

Instrument Business Department

SSI Specification

Version : V1.01



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1 Software Installation

Please setup software according to the following steps.

% Note: The installed steps to setup all buses are in the same, you can complete installation by following procedures.



STEP 2. Press Install



STEP 3. Press "Next"

STEP 4. Select" I accept the terms in the license agreement" and press Next •

License Agreement Please read the following license agreement carefully.	1
LICENSE ACREEMENT	1
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LICENSE AGREEMENT	1
IMPORTANT-READ CAREFULLY : This LICENSE AGREEMENT is entered into effect between ZEROPLUS Technology Co., Ltd. (hereinafter "ZEROPLUS") and Customer (Individual or Registered Company). Whereas, ZEROPLUS owns a software product, including computer software as a package product for certain computer products, relevant intermediary, product information, electronic file and internet on-line downloadable software_electronic file and service. known as "ZEROPLUS	Ĵ
• I accept the terms in the license agreement	T
C I do not accept the terms in the license agreement	-
InstallShield	
< <u>B</u> ack <u>N</u> ext > Cancel	

STEP 5. Fill in User Information . Then, press Next

🙀 Special Bus SSI ∎odule - InstallShield ¥izard	×
Customer Information Please enter your information.	
User Name:	
Maikle	
Organization:	
logic	
Install this application for: <u>A</u> nyone who uses this computer (all users) Only for <u>m</u> e (Maikle)	
InstallShield	kt > Cancel

STEP 6. Select " Complete " and press "Next"

🙀 Special Bus	SSI 🖬odule – InstallShield Tizard 🛛 🔀	1
Setup Type Choose the setu	up type that best suits your needs.	and the second se
Please select a	setup type.	
Complete	All program features will be installed. (Requires the most disk space.)	
C Cu <u>s</u> tom	Choose which program features you want installed and where they will be installed. Recommended for advanced users.	
InstallShield ———	< <u>B</u> ack <u>N</u> ext > Cancel	

STEP 7. Press "Install" to start installing

STEP 8. Press "Finish" to complete installation

2 User Interface

In the configuration, please refer to image below to select options of setting SSI

-SSI mode select	C Network	Busl	FS: SLK·	A1	
FSL1/FSL0:	L1=0 FSL0=0 💌		RD/TD:	A2	-
Data configure: Data channel:	RD(Receive data) 👤	Virtual FS configur Delay time:	e(CLOSE)	3
Databits:	8	Min : 10ns		Мах : 655.	35us
Data direction:	MSB->LSB	Determinant Point C Sampling mode:	Configure SL	K Falling	•
Buscolor					
RD data		TD data			

2.1.1 SSI mode selection and FSL1/FSL0 setting :

Normal Mode and Network Mode can be chosen, but ON-DEMAND mode is available when decoding through Virtual Delay Time settings.

2.1.2 SSI Busesl Setting :

1. FS : It is a simultaneous package. When FS is not activated, words are in grey color. Meanwhile, Delay Time can be varied. The delay time can be varied from 5ns to 6.554ms). The default is that Activate FS is selected, and its channel is A0.

- 2. SLK : The default is A1.
- 3. RD : The default is A2 .
- 4. TD : The default is A3.

2.1.3 Data Configure : It is a setting for data signal. First setting is to choose the decoding bus. (RD or TD)
 Second setting is to select bits from a list of data bits available. The list includes 8, 12, 16, 24.User also can enter a value at the range from 4 to 32.

Third setting is for the data direction, the default is MSB->LSB.

2.1.4 Virtual FS Setup :

Delay Time, the default is 500ns.

2.1.5 Data Judge Configure :

Because data sampling mode can present the rising/falling edge sometime, user can choose sampling mode. The default is SLK falling edge.

Package color can be varied by user.

SPECIAL BUS SSI SETUP:Bus1		×
Configure Packet Item Register		
Item Color		
TD		
	OK Cancel Default	Help

Company profile is on Register dialogue box. If users have question about operating software, please contact us by Telephone or Email.

SPECIAL BUS SSI SETUP:Bus1		×
Configure Packet Item Register		
Free use of the Analy SSI	1	
If you have questions about operati instructions below.Our technical su	ng software please follow the appropriate upport team will be happy to answer any	
questions you have.		
>> By phone:	Tel:886-2-66202225	
>> Applications through EMail:	service_2@zeroplus.com.tw	
>> Website:	http://www.zeroplus.com.tw	
Copyright(C) 1997-2007 ZEROPLUS TEC	HNOLOGY CO;LTD	
	OK Cancel Default Help	

3 Specification

STEP 1. At First, group the unanalyzed channels into bus1.

STEP 2. Selected Bus 1, then, press "Right Key" on mouse to list menu. Next, click" Bus Property" to open Bus Property Dialog Box

STEP 3. For Special Bus Setting, select Special Bus . Then , choose "ZEROPLUS LA SSI MODULE V1.01(Internal Build).

Bus Property						
General Bus Setting						
Special Bus Setting						
© SPECIAL BUS Parameters Config						
C ZEROPLUS LA S/PDIF MODULE V1.1(Internal Build)						
© ZEROPLUS LA SPI MODULE V1.03						
C ZEROPLUS LA SPI-SIGNIA MODULE V1.01						
C ZEROPLUS LA UART MODILIE VI.02						
C ZEROPLUS LA USB MODULE V1.02						
C ZEROPLUS LA 1-WIRE MODULE V1.02						
C ZEROPLUS LA HDQ MODULE V1.01						
Other More Module: http://www.zeroplus.com.tw						
OK Cancel Help						

STEP 4. Press Register tab to type the serial key number of logic analyzer. Then, press "Register"

SPECIAL BUS SSI SETUP:Bus1		X
Configure Packet Item Register		
The SSI bus decoding function is opt purchase its serial key to activate	ional purchased item.Welcome to this function for your necessary.	
Enter series key:		
If you ordered software or have que please follow the appropriate instr respond to your enquiry as soon as	stions about ordering software uctions below.Our sales team will possible.	
>> By phone:	Tel:886-2-66202225	
>> Applications through EMail:	service_2@zeroplus.com.tw	
>> Website:	http://www.zeroplus.com.tw	
Copyright(C) 1997-2007 ZEROPLUS TEC	HNOLOGY CO;LTD	
	Register Cancel Default Help	

STEP 5. After completing it turns to Bus Property dialogue box. Pressing "Paraneter Configuration" is to set up the parameter of special bus.

Bus Property	×
General Bus Setting	
C GENERAL BUS Color Config	1
Special Bus Setting	
SPECIAL BUS Parameters Config	
C ZEROPLUS LA S/PDIF MODULE V1.1(Internal Build)	~
C ZEROPLUS LA SPI MODULE V1.03	-
C ZEROPLUS LA SPI-SIGNIA MODULE V1.01	
ZEROPLUS LA SSI MODULE V1.01(Internal Build)	
C ZEROPLUS LA USB MODULE V1.02	
© ZEROPLUS LA 1-Wire MODULE V1.02	=
C ZEROPLUS LA CANBus MODULE V1.02	
C ZEROPLUS LA HDQ MODULE V1.01	~
, Use the DsDn	
Other More Module: http://www.zeroplus.com.tw	
	1
OK Cancel Help	

STEP 6. First , choose SSI mode: Normal or Network Mode

Normal FSL1/FSL0: FS	C Network	Activate FS	FS: SLK: RD/TD:	A1	•
Data configure:			ure/CLOSE	n	
Data channel:	RD(Receive data)	Delay time:	10	ns	
Databits:	8	- Min : 10	lns	Max : 655.	35us
Data direction:	MSB->LSB	Determinant Poin Sampling mod	t Configure le: SL	e K Falling	•
Bus color —					
RD data		TD data			

STEP 7. Cilck on the list of "FSL1/FSL0", there are 4 options.

• Normal	C Network	Activate FS	FS: SLK:	Al	•
FSL1/FSL0: FS	11=0 FSL0=0 🔹		RD/TD:	A2	-
Data configure:		Virtual FS config	ure (CLOSE)	
Data channel:	RD(Receive data) 💌	Delay time:	10	ns	
Databits:	8 💌] Min : 10	Ins	Max : 655.	35us
Data direction:	MSB->LSB	Determinant Poin Sampling mod	t Configure le: SL	K Falling	<u>•</u>
Bus color					
RD data		TD data			

STEP 8. Next, setup Bus1 for FS, SLK, RD/TD .

• Normal	C Network	Activate FS FS:
FSL1/FSL0:	L1=0 FSL0=0 💌	RD/TD: A2
Data configure:		Virtual FS configure (CLOSE)
Data channel:	RD(Receive data) 💌	Delay time: 10 ns
Databits:	8	Min : 10ns Max : 655.35us
Data direction:	MSB->LSB	Determinant Point Configure Sampling mode: SLK Falling
Bus color		
PD data		TD data

STEP 9. On Data configure, choose Data channel from RD or TD. Enter a value on Databit or select a value on the list. The use the default data direction, which is MSB->LSB.

Configure Packet Item Register	Pust
Normal Network FSL1/FSL0: FSL1=0 FSL0=0	✓ Activate FS FS: AI ✓ SLK: A0 ✓ RD/TD: A2 ✓
Deta configure: Data channel: RD(Receive Databits: 8	e data) Virtual FS configure(CLOSE) Delay time: 10 ns Min : 10ns Max : 655.35us
Data direction: MSB->LSB	Determinant Point Configure Sampling mode: SLK Falling
Bus color RD data	TD data
	Ok Cancel Default Help

STEP 10. Sampling Mode has falling/rising edge can be chosen on Determinant Point Configure. The default is falling edge.

_ SSI mode select —		Bus1			
Normal	C Network	🔽 Activate FS	FS:	A1	<u> </u>
			SLK:	AO	•
FSL1/FSL0:	SL1=0FSL0=0 💌		RD/TD:	A2	•
Data configure:	Provincial	Virtual FS config	ure (CLOSE	.) — — — (
Data channel:	RD(Receive data)	Delay time:	10	ns	
Databits:	8	• Min-16	Sus	Max. 655	25us
Data direction:	MODINO	Determinant Poir	nt Configure	,	
	IND->DD	Sampling mod	le: SL	K Falling	•
-Buscolor-				_	
RD data		TD data			

STEP 11. Remove the selection on Activate FS when the simultaneous package signal is unavailable.

Normal	C Network	Activate FS FS:
FSL1/FSL0: FS	L1=0 FSL0=0 💌	RD/TD: A2
Data configure:	DD market have	Virtual FS configure (CLOSE)
Data channel:	RD(Receive data)	Delay time: 10 ns
Databits:	8	Min : 10ns Max : 655.35us
Data direction:	MSB->LSB	Determinant Point Configure Sampling mode: SLK Falling
Bus color		
RD data		TD data

STEP 12. Typed a value for "Virtual Delay Time", and the Delay time is more than CLK width.

-SSI mode select	○ Network L1=0 FSL0=0 ▼	Bus1 Activate FS FS: A1 SLK: A0 RD/TD: A2
-Data configure: Data channel:	RD(Receive data) 💌	Vietual FS configure (CLOSE) Delay time: 10 ns
Databits:	8 💌	Min : 10ns Max : 655.35us
Data direction:	MSB->LSB	Determinant Point Configure Sampling mode: SLK Falling
Buscolor		
RD data		TD data

STEP 13. Following picture shows that the completion of bus decoding. The conditions are set as that CLK rising edge, Memory depth is 128K and Sampling Frequency is 50MHz.

🚛 <u>F</u> ile B <u>u</u> s/Signal	T <u>r</u> igger	Run/Stop De	ta <u>T</u> ools	<u>W</u> indow <u>H</u>	[elp						- 8 ×
🗋 😂 🗐 😂	u, 21, 🏨		D)		14 128K 🔹 🛙	a) m 5	0MHz	սոս	K 50%	🔻 📣 Pag	ge 1
🚯 🕟 🔝		🔺 🕅 🖑		7.8	81 uc 🗾 🖓	Bar Bar	BY TY	Bar 👸 1	💠 🌖 🛛 🔀	🖁 📴 🔖 🛛	Height 🕻
Trigger Delay 6.667ns											
Scale: 7.881us	Dis	splay Pos:-00	Ons	A Pos:-O	01.718ms 🔻	A -	T = 1.718	ms 🔻	A - B	= 200ns 🔻	
Total:3.283ms	Tri	igger Pos:Ons		B Pos:-O	01.718ms 🔻	в –	T = 1.718	ms 🔻	Compr	-Rate: 3. 757	
Bus/Signal	Trigger	Enable	-157.6	12u-118.20	9u-078.806u-03	9.403us -0	1)00ns 39.	403us 78.	806us 118.	209us157.6:	12us197.1
- Busl (SSI)						0×01				0×56	
						โกกกกกกก	ההההההה	haaaaaaaaa	laannaanna	lann annannan	הההההההה
CLK 3	- X	- [∞]									
							UUUUUUUUUUUU				
🖌 FS AI	N	\otimes									
	807136	_				[1 1 1		ה הר	חחחחה	
🥖 RD A2		82									

Following picture shows the package list and waveforms displaying..

