SingleMode Long Haul Cable

4

EY

Fibre Optics Patch Panel

singlemode (FC-ST)

4 IR Camera 4 75Ohm Coax 1 Mux-SM

ASC Field Cabling

MY

Fibre Optics Patch Panel

singlemode (FC-ST)

4 IR Camera 4 75Ohm Coax 1 Mux-SM

ASC Field Cabling

MX

Fibre Optics Patch Panel

singlemode (FC-ST)

4 IR Camera 4 75Ohm Coax 1 Mux-SM

ASC Field Cabling

EX

Fibre Optics Patch Panel

singlemode (FC-ST)

4 IR Camera 4 75Ohm Coax 1 Mux-SM

ASC Field Cabling

2

MultiMode Long Haul Cable

Fibre Optics Patch Panel

4 singlemode (FC-ST) Single Mode DeMux DeMux

8 multimode (ST-ST) MultiMode DeMux DeMux

48 75Ohm Coax

time code inserter 1

2 75Ohm Coax 2 Quad

8 75Ohm Coax

Control Room

12 75Ohm Coax 12 Monitor

1 75Ohm Coax 1 VCR

2 75Ohm Coax 2 Projector

Video Switch

RS232 Control Cable

Mvme 162-333 CPU

Mass Storage Room

LVEA 2k

Fibre Optics Patch Panel

4 multimode (ST-ST)

16 IR Camera 16 16 port BNC patch panel 16 4 Mux-MM

ASC Field Cabling

LVEA 4k

Fibre Optics Patch Panel

4 multimode (ST-ST)

16 IR Camera 16 16 port BNC patch panel 16 4 Mux-MM

ASC Field Cabling

75Ohm Coax

6 Segment Fibre Optics Panel Naming Convention

E F

Cable Numbering Scheme XYV

X=0,1	OSB
X=2	LVEA 2k
X=3	LVEA 4k
X=4	EY
X=5	MY
X=6	EX
X=7	MX

DWG NO | DESCRIPTION | DWG NO | DESCRIPTION

REFERENCE DRAWINGS

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RM,
BREAK CORNERS OF OUT
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON

NEXT ASSY

File: /opt/CDS/c/docs/daq/drawings/dev/video.fm5
Last Modified Date: November 17, 1999

CURRENT REVISION APPROVAL

DRAWN	D. Barker	GROUP	DATE 8Oct99
CHECKED			

REV | DESCRIPTION | SHEET(S) EFFECTED | DATE

ISSUE DESCRIPTION

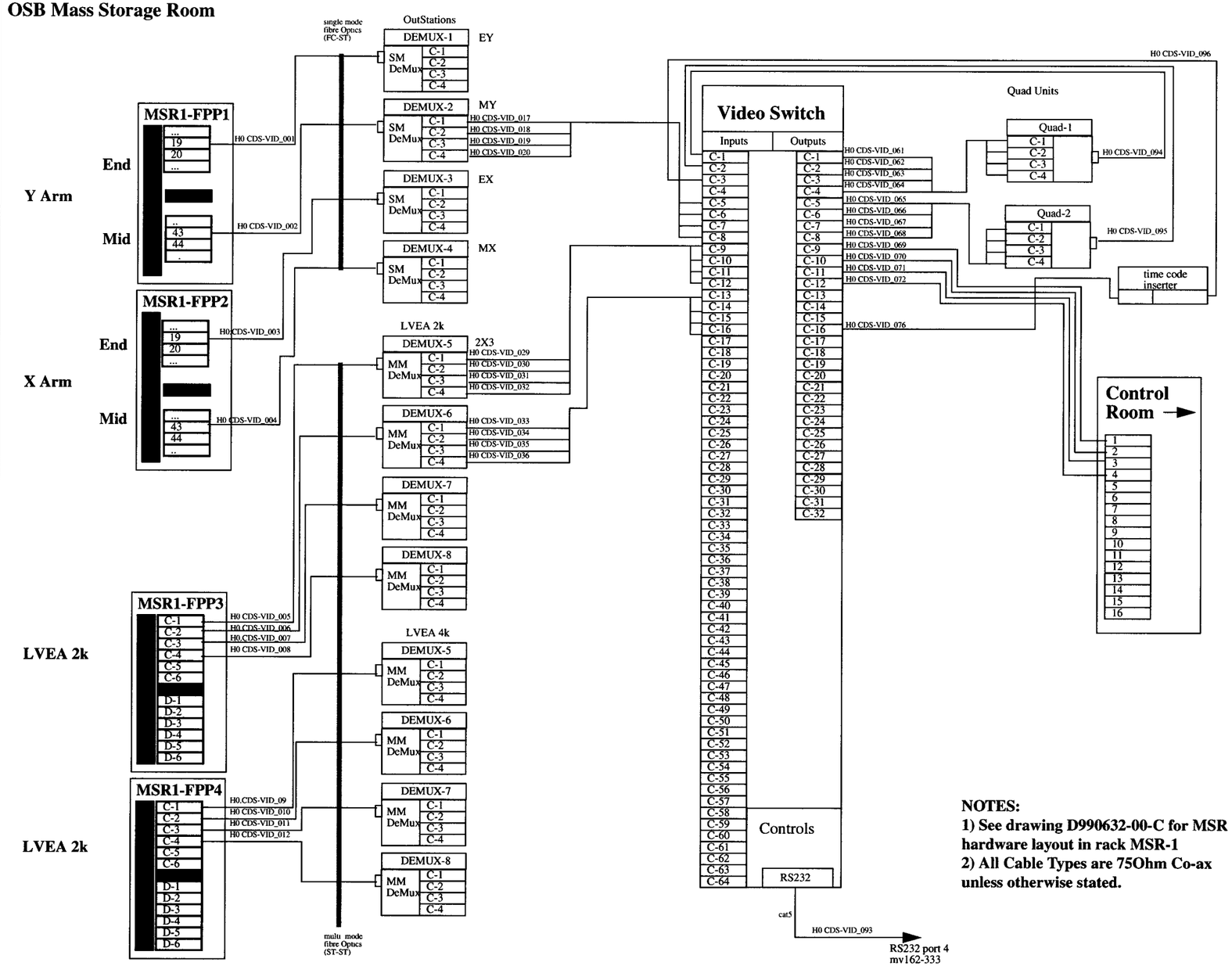
LIGO LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Hanford Controls Video System. Overview

SCALE | SIZE B | DWG NO D990637-00-C | REV

SHEET 1 of 6

6 5 4 3 2 1



NOTES:
1) See drawing D990632-00-C for MSR hardware layout in rack MSR-1
2) All Cable Types are 75Ohm Co-ax unless otherwise stated.

Table 1: DeMux Units

#	Manu.	FO	Model	Designator
1	IFS	SM	VR5030	DEMUX-1
2	IFS	SM	VR5030	DEMUX-2
3	IFS	SM	VR5030	DEMUX-3
4	IFS	SM	VR5030	DEMUX-4
5	IFS	MM	VR6010	DEMUX-5
6	IFS	MM	VR6010	DEMUX-6
7	IFS	MM	VR6010	DEMUX-7
8	IFS	MM	VR6010	DEMUX-8
9	IFS	MM	VR6010	DEMUX-9
10	IFS	MM	VR6010	DEMUX-10
11	IFS	MM	VR6010	DEMUX-11
12	IFS	MM	VR6010	DEMUX-12

Table 2: Video Units

Item	Manu	Model	Designator
Video Switch	Knox	Chameleon HB	VIDEO-1
Quad Unit			QUAD-1
Quad Unit			QUAD-2

6 Segment Fibre Optics Panel Naming Convention

Cable Numbering Scheme XYt
X=0,1 OSB
X=2 LVEA 2k
X=3 LVEA 4k
X=4 EY
X=5 MY
X=6 EX
X=7 MX

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISH DIFFACE MAC
BREAK EDGES OU OUT
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

File: /opt/CDS/c/docs/daq/drawings/dev/video.fm5
Last Modified Date: November 17, 1999

DWG NO	DESCRIPTION	DWG NO	DESCRIPTION
REFERENCE DRAWINGS			

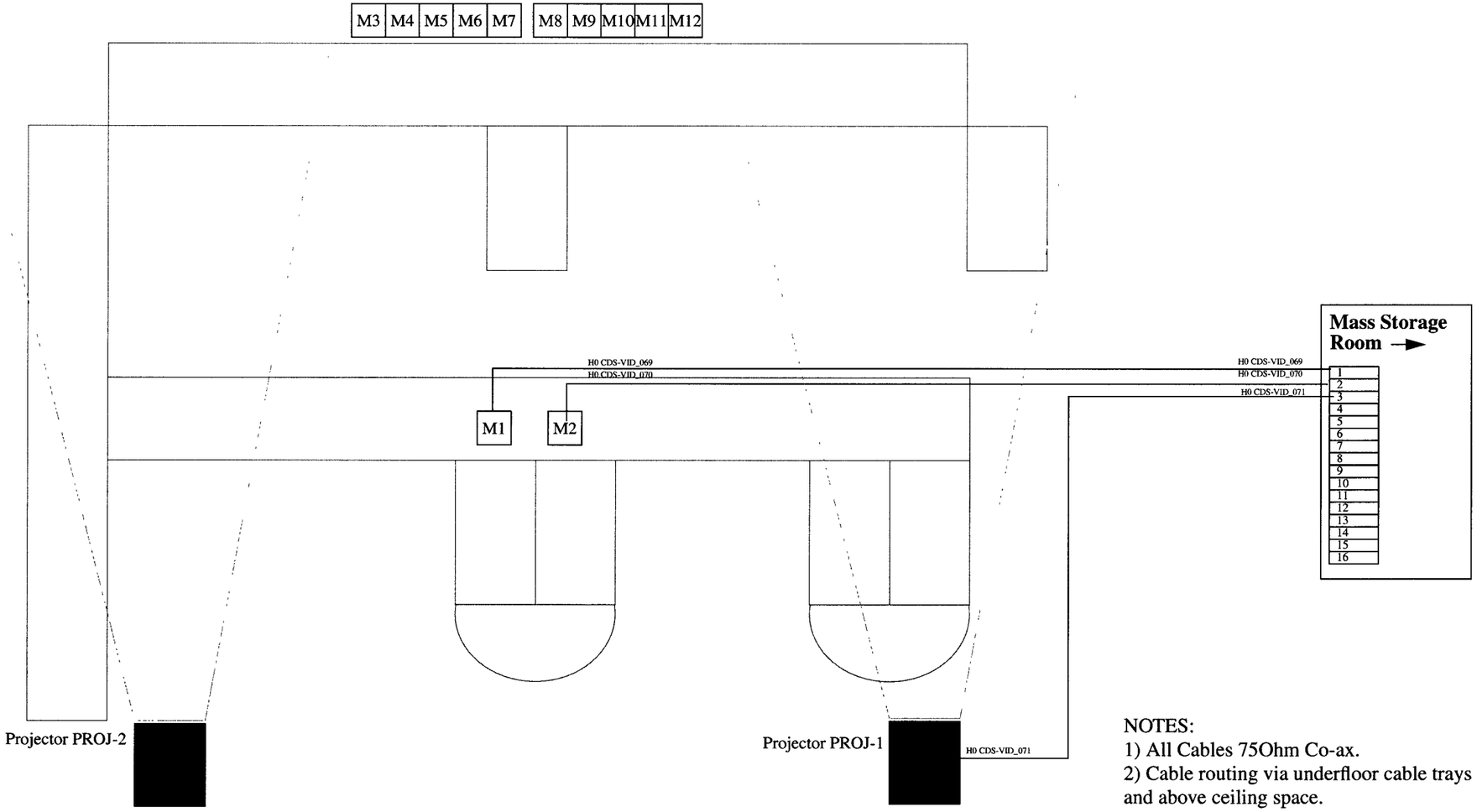
REV	DESCRIPTION	SHEETS EFFECTED	DATE
ISSUE DESCRIPTION			

CURRENT REVISION APPROVAL
DRAWN D. Barker 8Oct99
CHECKED
GFDUF
STGNATURE

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Hanford Controls Video System.
OSB Mass Storage Room

SCALE
SIZE B
DWG NO D990637-00-C
REV
CAD FILE
SCALE
SHEET 2 of 6
STD
REV



NOTES:
1) All Cables 75Ohm Co-ax.
2) Cable routing via underfloor cable trays and above ceiling space.

6 Segment Fibre Optics Panel Naming Convention

E
F

Cable Numbering Scheme XYY
X=0.1 OSB
X=2 LVEA 2k
X=3 LVEA 4k
X=4 EY
X=5 MY
X=6 EX
X=7 MX

DWG NO	DESCRIPTION	DWG NO	DESCRIPTION
REFERENCE DRAWINGS			

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE FM
BREAK CORNERS OU OUT
REMOVE MILL BURRS

DO NOT SCALE THIS DRAWING
USED ON
NEXT ASSY

File: /opt/CDS/c/docs/daq/drawings/dev/video.fm5
Last Modified Date: November 17, 1999

REV	DESCRIPTION	SHEETS EFFECTED	DATE
	ISSUE DESCRIPTION		

CURRENT REVISION APPROVAL

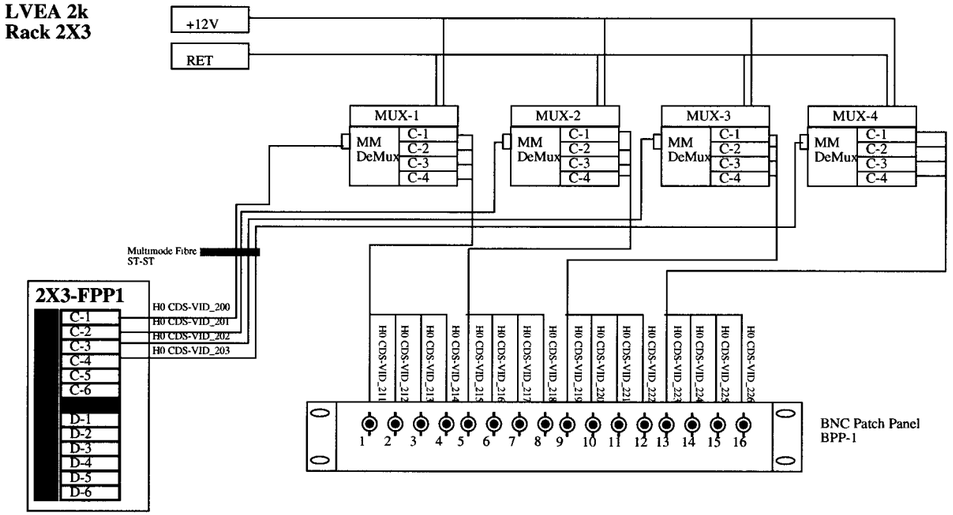
DRAWN	GROUP	SIGNATURE	DATE
D. Barker			8Oct99
CHECKED			
DCC			

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Hanford Controls Video System.
OSB Control Room

SCALE	SIZE	DWG NO	REV
	B	D990637-00-C	
CAD FILE	SCALE	SHEET 3 of 6	REV 01

LVEA 2k
Rack 2X3

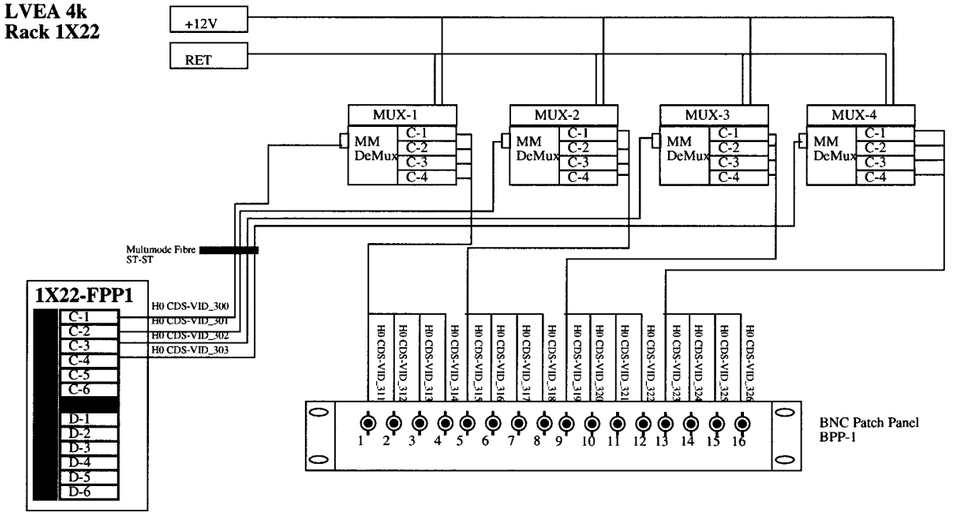


NOTES:
1) ASC Field Wiring Interfaces to BNC Patch Panel BPP-1.
2) See Drawing D990015 for Rack 2X3 Layout.
3) BNC Patch Panel located at back of rack 2X3.
4) Fibre Optics Cable from FPP1 is Multimode ST-ST.
5) MUX to BNC Patch Panel BPP-1 is 75Ohm Coax.

Table 1: Rack 2X3 Module List

ID	Description	Manu.	Model	Designator
1	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-1
2	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-2
3	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-3
4	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-4
5	16 port BNC patch panel	TBD	TBD	BPP-1

LVEA 4k
Rack 1X22



NOTES:
1) ASC Field Wiring Interfaces to BNC Patch Panel BPP-1.
2) See Drawing DXXXXXX for Rack 1X22 Layout.
3) BNC Patch Panel located at back of rack 1X22.
4) Fibre Optics Cable from FPP1 is Multimode ST-ST.
5) MUX to BNC Patch Panel BPP-1 is 75Ohm Coax.

Table 1: Rack 1X22 Module List

ID	Description	Manu.	Model	Designator
1	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-1
2	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-2
3	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-3
4	4 Chan Mux (fibre optics)	IFS	VT6010 (MM)	MUX-4
5	16 port BNC patch panel	TBD	TBD	BPP-1

6 Segment Fibre Optics Panel Naming Convention

Cable Numbering Scheme XYY
X=0,1 OSB
X=2 LVEA 2k
X=3 LVEA 4k
X=4 EY
X=5 MY
X=6 EX
X=7 MX

DWG NO | DESCRIPTION | DWG NO | DESCRIPTION
REFERENCE DRAWINGS

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE FM
BREAK CORNERS OU OUT
REMOVE ALL BURRS
DO NOT SCALE THIS DRAWING
USED ON
NEXT ASSY

File: /opt/CDS/c/docs/daq/drawings/dev/video.fm5
Last Modified Date: November 17, 1999

CURRENT REVISION HERED AL

REV	DESCRIPTION	SHEETS EFFECTED	DATE
	ISSUE DESCRIPTION		

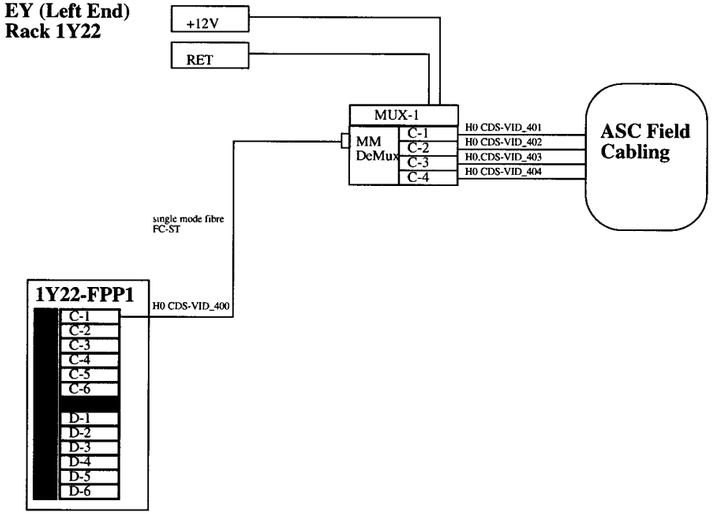
DRAWN D. Barker | CHECKED | QFORE | SIGNATURE | DATE 8Oct99

LIGO (CALIFORNIA INSTITUTE OF TECHNOLOGY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY)

Hanford Controls Video System.
LVEA

SCALE | SIZE B | DWG NO D990637-00-C | REV
CAD FILE | SCALE | SHEET 4 of 6 | STD | VER 01

EY (Left End)
Rack 1Y22

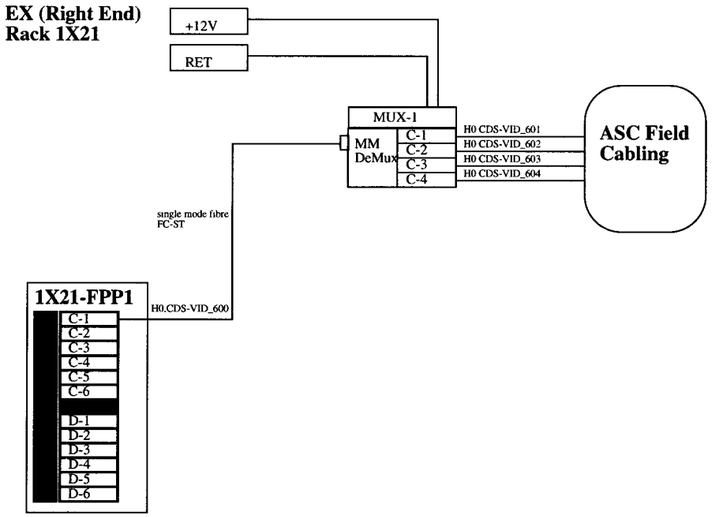


NOTES:
1) ASC Field Wiring Interfaces directly with MUX board.
2) See Drawing D990182 for Rack 1Y22 Layout.
3) Fibre Optics Cable from FPP1 is Single mode FC-ST.

Table 1: Rack 2X3 Module List

ID	Description	Manu.	Model	Designator
1	4 Chan Mux (fibre optics)	IFS	VT5030 (SM)	MUX-1

EX (Right End)
Rack 1X21



NOTES:
1) ASC Field Wiring Interfaces directly with MUX board.
2) See Drawing D990180 for Rack 1X21 Layout.
3) Fibre Optics Cable from FPP1 is Single mode FC-ST.

Table 1: Rack 2X3 Module List

ID	Description	Manu.	Model	Designator
1	4 Chan Mux (fibre optics)	IFS	VT5030 (SM)	MUX-1

6 Segment Fibre Optics Panel Naming Convention

E
F

Cable Numbering Scheme XYY
X=0,1 OSB
X=2 LVEA 2k
X=3 LVEA 4k
X=4 EY
X=5 MY
X=6 EX
X=7 MX

DWG NO | DESCRIPTION | DWG NO | DESCRIPTION
REFERENCE DRAWINGS

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISH SURFACE FMS
BREAK EDGES 01 OUT
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING
USED ON
NEXT ASSY

REV | DESCRIPTION | SHEETS EFFECTED | DATE
ISSUE DESCRIPTION

File: /opt/CDS/c/docs/daq/drawings/dev/video.fm5
Last Modified Date: November 17, 1999

CURRENT REVISION APPROVAL

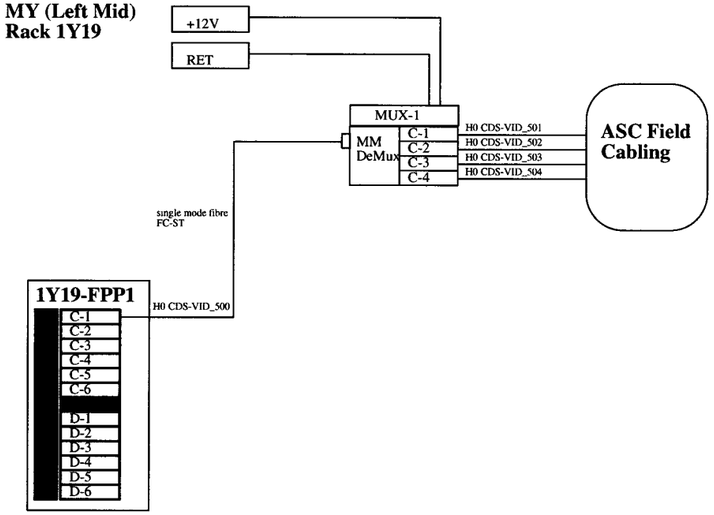
	GROUP	SIGNATURE	DATE
DRAWN D. Barker			8Oct99
CHECKED			
DES			

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Hanford Controls Video System.
End Stations

SCALE | SIZE B | DWG NO D990637-00-C | REV
CAD FILE | SCALE | SHEET 5 of 6 | STR | EP D1

MY (Left Mid)
Rack 1Y19

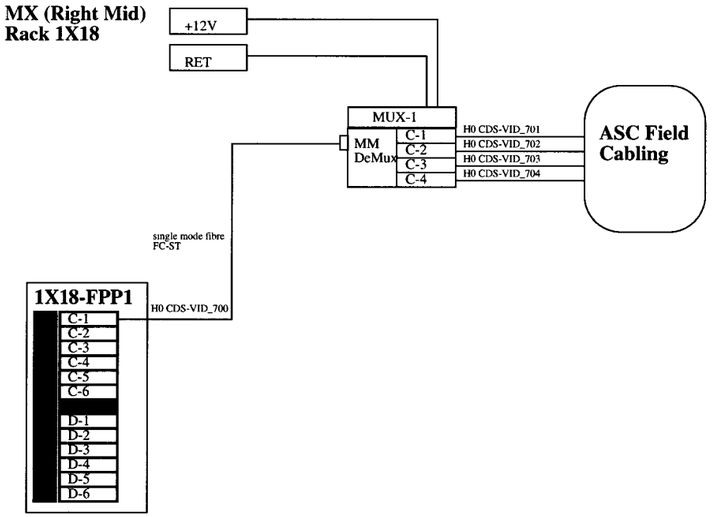


NOTES:
1) ASC Field Wiring Interfaces directly with MUX board.
2) See Drawing D990181 for Rack 1Y19 Layout.
3) Fibre Optics Cable from FPP1 is Single mode FC-ST.

Table 1: Rack 1Y19 Module List

ID	Description	Manu.	Model	Designator
1	4 Chan Mux (fibre optics)	IFS	VT5030 (SM)	MUX-1

MX (Right Mid)
Rack 1X18

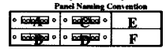


NOTES:
1) ASC Field Wiring Interfaces directly with MUX board.
2) See Drawing D990179 for Rack 1X18 Layout.
3) Fibre Optics Cable from FPP1 is Single mode FC-ST.

Table 1: Rack 1X18 Module List

ID	Description	Manu.	Model	Designator
1	4 Chan Mux (fibre optics)	IFS	VT5030 (SM)	MUX-1

6 Segment Fibre Optics Panel Naming Convention



Cable Numbering Scheme XYY
X=0,1 OSB
X=2 LVEA 2k
X=3 LVEA 4k
X=4 EY
X=5 MY
X=6 EX
X=7 MX

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK EDGES OF OUT
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

DWG NO	DESCRIPTION	DWG NO	DESCRIPTION
REFERENCE DRAWINGS			

NEXT ASSY

File: /opt/CDS/c/docs/daq/drawings/dev/video.fm5
Last Modified Date: November 17, 1999

REV	DESCRIPTION	SHEETS EFFECTED	DATE
FE			
ISSUE DESCRIPTION			

CURRENT REVISION APPROVAL

DRAWN	GROUP	SIGN-TYPE	DATE
D. Barker			8Oct99
CHECKED			
BEE			

LIGO CALIFORNIA INSTITUTE OF TECHNOLOGY MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Hanford Controls Video System.
Mid Stations

SCALE	SIZE	DWG NO	REV
	B	D990637-00-C	
CAD FILE SCALE	SHEET 6 of 6	CTD	DP 01