Ez-SPD

Ez-SPD

DDR4

Programmer User's Manual

Support Window XP, Window 7



1.0 Introduction

Thank you for purchasing the **Ez-SPD DDR4 DIMM Programmer**, this quick reference contains instruction on the proper use of your Programmer as well necessary as handling precautions. Read this manual carefully to understand the proper use of the tester.

2.0 Unpacking and Inspection

Every precaution has been taken to ensure that your tester reaches you in full operational Condition. If there is any damage to the package, please notify CST or the agent where the unit Was purchased from immediately. Returned item must be shipped in original packaging material. Upon unpacking, inspect the unit for any obvious physical damage. If any damage is evident, **DO NOT** attempt to operate unit. Notify CST or the agent where the unit is purchased from immediately and return item to CST or your local Authorised Representative for repair or Replacement. (keep carton, foam inserts and packaging in the event that the unit has to Returned to CST.)

3.0 Tester Description



4.0 Ez-SPD DDR4 Programmer Description

What you will need :

- Ez-SPD DDR4 Programmer
- Ez-SPD DDR4 PC Interface Kit
- Personal Computer (PC) with system requirements of
 - AMD or Intel Pentium base PC (Mac not supported)
 - Microsoft Windows XP, Window 7 (Window 8 not supported yet)
 - 1GB RAM
 - at least 100 MB hard drive space
 - VGA or better video display

4.1 HARDWARE INTERFACING PREPARATION

Connect the standard USB cable to the *EZ SPD DDR4 USB* port located at the rear of the programmer, the other end of the connector is connected to available Printer Port on your PC.



Figure 4-0 : EZ -SPD DDR4 PC Interface Control Setup.

4.2 EZ SPD DDR4 SOFTWARE SETUP PREPARATION

4.2.1 System Check

The Ez-SPD Programmer software runs on the Microsoft Window environment and support Win ME, Window 2000, Window Server, Window XP and Window 7.

-- Window 8 is not supported yet.

-- Do not plug in Ez-SPD DDR4 programmer to the PC USB port

4.2.2 Ez-SPD DDR4 Programmer Software Installation (Window 7 OS)

Before you install the EZ-SPD DDR4 PC software, make sure you have approximately 100 Megabytes of memory space available on your hard drive.

Go to Window Explorer, select the drive location which you have Ez-SPD-DDR4 PC software program. Click on "DDR4 EZSPD USB V1.1.exe" file and open it. This is a self-extracting zip program. Follow the setup instruction on screen.

DDR4 EZSPD USB V1.1.exe 8/5/2013 3:41 PM Application

 A dialog box pops up asking you which directory you want to copy your software into. The default directory is C:\Program file\Ez SPD USB...etc. You can change it to a specified directory or use the default directory. Click OK to continue software installation.





DDR4 EZSPD US DDR4 EZSPD US Choose Destination Location	SB V1.1 Setup
	Setup will install DDR4 EZSPD USB V1.1 in the following directory. To install to this directory, click Next. To install to a different directory, click Browse and select another directory. You can choose not to install DDR4 EZSPD USB V1.1, by clicking Cancel to exit Setup.
	Destination Directory C:\Program Files\DDR4 EZSPD USB V1.1 Space Required: 8576 K Space Available: 277765372 K < Back Next > Cancel

- After you have installed the software, an icon labeled **Ez-SPD DDR4 PC Control** will be created in the program manager.
- Double click on the Ez-SPD DDR4 PC Control icon brings up the Startup Screen displaying the information and version of the Ez-SPD PC software.



Figure 4.21

When the Ez-SPD DDR4 software starts up for the first time, it will search for a hardware connection between the PC and the Ez programmer. If it fail to detect the Ez programmer – an error message will appear see figure 4.23



Figure 4.23

4.2.3 Ez-SPD DDR4 Programmer USB Driver Installation (Window 7 OS)



- Connect Ez-SPD Programmer USB cable to PC

- Microsoft window 7 will detect new hardware ,and will prompt message to install USB driver for the unknown device. Go to the Microsoft window – Control Panel to setup the Ez-SPD programmer USB driver correctly.

Control P	Panel Hardware and Sour	nd Devices and Printers
Add a device Add a pr	rinter	
	•	
 Unspecified (1) — 		
0		
Unknown Device		

Window does not recognized the USB device, next step is to installed the Ez-SPD DDR4 driver from the USB driver stored in the Ez-SPD DDR4 program folder.



 search driver from "My computer " under Program folder and locate DDR4 EXSPD USB V1.1/USB driver/



- Select Win7 or Win XP accordingly to your PC operating system
- Select x64 or x86 depending on the PC hardware and OS.



- Window 7 will search for the Ez-SPD USB driver from the following program, folder



- Ignore warning message and select : Install this driver software anyway

x	Update Driver Software - Unknown Device
	Installing driver software
-	
;el	

- USB driver software begins installation

Update Driver Software - CST EzSPD USB Programm	er
Windows has successfully updated your dr	river software
Windows has finished installing the driver software for t	his device:
CST EzSPD USB Programmer	
	USB driver successful installation
	Close
	Close

- Windows have successfully installed the CST EZ-SPD USB driver

CST EzSPD USB Programmer Properties	×
General Driver Details	
CST EzSPD USB Programmer	
Device type: Other devices Manufacturer: COMPUTER SERVICE TECHNOLOGY	
Location: Port_#0001.Hub_#0004	
Device status	
I his device is working property.	
	USB driver successful installation
Close	ancel
CST EzSPD USB Programmer Properties	
General Hardware	
CST EzSPD USB Programmer	
Device Information	
Manufacturer: Unavailable Model: CST EzSPD USB Programmer	
Model number: Unavailable	
Categories: Unknown	
Description: Unavailable	
Device Tasks To view tasks for this device, right-click the icon for the device in	USB driver successful installation

Windows have successfully installed the CST EZ-SPD USB driver is working properly



- Windows have successfully installed, the CST EZ-SPD USB driver is working properly
- Run the EZ-SPD DDR4 program , Double Click





Windows able to detects USB driver and starts EZ-SPD DDR4 program



EZ SPD DDR4 programmer is ready for operation

4.3 Features





The EZ PC software provides - 4 main selection in the Ez software :



4.31 File

A user can load, create a new file, save and print SPD device file.



• [New File]: create a new SPD data from zero

- [Load File] : enable user to load a previously saved SPD file from the PC device library
- [Load SPD Data Binary File]: enable user to load SPD in binary format from an external source into the PC memory buffer for programming the Module SPD EEPROM
- [Save File] : enable user to save edited SPD file into the PC library for future usage.
- [Save As]: save with any user define file name
- [Save SPD to Binary File]: save edited SPD and convert file to binary format
- [Print SPD] output SPD file to printer
- [Exit]: Exit and quit program

4.3.2 View

User can edit and view current SPD data after reading



- [View & Edit SPD Data] : view and edit current SPD data read from the DIMM SPD
- [View Module SPD File] : view SPD file from byte 0 512 either in Hexadecimal or decimal format

View and compare SPD data from Buffer with

Module SPD

• [Compare SPD Data to Module]: compare SPD data stored in PC memory buffer with DIMM Module SPD data, this mode enable to compare byte by byte for SPD data verification purpose.

4.3.3 Config

User can select type of SPD read/write configuration and set key functions to Ez-Pusher Button for production and mass programming.



- [Batch Test configuration]: user can set the software to "read only", "read/write" including enabling logging of test results.
- [Verify SPD Data] : user can set which byte range to mask-out or skip reading during SPD read
- [Write SPD Data] : user can set all the programming /write parameter
- [Assign Ez Button Configuration]: user can set function to Ez-button
- [Handler Interface] This Mode is designed for making proper interface between the EZ-SPD and the Handler. The Handler Mode need to be selected "ON" when the Ez-programmer is attached to the RoboFlex Auto Handler. If programming in Manual mode – the Handler Mode should be turn off

4.3.4 Tools

This option is use for checking Module SPD Data and reset batch test counter

🔄 EZ SPD Progr	amme	r ¥4.0	
File View Cfg	Tools	Help	Vorify all SPD
Plea		Check SPD Data	attribute
-		Reset Batch Test Counter	Rest test counter

4.4 Running a SPD Trial Execution.

Assuming the interface and software has been setup properly. There are two options a user can do to selection the operation.

- Option 1 Perform a "Read & ID Module" and let the Ez-Programmer read the SPD contents from the DIMM module. After reading the SPD, the data can be files saved on the PC.
- Option 2 Load a SPD file saved in the Ez-SPD software itself. Note that the file saved in the PC contains only the SPD contents. For SPD Reading,



Editing and Writing, the user has to repeat the steps as mentioned in option 1.

Figure 4.4

DDR4 EZ_SPD P	Programmer V1	.1		-		-		
PI	Please Choose One Task to Perform by Clicking An Icon Button							
ш	 +	Q	`?		i.	(a)		
Read and ID Module	Load SPD Data From Library	Edit SPD Data	Compare SPD Data to Module	Write SPD Data to Module	Batch Test	Print SPD		
Select	\geq	Identify Mo	odule by Readin	g SPD Data			×	
lcon To read		Modul Modul	e Type: e Capacity:	DDR4 SDR/ 8 GB	AM (UDIMM)			New SPD data read
SPD		Modul Modul	e Size: e Info:	Primary bus 15(Row)x10	width 64 bits I(Col) 4(Banks)	x4(BG) 2(Ranks)	
	J	TimeE Frequ	lase: ency:	MTB: 0.125r DDR4 - 186	ns FTB: 1ps 6Mhz			
		Chip li Modul	nfo: e Manufacuter:	4Gb Device Micron Tech	Width 8 bits inology			
		CAS L	atencies: lytes Used:	CL: 9, 11, 12 384 Bytes	2,13			
		JEDEO	C SPD Spec Co	mpliant	Detail 1			
			ок		ave As	Help		

4.41 Option 1: Read SPD from DDR4 DIMM memory

Figure 4.41

- Insert module on Ez-SPD DDR4 programmer test socket
- Select [Read & ID Module] icon

odule Attı	ibutes: View Detail SPD Byte		×
Byte #	Function Description	Value	
0	Used Bytes/Size/CRC Coverage	23	
1	SPD Revision	10 1	
2	DRAM Device Type	00	\mathbf{N}
3	Module Type	02	
4	SDRAM Density and Banks	84	
5	SDRAM Addressing	19	
6	SDRAM Device Type	01	Scroll
7	SDRAM Optional Features	01	button
8	SDRAM Thermal and Refresh Options	00	button
9	Reserved	00	to view
10	Reserved	00	entire
11	Module Nominal Voltage	03	512
12	Module Organization	09	bytes
13	Module Memory Bus Width	03	content
14	Module Thermal Sensor	80	
15	Reserved	00	
16	Reserved	00	
17	Timebases	00	
18	SDRAM Min Cycle Time (tCKAVGmin)	09	
19	SDRAM Max Cycle Time (tCKAVGmax)	0C	
20	CAS Latencies Supported, First Byte	74	
21	CAS Latencies Supported, Second Byte	00	×
22	CAS Latencies Supported, Third Byte	00	
23	CAS Latencies Supported, Fourth Byte	00	
24	Min CAS Latency Time (tAAmin)	70 💌	
	Cancel OK]	

The SPD data will appear in a window box [select "see detail"] to view the entire SPD data before saving into a file.

4.42 Writing the SPD EEPROM by File Loading (manual mode)



 Load SPD file from PC or Read SPD from DIMM EEPROM, remember to verify if the SPD data are correct before writing.
 DDR4 E2_SPD Programmer VI.1

File View Cfg 1	Fools Help					
Ple	ase Choose	e One Task	to Perform b	y Clicking Ar	n Icon Buttor	ı
, m	<mark></mark>	Q] ?	H	ingen ((
Read and ID Module	Load SPD Data From Library	Edit SPD Data	Compare SPD Data to Module	Write SPD Data to Module	Batch Test	Print SPD
	Load SPD [Date File Fro	m Library			? ×
SPD Data Source SPD Data Source SPD Data File N Module Type: DI Module Info: 19 Write Cfg: Write Byte Mask Rang Batch Test Cfg: Test Select Lon File Na	e: Look in lai DF Micro S(F Micro e: e:	: DDR4_186 on_DDR4_186 on_DDR4_213 on_Hynix_DDR	DIMM 6_C13_UDIMM_SI 3_C15_UDIMM_SI 14_2133_C15_UD	PD.spp4 PD.spp4 IMM_SPD.spp4	← ⊡ ↔	-
Test Number:	File nam	e: Micror	_DDR4_1866_C	13_UDIMM_SPD	.spp4	Open
Pass: 0 Fai	I: Files of I	ype: DDR4	EZ-SPD Files (*.s	:pp4)	•	Cancel
,	SPD Af	ttribute:	DDR4 SD 15(Row)× Module C DRAM Ca MTB: 0.12	RAM (UDIMM 10(Col) 4(Ba apacity: 8 Gl pacity: 4Gb l 25ns FTB: 1;	4) nks)×4(BG) ; B Device Widt os	2(Ran) h 8 bit

- Insert DDR4 DIMM module on test socket with blank SPD EEPROM.
- Select the [Write SPD Data to Module] Icon



Edit SPD Write configuration:

Write SPD Cfg	×
Write Range	
From Byte No. 0 To Byte No. 511	ОК
Mask Range	Consol
	Cancer
From Byte No. To Byte No.	Help
- SPD Write Protection	
O On O Off	
Serialization	
Write Production Serial Number	
Page Size Selection	
C 1 Byte C 4 Byte ⊙ 8 Byte C 16 Byte	
View SPD and Data File	
View SPD and Data File	

- Change Write range [0-512 bytes]
- o Set SPD Mask range
- Set SPD Write protection after programming
- Set Serial number for production testing
- o Set Page write sizing

Edit SPD Data Field

User may cha	nge SPD settings	anytime of	on this so	reen
	Modale			

Byte	Definition	с	ontent	
0	Used Bytes/Size/CRC Coverage	0x23	DETAIL	Number Display:
1	SPD Revision	0x10	DETAIL	In Hex
2	DRAM Device Type	0x0C	DETAIL	🔵 🔿 In Decimal
3	Module Type	0x02	DETAIL	
4	SDRAM Density and Banks	0x84	DETAIL]
5	SDRAM Addressing	0x19	DETAIL]
6	SDRAM Device Type	0x01	DETAIL	l
7	SDRAM Optional Features	0x01	DETAIL	ок
8	SDRAM Thermal and Refresh Options	0x00	DETAIL	
9	Reserved	0x00	DETAIL	Save
10	Reserved	0x00	DETAIL	
11	Module Nominal Voltage	0x03	DETAIL	Cancel
12	Module Organization	0x09	DETAIL	
13	Module Memory Bus Width	0x03	DETAIL	

Byte	Defini	lion	С	ontent	
)	Used Bytes/Size/CR	C Coverage	0x23	DETAIL	Number Display:
	SPD Revision		0x10	DETAIL	💿 In Hex
2	DRAM Device Type		0x0C	DETAIL	🔿 In Decimal
}	Module Type	yte 2: DRAM Device Type			
ļ	SDRAM Density ar	Byte 2: DRAM Devic	e Tyne		
j	SDRAM Addressin		c ifpe		
)	SDRAM Device Ty;				
'	SDRAM Optional F				
}	SDRAM Thermal a				
)	Reserved	Byte 2 = 0C h			
0	Reserved		_		
1	Module Nominal V	DRAM Device Type:	DDR4 S	DRAM	_
2	Module Organizati				
3	Module Memory Bi				
	,				

Double click on any byte field, window menu will appear with detail byte descriptions

- The write SPD configuration table will appear and user can choose to either [edit] the SPD or proceed to [Write the SPD], Press [OK] to start writing using the mouse.
- A running man will appear during SPD programming do not interrupt the PC during writing.



• When the Ez-SPD have successfully programmed the SPD data into the Blank EEPROM , a result screen will appear indicating a Pass or Failed.



4.43 Writing the SPD EEPROM by Batch Programming (Production mode - activation by Push Button)



- The default setting for the Ez-Button is set to "Read SPD only" .
- For mass production programming mode user must assign the Ez-Push Button to "Write & Verify" for both Handler and manual programming.

ign EZ Button Function	×	Batch Test Selection	
Select a task to be performed by the button on the case of your EZ SPD programmer.		Write and Verify Cfg	ок
C Read Data From Module and ID Module Attributes		Verify All Cfg	Cancel
Write Data To Module and Verify Batabara			Help
L. Datti Test			1
	15	File Name:	
OK Cancel Hein	1		

 Once the Ez-SPD Push button have been assigned to write – you can continue to proceed with chapter 1.42 and start mass programming blank EEPROM.

4.44 Editing the SPD EEPROM Data

• There two ways to edit the SPD data – see figure 1.44a and figure 1.44b, both selection will take you to the common SPD database location.

📑 Di	DR4 EZ_SPD	Programmer	¥1.1				
File	View Litg	I ools Help					
	F	lease Choo	se One Task	to Perform b	y Clicking Ar	n Icon Button	
	ш	<mark></mark>	Q		N		(<u></u>]
	Read and ID Module	Load SPD Data From Library	Edit SPD Data	Compare SPD Data to Module	Write SPD Data to Module	Batch Test	Print SPD
			Fig	jure 4.44a	l		
						144-00-0244	
		Current Wri	te SPD Confi	guration		×	
		You are	about to write	e SPD from B	yte: 0 de: pss		
		lf you wa data, cli	ant to look an ck either of th	d change wri e buttons:	te Cfg, or edi	the	
			Edit	Configuration			
			Edi	it SPD Data			
		If you are	certain to writ	e SPD, pres	s OK to contin	nue	
		-				(1998) 	
		0	K	Cancel	Help		
			F 1				

Figure 4.44b

🚆 DDR4 EZ_SPD Pro	ogrammer Vi	l.1									
File View Cfg T	ools Help										
Plea	ase Choos	e One Task	to Perform b	y Clicking Ar	n Icon Buttor	n					
	<mark></mark> .⇒	Q	_` ?	.		Ē	1				
Read and ID Module	Load SPD Data From Library	Edit SPD Data	Compare SPD Data to Module	Write SPD Data to Module	Batch Test	Prin	t SPD				
	Current File	: C:\Program	Files\DDR4 EZ9	SPD USB V1.1		₹4_DIM	1M\Micror	_DDR4_1866_C1	3_UDI 🗙		
Current Test St.	Descript	ion:								E	By Default – SPD lata are viewed in
Module Type: DI	Byte		Definition			Co	intent				an view the SPD
Module Into: 15 Write Cfa:	0	Used Bytes/	Size/CRC Cove	rage		23	DETA	L Numbe	r Display:		lata in decimal
Write Byte	1	SPD Revisio	n		0x	10	DETA	L 💿 In He	ex.	f	ormat
Mask Rang	2	DRAM Devic	е Туре		0×	0C	DETA	L O In De	ecimal		
Batch Test Cfg:	3	Module Type)		0×	02	DETA	L			
Test Selecti	4	SDRAM Den	sity and Banks		0×	(84	DETA	L			
Log File Na	5	SDRAM Add	ressing		0×	(19	DETA	L			
Dace' O Fail	6	SDRAM Dev	ісе Туре		0×	:01	DETA	L			
rass. 01 an	7	SDRAM Opti	onal Features		0×	:01	DETA		ĸ		
	8	SDRAM The	rmal and Refre	sh Options	0×	:00	DETA				
	9	Reserved			0×	:00	DETA	L Sa	ave		
	10	Reserved			0×	:00	DETA				
	11	Module Nom	ninal Voltage		0×	:03	DETA	L Cai	ncel		
	12	Module Orga	anization		0x	09	DETA				
	13	Module Merr	nory Bus Width		0×	:03	DETA		elp		
	J	ump to	0 *	>> <	< Ed	lit Tool.					

Figure 4.44b

- CST engineers have enhanced the latest EZ SPD DDR4 software version by allowing user to select and edit each byte location with the help table included to provide ease of editing the SPD definition
- For example if you select the [Detail] box at byte 0 location, the following byte zero table will appear. Editing the table is easy – placed the mouse cursor at the two selection, to change the SPD data. Double click the mouse to change the SPD data and it automatically will refresh the SPD data base with the new data. Remember to save the updated SPD data before programming.

Byte D: Number of Serial PD Bytes written during module production	Place mouse cursor to scroll to
Byte U: Number of Serial PD Bytes written during module production The mostcommon for standard 184pin DIMM and 200pin Section is 128 bytes written, although some speciel modules and manufacturer would occasionally insert different number	view the rest of the byte location
128Byte: <u>80h</u> 255Byte: <u>FFh</u>	



4.45 Understanding some of the key features

The EZ-SPD DDR4 Programmer provides a simple user interface to enable user to change any configuration by a simple mouse clip. See Figure 4.45a.

4.46 Understanding the Reversible Software Protect Feature



DDR4 SPD EEEPROM uses a special function build in the DDR4 EEPROM chip to enable manufacturer to set "Reversible Software Write Protect" registers during SPD programming. Once the Software write protect function is set, the Byte data cannot be changed unless the Reversible Software Flag is reset by the programmer.

The SPD EEPROM 512 byte location is divided into 4 Quadrant :

- Quadrant 0 [Assign to protect Byte 0-127]
- Quadrant 1 [Assign to protect Byte 128 -255]
- Quadrant 2 [Assign to protect Byte 256 -383]
- Quadrant 3 [Assign to protect Byte 384 -512]
- -

Byte 0 to byte 511of the SPD are protected by RSWP, user may choose to protect any quadrant number.

 Reversible Software Write Protect (RSWP), enable the EEPROM to be reprogrammed many times

		· · · · ·	
SPDV	Vrite Protecti	on	
	On	O Off	SWP Cfg
O a vi a li	·		

- On to enable write protection after writing.
- Off to disable all byte write protection

9	PD Write Protection		×
	-Write Software Write Pr	otect Register	
	RSWP: C Set	Clear	ок
	🔽 Quadrant 0	Quadrant 1	Cancel
	Write	SWP	

- [Set] to enable SPD write protection flag after writing.
- [Clear] to clear the Software write protect flag in the EEPROM registers



Figure 4.46b

How to clear RSWP "Reversible Write Protect" feature.



Figure 4.46c

From the above menu Figure 4.46c – be very careful when selecting the Write protect selection, if you are unsure, please consult the EEPROM manufacturer for more details before selecting the "write protect registers". Before programming the EEPROM, you can decide to choose whether to to RSWP registers, do not select the SPD write protect menu if you are unsure.

Write SWP Result × **Clear RSWP registers i**) Clear RSWP Successfully! successfully. **EEPROM** can be reprogram again OK Write SWP Result X **Unable to set RSWP** registers after Set RSWP Failed! programming. OK.

Software Write protect error messages during programming

5. Quick Guide with Examples

This chapter will guide you through a simple example with a known DDR4 DIMM module to help you get familiar with the EZ-SPD DDR4 SPD functions. If you should have any doubt on the menu options, please refer back to the previous chapter on operations basics for a detailed explanation.



The examples illustrated in this section use a standard 284pin 8GB DDR4 Unbuffered DIMM memory module.

5.1 Read SPD

 Insert DIMM into Ez-SPD Programming test socket and select [Read and ID Module]

<u> </u>	141.1 ODD	
Ic	lentify Module by Readin	g SPD Data
[
-	Module Type:	DDR4 SDRAM (UDIMM)
- 1	Module Capacity:	8 GB
	Module Size:	Primary bus width 64 bits
×	Module Info:	15(Row)x10(Col) 4(Banks)x4(BG) 2(Ranks)
	TimeBase:	MTB: 0.125ns FTB: 1ps
;	Frequency:	DDR4 - 1866Mhz
	Chip Info:	4Gb Device Width 8 bits
:tı	Module Manufacuter:	Micron Technology
	CAS Latencies:	CL: 9, 11, 12, 13
	SPD Bytes Used:	384 Bytes
	JEDEC SPD Spec Cor	npliant
		See Detail
	ОК	Save As Help

• Saved DIMM SPD results.

dentify Module by Readin	g SPD Data	×			
Module Type:	DDR4 SDRAM (UDIMM)				
Module Capacity:	8 GB	Eave Ar			21
Module Size:	Primary bus width 64 bit		 	- str 💻	<u>ن</u>
Module Info:	15(Row)x10(Col) 4(Bank	Save in: C DDR4_DIMM	⇔ 🛃	▲ 1	
TimeBase:	MTB: 0.125ns FTB: 1ps	Micron_DDR4_1866_C13_UDIMM_SPD.spp4 Micron_DDR4_2133_C15_UDIMM_SPD.spp4			
Frequency:	DDR4 - 1866Mhz	Micron_Hynix_DDR4_2133_C15_UDIMM_SPD.spp4			
Chip Info:	4Gb Device Width 8 bits				
Module Manufacuter:	Micron Technology				
CAS Latencies:	CL: 9, 11, 12, 13				
SPD Bytes Used:	384 Bytes				
JEDEC SPD Spec Cor	mpliant				
	See Detail				
ок	Save As				
		File name:		Sav	e
		Save as type: DDR4 EZ-SPD Files (*.spp4)	•	Cano	el

• Verify to ensure that the SPD Data is correct.

Μ	odule Attri	butes: View Detail SPD Byte	×
C	Byte #	Function Description	Value 🔺
	0	Used Bytes/Size/CRC Coverage	23
	1	SPD Revision	10
-	2	DRAM Device Type	0C
	3	Module Type	02
	4	SDRAM Density and Banks	84
	5	SDRAM Addressing	19
	6	SDRAM Device Type	01
1	7	SDRAM Optional Features	01
	8	SDRAM Thermal and Refresh Options	00
	9	Reserved	00
E	10	Reserved	00
	11	Module Nominal Voltage	03
	12	Module Organization	09
	13	Module Memory Bus Width	03
	14	Module Thermal Sensor	80
	15	Reserved	00
	16	Reserved	00
	17	Timebases	00
	18	SDRAM Min Cycle Time (tCKAVGmin)	09
	19	SDRAM Max Cycle Time (tCKAVGmax)	0C
	20	CAS Latencies Supported, First Byte	74
	21	CAS Latencies Supported, Second Byte	00
	22	CAS Latencies Supported, Third Byte	00
	23	CAS Latencies Supported, Fourth Byte	00
	24	Min CAS Latency Time (tAAmin)	70 💌
		Cancel OK	

- Set Batch Test functions using the icon-select [Write & Verify]
- Current Write SPD Configuration × Edit Read/write You are about to write SPD from Byte: 0 configuration to Byte: 255 If you want to look and change write Cfg, or edit the data, click either of the buttons: Edit Configuration.. Editing the SPB Edit SPD Data.. byte from Byte 0 -511 If you are certain to write SPD, press OK to continue... Cancel OK Help Edit programming Batch Test Selection × configuration – such as Byte range, Mask off range, Vrite and Verify Cfg... OK write or read only function Verify All Cfg... Cancel Help 🖵 Log Test Result File Name: SPD Writing in Progress.
- Setup SPD programming parameters

 Insert Module - Press the Push Button on the Ez-SPD DDR4 Programmer to start programming

\$

Ariting S	PD byte 0 to 255 is successful	_
vlask Ou	t: None	
	Passad	
	i asseu	

SPD Writing in Progress.

Test results will be output to Monitor screen , insert next module for programming

6.0 TROUBLE- SHOOTING GUIDE

6.1 Software error – cannot detect Ez-SPD DDR4 Programmer



 Check all Cable and USB connections between Ez-SPD programmer and PC

6.2 Cannot Read SPD

- Ensure module is properly inserted and aligned in the test socket.
- If all fails contact CST for Tech Support

6.3 Error Message – " WAITING FOR HANDLER START"if handler is being interfaced

- Ensure that the Handler interface cable is connected to the front side of the handler which have a 20pin Female mating connector.
- Set the handler Mode setting : Sampling rate = 2200ms , Sort = 2000ms for optimum setting

6.4 For other queries, contact CST Technical Support Hotline.

END