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

SPECIFICATION

MODEL: B10014-LAP-FWH-M

PART NO: _____

VERSION: V1.01

Approver		Check	Design
GM	PM		

Customer Confirm

*Please fax the file to Zeroplus Technology after signing.

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Content

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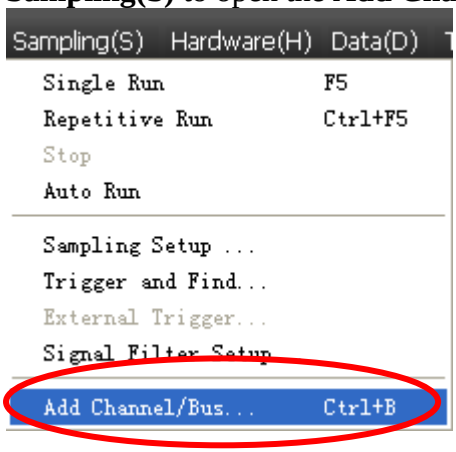
1 Software Register

Please register the software as the following steps:

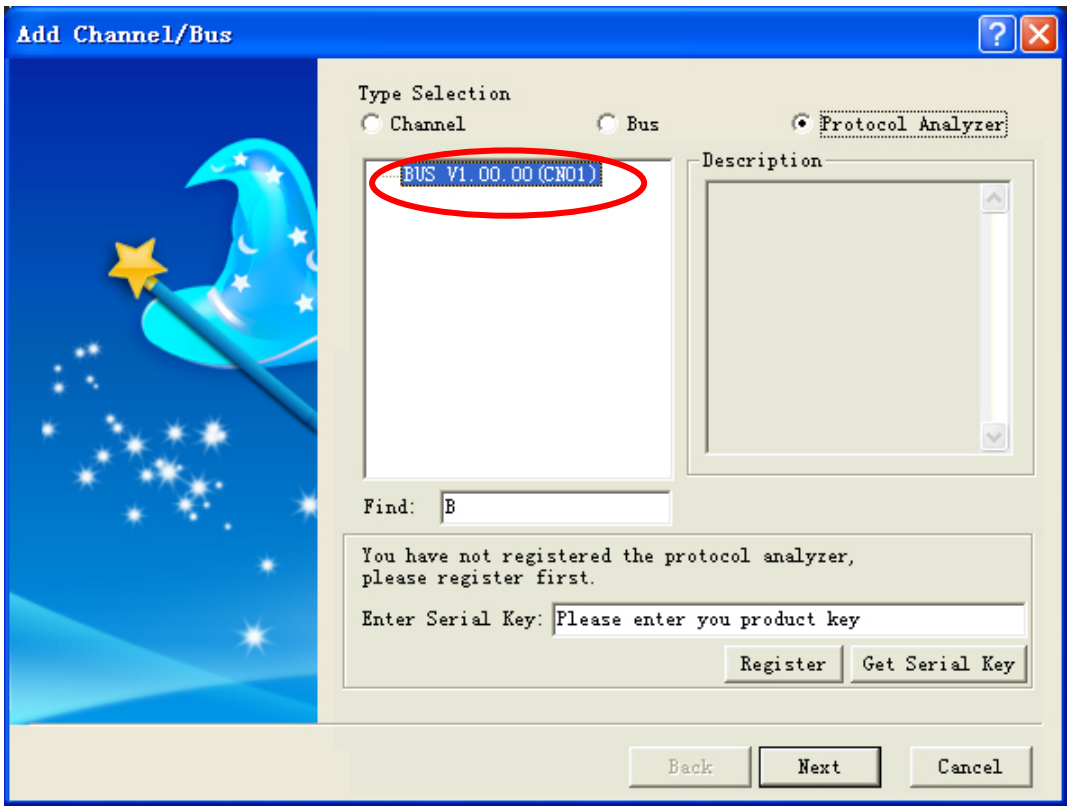
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ Remark2: 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. Open the Logic Analyzer and select the **Add Channel/Bus** item on the pull-down menu of the **Sampling(S)** to open the **Add Channel/Bus** dialog box.



STEP 2. Select Protocol Analyzer item in the Add Channel/Bus dialog box, expand the Other Type, and select the BUS.



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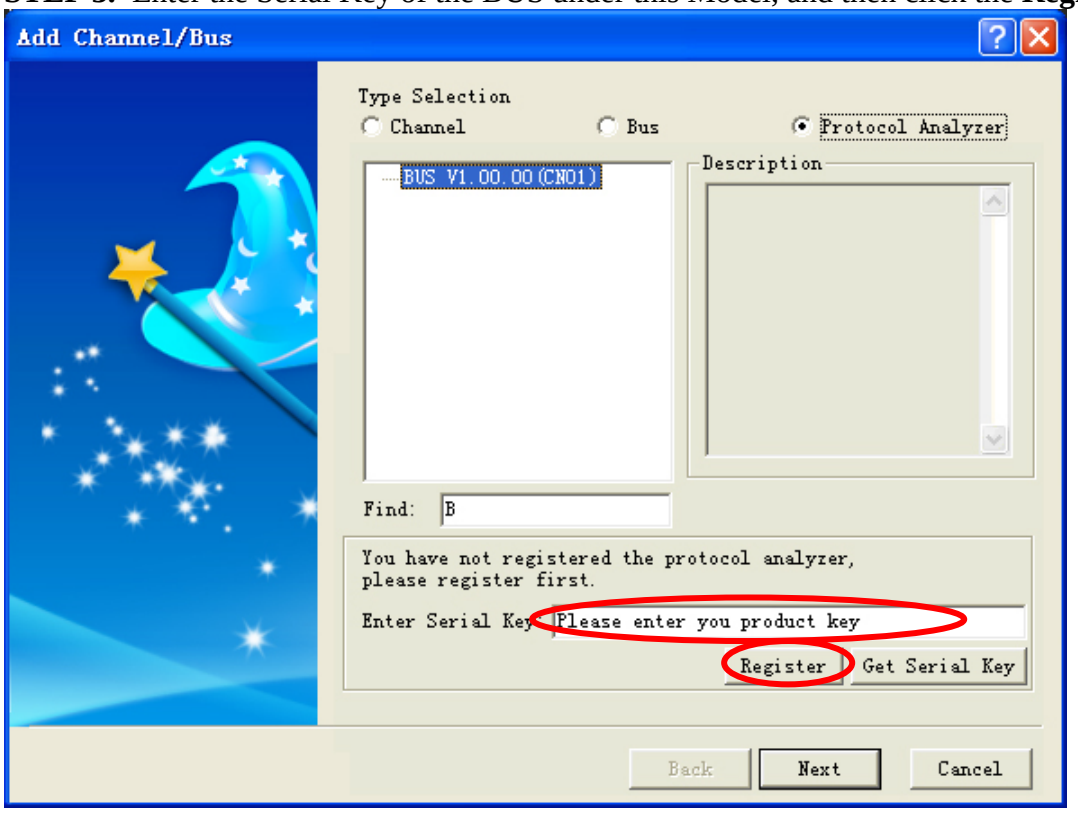
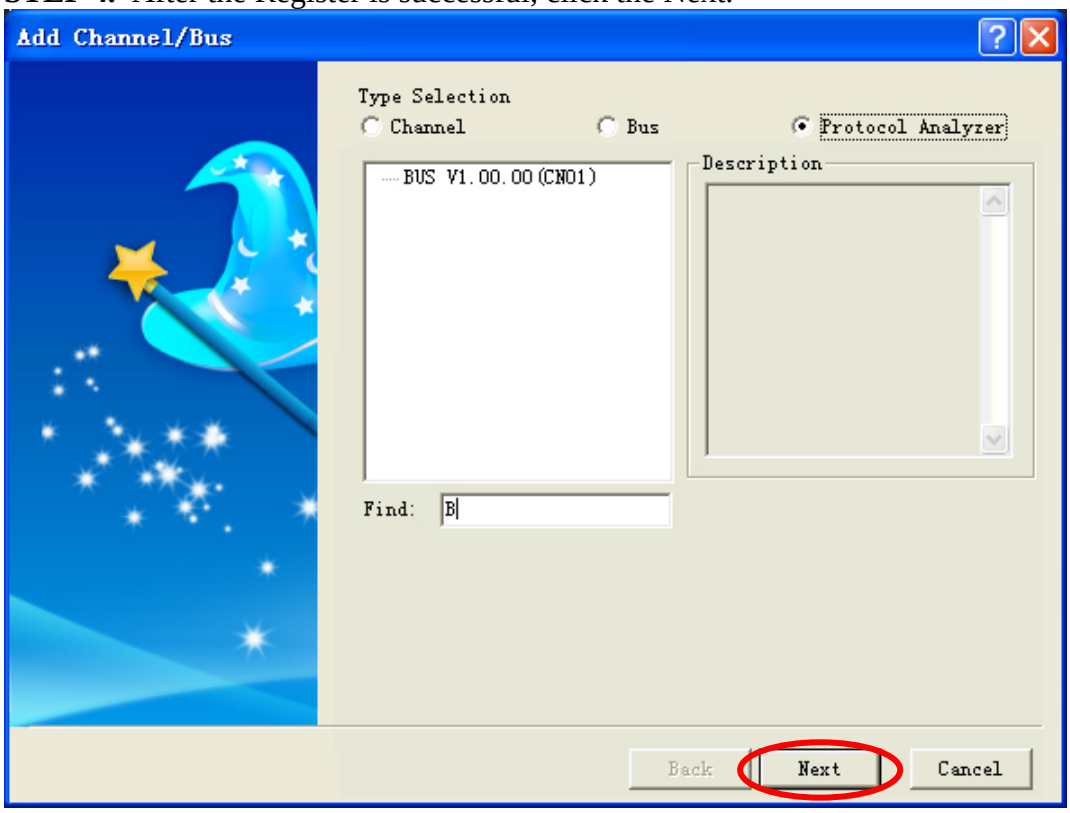
STEP 3. Enter the Serial Key of the BUS under this Model, and then click the **Register**.



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



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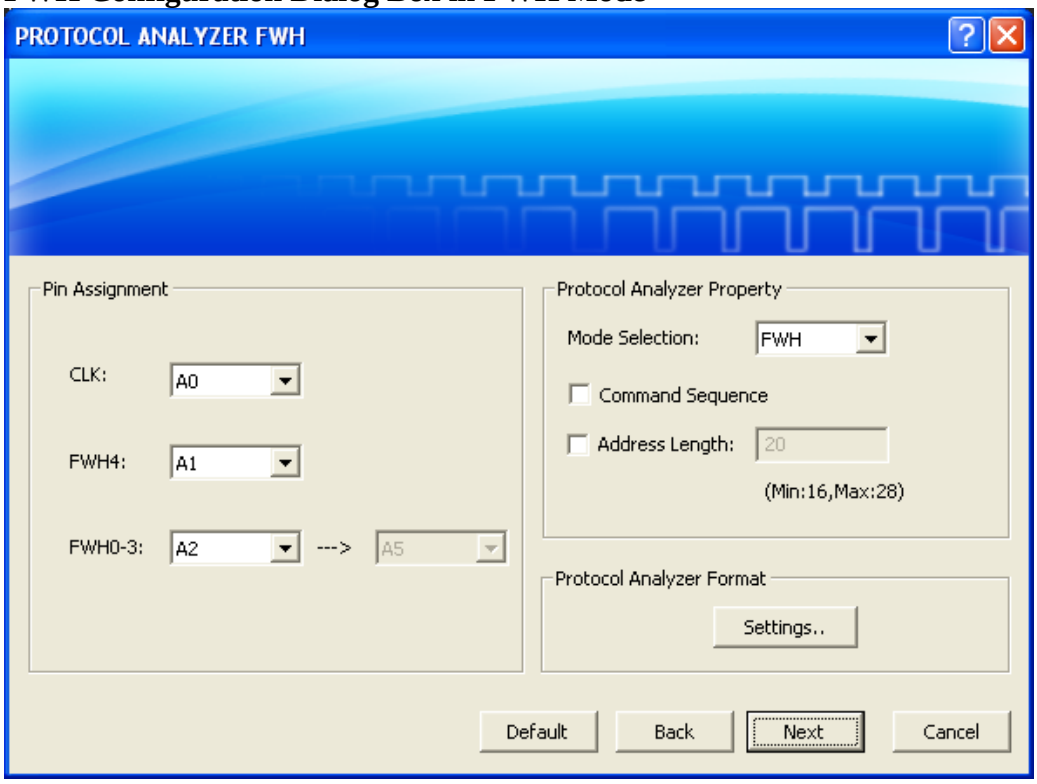
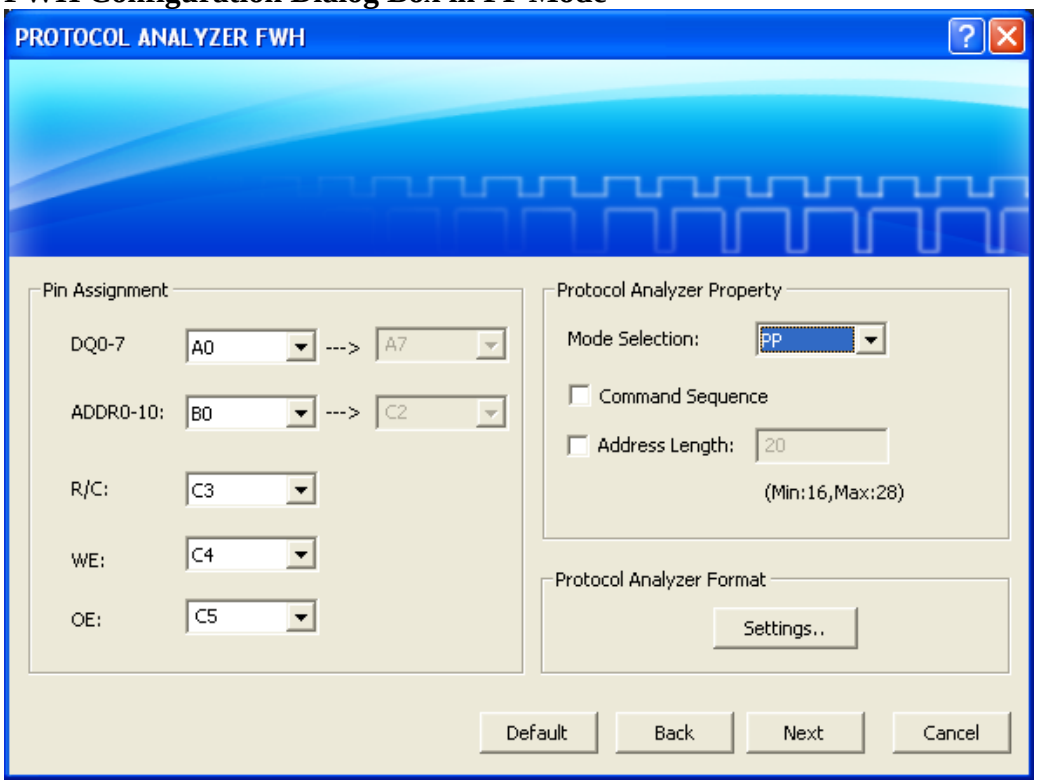
2 User Interface

Please refer to the below images to select options of setting **FWH Module**.

FWH Configuration Dialog Box in FWH Mode



FWH Configuration Dialog Box in PP Mode



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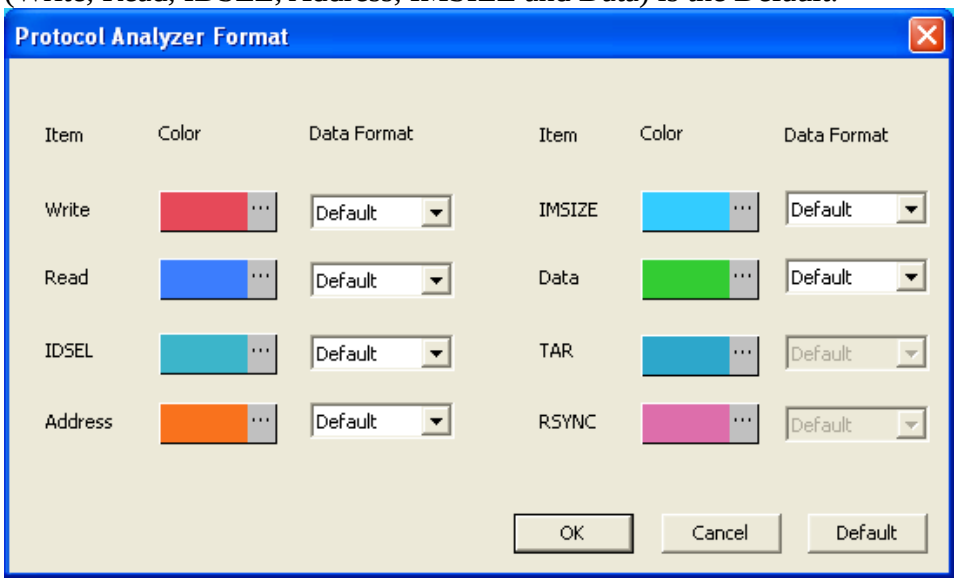
Pin Assignment:
In the FWH mode, FWH needs six channels (CLK, FWH4 and FWH0-3) to decode the signal;
In the PP mode, FWH needs twenty-two channels (DQ0-7, ADDR0-10, R/C, WE and OE) to decode the signal.

Protocol Analyzer Property:
Mode Selection: Set the Mode to FWH or PP.
Command Sequence: When it is enabled, the Command Sequence can be used as the Second-order decoding. And it can be used to decode the Second-order Data and divide the Packets again.
Address Length: Set the Length in the range from 16 to 28 when it is enabled, and the default is 20.

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 (Write, Read, IDSEL, Address, IMSIZE and Data) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of these Items (Write, Read, IDSEL, Address, IMSIZE 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 (Write, Read, IDSEL, Address, IMSIZE and Data) is the Default.



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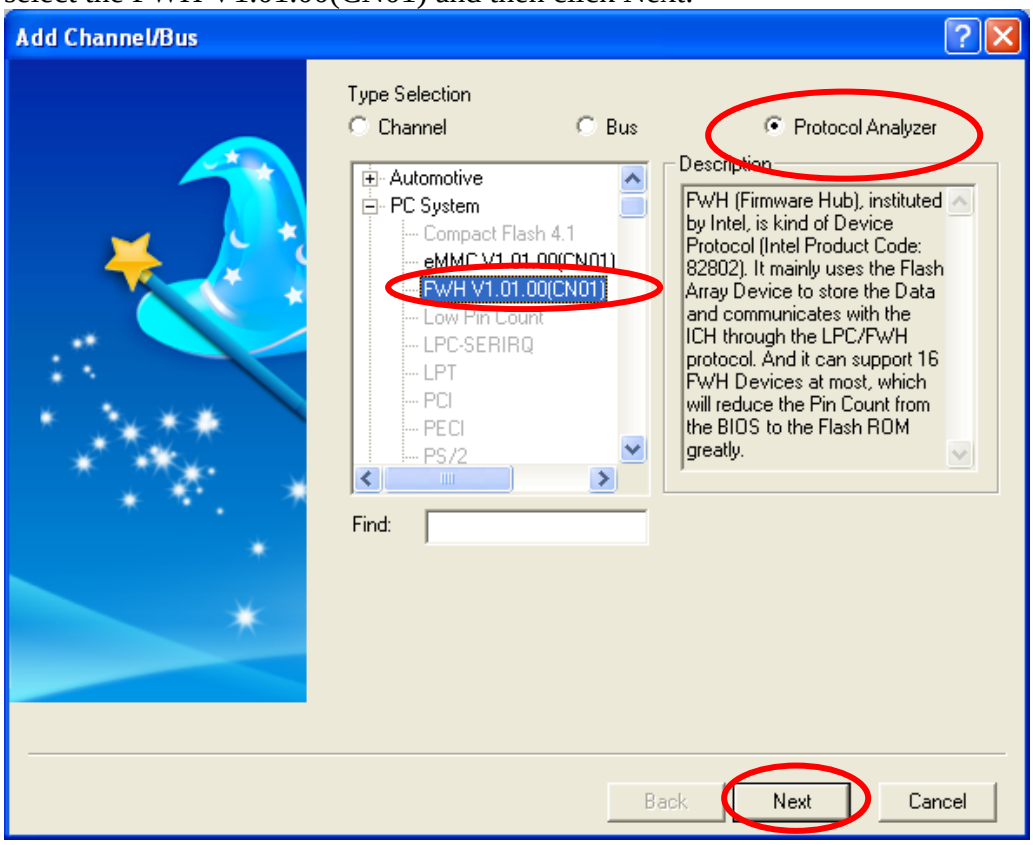
3 Operating Instructions

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

STEP 2. Select the Protocol Analyzer item in the Add Channel/Bus dialog box, expand the PC System, select the FWH V1.01.00(CN01) and then click Next.



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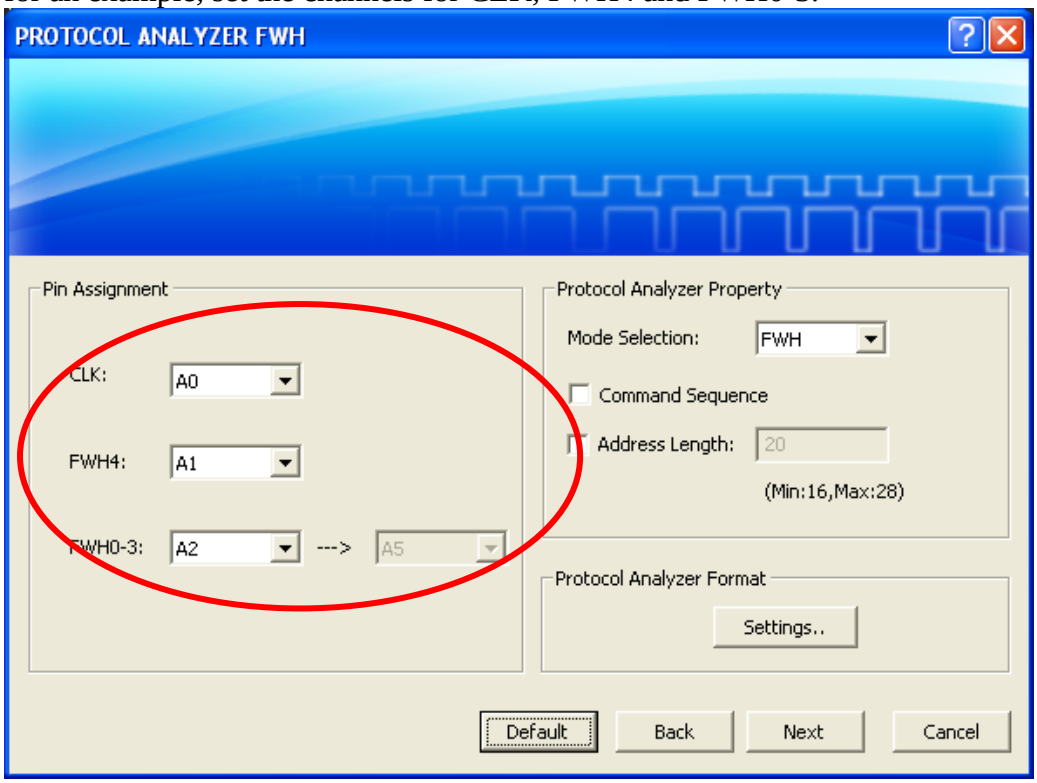
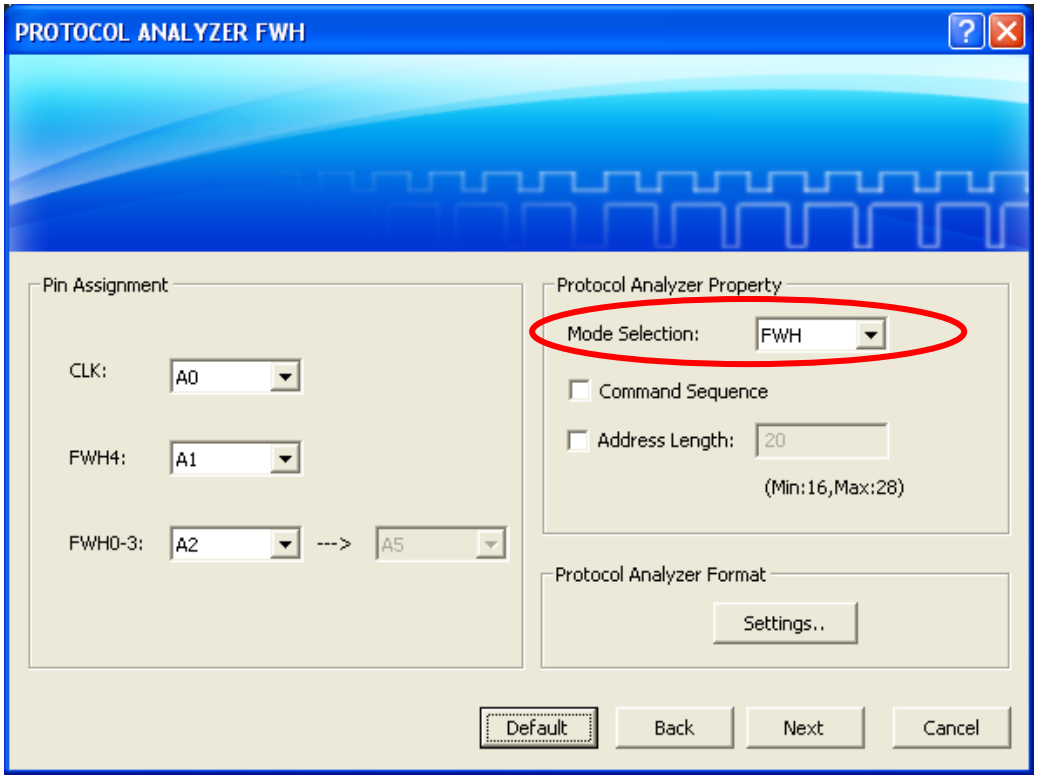
STEP 3. Open the PROTOCOL ANALYZER FWH dialog box and set the channels. Take the FWH mode for an example, set the channels for CLK, FWH4 and FWH0-3.



STEP 4. Set the **Mode Selection** to FWH or PP.



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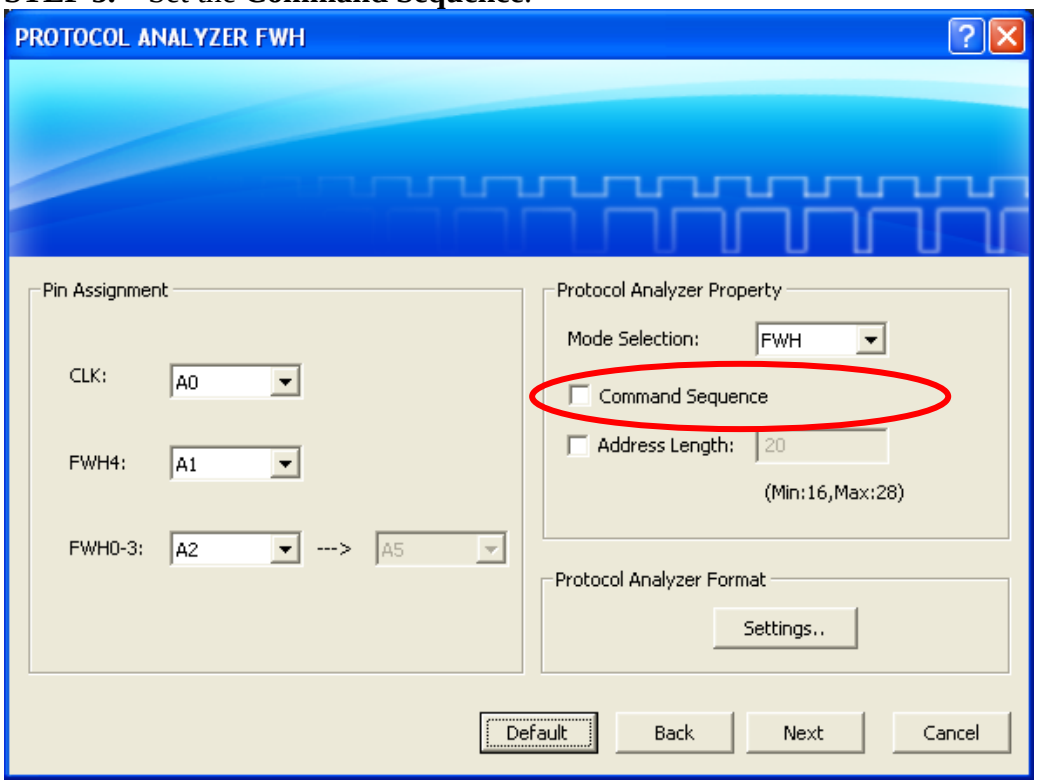
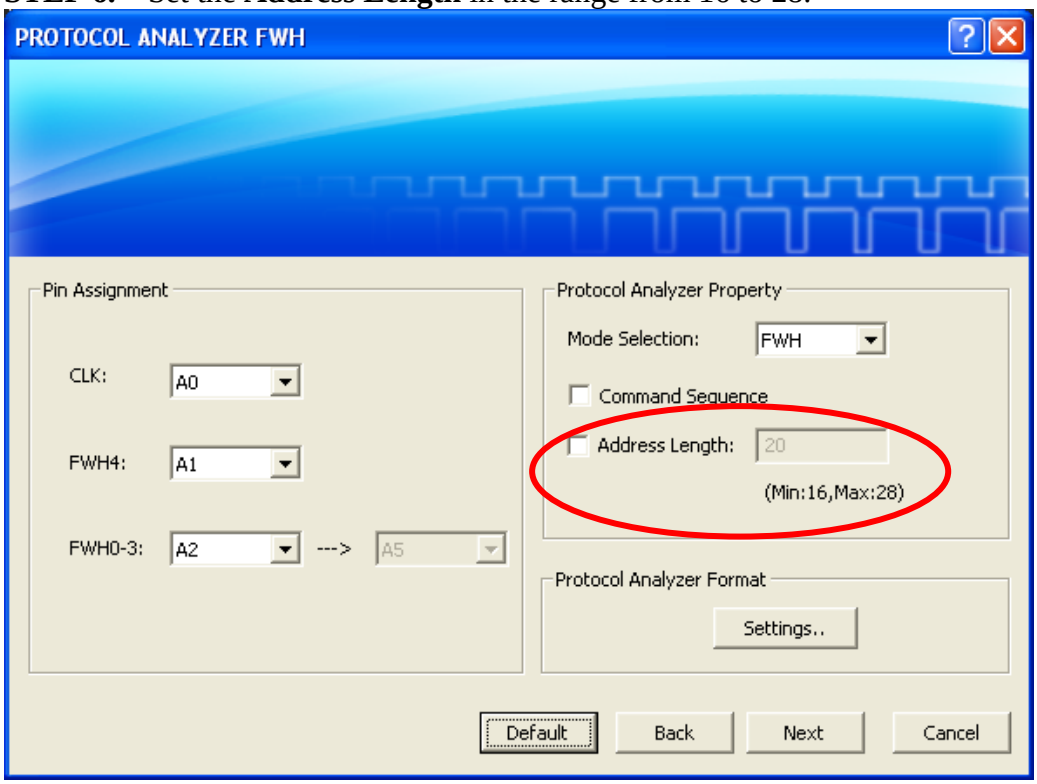
STEP 5. Set the **Command Sequence**.



STEP 6. Set the **Address Length** in the range from 16 to 28.



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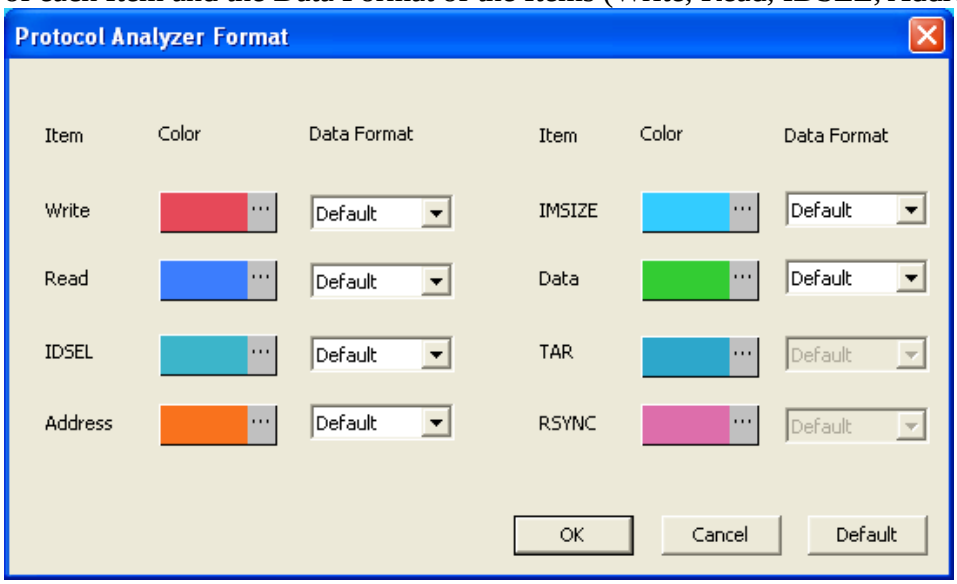
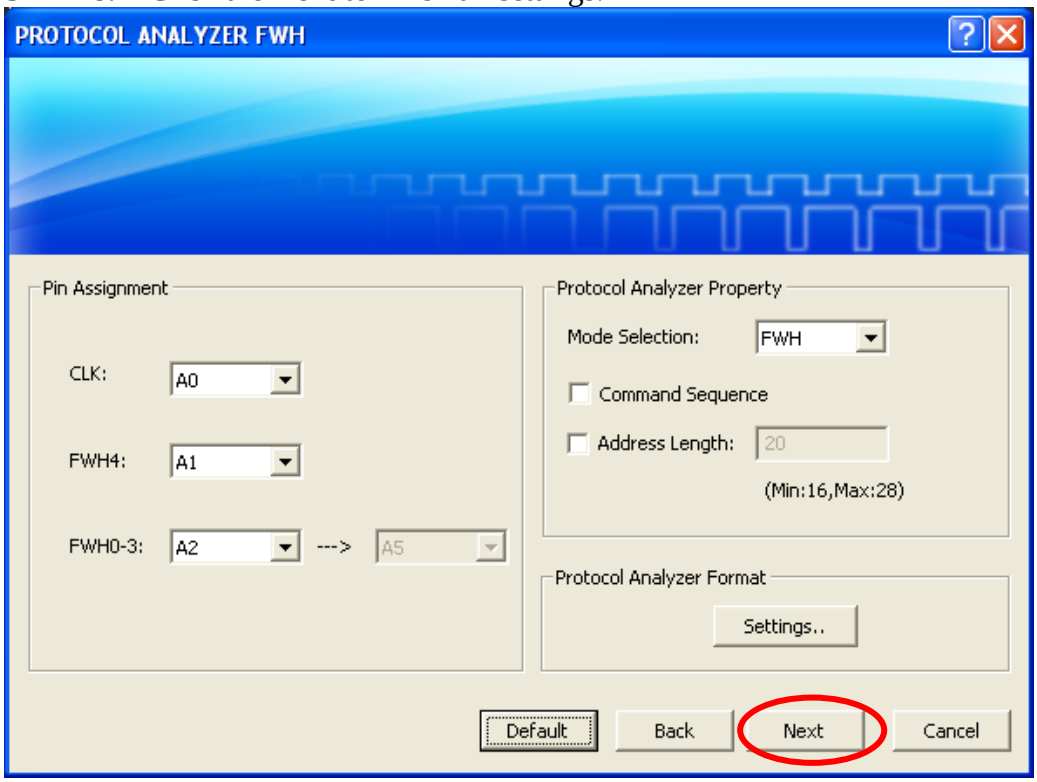
STEP 7. Click the **Settings** button to open the Protocol Analyzer Format dialog box, and then set the Color of each Item and the Data Format of the Items (Write, Read, IDSEL, Address, IMSIZE and Data).



STEP 8. Click the **Next** to finish all settings.



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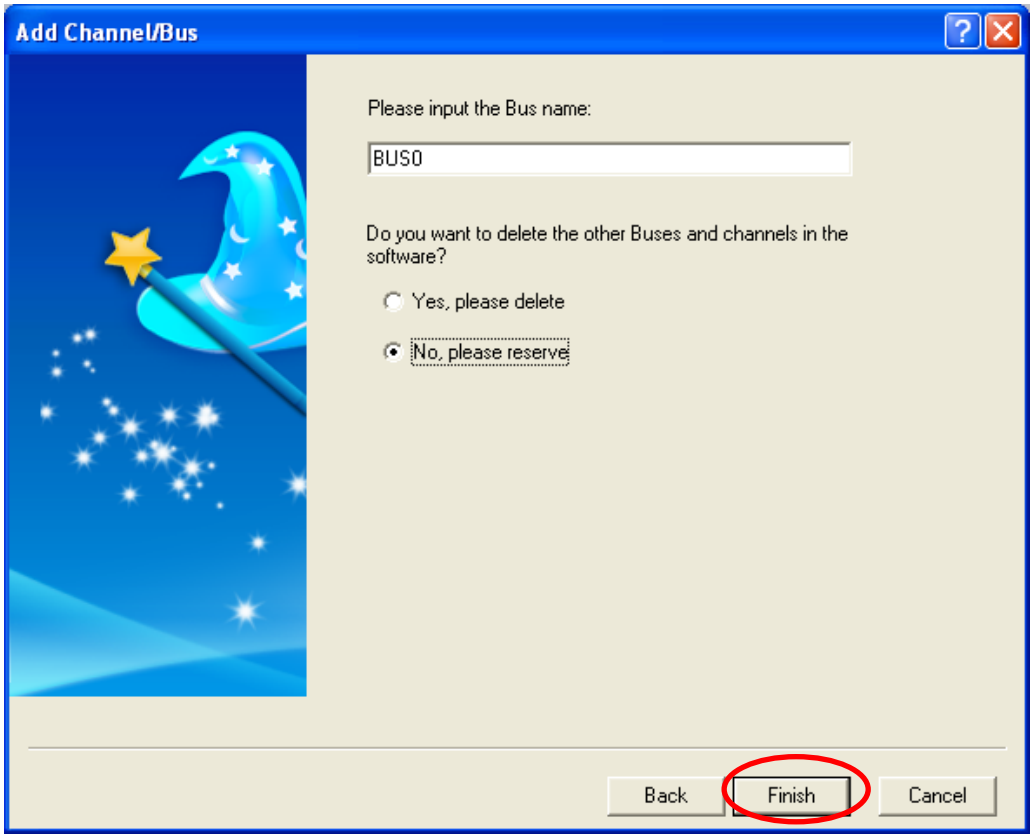
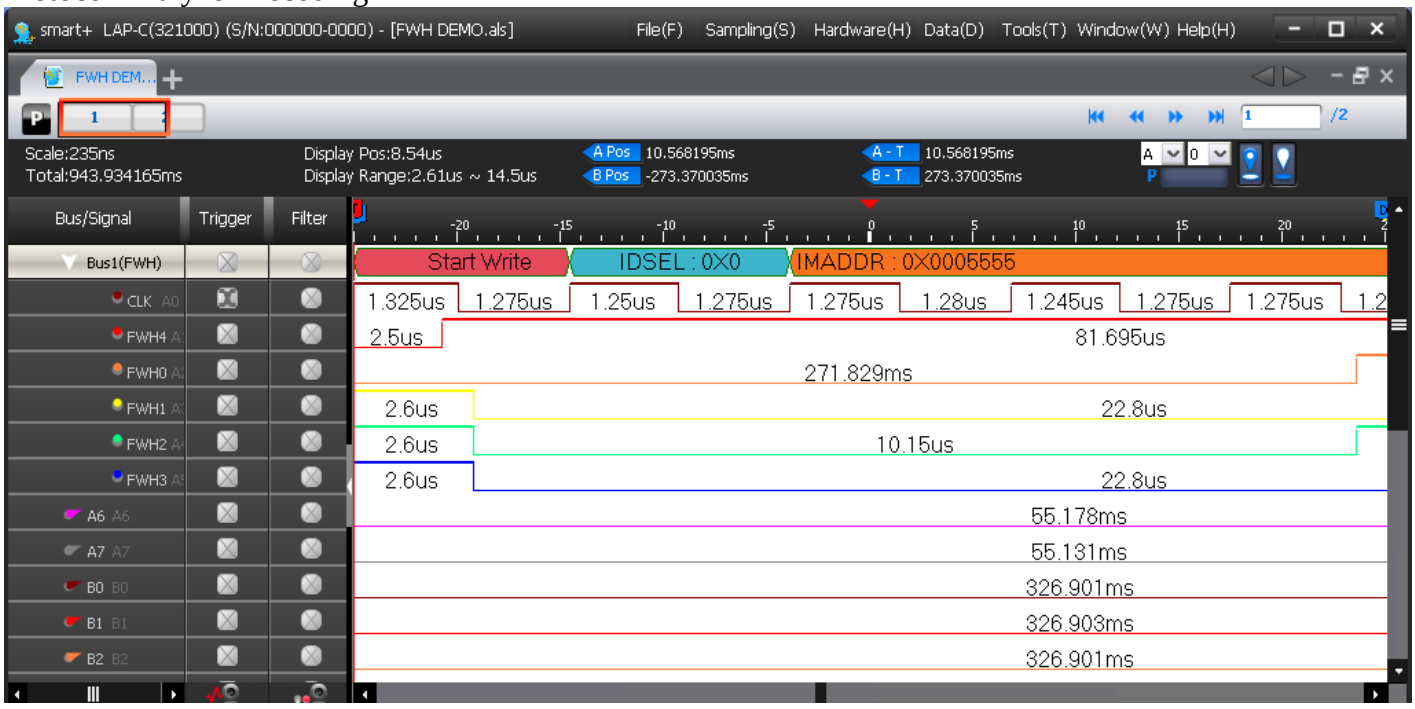
STEP 9. Please enter the Bus Name, select “Yes, please delete” or “No, please reserve” and then click Finish..



STEP 10. 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 1M; the sampling frequency is 200MHz (the sampling frequency should be more than six times higher than the signal to be tested).

Protocol Analyzer Decoding



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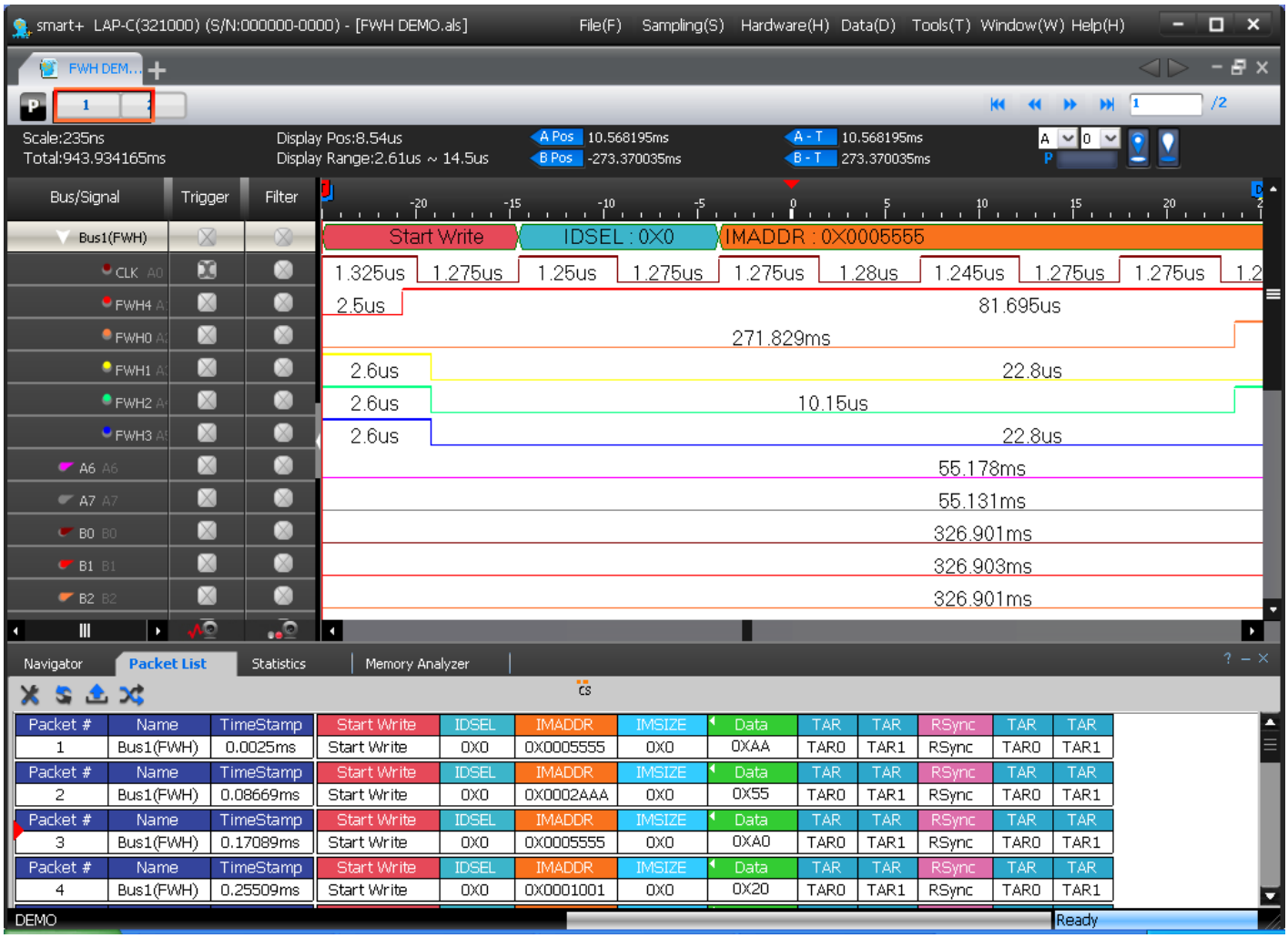
Packet List



Packet #	Name	TimeStamp	Start Write	IDSEL	IMADDR	IMSIZE	Data	TAR	TAR	RSync	TAR	TAR
1	Bus1(FWH)	0.0025ms	Start Write	0X0	0X0005555	0X0	0XAA	TAR0	TAR1	RSync	TAR0	TAR1
Packet #	Name	TimeStamp	Start Write	IDSEL	IMADDR	IMSIZE	Data	TAR	TAR	RSync	TAR	TAR
2	Bus1(FWH)	0.08669ms	Start Write	0X0	0X0002AAA	0X0	0X55	TAR0	TAR1	RSync	TAR0	TAR1
Packet #	Name	TimeStamp	Start Write	IDSEL	IMADDR	IMSIZE	Data	TAR	TAR	RSync	TAR	TAR
3	Bus1(FWH)	0.17089ms	Start Write	0X0	0X0005555	0X0	0XA0	TAR0	TAR1	RSync	TAR0	TAR1
Packet #	Name	TimeStamp	Start Write	IDSEL	IMADDR	IMSIZE	Data	TAR	TAR	RSync	TAR	TAR
4	Bus1(FWH)	0.25509ms	Start Write	0X0	0X0001001	0X0	0X20	TAR0	TAR1	RSync	TAR0	TAR1