

SPECIFICATION

MODEL: UP DOWN COUNTER Specification

PART NO : B08022

VERSION : V1.00

Approver		Check	Design		Customer Confirm	
GM PM		Спсск	Design			

*After signature you fax to zeroplus company, please.

2F, NO.123, Jian Ba Rd, Chung Ho City, Taipei Hsian, R.O.C. Tel:+886-2-66202225 Fax:+886-2-22234362



2F., No.123,Jian Ba Rd, Chung Ho City, Taipei Hsien, R.O.C. Tel: 886-2-66202225 Fax: 886-2-22234362

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中和市建八路 123 號 2F
電話: 886-2-66202225
傳真:886-2-22234362
www.zeroplus.com.tw

2F., No.123,Jian Ba Rd, Chung Ho City, Taipei Hsien, R.O.C. Tel: 886-2-66202225 Fax: 886-2-22234362

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 2. Click **Install**.





STEP 3. Click Next.



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

ı	Protocol Analyzer SSI - InstallShield Vizard 🔀
	License Agreement Please read the following license agreement carefully.
	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
	downloadanie software electronic file and service, known as " ZEROPLOS
	I accept the terms in the license agreement
	\bigcirc I \underline{d} o not accept the terms in the license agreement
Ir	stallShield
	< <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:	Cancel
	Cancer

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





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

🔂 Protocol Analyzer SSI - InstallShield Vizard 🛛 🛛 🔀
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
< <u>B</u> ack Install Cancel

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 **UP DOWN COUNTER MODULE**.

UP DOWN COUNTER Configuration Dialog Box

PRO	TOCOL ANALYZER UP DOWN COUNTER SETUP:Bus1	×
Co	nfiguration Package Register	
Г	Counter Settings	
	Select IC or Truth Table User-defined: Truth Table Settings	
	Sampling Mode: Rising Edge 💌 Custom Settings	
	Delay Time Settings	
	Set the Higher Limit of Delay Time as 50 ns (The Lower Limit is Ons.)	
	Protocol Analyzer Color	
	DATA ERROR	
	OK Cancel Default Help	

Select IC or Truth Table User-defined: Select the required type of IC, or select the Truth Table User-defined. As long as the User Defined is selected, the button, the Truth Table Settings, is enabled. The default of IC is 74160.

Sampling Mode: Set the CLK sampling mode as Rising Edge or Falling Edge.

Delay Time Settings: The default of **the Higher Limit of Delay Time** is 50ns, and the max. Higher Limit is 1000ns.

Protocol Analyzer Color: Users can vary the color of the items according to their requirements.

Custom Settings: Set the channel as users' requirements. When the different IC is selected, the corresponding dialog box of Custom Settings will present, for instance, select 74162 in the column (Select IC or Truth Table User-defined).



74162 Cu	ston Se	ttings							×
Input Cha CR:	A0	•	CTT:	A3	•	D2:	A6	•	
LD:	A1	•	D0:	A4	•	D3:	A7	•	
CTP:	A2	•	D1:	A5	•	CP:	BO	•	
Output Ch	nannel								
Q0:	B1	•			Q2:	B3	•		
Q1:	B2	•			Q3:	B4	•		
Mirtual output decoding mode OK Cancel Default									

Virtual output decoding mode: There is a Virtual output decoding mode in the bottom of all the custom settings dialog boxes. When it is selected, all output channels will be disabled.

Truth Table Settings: When the User Defined is selected, the Truth Table Settings will be enabled. Click the Truth Table Settings; the dialog box of Truth Table Settings will present, then users can edit the truth value. See the image below:

Truth Table Settings		X
Truth Table Value Truth Value Mode Settings		
C Binary	Decimal	C Hexadecimal
Please input the truth value w	ith the semicolon (;), such as 1	l; 2; 4; 5; 6125
Activate the cycle	0 times	
		Ok Cancel

Binary: It indicates that the input value in the below column is a binary value.

Decimal: It indicates that the input value in the below column is a decimal value.



Hexadecimal: It indicates that the input value in the below column is a hexadecimal value.

Activate the cycle: When the data has the character of cycling, users only need input a group of data, and fill in the times of the cycle after activating the check box.

UP DOWN COUNTER Package Dialog Box

PROTOCOL ANALYZER	UP DOWN COUNTER	SETUP: Bus 1		
Configuration Package	Register			
Ttop	Calar	Ttom	Calar	
I Cem	COLOR	Trem	0101	
🔽 DATA		▼ DESCRIBE		
	OK	Cancel	Default	Help

Users can choose the displayed items and set the protocol analyzer color as their requirements.

UP DOWN COUNTER Register Dialog Box

PROTOCOL ANALYZER UP DOWN	COUNTER SETUP:Bus1	×
Configuration Package Register		
Congratulation UP DUW	/N LUUNTER decoding function has been activated!	
If you have questions about operatin below Our technical support team w	ng software please follow the appropriate instructions ill be bappy to answer any questions you have	
bolow.our technical support team w	ni 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) 1997-2008 ZEROPLUS	S TECHNOLOGY CO.,LTD.	
	OK Cancel Default He	elp

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

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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.





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STEP 3. For Protocol Analyzer UP DOWN COUNTER Parameters Configuration, select Protocol Analyzer, and then select **ZEROPLUS LA UP DOWN COUNTER MODULE V1.00.** Next click **Parameters Configuration** to open **Configuration** dialog box.

Bus Property					
General Bus Setting G General Bus Activate the Latch function	Color Config A0 Rising analysis				
-Protocol Analyzer Setting					
Protocol Analyzer	Parameters Config				
 ZEROPLUS LA AC97 MODULE V1.00 ZEROPLUS LA IIC-LIN MODULE V1.00(internal v1.02) ZEROPLUS LA ARITHMETICAL LOGIC MODULE V1.03 ZEROPLUS LA I2C(SERIAL EEPROM 24L SERIES) MODULE V1.0 ZEROPLUS LA UP DOWN COUNTER MODULE V1.00 					
✓ Use the DsDp	Find				
More protocol analyzer: http://ww OK	Cancel Help				

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

Configuration Package Register The UP DOWN COUNTER 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						
The UP DOWN COUNTER 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						
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 UP DOWN COUNTER setup.

Bus Property					
General Bus Setting	Color Coofig				
Activate the Latch function	A0				
	Rising analysis				
Protocol Analyzer Setting					
Protocol Analyzer	Parameters Config				
C ZEROPLUS LA AC97 MODULE V1.0 C ZEROPLUS LA IIC-LIN MODULE V1 C ZEROPLUS LA ARITHMETICAL LOG C ZEROPLUS LA I2C(SERIAL EEPROP	0 .00(internal v1.02) IC MODULE V1.03 121L SERIES) MODULE V1. 0				
TEROPLUS LA UP DOWN COUNTER	R MODULE V1.00				
✓ Use the DsDp	Find				
More protocol analyzer: http://www.	zeroplus.com.tw				
ОК	Cancel Help				

STEP 6. Select IC or Truth Table User-defined.

PROTOCOL ANALYZER UP DOWN COUNTER SETUP:Bus1						
Configuration Package Register						
Counter Settings						
Select IC or Truth Table User-defined: 74160 Truth Table Settings						
Sampling Mode: Rising Edge 💌 Custom Settings						
Delay Time Settings						
Set the Higher Limit of Delay Time as 50 ns (The Lower Limit is Ons.)						
Protocol Analyzer Color						
DATA ERROR						
OK Cancel Default	Help					

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STEP 7. Click the **Custom Settings** to open the corresponding dialog box of Custom Settings.

7	4160 Cu	ston	Settings							×
	-Input Cha	nnel —								
	CR:	A0	•	CTT:	A3	•	D2:	A6	-	
	LD:	A1	▼	D0:	A4	•	D3:	A7	-	
	CTP:	A2	•	D1:	A5	•	CP:	BO	•	
	-Output Ch	annel –								7
	Q0:	B1	▼			Q2:	B3	•		
	Q1:	B2	▼			Q3:	B4	•		
Mirtual output decoding mode OK Cancel Default										

STEP 8. Set the CLK sampling mode as Rising Edge or Falling Edge.

PROTOCOL ANALYZER UP DOWN	COUNTER SETUP:Bus	1	×			
Configuration Package Register						
Counter Settings						
Select IC or Truth Table User-defined:	74160 💌	Truth Table Settings				
Sampling Mode:	Rising Edge 🔹	Custom Settings				
Delay Time Settings						
Set the Higher Limit of Delay Time	as 50	ns (The Lower Limit is Ons.)				
Protocol Analyzer Color						
DATA		ERROR				
	OK Ca	ancel Default Help				



STEP 9. Set the Higher Limit of the Delay Time.

PR	OTOCOL ANALYZER UP DOWN COUNTER SETUP:Bus1	×
C	onfiguration Package Register	
ſ	Counter Settings	
	Select IC or Truth Table Settings Table User-defined:	
	Sampling Mode: Rising Edge Custom Settings	
L [Delay Time Settings	
•	Set the Higher Limit of Delay Time as 50 (The Lower Limit is Ons.)	
, L	Protocol Analyzer Color	
	DATA ERROR	
l		
	OK Cancel Default Help	

STEP 10. Protocol Analyzer Color settings

PROTOCOL ANALYZER UP DOWN	COUNTER SETUP:Bus	1 🛛 🔀				
Configuration Package Register						
Counter Settings						
Select IC or Truth Table User-defined:	74160 💌	Truth Table Settings				
Sampling Mode:	Rising Edge 💌	Custom Settings				
Delay Time Settings						
Set the Higher Limit of Delay Time as 50 ns (The Lower Limit is Ons.)						
Protocol Analyzer Color DATA		ERROR				
J	OK Ca	ncel Default Help				



STEP 11. 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 128K; the sampling frequency is 200MHz.



Package List

2 ZEROPLUS LAP-32128U-A (S/N:000000-0000) - [74160. als]							
🚛 File Bus/Signal Trigger Run/S	<u>S</u> top <u>D</u> ata <u>T</u> ools <u>W</u> indow <u>H</u>	elp		- 8 ×			
🗅 😂 📕 🎒 🌉 🕰 👯 🐢	👯 📲 🔟 🕨 🕨 🔤	👫 128K 💌 🐺 📶 🚾 20	0MHz 💌 🚧 50% 💌	Page 1 🗸 Count 1 💌			
🟠 🕓 🖓 🖼 📰 🧊 🔖	😽 🖑 🎞 📓 - 🧩 0.8	803624: - 🙀 📑 🗛	Be Te +e 🎆 le of 🐻	💴 🏘 Height 🛛 🔻 Trigger Delay			
Scale:113.5895907 D:	isplay Pos:2840	A Pos:331268 -	A - T = 331269 ▼	A - B = 11 ▼			
Total:33020745 Tr	rigger Pos:0	B Pos:331257 ▼	B - T = 331258 ▼	Compr-Rate:251.928			
Bus/Signal Trigger Ena	ble 567.948 11	135.896 1703.844 227	1.792 2839.74 3407.688	3975.636 4543.584 5111.532 567			
Busi (UP D) V	🛚 🛛 🚺 OXO1 🛛 OX	02 0X03 0X04	0005 0006 000	07 0X08 0X09 0X00 0X0			
CR AC X							
- CTP / 🖾 🖉	8						
CTT / 🖾 🖉	8						
DO A4	8						
- DI A5 🔀 🖉							
× Setting Defrech Export	Sunch Parameter		U				
Sociality Refresh Exportan	Synam arangeenn						
Package # Nar 1 Bus1(UP DOW	me TimeSta /N COUNTER) 295	MP DATA 0X01		<u></u>			
Package # Nar	me TimeSta	mp DATA					
2 Bus1(UP DOW	/N COUNTER) 814	0X02					
Package # Nar	me TimeSta	mp DATA					
Backage #	IN COUNTER) 1334						
4 Bus1(UP DOW	Intesta In Counter) 1853						
				•			
Ready				End! DEMO //			

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