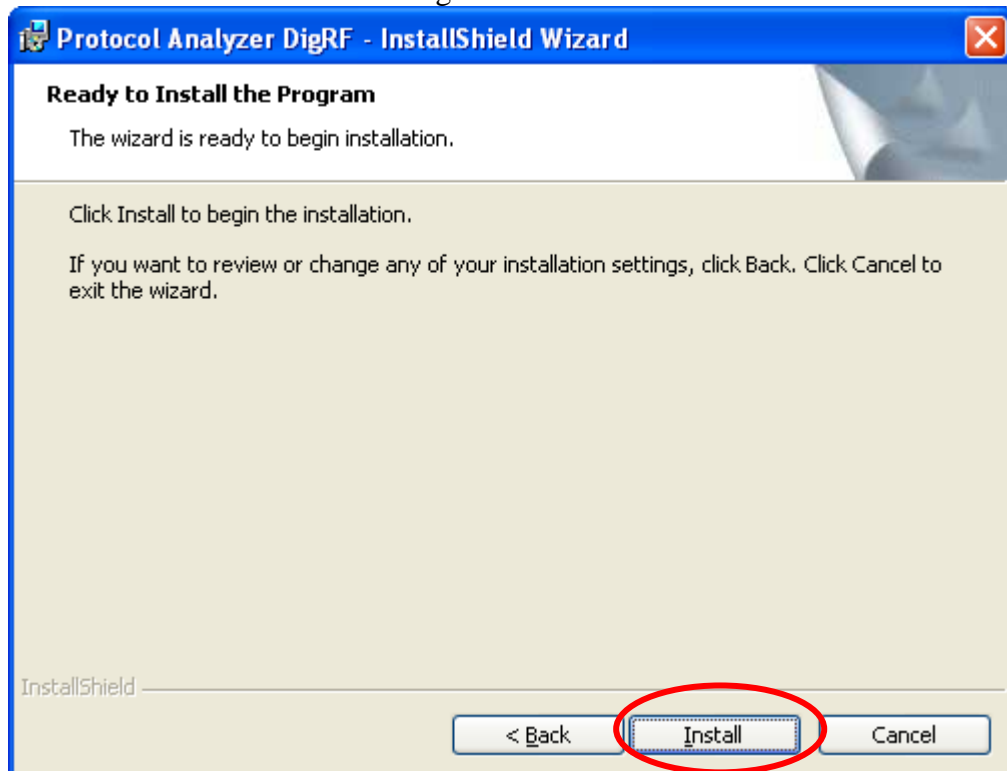
The dialog box is titled "Protocol Analyzer DigRF - InstallShield Wizard". It has a blue header bar with a close button (X) in the top right corner. The main area is titled "Customer Information" and contains the text "Please enter your information." Below this, there are two text input fields: "User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

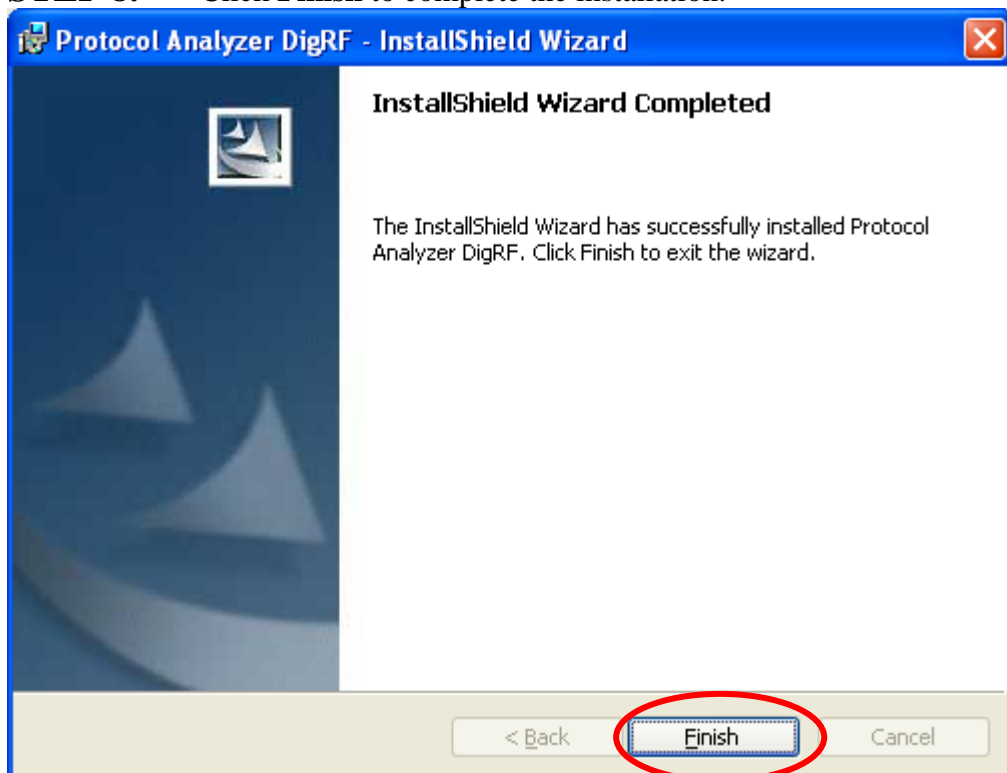
The dialog box is titled "Protocol Analyzer DigRF - InstallShield Wizard". It has a blue header bar with a close button (X) in the top right corner. The main area is titled "Setup Type" and contains the text "Choose the setup type that best suits your needs." Below this, there is a section titled "Please select a setup type." with two radio button options: "Complete" (which is selected) and "Custom". Each option has a small icon of a computer with a red checkmark. 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 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.

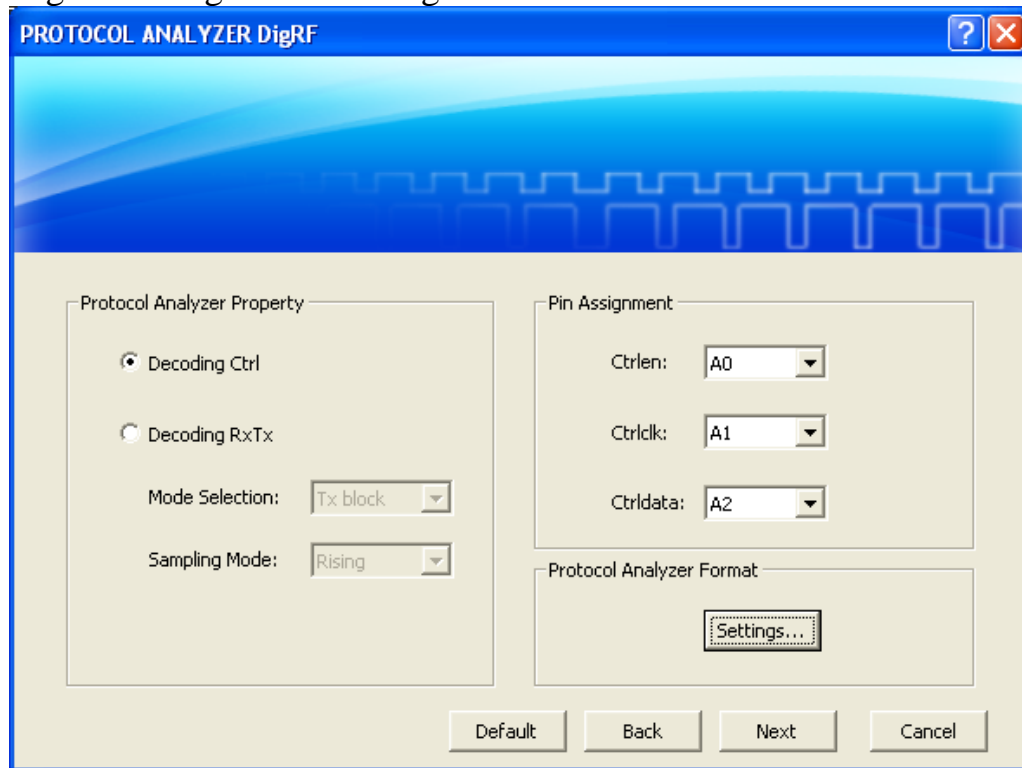




3 User Interface

Please refer to the below images to select options of setting **DigRF** module.

DigRF Configuration Dialog Box



Pin Assignment:

Ctrlcn: Set the usable Enable channel (The channel is Rxtcn in the RxTx Decoding).

Ctrlclk: Set the usable CLK channel (The channel is Sysclk in the RxTx Decoding).

Ctrldata: Set the usable data channel (The channel is Rtxdata in the RxTx Decoding).

Protocol Analyzer Property:

Decoding Ctrl: When it is enabled, the Ctrlcn, Ctrlclk and Ctrldata can be set only.

Decoding RxTx: When it is enabled, the RxtcnSysclk, Rtxdata, Mode Selection and Sampling Mode can be set.

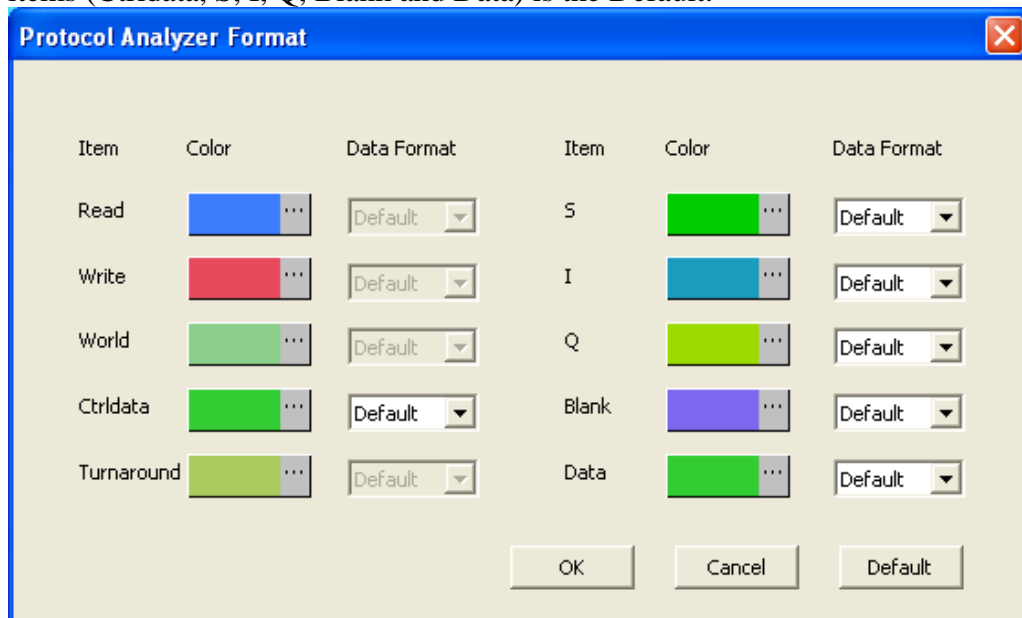
Mode Selection: Set the Mode to Tx block, Tx stream, X1 OSR, X2 OSR, 8 BITS or 16 BITS.

Sampling Mode: Set the Mode to Rising or Falling.



Protocol Analyzer Format:

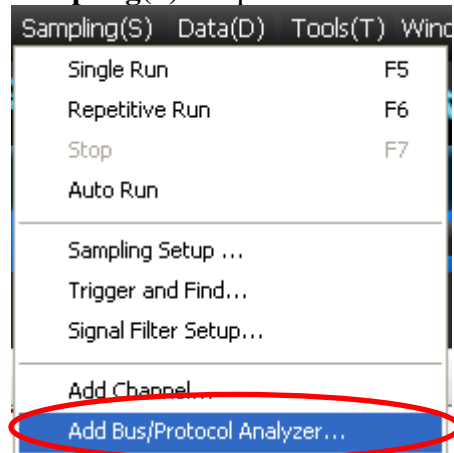
Press the **Settings** button to open the Protocol Analyzer Format dialog box. The Color of each Item can be varied as the users' requirements. The Items (Ctrldata, S, I, Q, Blank and Data) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of these Items (Ctrldata, S, I, Q, Blank and Data) 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 (Ctrldata, S, I, Q, Blank and Data) is the Default.



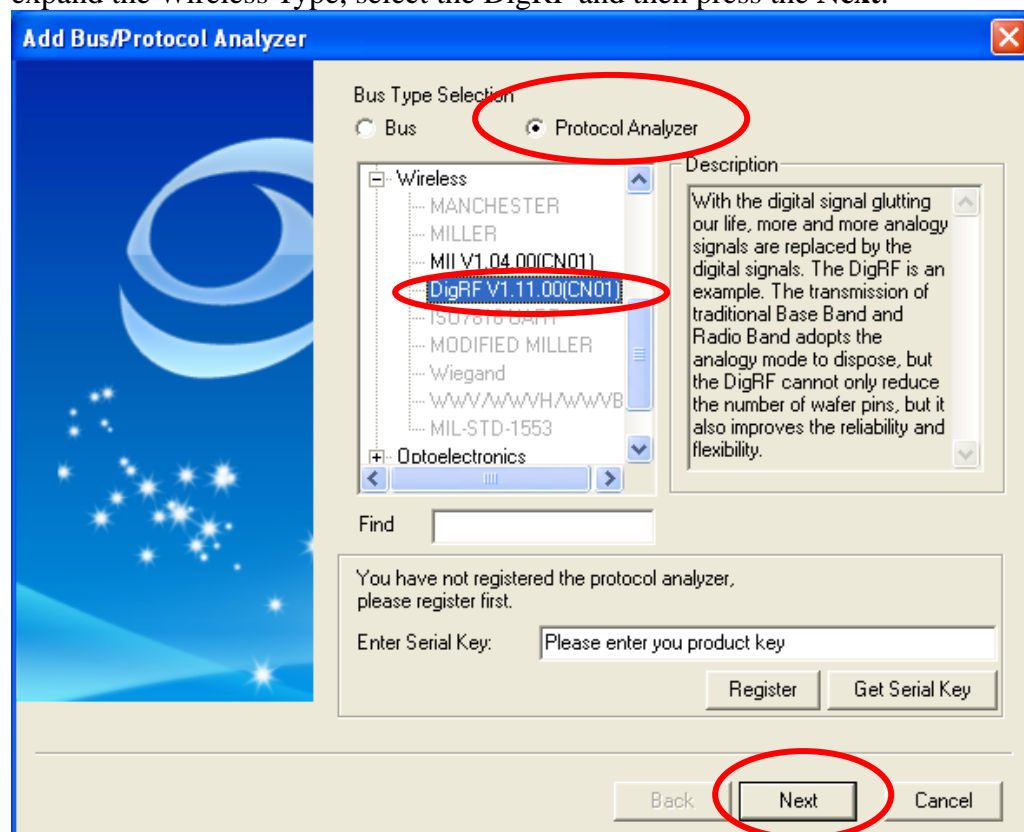


4 Operating Instructions

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.

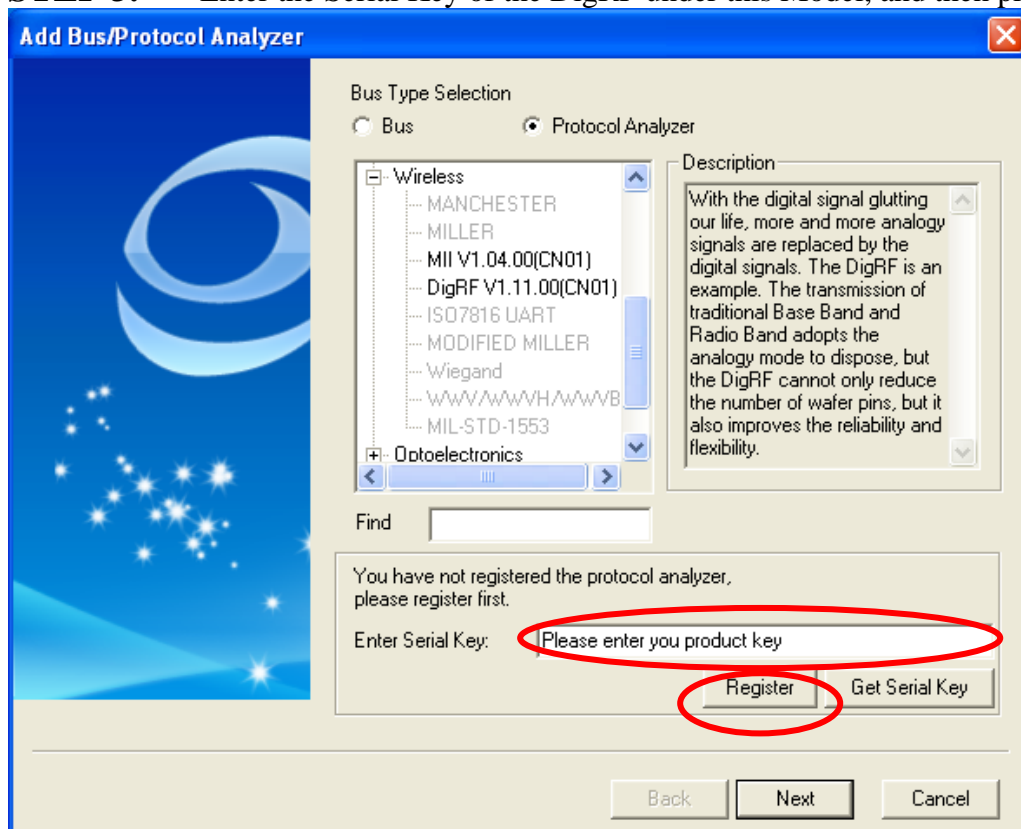


STEP 2. Select the Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Wireless Type, select the DigRF and then press the **Next**.

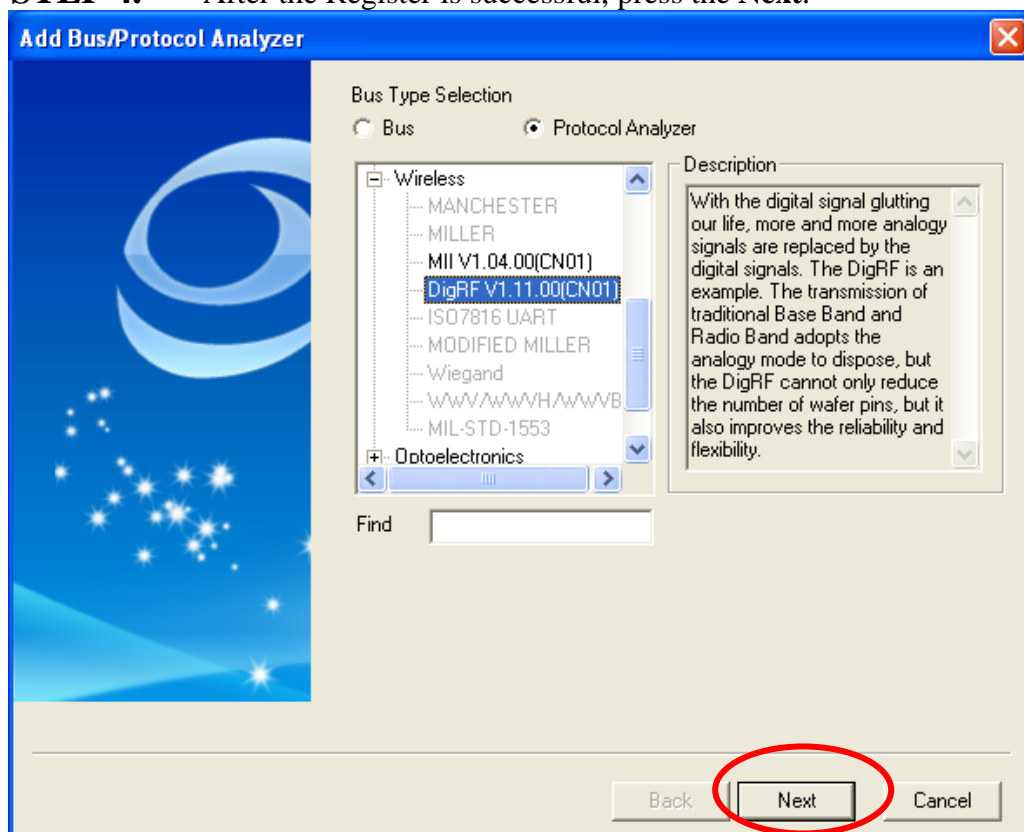




STEP 3. Enter the Serial Key of the DigRF under this Model, and then press the **Register**.

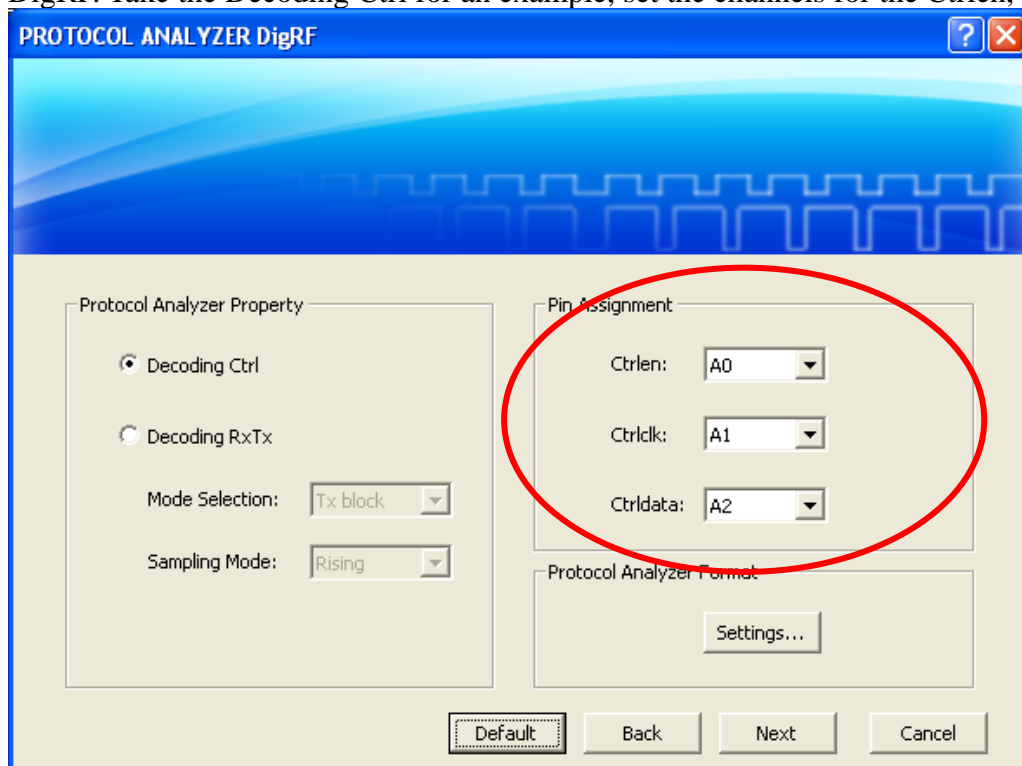


STEP 4. After the Register is successful, press the **Next**.

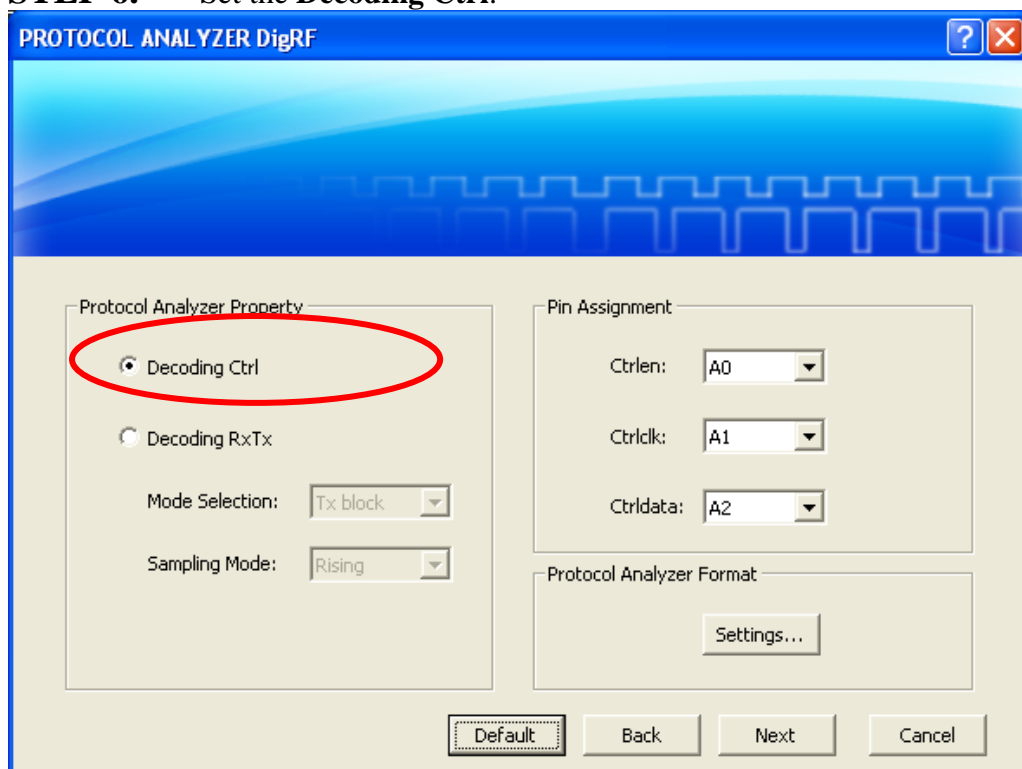




STEP 5. Open the PROTOCOL ANALYZER DigRF dialog box and set the channels for DigRF. Take the Decoding Ctrl for an example, set the channels for the Ctrlclk, Ctrlclk and Ctrlldata.

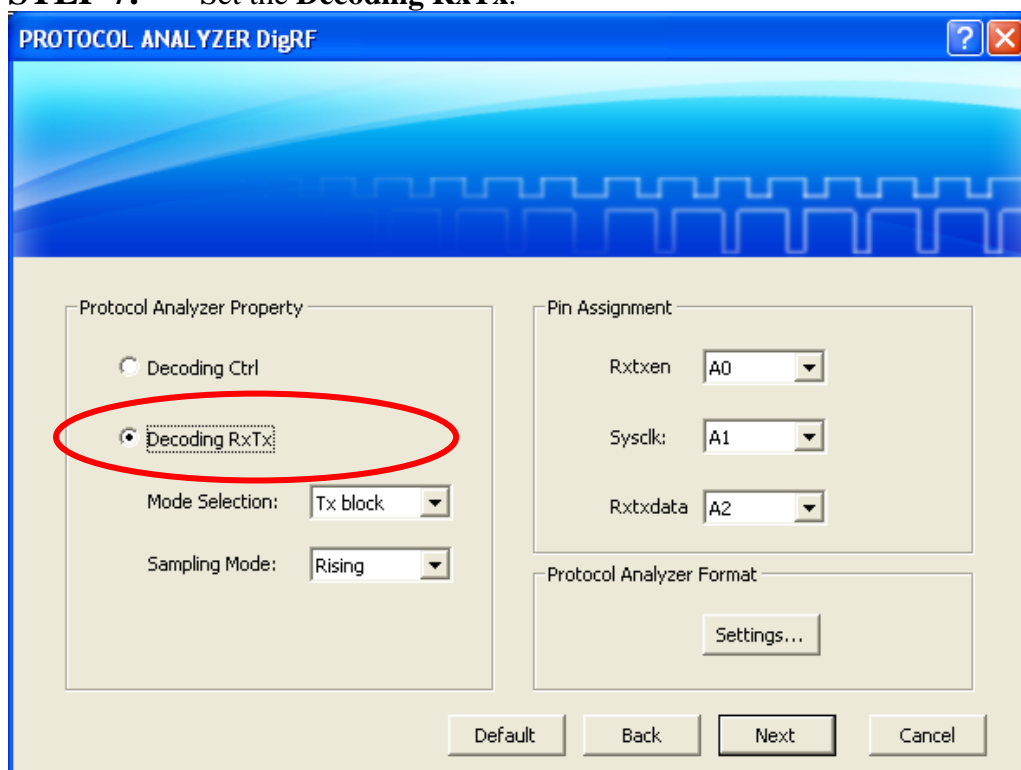


STEP 6. Set the Decoding Ctrl.

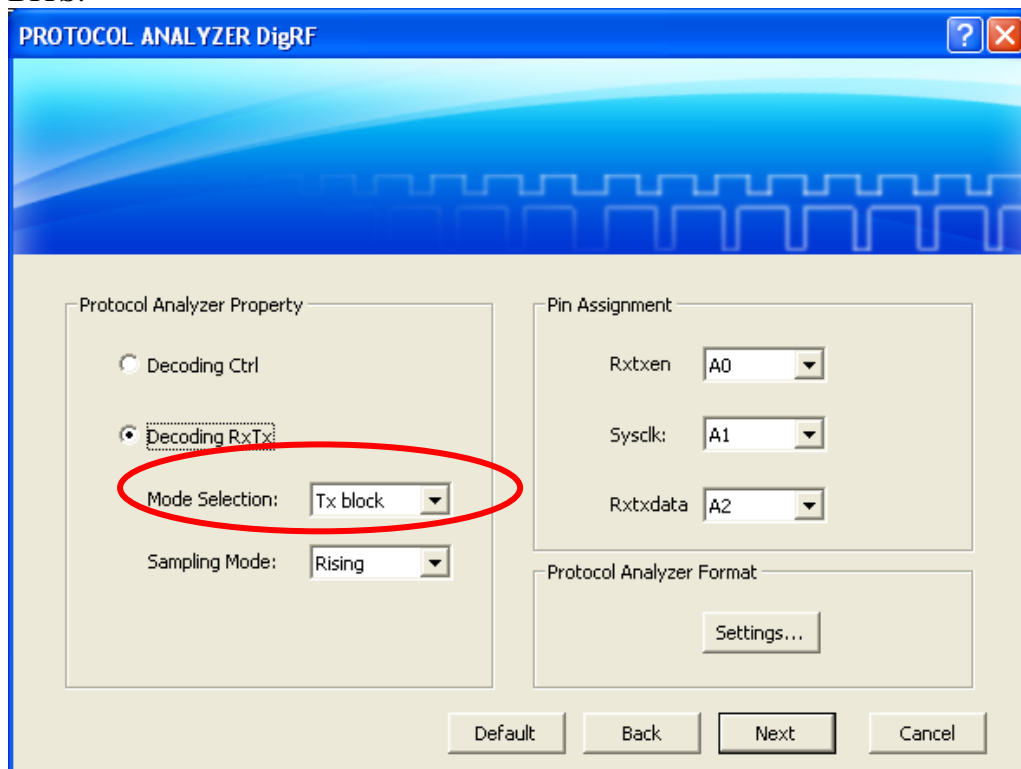




STEP 7. Set the **Decoding RxTx**.

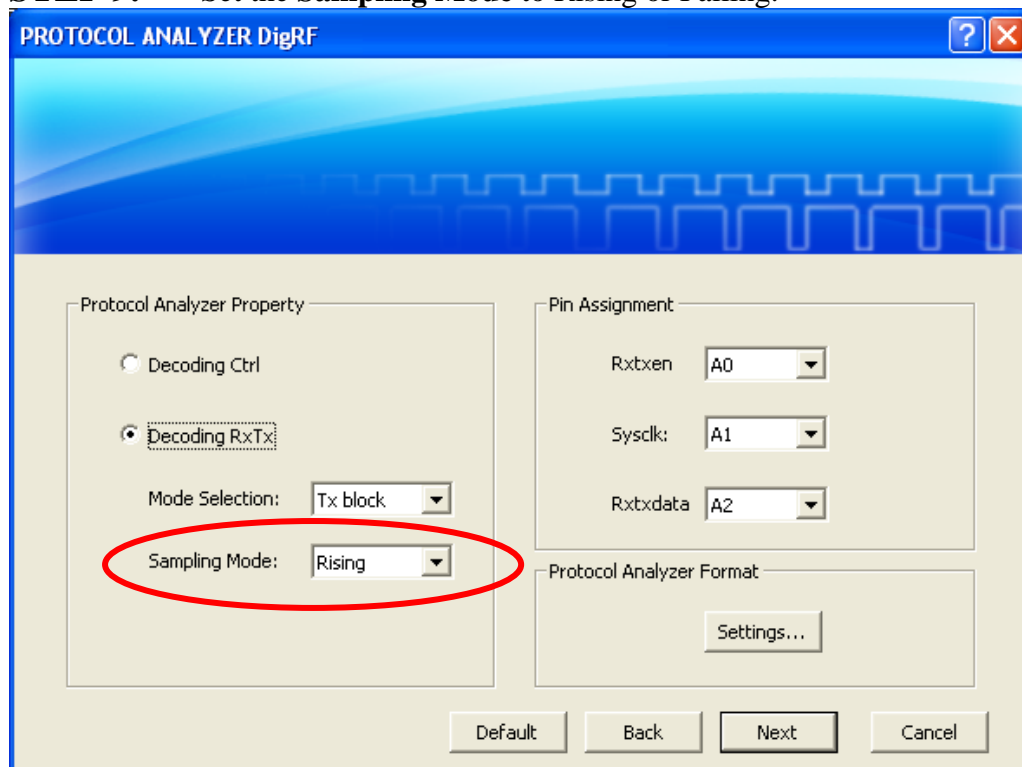


STEP 8. Set the **Mode Selection** to Tx block, Tx stream, X1 OSR, X2 OSR, 8 BITS or 16 BITS.

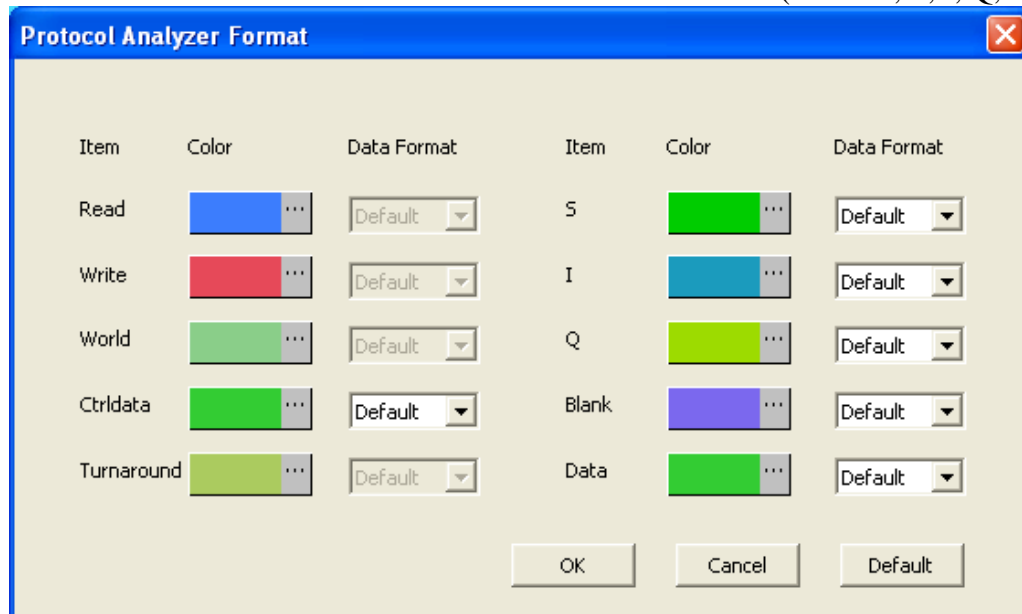




STEP 9. Set the **Sampling Mode** to Rising or Falling.

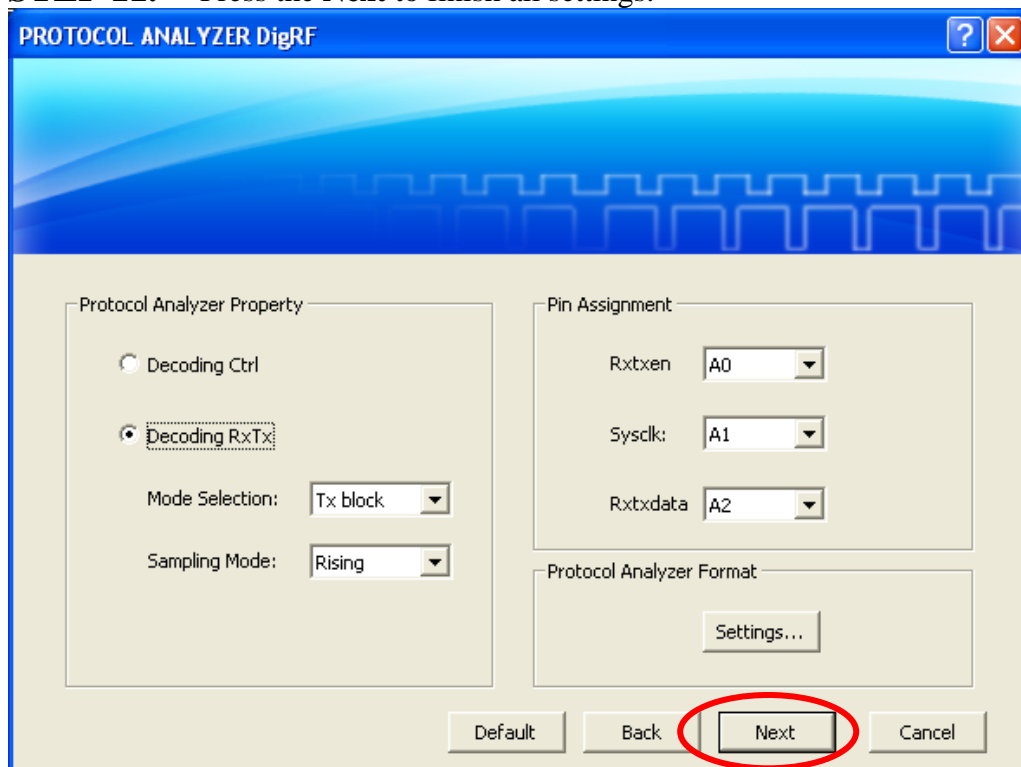


STEP 10. Press the **Settings** button to open the Protocol Analyzer Format dialog box, and then set the Color of each Item and the Data Format of the Items (Ctrldata, S, I, Q, Blank and Data).

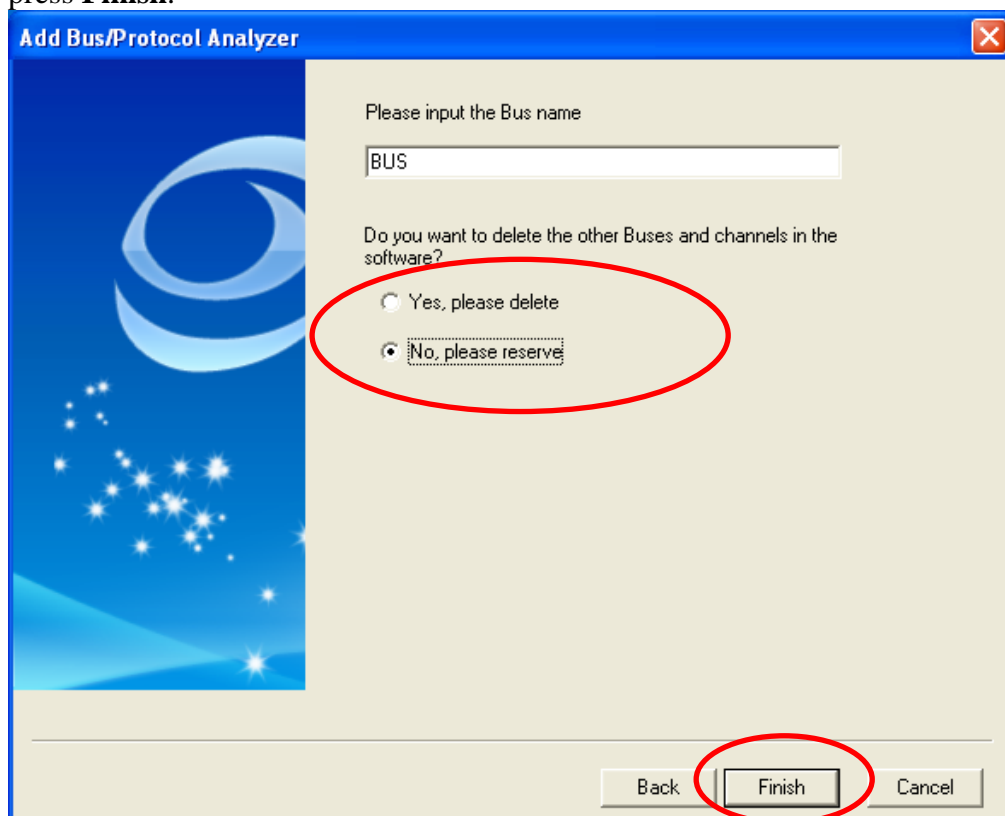




STEP 11. Press the **Next** to finish all settings.



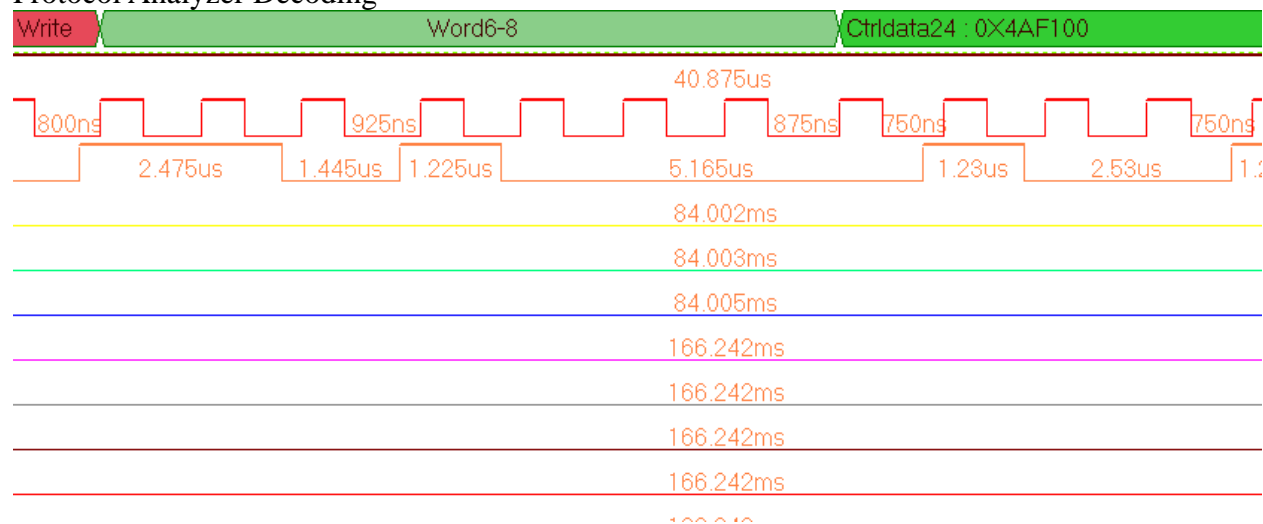
STEP 12. Please enter the Bus Name, select **Yes, please delete** or **No, please reserve** and then press **Finish**.





STEP 13. 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 four 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	Write	Word	Ctrldata
1	Bus1(DigRF)	0.00052ms	Write	Word6-8	4AF100

Packet #	Name	TimeStamp	Read	Word	Turnaround	Ctrldata
2	Bus1(DigRF)	0.04347ms	Read	Word6-8	Turnaround	4FF1

Packet #	Name	TimeStamp	Read	Word	Turnaround	Ctrldata
3	Bus1(DigRF)	0.08056ms	Read	Word0	Turnaround	84FF1

