

SPECIFICATION

MODEL: PCI Specification

PART NO:

VERSION : V1.00

Approver		Check	Design		Customer Confirm
GM	PM		Design		
		*Af	ter signature you	fax to	o zeroplus company , pleas
NO.123, Jian Ba	Rd,		,	Tel:+	886-2-66202225
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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. 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**.



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STEP 3. Click **Next.**



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

1	Protocol Analyzer SSI - InstallShield Vizard	×
	License Agreement Please read the following license agreement carefully.	1
	LICENSE AGREEMENT	
	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	*
	I accept the terms in the license agreement Print	
	\bigcirc I $\underline{\mathrm{do}}$ not accept the terms in the license agreement	
Ir	nstallShield	
	< <u>B</u> ack <u>N</u> ext > Cancel	



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

🙀 Protocol Analyzer SSI - InstallShield Vizard	
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	Cancel

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

🛃 Protocol 🗚	nalyzer SSI - InstallShield Vizard	×
Setup Type Choose the set	up type that best suits your needs.	
Please select a	setup type.	
⊙ <u>Complete</u>	All program features will be installed. (Requires the most disk space.)	
O 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. Click **Install** to begin the installation.

🔂 Protocol Analyzer SSI - InstallShield Wizard 🛛 🔀
Ready to Install the Program The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield

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



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2 User Interface

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

PCI Configuration Dialog Box

Zeroplus Technology Co., Ltd.

PROTOCOL	ANAL YZER	PCI SE	TUP : New	2				
Configurati	on Packag	e Registe	er					
Pin Assi	gnment —							
CLK:	A00	•	FRAME:	A01	-	IRDY:	A02	•
TRDY :	A03	•	DEVSEL:	A04	•	PAR:	A05	•
PERR:	A06	•	SERR:	A07	•	IDSEL:	A12	•
STOP:	A13	•	C/BEO-3:	A08	•	>	A11	~
RESET :	Å14	•	ADO-31:	A15	•	>	C14	~
Protocol	Analyzer	Color						
RES	SET	(COMMAND		ADDRES	S	BYTE	ENABLE
PAI	RITY		DATA		WAIT		5	STOP
				OK	Cancel	De	fault	Help

Pin Assignment: There are 15 channels. Hereinto, the gray channels cannot be selected, and the other channels can be set as users' requirements. At the same time, the set result will affect the correctness of the decoding.

CLK: It is the transmission channel of the clock signal; its default is A00.

FRAME: It is the transmission channel of the frame period signal; its default is A01.

IRDY: It is the transmission channel which denotes whether the host device signal has been ready; its default is A02.

TRDY: It is the transmission channel which denotes whether the slave device signal has been ready; its default is A03.

DEVSEL: It is the transmission channel of the device address signal; its default is A04

PAR: It is the transmission channel of the data even parity signal; its default is A05.

PERR: It is the transmission channel which reports the even parity error; its default is A06.

SERR: It is the transmission channel which reports the system error; its default is A07.

IDSEL: It is the transmission channel of Initialization Device Select which is used as a chip select during the read and write operation of the configuration room; its default is A12.

STOP: It is the transmission channel of stopping the data transmission signal; its default is A13.

RESET: It is the transmission channel of resetting the asynchronous signal; its default is A14. **C/BE0-3**: It consists of 4 consecutive channels; the default is A08 (It includes A08 and the next three

consecutive channels). It is the transmission channel of COMMAND.

AD0-31: It consists of 32 consecutive channels; the default is A15 (It includes A15 and the next thirty-one consecutive channels). It is the transmission channel of ADDRESS or DATA. **Protocol Analyzer Color:** Users can vary the color of the items according to their requirements.



PCI Package Dialog Box



Users can c set the protocol analyzer color as their requirements.

PCI Register Dialog Box

PROTOCOL ANALYZER PCI SETUP:New0	
Configuration Package Register	
Congratulation PCL decod	ing function has been activated
If you have questions about operating softwar	e please follow the appropriate instructions
Delow.Uur technical support team will be happ	by 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) 1997-2008 ZEROPLUS TECHN	DLOGY CO.,LTD.
	OK Cancel Default Help

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



D. 1 / T7

3 Operating Instructions

OTED 1

STEP 1.	Group the unanalyzed ch	annels into Bus1 b	y pressing the R	light Key on the m	ouse.
Bus/Signal	Group U Enable	Bus/Signal	Bus	Enable 🔁	
A00 A00		Bust			
A01 A01					
			A01		
A04 A04			A02 / 🕅		
🖌 📈 📈	<u>S</u> ampling Setup		A03 / 🕅		
🖌 🥢 🖌	<u>C</u> hannels Setup		A04 / 🔣		
AO' BUS	Bus Property	· · · · · · · · · · · · · · · · · · ·	A05 / 📉		
	Group into Bus Ctrl+G	\rightarrow /	A06 / 🔣		
	Ungroup from Bus Ctrl+U		A07 /		
A1:	Add Signal	-	A08 / 🔣		
🖌 🖌	Corr Simel		A09 / 🔣		
🖌 🖌	Delete Cimel	· · · · · · · · · · · · · · · · · · ·	' A10 / 🔣		
A1*	Defete Signal		A11 / 🔣		
A15	Delete All Signals	-	' A12 / 🔣		
BUL	Restore Default Signals		A13 / 🔣		
BO	<u>F</u> ormat Row		'A14 / 🛛		
BO	<u>R</u> ename		A15 / 🔀		
🥒 🥖 🥖 🖌			BOO I		
805 B05		· · · · · · · · · · · · · · · · · · ·	BO1 H	\times	

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





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STEP 3. For Protocol Analyzer PCI Parameters Configuration, select Protocol Analyzer, and then select **ZEROPLUS LA PCI MODULE V1.00(internal V1.00).** Next click **Parameters Configuration** to open **Configuration** dialog box.

Bus Property	
General Bus Setting	Color Config
C Activate the Latch function	A00 👻
	Rising analysis
Protocol Analyzer Setting	
Protocol Analyzer	Parameters Config
C ZEROPLUS LA SM 2.0 MODULE VI	1.00
C ZEROPLUS LA SPI MODULE V1.10)
C ZEROPLUS LA SSI MODULE V1.06)
C ZEROPLUS LA ST7669 MODULE V	1.03
C ZEROPLUS LA UART MODULE V2.	03
ZEROPLUS LA USB 1.1 MODULE V ZEROPLUS LA PCI MODULE V1.00	1.05 D(internalv1.00)
☑ Use the DsDp	Find
More protocol analyzer: http://www	w.zeroplus.com.tw
ОК	Cancel Help

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

PROTOCOL ANALYZER PCI SETUP:Port A	×				
Configuration Package Register					
The PCI protocol analyzer decoding function is an optional purchased item.Welcome to purchase its serial key to activate this function for your necessary. Enter serial key:					
If you ordered software or have questions about ordering software please follow the appropriate instructions below.Our sales team will respond to your enquiry as soon as possible.					
>> By phone: Tel:886-2-66202225					
>> Applications through EMail: service_2@zeroplus.com.tw					
>> Website: http://www.zeroplus.com.tw					
Copyright (C) 1997-2008 ZEROPLUS TECHNOLOGY CO., LTD.					
Register Cancel Default Help					

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STEP 5. After completing **Register**, come back to the **Bus Property** dialog box, and then click the **Parameters Configuration** to start the protocol analyzer PCI setup.

Bus Property							
General Bus Setting C General Bus Latch function	Color Config A00 💌 Rising analysis 💌						
Protocol Analyzer Setting							
Protocol Analyzer	Parameters Config						
C ZEROPLUS LA SM 2.0 MODULE V1	.00						
C ZEROPLUS LA SPI MODULE VI.10	.05						
C ZEROPLUS LA SSI MODULE V1.06							
C ZEROPLUS LA ST MODULE V1.03	1.02						
C ZEROPLUS LA ST7669 MODULE VI	3						
C ZEROPLUS LA USB 1.1 MODULE V	1.05						
ZEROPLUS LA PCI MODULE V1.00	(internalv1.00)						
Use the DsDp	Find						
More protocol analyzer: http://www.zeroplus.com.tw							
ОК	Cancel Help						

STEP 6. Set the channel of the PCI in the pin assignment section.

PROTOCOL ANALYZER PCI SETUP:New2										
0	Configuration Package Register									
ſ	Pin Assig	nment —								
	CLK:	A00	•	FRAME:	A01	-	IRDY:	A02	-	
	TRDY :	A03	•	DEVSEL:	A04	-	PAR:	A05	•	
	PERR:	A06	•	SERR:	A07	•	IDSEL:	A12	•	
	STOP:	A13	-	C/BEO-3:	A08	-	>	A11	-	
	RESET :	A14	-	ADO-31:	A15	-	>	C14	~	
Protocol Analyzer Color										
	RESET CO					ADDRES	S	BYTE	ENABLE	
	PARITY			DATA		WAIT		STOP		
OK Cancel Default Help										



STEP 7. Protocol Analyzer Color settings.

PR	OTOCOL A	NALYZER	PCI SE	TUP:New	2					\mathbf{X}
C	Configuration Package Register									
	-Pin Assig	nment								
	CLK:	A00	-	FRAME:	A01	•	IRDY:	A02	•	
	TRDY :	A03	-	DEVSEL:	A04	•	PAR:	A05	•	
	PERR:	A06	•	SERR:	A07	•	IDSEL:	A12	•	
	STOP:	A13	•	C/BEO-3:	A08	•	>	A11	~	
	RESET :	A14	-	ADO-31:	A15	•	>	C14	v	
	Protocol Analyzer Color									
	PARITY			DATA		WAIT		STOP		
OK Cancel Default Help										



STEP 8. Following pictures show the completion of the protocol analyzer decoding and the package list. The trigger condition is set as Rising Edge; the memory depth is 256K; the sampling frequency is 333MHz=3ns.

Protocol Analyzer Decoding

Seroplus Lap-B	(702000) (S/N:	000000-0000) - [PCI10100]
🚝 <u>F</u> ile B <u>u</u> s/Signal T	f <u>r</u> igger Run/ <u>S</u> top	Data Tools Mindow Help - 🗗 🗙
🗋 😂 🖫 😂 📖	🏽 🖗 🖗 🖓	🕮 🔟 🕨 🔲 🍇 256k 📝 🛤 📶 333MHz = 3ns 🖓 🚥 🧍 🎋 10% 💌 👬 Page 1
🚯 🚯 📾 🖩	🖩 🥵 📐 🖓	🖤 🎬 🛛 📰 👻 🚺 103.501ns 🔽 🎇 📑 🔐 🔛 🔛 👬 👹 🕼 🖓 🐻 👑 🖓 Height 26
Trigger Delay 5n	IS	
Scale:103.501ns Total:787_219ns	Display Pos Trigger Pos	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Total Tot. Erbas		
Bus/Signal	Bus Enable	239. 638us 240. 156us 240. 673us 241. 191us 241. 708us 242. 226us 242. 743us 243. 261us 243. 778us 244. 296t
Bus2 (PCI)	• 🛛 •	OX1 OX10482850 OX0 OX0 OX124AOB10 OX5 C
🖌 CLK /		
🧹 FRAME		
🥖 IRDY		
🥣 TRDY		
🧹 DEVSE		
🖌 PAR /		
🖌 PERR		
SERR		
🖉 🖌 🖌 🖌		
🥢 🧹 C/BE1		
🥢 🧹 C/BE2		
🧹 C/BE3		
🧹 IDSEL		
<		
Ready		End DEMO



Package List

😂 ZEROPLUS LAP-B (70200	0) (S/N:000000-	-0000) - [PCI10100]				
🚛 <u>F</u> ile B <u>u</u> s/Signal T <u>r</u> igger	Run/ <u>S</u> top <u>D</u> ata <u>T</u>	ools <u>W</u> indow <u>H</u> elp				- 8 ×
🗅 🚅 🖶 🎒 🕮 🕰 💱	off off off and the second sec	▶ ▶▶ 🔲 👬 256k	▼ 🙀 📶 333M	/Hz=3ns 💌 🏧	🐐 10% 🔻 🐝 P	age 1
🚯 🐼 🖓 🗰 🧊	💊 🕺 🖑 🛗	🚟 - 👗 103.501ns 🔹		T≷ +2 Bar Bar	🔣 📴 🔖 Hei	ight 26
Trigger Delay 5ns						,
Scale:103.501ns Di	isplay Pos:241.708	15 A Pos:2.327us 💌	A - T	= 2.327us 💌	A - B = 140.823u	s 🔻
Total:787.219us Tr	rigger Pos:Ons	B Pos:143.147us	▼ B = T	= 143.15us 🔻	Compr=Rate:No	
Bus/Signal Bus	Enable 2	39.638us240.156us240.6731	15 241. 191 us 241. 708	us242.226us242.743u	s 243. 261 us 243. 778 us	244, 296 0
		0X1 0X10A82850	OXO (0X0 0X1	2AAOB10 OX5	o 🗐
	\otimes					
🥖 FRAME 🔀						
🧹 IRDY 🔣	\otimes					
🧹 TRDY 🔣	\otimes					
🧹 DEVSE						
🖌 PAR / 📉	\otimes					
/ PERR						
	<					>
× Setting Flash	Export Sync	h Parameter				
Package # Name	TimeStamp	RESET				•
1 Bus2(PCI)	-078.697us	RESET				
Package # Nai	me Tir	meStamp Data	Length			
2 Port D(G	Jeneral) -U.					
3 Bus2(PCI)	135.081us	0X0208A948 0XA	OXO WA	IT 0X0208A948	OXA	
PARITY DAT.	A BYTE EN	ABLE PARITY D.	ATA BYTE	ENABLE PARITY	DATA	
0X0 0X102A8	8A08 OXD	0X1 0X50	28A84A 0	X2 0X1	0X522A8B0A	
BYTE ENABLE	PARITY DAT	A BYTE ENABLE	PARITY D	DATA BYTE EF	VABLE PARITY	
		UXU 8CTA		1820210 UX		-
Ready	Γ				End	DEMO