

Instrument Business Department

DMX512 Specification

Version :V1.01



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1 Software Installation

Please follow below steps to install the software:

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

STEP1. Install Bus Module



STEP 2. Click Install.



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

1	Special Bus SSI Module - InstallShield Wizard	×
	License Agreement Please read the following license agreement carefully.	4
	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	
	O I do not accept the terms in the license agreement	
In	astal/Shield	
	< <u>B</u> ack <u>N</u> ext > Cancel	



STEP 5. Fill in user information in the below dialogue window and click Next.

i∰ Special Bus SSI ∎odule - InstallShield Wizard	×
Customer Information Please enter your information.	4
User Name:	
Maikle	
Organization:	
logic	
Testall this application for	
Install this application for:	
Anyone who uses this computer (all users)	
Only for <u>m</u> e (Maikle)	
Tanka lifetia I.d.	
Instalionielo	
< <u>B</u> ack <u>N</u> e	ext > Cancel

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

🔂 Special Bus	SSI Bodule - InstallShield Tizard	1
Setup Type Choose the set	rup type that best suits your needs.	Statement of the local division of the local
Please select a	setup type.	
• <u>Complete</u>	All program features will be installed. (Requires the most disk space.)	
C Custom	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.



STEP8. Click **Finish** to complete the installation.





2 User Interface

Please refer to below images to select options of setting DMX512 MODULE.

DMX512 MODULE Configuration dialog box

SPECIAL BUS DEX512 SETUP:Bus1	×
Configuration Package Register	
Bus Setting DMX512: D+ C D+ Decoding C D- Decoding	
Format Setting • Standard Format • Extension Format	
Sampling Setting	51
Frequency: 250 KHz Inaccuracy Rate: 10%	
(Min:50KHz, Max:1000KHz) (Min:0%, Max:60%)	
CD Setting	
Channel: 1024 BYTE Parity: None parity 💌	
(Min: 128BYTE, Max: 2048BYTE)	
-Bus Color	- I.
START STOP BREAK MTBF	
DATA SC MAB	
OK Cancel Default Help	,

Bus setting:

There are two channels(D+or D-) for selection, the decoding itemS includes D+ decoding and D- decoding.

Format setting

There are Standard Format and Extension Format for selection in this part .

Sampling setting

The Frequency can can be set within 50KHz $\,{\sim}1000$ KHz. The Inaccuracy rate is from 10% to 60%, the default is 10%.

CD setting

The length can be set within 128BYTE t~ 2048 BYTE in the Extension Format . There are None parity ,odd parity and even parity for Parity setting ,and the default is None parity.

Bus color

User can vary the Bus color.



DMX512 MODULE Package dialogue window

SP	ECIAL BUS DEE51:	2 SETUP:Bus1				د	×
	Configuration Pac	kage Register					
:	Item	Color					
:	🔽 BREAK	•••					
:	MAB						
:	🔽 DATA	•••					
1	₩TBF						
:	🔽 SC						
:	🔽 Describle						
			OK	Cancel	Default	Help	

In the package dialog, user can vary the color of items.

DMX512 MODULE Register dialog box.

SPECIAL BUS DEX512 SETUP:Bus1	×
Configuration Package Register	
	_
Congratulation DMX512 decoding function has been activated	!
If you have questions about operating software please follow the	
appropriate instructions below.Our technical support team will b happy to answer any questions you have.	e
>>> 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 I	efault Help

There is Zeroplus company information. If you have any questions about software Operations, please feel free to contact Zeroplus by Telephone or Email.





3 Operation Instructions

STEP 1. At 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 FLEXRAY Parameter Configuration, select Special Bus, and then choose "ZEROPLUS LA DMX512 MODULE V1.00(Internal V0.4)". Next click Parameters Configuration to open Parameters Configuration dialog box.

General Bus Setting	
C GENERAL BUS	Color Config
Special Bus Setting	
SPECIAL BUS	Parameters Config
C ZEROPLUS LA SGN6210 MOD	DULE V2.00
C ZEROPLUS LA SGN6210 MOD	DULE V2.00
O ZEROPLUS LA SD MODULE V	1.00(Inernal 0.1)
C ZEROPLUS LA SIGNIA6210 N	MODULE V2.00
C ZEROPLUS LA LPC-SERIRQ P	MODULE V1.00(InternalV1.0)
C ZEROPLUS LA TTAC MODULE	NODOLE VI.00
ZEROPLUS LA DMX512 MOD	ULE V1.00(Internal V0.4)
C ZEROPLUS LA FLEXRAY MOD	OULE V1.00
Use the DsDp	
Other More Module: http://www	.zeroplus.com.tw

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

SPECIAL BUS DER512 SETUP:Bus1	×
Configuration Package Register	
The DMX512 bus decoding function is 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



STEP 5. After completing **registration**, come back to the **Bus property** dialog box, then click the **parameters configuration** to start the Special Bus DMX512 setup.

Bus Property 🗙
General Bus Setting
C GENERAL BUS Color Config
Special Bus Setting
SPECIAL BUS Parameters Config
C ZEROPLUS LA SGN6210 MODULE V2.00 ZEROPLUS LA SGN6210 MODULE V2.00 ZEROPLUS LA SGN6210 MODULE V1.00(Inernal 0.1) ZEROPLUS LA SIGNIA6210 MODULE V2.00 ZEROPLUS LA LPC-SERIRQ MODULE V1.00(InternalV1.0) ZEROPLUS LA LCD_ST7669 MODULE V1.00 ZEROPLUS LA ITAG MODULE V1.00(Internal V0.1) ZEROPLUS LA DMX512 MODULE V1.00(Internal V0.4) ZEROPLUS LA PLEXRAT MODULE V1.00 ZEROPLUS LA PLEXRAT MODULE V1.00 ZEROPLUS LA CONSTRUCTION
Use the DsDp
Other More Module: http://www.zeroplus.com.tw
OK Cancel Help

STEP 6. DMX512 Bus setting, user can select the D+ decoding or D- decoding.

DMX512:	D+	•	⊙ D+ Dec	oding	0	D- Decodiną	
Format Sett:	ing ⊙ Stan	lard Format		C Ext	ension Form	at	
Sampling Se	tting						
Frequency:	250	KHz		Inaccu	racy Rate:	10%	-
(Min:50KHz,	Max:1000KJ	(z)				(Min:0%, M	ax:60%)
CD Setting							
Channel:	1024	BYTE		1	Parity:	None pa	rity 💌
(Min: 128BYT	E, Max: 2048	BYTE)					_
Bus Color —							
START		STOP	• • •	BREAK		··· MTBF	
DATA		sc		MAB			



STEP 7. There are Standard Format and Extension Format for Format setting.

SPE	CIAL BUS DER	1512 SETUP:Bus1				×
Co	onfiguration	Package Register				
	-Bus Setting- DMX512:	D+ 💌	⊙ D+ Deco	ding (D- Decoding	
	-Format Setti			C		
		 Standard Format 		C Extension For	mat	
[-Sampring Set	ting				
	Frequency:	250 KHz		Inaccuracy Rate:	10%	
	(Min:SOKHz, M	(ax:1000KHz)			(Min:0%, Max:60%)	
ſ	-CD Setting-					
	Channel:	1024 BYTE		Parity:	None parity 💌	
	(Min:128BYTE	(, Max:2048BYTE)				
ſ	-Bus Color					
	START	··· STOP	• • •	BREAK	MTBF	•••
	DATA	···· sc		MAB		
			OK	Cancel	Default He	lp

STEP 8. Select the Standard Format, and to estimate the Inaccuracy rate according to the characters of hardware and software ,the defaulted Inaccuracy Rate is +/-10%.

SPECIAL BUS DEX512 SETUP:Bus1
Configuration Package Register
Bus Setting DMX512: D+ 💌 © D+ Decoding © D- Decoding
Format Setting © Standard Format © Extension Format
Sampling Setting
Frequency: 250 KHz Inaccuracy Rate: 10% (Min:50KHz, Max:1000KHz) (Min:0%, Max:60%)
CD Setting Channel: 1024 BYTE Parity: None parity -
(Min:128BYTE, Max:2048BYTE)
Bus Color START STOP BREAK MTBF
DATA SC MAB
OK Cancel Default Help



STEP 9. Select Extension Format, to set the Frequency ,the BYTE of CD(CHANNEL)length , then to estimate the Inaccuracy Rate according to the characters of hardware and software, the defaulted Inaccuracy rate is +/-10%.

SPECIAL BUS DEX512 SETUP:Bus1	×
Configuration Package Register	
Bus Setting	
DMX512: D+ 💌 💿 D+ Decoding 🔿 D- Decoding	
-Format Setting	
C Standard Format 💿 Extension Format	
Sampling Setting	
Frequency: 250 KHz Inscuracy Rate: 10%	
(Min: 50KHz, Max: 1000KHz) (Min: 0%, Max: 60%)	
-CD Setting	
Channel: 1024 BYTE Parity: None parity	
(Min: 128BYTE, Max: 2048BYTE)	
-Bus Color-	
START STOP BREAK MTBF	
OK Cancel Default Help	

STEP 10. Following pictures show that the completion of the Bus decoding and package list. The conditions are set as Either edge, Memory depth is 128K, Sampling frequency is 50MHz.

Bus decoding					
atteroplus LAP-321280	- A (S/X :00000-0	000) - [2048_1024_51	2_CD_Demo_D #X 1024_32128_J	ASON. als]	<u>_8×</u>
🚛 <u>F</u> ile B <u>u</u> s/Signal T <u>r</u> i	gger Run/ <u>S</u> top <u>D</u> a	ta <u>T</u> ools <u>W</u> indow <u>H</u> elp			_ 8 ×
🗋 🖻 🖉 🖪 🎒			128K	🔽 🛲 👫 50% 🔽 🐳 Page 1	▼ Count 1 ▼
🚯 🚯 📾 📖	🚺 k 📓 🖑	🛗 📓 🗸 🧯 19.498		👬 🅅 l4 🔊 🐻 🔛 🔶 Height	40 🔻 Trigger Delay 1
Scale:5.1287141	Display	Pos:13424456	A Pos:1007 💌	A - T = 1008 ▼	A - B = 30 ▼
Total:30211390	Trigger	Pos:O	B Pos:1038 💌	B - T = 1038 🖛	Compr=Rate:230.495
Bus/Signal Trr	rer Enable	13424353.7121342	4379.356 13424405 13424430	. 643 13424456. 287 13424481. 93 13424507. 5	74 13424533. 217 13424558. 861 13424
Bus1 (DMX51		STOP	MTBF	START DATA :	0X5F
🖌 🗗 AO	x • 🛛 🛛 •				
Bus2 (DMX51		STOP	MTBF	START DATA :	OX5F
D- A1	\otimes				



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Package list

🎒 ZEROPLUS LAP-32	128 U-A (S)	1:000000	-0000) -	2048_1024_51	l2_CD_Demo_	D BX 1024_321	28_JASON. al:	s]				_	Ð×
🎼 <u>F</u> ile B <u>u</u> s/Signal	Trigger	Run/ <u>S</u> top	Data Tools	: <u>W</u> indow <u>H</u> elp	P								8 ×
🗋 🖻 🖶 🎒 🖉	ii , 🔀 🖗	ŶT ŶT Ÿ	• 1	▶ ₩ 4	128K 🔻 🛛	🕯 🚾 50M	lz ▼ ၮ	₩ 50%	💌 📣 Page	1	Count 1	-	
🚯 🕓 🔝 🗷		8 8 8	7 🛅 🔛	- 🕺 19.49	8064! 💌 🏆	Bar Bar Bar		\ ♦ ⇒। 🛛	📱 📇 🔶 H	eight 40	▼ Trigg	er Delay	1
Scale:5.1287141 Total:30211390		Displ Trig	Lay Pos:134 ger Pos:0)isplay All	A Pos:10 B Pos:10	007 • 038 •		A - T = 100 B - T = 103	8 • 8 •	ر ن	L - B = 30 ▼ Compr-Rate:230.	495	
Bus/Signal	Trigger	Enable	b 13	424379.014134	24404.658134	24430. 301 134	24455. 945 1 342	4481. 588 134	24507. 232 134	24532. 876 13	424558.5191342	24584.163134	124t
Busi (DMX51		\otimes	STOP		MTBF		STAR	T DA	TA : OX	5F			
🥖 D+ AO	x	\otimes											
Bus2 (DMX51		\otimes	STOP		MTBF		STAR	T DA	TA : OX	5F			
🥖 D- A1		\otimes											
🥖 A2 A2		\otimes											
🥖 🗚 🖓		\otimes											
🖌 📈 A4	•	×											
🖌 A5 A5		\otimes											
▲ A6 A6			•										•
× Setting Flash	Expor	:											
Packet #	Name	Tin	neStamp	Break MAB	SC MTB	Data MTB	Data MTB	F Data MT	BF Data M	TBF Data	MTBF Data M	TBF Data	
1 B	us1(DMX5	512)	44	BREAKMAB	0X33 MTB	0X26 MTB	F 0X27 MTB	F 0×28 MT	BF 0X29 M	TBF 0X2A	MTBF 0X2B	ITBF 0X2C]
MTBF D: MTBF 0X	ata MTBF 20 MTBF	Data MT	BF Data	ATBE 0X30 M	TBF Data	MTBF Data	MTBF Data	MTBF Dat	a MTBF Da	ita MTBF [Data MTBF D	ata MTBF	
Data M	BF Data	MTBF Dz	Ita MTBF	Data MTBF I	Data MTBF	Data MTRF	Data MTBF	Data MTF	BF Data MT	BF Data M	TBF Data M	TBF Data	
0X38 M1	FBF 0X39	MTBF 0X	3A MTBF (X3B MTBF 0	X3C MTBF	0X3D MTBF	0X3E MTBF	0X3F MTE	BF 0X40 MT	BF 0X41 M	ITBF 0X42 M	TBF 0X43	
MTBF D	ata MTBF	Data MT	BF Data		TBF Data	MTBF Data	MTBF Data	MTBF Dat	a MTBF Da	Ita MTBF [)ata MTBF D	ata MTBF	
Data M							Data MTDE	MIBEUX4					-
Display All											Տօջս 中 🥒	°, 📰 🛉 🌽	