

Instrument Business Department

Digital Logic Specification

Version : V1.0



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1 Software Installation

Please install the software as the following steps:

*Remarks: The installation steps for all buses are the same; you can complete installation by following procedures. Below is an example on how to install SSI bus.

STEP 1. Install Bus Module

🗁 Special Bus SSI Module_v10000 📃 🗖 🗙				
檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(I) 説明(H)		A.	
🔾 上一頁 👻 🕤 🔺 🎓 搜尋 😢	資料夾 🛄 -			
網址① 🛅 C:\Documents and Settings\Admin	nistrator\桌面\Special Bus SSI Module_v10000		🔽 🄁 移至	
檔案及資料夾工作 ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★	English	Help		
 將這個資料夾發佈到網站 共用這個資料夾 	Autorun 安裝資訊 1 KB	The sead me English 文字文件 5 KB		
其他位置	Readme Simplified 文字文件	Readme Traditional 文字文件 4 KB		
詳細資料 🔹	Setup			
Special Bus SSI Module ↓10000 檔案資料夾	Setup Application ZEROPLUS			
修改日期: 2007年12月27日 今夭, 下午 05:48				

STEP 2. Click Install.

	Special Bus SSI Module_V1.00
ZEROPLUS SPECIAL BUS MODULE SETUP	
2006 ZEROPLUS Corporation. All Rights Reserved.	Install User Manual Cancel

○ 孕龍科技股份有限公司 ZEROPLUS TECHNOLOGY COLLTD

STEP 3. Click Next.



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

1	🖥 Special Bus SSI Module - InstallShield Wizard	×
	License Agreement Please read the following license agreement carefully.	1
	LICENSE AGREEMENT	8
	IMPORTANT-READ CAREFULLY : This LICENSE AGREEMENT is	
	entered into effect between ZEROPLUS Technology Co., Ltd. (hereinafter	
	""ZEROPLOS") 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{d} o not accept the terms in the license agreement	
I	nstallShield	
	< Back Next > Cancel	



STEP 5. Fill in user information in the below dialog box and then click **Next**.

🙀 Special Bus SSI Module - InstallShield Wizard	
Customer Information Please enter your information.	
User Name:	
Michael	
Organization:	
logic	
Install this application for:	
 Anyone who uses this computer (all users) 	
Only for me (SuperXP)	
InstallShield	
< Back	ext > Cancel

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

🙀 Special Bus SSI Module - InstallShield Wizard 🛛 🛛 🔀			
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.

🙀 Special Bus SSI Module - 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-	
< <u>B</u> ack Install Cancel	

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

🙀 Special Bus SSI Module - InstallShield Wizard 🛛 🔀			
	InstallShield Wizard Completed		
The InstallShield Wizard has successfully installed Special Bus SSI Module. Click Finish to exit the wizard.			
	< Back Finish Cancel		





2 User Interface

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

Digital]	Logic	Configuration	Dialog Box
Digital	20510	Comigaration	Dialog Don

SPECIAL BUS Digital Log	ic SETUP:Bus1		×
Configuration Package Regis	ter		
Function Operation		Pin Assignment	
Logic Element Select: 🚺		Custom Channel	
Output Delay Settings Customize delay time higher limit 10 ns (lower limit 0)			
Bus Color			
1	0	ERROR	
	OK C	ancel Default Help	

Custom Channel settings				
Pin Assignme	nt			
Output		C Virtual outo	ut decoding mode	
		,		
input1:	A0 💌	input9:	A0 💌	
🔽 input2:	A1 💌	input10:	A0 🔽	
🔽 input3:	A2 🔻	input11:	A0 🔻	
🔽 input4:	A3 💌	input12:	A0 🔽	
input5:	A0 🔽	input13:	A0 🔻	
input6:	A0 💌	input14:	A0 🔽	
input7:		input15:		
i input8:	AU	i input16:	JAU 🗾	
	ОК	Cance	el Default	
	OK	Cance	el Default	



Function Operation

Logic Element Select:

Select the necessary Logic Element of analysis in this part analysis in this part such as AND, OR, NAND, NOR, XOR, NXOR and NOT.

Pin Assignment

Custom Channel Selection: Set signal channels that are used and set its number Virtual output decoding mode: user can use the Virtual output decoding mode to decode, and it is not necessary for user to select Output,

Output Delay settings

Customize Delay Time: Set the default of higher limit of delay time as10ns

Bus Color

User can set and vary the items of the color according to his or her own requirements.

Digital Logic Package Dialog Box

SPECIAL BUS	Digital Logic SETUP:Bus1	
Configuration	Package Register	
Item	Color	
▼ 1	Pa	ckage Length: 1
0 ସ		
🔽 DESCRII	BE	
	OKC	ancel Default Help

In the package dialog box, User can choose displaying items and set bus color and package length according to his or her own requirements.



Digital Logic Register Dialog Box

SPECIAL BUS Digital Logic SETUP:Bus1	×
Configuration Package Register	
Congratulation Digital Logic 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) 1997-2008 ZEROPLUS TECHNOLOGY CO;LTD	
OK Cancel Default Help	

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



3. Operating Instructions

STEP 1. First, group the unanalyzed channels into bus1 by pressing the Right Key on mouse



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





STEP 3. For Special Bus Digital Logic Parameters Configuration, select Special Bus, and then select **ZEROPLUS LA Digital Logic MODULE V1.00.** Next click **Parameters Configuration** to open **Parameters Configuration** dialog box.

Bus Property	
General Bus Setting	
C GENERAL BUS	Color Config
Consid Pub Colline	
	Devemotors Config
to SPECIAL BUS	Parameters Coning
C ZEROPLUS LA JTAG MODULE V1.00	(Internal VO.1)
C ZEROPLUS LA DMX512 MODULE V1.	.00(Internal V0.4)
C ZEROPLUS LA FLEXRAY MODULE VI	.00
C ZEROPLUS LA CCIR656 MODULE VI	.00
C ZEROPLUS LA CAN 2.08 MODULE V	1.05
C ZEROPLUS LA NEC PD6122 MODULE	E V1.00
C ZEROPLUS LA MULMODULE VI. 00/I	
C ZEROPLUS LA MIT MODOLE VI.000	
	V1.00
☑ Use the DsDp	
Other More Module: http://www.zeropl	us.com.tw
ОК	Cancel Help

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

SPECIAL BUS Digital Logic SET	IP : Bus 1 🔀
Configuration Package Register	
The Digital Logic bus decoding functi item.Welcome to purchase its serial 1	ion is optional purchased sey to activate this function for
your necessary. Enter serial 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) 1997-2008 ZEROPLUS TEC	HNOLOGY CO;LTD
Registe	er Cancel Default Help

STEP 5. After completing **Register**, come back to the **Bus property** dialog box, then click the parameters **configuration** to start the Special Bus Digital Logic setup.



Bus Property
General Bus Setting
C GENERAL BUS Color Config
- Special Bus Setting
SPECIAL BUS Parameters Config
 C ZEROPLUS LA JTAG MODULE V1.00(Internal V0.1) C ZEROPLUS LA DMX512 MODULE V1.00(Internal V0.4) C ZEROPLUS LA FLEXRAY MODULE V1.00 C ZEROPLUS LA CCIR656 MODULE V1.00 C ZEROPLUS LA CAN 2.0B MODULE V1.05 C ZEROPLUS LA NEC PD6122 MODULE V1.00 C ZEROPLUS LA MCU_51 DECODE MODULE V1.00 C ZEROPLUS LA MIL MODULE V1.00(InternalV1.0) C ZEROPLUS LA Digital Logic MODULE V1.00
Use the DsDp Other More Module: http://www.zeroplus.com.tw
OK Cancel Help

STEP 6. Function Operation Settings: user can set the useable Logic Elements, there are AND, OR, NAND, NOR, XOR, NXOR and NOT.

SPECIAL BUS Digital Logi	ic SETUP:Bus1	
Configuration Package Regist	er Pin B	Assignment
Logic Element Select: 🕅		Custom Channel
Output Salay Settings	gher limit 10	ns (lower limit O)
-Bus Color		
1	0	ERROR
	OK Cancel	Default Help



STEP 7. Pin Assignment settings: click the Custom Channel to set the contents of channel.

SPECIAL BUS Digital Logic	SETUP:Bus1	
Configuration Package Register		
Function Operation Logic Element Select: AND	Ţ.	Assignment Custom Channel
Output Delay Settings	r limit ∫10	ns (lower limit O)
Bus Color		
1	0	ERROR
	OK Cancel	Default Help

STEP 8. The setup of channels for Output and Input.

Pin Assignme	ent				×
Output Output:	149	J	F Virtual outp	et decoding mode	
Input					
input1:	AO	•	input9:	AO 📐	
input2:	A1	-	input10:	A0 💌	
🔽 input3:	A2	•	input11:	A0 💌	
🔽 input4:	A3	-	input12:	A0 💌	
input5:	AO	-	🔲 input13:	A0 💌	
input6:	AO	-	input14:	A0	
🗆 inpat7:	AO	-	input15:	A0 🔽	
input8:	A0	$\overline{\mathbf{v}}$	🔲 input16:		
		OK	Cance	Default	



STEP 9. If selecting the Virtual output decoding mode, then there is no need for user to set the part of Output , and then it can decode.

Pin Assignme	nt		
Output Output:	<u>Δ4</u>	Virtual output decoding	g mode
Input			
🔽 input1:	A0 💌	🔲 input9: 🛛 🗛	-
🔽 input2:	A1 💌	input10: A0	_
🔽 input3:	A2 💌	input11: A0	~
🔽 input4:	A3 💌	input12: A0	~
input5:	A0 💌	🔲 input13: 🛛 🗛	-
input6:	A0 💌	🔲 input14: 🛛 🗛	~
input7:	A0 💌	input15: A0	Y
🥅 input8:	A0 💌	input16: A0	-
	ОК	Cancel	Default

STEP 10. The setup of Customize delay time.





- - -

STEP 11. The setup of Bus Color.

SPECIAL BUS Digital Logic SETUP:Bus1	×
Configuration Package Register	
Function Operation Pin Assignment	
Logic Element Select: AND Custom Channel	
Output Delay Settings	
Customize delay time higher limit 10 ns (lower limit 0)	
Bus Color	-
1 0 ERROR	
OK Cancel Default Help	

STEP 12. Following pictures show the completion of the Bus decoding and package list . The conditions are set as either edge ,Memory depth is 128K, Sampling frequency is 200MHZ_o

Bus Decodin	ng												
😂 ZEROPLUS LAP-	321280-	A(S/N:00	0000-000)0) - [La	aDoc1]								
🕌 <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> ool	s <u>W</u> indow	<u>n</u> eip								_ 8 ×
🗅 📂 🖶 🎒	ų 🗷 🖗	ψ [®] Υ _T Ψ	. 🔟 🕷	> >> >> >> >> >> >> >> >> >> >> >> >> >	₩ 128K	- iiii 🚾	200MHz 💌	· 🗤 🦗 !	50% 💌 🚸	Page 1	 Count 	1 🔹	[
1	III (9	8 😽 K	"	- 🦾 2.	132ns 🔻		r Bar Bar Bar	🙀 1e 💠	🐻 📴 🖣	Height	50 - T	rigger Dela	y 5ns
Scale:2.132ns		Disp	lay Pos:-OC	12.6us	A P	os:-075ns 🔻		A - T	= 75ns 💌		A - B = 15	Ons 🔻	
Total:10.24us		Trig	ger Pos:Ons		B P	os:75ns 🔻		B - T	= 75ns 💌		Compr-Rate	: No	
Bus/Signal	Trigger	Enable	<mark>-</mark> 	002.643us	-002.632us	-002.622us	-002.611us	-002.6us	-002.59us	-002.579us	-002.568us	-002.558us	-00
Bus1 @igi	T		1	0	1	0 1	0	1	0	1 0	1 0	1	0
0A da 💊	x												
🖌 A1 A1													
🥖 A2 A2													
A3 A3													
/ A4 A4													



Package List



Ready