

# 4 Feedthroughs

# TM OSEMs

## OSEM

## TM OSEM to BF Cable JGW-D1503901 Sheet 01

## OSEM BF-TR Signal Cable JGW\_E1503901 Sheet 17

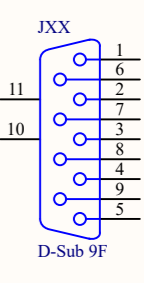
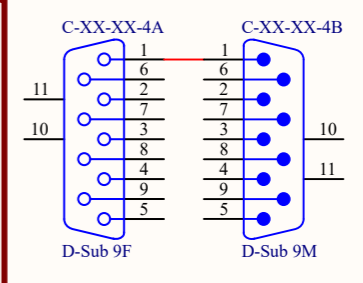
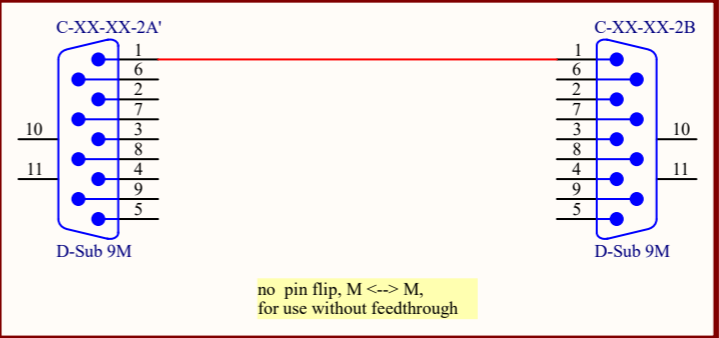
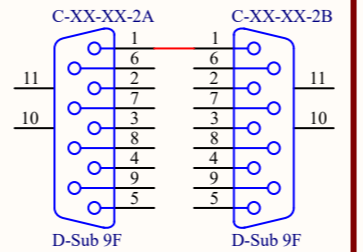
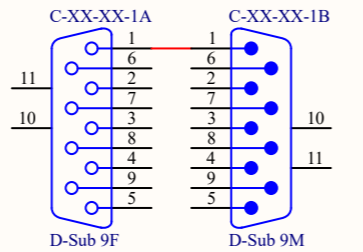
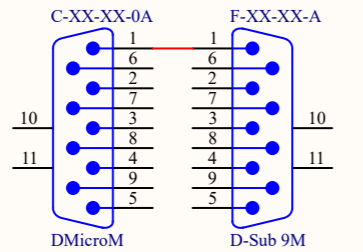
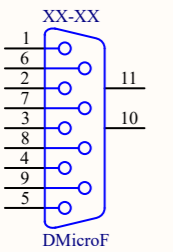
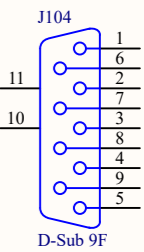
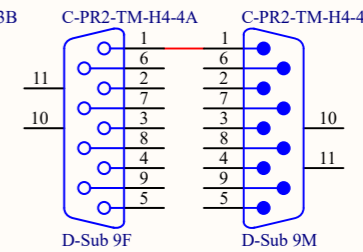
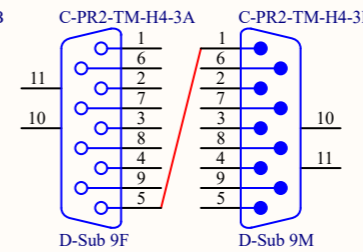
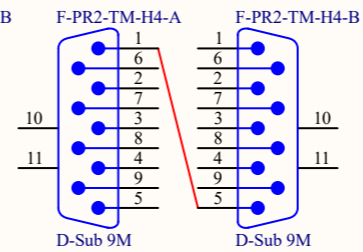
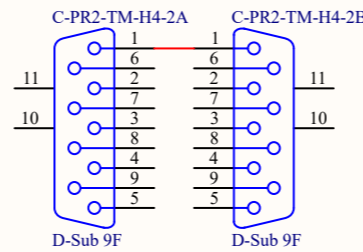
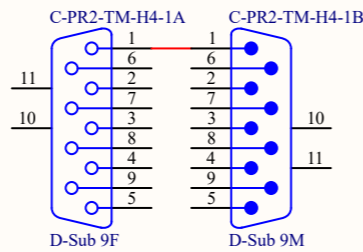
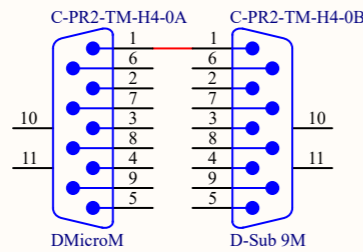
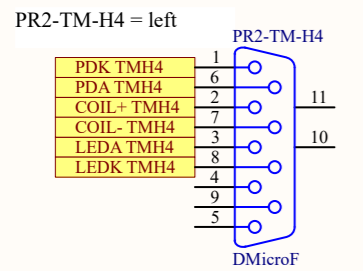
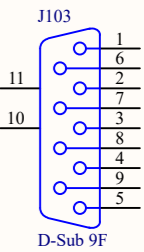
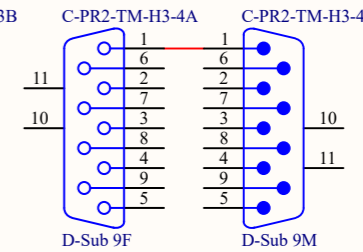
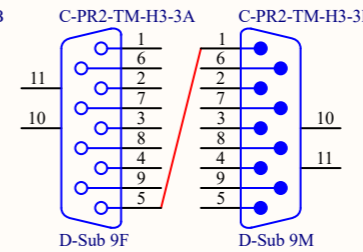
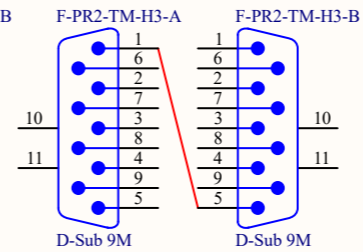
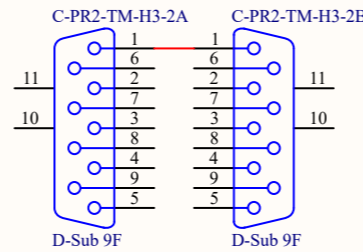
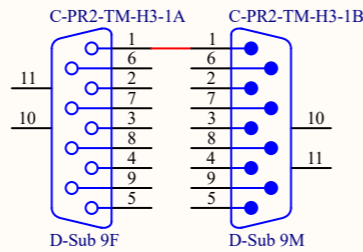
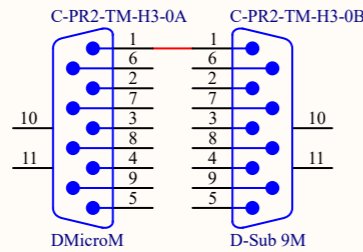
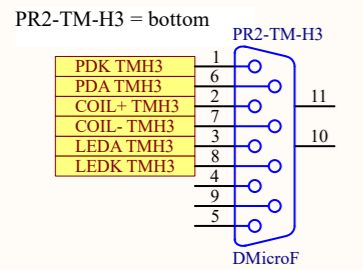
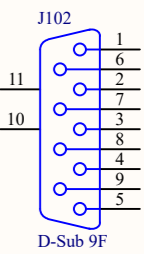
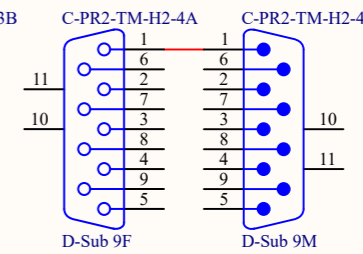
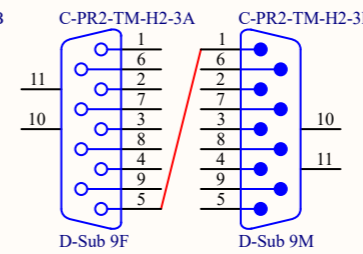
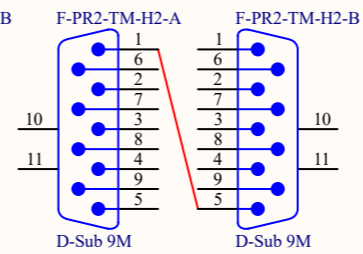
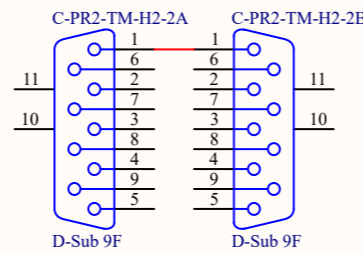
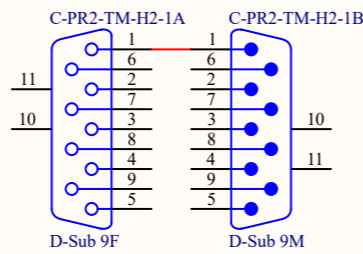
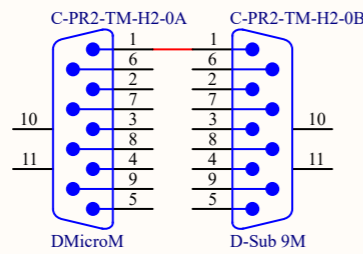
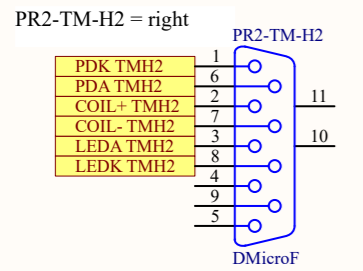
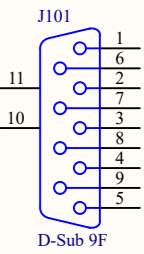
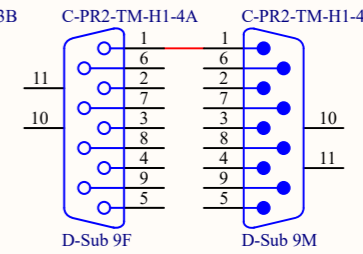
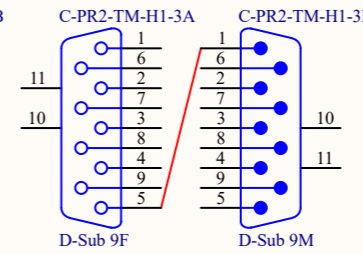
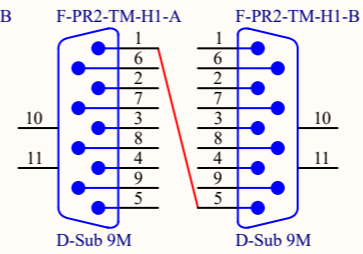
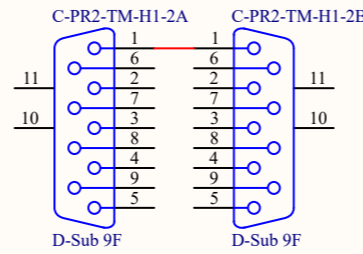
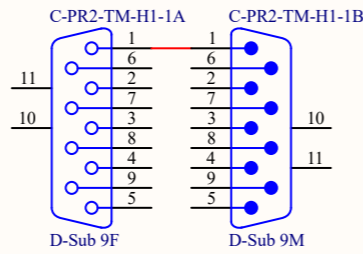
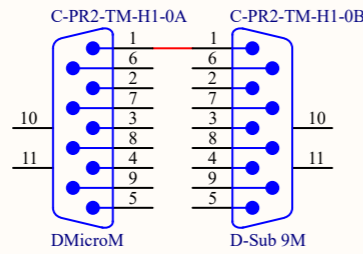
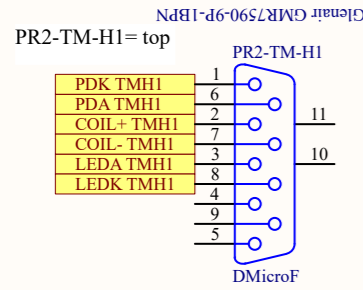
## TR to Flange Signal Cable JGW-D1503901 Sheet 19

## Feedthrough

## Anti-Feedthrough Adapter Cable

## OSEM External Cable

## Sat Amp #1 D1402809



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 PR2 Suspension Cabling - Test Mass OSEMs		
Size A3	Number JGW-D1503614	Revision -v4
Date: 5/25/2022	Sheet bf 7	Drawn By:
File: C:\Users\... \TM OSEMs.SchDoc		

# 6 Feedthroughs

## IM OSEMs

### OSEM

### IM OSEM to BF Cable JGW-D1503901 Sheet 02

### OSEM BF-TR Signal Cable JGW-D1503901 Sheet 17

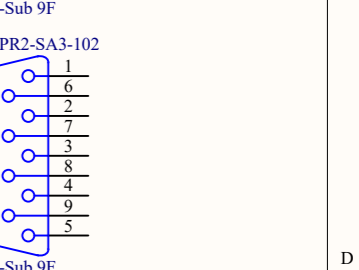
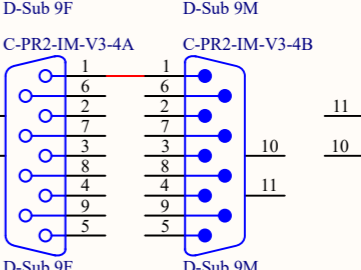
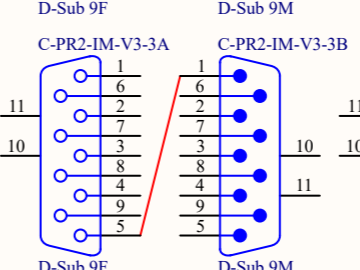
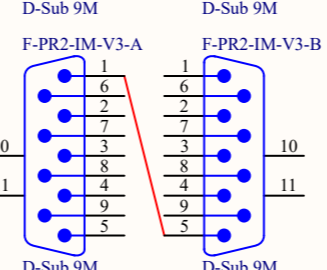
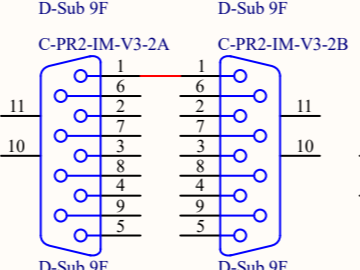
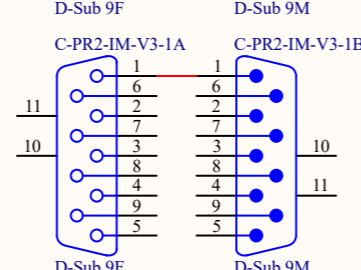
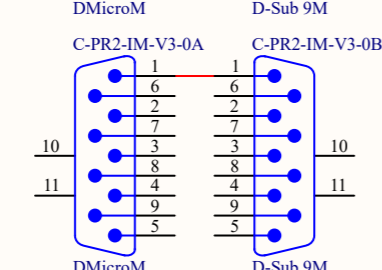
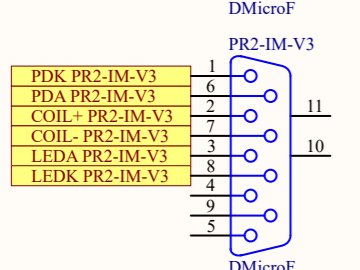
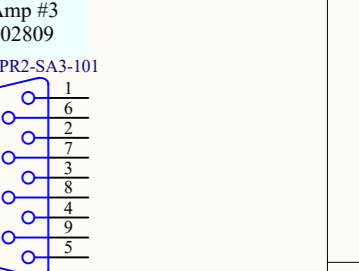
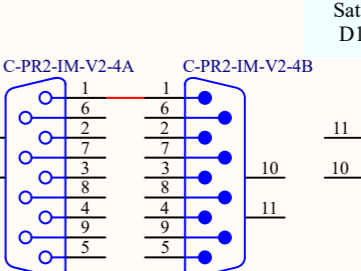
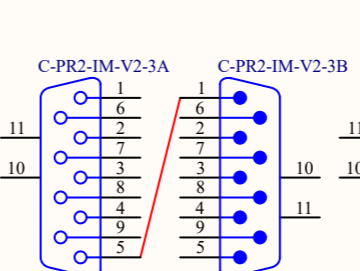
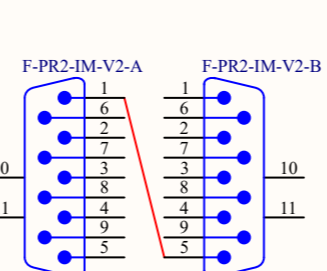
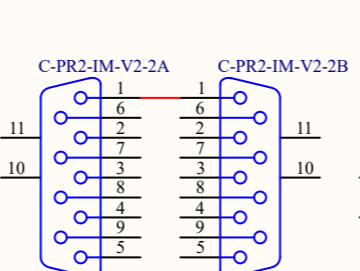
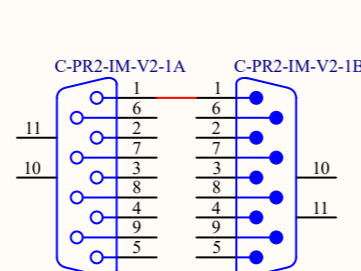
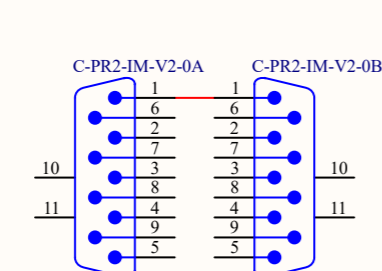
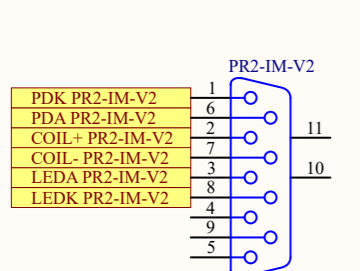
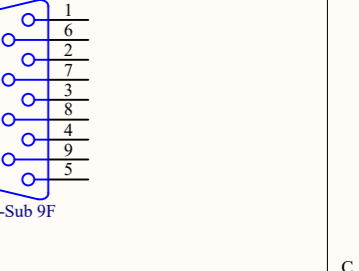
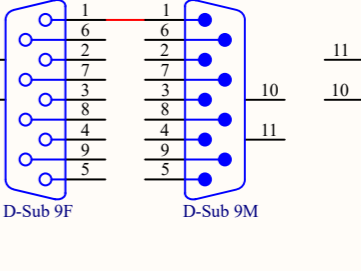
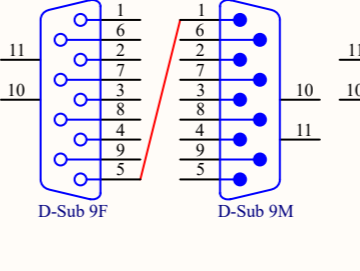
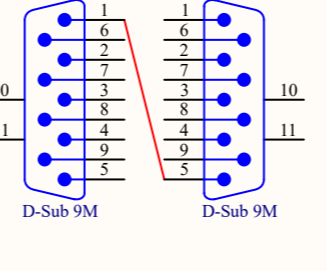
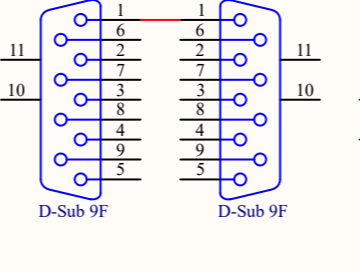
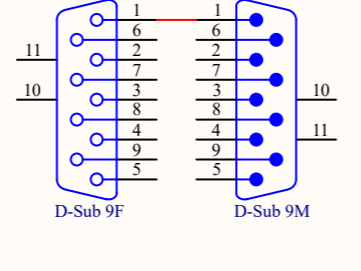
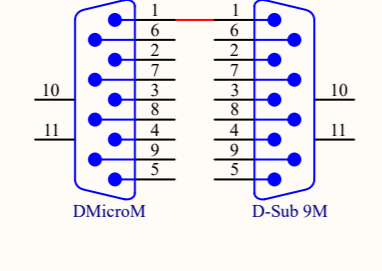
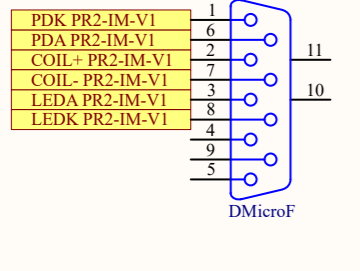
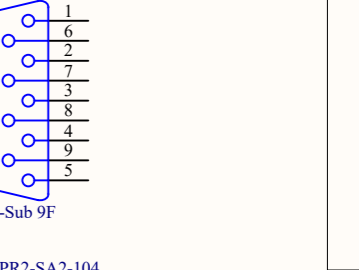
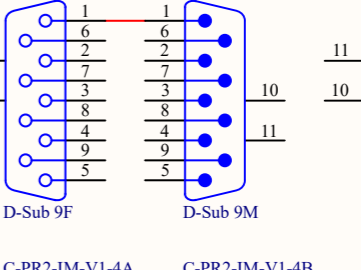
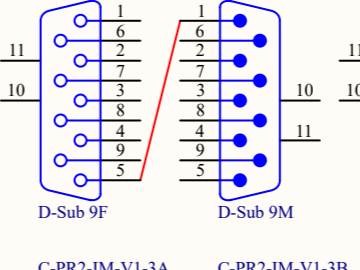
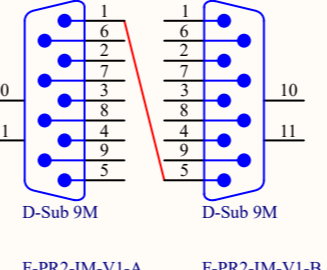
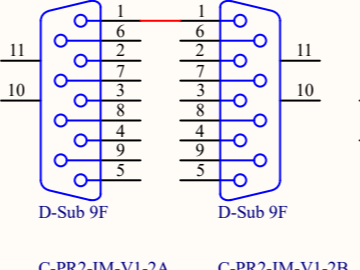
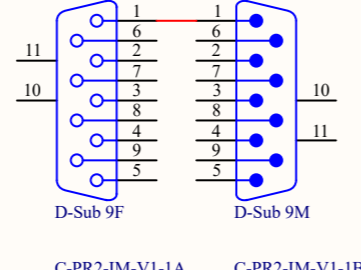
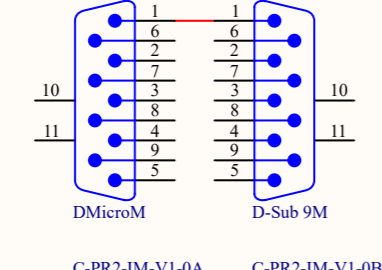
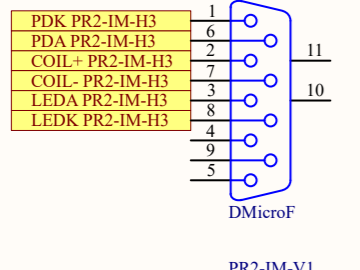
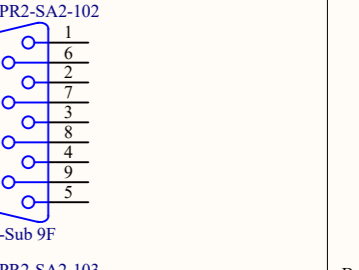
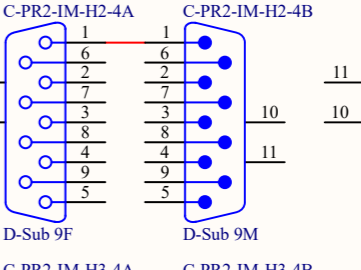
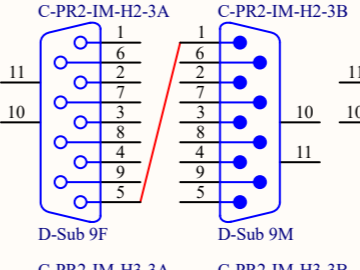
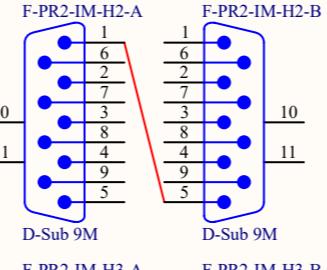
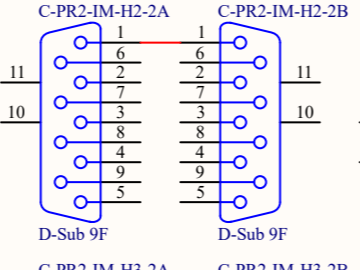
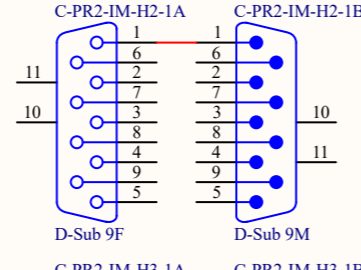
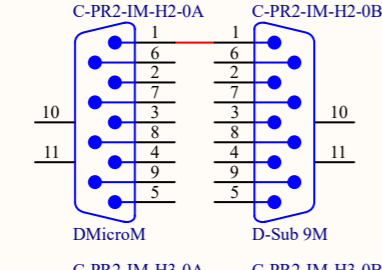
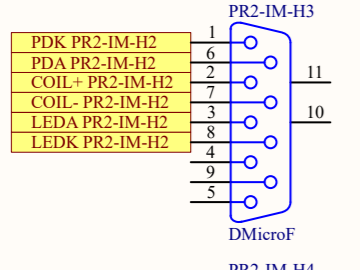
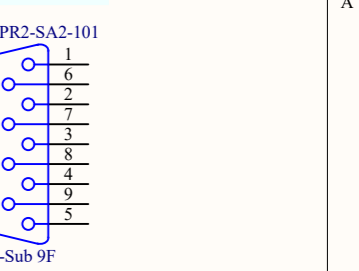
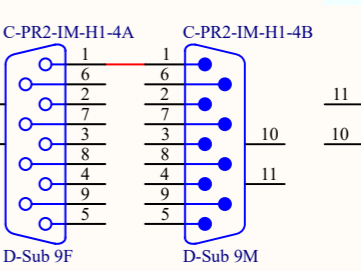
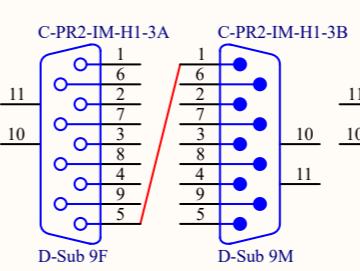
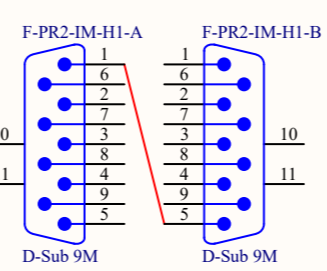
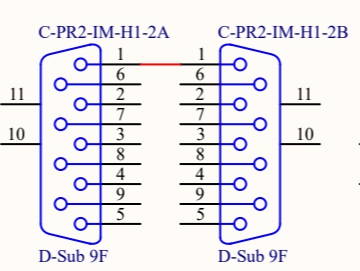
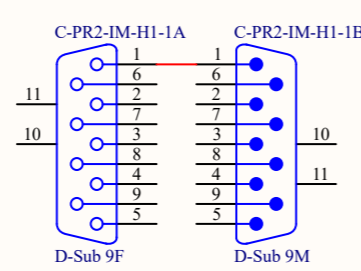
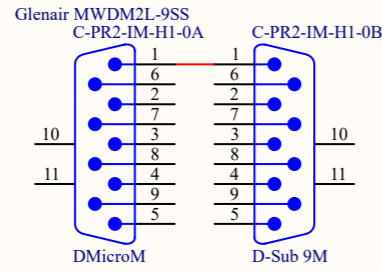
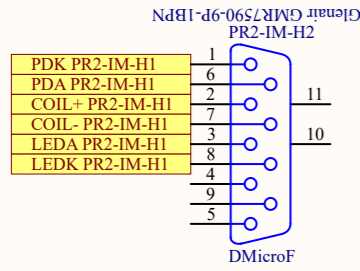
### TR to Flange Signal Cable JGW-D1503901 Sheet 19

### Feedthrough

### Anti-Feedthrough Adapter Cable

### OSEM External Cable

### Sat Amp #2 D1402809

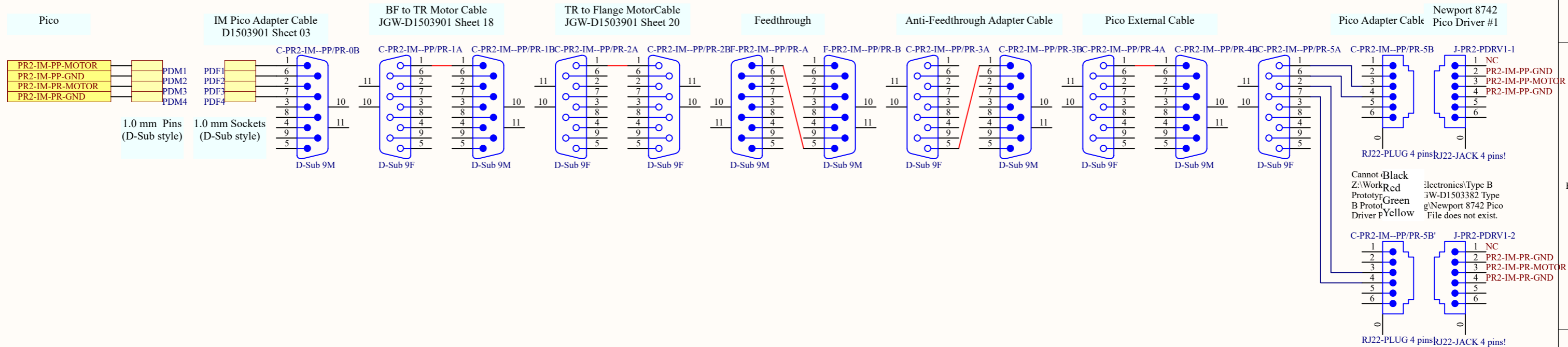


J-PR2-SA3-103 and J-PR2-SA3-104 not used

Title PR2 Suspension Cabling - Intermediate Mass OSEMs		
Size A3	Number JGW-D1503614	Revision -v4
Date: 5/25/2022	Sheet 2 of 7	Drawn By:
File: C:\Users\...IM OSEMs.SchDoc		

1 Feedthrough

IM Picomotors



Cannot (Black  
Z:\Work\Red  
Prototyp electronics\Type B  
B Prototyp g\W-D1503382 Type  
Driver P g\Newport 8742 Pico  
Yellow File does not exist.

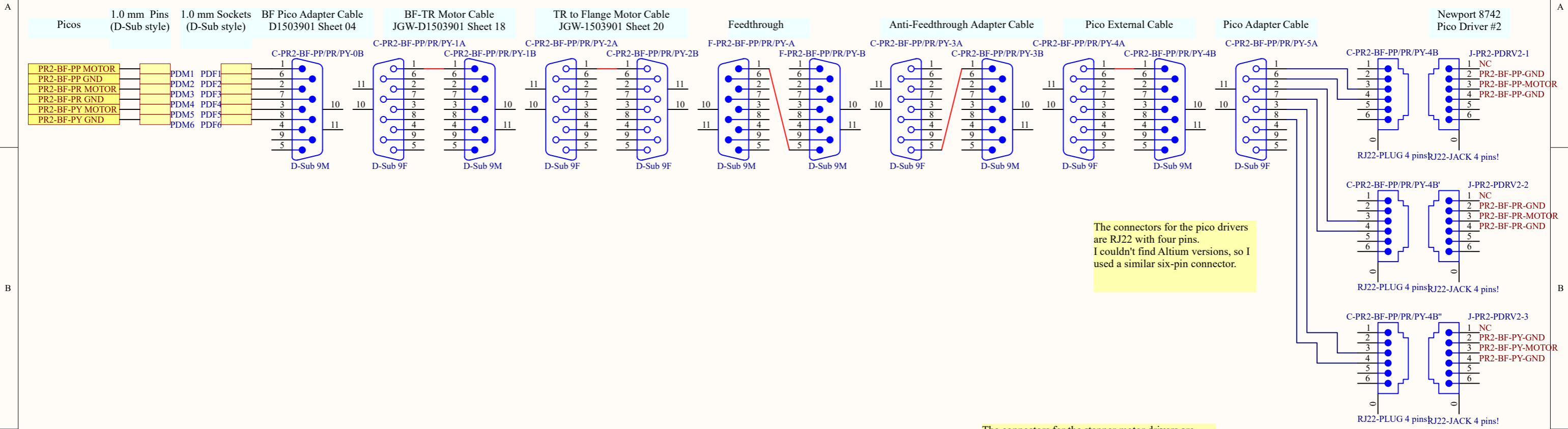
Title PR2 Suspension Cabling - Intermediate Mass Picos		
Size A3	Number JGW-D1503614	Revision -v4
Date: 5/25/2022	Sheet of 3 of 7	Drawn By:
File: C:\Users\...IM Picos.SchDoc		

# BF and SF Picomotors and Steppers

## 3 Feedthroughs

Cannot find  
Z:\Work\Red  
Prototyp\Green  
B Protot  
Driver p  
Yellow

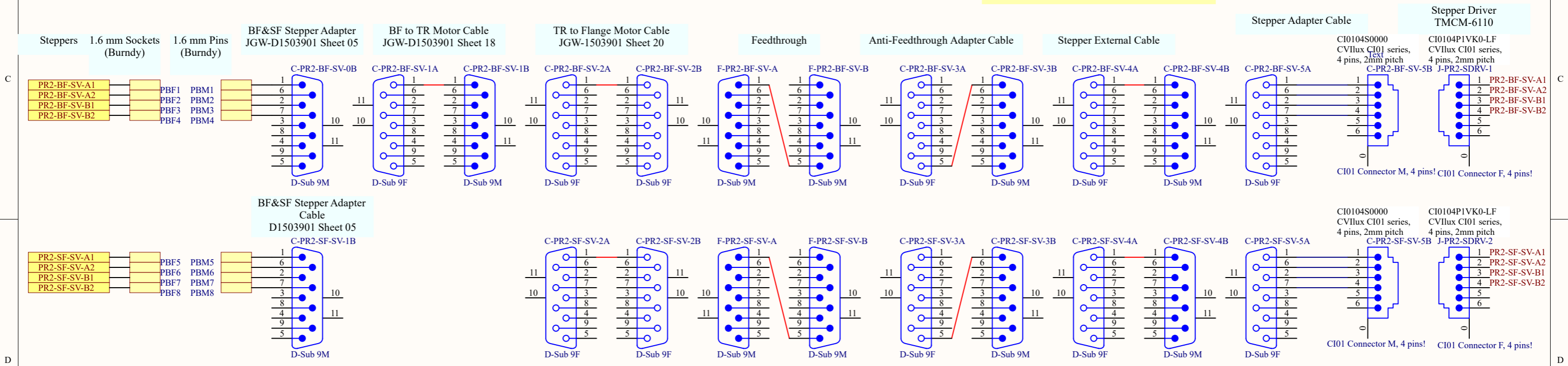
electronics\Type B  
JW-D1503382 Type  
g\Newport 8742 Pico  
File does not exist.



The connectors for the pico drivers are RJ22 with four pins. I couldn't find Altium versions, so I used a similar six-pin connector.

The connectors for the stepper motor drivers are CVIlux: CI01045000-A (plug, female), CI0104P1VK0-LF (jack, male) pairs with four pins. I couldn't find Altium versions, so I used a similar six-pin connector.

CI0104P1VK0-LF  
Cannot open file Z:\Work\KAGRA\Electronics\Type B Prototype  
Cables\JGW-D1503382 Type B Prototype Cabling\TMCM-6110 pinout.png.  
File does not exist.



The connectors for the stepper motor drivers are CVIlux: CI01045000-A (plug, female), CI0104P1VK0-LF (jack, male) pairs with four pins. I couldn't find Altium versions, so I used a similar six-pin connector.

CI0104S0000  
CVIlux CI01 series,  
4 pins, 2mm pitch  
C-PR2-BF-SV-5B J-PR2-SDRV-1

CI0104P1VK0-LF  
CVIlux CI01 series,  
4 pins, 2mm pitch  
J-PR2-SDRV-1

Title		
PR2 Suspension Cabling - Bottom and Standard Filter Picos/Steppers		
Size	Number	Revision
A3	JGW-D1503614	-v4
Date:	5/25/2022	Sheet 4 of 7
File:	C:\Users\...BF&SF Picos&Steppers.SchDoc\Drawn By:	

# BF and SF LVDT/ACTs

## 2 Feedthroughs

LVDT/Act

BF&SF LVDT Adapter Cable  
JGW-D1503901 Sheet 06

TR to Flange Signal Cable  
JGW-D1503901 Sheet 19

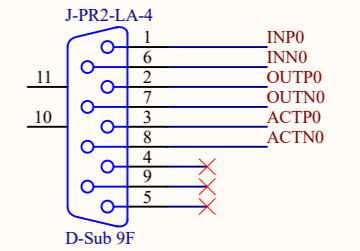
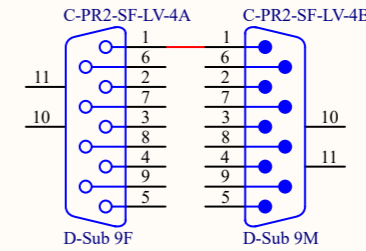
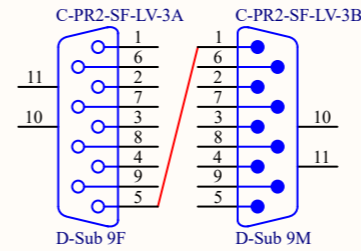
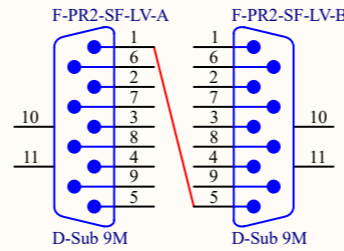
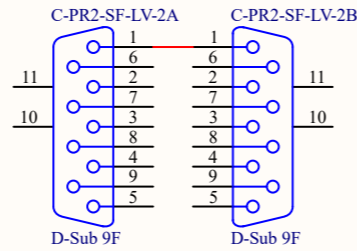
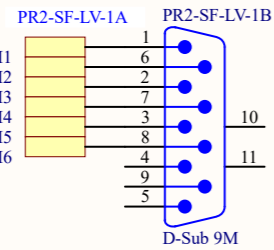
Feedthrough

Feedthrough Adapter Cable

External Cable

LVDT/ACT Distributor  
JGW-D1402124

PR2-SF-LV



LVDT/Act

BF&SF LVDT Adapter Cable  
JGW-D1503901 Sheet 06

OSEM BF-TR Signal Cable  
JGW-D1503901 Sheet 17

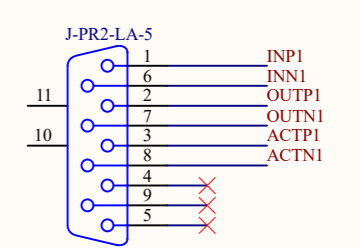
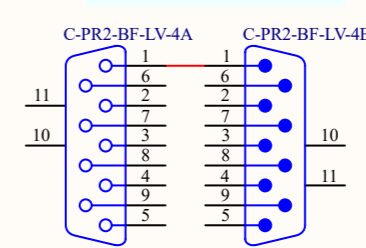
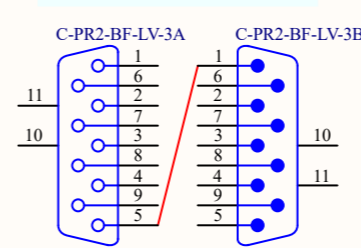
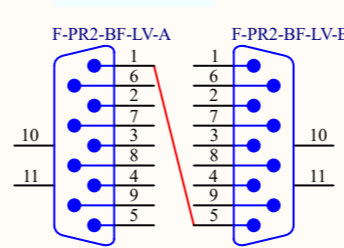
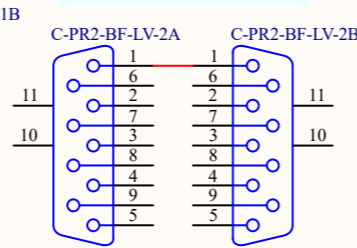
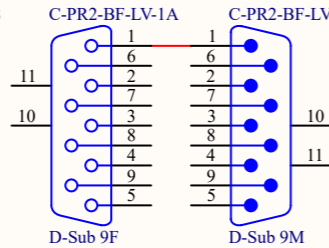
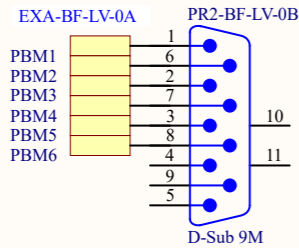
TR to Flange Signal Cable  
JGW-D1503901 Sheet 19

Feedthrough

Feedthrough Adapter Cable

External Cable

PR2-BF-LV



J-PR2-LA-6 and J-PR2-LA-7 not used

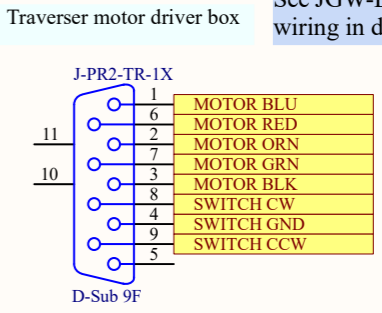
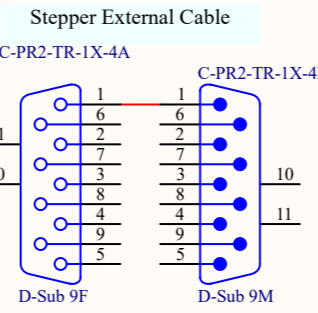
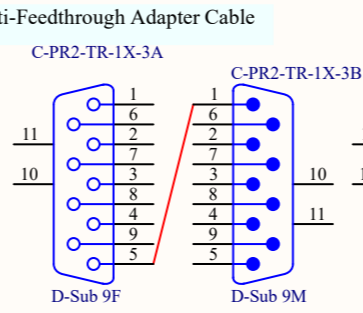
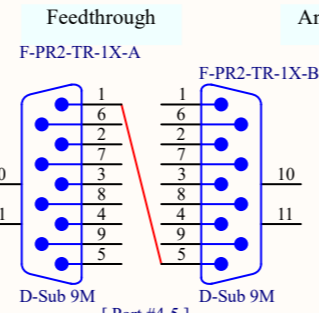
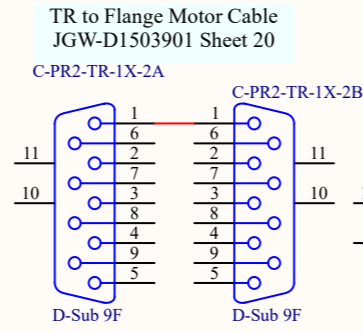
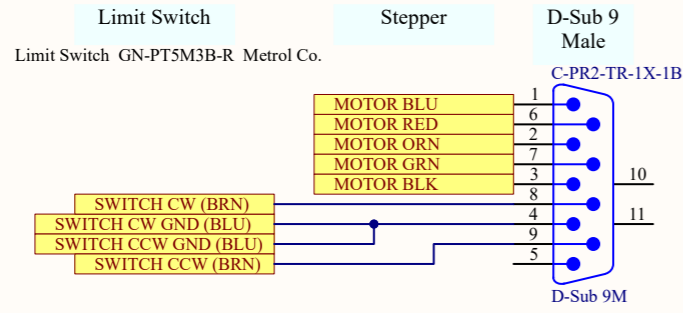
Title PR2 Suspension Cabling - Bottom and Standard Filter LVDTs		
Size A3	Number JGW-D1503614	Revision -v4
Date: 5/25/2022	Sheet 5 of 7	Drawn By:
File: C:\Users\...\BF&SF LVDTs.SchDoc		

# Traverser Steppers (T1, R1, T2, R2)

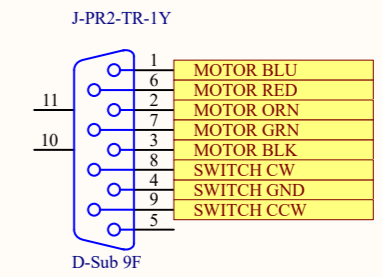
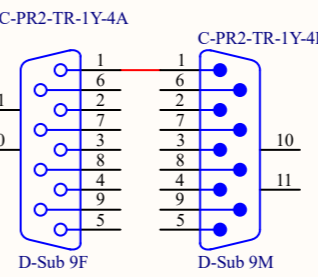
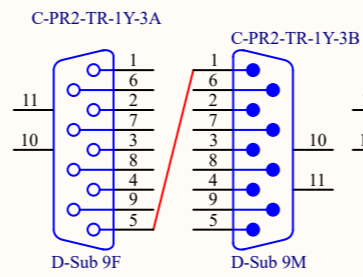
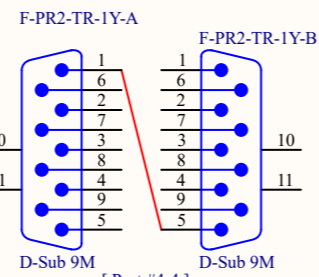
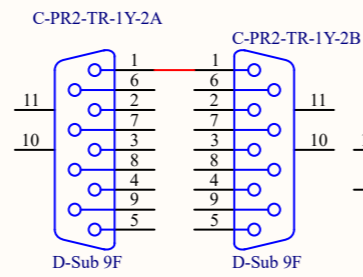
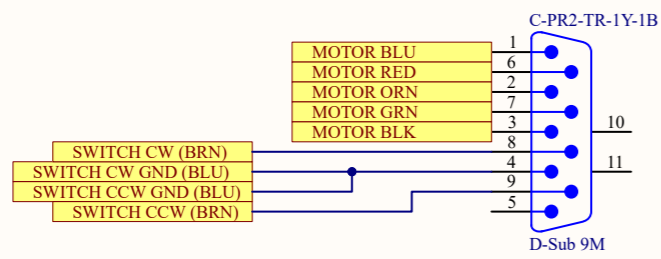
PR2

See JGW-E2213834 for wiring in driver box.

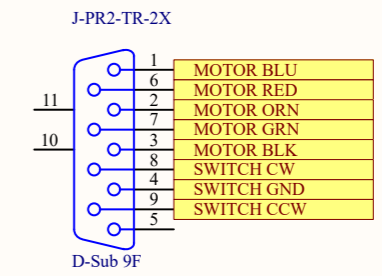
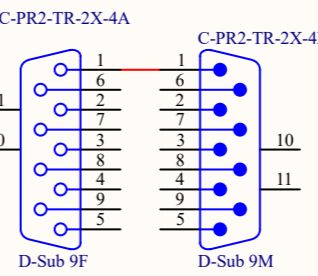
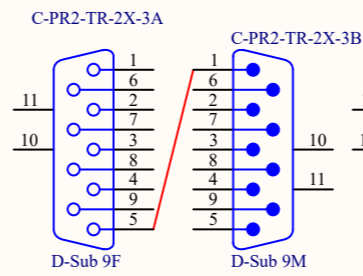
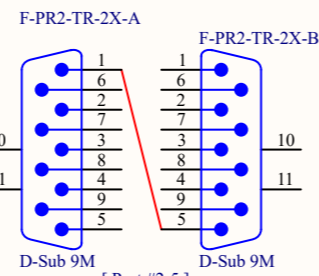
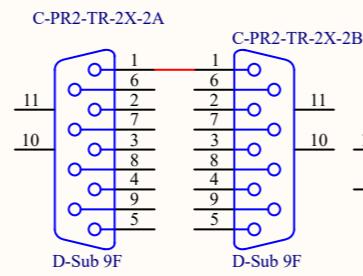
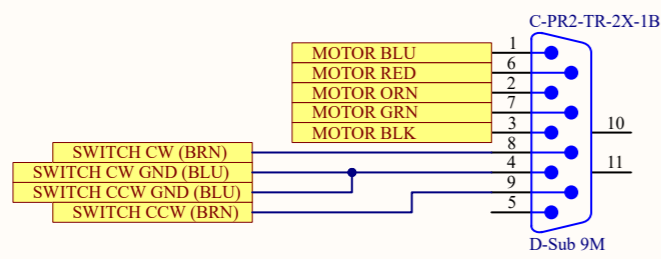
[ T1 ]



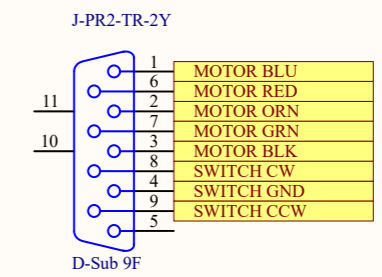
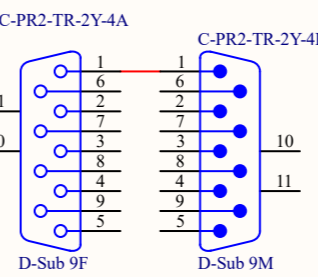
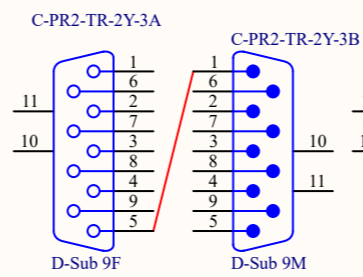
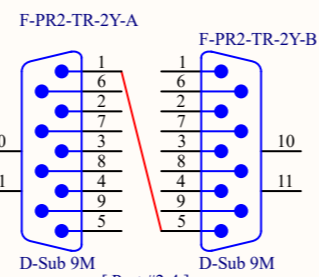
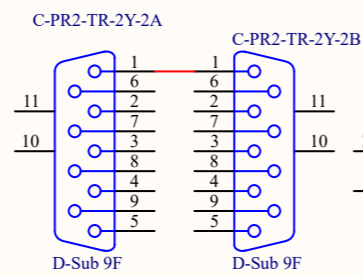
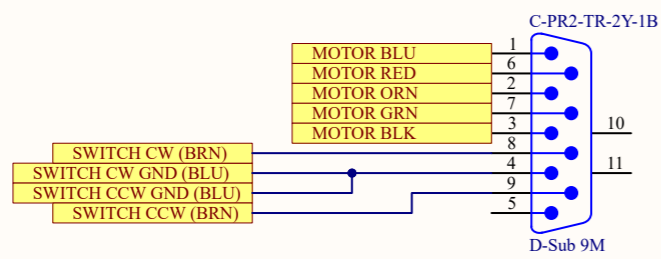
[ R1 ]



[ T2 ]



[ R2 ]



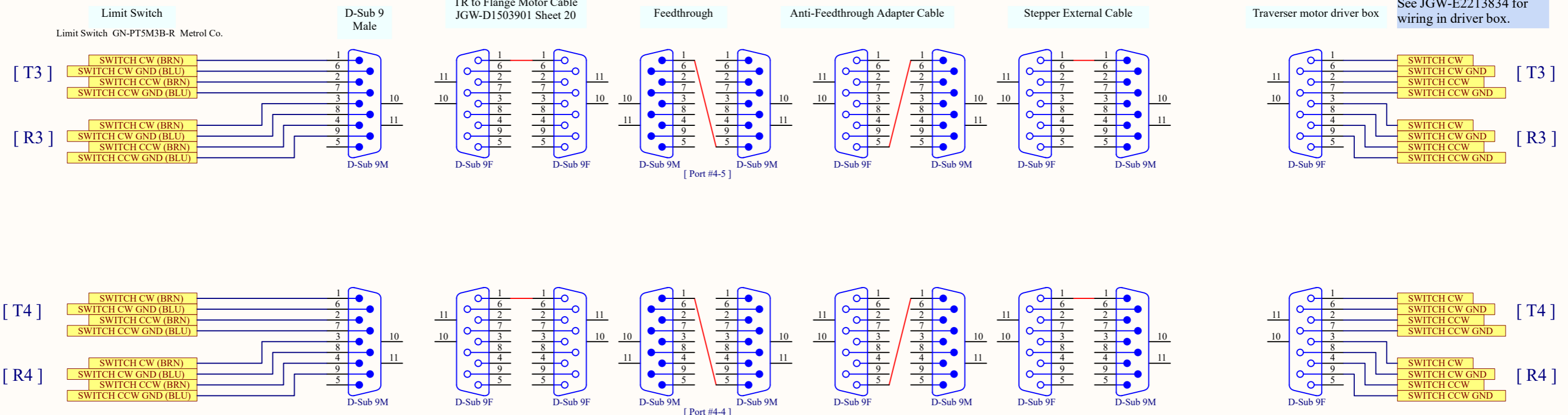
2022.5.11 Revision v4  
 \* Limit switches have been replaced and added.  
 \* Motor pin assignments have been changed. (k-log 15944, <https://klog.icrr.u-tokyo.ac.jp/osl/?r=15944>)

Title PR2 Suspension Cabling - Traverser Steppers		
Size A3	Number JGW-D1503614	Revision -v4
Date: 5/25/2022	Sheet 7 of 7	Drawn By: N. Sato
File: C:\Users\... \TR Steppers PR2.SchDoc		



# Traverser Limit switch (T3, R3, T4, R4)

PR2



Title PR2 Suspension Cabling - Traverser limit switch		
Size A3	Number JGW-D1503614	Revision -v4
Date: 5/25/2022	Sheet of 7	Drawn By: N. Sato
File: C:\Users\...TR Limit switch PR2.SchDoc		