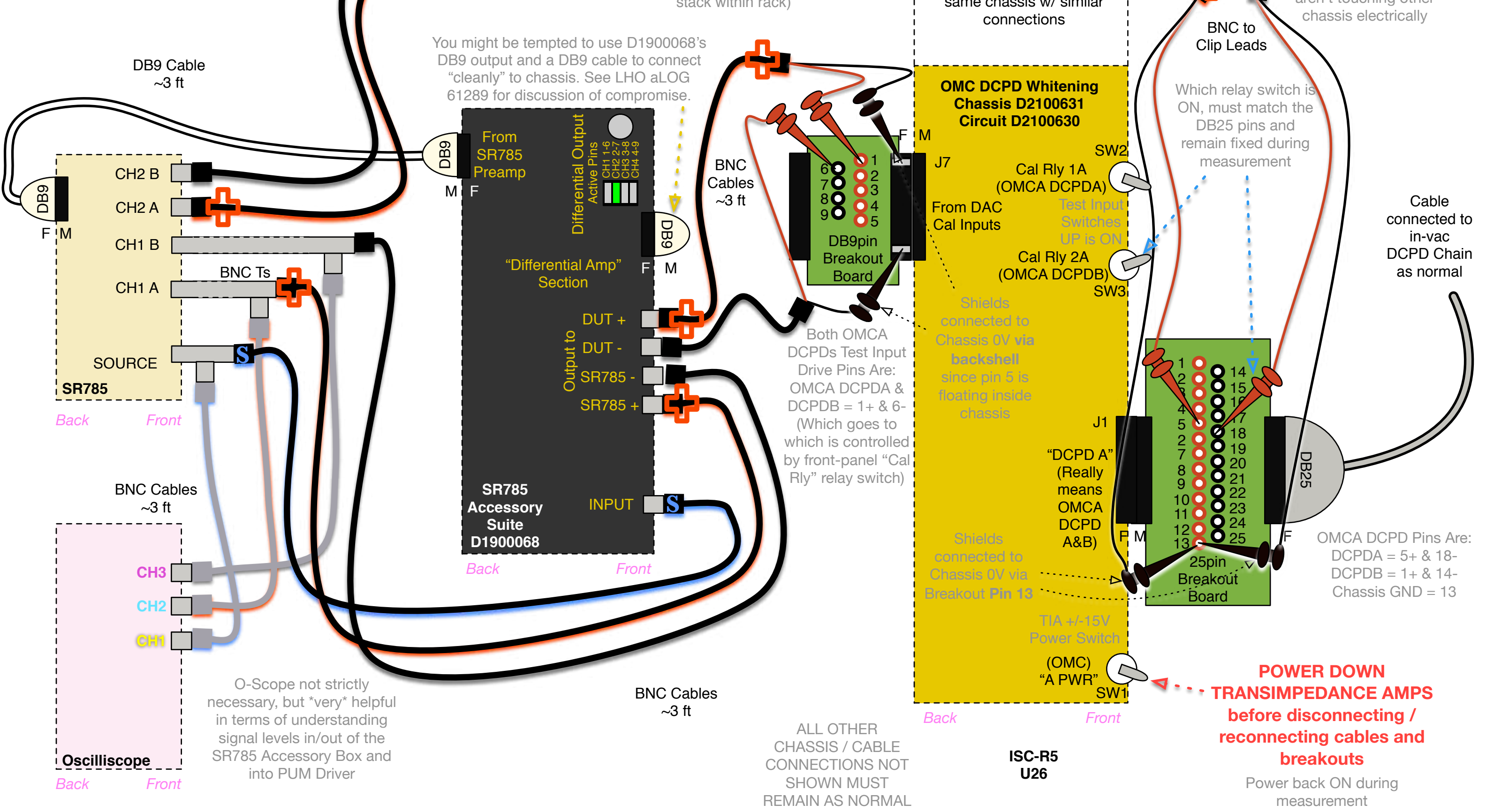


GW DCPD Transimpedance Measurement

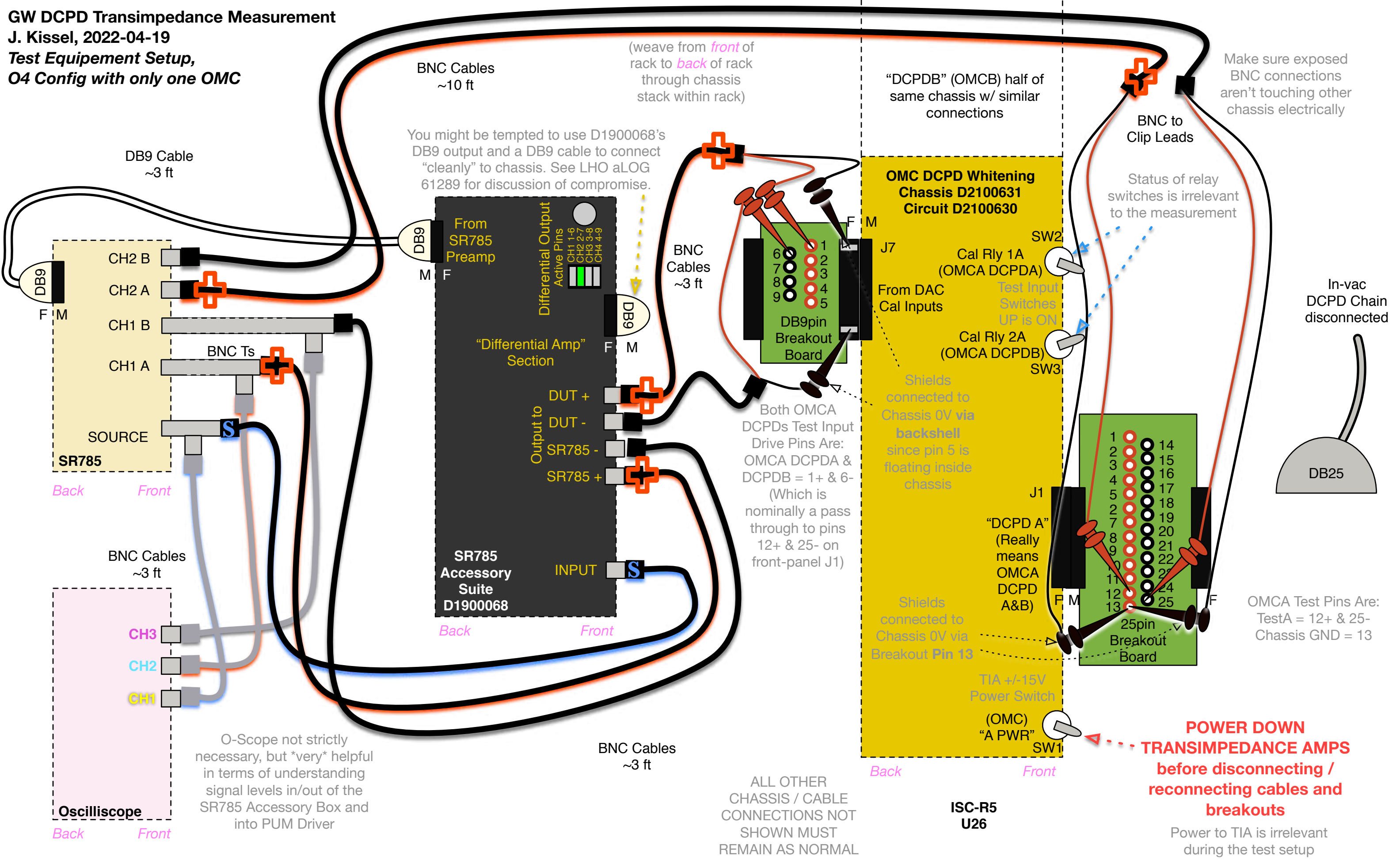
J. Kissel, 2022-04-19

DUT Setup

O4 Config with only one OMC



GW DCPD Transimpedance Measurement
J. Kissel, 2022-04-19
Test Equipment Setup,
O4 Config with only one OMC



BNC Cables
~10 ft

(weave from *front* of rack to *back* of rack through chassis stack within rack)

“DCPDB” (OMCB) half of same chassis w/ similar connections

Make sure exposed BNC connections aren't touching other chassis electrically

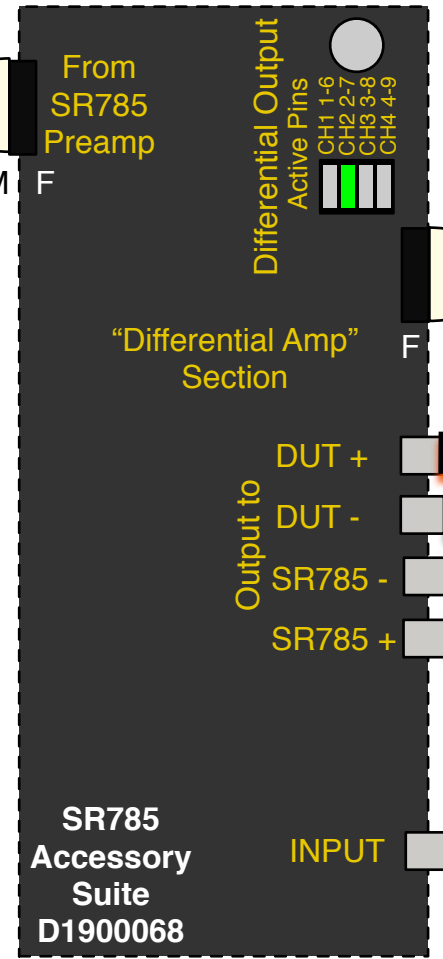
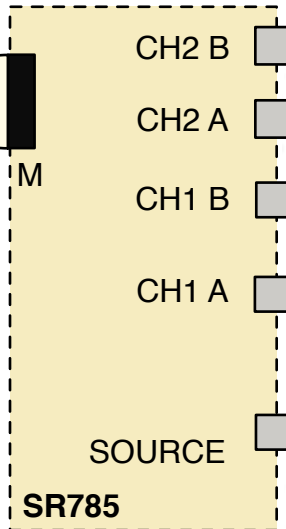
You might be tempted to use D1900068's DB9 output and a DB9 cable to connect “cleanly” to chassis. See LHO aLOG 61289 for discussion of compromise.

Status of relay switches is irrelevant to the measurement

DB9 Cable
~3 ft

BNC Cables
~3 ft

In-vac DCPD Chain disconnected

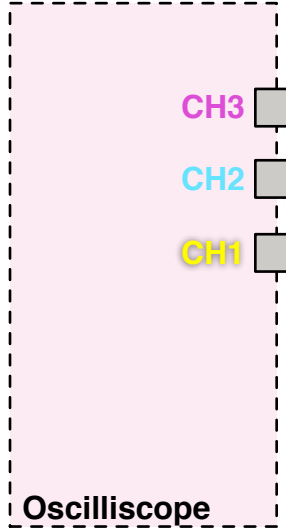


Both OMCA DCPDs Test Input Drive Pins Are:
OMCA DCPDA & DCPDB = 1+ & 6-
(Which is nominally a pass through to pins 12+ & 25- on front-panel J1)

Shields connected to Chassis 0V via backshell since pin 5 is floating inside chassis

Shields connected to Chassis 0V via Breakout Pin 13

BNC Cables
~3 ft



O-Scope not strictly necessary, but *very* helpful in terms of understanding signal levels in/out of the SR785 Accessory Box and into PUM Driver

BNC Cables
~3 ft

ALL OTHER CHASSIS / CABLE CONNECTIONS NOT SHOWN MUST REMAIN AS NORMAL

ISC-R5 U26

POWER DOWN TRANSIMPEDANCE AMPS before disconnecting / reconnecting cables and breakouts

Power to TIA is irrelevant during the test setup

TIA +/-15V Power Switch (OMC) “A PWR” SW1

“DCPD A” (Really means OMCA DCPD A&B)

Cal Rly 1A (OMCA DCPDA)
Cal Rly 2A (OMCA DCPDB)

Test Input Switches UP is ON

SW2

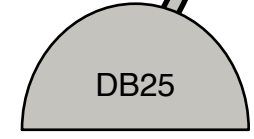
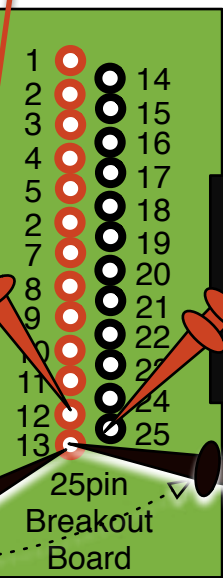
SW3

J1

J7

OMC DCPD Whitening Chassis D2100631
Circuit D2100630

From DAC Cal Inputs



OMCA Test Pins Are:
TestA = 12+ & 25-
Chassis GND = 13