DSP840 OPOS Driver Operation Manuals

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Operating System Environment



Figure 1-1.

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 2-1.
- C. You must turn off the DSP840 power supply when you changed DIP Switch Setting.

Baud rate setting

- D. The DSP840's Baud Rate should be 19200 and parity, Data bit, Stop bit should be N, 8, 1
 If you want to set DSP840's baud rate and parity, data bit, stop bit value, please run DSP840
 Utility. See figure 2-2.
- E. If you want to set **DSP840 OPOS driver's** baud rate value (after install DSP840_OPOS_V1_1_PSW00107.exe), please follow below.
 - 1. Start \rightarrow Run \rightarrow Input "regedit", press OK button. See figure 2-3.
 - 2. Select OPOSLineDispley DSP840's register area, see figure 2-4.
 - 3. Select baud rate property and double-click, input value data is 19200, press OK button. see figure 2-4.
- F. The DSP840 device and the DSP840 OPOS driver's baud rate $\$ parity, Data bit, stop bit should be the same.

| | BSP840 Utility V2.0R0 | | | |
|---|--|----------------------|----------|------------|
| | Setting Main(GIGA) Adv.(EPSON | I) Send by ASCII | | |
| | Firmware Version : | | | GetVersion |
| The supervised in the local division of the | Change the DSP Baud-Rate : Parity,Data bit,Stop bit : | 19200 N 8 1 | ~ | Set |
| | International Code : | 0- U.S.A | ~ | Set |
| 1 2 3 4 5 6 7 8 9 10 | Save the Current View Message (La | ver): | 1 | Set |
| | Set Cursor Position : | | 1 | Set |
| | Clear Display Range : Form | 1 🗘 To | 1 | Set |
| | Display the Saved Demo Layer : | Laver 1 | ~ | |
| | Mode : | Mode 1 (Horizontal S | croll) 👻 | Set |
| | Show Saved Message after Reboot M | fode : Stay | ~ | Set |
| | Peripheral Device : | Printer ON | ~ | Set |
| | Get/Send Message: | | | Get |
| | | | | Send |
| | | | | |
| | Status: Set BaudRate AND Parity SUCCESS | | | Exit |

Figure 2-1. DIP Switch is auto.

Figure 2-2. DSP840 Utility



Figure 2-3. regedit.



Figure 2-4. baudrate.

Installation software File

- DDSP840_OPOS_V1_1_PSW00107.exe
- A. Double Click DSP840_OPOS_V1_1_PSW00107.exe, see Figure 3-1 ~3-4.





Figure 3-2.

| 🕏 DSP840 OPOSLineDisplay - InstallShield Wizard | 🕼 DSP840 OPOSLineDisplay - InstallShield Wizard |
|--|---|
| Customer Information Please enter your information. | InstallShield Wizard Completed |
| User Name: UserName | The InstallShield Wizard has successfully installed DSP840 OPOSLineDisplay. Click Finish to exit the wizard. |
| Organization: Organization | |
| | |
| | Show the Windows Installer log |
| instaliShield <gack cancel<="" td=""><td>< Back Einish Cancel</td></gack> | < Back Einish Cancel |





Software Manual

A. To run DSP840 OPOSLineDisplay, see figure 4-1.



Figure 4-1.start menu \rightarrow point to All Programs \rightarrow point to OPOSLineDisplay Register or Test.

OPOSLineDisplay Register of Demo Software

- A. Start menu, point to All programs, point to GIGA-TMS, point to OPOSLineDisplayRegister and click. see figure 4-1.
- 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.

| Service Object DSP840 DSP830_MultiNational | Reg -> | |
|--|----------|--|
| DSP830_Chinese | <- Unreg | |
| | | |



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

| Dourioo Nomo: | | Mode Name: | | | | |
|-------------------|------------|--------------|--|--|--|--|
| Device Name. | My_D31 040 | DSP840 | | | | |
| ^o ort: | СОМЗ | Debug: False | | | | |
| Reset | Default | Check Health | | | | |
| <u></u> | | 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:



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.

| 🕆 OPOS POSLineDisplay | Register | |
|--|----------|---------|
| Control Object Service Object DSP840 DSP830_MultiNational DSP830_Chinese | Reg -> | _DSP840 |
| | <- Unreg | |

Figure 4-6.

OPOS LindDisplayTesterSample of Demo Software

- A. Start menu, point to All programs, point to GIGA-TMS, point to OPOSLineDisplayTest and click.
- B. Select a Device Name.

| T 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 5-1.

C. Start Test.

- 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.

| | T 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 | | | | | | | | |
| | OposSuccess | | | | | | | | |
| Result Message 🔸 | DeviceEnabled (False) | | | | | | | | |
| | Release | | | | | | | | |
| | Close | | | | | | | | |
| | Exit | | | | | | | | |

Figure 5-2.

- D. Operation "POSLineDisplayTest"
 - 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.

| 🖻 S | end by | ASCI | J | | | | | | | | | | | | |
|---|--------|------|------|------|-----|----|-----|----|------|----|----|----|----|----|----|
| DirectIO © Command © 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 | B0 | CO | DO | EO | F0 |
| 1 | 11 | 21 | 31 | 41 | 51 | 61 | 71 | 81 | 91 | A1 | B1 | C1 | D1 | E1 | F1 |
| 2 | 12 | 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 | B5 | 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 | B7 | 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 | 1A | 2A | - 3A | - 4A | -5A | 6A | -7A | 8A | - 9A | AA | BA | CA | DA | EA | FA |
| В | 1B | 2B | ЗB | 4B | 5B | 6B | 7B | 8B | 9B | AB | BB | CB | DB | EB | FB |
| С | 10 | 2C | 3C | 4C | 50 | 6C | 70 | 8C | 90 | AC | BC | CC | DC | EC | FC |
| D | 1D | 2D | 3D | 4D | 5D | 6D | 7D | 8D | 9D | AD | BD | CD | DD | ED | FD |
| E | 1E | 2E | ЗE | 4E | 5E | 6E | 7E | 8E | 9E | AE | BE | CE | DE | EE | FE |
| F | 1F | 2F | ЗF | 4F | 5F | 6F | 7F | 8F | 9F | AF | BF | CF | DF | EF | FF |

Figure 5-3.

- 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.

- 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.

| legister <u>n</u> umber: | | | | 1 |
|---|---|-------------------------|---|----------|
| legister <u>d</u> escription: | 1 | | | |
| udio settings: | Full sou | unds | | ~ |
| Devices on this register The list of selected devi buttons to move devices: Available devices: USB Keyboard MSF Wedge Keyboard I Microsoft XPS Doct Wedge Keyboard : Wedge Keyboard : | ces shows the devi from one list to the R (new) MSR (new) ument Writer (new) Scanner (new) | ces currently other. | in use on this register. Use the Selected devices: | arrow |
| <u><</u> | > | | Er | operties |
| | | | | |
| Journal | | | | |
| Journal | s of receipts | | | |
| Journal Save electronic copie: Journaled receipt for | s of receipts mat: | 40 Column Re | ceipt Format | ~ |

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

| 🖳 Mic | osoft Dynamics POS 2009 | | | | | | | | |
|---------|---|-----------------------|------------------------|-------------------------------|--|--|--|--|--|
| | Enter a number, name or description P Manager Tasks | | | | | | | | |
| | 📦 Items by Description 1 | | DI Dynamics POS 2009 | | | | | | |
| | Customers by Name 2 | Tuesday, May 25, 2010 | Sales Transaction | 5 | | | | | |
| | Discount Item 3 | Ref. No.: | Comment: | Price Taxable Extended Price | | | | | |
| | Discount Transaction | | a samiy i | | | | | | |
| | No Sale 5 | | | | | | | | |
| | U Enter/Exit Return Mode | | | | | | | | |
| | Cancel Transaction 7 | | | | | | | | |
| | Gpen/Close 8 | | | | | | | | |
| | Drop/Payout g | | | | | | | | |
| 0 | сы О | | | | | | | | |
| <u></u> | | | | | | | | | |
| | | Customer 🔺 | Shipping 🔺 | Total: | | | | | |
| | | Select customer | Select shipping | \$0.00 | | | | | |
| Fn | → Galantian Items F2 Customer F3 Transaction | F5 Tasks F6 | Ö ≫ Tools F7 Return | F8 Total F12 | | | | | |
| | Register 1 - zora chen | | On Hold: 0 Tue | esday, May 25, 2010 2:02 PM 💥 | | | | | |

Figure 6-3. MSPOS09 Screen.



Figure 6-4. Device Screen after run MSPOS09.

| 🖳 Mic | rosoft Dynamic | :s POS 20 | 09 | | 8 | | | | | | | | | | |
|-------|------------------|-----------|----------|---------|-----|----------|-------------|-----------|-----|-----------|----------|--------------|-----------|------------------|-------------|
| | Payment | | | | | | | licros | oft | t Dvnai | mics | POS 2009 | | | |
| | Cash | | | 52 | 2¢ | | | | | | | | | | |
| | Check | | | | | Tuesday | , May 25, 2 | 010 | 5 | Sales Tra | nsaction | n 🔻 | 7 | | |
| | VISA | | | | | Ref. No |).: | | | Comme | nt: | . [] | . | | |
| | MasterCard | | | | It | em No. | De | scription | | | Quanti | y . | Price Tax | ab_ Ext | ended Price |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | - |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 0 | Total due: | | | \$0.0 | 0 | | | | | | | | | | |
| 02 | Total paid: | | | \$520.0 | 0 | | | | | | | | | | |
| -242 | Balance: | | | \$520.0 | 0 | | | | | | | | | 2 | |
| | | - | | | | Custo | mer | - | | Shippir | ng | | Total | | |
| | OK Cancel | | | | | Select c | ustomer | | | Select sh | ipping | | | \$ | 0.00 |
| Fn | 0 | ± | 3 | ÷ | | 4 | | ± | | Q | ± | 10 | ÷ | | L 510 |
| | Register 1 - zor | a chen | Gustomer | Iransac | uon | 9 | Tasks | 1-0 | | 10015 | 0 | n Hold: 0 Tu | esday, Ma | rota 25, 2010 | 2:04 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 | n completed. | |
| Change: | | |
| Cash | \$520.0 | 0 |
| | | |
| | 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.

Open POS APG Device Name:

| Туре | Category (*1) | Туре | Name | Mutability | OPOS APG Ver. | DSP840 SO | Not Applicable Reason [*] |
|------------|---------------|--------|---------------------------|------------|---------------|----------------|------------------------------------|
| Properties | common | bool | AutoDisable | R/W | 1.2 | Not Applicable | |
| | common | long | BinaryConversion | R/W | 1.2 | Supported | |
| | common | bool | CapCompareFirmwareVersion | Read Only | 1.9 | Not Applicable | |
| | common | long | CapPowerReporting | Read Only | 1.3 | Not Applicable | 1 |
| | common | bool | CapStatisticsReporting | Read Only | 1.8 | Not Applicable | 1 |
| | common | bool | CapUpdateFirmware | Read Only | 1.9 | Not Applicable | |
| | common | bool | CapUpdateStatistics | Read Only | 1.8 | Not Applicable | 1 |
| | common | string | CheckHealthText | Read Only | 1.0 | Supported | |
| | common | bool | Claimed | Read Only | 1.0 | Supported | |
| | common | long | DataCount | Read Only | 1.2 | Not Applicable | |
| | common | bool | DataEventEnabled | R/W | 1.0 | Not Applicable | |
| | common | bool | DeviceEnabled | R/W | 1.0 | Not Applicable | |
| | common | bool | FreezeEvents | R/W | 1.0 | Not Applicable | |
| | common | long | OpenResult | Read Only | 1.5 | Not Applicable | |
| | common | long | OutputID | Read Only | 1.0 | Not Applicable | |
| | common | long | PowerNotify | R/W | 1.3 | Not Applicable | 1 |
| | common | long | PowerState | Read Only | 1.3 | Not Applicable | 1 |
| | common | long | ResultCode | Read Only | 1.0 | Supported | |
| | common | long | ResultCodeExtended | Read Only | 1.0 | Not Applicable | |
| | common | long | State | Read Only | 1.0 | Supported | |
| | common | string | ControlObjectDescription | Read Only | 1.0 | Supported | |
| | common | long | ControlObjectVersion | Read Only | 1.0 | Supported | |
| | common | string | ServiceObjectDescription | Read Only | 1.0 | Supported | |
| | common | long | ServiceObjectVersion | Read Only | 1.0 | Supported | |
| | common | string | DeviceDescription | Read Only | 1.0 | Supported | |
| | common | string | DeviceName | Read Only | 1.0 | Supported | |
| | Specific | int32 | CapBlink | Read Only | 1 | Supported | |
| | Specific | bool | CapBitmap | Read Only | 1.7 | Not Applicable | 1 + 2 |
| | Specific | bool | CapBlinkRate | Read Only | 1.6 | Supported | 1 |
| | Specific | bool | CapBrightness | Read Only | 1 | Supported | 1 |
| | Specific | lona | CapCharacterSet | Read Only | 1 | Supported | |
| | Specific | lona | | Read Only | 1.6 | Not Applicable | 1 |
| | Specific | bool | CapCustomGlyph | Read Only | 1.6 | Not Applicable | 1 |
| | Specific | bool | CapDescriptors | Read Only | 1 | Not Applicable | 1 + 2 |
| | Specific | bool | CapHMarquee | Read Only | 1 | Not Applicable | 1 |

| Specific | bool | CapICharWait | Read Only | 1 | Not Applicable | 1 |
|--------------|--------|--------------------|-----------|-----|----------------|-------|
| Specific | bool | CapMapCharacterSet | Read Only | 1.7 | Not Applicable | 1 |
| Specific | long | CapReadBack | Read Only | 1.6 | Not Applicable | 1 |
| Specific | long | CapReverse | Read Only | 1.6 | Supported | 1 |
| Specific | bool | CapScreenMode | Read Only | 1.7 | Not Applicable | 1 |
| Specific | bool | CapVMarquee | Read Only | 1 | Not Applicable | 1 |
| Specific | long | BlinkRate | R/W | 1.6 | Supported | 1 |
| Specific | long | CharacterSet | R/W | 1 | Supported | |
| Specific | string | CharacterSetList | Read Only | 1 | Supported | |
| Specific | long | Columns | Read Only | 1 | Supported | |
| Specific | long | CurrentWindow | R/W | 1 | Not Applicable | 1 |
| Specific | long | CursorColumn | R/W | 1 | Supported | |
| Specific | long | CursorRow | R/W | 1 | Supported | |
| Specific | long | CursorType | R/W | 1.6 | Not Applicable | 1 |
| Specific | bool | CursorUpdate | R/W | 1 | Not Applicable | 1 |
| Specific | string | CustomGlyphList | Read Only | 1.6 | Not Applicable | |
| Specific | long | DeviceBrightness | R/W | 1 | Not Applicable | 1 |
| Specific | long | DeviceColumns | Read Only | 1 | Supported | |
| Specific | long | DeviceDescriptors | Read Only | 1 | Not Applicable | 1 + 2 |
| Specific | long | DeviceRows | Read Only | 1 | Supported | |
| Specific | long | DeviceWindows | Read Only | 1 | Not Applicable | 1 |
| Specific | long | GlyphHeight | Read Only | 1.6 | Supported | |
| Specific | long | GlyphWidth | Read Only | 1.6 | Supported | |
| Specific | long | InterCharacterWait | R/W | 1 | Not Applicable | 1 |
| Specific | bool | MapCharacterSet | R/W | 1.7 | Not Applicable | 1 |
| Specific | long | MarqueeFormat | R/W | 1 | Not Applicable | 1 |
| Specific | long | MarqueeRepeatWait | R/W | 1 | Not Applicable | 1 |
| Specific | long | MarqueeType | R/W | 1 | Not Applicable | 1 |
| Specific | long | MarqueeUnitWait | R/W | 1 | Not Applicable | 1 |
| Specific | long | MaximumX | Read Only | 1.7 | Not Applicable | 1 |
| Specific | long | MaximumY | Read Only | 1.7 | Not Applicable | 1 |
| Specific | long | Rows | Read Only | 1 | Supported | |
| Specific | long | ScreenMode | R/W | 1.7 | Not Applicable | 1 + 2 |
| Specific | string | ScreenModeList | Read Only | 1.7 | Not Applicable | 1 + 2 |
| common | | Open | | 1.0 | Supported | |
| common | | Close | | 1.0 | Supported | |
| common | | Claim | | 1.0 | Supported | |
| common | | ClaimDevice | | 1.5 | Supported | |
| common | | Release | | 1.0 | Supported | |

Methods

| comm | on | ReleaseDevice | 1.5 | Supported | |
|-------|----|------------------------|------|----------------|-------|
| comm | on | CheckHealth | 1.0 | Supported | |
| comm | on | ClearInput | 1.0 | Not Applicable | |
| comm | on | ClearInputProperties | 1.10 | Not Applicable | |
| comm | on | ClearOutput | 1.0 | Not Applicable | |
| comm | on | DirectIO | 1.0 | Not Applicable | 1 |
| comm | on | CompareFirmwareVersion | 1.9 | Not Applicable | |
| comm | on | ResetStatistics | 1.8 | Not Applicable | 1 |
| comm | on | RetrieveStatistics | 1.8 | Not Applicable | 1 |
| comm | on | UpdateFirmware | 1.9 | Not Applicable | 1 |
| comm | on | UpdateStatistics | 1.8 | Not Applicable | |
| Speci | ic | ClearText | 1 | Supported | |
| Speci | ic | DisplayText | 1 | Supported | |
| Speci | ic | DisplayTextAt | 1 | Supported | |
| Speci | ic | ScrollText | 1 | Not Applicable | |
| Speci | ic | ClearDescriptors | 1 | Not Applicable | 1 + 2 |
| Speci | ic | SetDescriptor | 1 | Not Applicable | 1 + 2 |
| Speci | ic | CreateWindow | 1 | Not Applicable | 1 |
| Speci | ic | DestroyWindow | 1 | Not Applicable | 1 |
| Speci | ic | RefreshWindow | 1 | Not Applicable | 1 |
| Speci | ic | DefineGlyph | 1.6 | Not Applicable | |
| Speci | ic | ReadCharacterAtCursor | 1.6 | Supported | |
| Speci | ic | DisplayBitmap | 1.7 | Not Applicable | 1 + 2 |
| Speci | ic | SetBitmap | 1.7 | Not Applicable | 1 + 2 |
| comm | on | DataEvent | 1.0 | Not Applicable | |
| comm | on | DirectIOEvent | 1.0 | Not Applicable | 2 |
| comm | on | ErrorEvent | 1.0 | Not Applicable | |
| comm | on | OutputCompleteEvent | 1.0 | Not Applicable | |
| comm | on | StatusUpdateEvent | 1.0 | Not Applicable | |

*Not Applicable Reason

Events

1- Hardware not support

2- DM-D110 not support