



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

SPECIFICATION

MODEL: B08005 LAP-SM2.0-M

PART NO : _____

VERSION : V1.20

Approver		Check	Design
GM	PM		

Customer Confirm

* Please fax the file to
ZeroPlus Technology after
signing .



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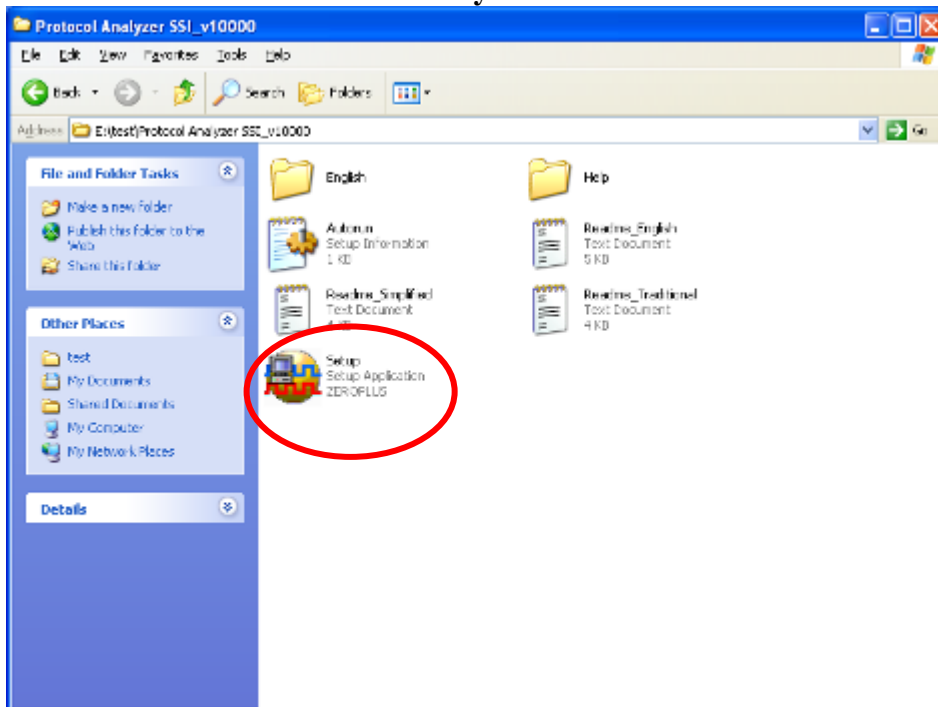
1 Software Installation

Please install the software as the following steps:

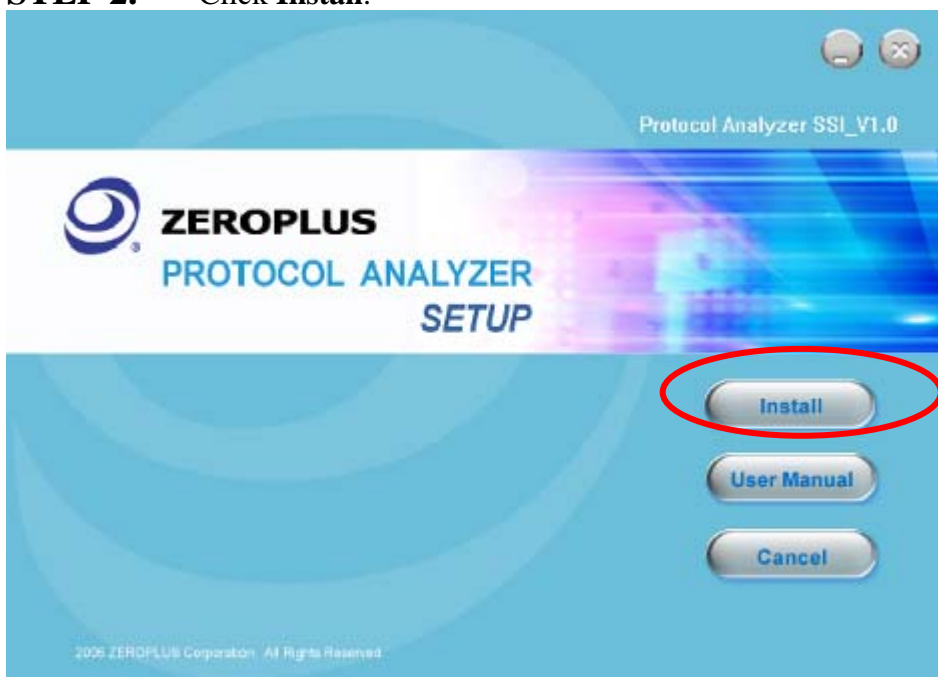
※ Remark: 1.The installation steps for all protocol analyzers are the same; you can complete the installation by following procedures. The following is an example to install protocol analyzer SSI.

※ Remark: 2.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. Install Protocol Analyzer Module.

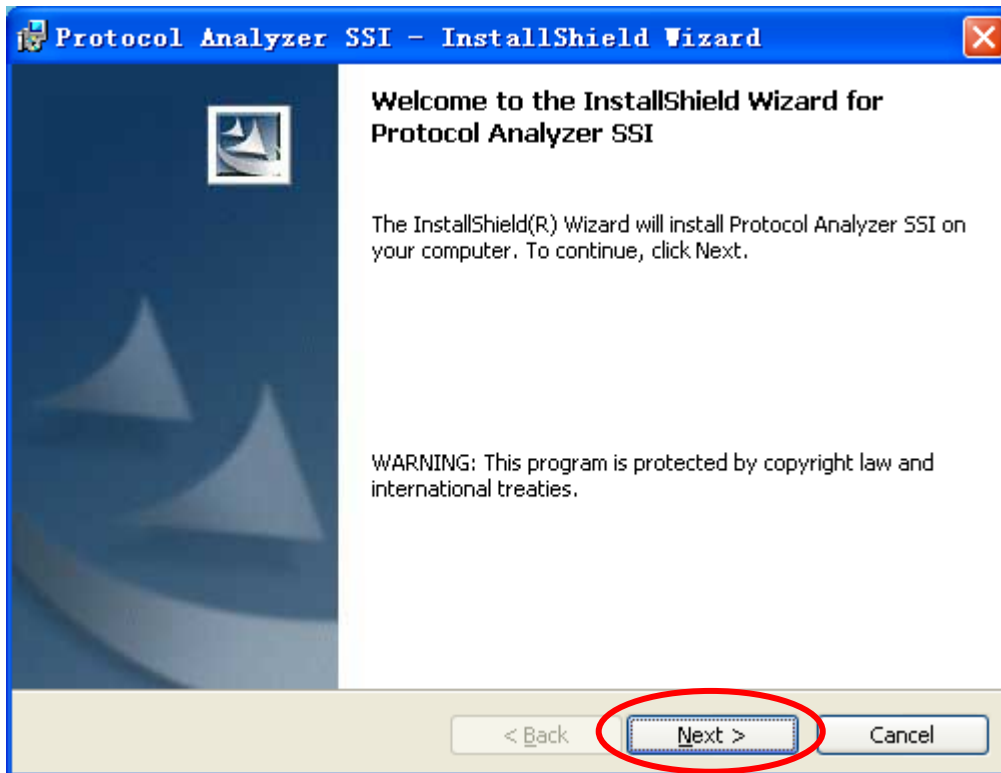


STEP 2. Click **Install**.

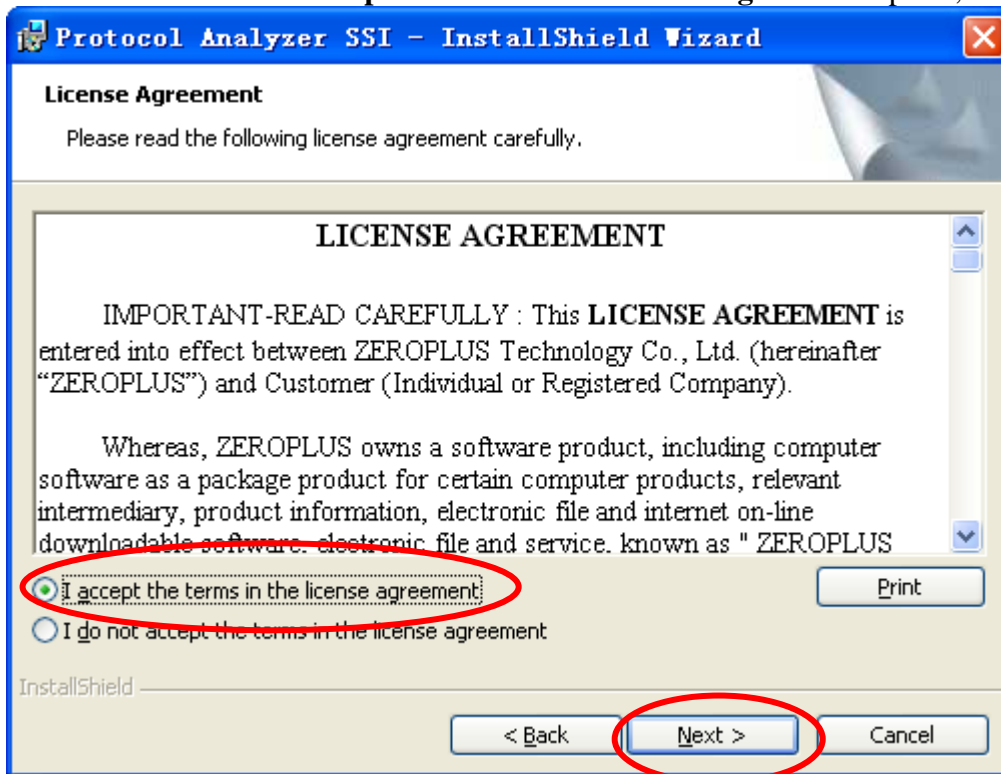




STEP 3. Click Next.



STEP 4. Select **I accept the terms in the license agreement** option, and then press Next.





STEP 5. Fill in users' information in the below dialog box and then click **Next**.

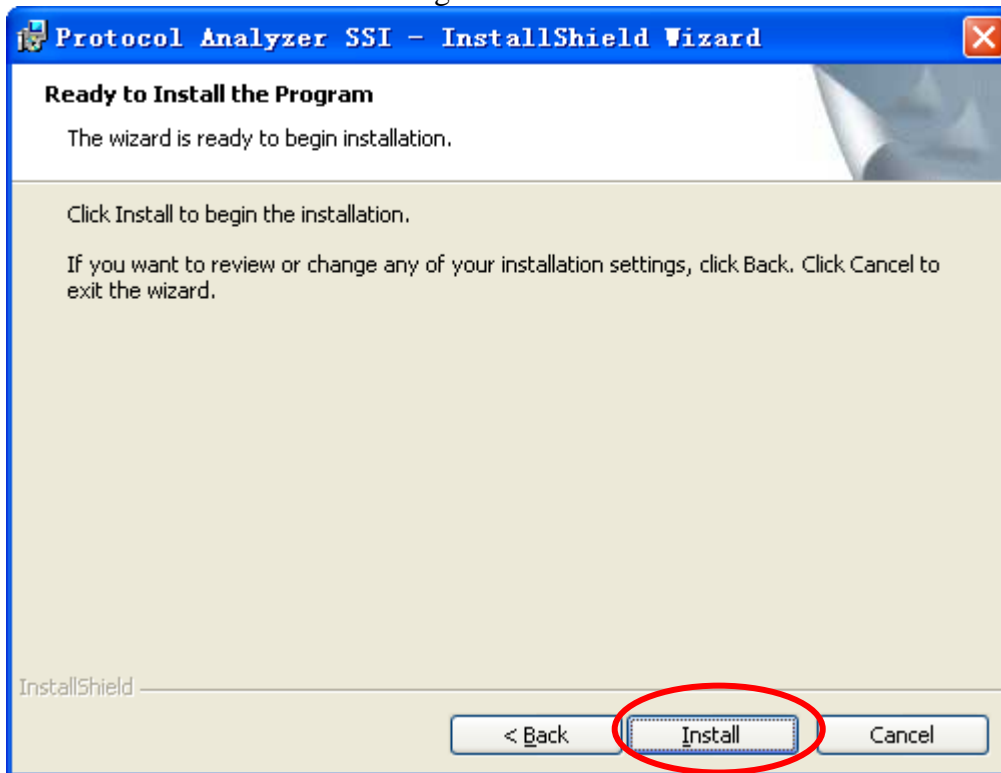
The dialog box is titled "Protocol Analyzer SSI - InstallShield Wizard". It has a "Customer Information" section with the instruction "Please enter your information." Below this are two text input fields: "User Name:" with the value "sunshine" and "Organization:" with the value "zeroplus". There are two radio button options under "Install this application for:": "Anyone who uses this computer (all users)" (selected) and "Only for me (sunshine)". At the bottom, there are three buttons: "< Back", "Next >" (circled in red), and "Cancel".

STEP 6. First, select **Complete** and then click **Next**.

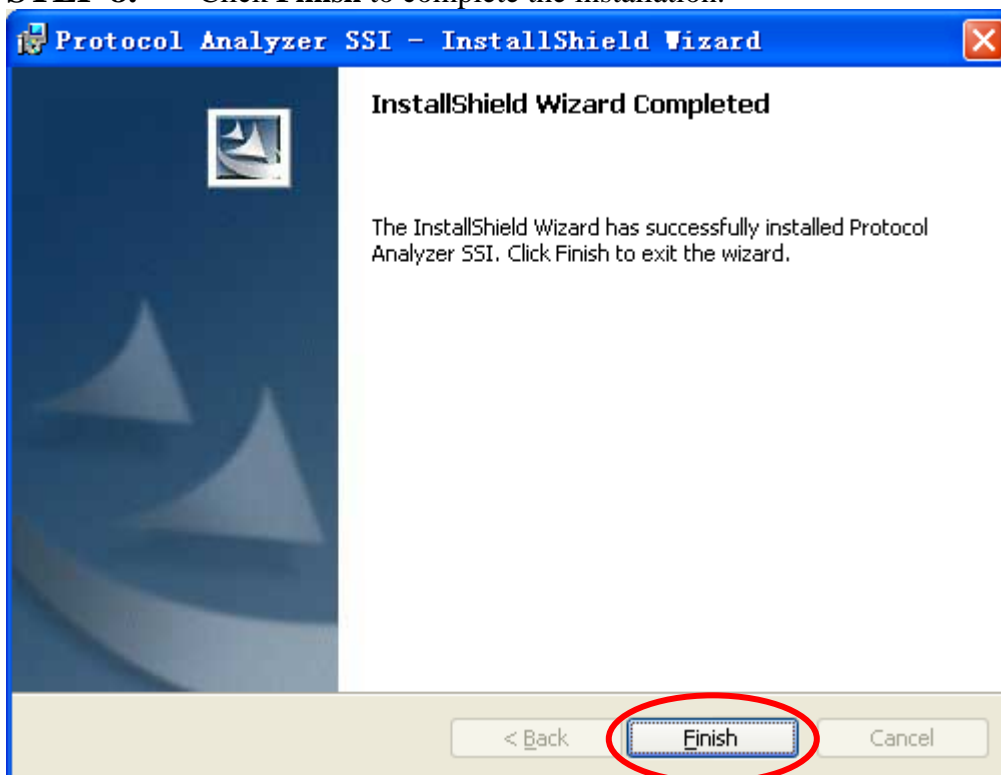
The dialog box is titled "Protocol Analyzer SSI - InstallShield Wizard". It has a "Setup Type" section with the instruction "Choose the setup type that best suits your needs." Below this is the text "Please select a setup type." There are two radio button options: "Complete" (selected) and "Custom". The "Complete" option has a description: "All program features will be installed. (Requires the most disk space.)". The "Custom" option has a description: "Choose which program features you want installed and where they will be installed. Recommended for advanced users." At the bottom, there are three buttons: "< Back", "Next >" (circled in red), and "Cancel".



STEP 7. Click **Install** to begin the installation.



STEP 8. Click **Finish** to complete the installation.

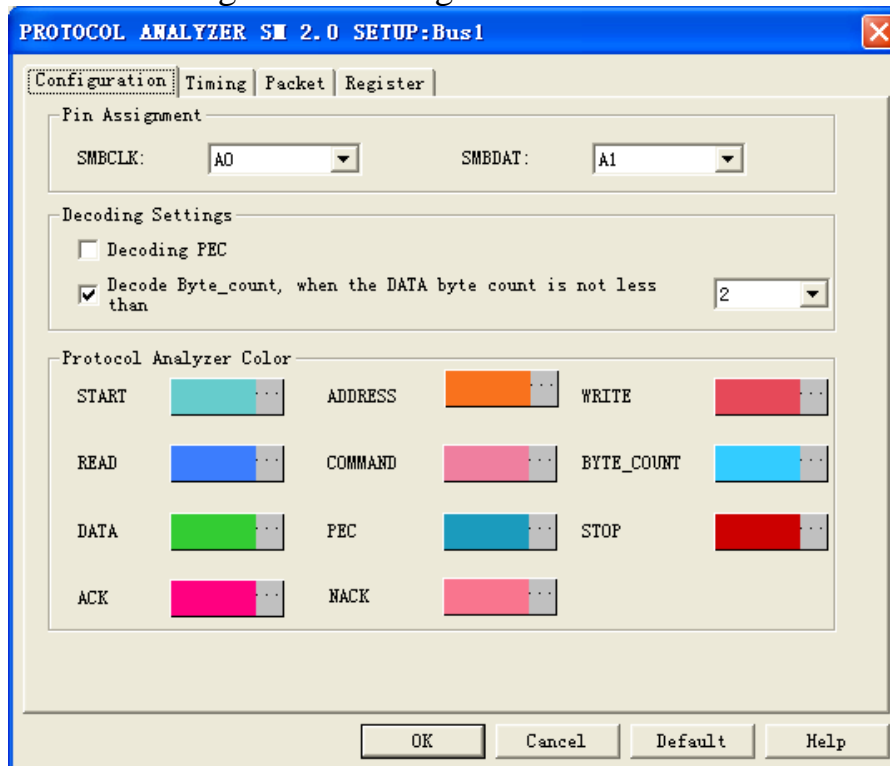




2 User Interface

In the configuration dialog box, please refer to the below images to select options of setting **SM 2.0 MODULE**.

SM 2.0 Configuration Dialog Box



Pin Assignment:

Set the corresponding signal lines: the default of SMBCLK is A0; the default of SMBDAT is A1.

Decoding Settings:

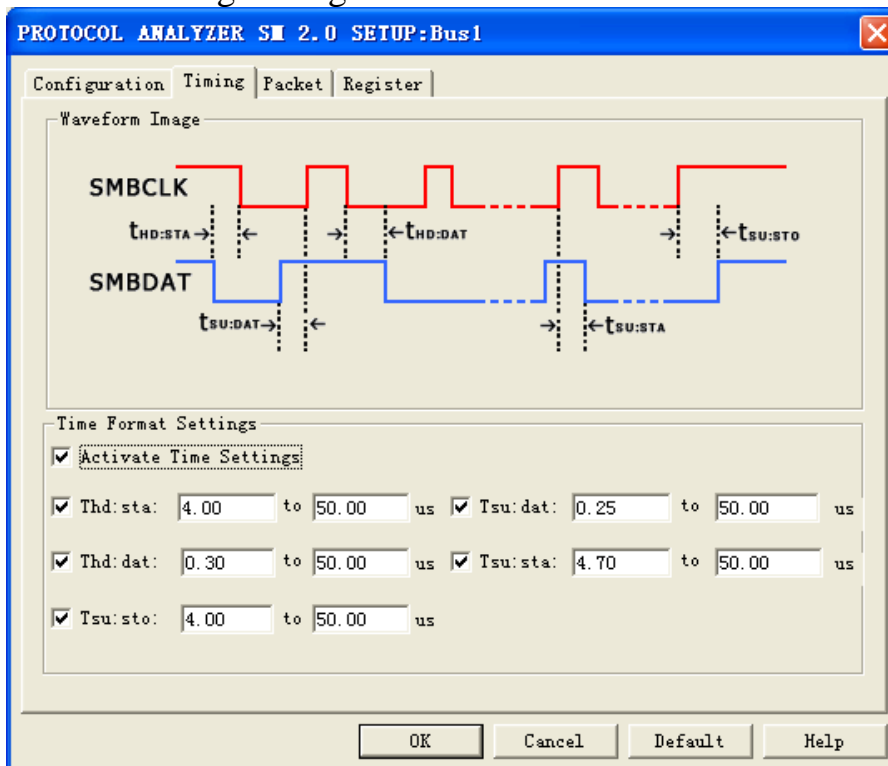
Set the special decoding way, such as Decoding PEC or judging BLACK when decoding PEC, and you can set the necessary Byte_count.

Protocol Analyzer Color:

The protocol analyzer colors can be varied by users.



SM 2.0 Timing Dialog Box



Waveform Image:

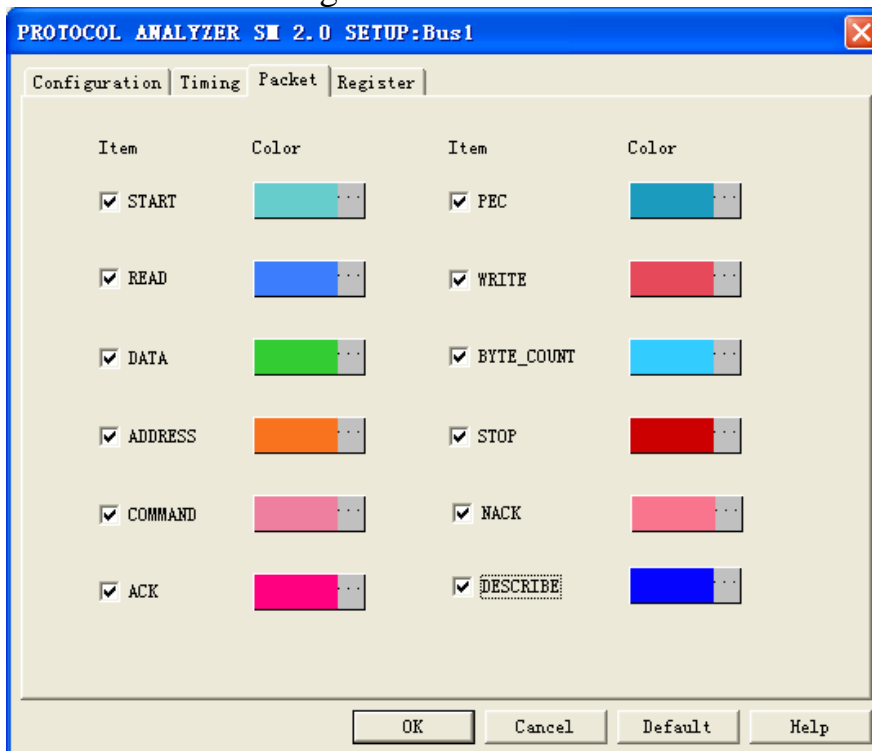
Describe the position of the set time.

Time Format Settings:

It can set the time after activating time settings. The set time can be taken as the condition of judging decoding. For example, decoding START, firstly judge whether the condition of START is coincident or not, then judge whether the set time of Thd: sta coincides with the factual waveform. It can start decoding START when both of the two conditions are coincident. The other packet segments are the same with the above theory.

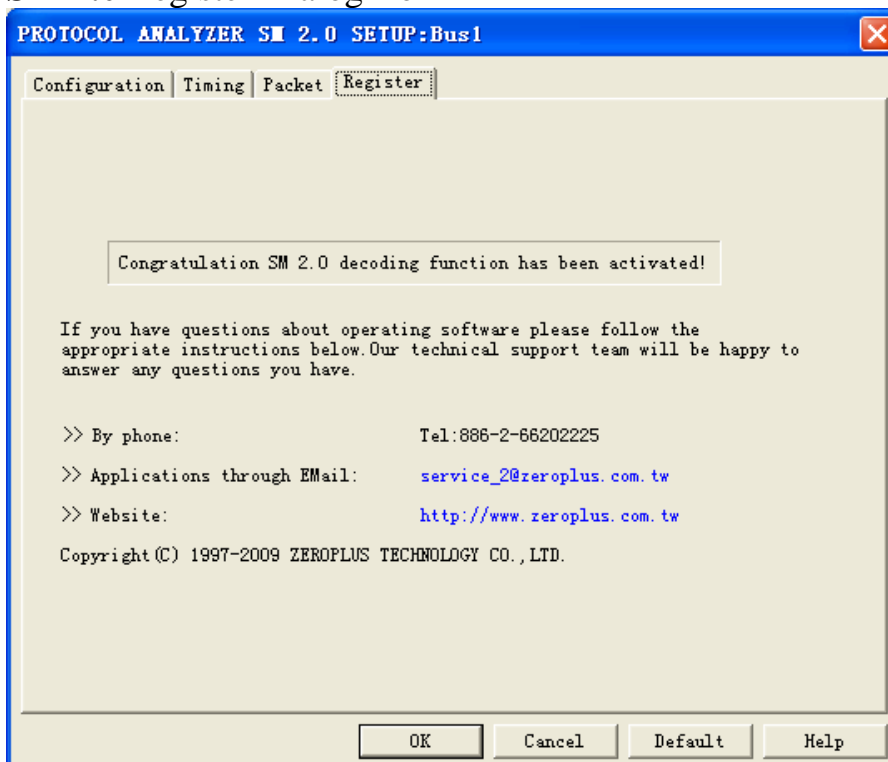


SM 2.0 Packet Dialog Box



In the packet part, users can select the items and colors configuration according to users' requirements. You can also select whether to display them on the packet list or not.

SM 2.0 Register Dialog Box

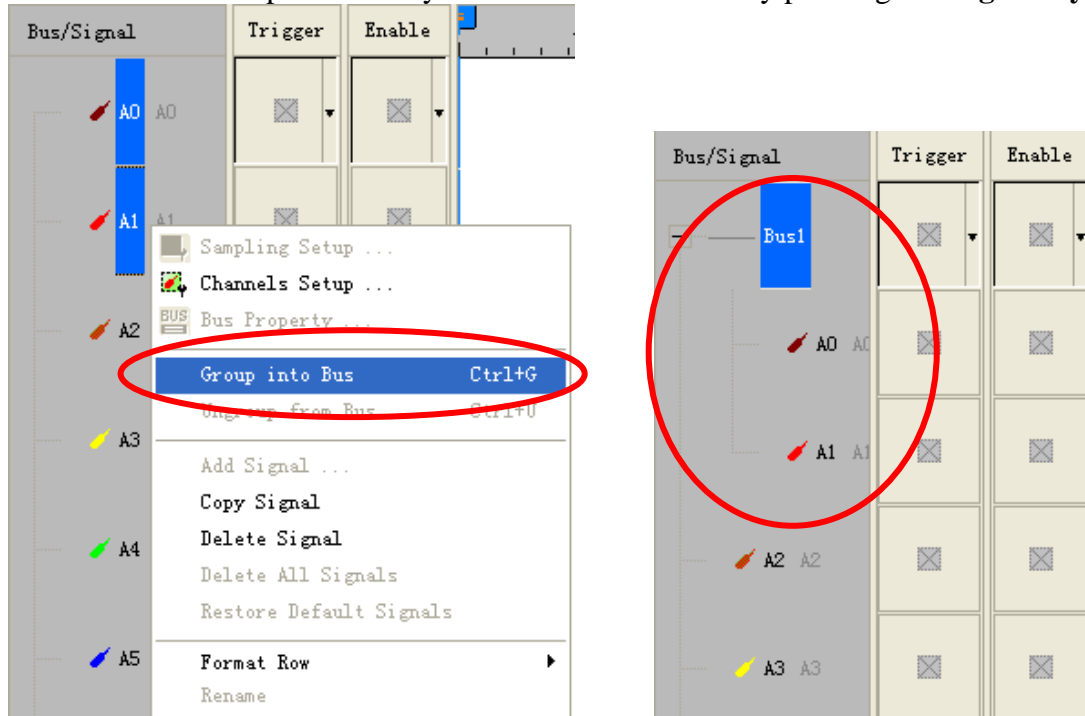


There is written ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

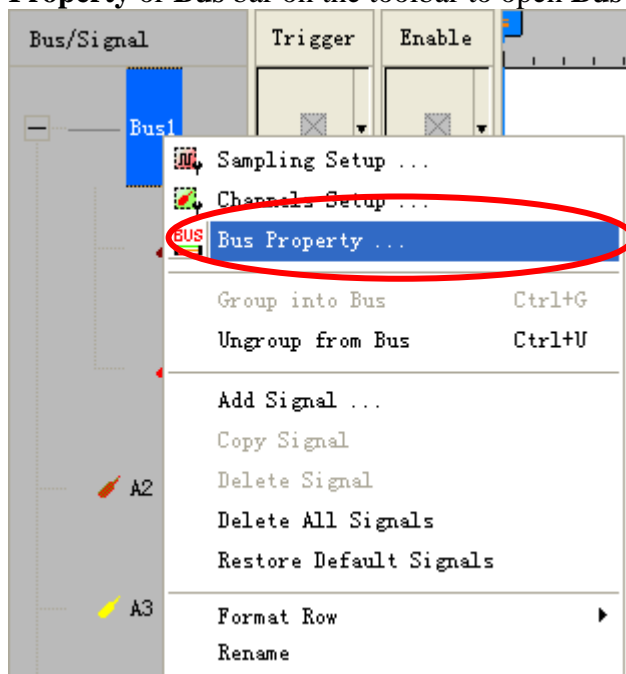


3 Operating Instructions

STEP 1. Group the unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse.

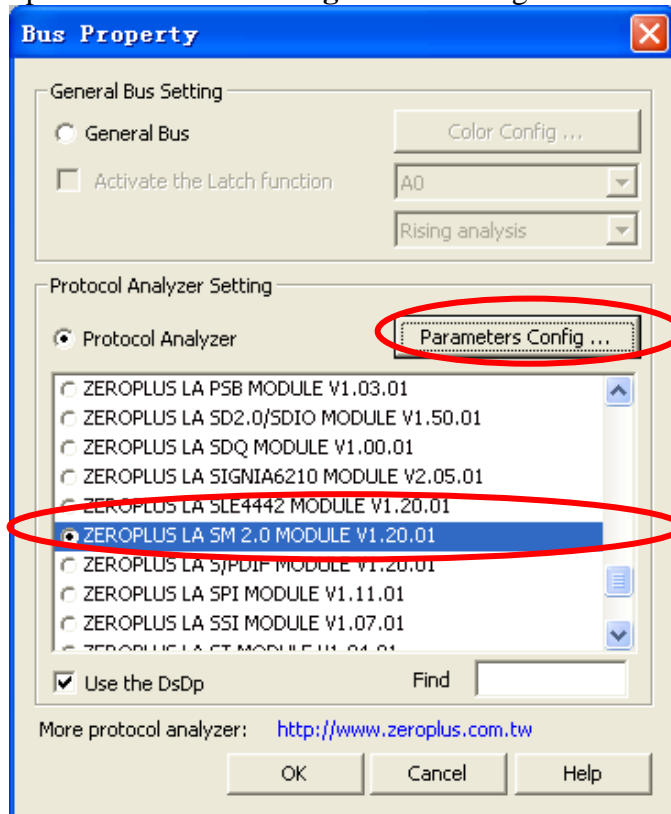


STEP 2. Select **Bus1**, then press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.

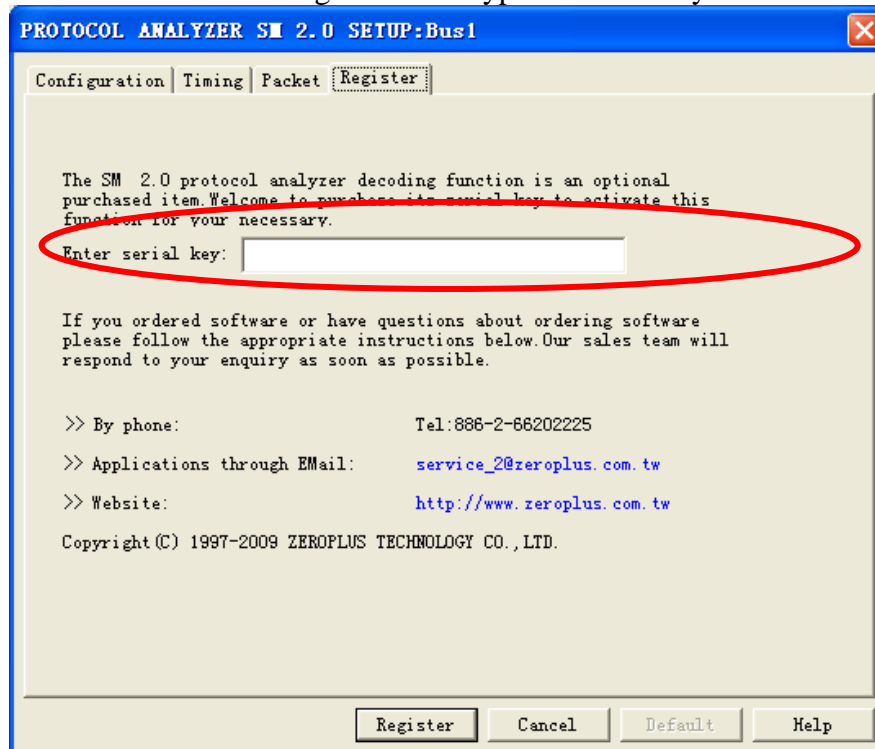




STEP 3. For Protocol Analyzer SM 2.0 Parameters Configuration, select Protocol Analyzer, and then select **ZEROPLUS LA SM 2.0 MODULE V1.20.01**. Next click **Parameters Configuration** to open **Parameters Configuration** dialog box.

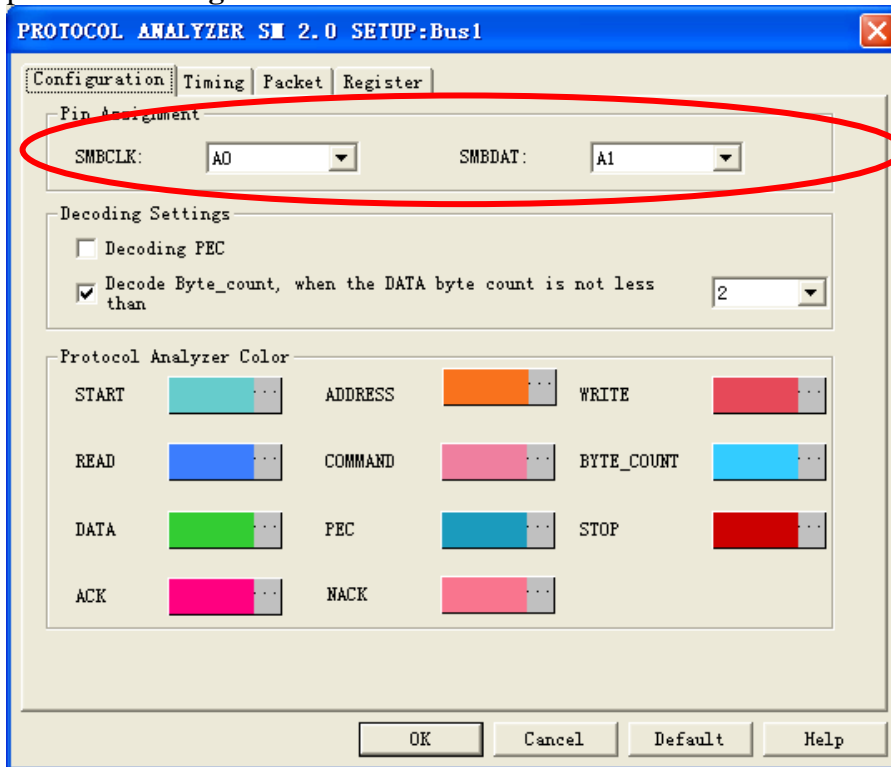


STEP 4. Click Register tab to type the serial key number of **SM 2.0**. Then, press **Register**.

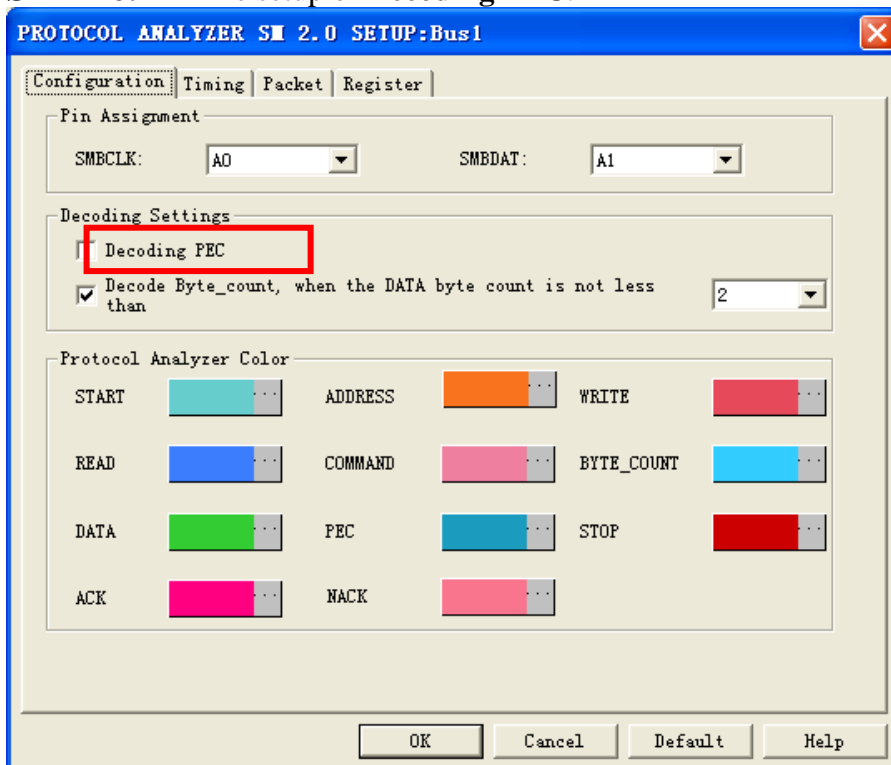




STEP 5. Open the configuration dialog box; select the corresponding SM 2.0 signal lines in the part of **Pin Assignment**.

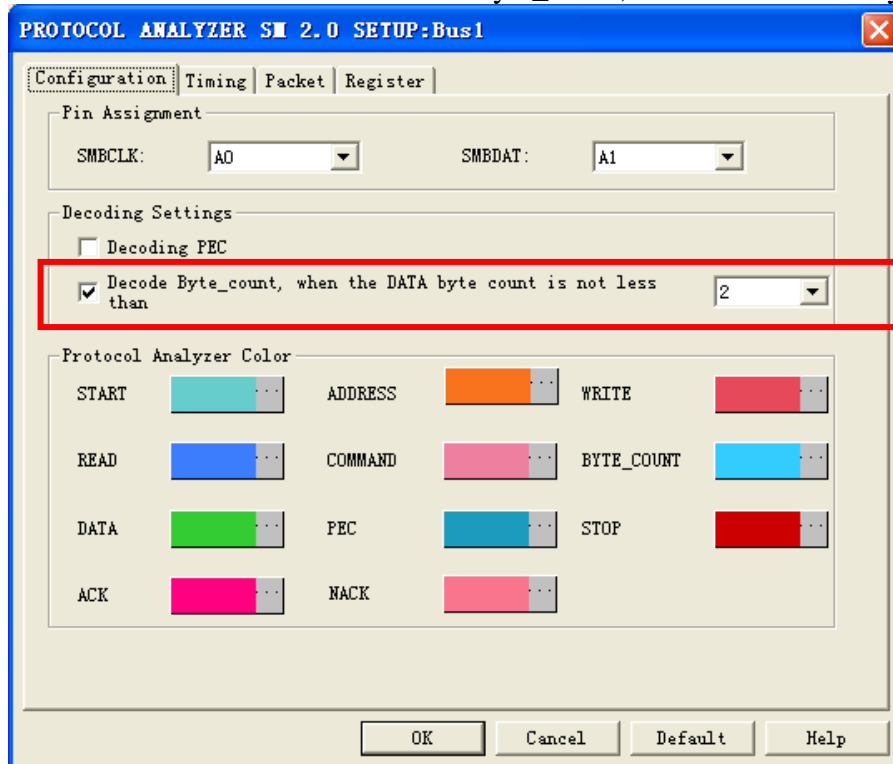


STEP 6. The setup of **Decoding PEC**.

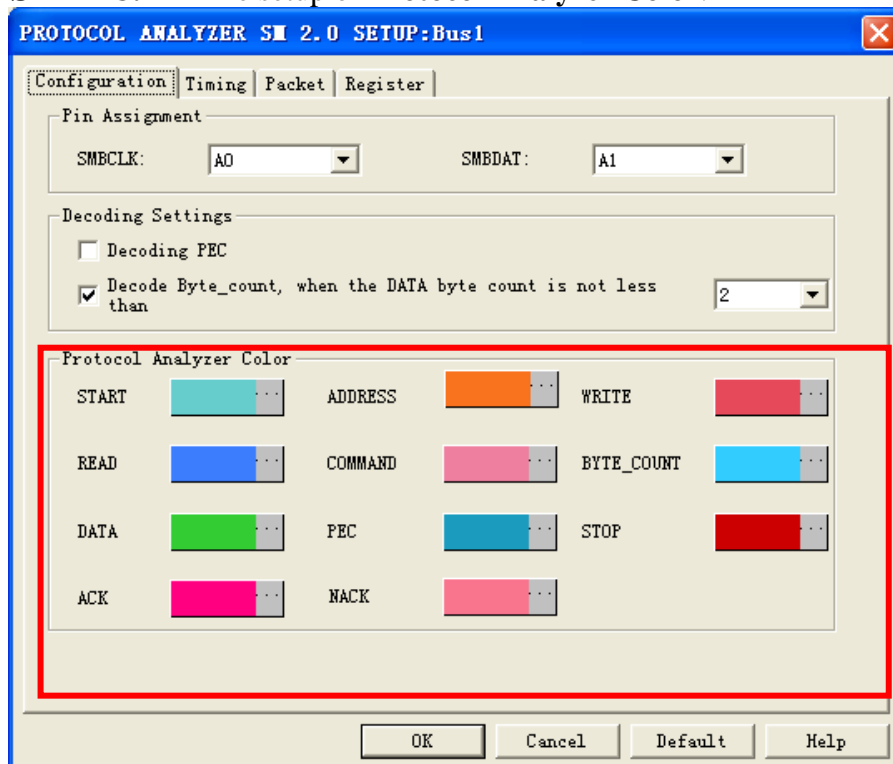




STEP 7. When select Decode Byte_count, it needs to set the Byte_count of DATA firstly.

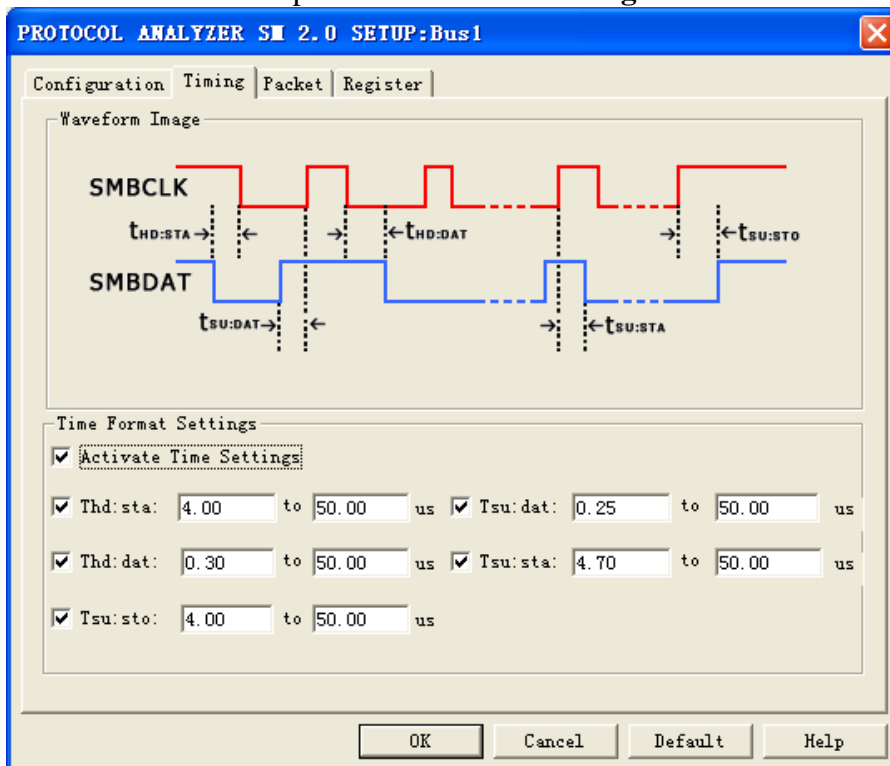


STEP 8. The setup of Protocol Analyzer Color.



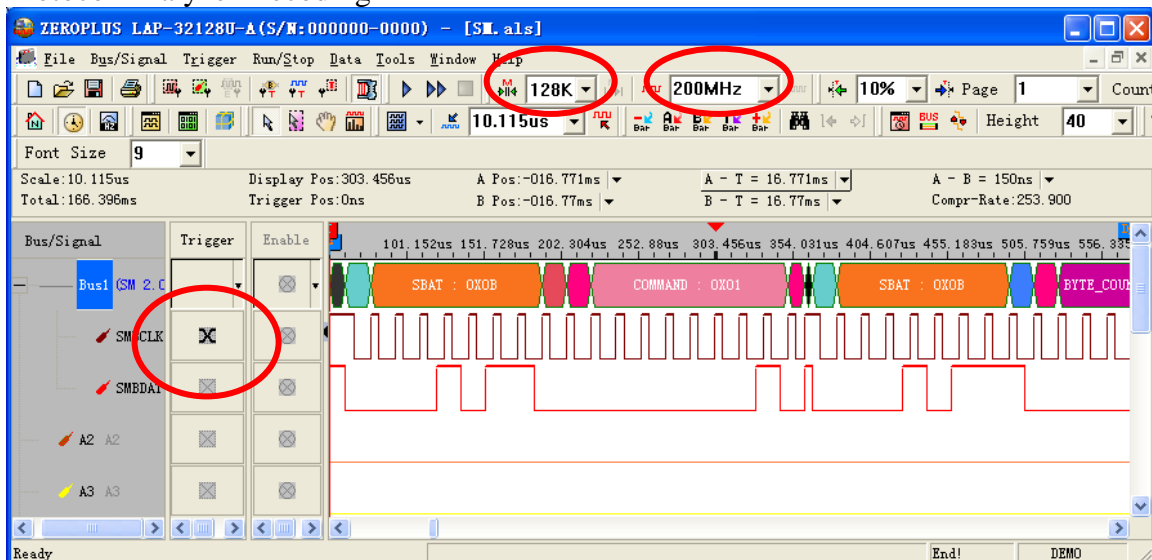


STEP 9. The setup of Time Format Settings.



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 128K; the sampling frequency is 200MHZ.

Protocol Analyzer Decoding





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ZEROPLUS LAP-32128U-A (S/M: 000000-0000) - [SM.als]

File Bus/Signal Trigger Run/Stop Data Tools Window Help

Font Size 9

Scale: 10.115us Display Pos: 303.456us A Pos: -016.771ms A - T = 16.771ms A - B = 150ns
 Total: 166.396ms Trigger Pos: 0ns B Pos: -016.77ms B - T = 16.77ms Compr-Rate: 253.900

Bus/Signal Trigger Enable

Bus1 (SM 2.0) [X] [X]

SMBCLK [X] [X]

SMBDAT [X] [X]

A2 A2 [X] [X]

A3 A3 [X] [X]

101.152us 151.728us 202.304us 252.88us 303.456us 354.031us 404.607us 455.183us 505.759us 556.335us

SBAT : 0X0B COMMAND : 0X01 SBAT : 0X0B BYTE_COUNT : 0X02

Setting... Flash Export Synch Parameter

Packet #	Name	TimeStamp	START	SBAT	WRITE	ACK	COMMAND	ACK	START_R	SBAT	READ	ACK
1	Bus1(SM 2.0)	61.51us	START	0X0B	WRITE	ACK	0X01	ACK	START_R	0X0B	READ	ACK
	BYTE_COUNT ERROR		ACK	DATA	ACK	DATA	ACK	DATA	NACK	STOP		
	0X02		ACK	0X03	ACK	0X04	ACK	0XF8	NACK	STOP		
Packet #	Name	TimeStamp	START	GENERAL_CALL	WRITE	ACK	COMMAND	ACK	BYTE_COUNT	ACK		
2	Bus1(SM 2.0)	1.288ms	START	0X00	WRITE	ACK	0X01	ACK	0X08	ACK		
	DATA	ACK	DATA	ACK	DATA	ACK	DATA	ACK	DATA	ACK	START_R	
	0X02	ACK	0X03	ACK	0X04	ACK	0X05	ACK	0X06	ACK	0X07	ACK
	0X08	ACK	0X09	ACK	START_R							
	START_BYTE	READ	ACK	BYTE_COUNT	ACK	DATA	ACK	DATA	ACK	DATA	ACK	DATA

Ready End! DEMO