

4 Feedthroughs

TM OSEMs

OSEM

TM OSEM to BF Cable JGW-D1503901 Sheet 01

OSEM BF-TR Signal Cable JGW_E1503901 Sheet 17

TR to Flange Signal Cable JGW-D1503901 Sheet 19

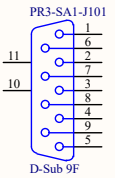
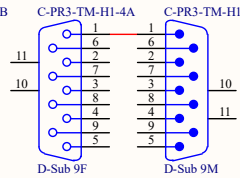
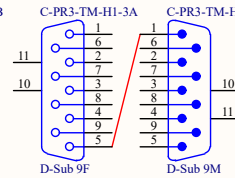
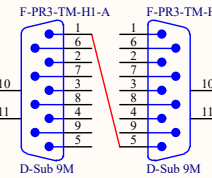
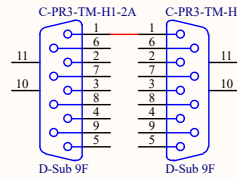
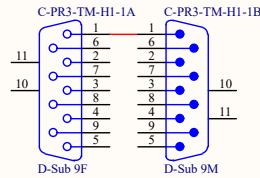
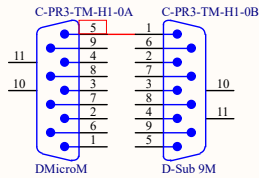
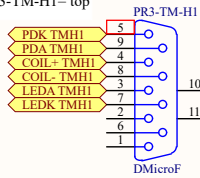
Feedthrough

Anti-Feedthrough Adapter Cable

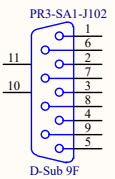
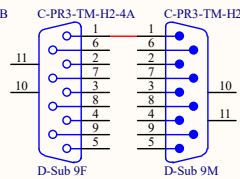
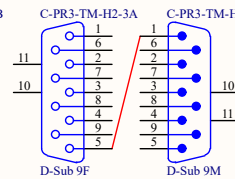
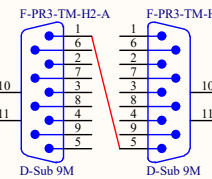
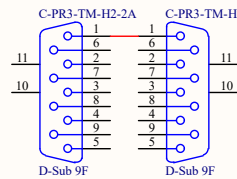
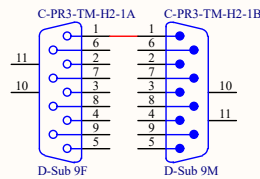
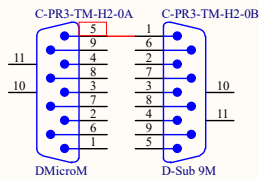
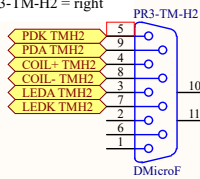
OSEM External Cable

Sat Amp #1, JGW-D1503498,
Rear Panel, JGW-D1503500,
Board, JGW-D1503499

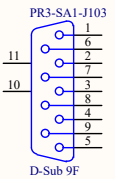
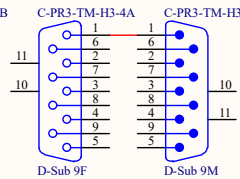
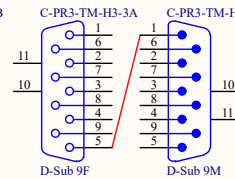
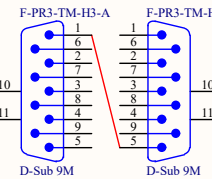
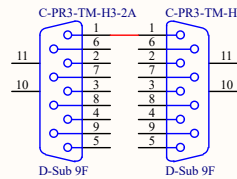
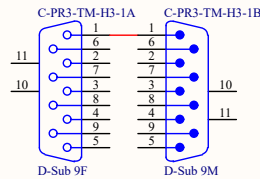
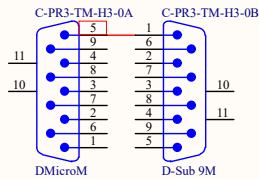
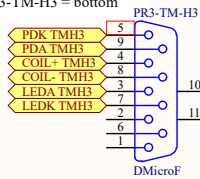
PR3-TM-H1 = top



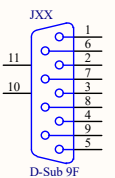
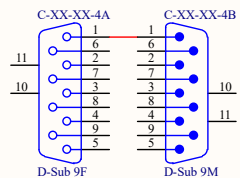
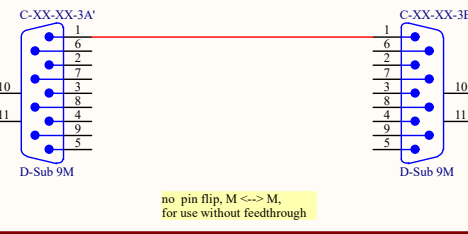
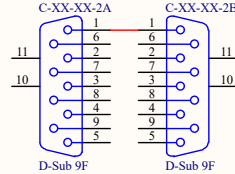
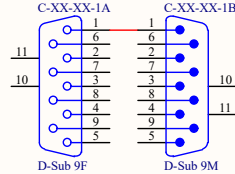
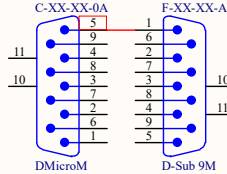
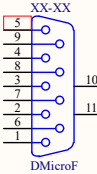
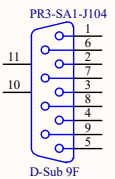
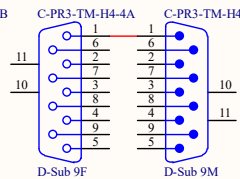
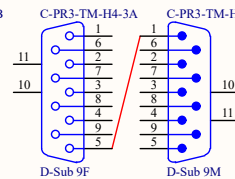
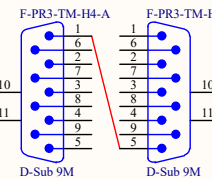
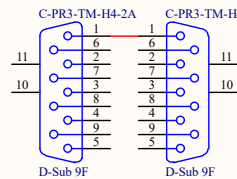
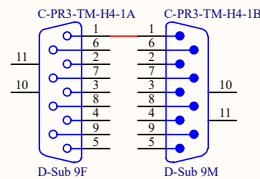
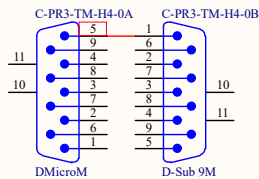
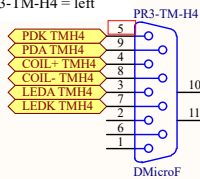
PR3-TM-H2 = right



PR3-TM-H3 = bottom



PR3-TM-H4 = left



For testing the suspension outside the vacuum tank,
there should be a supply of plain M-M gender changers
to replace the combination of Feedthrough+Anti-Feedthrough adapter cable.

Title PR3 Suspension Cabling (iKAGRA) - Test Mass OSEMs		
Size A3	Number JGW-D1604795	Revision -v2
Date: 2016/03/01	Sheet 1 of 9	
File: _l01 TM OSEMs.SchDoc	Drawn By:	

6 Feedthroughs

IM OSEMs

OSEM

IM OSEM to BF Cable
JGW-D1503901 Sheet 02OSEM BF-TR Signal Cable
JGW-D1503901 Sheet 17TR to Flange Signal Cable
JGW-D1503901 Sheet 19

Feedthrough

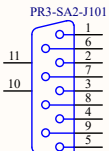
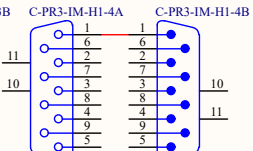
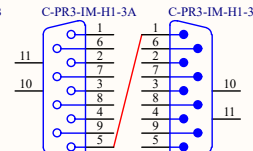
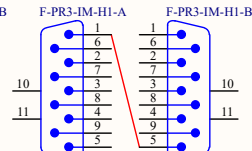
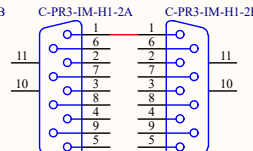
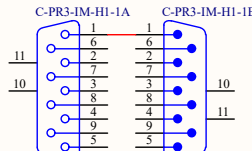
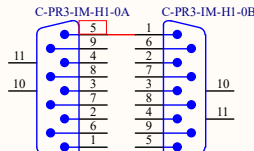
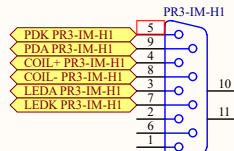
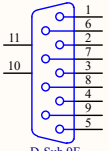
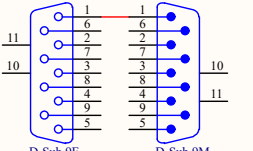
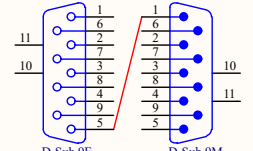
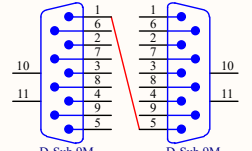
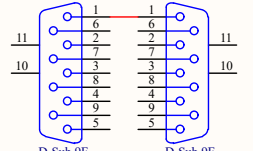
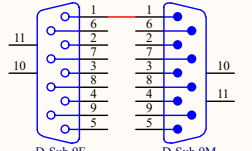
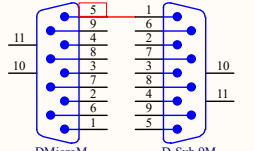
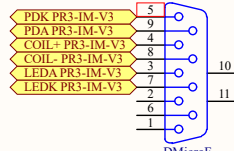
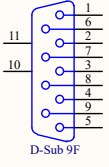
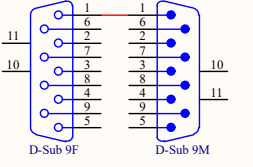
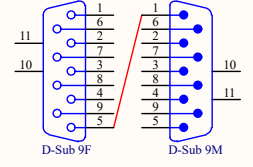
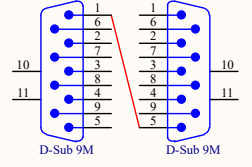
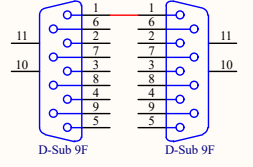
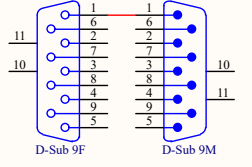
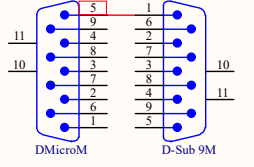
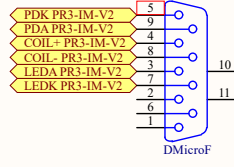
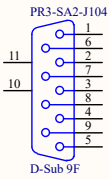
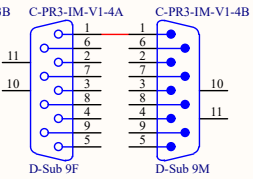
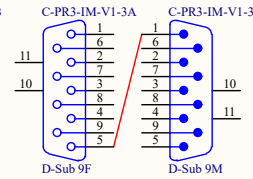
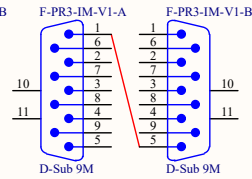
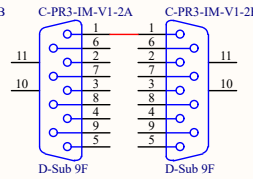
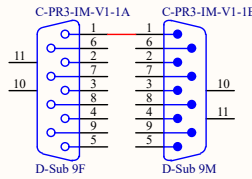
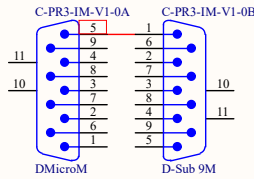
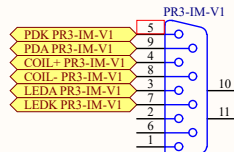
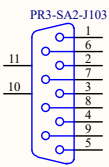
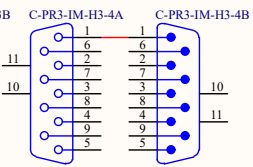
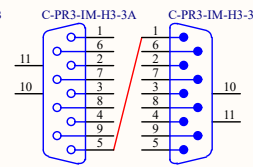
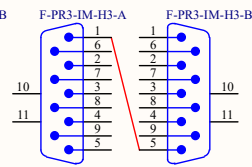
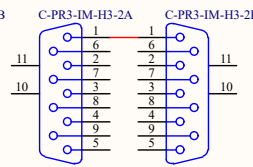
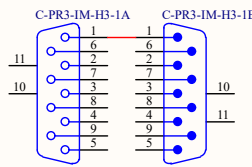
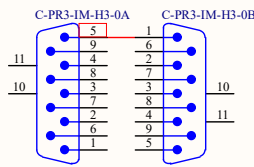
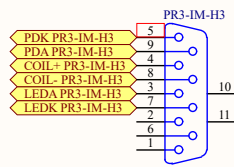
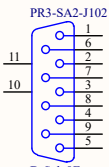
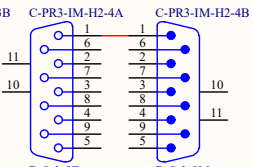
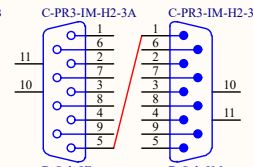
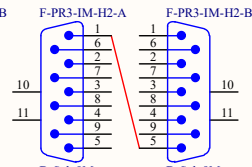
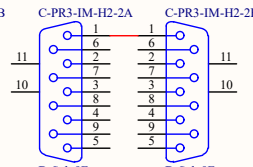
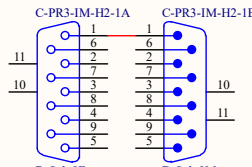
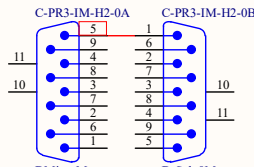
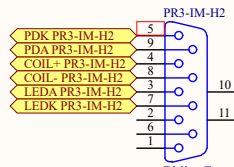
Anti-Feedthrough Adapter Cable

OSEM External Cable

Sat Amp #2, JGW-D1503498,
Rear Panel, JGW-D1503500,
Board, JGW-D1503499

Glenair GMR7590-9P-1BPN

Glenair MWDMD2L-9SS

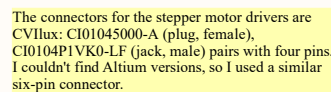
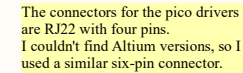
Sat Amp #3, JGW-D1503498,
Rear Panel, JGW-D1503500,
Board, JGW-D1503499

J-PR3-SA3-103 and J-PR3-SA3-104 not used

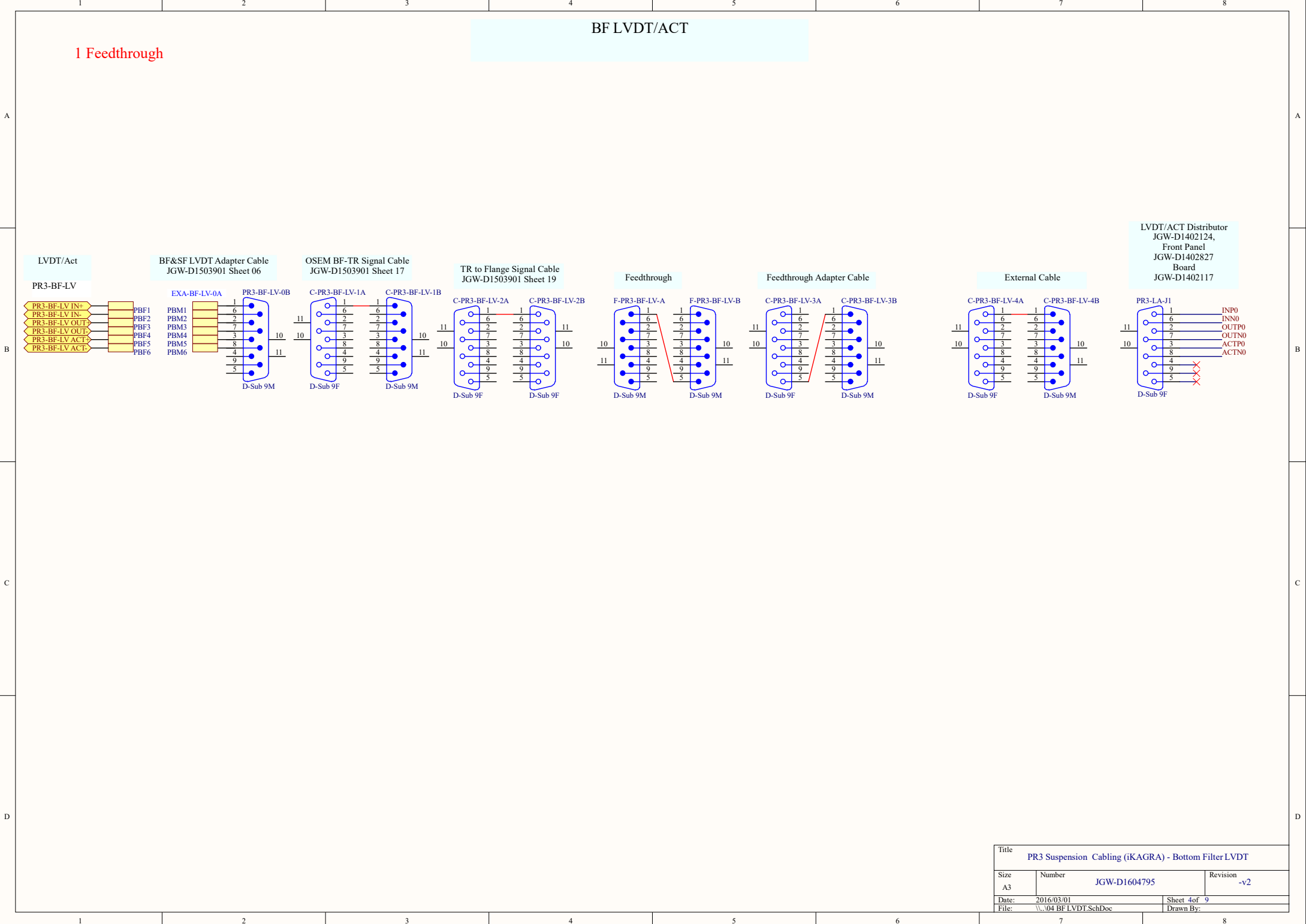
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Size A3	Number JGW-D1604795	Revision -v2
Date: 2016/03/01	Sheet 2 of 9	
File: \\..02 IM OSEMs.SchDoc	Drawn By:	

2 Feedthroughs

Newport 8742
Pico Driver



Title PR3 Suspension Cabling (iKAGRA) - Bottom Filter Picos/Steppers			
Size A3	Number JGW-D1604795	Revision -v2	
Date:	2016/03/01		Sheet 3 of 9
File:	\\.\03 IM&BF Picos&Steppers.SchDoc		Drawn By:



4 Feedthroughs

Traverser Steppers

Limit Switch

Stepper

D-Sub 9
Female

TR to Flange Motor Cable
JGW-D1503901 Sheet 20

Feedthrough

Anti-Feedthrough Adapter Cable

Stepper External Cable

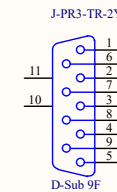
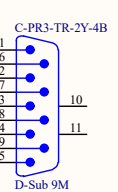
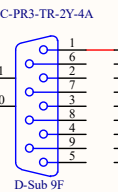
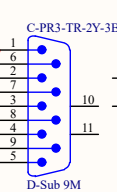
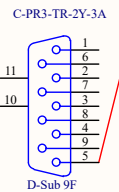
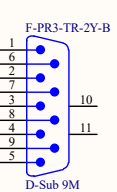
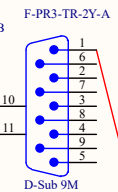
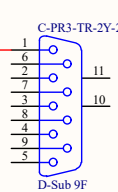
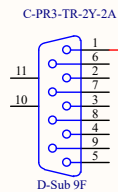
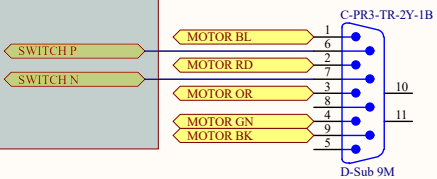
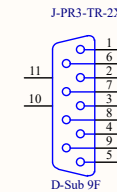
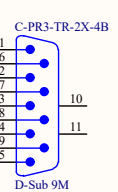
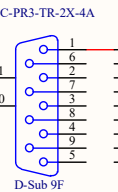
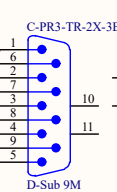
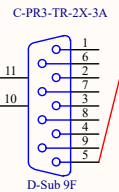
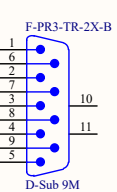
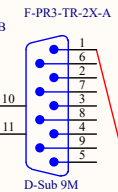
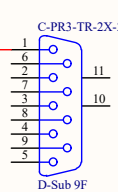
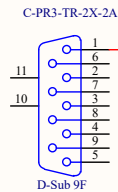
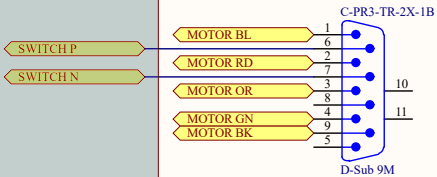
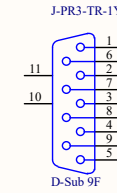
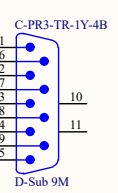
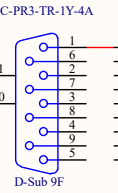
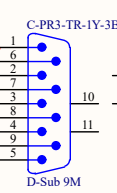
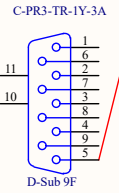
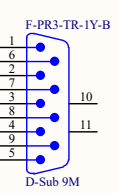
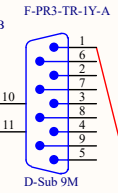
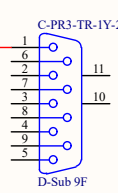
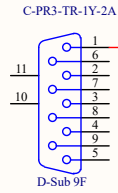
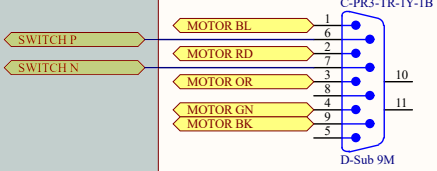
Stepper Driver
CVD507-K

No switches on
Motor 1

No switches on
Motor 1

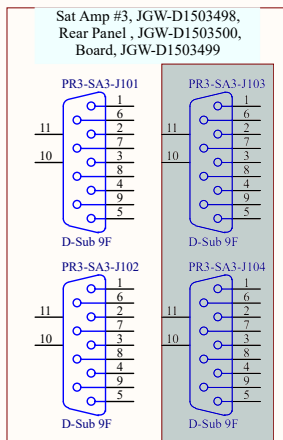
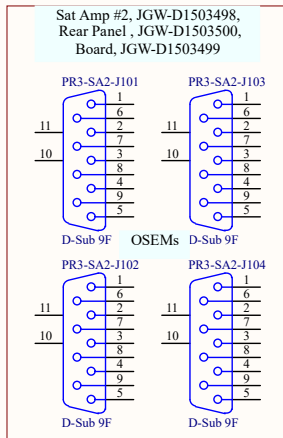
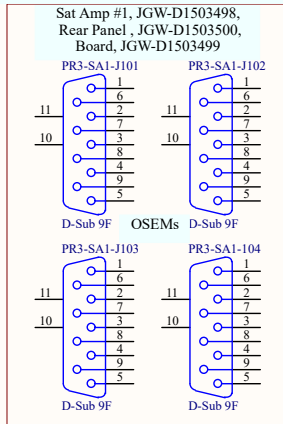
Not used in iKAGRA

Not used in iKAGRA

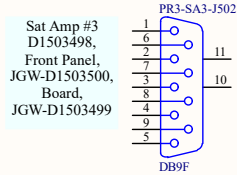
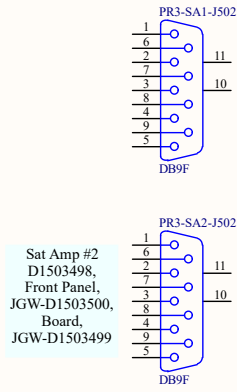


Title PR3 Suspension Cabling (iKAGRA) - Traverser Steppers		
Size A3	Number JGW-D1604795	Revision -v2
Date: 2016/03/01	Sheet 5 of 9	
File: \\..05 TR Steppers.SchDoc	Drawn By:	

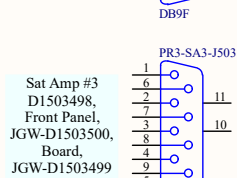
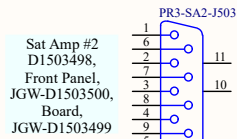
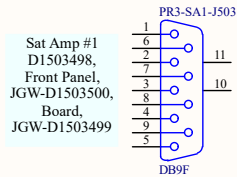
Sat Amp Inputs from OSEMs (see Sheets 1&2)



Sat Amp PD Outputs

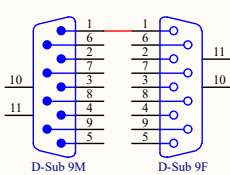
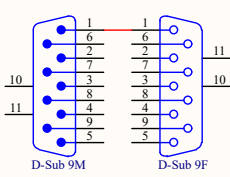
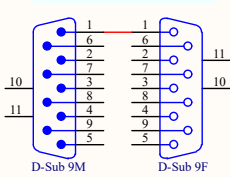


Sat Amp LED Current Monitor Outputs

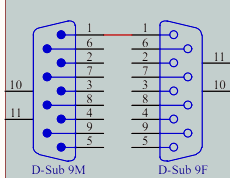
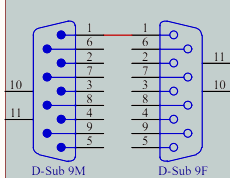
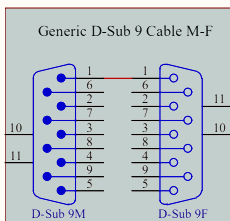


Sat Amps and Coil Drivers

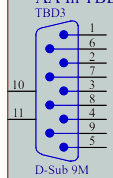
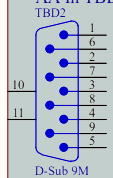
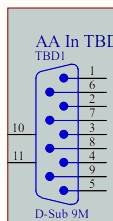
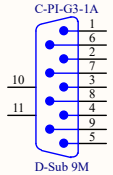
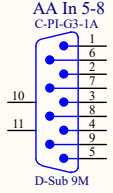
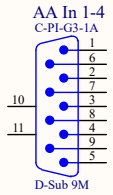
Generic D-Sub 9 Cable M-F



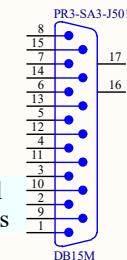
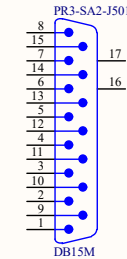
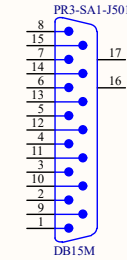
Coil Current Monitors - TBD



AA Chassis
D1100621

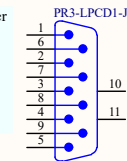


Sat Amp #1
JGW-D1503498,
Front,
JGW-D1503500,
Board,
JGW-D1503499

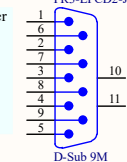


Sat Amp Coil Current Inputs

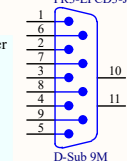
Low Power Coil Driver
#1
JGW-D1503506,
Front Panel,
JGW-D1503508,
Board,
JGW-D1503507



Low Power Coil Driver
#2
JGW-D1503506,
Front Panel,
JGW-D1503508,
Board,
JGW-D1503507

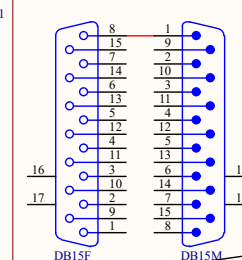
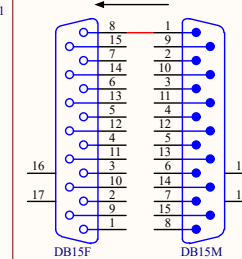
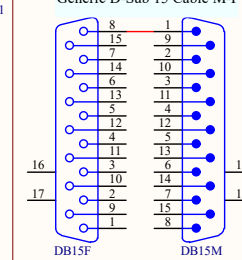


Low Power Coil Driver
#3
JGW-D1503506,
Front Panel,
JGW-D1503508,
Board,
JGW-D1503507

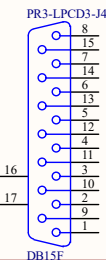
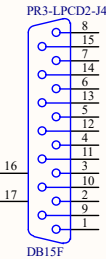
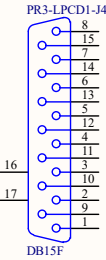
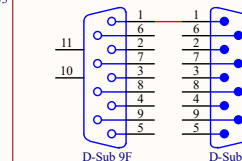
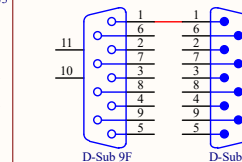
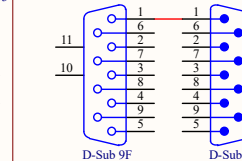


Coil Current Request Inputs

Generic D-Sub 15 Cable M-F



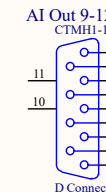
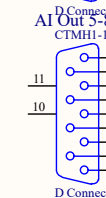
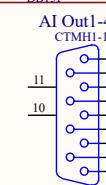
Generic D-Sub 9 Cable M-F



Low Power Coil Driver
#1
JGW-D1503506,
Rear Panel,
JGW-D1503509,
Board,
JGW-D1503507

Low Power Coil Driver
#2
JGW-D1503506,
Rear Panel,
JGW-D1503509,
Board,
JGW-D1503507

Low Power Coil Driver
#3
JGW-D1503506,
Rear Panel,
JGW-D1503509,
Board,
JGW-D1503507

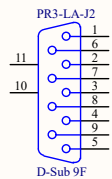
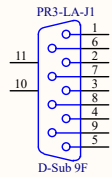


Title			
PR3 Suspension Cabling (iKAGRA) - OSEM Sat Amps & Drivers			
Size	Number	Revision	
A3	JGW-D1604795	-v2	
Date:	2016/03/01	Sheet	6 of 9
File:	\\..06 Sat Amps & Coil Drivers.SchDoc	Drawn By:	

LVDT Drivers

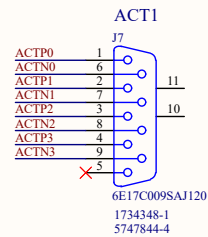
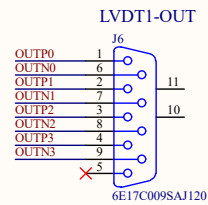
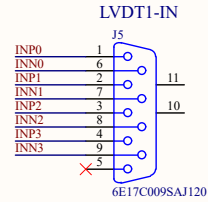
Inputs from
LVDTs
(see Sheet 4)

LVDT/ACT Distributor
JGW-D1402124,
Rear Panel
JGW-D1402828,
Board
JGW-D1402117

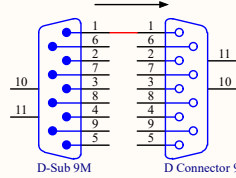


2 inputs
unused

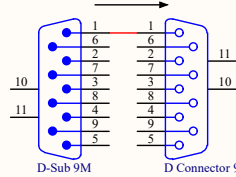
LVDT/ACT Distributor
JGW-D1402124,
Rear Panel
JGW-D1402828,
Board
JGW-D1402117



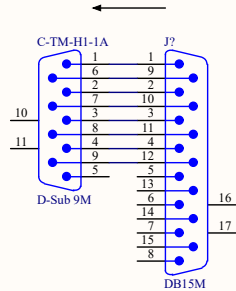
Generic D-Sub 9 Cable M-F



Generic D-Sub 9 Cable M-F



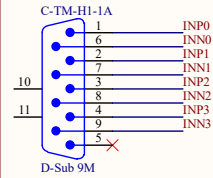
LVDT-Coil Driver Cable



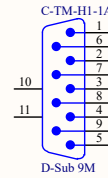
LVDT Driver
JGW-D1402826,
Front Panel
JGW-D1402827
Input Board
JGW-D1301467

LVDT Driver
JGW-D1402826,
Front Panel
JGW-D1402827
Main Board
JGW-D1301467

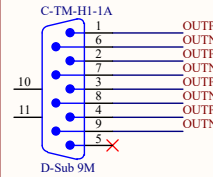
LVDTIM1-INP



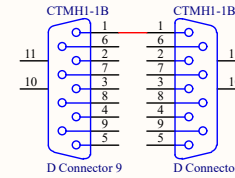
LVDTM Out 1



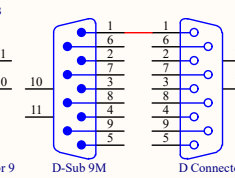
LVDTIM1-OUTP



Gender Bender F-F

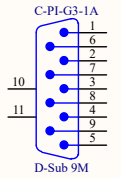


Generic D-Sub 9 Cable M-F



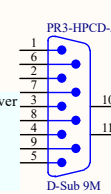
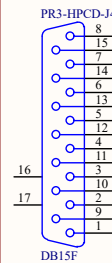
AA Chassis
JGW-D1100621

AA In 13-16

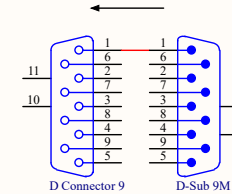


High Power Coil Driver
JGW-D1503504,
Rear Panel,
JGW-D1503505,
Board
JGW-D1503503

High Power Coil Driver
JGW-D1503504,
Front Panel,
JGW-D1503502,
Board
JGW-D1503503

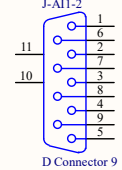


Generic D-Sub 9 Cable M-F



AI Chassis
D1101521

AI Out 13-16



Signal Generator
10 kHz, 5 V



Cable

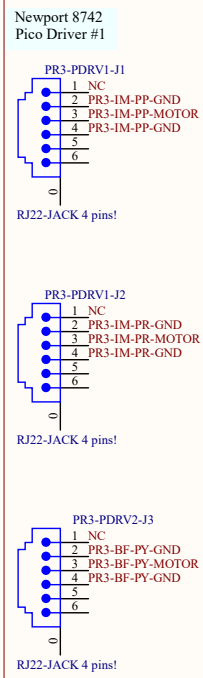
LVDT Main Module
JGW-D1301467



Title PR3 Suspension Cabling (iKAGRA) - LVDT Drivers		
Size A3	Number JGW-D1604795	Revision -v2
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File: \\..07 LVDT Drive.SchDoc		

Pico, Stepper and Traverser Drivers

Outputs to
IM&BF Picos
(see Sheet 3)



Joystick cable

Joystick
#1

AC

LAN Cable

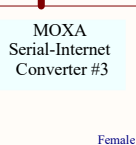
LAN Cable

AC

Ethernet
Hub

LAN Cable

AC



D Sub-9 Serial
Cable

Female

Stepper Driver #1
TMC6110

CI0104P1VK0-LF
CVIlux CI01 series,
4 pins, 2mm pitch
PR3-SDRV-J1

1 PR3-BF-SV-A1
2 PR3-BF-SV-A2
3 PR3-BF-SV-B1
4 PR3-BF-SV-B2
5
6

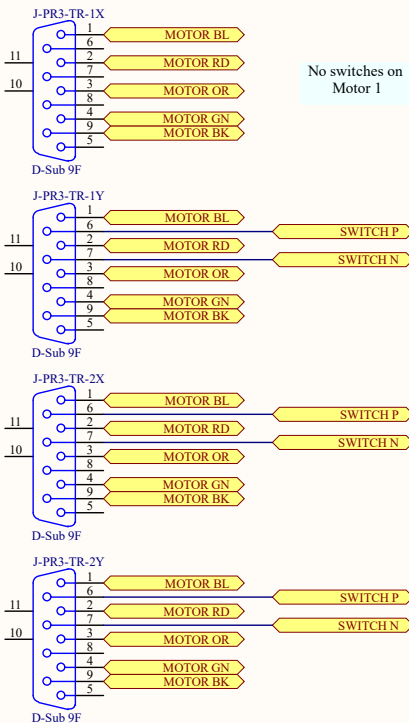
CI01 Connector F, 4 pins!

Output to BF
Steppers
(see Sheet 3)

AC

24 V Power

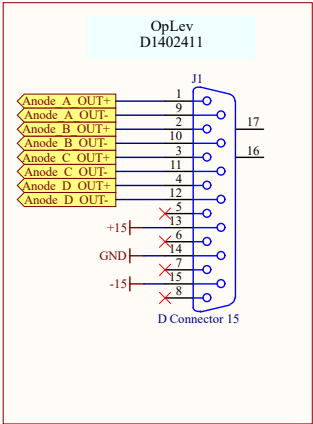
Traverser Stepper Driver
CVD507-K



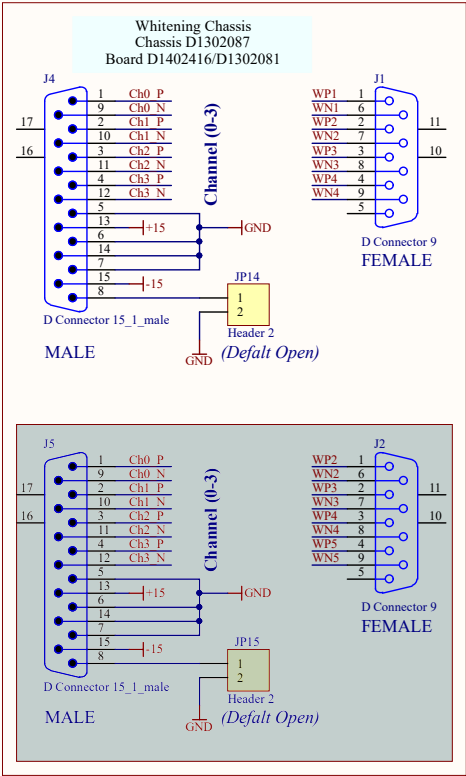
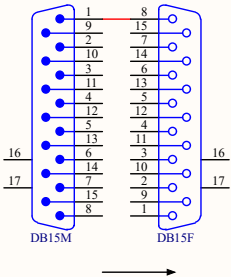
Output to
Traversers
(see Sheet 5)

Title PR3 Suspension Cabling (iKAGRA) - Pico/Stepper/Traverser Drivers		
Size A3	Number JGW-D1604795	Revision -v2
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OpLev



Generic D-Sub 15 Cable M-F



Generic D-Sub 9 Cable M-F

