

ELE-C585-301

48HP Subrack Front Panel Power Connection

March 10, 2010 (GD)

PSU Connector to MCE 48HP Backplane:

Front panel: Winchester MRA-34S-G (PSU) for power supply connector

Backplane: Screw terminals for power signals, 20 pin .1" 2 row connector for PSU controller

Signal	Wire Color-Gauge	Voltage	Current (max)	Signal Contacts	Ground Contacts
+Vcore	GRN-18	+3.0V	11A	3	7
+Vlvd	RED-18	+4.5V	13A	3	BLK-18
+Va	YEL-18	+6.2V	18A	4	5 BLK-18
-Va	BLU-18	-6.2V	2A	1	
+Vah	GRY-18	+10V	1A	1	
Control	varies - 22		0.01A	6	2 (sig. return)

Subtotal 18 contacts 14 contacts

Total 32 contacts

Winchester MRA-34P-G Pin Assignments (Front Panel):

Coloured groupings of shaded cells indicate wires that should go to the same ring terminals. Ring terminals should be #8 stud 10-12 AWG (yellow insulation) 7.92 mm outer ring diameter.

	A +Vha (gry-60cm)		B AGND (blk-62cm)
C -Va (blu-61cm)	E +Va (yel-63cm)	D AGND (blk-62cm)	F AGND (blk-64cm)
H +Va (yel-63cm)	K +Va (yel-63cm)	J AGND (blk-64cm)	L AGND (blk-64cm)
M +Va (yel-63cm)	P +Vlvd (red-65cm)	N DGND (blk-66cm)	R DGND (blk-66cm)
S +Vlvd (red-65cm)	U +Vlvd (red-65cm)	T DGND (blk-66cm)	V DGND (blk-68cm)
W +Vcore (grn-67cm)	Y +Vcore (grn-67cm)	X DGND (blk-68cm)	Z DGND (blk-68cm)
a +Vcore (grn-67cm)	c (RED-72cm) CC_SREQ	b DGND (blk-68cm)	d (GRN-72cm) PS_MOSI
f (n/c) Spare2	h (ORG-72cm) CC_MISO	g (GRY-72cm) BRST	i (BLU-72cm) PS_SCLK
j (VIO-72cm) Spare1	m (BLK-72cm) Sig_RET(GND)	k (YEL-72cm) PS_CS	n (BLK-72cm) Sig_RET(GND)

2x10 AMP 102387-4 connector Pin Assignments (to BB PSUC connector):

									pin1
AID02	Vlvd	Sig_Ret	Sig_Ret	Sig_Ret	Sig_Ret	Sig_Ret	Sig_Ret	Sig_Ret	Sig_Ret
AID01	AID00	BRST	n/c	SP1	PS_SCLK	PS_MOSI	PS_CS	CC_MISO	CC_SREQ

2x5 AMP 102387-1 connector Pin Assignments (from PSUC connector to array ID board P1):

				pin1
AID02 (blu-20 cm)	AID01 (yel-20 cm)	AID00 (grn-20 cm)	Vlvd (red-20 cm)	Sig_Ret (blk-20 cm)
AID02	AID01	AID00	Vlvd	Sig_Ret

Note that

1. Power wires between 34-pin Winchester connector and screw terminals are 18 gauge
2. Control wires between 34-pin Winchester connector and 2x10 PSUC connector, and between 2x10 PSUC connector and 2x5 array ID connector, are 22 gauge.
3. Only two **Sig_Ret** (Gnd) pins are wired on Winchester connector (remaining Sig_Ret lines on PSUC connector are inserted into 2x10 connector and connected using butt splice connectors or free hanging solder joints to the two connected Sig_Ret wires).
4. All pin assignments are shown from the wiring side.
5. On the array ID 5x2 pin connector, doubled up pins need only to be wired once. Only pins 1 or 2, 3 or 4, 5 or 6, 7 or 8, 9 or 10, must be wired to the PSUC connector.
6. For the AMP 102387-4 and 102387-1 connectors the contacts are Mod IV AMP 8606-3 crimp snap in style contacts