

Instrument Business Department

ST-BUS Specification

Edition: V1.0



孕龍科技股份有限公司 ZEROPLUS TECHNOLOGY CO;LTD

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1 Software Installation

Please follow these steps to install the software.

Remark: The installed steps for all Buses are the same. You can complete installation by following procedures. Below images are examples to install **SSI**.

STEP 1. SSI Module setup.



STEP 2. Click "Install" .



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STEP 3. Click "Next".



STEP 4. Clicking "I accept the terms in the license agreement", then pressing "Next".

1	🖥 Special Bus SSI Module - InstallShield Wizard	×
	License Agreement Please read the following license agreement carefully.	1
	INPORTANT-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{d} o not accept the terms in the license agreement	
I	nstallShield <u>Back N</u> ext > Cancel	



STEP 5. Filling the relative information in the below dialog box ,then clicking "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 <u>m</u> e (SuperXP)	
InstallShield	xt > Cancel

STEP 6. At first, select the Complete option, then to click "Next".

🙀 Special Bus S	SI 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.)
Custom	Choose which program features you want installed and where they will be installed. Recommended for advanced users.
InstallShield	< Back Next > 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

STEP 8. Click "Finish" to complete the Installation.

🛃 Special Bus SSI Module - InstallShield Wizard		\mathbf{X}
	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

Please refer to the below image to select options of setting ST BUS.

ST MODULE configuration dialog box for Bus1

SPECIAL BUS ST SETUP:Bus1		
Configuration Package Register		
ST FR: AD ST: A1 CLK: A2 Fixed Frame Length 512 Min=8 Max=2048 (Bit)		
Bus Property Sync Level: FR Low Level		
CLK Sync and Sampling: Rising Sync, Falling Sampling 💌		
Bus Color DATA		
OK Cancel Default Help		

ST channels selections:

FR: The synchronous signal channel which is used to determine the starting and ending positions of the package. The default is A0.

ST: Bus data channel of ST and GCI. The default is A1.

CLK: CLK signal channel. The default is A2.

Fixed Frame Length: The default is un_selected. When the options is selected, the frame length is limited, When the frame length is set as 512 Bit, every packages Length are 512 Bits only. The exceed and less frame length will not be decoded. The data displaying is showing as 8 bits for a group. **Sync Level:**

The options are FR Low Level and FR High Level. The default is FR Low Level.

CLK Sync and Sampling:

"Rising Sync, Falling Sampling" and "Falling Sync, Rising Sampling" are listed. The default is "Rising Sync, Falling Sampling".



ST MODULE Package dialog box

SPECIAL BUS	ST SETUP:Bus1	
Configuration	Package Register	1
Item	Color	
🔽 DATA		
	OK Can	cel Default Help

In the package dialog, the colors of Data and Describe.

ST MODULE Register dialog box

SPECIAL BUS ST SETUP:Bus1	
Configuration Package Register	
Constantiation ST data dia	- function has have actioned at
Congratulation SI decodin	g function has been activated:
If you have questions about operati	ng software please follow the appropriate
instructions below.Our technical su questions you have.	upport team will be happy to answer any
>>> 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
	Canad Default Vile
UK	Lancel Default Help

There is Zeroplus company information written. If users have question about software Operations, user can contact Zeroplus by Telephone or Email.



3 Operating Instructions

STEP 1. At first, Group the unanalyzed channels into Bus 1



STEP 2. Select **Bus1**, then press **right** key on the mouse to list menu. Click **"Bus Property"** to open the **Bus Property** dialog box.





STEP 3. For Special Bus Parameter Configuration, select Special Bus, then choose **ZEROPLUS LA ST Module V1.00 (Internal 0.2)**. Next click "Parameter Configuration" to open the configure dialogue.

Bus Property	
General Bus Setting	
G GENERAL BUS	Color Config
Special Bus Setting	
© SPECIAL BUS	Parameters Config
 ZEROPLUS LA S/PDIF MODULE VI ZEROPLUS LA Manchester MODUL ZEROPLUS LA Miller MODULE VI.0 ZEROPLUS LA 1-Wire MODULE VI ZEROPLUS LA CANBUS MODULE VI ZEROPLUS LA IIC MODULE VI.03 ZEROPLUS LA IIS MODULE VI.02 ZEROPLUS LA MICRO-WIRE MODILE VI.000 	ULE V1.01 (Inernal 0.2)
☑ Use the DsDp	
Other More Module: http://www.zero	plus.com.tw
ОК	Cancel Help

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

SPECIAL BUS ST SETU	IP:Busl	
Configuration Package	Register	
The ST bus decoding function is optional purchased item. Welcome to purchase its serial key to activate this function for your necessary.		
Enter serial key:	Enter serial key:	
If you ordered software o appropriate instructions b possible. >> By phone:	or have questions about ordering software please follow the elow.Our sales team will respond to your enquiry as soon as Tel:886-2-66202225	
>> Applications through EMail: service_2@zeroplus.com.tw		
>> Website:	http://www.zeroplus.com.tw	
Copyright(C) 1997-20	08 ZEROPLUS TECHNOLOGY COLTD	
	Register Cancel Default Hel	p



STEP 5. After pressing "OK" on Register Dialog, it turns to **Bus Property** dialogue box. Click "**Parameter Configuration**" to set up the parameter of special bus.

Bus Property 🛛 🔀
General Bus Setting
Special Bus Setting
SPECIAL BUS Parameters Config
C ZEROPLUS LA Manchester MODULE V1.00(Internal V0.0)
C ZEROPLUS LA Miller MODULE V1.00(Inernal V1.0)
C ZEROPLUS LA 1-Wire MODULE V1.03
C ZEROPLUS LA CANBus MODULE V1.03
C ZEROPLUS LA IIC MODULE V1.03
ZEROPLUS LA ST MODULE V1.00(Inernal 0.2)
✓ Use the DsDp
Other More Module: http://www.zeroplus.com.tw
OK Cancel Help

STEP 6. At first, setting **ST** channel in the **configuration** dialog box.

SPECIAL BUS ST SETUP:Bus1
Configuration Package Register
T
FR: AO T ST: A1 T CLK: A2
Fixed Frame Length 512 Min=8 Max=2048 (Bit)
Bus Property
Sync Level: FR Low Level
CLK Sync and Sampling: Rising Sync, Falling Sampling 💌
Bus Color
DATA
OK Cancel Default Help



STEP 7. Next, setting **Bus Property** for Sync Level , CLK SYNC and Sampling in the **configuration** dialog box.

SPECIAL BUS ST SETUP:Bus1	×
Configuration Package Register	
ST FR: AO ST: A1 CLK: M2 Fixed Frame Length 512 Min=8 Max=2048 (Bit)	
Bus Property Sync Level: FR Low Level	
CLK Sync and Sampling: Rising Sync, Falling Sampling 💌	
Bus Color DATA	
OK Cancel Default Help	

STEP 8. Following picture shows that the completion of the Bus decoding and packet list . The conditions are set as that random edge, Memory depth is 128K, Sampling frequency is 10MHz and the compression is activated

Bus decodin	ng									
ZEROPLUS LAP-	321280-3	L (S/8:00	0000-0000) -	[标准帧长为10	[24有结束.als]					
🕮 Bile Bus/Signal	Trizzer	Ren/Stop	Data Tools Minde	n Eng						- ā ×
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Scale: 2 12us Total: 19: 97ins		Disp. Trig	lay Pos:967.241us ger Pos:Ous	A P B P	os:-003, 400ns 💌 os:-010, 478ns 🔻	1	A - I = 3.409ms B - I = 10.478ms	- -	A - B = 7 07a Compr-Rate:30	is ▼). 4T3
BerSignal	Irigger	Energy	924, 8450	s 935.444us	945. 048as 956	.642us 967	241us 977, 84u	s 988,439ms	999.088us	1.01as 1.0 <mark>.</mark> ^
- Busi (ST)		8	0X32	0X33	0X34		0X35	0X36	X0	37 0 X
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🖌 сы: С	×	۲		MM						
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Sec. 18.00	M									



Packet list

ZEROPLUS LAP-	-32128	II-A (S/)	1:0000	00-00	00) -	【标准	棘长为	10244	有結束	als]												
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	1 12 1 1 1		T PH	- <u>118</u> 118	р рр 1	1 70	4 120	- nn	(nn	ALE	HZ	- 144 BA	14		- 44	Hair	i ht D	T L	ount .		T	
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Setting Flash		port	13 <				_															5
Packet #	Name	Time	Stamp	DAT	ADAT	A DAT	DAT	DAT	ADAT	A DAT	A DAT	A DAT	A DAT	ADAT	A DAT	A DAT	A DAT	A DAT	A DAT	A DAT	A DAT	٨
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DATA D	ATA DA	TA DAT	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	Ē
0×12 00	K13 0X	14 0X15	5 0X16	0X17	0×18	0X19	0X1A	0X1B	0X1C	OXID	0X1E	0X1F	0×20	0×21	0×22	0×23	0X24	0×25	0×25	0X27	0×28	
DATA D	ATA DA	TADAT	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	ĺ.
0X29 00	KZA OX	2B 0X20	C OX2D	0X2E	0X2F	0×30	0×31	0X32	0X33	0X34	0×35	0×36	0×37	0×38	0×39	0×3A	0X3B	0×3C	0X3D	0×3E	0X3F	
DATA D	ATA DA	TA DAT	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	ŕ
0240 02	K41 0X	42 0X43	B 0X44	00×45	0×45	0×47	0×48	0X49	0X4A	0X4B	0X4C	0X4D	0X4E	0X4F	0×50	0×51	0×52	0×53	0X54	0×55	0×56	
DATA D	ATA DA	TA DAT	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	DATA	í.
0×57 02	<58 0X	59 0X54	0X5B	0X5C	0X5D	0X5E	0X5F	0×60	0×61	0×62	0×63	0×64	0×65	0×65	0×67	0×68	0×69	0×6A	0X6E	0×6C	0X6D	
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