



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

# SPECIFICATION

**MODEL: B09016-LAP-SCCB-M**

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

**VERSION :** V1.01

Approver		Check	Design
GM	PM		

Customer Confirm

\* Please fax the file to  
Zeroplus Technology after  
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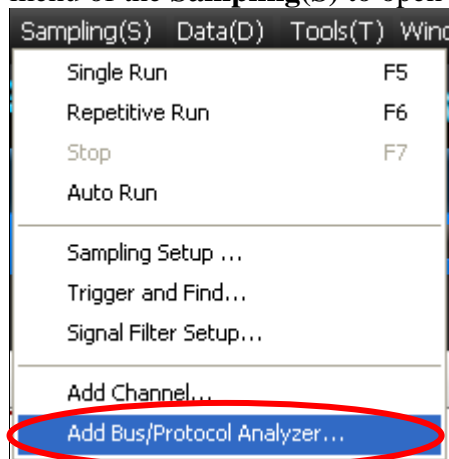
## 1 Software Register

Please register the software as the following steps:

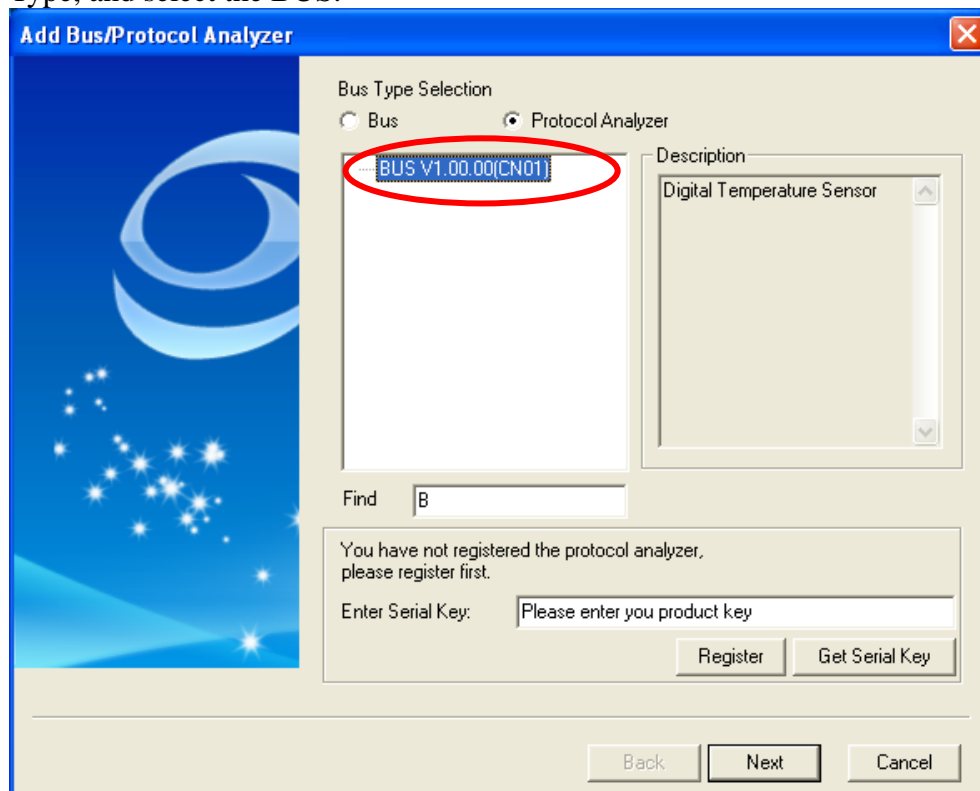
※ Remark1: The registration steps for all protocol analyzers are the same; you can complete the registration by following procedures. Following is an example on how to register the Protocol Analyzer BUS.

※ 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.

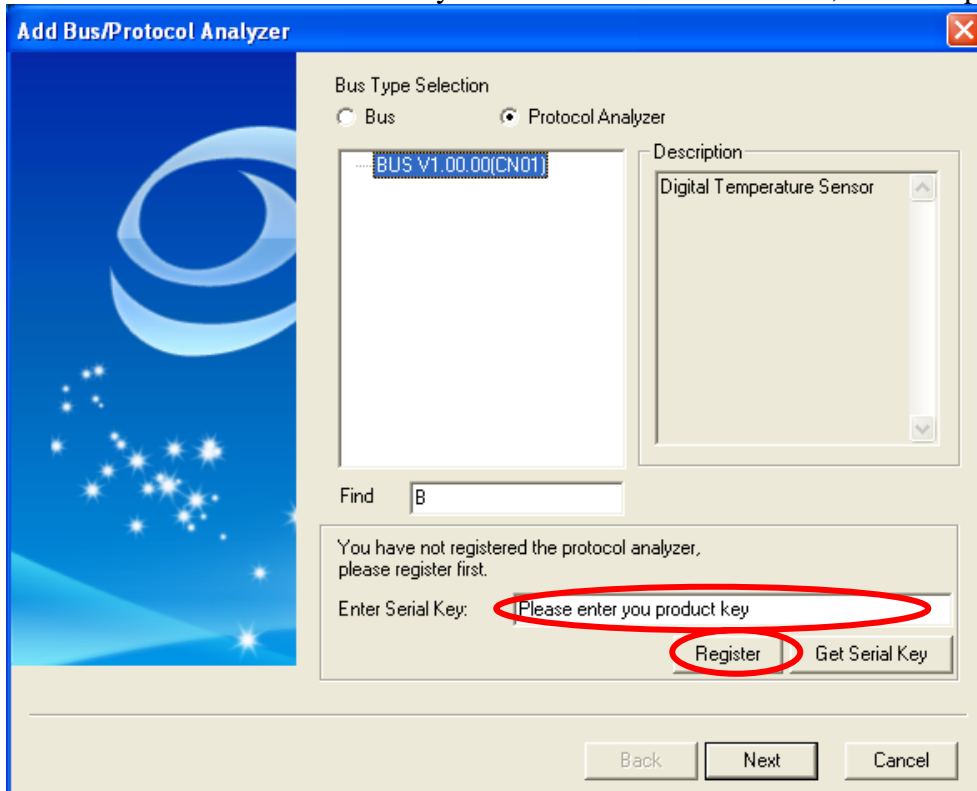


**STEP 2.** Select Protocol Analyzer item in the Add Bus/Protocol Analyzer dialog box, expand the Other Type, and select the BUS.

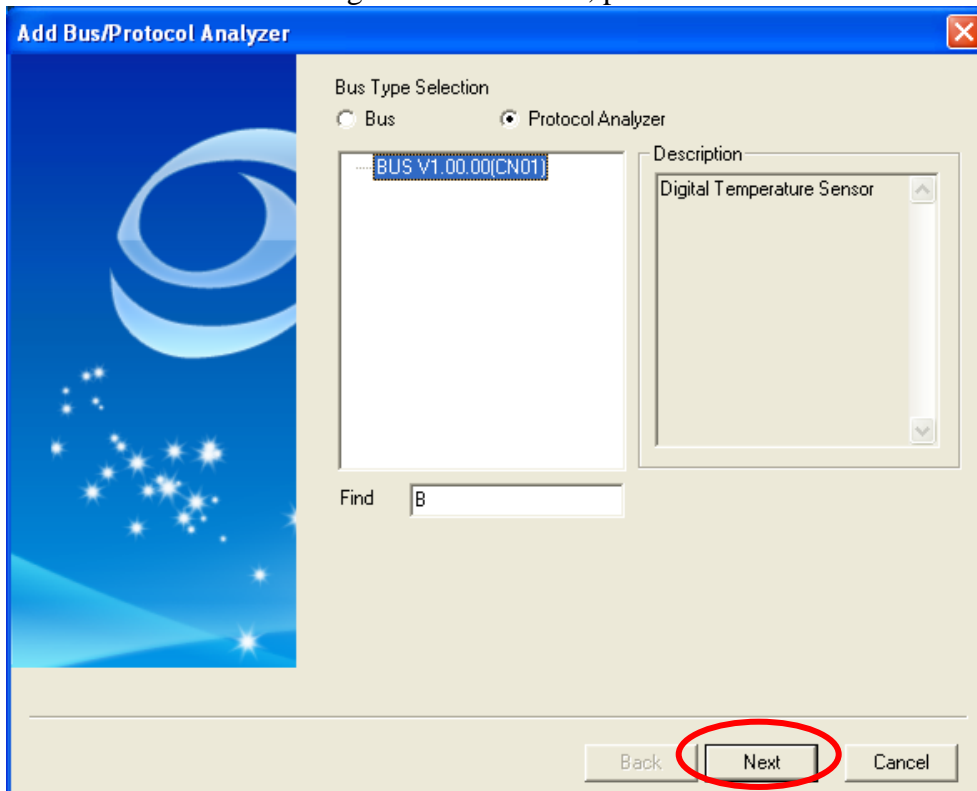




**STEP 3.** Enter the Serial Key of the BUS under this Model, and then press the **Register**.



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





## 2 User Interface

Please refer to the below image to select options of setting SCCB Module.

**PROTOCOL ANALYZER SCCB**

Pin Assignment

SIOC: A0 SIOD: A1 ☒ SCCBE: A2

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
Start	[Cyan]	Default	Stop	[Red]	Default
Read	[Blue]	Default	DC Bit	[Green]	Default
Write	[Red]	Default	Data	[Light Green]	Default
ID Address	[Purple]	Default	NA	[Pink]	Default
Sub Address	[Orange]	Default			

Timing

Settings...

Default Back Next Cancel

### Pin Assignment:

**SIOC:** It is the Clock Signal Channel.

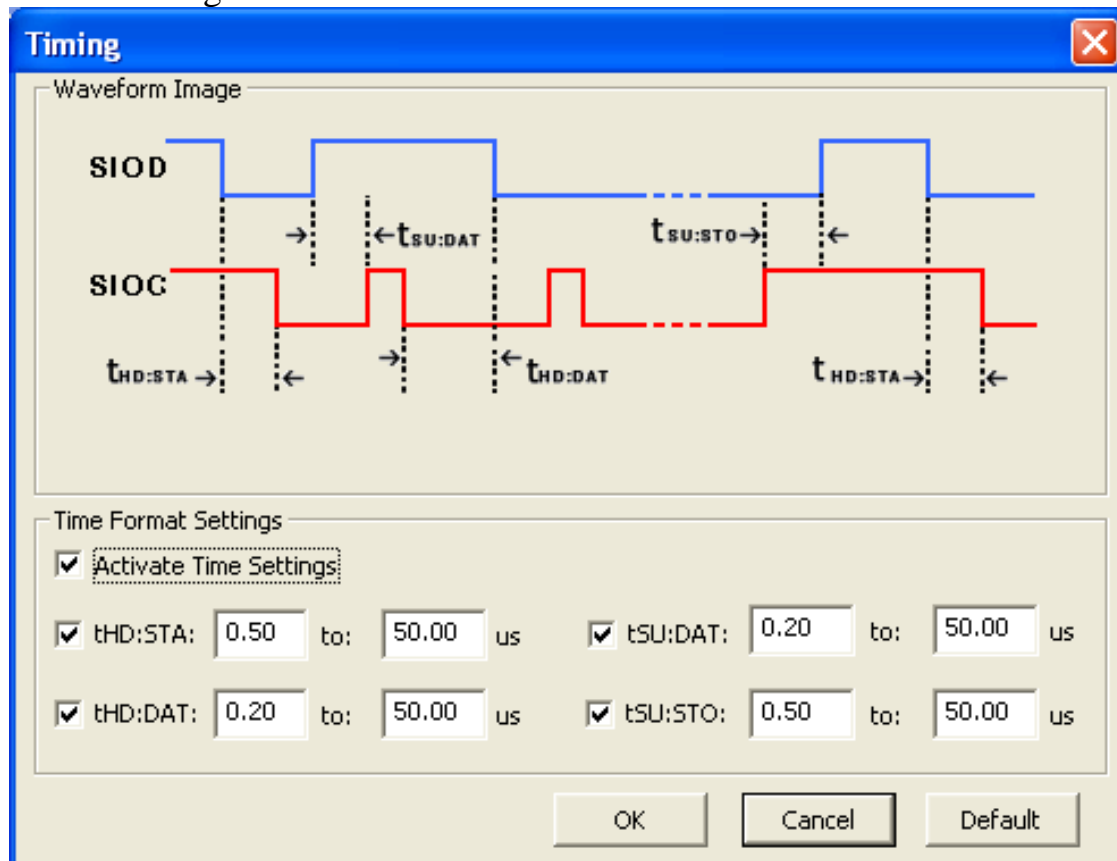
**SIOD:** It is the Data Signal Channel.

**SCCBE:** It is the Chip Select Control Channel. It is effective in the Low Level. The default is to be selected. When not selecting this item, SCCBE, it means that the SCCBE is always in the Low Level.

**Protocol Analyzer Format:** Users can set the color of the packet as their requirements. The Items (ID Address, Sub Address, Data) can be set as Binary, Decimal, Hexadecimal, ASCII or Default. And the Data Format of the Items (WREN ID Address, Sub Address, 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 the Item is the Default.



## SCCB Timing

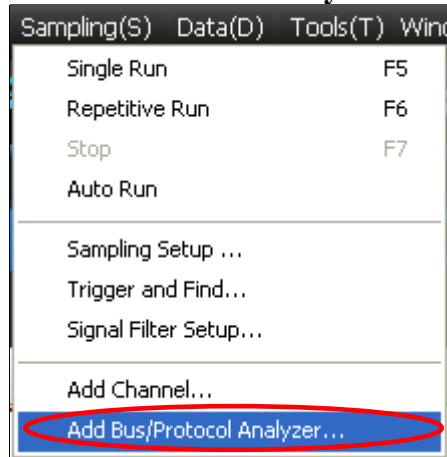


START Time Interval,  $t_{HD: STA}$ , is from the Falling Edge of the SIOD to the Falling Edge of the SIOC; END Time Interval,  $t_{SU: STO}$ , is from the Rising Edge of the SIOC to the Rising Edge of the SIOD; the Time Sequence of data can be divided into two parts.  $t_{SU: DAT}$  is the Time Interval which is from the Rising Edge or Falling Edge of the SIOD to the Rising Edge of the SIOC;  $t_{HD: DAT}$  is the Time Interval which is from the Falling Edge of the SIOC to the Rising Edge or Falling Edge of the SIOD.

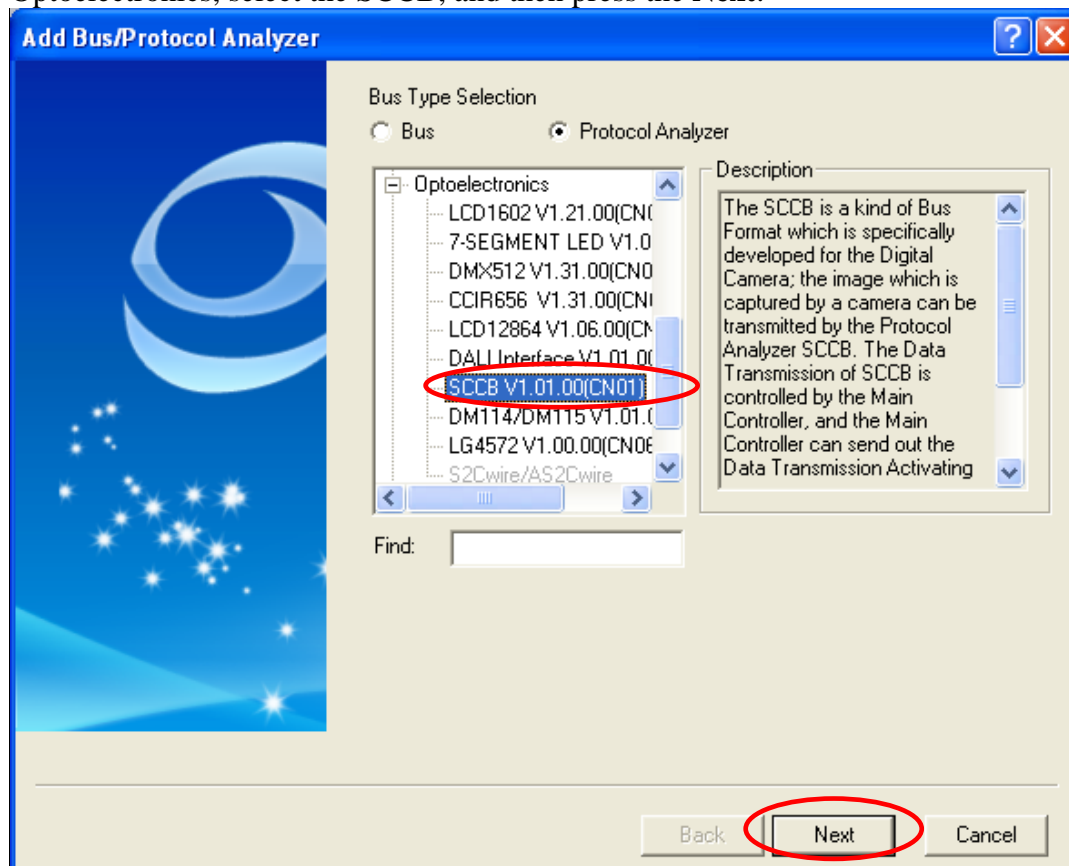


### 3. Operating Instructions

**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 Optoelectronics, select the SCCB, and then press the **Next**.





### STEP 3. Set the Pin Assignment.

**PROTOCOL ANALYZER SCCB**

Pin Assignment

SIOC: A0 SIOD: A1 ☒ SCCBE: A2

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
Start		Default	Stop		Default
Read		Default	DC Bit		Default
Write		Default	Data		Default
ID Address		Default	NA		Default
Sub Address		Default			

Timing

Settings...

Default Back Next Cancel

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

**PROTOCOL ANALYZER SCCB**

Pin Assignment

SIOC: A0 SIOD: A1 ☒ SCCBE: A2

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
Start		Default	Stop		Default
Read		Default	DC Bit		Default
Write		Default	Data		Default
ID Address		Default	NA		Default
Sub Address		Default			

Timing

Settings...

Default Back Next Cancel





**STEP 5.** Click the Settings to set the Timing.

**PROTOCOL ANALYZER SCCB**

Pin Assignment

SIOC: A0 SIOD: A1 ☒ SCCBE: A2

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
Start		Default	Stop		Default
Read		Default	DC Bit		Default
Write		Default	Data		Default
ID Address		Default	NA		Default
Sub Address		Default			

Timing

**Settings...**

Default Back **Next** Cancel

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

**PROTOCOL ANALYZER SCCB**

Pin Assignment

SIOC: A0 SIOD: A1 ☒ SCCBE: A2

Protocol Analyzer Format

Item	Color	Data Format	Item	Color	Data Format
Start		Default	Stop		Default
Read		Default	DC Bit		Default
Write		Default	Data		Default
ID Address		Default	NA		Default
Sub Address		Default			

Timing

Settings...

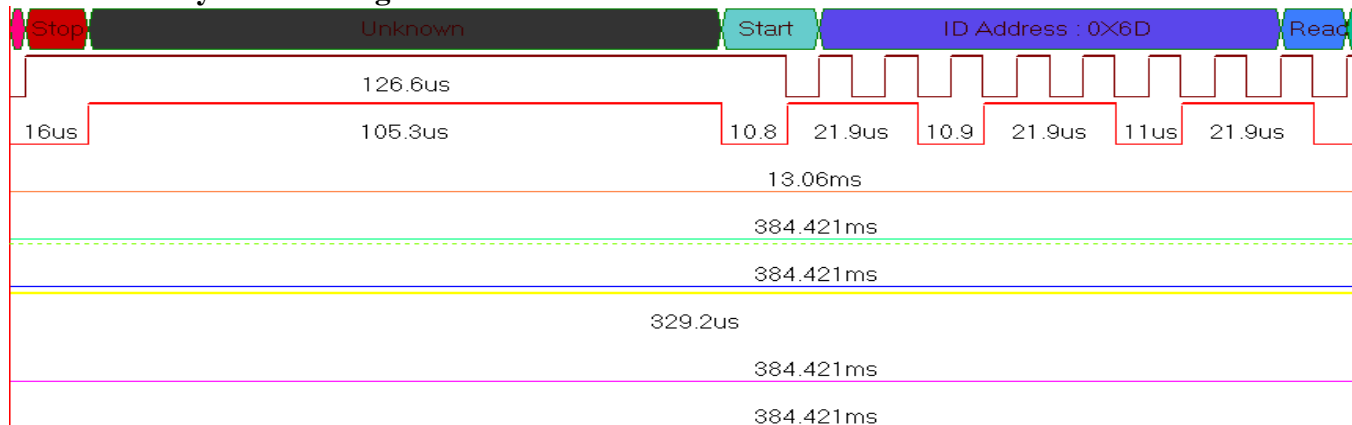
Default Back **Next** Cancel



**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 10MHz. (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	Stop							
1	Bus1(SCCB)	-0.0106ms	Stop							
Packet #	Name	TimeStamp	Start	ID Address	Read	DC Bit	Data	NA	Stop	
2	Bus1(SCCB)	0.3185ms	Start	6D	Read	DC Bit	FE	NA	Stop	
Packet #	Name	TimeStamp	Start	ID Address	Read	DC Bit	Data	NA	Stop	
3	Bus1(SCCB)	0.6477ms	Start	6D	Read	DC Bit	9F	NA	Stop	
Packet #	Name	TimeStamp	Start	ID Address	Read	DC Bit	Data	NA	Stop	
4	Bus1(SCCB)	0.9768ms	Start	6D	Read	DC Bit	9C	NA	Stop	
Packet #	Name	TimeStamp	Start	ID Address	Read	DC Bit	Data	NA	Stop	
Ready										Endl DEMO