

VIDEO #1

DB-25 CONNECTOR

VIDEO BOARD 1 AT: VME SLOT 12 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(1)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(2)	(A)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1	(1)		+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2	(2)		+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(1)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(2)	(A)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(1)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	GUARD RING (Vgrd)	(2)	(BOTH)	+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(1)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(2)	(A)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(1)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	SUBSTRATE (Vsub)	(2)	(BOTH)	-10V -> +10V	-	24,25	GND

VIDEO #2

DB-25 CONNECTOR

VIDEO BOARD 2 AT: VME SLOT 11 DAC ADDR=1 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(3)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(4)	(A)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(3)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(4)	(A)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(3)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	GUARD RING (Vgrd)	(4)	(BOTH)	+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(3)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(4)	(A)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(3)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	SUBSTRATE (Vsub)	(4)	(BOTH)	-10V -> +10V	-	24,25	GND

VIDEO #3

DB-25 CONNECTOR

VIDEO BOARD 3 AT: VME SLOT 10 DAC ADDR=2 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(5)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(6)	(A)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(5)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(6)	(A)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(5)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	GUARD RING (Vgrd)	(6)	(BOTH)	+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(5)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(6)	(A)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(5)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	SUBSTRATE (Vsub)	(6)	(BOTH)	-10V -> +10V	-	24,25	GND

VIDEO #4

DB-25 CONNECTOR

VIDEO BOARD 4 AT: VME SLOT 9 DAC ADDR=3 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(7)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(8)	(A)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(7)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(8)	(A)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(7)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	GUARD RING (Vgrd)	(8)	(BOTH)	+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(7)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(8)	(A)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(7)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	SUBSTRATE (Vsub)	(8)	(BOTH)	-10V -> +10V	-	24,25	GND

4 VIDEO BOARDS - SINGLE READOUT PER CCD

UNIVERSITY OF CALIFORNIA
LICK OBSERVATORY

PIN ASSIGNMENTS
VIDEO BOARD OUTPUT CONNECTORS
SDSU2 CCD CONTROLLER
DEIMOS SPECTROGRAPH

REVISION

08-04-97 Updated signal names for consistency with board schematics & different CCD readout architectures
11-08-99 Updated VME slot numbers and dac addresses for reflect actual controller

DES'N BY: B. Alcott

ORIGIN DATE: 04-27-97

DWG. NO. NUM. 1 OF 3

DRAWN BY:

MODIFY DATE: 11-08-99

PATH: DEIMOS\SDSUCCD2\VIDEOCON

REV. A

EL-3163-1D

VIDEO #1
DB-25 CONNECTOR

VIDEO BOARD 1 AT: VME SLOT 4 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(1)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(1)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(1)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(1)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(1)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(1)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(1)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(1)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

VIDEO #2

DB-25 CONNECTOR

VIDEO BOARD 2 AT: VME SLOT 5 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(2)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(2)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(2)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(2)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(2)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(2)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(2)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(2)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

VIDEO #3

DB-25 CONNECTOR

VIDEO BOARD 3 AT: VME SLOT 6 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(3)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(3)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(3)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(3)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(3)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(3)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(3)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(3)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

VIDEO #4

DB-25 CONNECTOR

VIDEO BOARD 4 AT: VME SLOT 7 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(4)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(4)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(4)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(4)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(4)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(4)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(4)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(4)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

8 VIDEO BOARDS - DUAL READOUT PER CCD

UNIVERSITY OF CALIFORNIA
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PIN ASSIGNMENTS
VIDEO BOARD OUTPUT CONNECTORS
SDSU2 CCD CONTROLLER
DEIMOS SPECTROGRAPH

REVISION

DES'N BY: B. Alcott

ORIGIN DATE: 04-27-97

DWG. NO.

NUM. 2 OF 3

DRAWN BY:

MODIFY DATE: 11-08-99

PATH: DEIMOS\SDSUCCD2\VIDEOCON

REV. A

EL-3163-1D

VIDEO #5
DB-25 CONNECTOR

VIDEO BOARD 5 AT: VME SLOT 9 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(5)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(5)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(5)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(5)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(5)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(5)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(5)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(5)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

VIDEO #6

DB-25 CONNECTOR

VIDEO BOARD 6 AT: VME SLOT 10 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(6)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(6)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(6)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(6)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(6)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(6)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(6)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(6)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

VIDEO #7
DB-25 CONNECTOR

VIDEO BOARD 7 AT: VME SLOT 11 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(7)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(7)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(7)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(7)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(7)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(7)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(7)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(7)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

VIDEO #8
DB-25 CONNECTOR

VIDEO BOARD 8 AT: VME SLOT 12 DAC ADDR=0 SWITCH ADDR=0

PIN	NAME	FUNCTION	CCD No.	AMP	RANGE	CODE	PIN	NAME
1	BIAS0	OUTPUT DRAIN (Vdd)	(8)	(A)	+7.5 -> +30V	-	13	GND
2	BIAS1	OUTPUT DRAIN (Vdd)	(8)	(B)	+7.5 -> +30V	-	14	+15V
3	BIAS2	BIAS SPARE 1			+6.0V -> +20V	-	15	-15V
4	BIAS3	BIAS SPARE 2			+6.0V -> +20V	-	16	GND
5	BIAS4	RESET DRAIN (Vrd)	(8)	(A)	+6.0V -> +20V	-	17	GND
6	BIAS5	RESET DRAIN (Vrd)	(8)	(B)	+6.0V -> +20V	-	18	GND
7	BIAS6	GUARD RING (Vgrd)	(8)	(BOTH)	+6.0V -> +20V	-	19	GND
8	BIAS7	BIAS SPARE 3			+6.0V -> +20V	-	20	GND
9	BIAS8	OUTPUT GATE (Vopg)	(8)	(A)	-5V -> +5V	-	21	GND
10	BIAS9	OUTPUT GATE (Vopg)	(8)	(B)	-5V -> +5V	-	22	GND
11	BIAS10	SUBSTRATE (Vsub)	(8)	(BOTH)	-10V -> +10V	-	23	GND
12	BIAS11	BIP. BIAS SPARE			-10V -> +10V	-	24,25	GND

8 VIDEO BOARDS - DUAL READOUT PER CCD

UNIVERSITY OF CALIFORNIA
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PIN ASSIGNMENTS
VIDEO BOARD OUTPUT CONNECTORS
SDSU2 CCD CONTROLLER
DEIMOS SPECTROGRAPH

REVISION

DES'N BY: B. Alcott

ORIGIN DATE: 04-27-97

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NUM. 3 OF 3

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PATH: DEIMOS\SDSUCCD2\VIDEOCON

REV. A

EL-3163-1D