



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

Instrument Business Department

SIGNIA6210 Specification

Version : V2.04



Content

1. Software Installation.....	3
2. User Interface	7
3. Operating Instructions.....	10

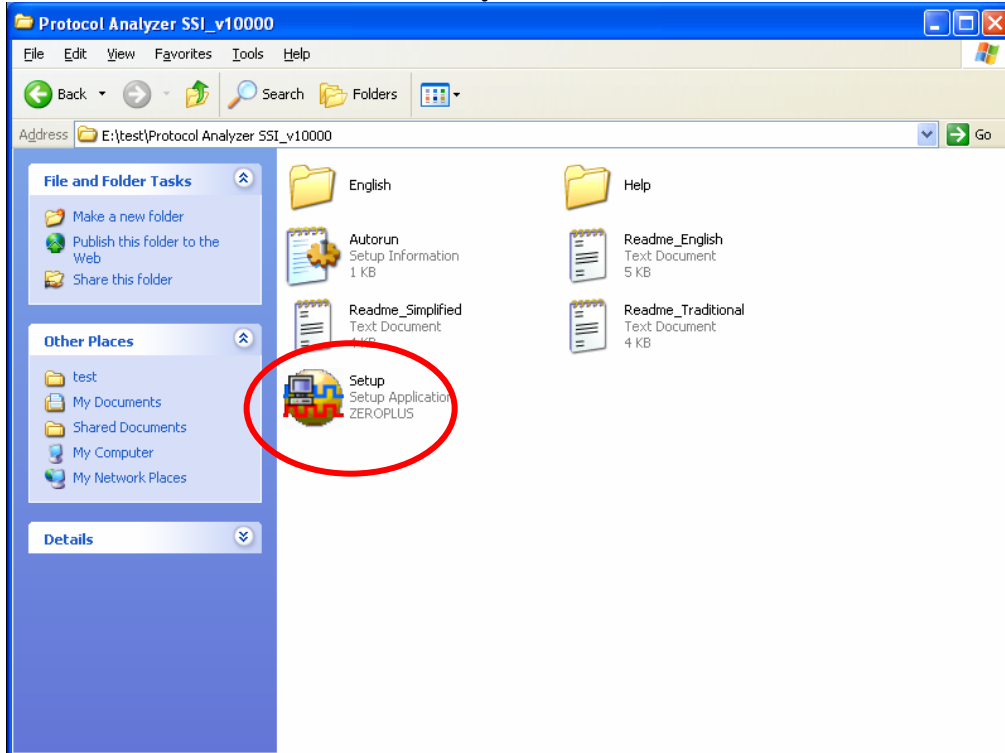


1 Software Installation

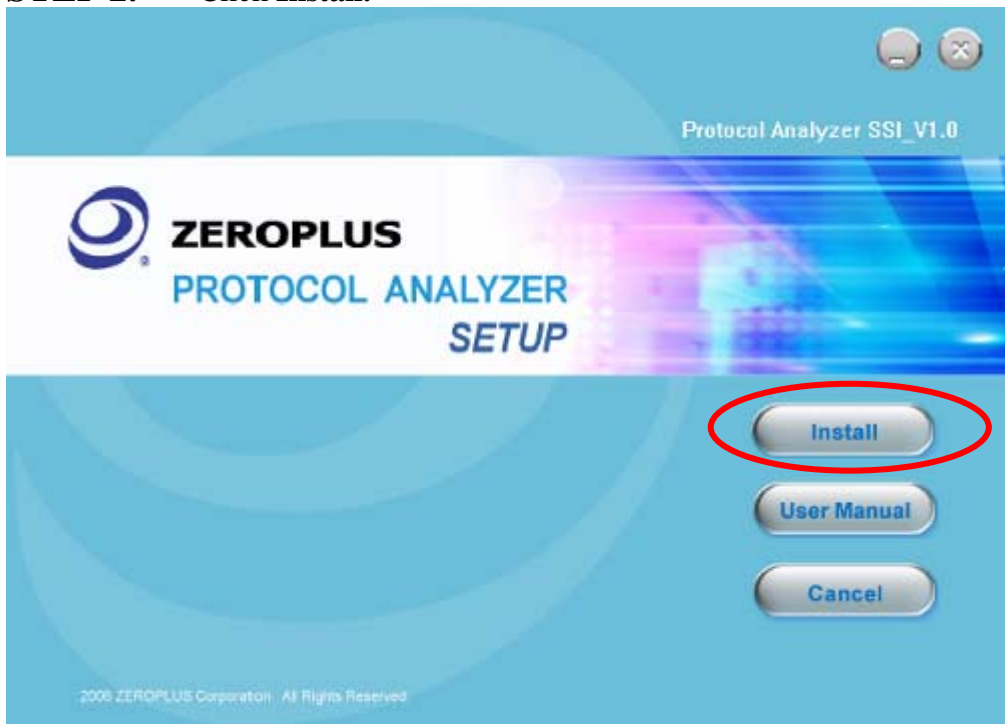
Please install the software as the following steps:

- ※ Remark: 1. The installation steps for all protocol analyzers are the same; you can complete the installation by following procedures. Following is an example on how 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.

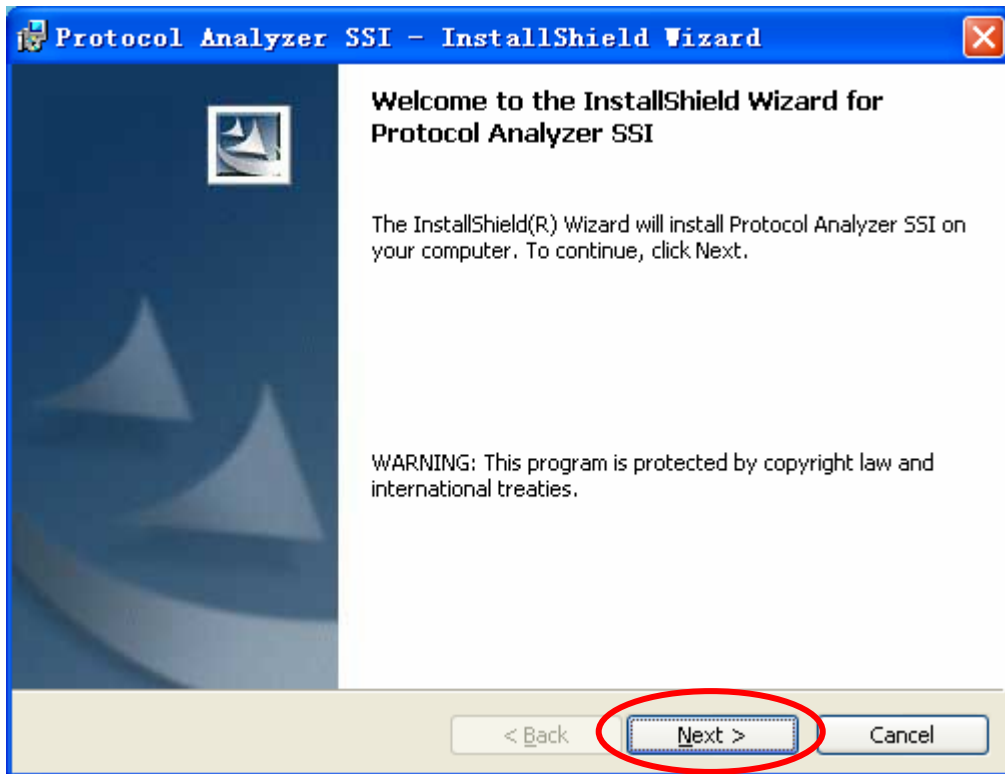


STEP 2. Click **Install**.

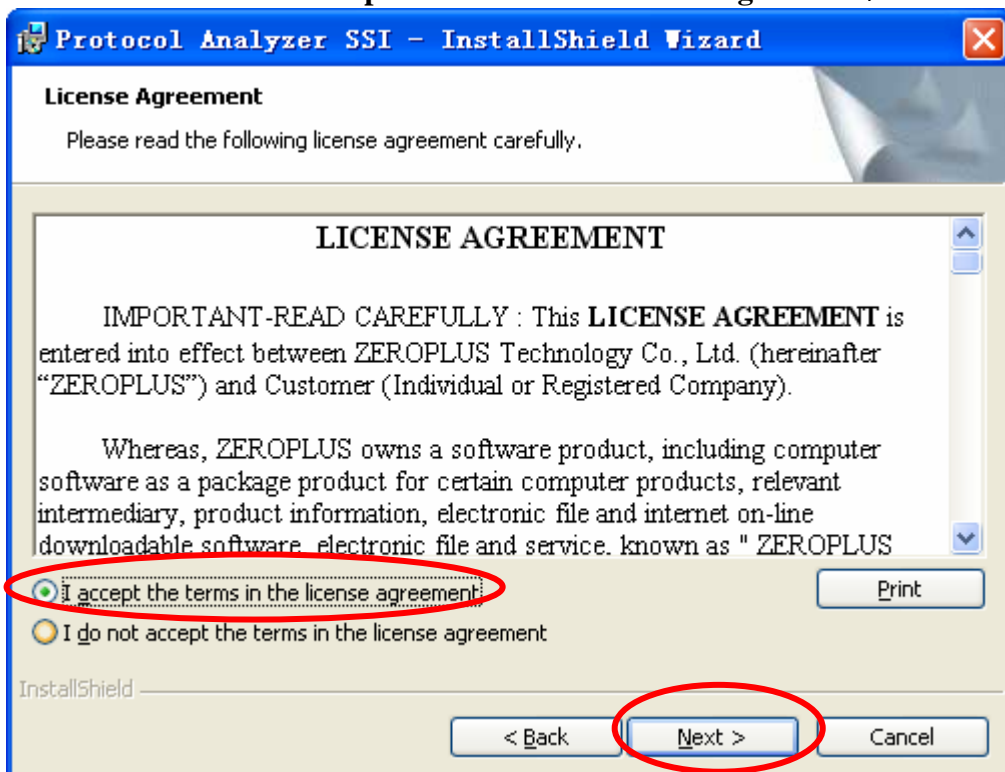




STEP 3. Click Next.



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





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

Protocol Analyzer SSI - InstallShield Wizard

Customer Information

Please enter your information.

User Name:
sunshine

Organization:
zeroplus

Install this application for:

Anyone who uses this computer (all users):

Only for me (sunshine)

InstallShield

< Back Next > Cancel

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

Protocol Analyzer SSI - InstallShield Wizard

Setup Type

Choose the setup type that best suits your needs.

Please select a setup type.

Complete
All program features will be installed. (Requires the most disk space.)

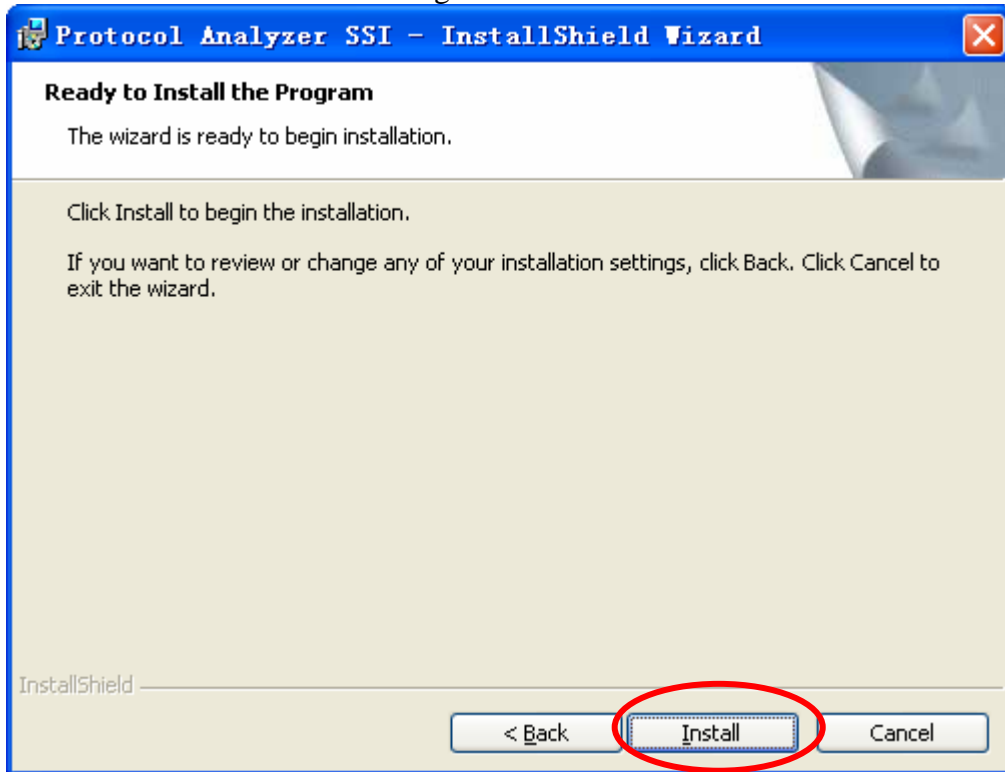
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.

InstallShield

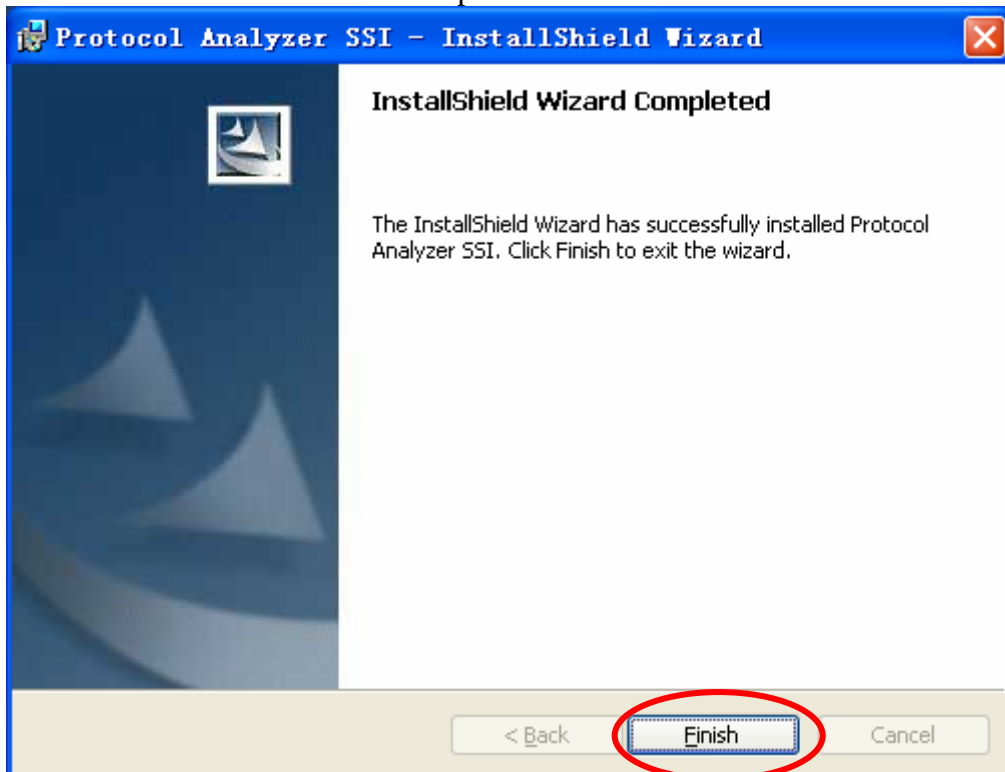
< Back Next > Cancel



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



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

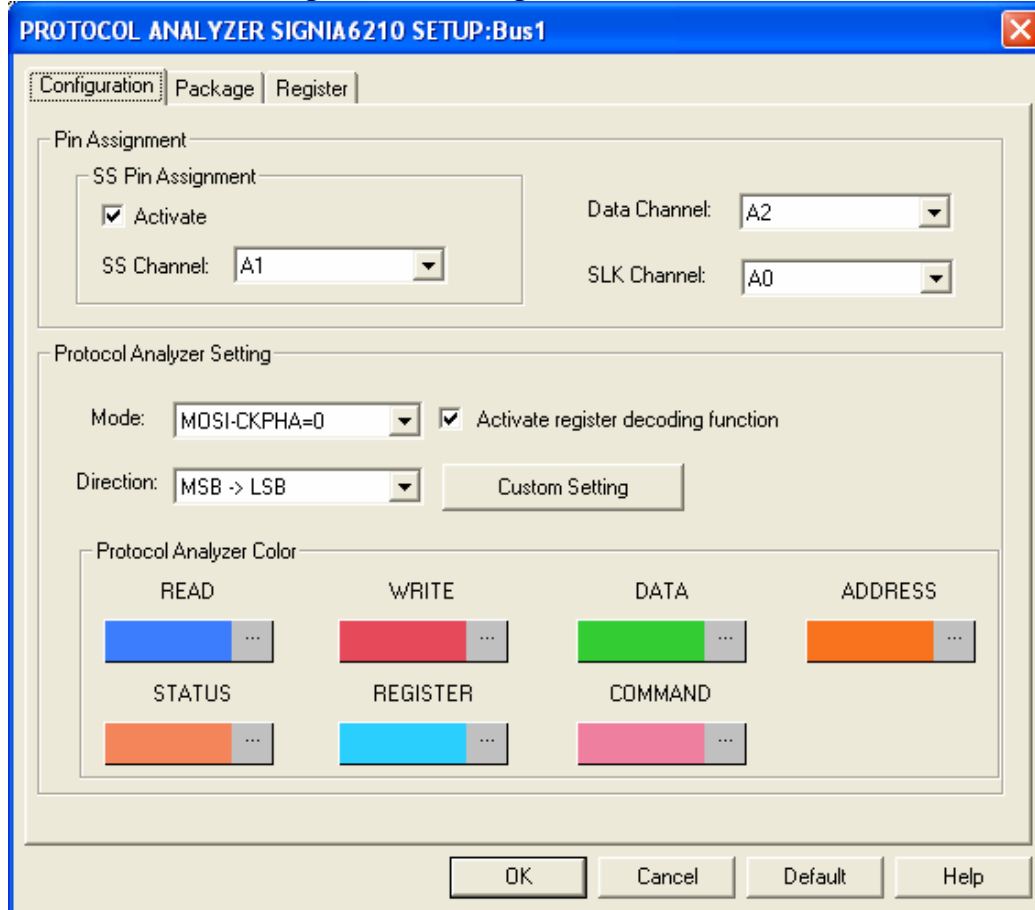




2 User Interface

Please refer to the below images to select options of setting **SIGNIA6210 MODULE**.

SIGNIA6210 Configuration dialog box



1. SIGNIA6210 Pin Assignment: There are four signal channels for SIGNIA6210. Only Channel names and Channel selection marks are indicated:

SS Channel

SLK Channel

Data Channel

2. Protocol Analyzer Setting:

Mode: Settings are varied based on the different sampling modes:

MISO-CKPHA=0

MISO-CKPHA=1

MOSI-CKPHA=0

MOSI-CKPHA=1

Direction: MSB->LSB, LSB->MSB

※ **Activate register decoding function:** MOSI will start activating register decoding function, if this option is selected.

Protocol Analyzer Color:

Users can set the colors for READ, WRITE, DATA, ADDRESS, STATUS, REGISTER and COMMAND.



Custom Setting:

Select Device Level: There are two choices: High or Low.

Data setting: The Bit range is from 1 to 28.

SIGNIA6210 Custom Setting

Select Device Level

High SS enable level = Low

Low

Data

Bit: 8

Virtual SS Condition

Standby Time: 5 ns Ignored data bits

Min : 5ns Max : 327.675us

OK

Cancel

Default

Virtual SS Condition:

If SS channel is not activated, system will automatically determine the signal to set Standby Time. The standby time can be set from 5ns to 327.675us.

SIGNIA6210 Custom Setting

Select Device Level

High SS enable level = Low

Low

Data

Bit: 8

Virtual SS Condition

Standby Time: 5 ns Ignored data bits

Min : 5ns Max : 327.675us

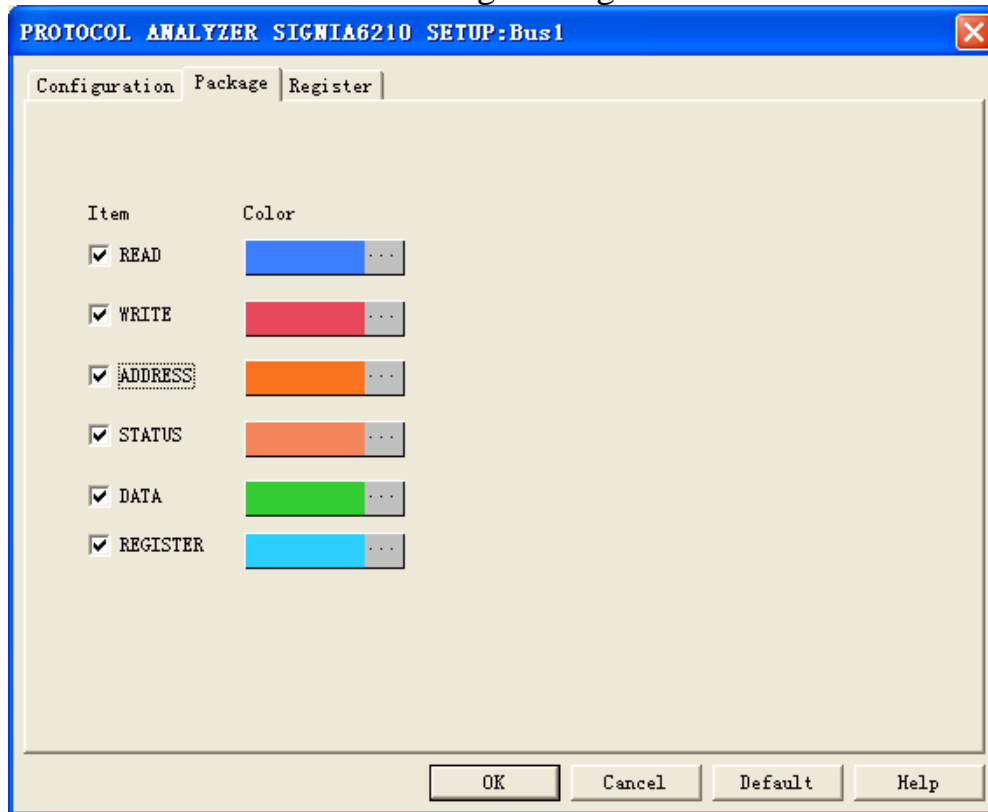
OK

Cancel

Default

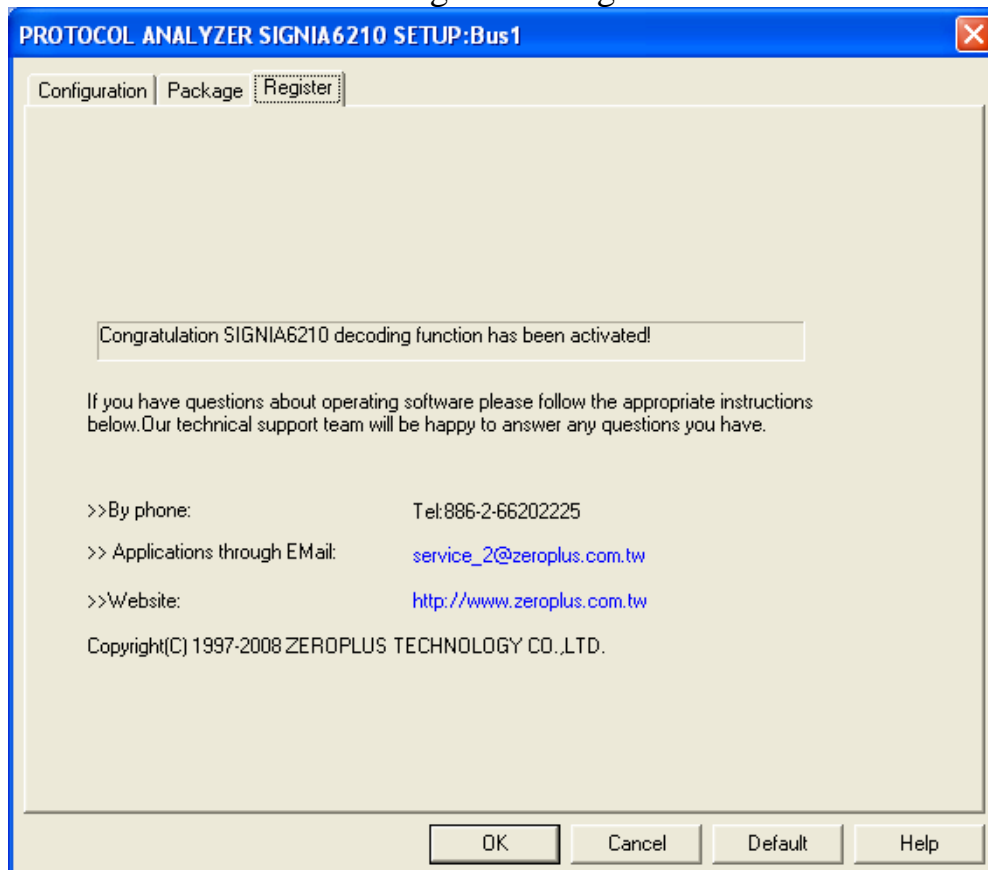


SIGNIA6210 MODULE Package dialog box



In the package dialog box, users can vary the color of items.

SIGNIA6210 MODULE Register dialog box

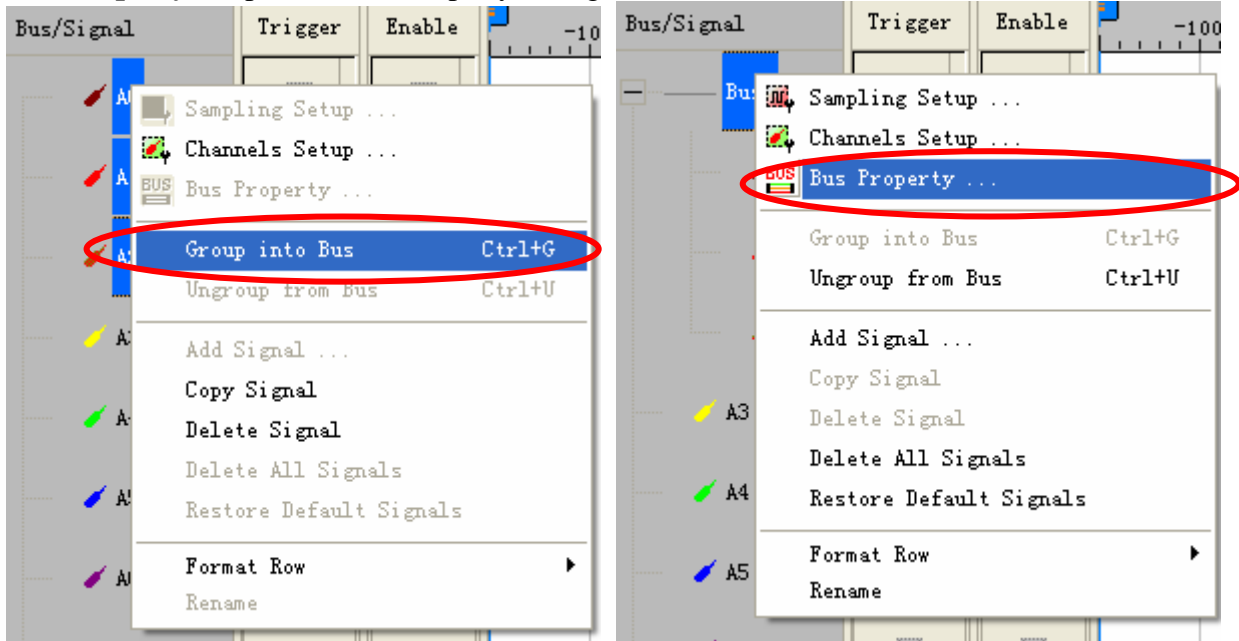


There is ZeroPlus company information. If you have questions about software operations, users can contact ZeroPlus by Telephone or Email.

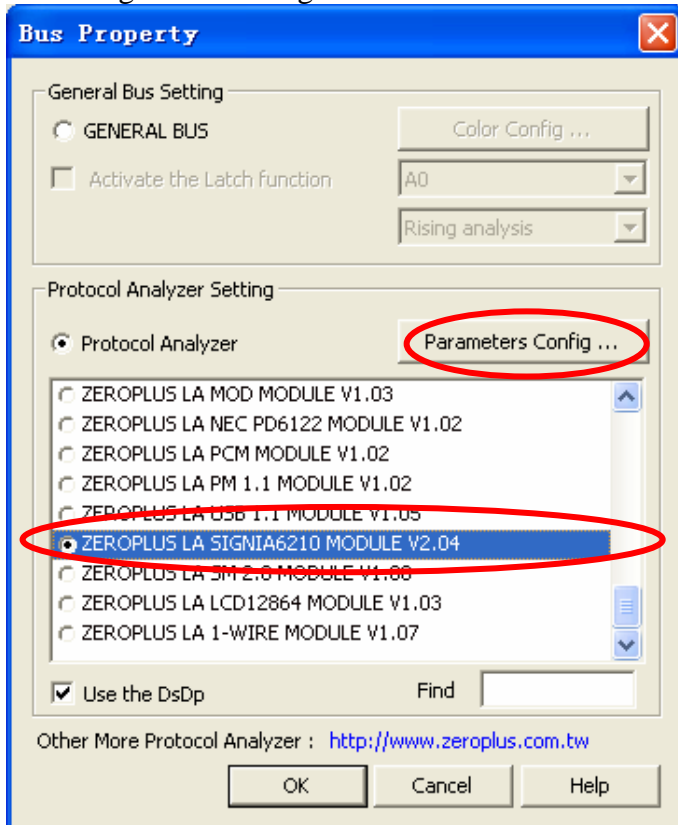


3 Operating Instructions

STEP 1. At first, select three channels and group these unanalyzed channels into **Bus1** by pressing the **Right Key** on the mouse. Next, select **Bus1** and press **Right Key** to list menu. Click **Bus Property** to open the Bus Property dialogue box.

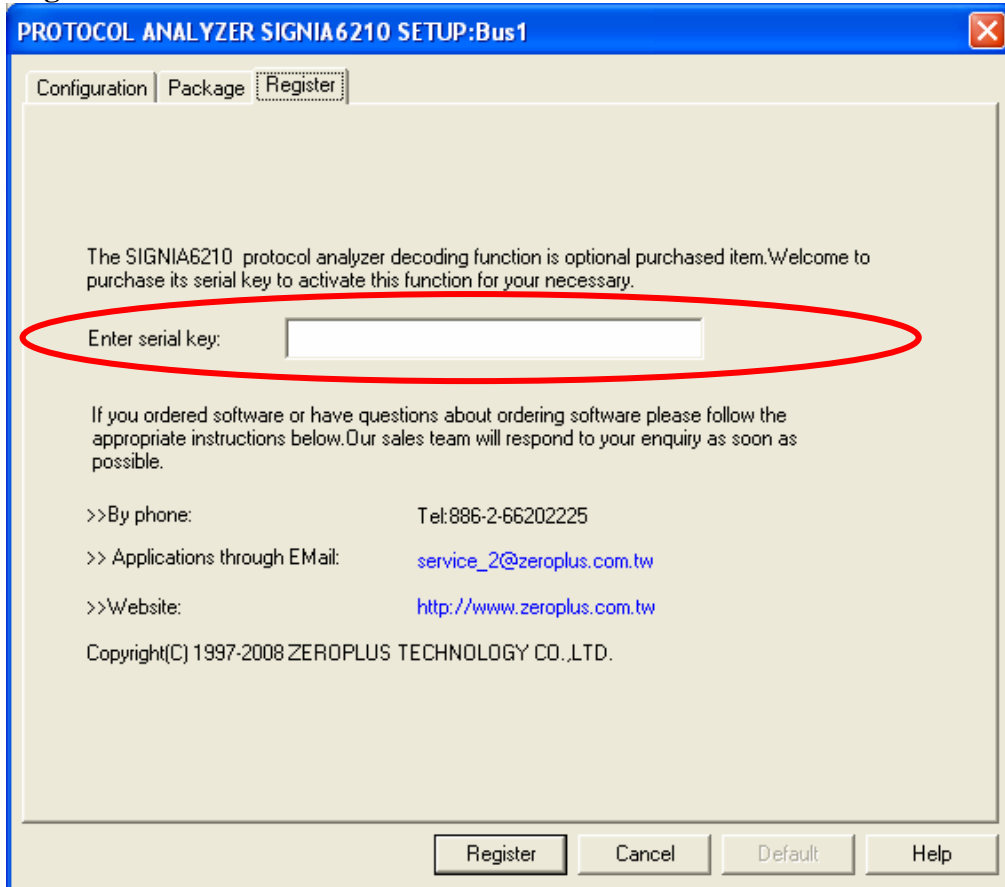


STEP 2. For Protocol Analyzer Parameters Configuration, select Protocol Analyzer, then choose **ZEROPLUS LA SIGNIA6210 MODULE V2.04**. Next, click **Parameters Configuration** to open the configuration dialog box.

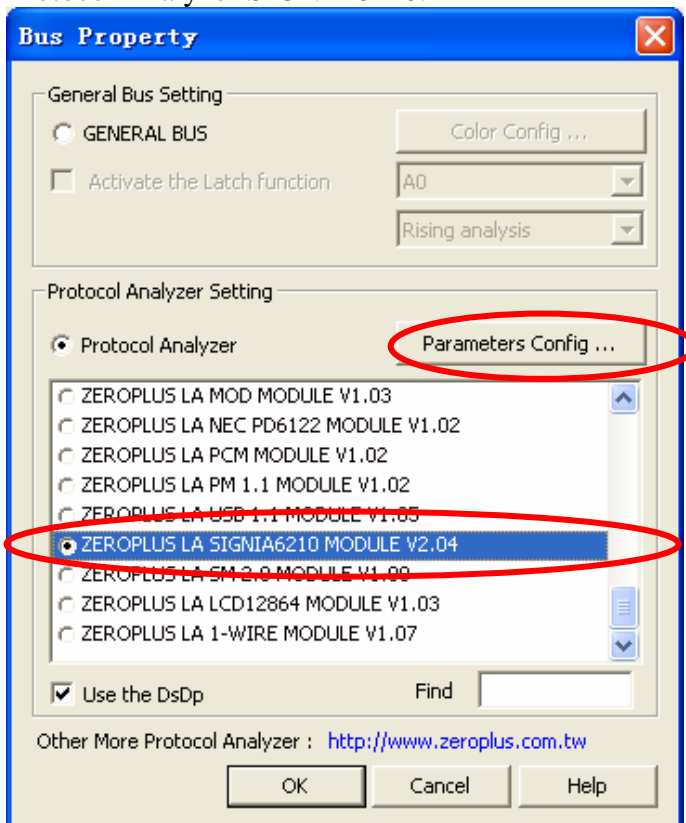




STEP 3. Press Register tab to type the serial key number of SIGNIA6210 Module. Then, press Register.

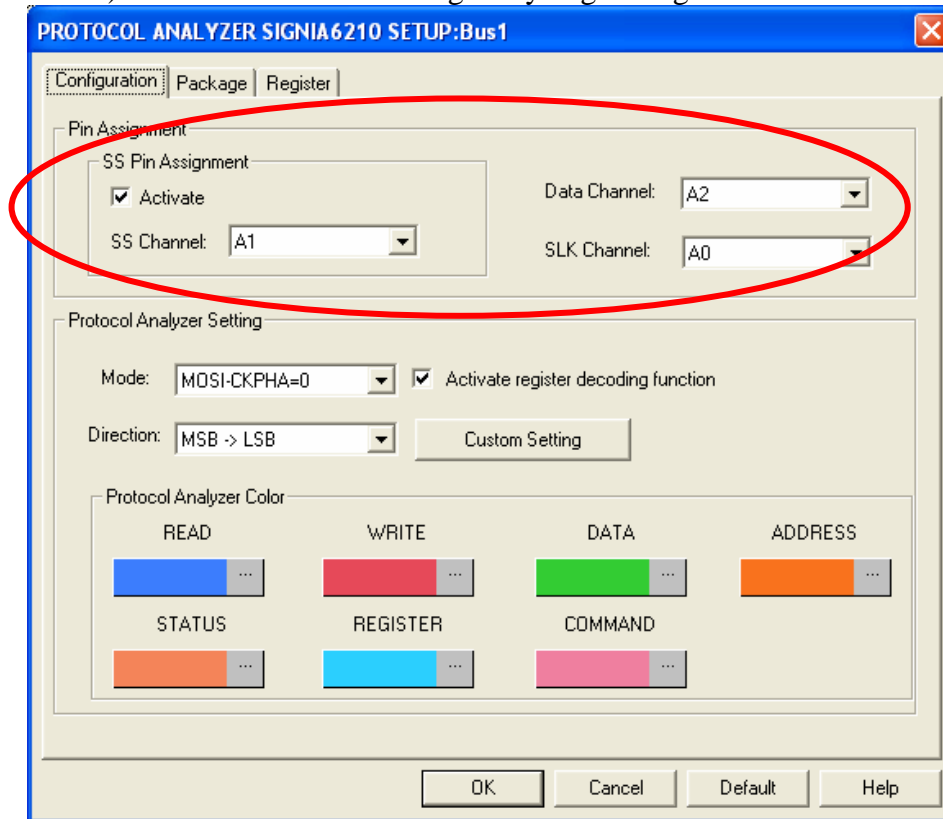


STEP 4. After completing Register, press Parameters Configuration to set the parameter for Protocol Analyzer SIGNIA6210.

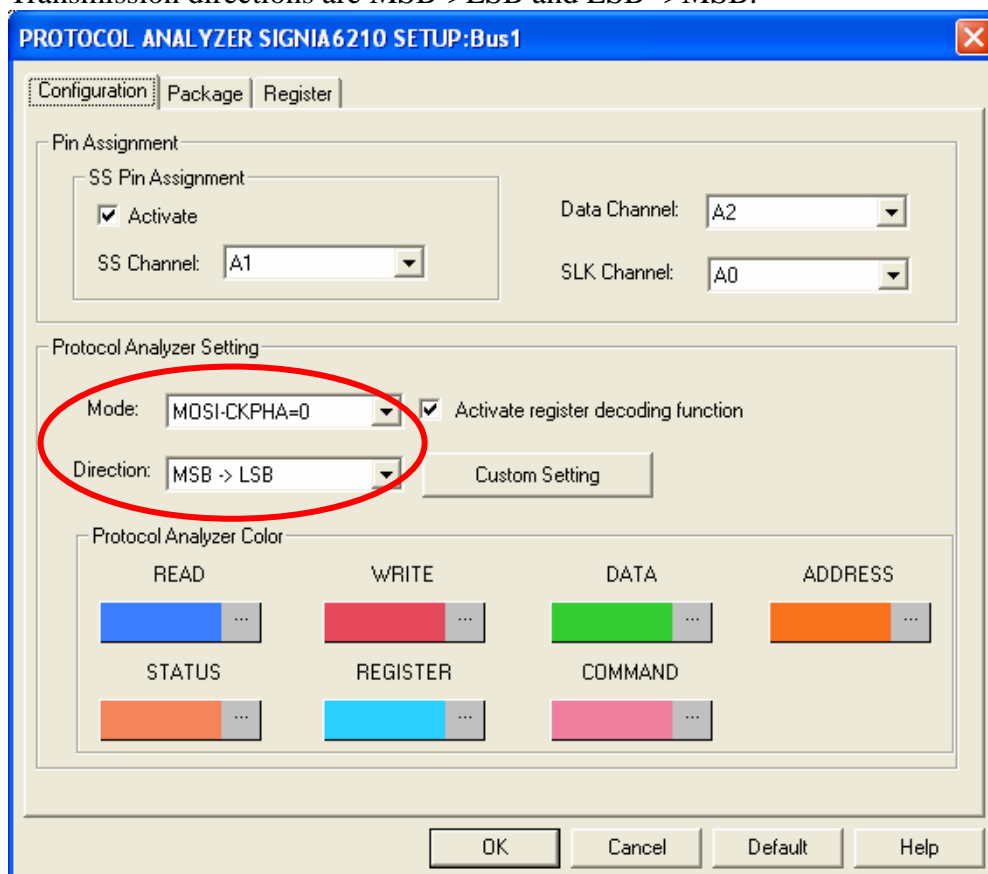




STEP 5. All the channels, including SS Channel, SLK Channel, and Data Channel (MISO or MOSI) must be set before starting analyzing the signal.

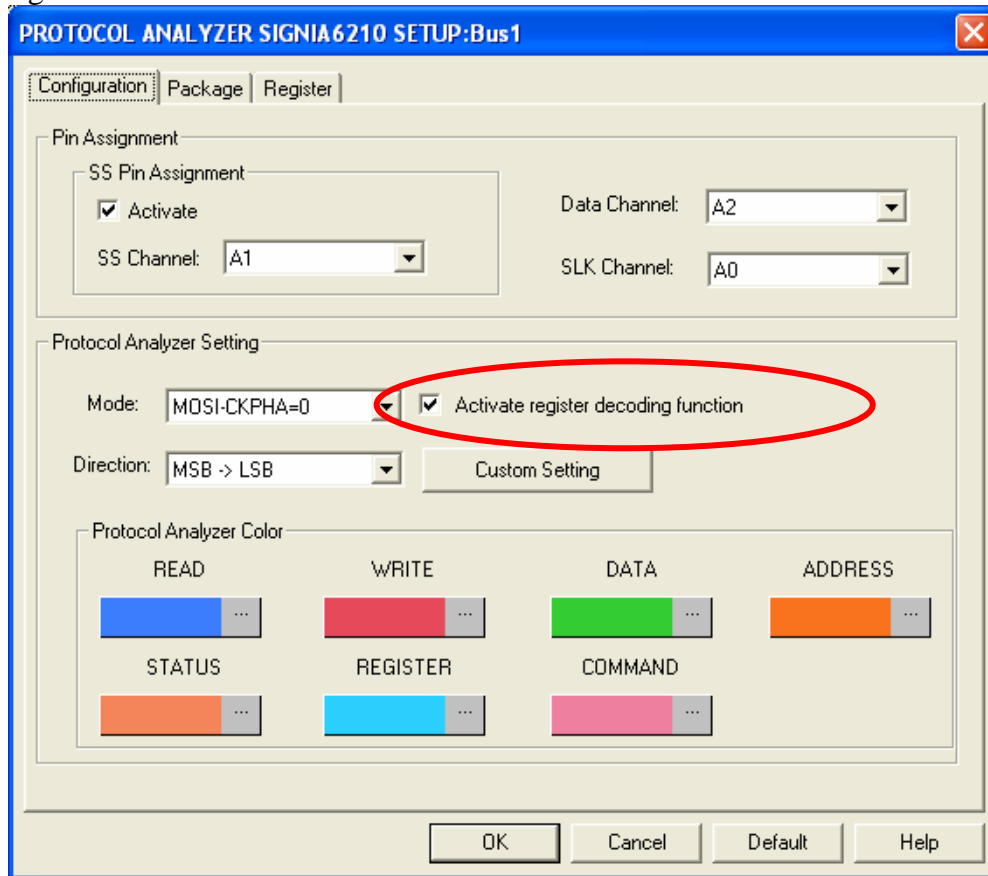


STEP 6. There are four Mode parameters, which are MISO-CKPHA=0, MISO-CKPHA=1, MOSI-CKPHA=0 and MOSI-CKPHA=1. Users can choose mode parameters as their requirements. Transmission directions are MSB->LSB and LSB ->MSB.



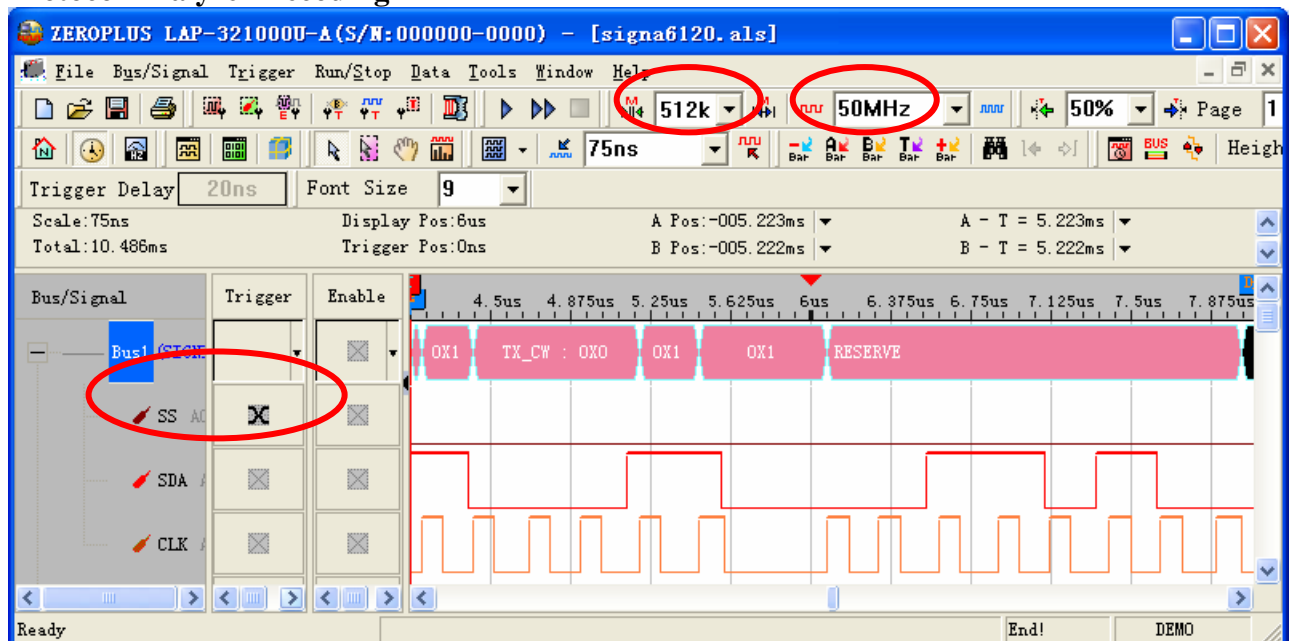


STEP 7. When Activate register decoding function is selected, the data can be displayed by figures.



STEP 8. Following pictures show the completion of the protocol analyzer decoding and the package list. The Trigger condition is set as Either Edge; the Memory depth is 512K; the Sampling frequency is 50MHz.

Protocol Analyzer Decoding





Package List

The screenshot shows a logic analyzer window titled "ZEROPUS LAP-321000U-A (S/N:000000-0000) - [signa6120.als]". The interface includes a menu bar, a toolbar with various analysis tools, and a main display area showing a signal trace. The trace shows a sequence of data packets on a bus, with labels like "OX1", "TX_CW : OX0", "OX1", "OX1", and "RESERVE". Below the trace is a table with the following data:

Package #	Name	TimeStamp	WRITE	TX/RX DATA CONTROL	SOFTWARE_CNTL		
1	Bus1(SIGNIA6210)	1.24us	WRITE	TX/RX DATA CONTROL	0X0		
	RX_DATA_INVERSE	BYPASS_PLL_LOCK	TX_CW	BRCLK_SW	TX_DATA_INVERSE	RESERVE	DATA
	0X0	0X1	0X0	0X1	0X1	RESERVE	0X45
	DATA	DATA	DATA	DATA	DATA		
	0X56	0X67	0X78	0X89	0X9A		
Package #	Name	TimeStamp	WRITE	TX/RX DATA CONTROL	SOFTWARE_CNTL		
2	Bus1(SIGNIA6210)	24.2us	WRITE	TX/RX DATA CONTROL	0X0		