



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

# SPECIFICATION

**MODEL: B10005-LAP-SPI (EEPROM AT25F)-M**

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

**VERSION :** V1.01

Approver		Check	Design
GM	PM		

Customer Confirm

\* Please fax the file to  
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signing.

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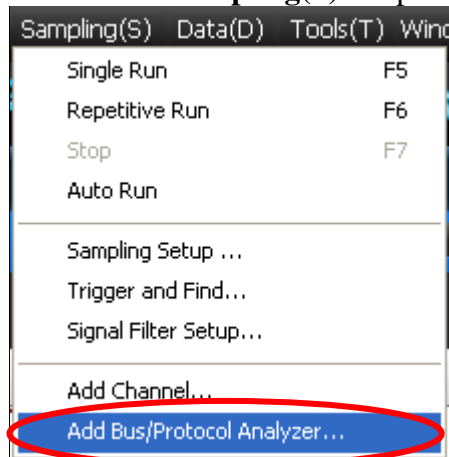
## 1 Software Register

Please register the software as the following steps:

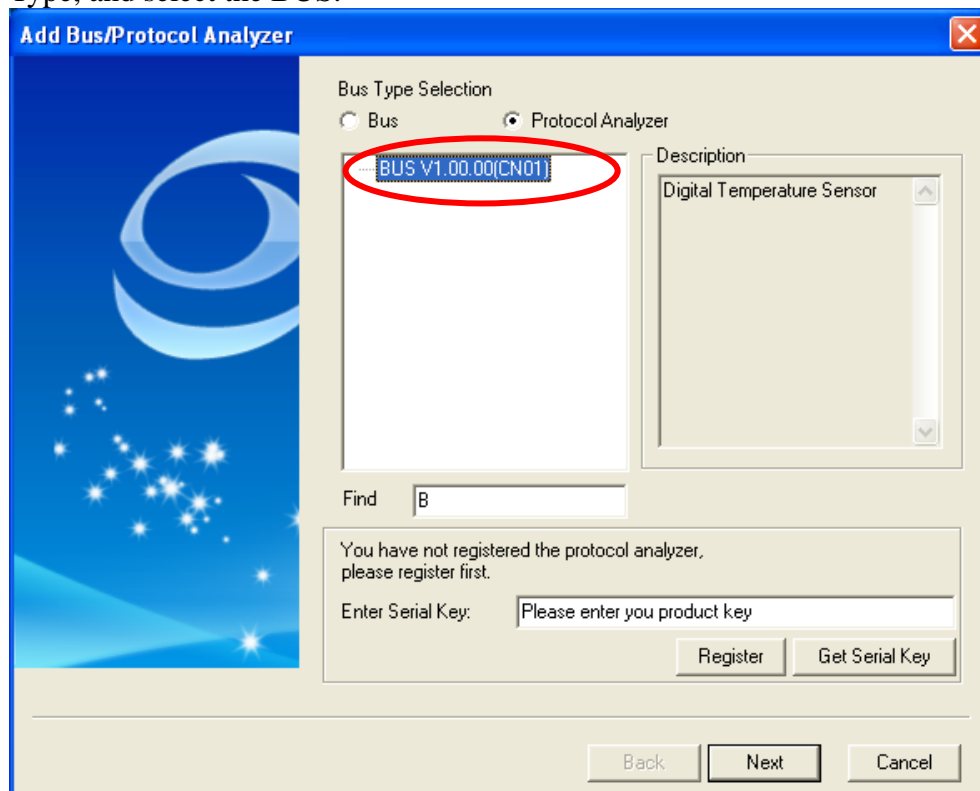
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

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

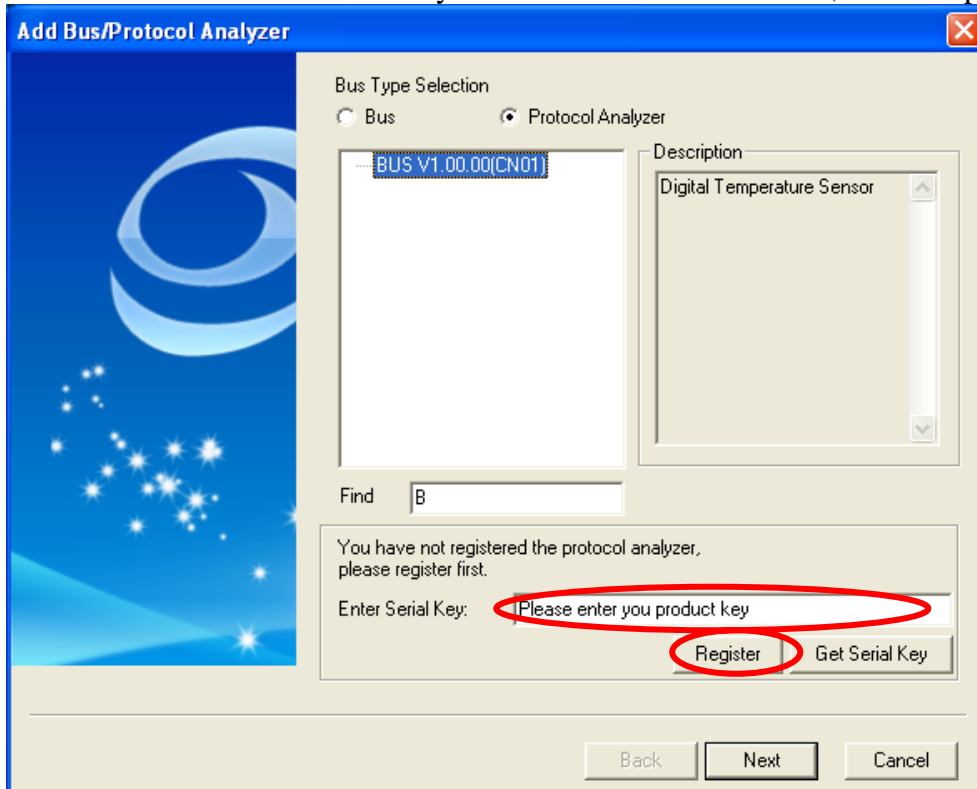


**STEP 2.** Select Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Other Type, and select the BUS.

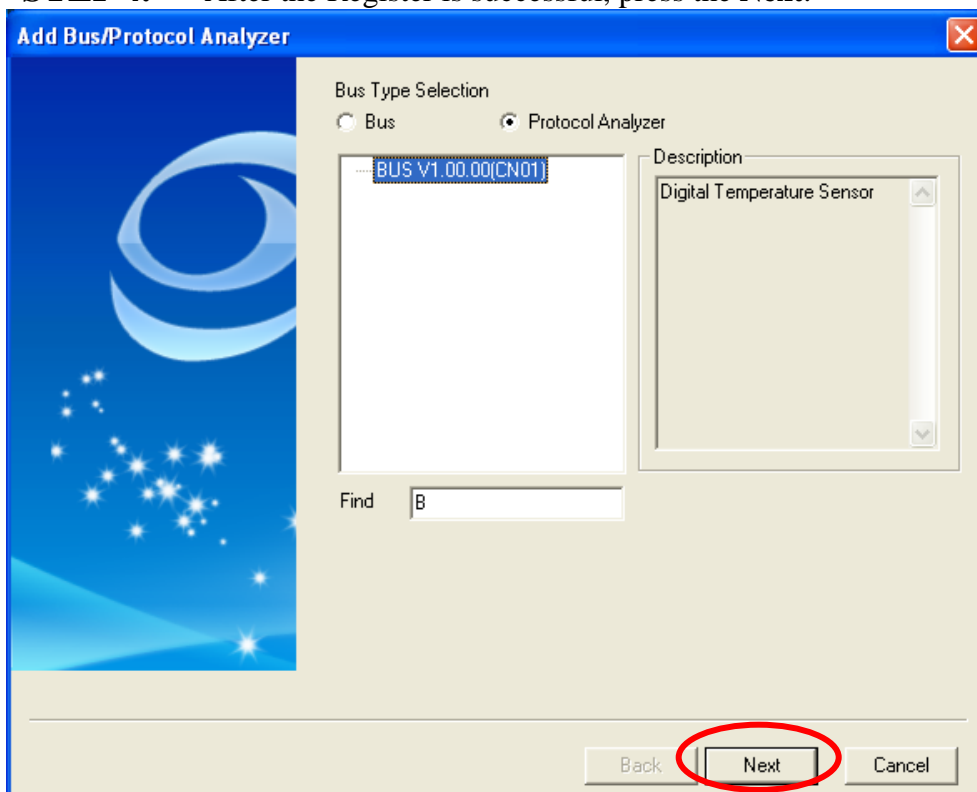




**STEP 3.** Enter the Serial Key of the BUS under this Model, and then press the **Register**.



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





## 2 User Interface

Please refer to the below image to select options of setting SPI (EEPROM AT25F) Module.

### Pin Assignment:

Four or five channels are required for SPI (EEPROM AT25F) to decode the signal.

**CS:** It is the Chip Select channel and it is available for the Low Level.

**SCK:** It is the Serial Clock channel, which is triggered at the Rising Edge.

**SI:** It is the Command, Address and Data Input channel.

**SO:** It is the Data Output channel.

**HOLD:** It is the Data Transmission Hold channel, and it is available for the Low Level. Notice: It is not activated in general, which is denoted in grey. If it is activated, SPI (EEPROM AT25F) will require 5 channels to decode; if it is not activated, SPI (EEPROM AT25F) will require 4 channels to decode.

### Protocol Analyzer Setting:

**Device Select:** There are six Devices for selecting that are AT25F512, AT25F1024, AT25F2048, AT25F4096, AT25FS010 and AT25FS040. And the Default is AT25F512.

**Protocol Analyzer Format:** Users can set the color of the packet as their requirements. The Items (WREN, WRDI, RDSR, WRSR, Read, Program, Address, Data, Sector Erase, Block Erase, Chip Erase, RDID, Manufacturer ID, Device) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of the Items (WREN, WRDI, RDSR, WRSR, Read, Program, Address, Data, Sector Erase, Block Erase, Chip Erase, RDID, Manufacturer ID, Device) 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 the Item



is the Default.

**Protocol Analyzer Format** [X]

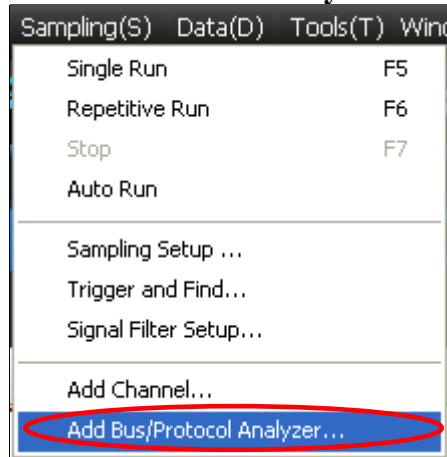
Item	Color	Data Format	Item	Color	Data Format
WREN		Default	RDID		Default
WRDI		Default	Manufacturer ID		Default
RDSR		Default	Device ID		Default
WRSR		Default	WPEN		Default
Read		Default	WPDI		Default
Program		Default	BP		Default
Address		Default	WEN		Default
Data		Default	WDI		Default
Sector Erase		Default	Busy		Default
Block Erase		Default	Ready		Default
Chip Erase		Default			

OK Cancel Default

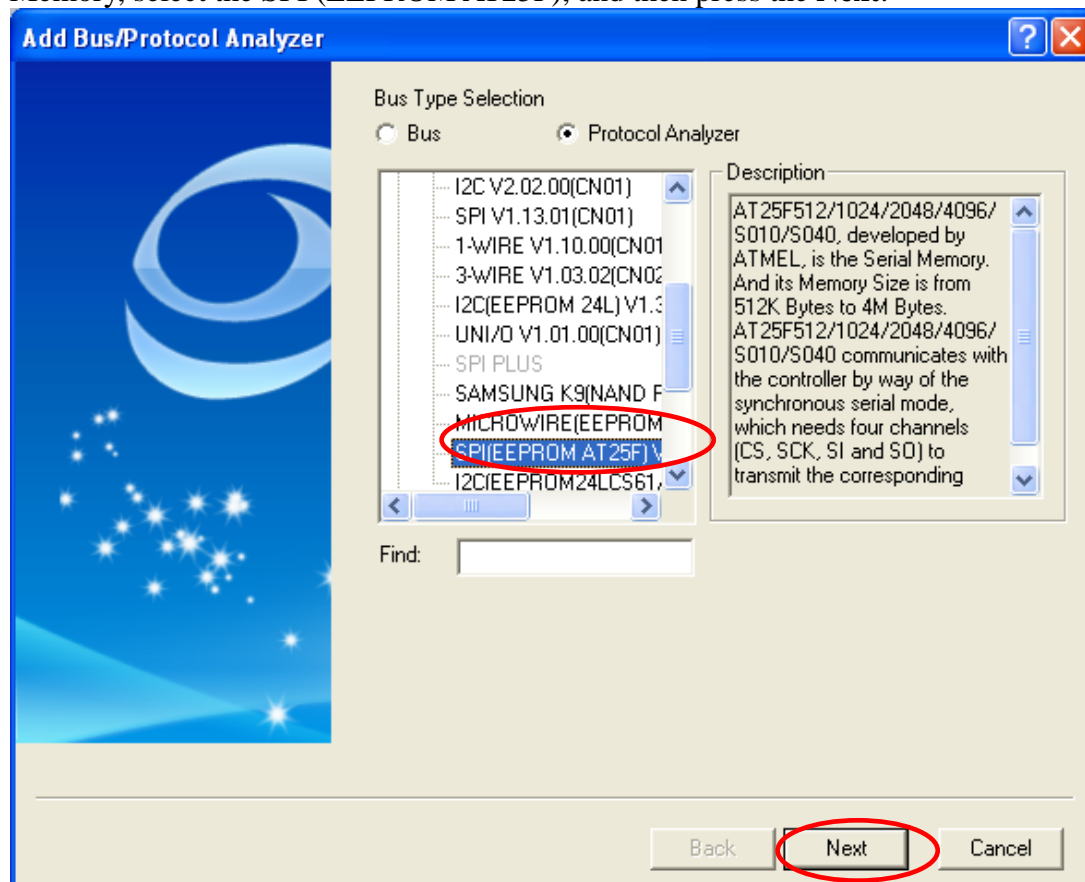


### 3. Operating Instructions

**STEP 1.** Select the **Add Bus/Protocol Analyzer** item on the pulldown 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 Memory, select the SPI (EEPROM AT25F), and then press the **Next**.





### STEP 3. Set the Pin Assignment.

PROTOCOL ANALYZER SPI(EEPROM AT25F)

Pin Assignment

CS: A0 SCK: A1 SI: A2

SO: A3 ☐ HOLD: A4

Protocol Analyzer Property

Device Selection: AT25F512

Protocol Analyzer Format

Settings...

Default Back Next Cancel

### STEP 4. Set the Protocol Analyzer Property.

PROTOCOL ANALYZER SPI(EEPROM AT25F)

Pin Assignment

CS: A0 SCK: A1 SI: A2

SO: A3 ☐ HOLD: A4

Protocol Analyzer Property

Device Selection: AT25F512

Protocol Analyzer Format

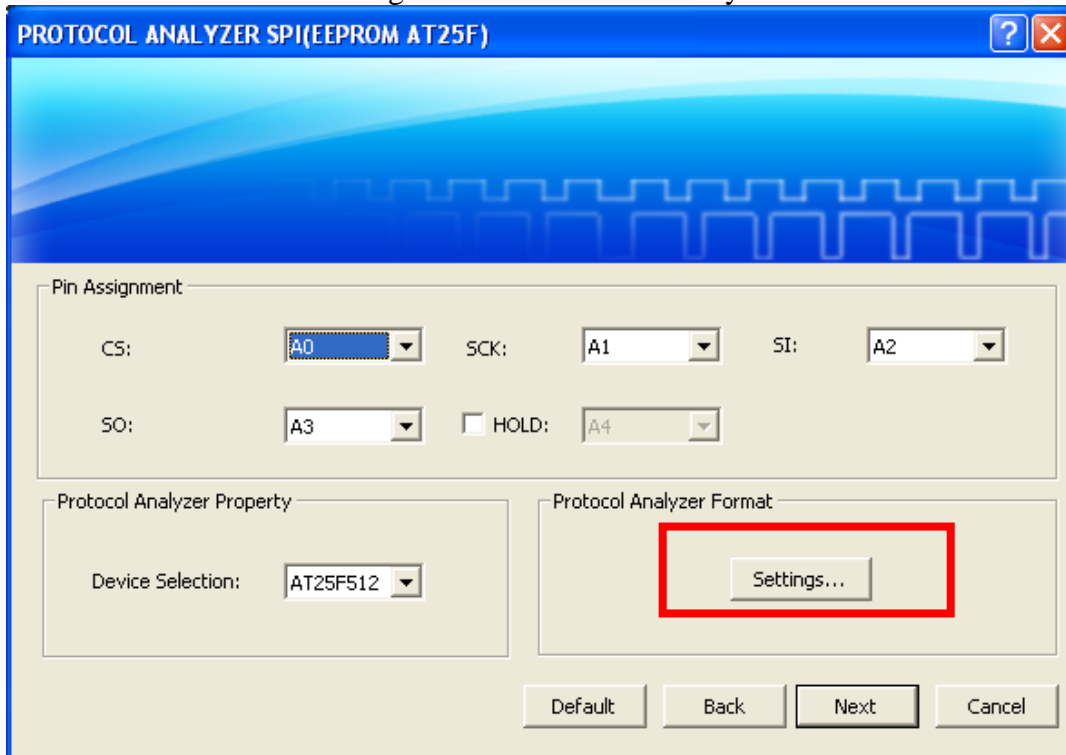
Settings...

Default Back Next Cancel

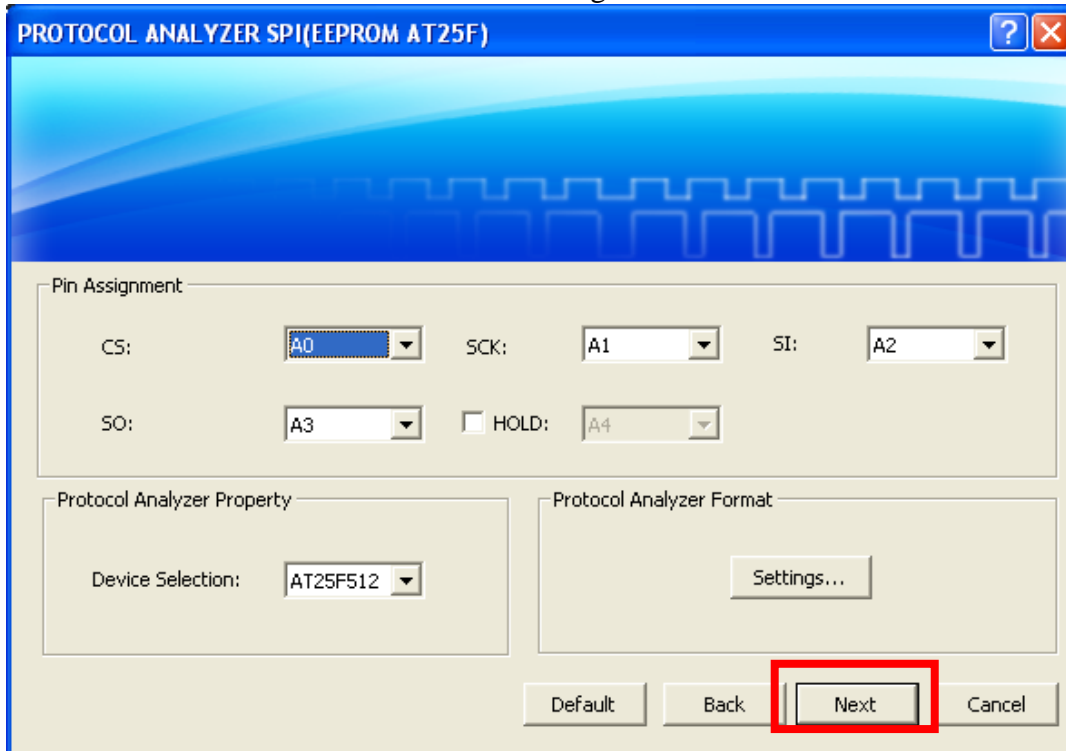




**STEP 5.** Click the Settings to set the Protocol Analyzer Format.

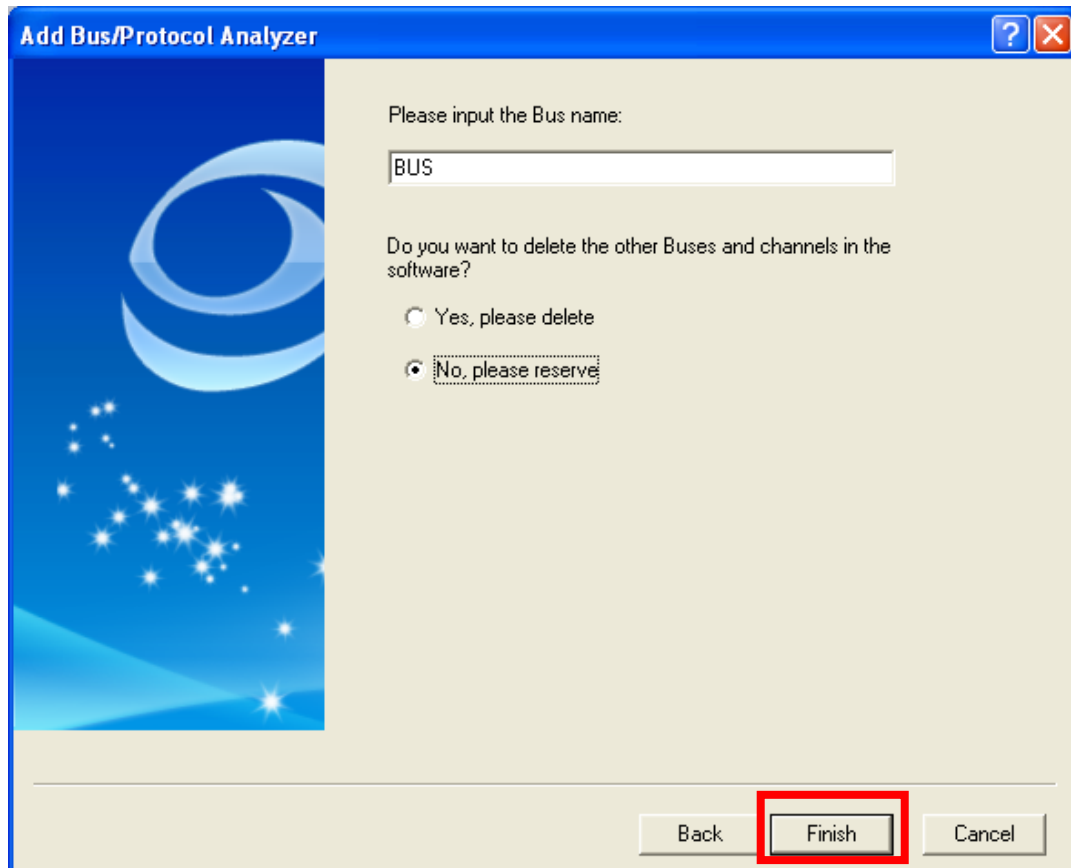


**STEP 6.** Press the **Next** to finish all settings.



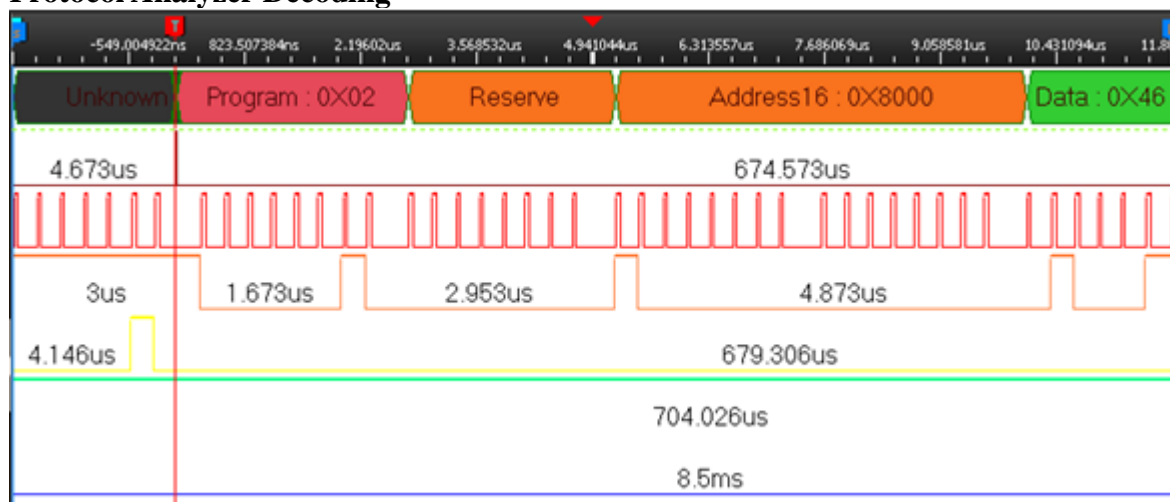


**STEP 7.** Please enter the Bus Name, select **Yes, please delete** or **No, please reserve** and then press **Finish**.



**STEP 8.** Following pictures show the completion of the protocol analyzer decoding and packet list. The trigger condition is set as Rising Edge; the memory depth is 128K; the sampling frequency is 150MHz. (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

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✕

RD

PRO

RDR

WSR

SE

BE

RID

Packet #	Name	TimeStamp	Program	Reserve	Address16	Data		
1	Bus1(SPI(EEPROM AT25F))	0.00002ms	02	Reserve	8000	256BYTES		
Packet #	Name	TimeStamp	RDSR	WPDI	Reserve	BP	WEN	Ready
2	Bus1(SPI(EEPROM AT25F))	0.67461ms	05	WPDI	Reserve	0	WEN	Ready
Packet #	Name	TimeStamp	Read	Reserve	Address16	Data		
3	Bus1(SPI(EEPROM AT25F))	0.6796ms	03	Reserve	8000	260BYTES		
Packet #	Name	TimeStamp	RDSR	WPDI	Reserve	BP	WEN	Ready
4	Bus1(SPI(EEPROM AT25F))	1.36436ms	05	WPDI	Reserve	0	WEN	Ready
Packet #	Name	TimeStamp	RDID	Manufacturer ID	Device ID			

Ready

Endt

DEMO