

ELE-C585-301Rev C

48HP Subrack Front Panel Power Connection

November 5, 2010 (TF)

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 – 22/24		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 terminal. Ring terminals should be #8 stud 10-12 AWG (yellow insulation) 7.92 mm outer ring diameter. For example, AMP 8-324915-1.

	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/Fan Ret	h (ORG-72cm) CC_MISO	g (GRY-72cm) BRST	i (BLU-72cm) PS_SCLK
j (VIO-72cm) Spare1/Fan +12V	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):

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

pin20

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

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

pin10

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 with heat shrink 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
7. Rev C uses Winchester pins f and j for 12V cooling fans.