

Video Cable and Interface Signals

A 

This appendix describes the ZX Graphics Accelerator rear panel connector signals. Figure A-1 shows the ZX Graphics Accelerator rear panel, containing the video and stereo connectors.

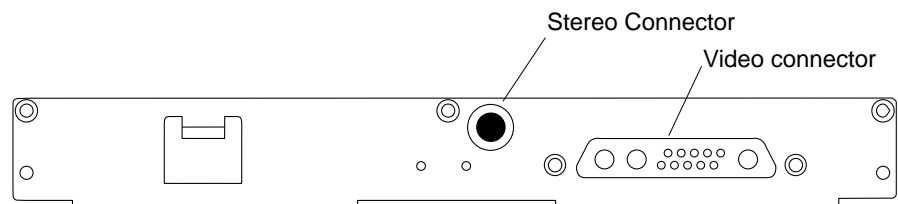


Figure A-1 ZX Graphics Accelerator Rear Panel

Video Connector Signals

The Sun Class B monitor connector (13W3) is a D-type subminiature socket housing with coax cavities. See Table A-1 for details.

Table A-1 Monitor Connector Specifications

Parameter	Description
Shell size	B
Arrangement	13W3
Number of contacts	10
Contact size	#20
Coax or HV cavities	3

Figure A-2 shows the Sun Class B monitor connector. The monitor side pinout is described in Table A-2.

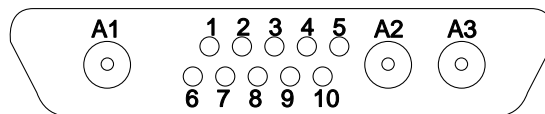


Figure A-2 Sun Class B Monitor Connector (13W3)

Table A-2 Monitor Side Pinout

Pin	Function	Sun Usage
A1	Red	Coaxial receptacle 75 Ohm (red video)
A2	Green	Coaxial receptacle 75 Ohm (green and grayscale video)
A3	Blue	Coaxial receptacle 75 Ohm (blue video)
1	Reserved	N/C ²
2	Reserved	N/C
3	S2	See Table A-3
4	Sreturn ¹	Pin referenced to frame buffer ground only
5	CSYNC	Combined horizontal and vertical Sync
6	Reserved	N/C
7	Reserved	N/C
8	S1	See Table A-3
9	S0	See Table A-3
10	Cgnd	Return for pin 5

1. Sreturn = Logic ground, pin 4

2. N/C = Not connected.

Table A-3 shows the Sense Pin Allocation.

Table A-3 Sense Pin Allocation

Sense Code	Scan Rate	Pin 3 (S2)	Pin 8 (S1)	Pin 9 (S0)
7	1152 × 900 at 66 Hz	N/C ¹	N/C	N/C
6	1152 × 900 at 76 Hz	N/C	N/C	Sreturn
5	1152 × 900 at 66 Hz	N/C	Sreturn	N/C
4	1280 × 1024 at 67 Hz	N/C	Sreturn	Sreturn
3	1152 × 900 at 66 Hz	Sreturn ²	N/C	N/C
2	1280 × 1024 at 76 Hz	Sreturn	N/C	Sreturn
1	1152 × 900 at 66 Hz	Sreturn	Sreturn	N/C
0	1024 × 768 at 76 Hz	Sreturn	Sreturn	Sreturn

1. N/C = Not connected
2. Sreturn = Logic ground, pin 4

Stereo Connector Signals

The stereo connector allows connection of stereo goggles to the ZX Graphics Accelerator. The stereo connector is a female, three-conductor, mini-phone connector. The male stereo connector that mates with the ZX Graphics Accelerator stereo connector must be wired as shown in Figure A-3.

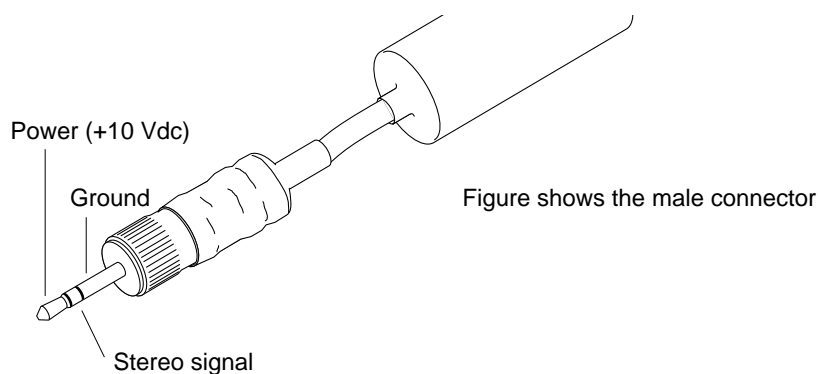


Figure A-3 Stereo Connector Signals

The stereo signal is a TTL-level, 50 percent duty cycle signal that switches between left and right stereo shutters, as shown in Figure A-4. The figure shows the default polarity of the signal. The polarity may be reversed by software control.

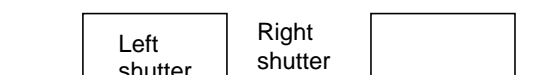


Figure A-4 Stereo Signal

A stereo cable and goggles for use with the ZX Graphics Accelerator are available from the following source:

StereoGraphics Corporation
2171-H East Francisco Blvd.
San Rafael, CA 94901
(415) 459-4500
FAX: 415-459-3020

Stereo Cable on the Ultra 1 System

To be FCC Class B compliant, the use of the StereoGraphics cable with the ZX on an Ultra 1 system requires the addition of a ferrite core to the stereo cable. The ferrite core is provided with the ZX Ultra 1 kit.

The ferrite core is designed to clamp around the cable, as shown in Figure A-5.

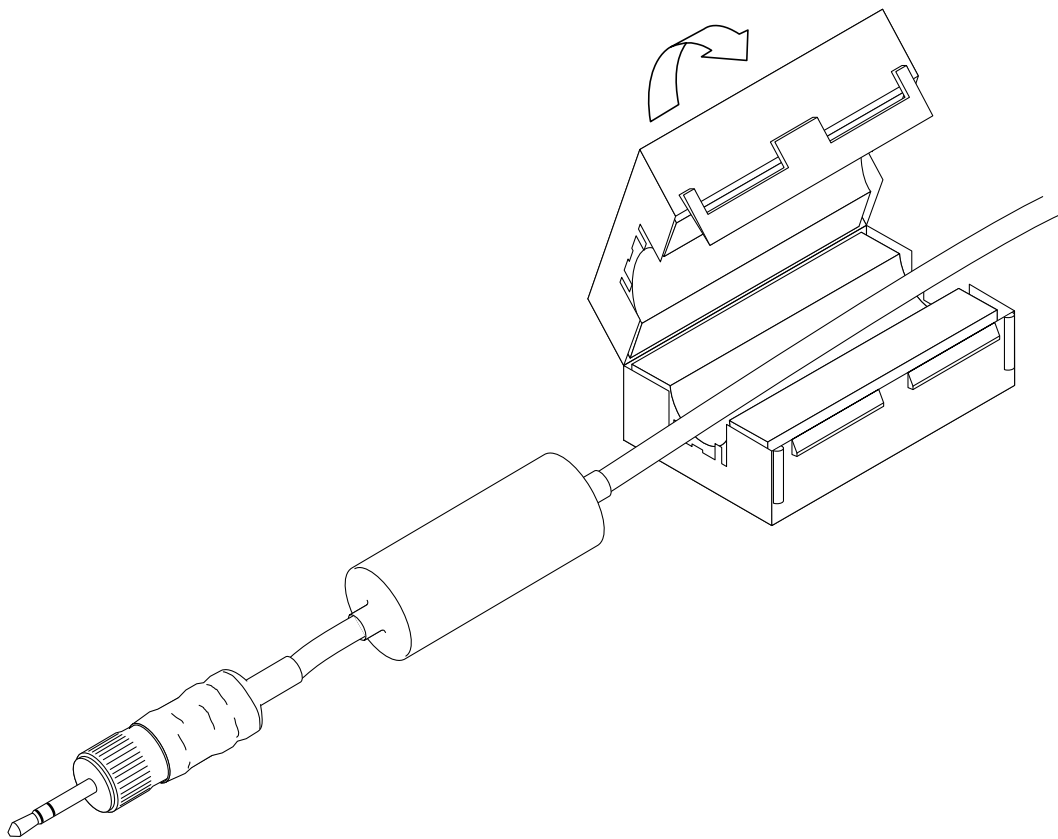


Figure A-5 Ferrite Core on Stereo Cable (Ultra 1 Systems Only)