



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

# SPECIFICATION

**MODEL: B09014-LAP-Compact Flash 4.1-M**

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

**VERSION :** V1.01

Approver		Check	Design
GM	PM		

Customer Confirm

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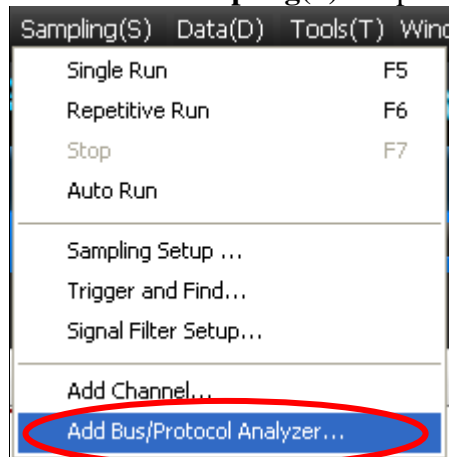
## 1 Software Register

Please register the software as the following steps:

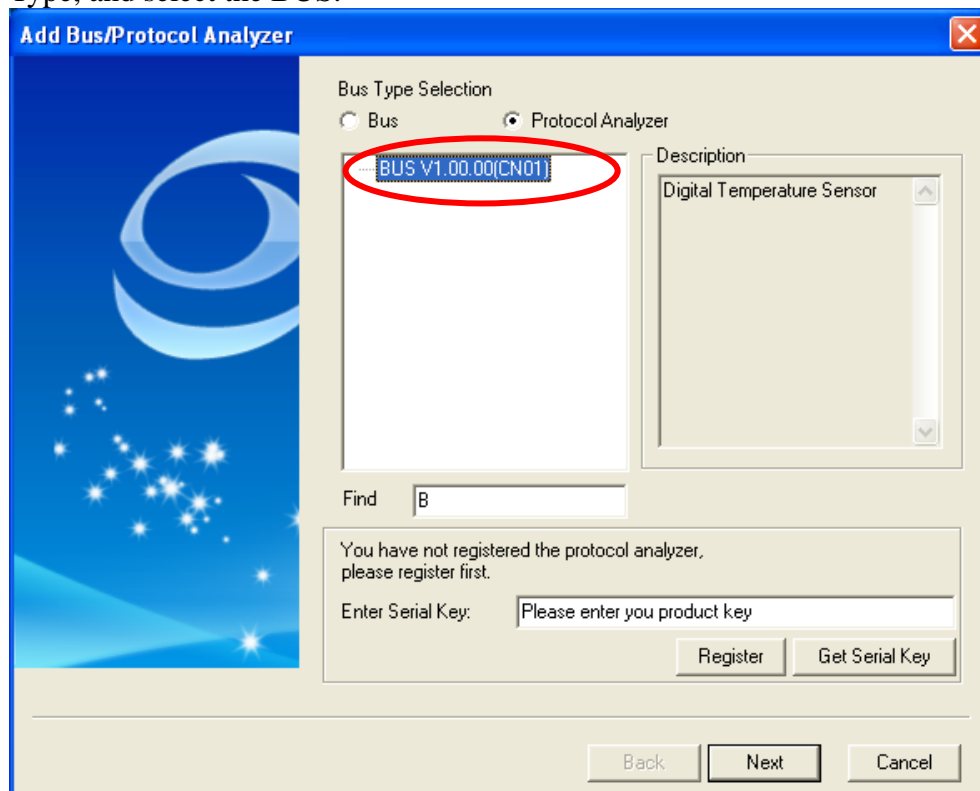
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.

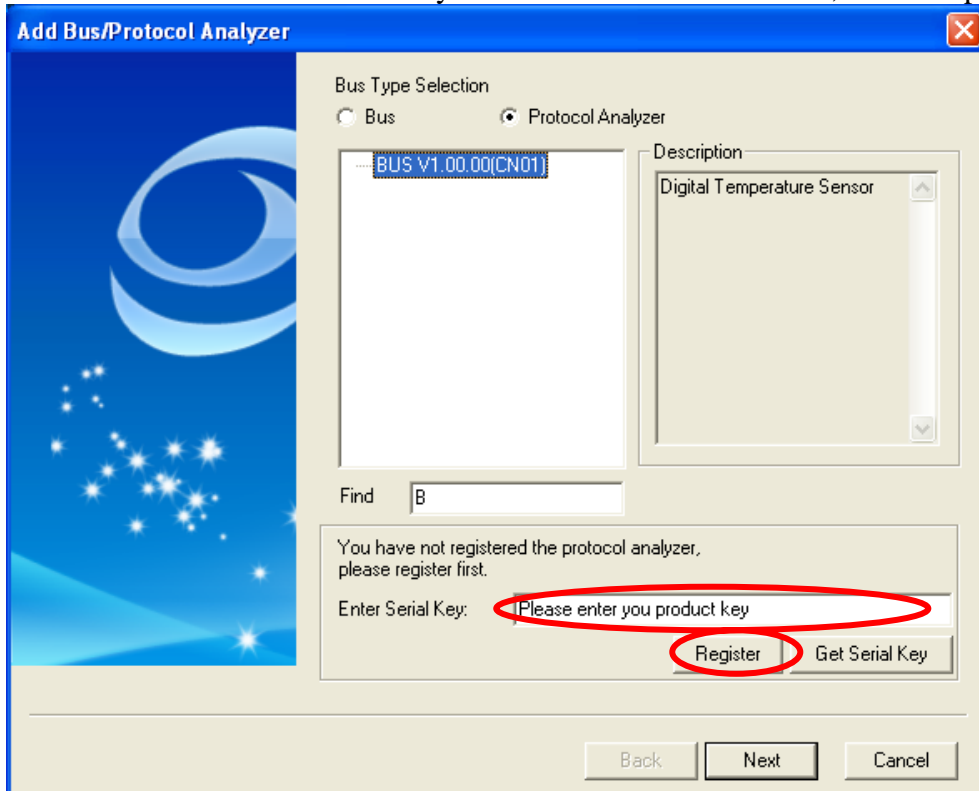


**STEP 2.** Select Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Other Type, and select the BUS.

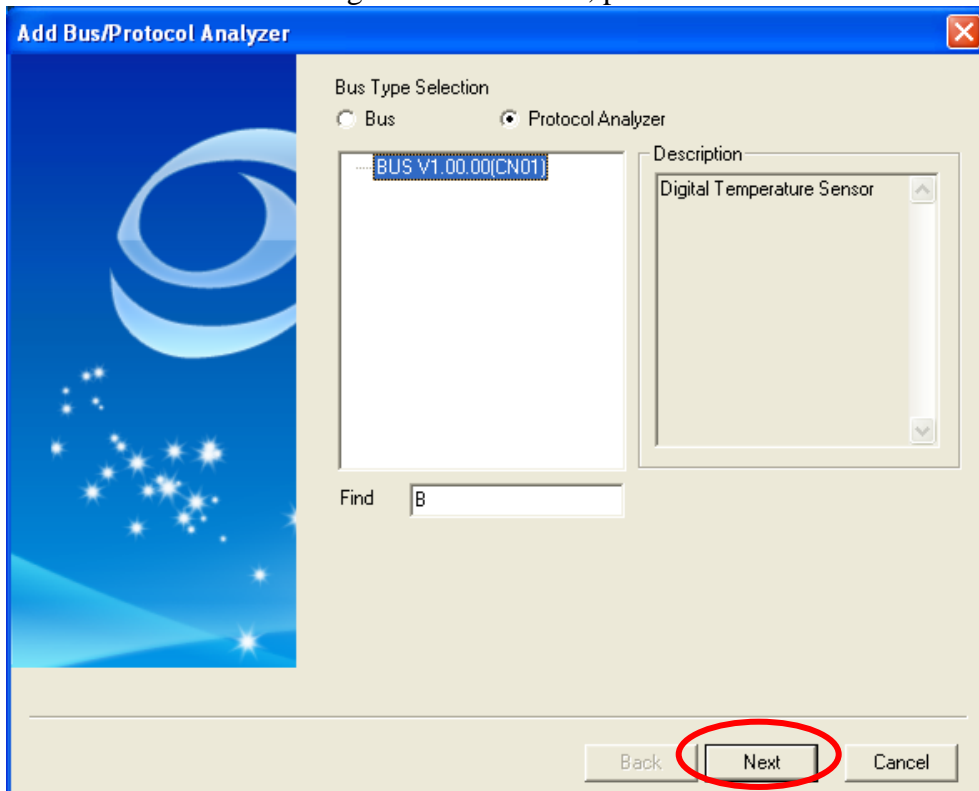




**STEP 3.** Enter the Serial Key of the BUS under this Model, and then press the **Register**.



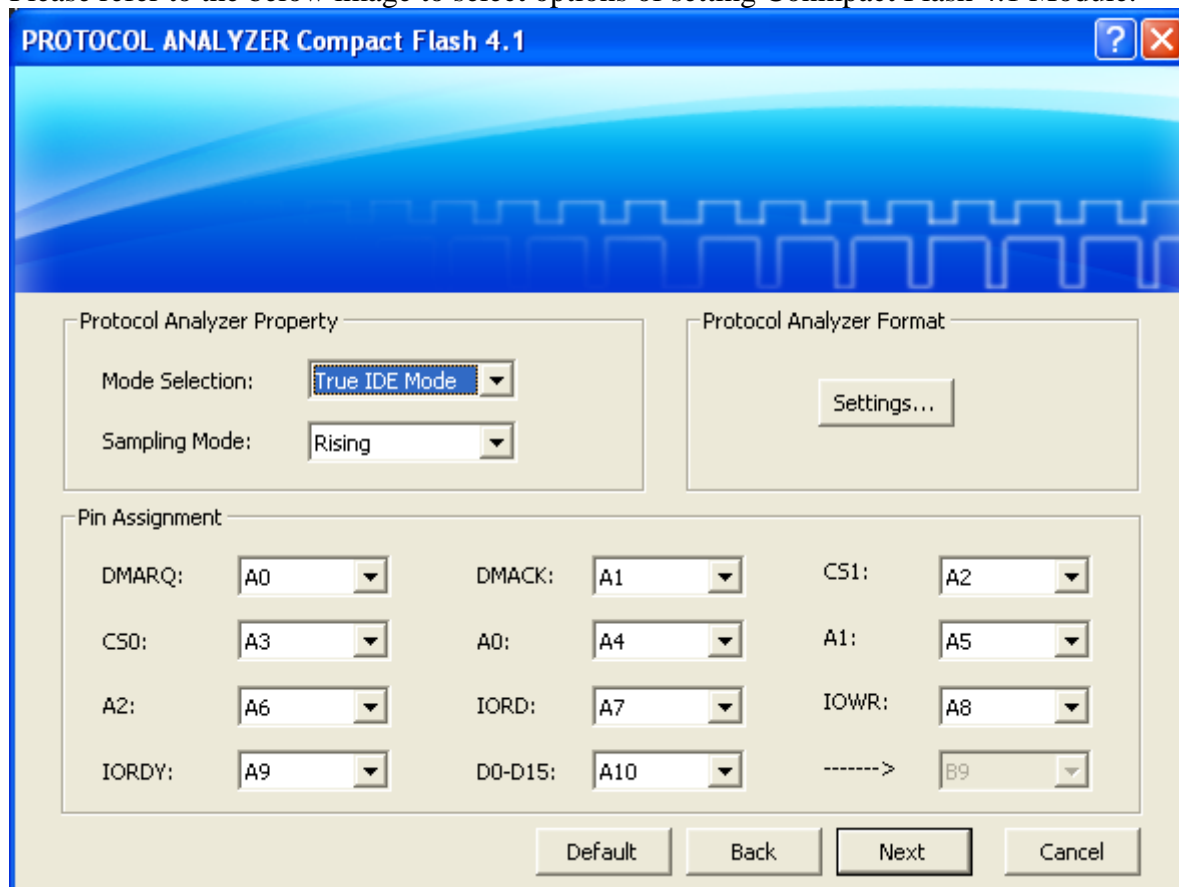
**STEP 4.** After the Register is successful, press the **Next**.





## 2 User Interface

Please refer to the below image to select options of setting Compact Flash 4.1 Module.



### Protocol Analyzer Property:


**Mode Selection:** Until now only True IDE Mode is available.



















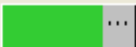





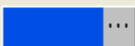

**Sampling Mode:** The default is Rising for IORD and IOWR, users also can set the **Sampling Mode** to Falling.


**Pin Assignment:** It needs 26 channels to decode the signal of True IDE Mode, so users must choose the Logic Analyzer with 32 channels or more to capture the signal, the Logic Analyzer with 16 channels can't capture the signal. In the D0-D15 item of the interface, users only can set the Do channel, the following 15 channels increase progressively.

**Protocol Analyzer Format:** Users can set the color of the packet as their requirements. The Items (Read, Status, Sector Count, Card/Head, Write, Command, Sector NO., Error Register, Address, Cylinder Low, Features, Data, Cylinder High) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of the Items (Read, Status, Sector Count, Card/Head, Write, Command, Sector NO., Error Register, Address, Cylinder Low, Features, Data, Cylinder High) 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** 

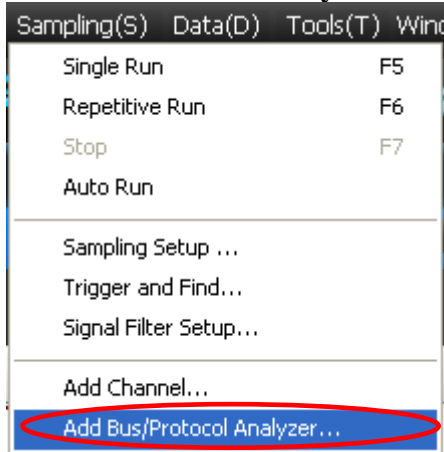
Item	Color	Data Format	Item	Color	Data Format
Read		Default 	Error Register		Default 
Status		Default 	Address		Default 
Sector Count		Default 	Cylinder Low		Default 
Card/Head		Default 	Features		Default 
Write		Default 	Data		Default 
Command		Default 	Cylinder High		Default 
Sector NO.		Default 			

OK  Default

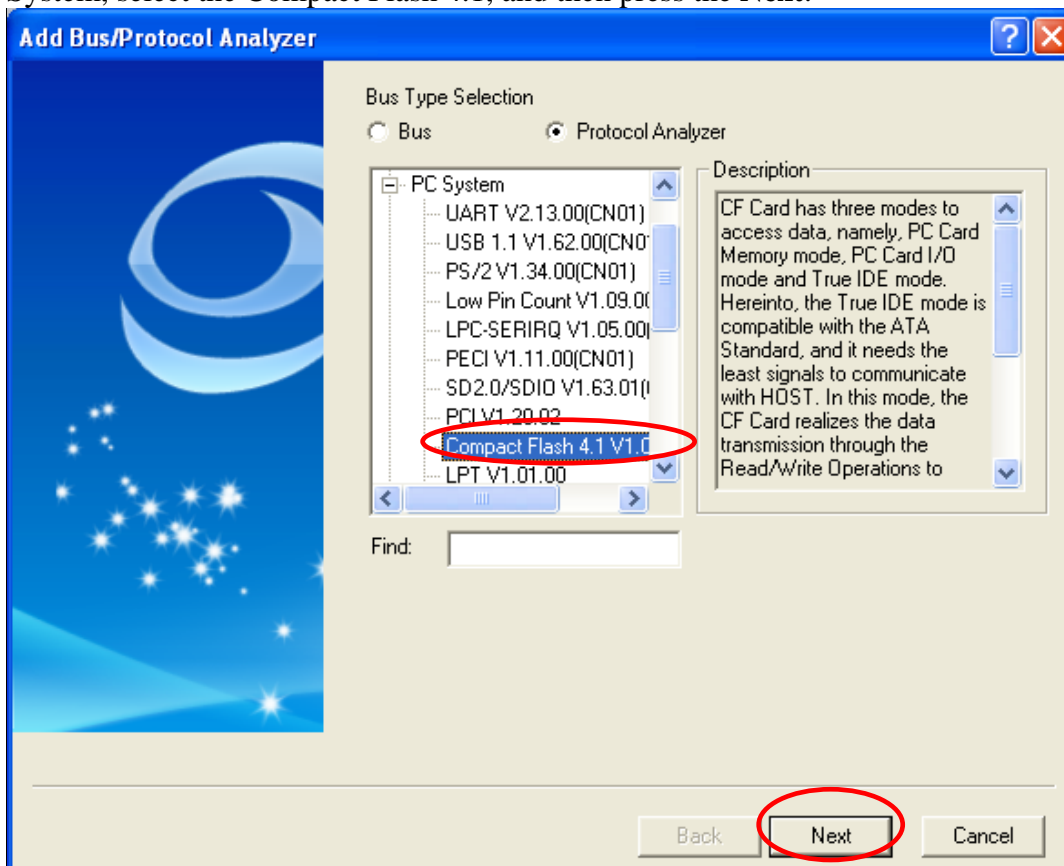


### 3. Operating Instructions

**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 PC System, select the Compact Flash 4.1, and then press the **Next**.





### STEP 3. Set the Protocol Analyzer Property.

PROTOCOL ANALYZER Compact Flash 4.1

Protocol Analyzer Property

Mode Selection: True IDE Mode

Sampling Mode: Rising

Protocol Analyzer Format

Settings...

Pin Assignment

DMARQ: A0 DMACK: A1 CS1: A2

CS0: A3 A0: A4 A1: A5

A2: A6 IORD: A7 IOWR: A8

IORDY: A9 D0-D15: A10 -----> B9

Default Back Next Cancel

### STEP 4. Click the Settings to set the Protocol Analyzer Format.

PROTOCOL ANALYZER Compact Flash 4.1

Protocol Analyzer Property

Mode Selection: True IDE Mode

Sampling Mode: Rising

Protocol Analyzer Format

Settings...

Pin Assignment

DMARQ: A0 DMACK: A1 CS1: A2

CS0: A3 A0: A4 A1: A5

A2: A6 IORD: A7 IOWR: A8

IORDY: A9 D0-D15: A10 -----> B9

Default Back Next Cancel





**STEP 5.** Set the Pin Assignment.

The screenshot shows the 'PROTOCOL ANALYZER Compact Flash 4.1' window. The 'Pin Assignment' section is highlighted with a red box. It contains the following settings:

Signal	Assignment
DMARQ:	A0
DMACK:	A1
CS1:	A2
CS0:	A3
A0:	A4
A1:	A5
A2:	A6
IORD:	A7
IOWR:	A8
IORDY:	A9
D0-D15:	A10
----->	B9

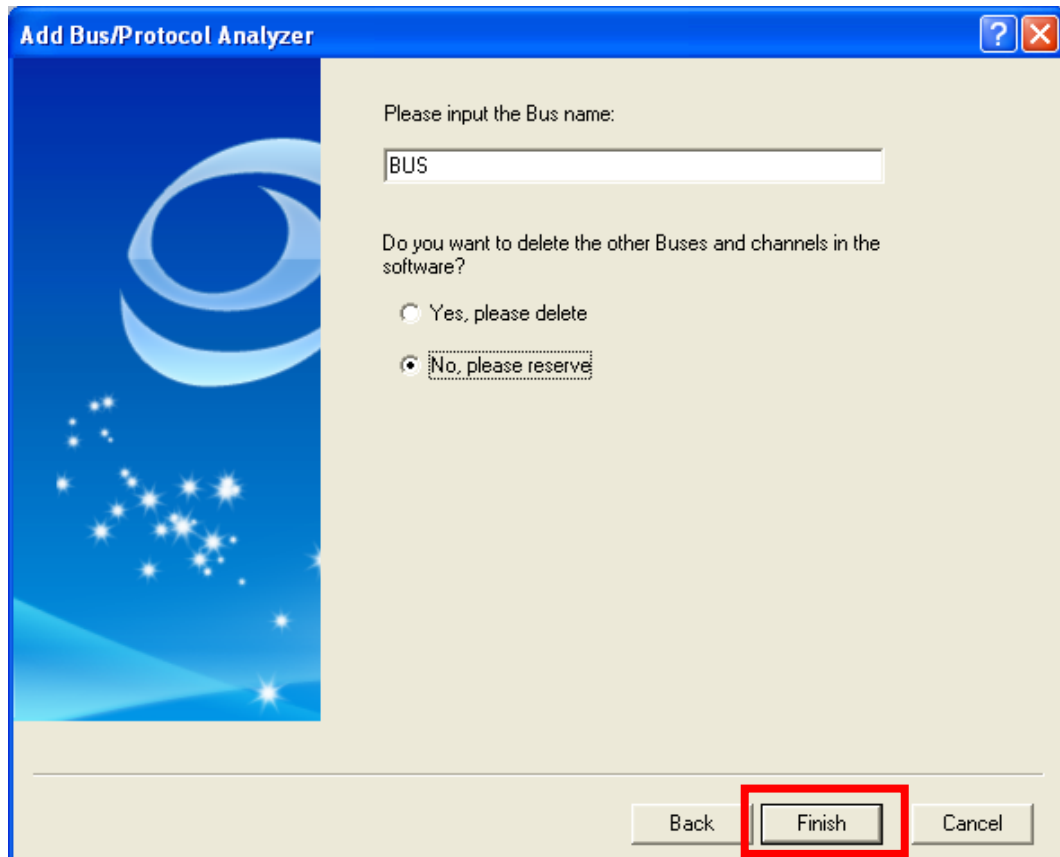
Buttons at the bottom: Default, Back, Next, Cancel.

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

The screenshot shows the same 'PROTOCOL ANALYZER Compact Flash 4.1' window. The 'Next' button at the bottom is highlighted with a red box, indicating the next step in the process.

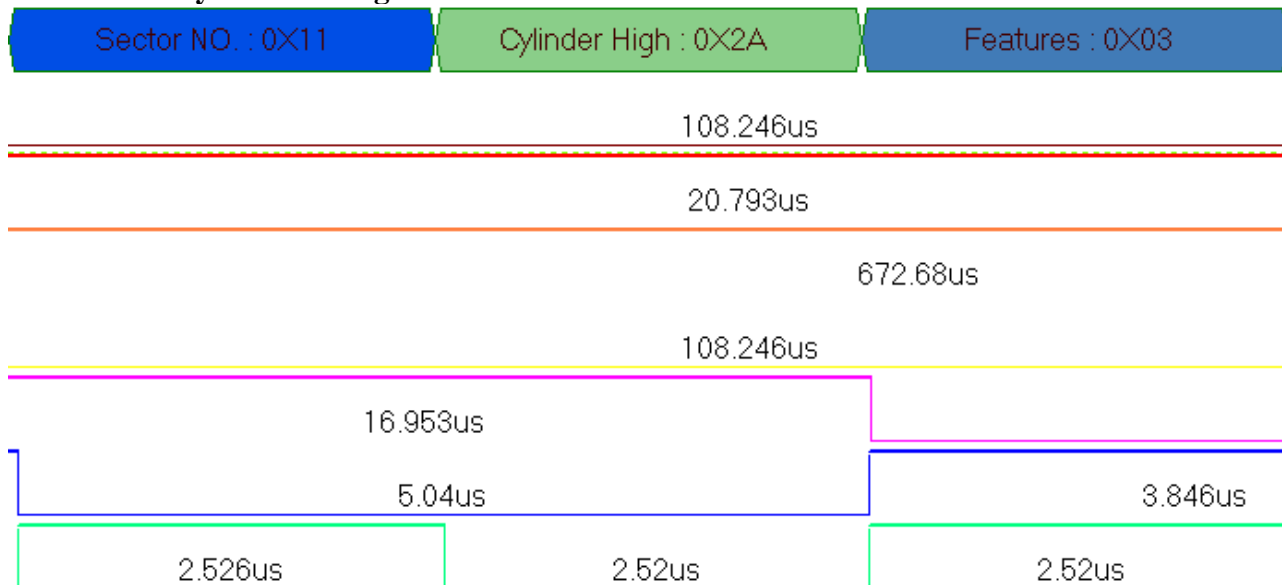


**STEP 7.** Please enter the Bus Name, select **Yes, please delete** or **No, please reserve** and then press **Finish**.



**STEP 8.** Following pictures show the completion of the protocol analyzer decoding and packet list. The trigger condition is set as Either Edge; the memory depth is 128K; the sampling frequency is 200MHz. (the sampling frequency should be more than 8 times higher than the signal to be tested.)

#### Protocol Analyzer Decoding





## Packet List

Navigator

Packet List

Statistics

Memory Analyzer

Packet #	Name	TimeStamp	Sector NO	Cylinder High	Features
1	Bus1(Compact Flash 4.1)	0.01193ms	11	2A	03
Packet #	Name	TimeStamp	Select Card/Head	Data(W)	
2	Bus1(Compact Flash 4.1)	0.0195ms	1C	256BYTES	
Packet #	Name	TimeStamp	Data(W)		
3	Bus1(Compact Flash 4.1)	0.34954ms	256BYTES		

Ready

Endl

DEMO