



Sun™ Expert3D and Expert3D-Lite Graphics Card Product Notes

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Sun Expert3D and Expert3D-Lite Graphics Card Product Notes

This product note includes information applicable to Sun™ Expert3D and Sun Expert3D-Lite graphics accelerators.

Sun Expert3D and Expert3D-Lite Graphics Card

Sun Blade 1000 Systems

When running two Sun Expert3D or Expert3D-Lite graphics accelerators in a Sun Blade™ 1000 system, a software patch is required. This patch prevents both displays from hanging on a Sun Blade 1000. The software patch number is 108576-08 and is installed when you install the Sun Expert3D or Expert3D-Lite software provided with the graphics card installation kit.

Monitor Resolutions

The following monitor screen resolution modes require an HD15-HD15 monitor adaptor cable (Sun part number: F530-2494-01):

TABLE 1 Screen Resolutions Requiring HD15-HD15 Adaptor Cable

Display resolution	Vertical refresh rate	Sync standard	Graphics card
1600 x 1200	75 Hz	VESA	Expert3D-Lite
1280 x 1024	60, 75, 85 Hz	VESA	Expert3D-Lite
1152 x 900	120 Hz	Sun-stereo	Expert3D-Lite
1024 x 768	75 Hz	VESA	Expert3D-Lite

Sun Expert3D Installation Guide

The following provides corrections to the *Sun Expert3D Graphics Card Installation Guide*, 806-1859-11.

- On page 29, the multiview J1 and J2 connector callouts are reversed. It should be illustrated as follows:

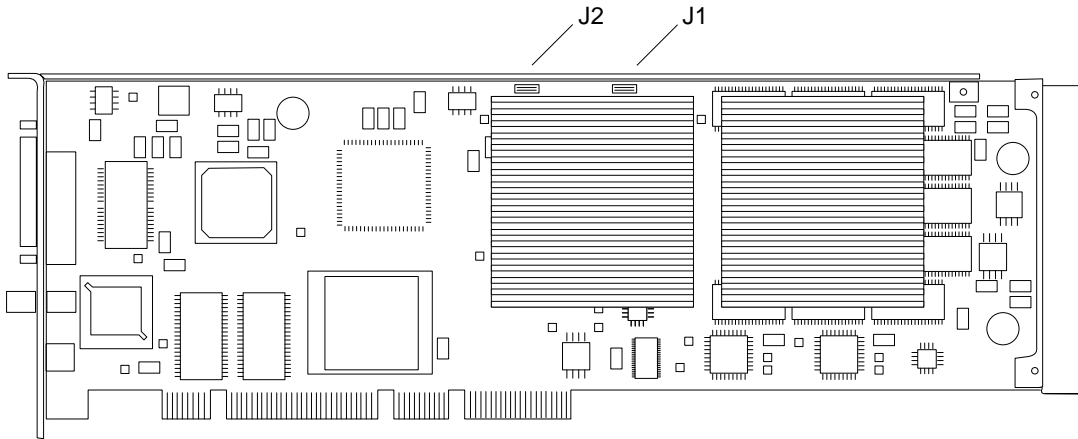


FIGURE 1 Expert3D Multiview-In and Multiview-Out Connectors

- On page 34, Table A-2 is incorrect. It should contain the Expert3D stereo output port pin signals listed in the following table:

TABLE 2 Sun Expert3D Stereo Output Port

Pin	Signal
1	Ground
2	5.0V (Fused, will supply up to 300mA, limited to 1.0A.)
3	12.0V (Fused, will supply up to 300mA, limited to 1.0A.)
4	Stereo sync
5	No connection
6	No connection
7	No connection

Sun Expert3D-Lite Installation Guide

The following provides corrections to the *Sun Expert3D-Lite Graphics Card Installation Guide*, 806-5932-10.

Note – The Sun Expert3D-Lite software packages and configuration utilities are the same as the Sun Expert3D graphics card. References to Sun Expert3D software packages also apply to the Sun Expert3D-Lite graphics card.

Table of Contents

- On page vii, “Sun Expert3D Patches” should read “Sun Expert3D-Lite Patches.”
- On page xi, “Location of Sun Expert3D Software Packages” should read “Location of Sun Expert3D-Lite Software Packages.” And “Sun Expert3D Patches” should read “Sun Expert3D-Lite Patches.”

Preface

- On page xiii, Appendix A lists that it provides Sun Expert3D-Lite features, specifications, and multiview configuration. The Expert3D-Lite graphics card, however, does *not* support multiview configurations.

Chapter 3, “Installing the Sun Expert3D-Lite Software”

- Though Sun Expert3D and Sun Expert3D-Lite use the same software, some table headings read “Sun Expert3D” when this also applies to Expert3D-Lite. These headings should read “Sun Expert3D and Sun Expert3D-Lite.”
- Table 3-3, page 13, lists the patches for Sun Expert3D-Lite software packages. The following table, however, lists the current revision levels of these packages.

TABLE 3 Sun Expert3D-Lite Patches

Solaris Release	Patch
Solaris 2.6 software	108788-08 or later
Solaris 7 software	108787-07 or later
Solaris 8 software	108576-13 or later

Note – Always check www.sun.com/sunsolve/ for the latest software patches.

- On page 13, in the section “Sun OpenGL for Solaris Software,” Sun Expert3D should read Sun Expert3D-Lite.
- On page 15, Tables 3-5, 3-6 and 3-8, the required patch revision levels have been updated.

TABLE 4 Sun OpenGL Version 1.2.1 for Solaris Patches

Solaris release	Patch	Directory Location
Solaris 2.6	109543-11 or later	/cdrom/cdrom0/OpenGL/1.2.1/Solaris_2.6/Patches
Solaris 7	109543-11 or later	/cdrom/cdrom0/OpenGL/1.2.1/Solaris_7/Patches
Solaris 7 (64-bit)	109544-11 or later	/cdrom/cdrom0/OpenGL/1.2.1/Solaris_7/Patches
Solaris 8	109543-11 or later	/cdrom/cdrom0/OpenGL/1.2.1/Solaris_8/Patches
Solaris 8 (64-bit)	109544-11 or later	/cdrom/cdrom0/OpenGL/1.2.1/Solaris_8/Patches

TABLE 5 Sun OpenGL Version 1.2 for Solaris Patches

Solaris Release	Patch	Directory Location
Solaris 2.6	108131-15 or later	/cdrom/cdrom0/OpenGL/1.2/Solaris_2.6/Patches
Solaris 7	108131-15 or later	/cdrom/cdrom0/OpenGL/1.2/Solaris_7/Patches
Solaris 7 (64-bit)	108132-15 or later	/cdrom/cdrom0/OpenGL/1.2/Solaris_7/Patches
Solaris 8	108131-15 or later	/cdrom/cdrom0/OpenGL/1.2/Solaris_8/Patches
Solaris 8 (64-bit)	108132-15 or later	/cdrom/cdrom0/OpenGL/1.2/Solaris_8/Patches

TABLE 6 Sun OpenGL Version 1.1.2 for Solaris Patches

Solaris Release	Patch	Directory Location
Solaris 2.6	106735-18 or later	/cdrom/cdrom0/OpenGL/1.1.2/Solaris_2.6/Patches
Solaris 7 (32-bit)	107104-13 or later	/cdrom/cdrom0/OpenGL/1.1.2/Solaris_7/Patches
Solaris 7 (64-bit)	107105-13 or later	/cdrom/cdrom0/OpenGL/1.1.2/Solaris_7/Patches
Solaris 8 (32-bit)	107104-13 or later	/cdrom/cdrom0/OpenGL/1.1.2/Solaris_8/Patches
Solaris 8 (64-bit)	107105-13 or later	/cdrom/cdrom0/OpenGL/1.1.2/Solaris_8/Patches

- On page 22, the `show-displays` output display should indicate Expert3D-Lite, not Expert3D:

```
a) /pci@1f,0/SUNW,m64B@13
b) /pci@1f,0/pci@5/SUNW,Expert3D-Lite@1
q) NO SELECTION
Enter Selection, q to quit: b
/pci@1f,0/pci@5/SUNW,Expert3D-Lite@1 has been selected.
Type ^Y ( Control-Y ) to insert it in the command line.
e.g. ok nvalias mydev ^Y
      for creating devalias mydev for
/pci@1f,0/pci@5/SUNW,Expert3D-Lite@1
ok nvalias myscreen /pci@1f,0/pci@5/SUNW,Expert3D-Lite@1
ok setenv output-device myscreen
output-device =          myscreen
```

- On page 22, Step 3, the setting up the device to be console procedure, does *not* apply to the Sun Blade 100 system.

```
ok setenv output-device <Control-Y> <ENTER>
```

- On page 22, Step 6, creating an alias for the Sun Expert3D-Lite device procedure, is *required* for the Sun Blade 100 system. The procedure is shown here listing the appropriate example screen displays.

Step 6:

6. Select the Sun Expert3D-Lite device from the `show-displays` menu.

You can simplify future OpenBoot™ PROM commands by creating an alias for the Sun Expert3D-Lite device. To do this,

- a. Name the Sun Expert3D-Lite device (this example names the device as `myscreen`).

```
ok nvalias myscreen <Control-Y> <ENTER>
```

- b. Store the name as the alias.

```
ok nvstore
```


c. Verify the alias.

```
ok devaliases
```

The selected alias is then displayed.

You can now refer to `myscreen` for the Sun Expert3D-Lite device. For example,

```
ok setenv output-device myscreen
```

Appendix A, “Sun Expert3D-Lite Graphics Card Features and Specifications”

- On page 28, Table A-1 lists the video output port for a 13W3 monitor connector. Sun Expert3D-Lite graphics card video connector, however, is a HD15 video connector. The following table lists the signal names for the HD15 15-pin connector.

TABLE 7 Sun Expert3D-Lite Video Output Port

Pin	Signal
1	Red analog video
2	Green analog video
3	Blue analog video
4	No connect
5	Ground
6	Ground
7	Ground
8	Ground
9	+5V Supply
10	Ground
11	No connect
12	DDC Bi-directional Data (SDA)
13	Horizontal/Composite Sync
14	Vertical Sync
15	DDC Data Clock (SCL)

Note – The video connector supports DDC2 monitor support and Display Power Management Signaling (DPMS).

- On page 29, Table A-2 is incorrect. It should contain the Expert3D-Lite stereo output port pin signals listed in the following table:

TABLE 8 Sun Expert3D-Lite Stereo Output Port

Pin	Signal
1	Ground
2	5.0V (Fused, will supply up to 300mA, limited to 1.0A.)
3	12.0V (Fused, will supply up to 300mA, limited to 1.0A.)
4	Stereo sync
5	No connection
6	No connection
7	No connection

- On page 30, the first paragraph on this page references the Sun Expert3D external video synchronization port feature. External video synchronization, however, is *not* supported on the Sun Expert3D-Lite graphics card.
- Table A-3 is intended to be the monitor screen resolutions and video formats supported by the Sun Expert3D-Lite graphics card. The table, however, lists screen resolutions for the Sun Expert3D graphics card, not the Sun Expert3D-Lite graphics card.

The following table lists the monitor screen resolutions for the Sun Expert3D-Lite graphics cards:

TABLE 9 Sun Expert3D-Lite Monitor Screen Resolutions

Display resolution	Vertical refresh rate	Sync standard	Aspect ratio format
1920 x 1080	72 Hz	Sun	16:9
1600 x 1280	76 Hz	Sun	5:4
1600 x 1200	75 Hz	VESA	4:3
1600 x 1000	66, 76 Hz	Sun	16:10
1440 x 900	76 Hz	Sun	16:10
1280 x 800	112Hz	Sun-stereo	16:10
1280 x 800	76 Hz	Sun	16:10

TABLE 9 Sun Expert3D-Lite Monitor Screen Resolutions *(Continued)*

Display resolution	Vertical refresh rate	Sync standard	Aspect ratio format
1280 x 1024	60, 75, 85 Hz	VESA	5:4
1280 x 1024	67, 76 Hz	Sun	5:4
1152 x 900	112, 120 Hz	Sun-stereo	5:4
1152 x 900	66, 76 Hz	Sun	5:4
1024 x 800	84 Hz	Sun	5:4
1024 x 768	75 Hz	VESA	4:3
1024 x 768	60, 70, 77 Hz	Sun	4:3
960 x 680	108, 112 Hz	Sun-stereo	Sun-Stereo
768 x 575	50i Hz	PAL	PAL
640 x 480	60 Hz	VESA	4:3
640 x 480	60i Hz	NTSC	NTSC

