# DSP840 OPOS Driver Operation Manuals

#### Contents

Operating System Environment	2
Display Hardware setting	3
DIP switch setting	3
Installation software	4
Software Manual	7
OPOSLineDisplay Register of Demo Software	9
Setting OPOSLineDisplay baudrate	11
OPOS LindDisplayTester of Demo Software	14
Test MSPOS09 and DSP840 OPOS driver.	17

## **Operating System Environment**

- Windows XP.
- Windows7.

## **Display Hardware setting.**

### **DIP** switch setting

- A. 0 means DIP switch is at OFF position.1 means DIP switch is at ON position.
- B. The DSP840's DIP switch setting is Automatic command mode, the SW9&10 should be set to OFF "0" position. See figure 1-1.
- C. You must turn off the DSP840 power supply when you changed DIP Switch Setting.



Figure 1-1. DIP Switch is auto.

## Installation software

- Please first remove all old DSP840 OPOS driver.
- Installation of the DSP840 Utility.
  - The System environment is Windows XP.
    - Double click DSP840\_Utility\_V2\_1\_0\_PDR00004.exe.
    - ◆ Please follow DSP840\_Utiilty- Installshield Wizard Dialog, see figure 2-3~2-6.
  - The System environment is Windows 7.
    - Select the DSP840\_Utility\_V2\_1\_0\_PDR00004.exe press mouse right key then click Run as administrator. See figure 2-1.
    - Display the User Account Control Dialog, press Yes button, see figure 2-2.
    - Please follow DSP840\_Utilty- Installshield Wizard Dialog, see figure 2-3~2-6.

DSP840_OPOS_V1_1_PSW00	107	🛞 User	Account Control	<b>X</b>
	Open           Run as administrator           Troubleshoot compatibility	Û	Do you want unknown pul	to allow the following program from an plisher to make changes to this computer?
	Pin to Taskbar Pin to Start Menu Restore previous versions Send to		Program name: Publisher: File origin:	DSP840_Utility_V2_1_0_PDR00004.exe <b>Unknown</b> Hard drive on this computer
Datxer	Copy Create shortcut Delete	🕑 Sh	ow details	Yes No
	Rename Properties			Change when these notifications appear

#### Figure 2-1 Install the DSP840 Utility

in windows 7.



Figure 2-3 DSP840\_Utiilty-

Figure 2-2 user account control.

l	😸 DSP840 Utility v2.1 - InstallShield Wizard	<b>—</b> X—
10	Customer Information Please enter your information.	3
	User Name:	
	Organization:	_
	1	
	InstallShield Kack	lext > Cancel

Figure 2-4 DSP840\_Utiilty-

Installshield Wizard Dialog (1).



Figure 2-5 DSP840\_Utiilty-Installshield Wizard Dialog (3).

#### Installshield Wizard Dialog (2).

) DSP840 Utility v2.1 - InstallS	ihield Wizard	X
2	InstallShield Wizard Completed	
	The InstallShield Wizard has successfully installed DSP840 Utility v2.1. Click Finish to exit the wizard.	
4		
	< Bark Finish Canre	1

Figure 2-6 DSP840\_Utiilty-Installshield Wizard Dialog (4).

- Installation of the DSP840\_OPOS\_V1\_1\_PSW00107.exe
  - The System environment is Windows XP.
    - 1. Double Click the DSP840\_OPOS\_V1\_1\_PSW00107.exe
    - 2. Please follow Installshield Wizard Dialog, see figure 2-9~2-12.
  - The System environment is Windows 7.
    - 1. Select the DSP840\_OPOS\_V1\_1\_PSW00107and Click mouse right key, select run as administrator, see Figure 2-7.
    - 2. Show User Account Control Dialog, press Yes button, see Figure 2-8.
    - 3. Please follow InstallShield Wizard Dialog, see figure 2-9~2-12.
- Complete installation of all software, see figure 2-13 and 2-14.

DSP840_OPOS_V1_1_PSW00107 DSP840_Utility_V2_1_0_PDR0	Open	🛞 User Account Control 🛛 💌
· _ · · · · · · · · · · · · · · · · · ·	Run as administrator Troubleshoot compatibility Share with	Do you want to allow the following program from an unknown publisher to make changes to this computer?
	Pin to Taskbar Pin to Start Menu Restore previous versions Send to Cut	Program name: DSP840_OPOS_V1_1_PSW00107.exe Publisher: <b>Unknown</b> File origin: Hard drive on this computer
Driver	Copy Create shortcut Delete	Show details
Software	Rename Properties	Change when these notifications appear

Figure 2-7 run as administrator.

2010/Nov./02

Figure 2-8 User Account Control,

Press Yes button.



#### Figure 2-9 DSP840 OPOSLineDisplay - Installshield Wizard Dialog (1).



Figure 2-11 DSP840 OPOSLineDisplay

-Installshield Wizard Dialog(3).

👦 Default Programs	]
📑 Desktop Gadget Gallery	
🟉 Internet Explorer (64-bit)	
<i>6</i> Internet Explorer	
🚎 Windows Fax and Scan	z
Windows Update	
🛹 XPS Viewer	
Accessories	
🐌 Games	
J GIGA-TMS	
🔛 DSP840 Utility v2.1	
🚟 OPOSLineDisplayRegister	6
OPOSLineDisplayTester	
Maintenance	
🔒 Startup	
	1
	I
	F
Back	
Search programs and files	

Figure 2-13. Complete installation of all 2010/Nov./02

Figure 2-10 DSP840 OPOSLineDisplay -InstallShield Wizard Dialog(2).



Figure 2-12 DSP840 OPOSLineDisplay -Installshield Wizard Dialog(4).



Figure 2-14. Complete installation of all software

software in Window 7.

### **Software Manual**

- Execute the DSP840 Utility software.
  - To Run the DSP840 Utility in Windows XP.
    - 1. start menu  $\rightarrow$  All Programs  $\rightarrow$  GIGA-TMS  $\rightarrow$  DSP840 Utility.
  - To Run the DSP840 Utility in Windows 7.
    - 1. start menu  $\rightarrow$  All Programs  $\rightarrow$  GIGA-TMS $\rightarrow$ DSP840 Utility, press mouse right key then Click run as administrator. See figure 3-1.
    - 2. Display the User Account Control dialog press Yes button. See figure 3-2.

	1	Run as administr	ator			
🕝 Default Programs		Troubleshoot co Open file locatio Pin to Taskbar Pin to Start Meno Restore previous	mpatibility n y versions			
Internet Explorer (64		Send to				
Windows Fax and So Windows Update		Cut Copy				
<ul> <li>XPS Viewer</li> <li>Accessories</li> <li>Games</li> </ul>	۲	Delete Rename		🛞 User	Account Control	
GIGA-TMS	 yRegi	Properties	Compute		Do you want unknown pul	to allow the following program from an olisher to make changes to this computer?
Maintenance Startup	yrest	-	Control F Devices a Default F Help and		Program name: Publisher: File origin:	DSP840 Utility.exe <b>Unknown</b> Hard drive on this computer
Back  Search programs and	d files		🕑 Shut	Sł	now details	Yes No
<b>E</b> (						Change when these notifications appear

Figure 3-1.



- Execute the DSP840 OPOSLineDisplay software.
  - To Run the DSP840 OPOSLineDisplay in Windows XP.
    - 1. start menu  $\rightarrow$  All Programs  $\rightarrow$  GIGA-TMS $\rightarrow$  OPOSLineDisplay Register or Test.
  - To Run the DSP840 OPOSLineDisplay in Windows 7.
    - Click start menu→All Programs →GIGA-TMS→ OPOSLineDisplay Register or Test, see figure 3-3
    - 2. To run the software in Windows 7 must **run as administrator,** see figure 3-4.
    - 3. The User Account Control Dialog is display, Press **yes** button, see figure 3-5.



Figure 3-3.start menu  $\rightarrow$  All Programs $\rightarrow$  OPOSLineDisplay Register or Tester.



Figure 3-4.run as administrator.



Figure 3-5.the user account control dialog, press yes button.

### **OPOSLineDisplay Register of Demo Software**

- A. Open: Start menu→All programs→ GIGA-TMS→ OPOSLineDisplayRegister and click, see page 7.
- B. The OPOSLineDisplayRegister is a opos register tool.
- C. the "Control Object" must be selected. See figure 4-2.
- D. Select a DSP840 from device mode name list (left list). See figure 4-2.

💭 OPOS POSLineDisplay Reg	jister	x
Control Object Service Object DSP840 DSP830_MultiNational DSP830_Chinese(2x7) DSP830_Chinese(4x15)	Reg ->	
	Exit	



D. Press the "Reg - >" button. See figure 4-2. Show the OPOS Line Display Setting window. See figure 4-3.

	<b>•</b>
Device Name: My_DSP840	Mode Name: DSP840
Port: COM3 -	Debug: False
Reset Default	Check Health
ОК	Cancel

Figure 4-3.

- E. The device name can modify. See figure 4-3.
- F. Select a comport used to connect the device to the computer. See figure 4-3..
- G. If press the "Reset" button, the device name and port will return to the original storage value. See figure 4-3.
- H. If press the "Default" button, the device name and port will return to default value. See figure 4-3..
- I. Press the "Check Health" button, check the device and computer's connection health status. See figure 4-3..
  - 1. When connection is health the SUCCESS message dialog will be display. See figure 4-4..



Figure 4-4..

2. When connection is failure the ERR message dialog will be display. See figure 4-5.. Example:

RegCheckHealth	
	This is Error message.
ОК	

Figure 4-5.

- J. Press "Cancel" button, cancel the device register. See figure 4-3.
- K. Press "OK" button, the device register is completed. See figure 4-3.
- L. The Debug value is false, unless you have a good reason to change it. See figure 4-3.
- M. When the device already registered completed .You could also double click device name from device name list (right list), then modify device register relatively parameter. See figure 4-6.
- N. Press "Exit" button, close "OPOSLineDisplayRegister". See figure 4-6.

CPOS POSLineDisplay Register	<b>—</b> ×
Control Object Service Object DSP840 DSP830_MultiNational DSP830_Chinese(2x7) DSP830_Chinese(4x15) <- Unreg	
Exit	

Figure 4-6.

### Setting OPOSLineDisplay baudrate.

- The DSP840's Baud Rate should be **19200** and parity, Data bit, Stop bit should be **N**, **8**, **1** If you want to setting **DSP840's** baud rate and parity, data bit, stop bit value, please run **DSP840 Utility**. See figure 5-1.
  - Execute the DSP840 Utility, see page 7.
- If you want to set **DSP840 OPOS driver's** baud rate value (after the success of the OPOSLineDisplayRegister), please follow below.
  - Windows XP
  - 1. Start  $\rightarrow$  Run  $\rightarrow$  Input "regedit", press OK button. See figure 5-2.
  - 2. Select the DSP840's OPOSLineDispley register area, see figure 5-3.
  - 3. Select the baud rate property double click, input value is 19200, press OK button, see figure 5-3.
  - Windows 7
  - Start → all programs → Accessories → Run → Input " regedit", press OK button, See figure 5-4.
  - 2. Select the DSP840 OPOSLineDispley register area, see figure 5-5.
  - 3. Select the baud rate property double click, input value is 19200, press OK button, see figure 5-5.
- The DSP840 device and the DSP840 OPOS driver's baud rate  $\cdot$  parity, Data bit, stop bit should be the same.

Setting Main(GIGA) Adv.(El	SON) Send by ASCII	
Firmware Version :		GetVersion
Change the DSP Baud-Rate : Parity Data bit Stop bit :	N,8,1 •	
raniy,Daa biqolop bic.	19200 🔹	Set
International Code :	0- U.S.A 👻	Set
Save the Current View Message	(Layer): 1	Set
Set Cursor Position :	1	Set
Clear Display Range :	Form 1 To 1	Set
Display the Saved Demo Layer : Mode :	Layer 1 Mode 1 (Horizontal Scroll)	Set
Show Saved Message after Rebo	ot Mode : Stay 🗸	Set
Peripheral Device :	Printer ON -	Set
Get/Send Message:		Get
		Send

Figure 5-1. DSP840 Utility







Figure 5-3. Windows XP registry path:

 $\label{eq:hkey_local_machine} Key_local_MACHINE \ SOFTWARE \ OLE for Retail \ ServiceOPOS \ Line Display \ My_DSP \ 840.$ 

🛹 XPS Viewer	▲ <u> </u>	
Accessories		
Calculator		😯 User Account Control 🛛 🔯
Command Prompt		Do you want to allow the following program to make
Connect to a Network Projector	zora	changes to this computer?
🖳 Connect to a Projector		changes to this computer.
📇 Getting Started	Documents	
🛃 Math Input Panel	Dicturer	Varified publisher Misraroft Windows
Notepad	Pictures	ventied publisher: Microsoft windows
🐗 Paint	Music	
		Show <u>d</u> etails <u>Y</u> es <u>N</u> o
🖅 Run	Computer	
🐝 Snipping Tool	· · · · · · · · · · · · · · · · · · ·	Change when these notifications appear
🐌 Sound Recorder	Control Panel	
🍖 Sticky Notes		
Sync Center	Devices and Printers	
🥽 Windows Explorer		Kun 🔀
🔠 WordPad	Default Programs	
Ease of Access		Type the name of a program, folder, document, or Internet
퉬 System Tools	Help and Support	resource, and windows will open it for you.
🌗 Tablet PC		
Windows PowerShell	-	open. regeon
4 Back		
1 DUCK		
Search programs and files	Shut down	OK Cancel <u>B</u> rowse
Contemposition and facts		

Figure 5-4. Windows 7, regedit.



Figure 5-5. Windows 7 registry path:

 $\label{eq:local_Machine} KEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\OLEforRetail\ServiceOPOS\LineDisplay\My\_DSP840.$ 

### **OPOS LindDisplayTester of Demo Software**

- A. Open: Start menu→ All programs→ GIGA-TMS→ OPOSLineDisplayTester.
- B. Select a Device Name, see figure 6-1.

🕆 OPOS LineDisplay Test 🛛 🛛 🗙
Device Name:
My_DSP840
Open
Claim
DeviceEnabled (True)
Display Text
Display Text At
Attribute : 0.DISP_DT_NORMAL
Row: 1 Col: 5
Text: Hello OPOS.
BinaryConverion : 0.0POS_BC_NONE G S
Blink Rate : 0 G S
Scroll Text
Direction : 1-DISP_ST_UP
Units : 0
Send by ASCII
Clear Text
DeviceEnabled (False)
Release
Close
Exit

Figure 6-1.

C. Start Test, see figure 6-1.

- step1. Press "Open" button, Open Control Object.
- step2. Press "Claim" button, Exclusive access to device.
- step3. Press "DeviceEnabled(True)" button, Device will be put into operational state.

2010/Nov./02

	🛨 OPOS LineDisplay Test 🛛 🛛 🔀							
	Device Name:							
	My_DSP840							
	Open							
	Claim							
	DeviceEnabled (True)							
	Display Text							
	Display Text At							
	Attribute : 0.DISP_DT_NORMAL							
	Row: 1 Col: 5							
	Text: Hello OPOS.							
	BinaryConverion : 0.0POS_BC_NONE							
	Blink Rate : 1000 G S							
	Scroll Text							
	Direction : 1-DISP_ST_UP							
	Units : 0							
	Send by ASCII							
	Clear Text							
Result Message 🤸	DeviceEnabled (False)							
	Release							
	Close							
	Exit							

Figure 6-2.

- D. Operation "OPOSLineDisplayTester", see figure 6-2.
  - Press "Display Text" button, Transmit the current Text message to display.
  - Press "Display Text At" button, Transmit the current Text message to Row and Col position in display.
  - Press "Clear Text" button, Clear specific display area.
- E. DirectIO for Specific Device, seen figure 6-3.

<b>1</b> 3, S	🖻 Send by ASCII															
	- Direc	tl O - Comi	mand		0	C String attribute : 0.DISP_DT_NORMAL  BinaryConverion : 0.OPOS_BC_NONE							-	G	S	
	Character View: Hexadecimal															
0	10		20	30	40	50	60	70	80	90	AO	BO	CO	DO	EO	F0
1	11		21	31	41	51	61	71	81	91	A1	B1	C1	D1	E1	F1
2	12	2	22	32	42	52	62	72	82	92	A2	B2	C2	D2	E2	F2
3	13	;	23	- 33	43	53	63	73	83	93	A3	B3	C3	D3	E3	F3
4	- 14	+	24	- 34	44	54	64	74	84	94	A4	B4	C4	D4	E4	F4
5	15	;	25	35	45	55	65	75	85	95	A5	85	C5	D5	E5	F5
6	16	;	26	36	46	56	66	76	86	96	A6	B6	C6	D6	E6	F6
- 7	17	'	27	37	47	57	67	- 77	87	97	A7	87	C7	D7	E7	F7
8	18	;	28	- 38	48	58	68	78	88	98	A8	B8	C8	D8	E8	F8
9	19		29	- 39	49	59	69	79	89	- 99	A9	B9	C9	D9	E9	F9
A	· 14	۱.	2A	ЗA	4A	-5A	6A	-7A	-8A	- 9A	AA	BA	CA	DA	EA	FA
В	16		2B	ЗB	4B	5B	6B	7B	8B	9B	AB	BB	CB	DB	EB	FB
C	) 10	2	2C	3C	4C	- 5C	6C	70	8C	90	AC	BC	CC	DC	EC	FC
D	10		2D	3D	4D	5D	6D	7D	8D	9D	AD	BD	CD	DD	ED	FD
E	16		2E	ЗE	4E	5E	6E	7E	8E	9E	AE	BE	CE	DE	EE	FE
F	1F		2F	3F	4F	5F	6F	7F	8F	9F	AF	BF	CF	DF	EF	FF

Figure 6-3.

- If you choice Command option box, input decimal numbers not be save to current window buffer.
- If you choice String option box, input decimal numbers will be save to current window buffer in cursorRow and cursorColumns position.

F. Close Test, see figure 6-2.

- step1. Press "DeviceDisabled(False)" button, Device will be put into non- operational state.
- step2. Press "Release" button, Release the device to share it with another device control object.
- step3. Press "Close" button, if application finishes using the device, it should call the close.

## Test MSPOS09 and DSP840 OPOS driver.

#### Please first install the dsp840 OPOS driver.



Figure 6-1. run MSPOS09.

Register number:				
register <u>H</u> umber.				1
Register <u>d</u> escription:	1			
A <u>u</u> dio settings:	Full sou	ınds		Y
Devices on this register —				
The list of selected device	es shows the devi	ices currentlu	in use on this register. Use the	PITOM
buttons to move devices f	rom one list to the	other.	In use on this register. Use the	dirow 1
<u>Available devices:</u>			S <u>e</u> lected devices:	
USB Keyboard MSB	(пем)	1	💻 DSP840 (new)	
	(11644)			
Wedge Keyboard M	5R (new)			
pad1000 (new)				J.
Microsoft XPS Docur	nent Writer (new)			
Wadae Kauboard S	·····			
y wedge keyboard bu	anner (new)			
	>			
<		4	De	
K			L Er	opercies
×				
Journal				
Journal	of receipts			
Journal	of receipts			

Figure 6-2. select DSP840( or your device name)device.

🖳 Mic	rosoft Dynamics POS 2009	-						
	Enter a number, name or description Manager Tasks	٩						
	📦 Items by Description			on Dynamics i	2003 2009			
	Customers by Name	Tuesday, M	ay 25, 2010	n 🔻				
	Discount Item	Ref. No.:	Description	Comment:	Price Tay	able Extended Price		
	Discount Transaction	Ctrl 4	item No.	Description	Gaunay	1100 100		
	No Sale	Ctrl 5						
	Senter/Exit Return Mode	Ctrl 6						
	Cancel Transaction	Ctrl 7						
	Open/Close	Ctrl 8						
	Drop/Payout	Ctrl 9						
0		Ctrl O						
<u>88</u>								
			Custom	er 🔺	Shipping	🔺 Tota	i: 🔺	
			Select cust	omer	Select shipping		\$0.00	
Fn	items F2 Customer F3 Tra	<b>S</b> ansaction	 F5 T	asks F6	O Tools F7	tive term term term term term term term ter	Total F12	
	Register 1 - zora chen		, I		On	n Hold: 0   Tuesday, Ma	ay 25, 2010 2:02 PM	

Figure 6-3. MSPOS09 Screen.



Figure 6-4. Device Screen after run MSPOS09.

Mic	rosoft Dynamic	s POS 2	2009		٩										_	
	Payment							Micros	sof	t Dvna	mics	POS 2009				
(IIIII)	Cash				52¢											
	Check					Tues	day, May 25	2010		Sales Tra	nsactio	n 🔻	7			
	VISA					Ref.	No.:			Comme	nt:	. 1				1.5.1
	MasterCard					Item I	NO.	Jescriptio	n		Quanti	y .	Price Ta	xab_	Extend	ed Price
	_															
0	Total due:				\$0.00											
02	Total paid:				\$520.00											
-002	Balance:			\$	520.00											
	-	6				Cus	stomer		•	Shippii	ng	<b></b>	Total			<b>A</b>
		0	K Cance	el		Sele	ct customer.			Select sh	ipping				\$0.	00
Fn	() Hama	±	33	÷		±		÷ EE		() Taala	±	Patura	±			E1.2
	Register 1 - zor	a chen	Gustomer	ra [1	ransaction	13	Tasks	1.0		10015	0	n Hold: 0 Tu	esday, Ma	ny 25, 3	2010 2:0	4 PM .:

Figure 6-5.Input cash value.



Figure 6-6. Device screen after press "Total F12 " button.



Figure 6-7. Device screen after press OK button.

Post Transaction		? 🛛
Status:		
Transaction	ı completed.	
Change:		
Cash	\$520.0	00
	Close	

Figure 6-8. MSPOS09 show dialog after press OK button.

The Device screen is the same figure 20.



Figure 6-9. Device screen after close MSPOS09.