

SPECIFICATION

MODEL: B09025-LAP-WTB-M

PART NO:

VERSION: V1.00

Approver		Check	Design	Customer Confirm	
GM	PM	CIICCK	Design		

*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. 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.

🔂 Protocol Analyzer	SSI - InstallShield Wizard 🛛 🛛 🔀
2	Welcome to the InstallShield Wizard for Protocol Analyzer SSI
	The InstallShield(R) Wizard will install Protocol Analyzer SSI on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
	< Back Next > Cancel

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



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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.	P.
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 A	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.)
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 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.
Testal/Shield
< <u>Back</u> Install Cancel

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

🔂 Protocol Analyzer	SSI - InstallShield Vizard	×
	InstallShield Wizard Completed	
	The InstallShield Wizard has successfully installed Protocol Analyzer SSI. Click Finish to exit the wizard.	
	< <u>B</u> ack Einish Cancel	



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www.zeroplus.com.tw

User Interface 2

In the configuration, please refer to the below images to select options of setting **WTB** module.

PROTOCOL ANALYZER WTB SETUP:Bus1							
Configuration Packet	Data Format Regis	ter					
-Protocol Analyzer Set	tings						
WTB: AO	Allowable Tol	erance for Bit Wid.	th: 20% 💌				
-Protocol Analyzer Col HEAD	or	DATA	DESTINATION				
LINK_CONTROL	SOURCE	DATA_SIZE	FCS/NFCS				
END							
			[] []	1			

Protocol Analyzer Settings:

WTB: It only needs one channel to set the Protocol Analyzer.

Allowable Tolerance for Bit Width: It is the Allowable Tolerance for a bit Time Width; the default is 20%. Specifically, the standard Bit Width of WTB is 1us, and the 20% tolerance means that the Bit Width can be between 0.8us and 1.2us. Further, there are other three values to be selected from the pull-down menu, namely, 5%, 10%, 30%.

Protocol Analyzer Color: Set the displayed color for every packet in the Protocol Analyzer.



WTB Packet Dialog Box



In the packet part, users can set the items and colors as users' requirements.

WTB Data Format Dialog Box

PROTOCOL ANALYZI	ER WTB SE	TUP : Bus 1			
Configuration Pack	et Data For	mat Register			
🔽 Activate					
DATA:	C Binary	C Decimal	🖲 Hexadecimal	C ASCII	
SOURCE:	C Binary	🔿 Decimal	Hexadecimal	C ASCII	
FCS/NFCS:	C Binary	🔿 Decimal	🖲 Hexadecimal	C ASCII	
DATA_SIZE:	C Binary	C Decimal	Hexadecimal	C ASCII	
DESTINATION:	C Binary	🔿 Decimal	• Hexadecimal	C ASCII	
LINK_CONTROL:	C Binary	🔿 Decimal	Hexadecimal	C ASCII	
		OK	Cancel	Default	Help

Users can set the Data Format of the DATA, SOURCE, FCS/NFCS, DATA_SIZE, DESTINATION and LINK_CONTROL as their requirements. When selecting the option, **Activate**, the data formats are decided by the settings in the Protocol Analyzer; when not selecting the option, **Activate**, the data formats are decided by the settings in the main program.



WTB Register Dialog Box

PROTOCOL ANALYZER WTB SETUP:Bus1	\mathbf{X}
Configuration Packet Data Format Register	
Congratulation WTB decoding function has been activated!	
If you have questions about operating software please follow the appropriate instructions below.Our technical support 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) 1997-2009 ZEROPLUS TECHNOLOGY 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.



3 Operating Instructions

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

Bus/Signal	Trigger Filter		Bus/S	ignal	Trigger	Filter
🖌 🖌 📶 Sampl	ing Setup			Busi	-	•
/ K. Chann BUS Bus P	els Setup roperty			AO AC		
- / / Analo	g Waveform	•	- 1	A1 A1		
Group Ungro	into Bus up from Bus	Ctrl+G Ctrl+V	- 1	A2 A2		
Add C	hannel			A3 A3		
Copy Copy	Channel e Channel		- 1	A4 A4		
Delet	e All Channels		- 1	A5 A5		
Resto	re Default Channels		1	A6 A6		
Forma	it now	•	- 1	A7 A7		

STEP 2. Select **Bus1**, and 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 WTB Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA WTB MODULE V1.00.00**. Next click **Parameters Configuration** to open **Configuration** dialog box.

Bus Property	
General Bus Setting	
🔿 General Bus	Color Config
Protocol Analyzer Setting	
Protocol Analyzer	Parameters Config
C ZEROPLUS LA IIC MODULE V1.03	
C ZEROPLUS LA SPI MODULE V1.10	
C ZEROPLUS LA UART MODULE V2.03	3
C ZEROPLUS LA PS/2 MODULE V1.32.	00
C ZEROPLUS LA SCCB MODULE V1.00	0.00
C ZEROPITISTA SS_PO(MAND) MODU	E V1 00 00
ZEROPLUS LA WIB MODULE V1.00.	00
1	
🔽 Use the DsDp	Find
More Protocol Analyzer: http://www.a	eroplus.com.tw
ОК	Cancel Help

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

PROTOCOL ANALYZER WTB SETUP:Bus1
Configuration Packet Data Format Register
The WTB 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) 1997-2009 ZEROPLUS TECHNOLOGY CO., LTD.
Register Cancel Default Help

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STEP 5. Click **Parameters Configuration** again, and open the Configuration dialog box to set the parameters for the **Protocol Analyzer WTB**.

Bus Property	×
General Bus Setting]
Protocol Analyzer Setting Protocol Analyzer Parameters Config	
C ZEROPLUS LA IIC MODULE V1.03 ZEROPLUS LA SPI MODULE V1.10 ZEROPLUS LA UART MODULE V2.03 ZEROPLUS LA P5/2 MODULE V1.32.00	
C ZEROPLUS LA SCCB MODULE V1.00.00 C ZEROPLUS LA SS_K9(NAND) MODULE V1.00.00	
✓ Use the DsDp Find	
More Protocol Analyzer: http://www.zeroplus.com.tw OK Cancel Help	

STEP 6. Set the **WTB** channel in the **Configuration** dialog box

PROTOCOL ANALYZER WIT	SETUP:Bus1			×					
Configuration Packet Data Format Register									
-Protocol Analyzer Settings									
WTB: AO Allowable Tolerance for Bit Width: 20%									
-Protocol Analyzer Color									
HEAD	FLAG	DATA	DESTINATION						
	••••	••••	•••						
LINK_CONTROL	SOURCE	DATA_SIZE	FCS/NFCS						
••••	• • •		••••						
END									
· · ·									
			E E						
	0	K Cancel	Default Help						

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STEP 7. Set **Allowable Tolerance for Bit Width**. There are four options to be selected from

pull-down menu, namely, 5%, 10%, 20% and 30%



STEP 8. Set the **Protocol Analyzer Color.**

PRO	TOCOL ANALYZER	JTB SETUP:Bus1			×				
Co	nfiguration Packet	Data Format Regis	ter						
Г.	Protocol Analyzer Set	tings							
	WTB: AO Allowable Tolerance for Bit Width: 20%								
	Protocol Analyzer Col	.or							
	HEAD	FLAG	DATA	DESTINATION					
	••••	••••	•••	••••					
	LINK_CONTROL	SOURCE	DATA_SIZE	FCS/NFCS					
	••••	••••	••••	••••					
	END								
	••••								
					_				
		0	K Cancel	Default Hel	p				



STEP 9. 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 2K; the sampling frequency is 200MHz.

Protocol Analyzer Decoding

✓ File Bus/Signal Trigger Run/Stop Data Iools Mindow Haln - ○ ② ☑ ◎ ◎ ◎ ◎ ◎ ◎ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	₽×
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ger De
Image: Seale:360.7594097 Display Pos:7215 A Pos:-260693 A - T = 260693 A - B = 277933 Total:507495 Display Range:18040 B Pos:17240 B - T = 17240 Compr-Rate:247.800	ger De
Scale:360.7594097 Display Pos:7215 A Pos:-260693 ✓ A - T = 260693 ✓ A - B = 277933 ✓ Total:507495 Display Range:18040 B Pos:17240 ✓ B - T = 17240 ✓ Compr=Rate:247.800	
Bus/Signal Trigger Filter 0 1803.797 3607.594 5411.391 7215.188 9018.985 10822.782 12626.579 14430.376 16234.	175
E Busi (WTB)	
	Ոլ
A1 A1	
	_
	_
/ A4 A4 🛛 🖾	
	_
TAT AT	
→ BO BO 🔀 🔯	
✓ B1 B1 🛛 🐼	_
→ B2 B2 2	
	-
B4 B4	-
	- 1
	~~
Ready End! DEMO	



Packet List

👫 ZEROPLUS LAP-	-C (32128) (S/N:000	000-000	D) - (8.alc]						(
🏂 <u>F</u> ile B <u>u</u> s/Signal	T <u>r</u> igger	Run/Stop Da	ata <u>T</u> ools	<u>W</u> indow	/ <u>H</u> elp							_ 8 ×
🗋 🕞 🖫 😂 🖇	🔍 🏹 🎡	ψ [®] Υ⊤ Ψ [™]	1		2K ▼ 🕅	<mark>i∰i</mark> 200MHz	• • • • • • • •	50% 🔻 🤻	🕨 🔸 Pag	;e 1	 Count 	1
🚯 🚯 📓		N 18 (*)		• 0.27	7193% 🚽 👗		T¥ +¥ Bar Bar Par	le 🕸 😿	eus 🔖 🗄	Height	26 - 1	frigger De
Scale: 360. 7594097		Display Po	s:7215		A Pos:-2606	93 🔻	A - T = 2	60693 🔫		A - B =	277933 👻	
Total:507495		Display Ra	ange:18040		B Pos:17240	▼	B - T = 1	.7240 🔻		Compr-Ra	ate:247.800	
Bus/Signal	Trigger	Filter			1803.797 3607.	594 5411.391	7215.188 90	018.985 108	22.782 12	2626.579	14430.376 16	234, 1 🛱 📤
	-	- ⊗		Н	EAD FL.	AG OX11	0x08 🚶 0x2	23 0X01	0000	FCS	: OXDAF5	FLAG
🧹 WTB /	X			UUU						սող		
🖌 A1 A1												
🥖 A2 A2		\otimes										
🧭 A3 A3		\otimes										
🎸 A4 A4		\otimes										
🖌 🖌 A5		\otimes										
A6 A6	<	<					0					>
Setting Refres	h Export	Synch Pa	arameter									
Packet # N	lame	TimeStamp	HEAD	FLAG	DESTINATION	LINK_CONTROL	SOURCE	DATA_SIZE	DATA	FCS	FLAG END	
1 Bus	1(WTB)	-100	HEAD	FLAG	11	08	23	01	00	DAF5	FLAG END	
												_
Ready										End!	DEM	0 //