Series Ten Schematics

by Holger Marienberg

These schematics are entirely based on reverse engineering and are intended solely for the repair and restoration of a Harrison Series Ten mixing console. The author does not have access to any documentation from Harrison and is an amateur, not a professional electronics engineer.

Completeness or accuracy cannot be guaranteed!

Version September 14, 2025

Anacapa Industries »Model AI213« Power Supply Unit

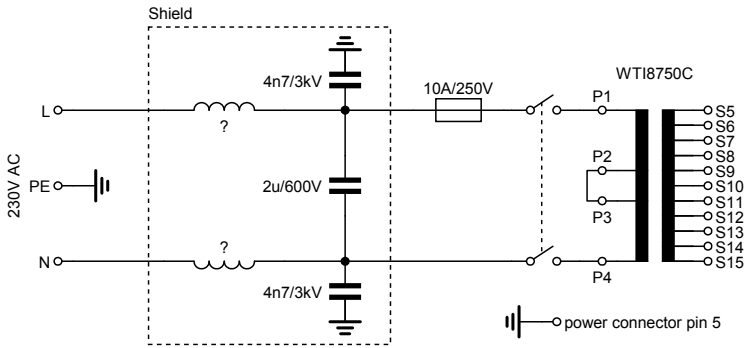
Note 1: Component numbers match the original.
Note 2: All resistors, except those specially marked, are 1/2W carbon film with 5% tolerance.

1/4 EMI Filter / Center-tapped full-wave rectifiers / Wiring
2/4 Darlington Pass-Banks
3/4 LM723 Regulation / SCR Overvoltage Protection +15V rail / -15V rail
4/4 LM723 Regulation / SCR Overvoltage Protection +5V rail / +48V phantom power

Channel Frame

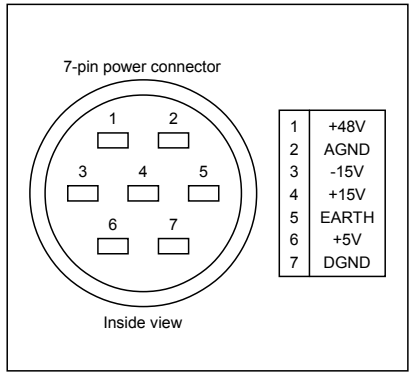
Note 1: Component numbers match the original.

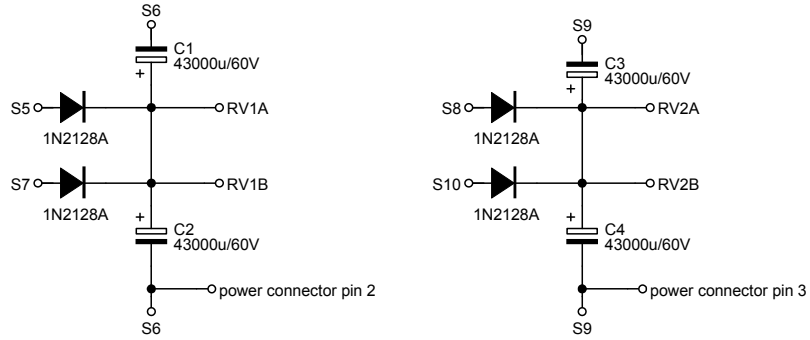
1/9 Backplane Locations
2/9 Power Input / 1000-10252-1 Power Distribution Board
3/9 1000-10267-3 SERIESTEN INPUT MBD P1 Channel Strip Backplane
4/9 1000-10269-1 P2 MBD Channel Strip Backplane
5/9 1000-10271-1 40 SEG. LIGHT METER MBD Sheet 1/2 Light Meter Backplane
6/9 1000-10271-1 40 SEG. LIGHT METER MBD Sheet 2/2 Light Meter Backplane
7/9 1000-10272-0 MIC PRE / AUX MSTR MBD Mic Preamps Backplanes
8/9 Rear-panel Multipin Preamp Connector
9/9 Rear-panel Multipin Channel Strip Connector

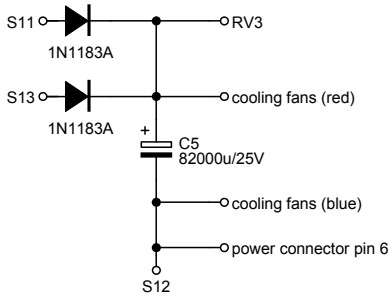


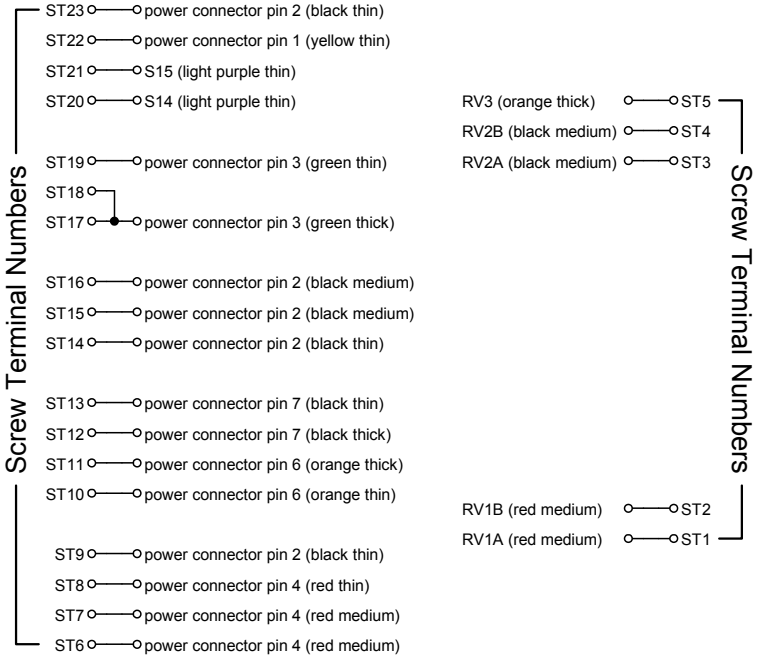
Transformer (no load)

Terminal	Description	Voltage
S5	Winding end (measured vs. center tap S6)	21 VAC
S6	Center tap	0 VAC
S7	Winding end (measured vs. center tap S6)	21 VAC
S8	Winding end (measured vs. center tap S9)	21 VAC
S9	Center tap	0 VAC
S10	Winding end (measured vs. center tap S9)	21 VAC
S11	Winding end (measured vs. center tap S12)	12 VAC
S12	Center tap	0 VAC
S13	Winding end (measured vs. center tap S12)	12 VAC
S14	Winding without center tap	51 VAC
S15	Winding without center tap	51 VAC



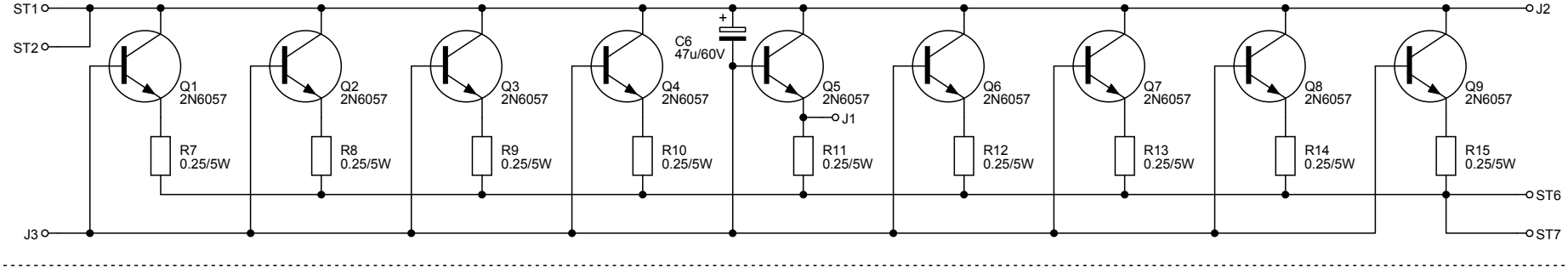




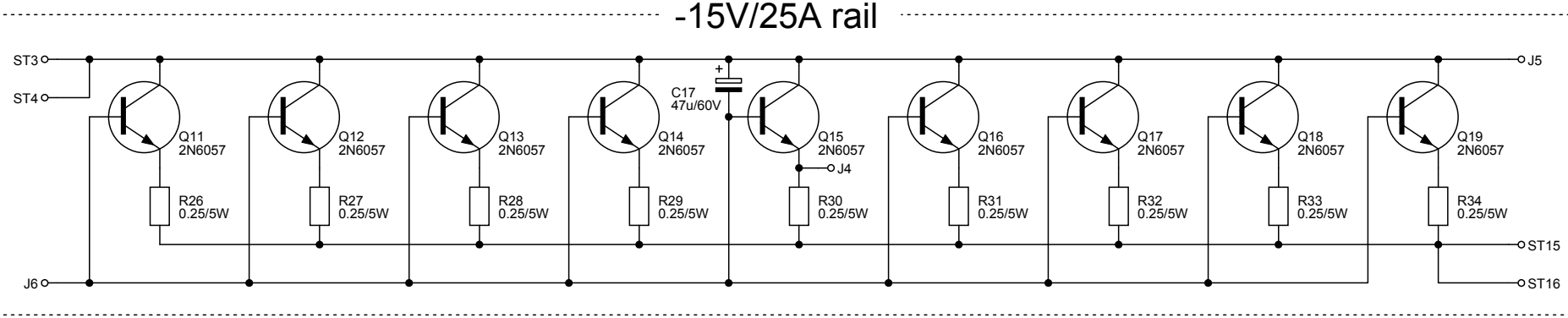


Series Ten	Anacapa Industries "Model AI 213" Power Supply Unit	EMI Filter / Center-tapped full-wave rectifiers / Wiring	1/4

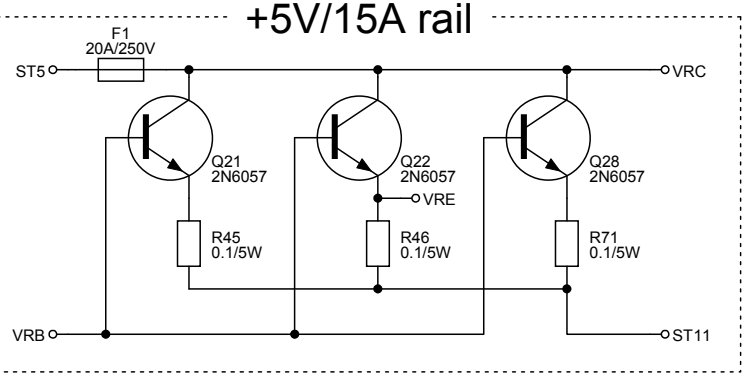
+15V/25A rail



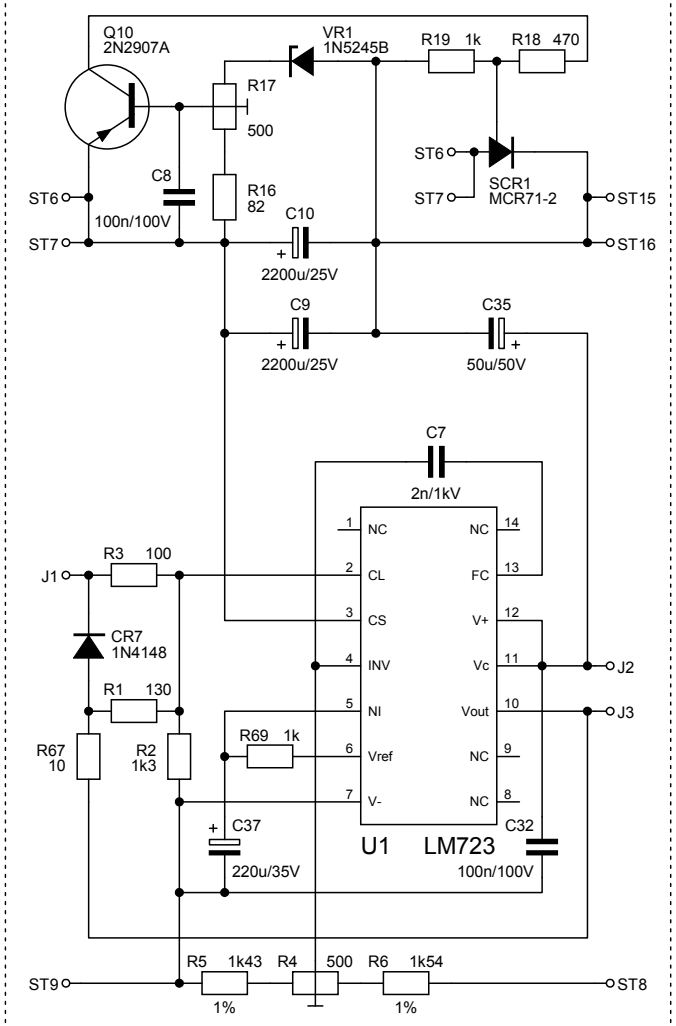
-15V/25A rail



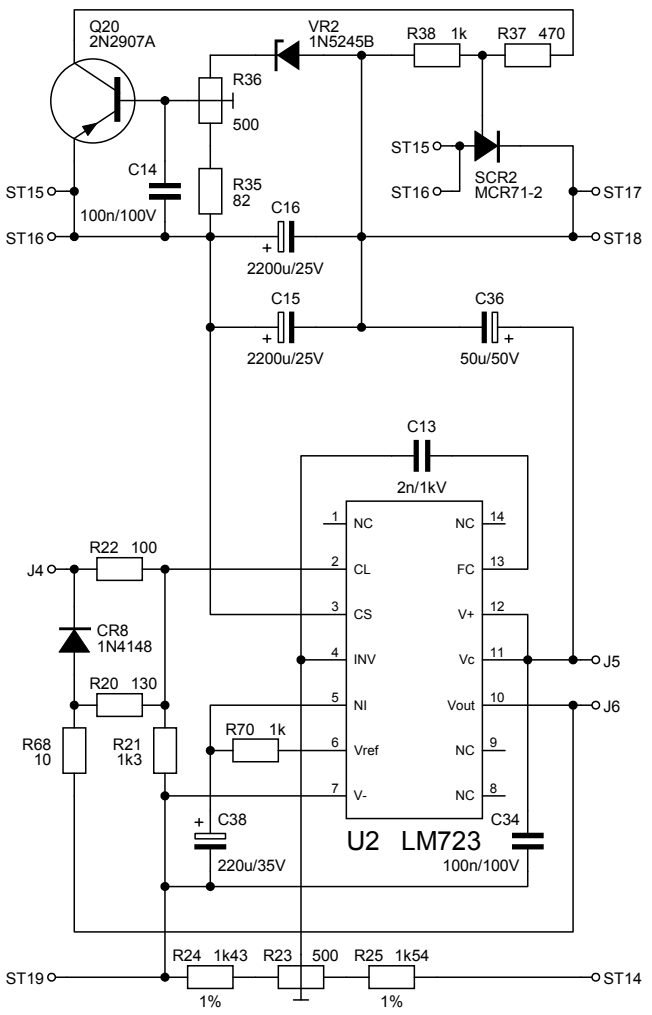
+5V/15A rail



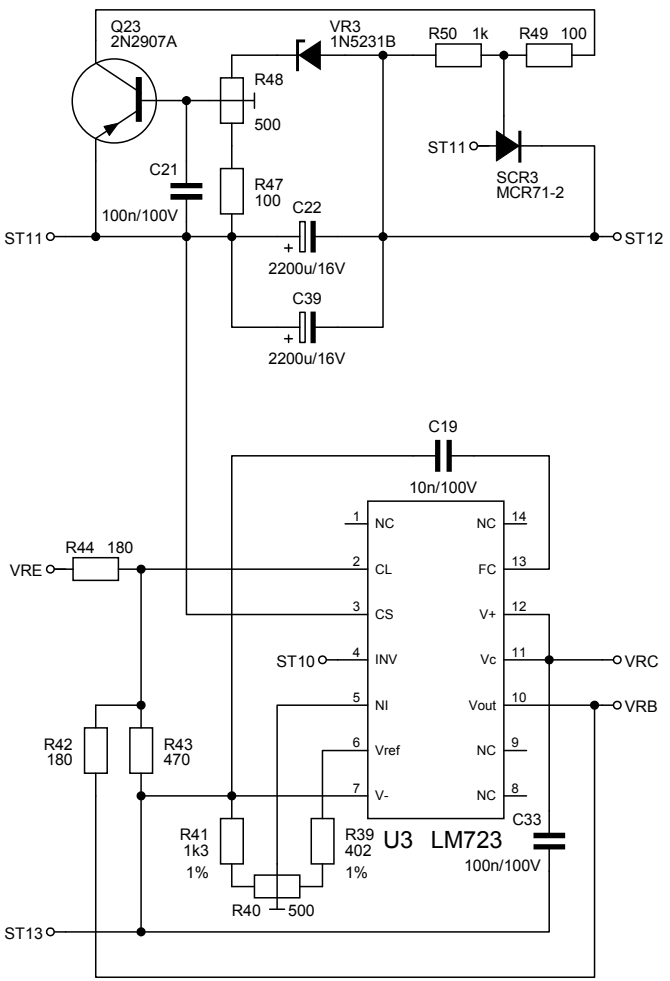
+15V/25A rail



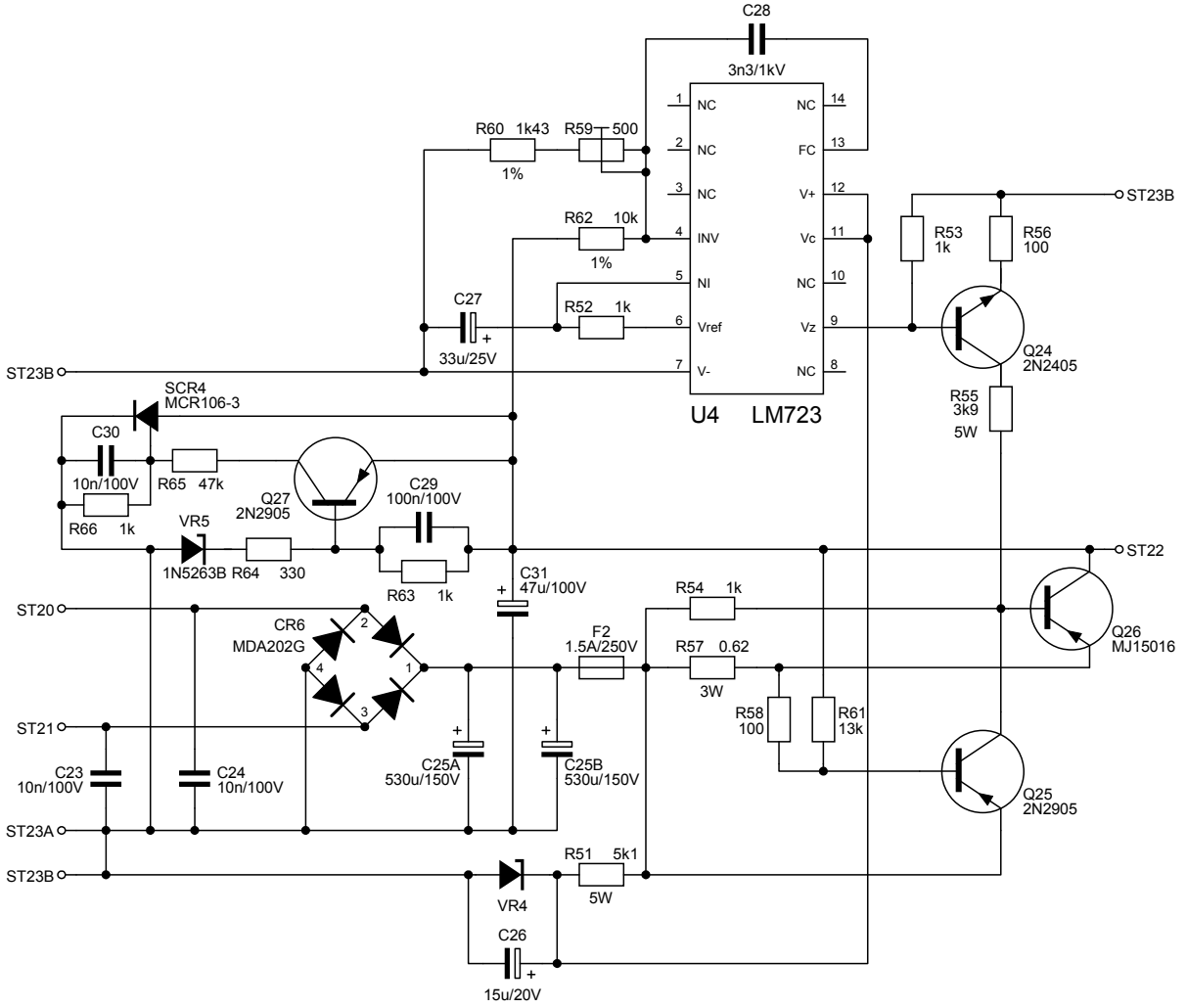
-15V/25A rail



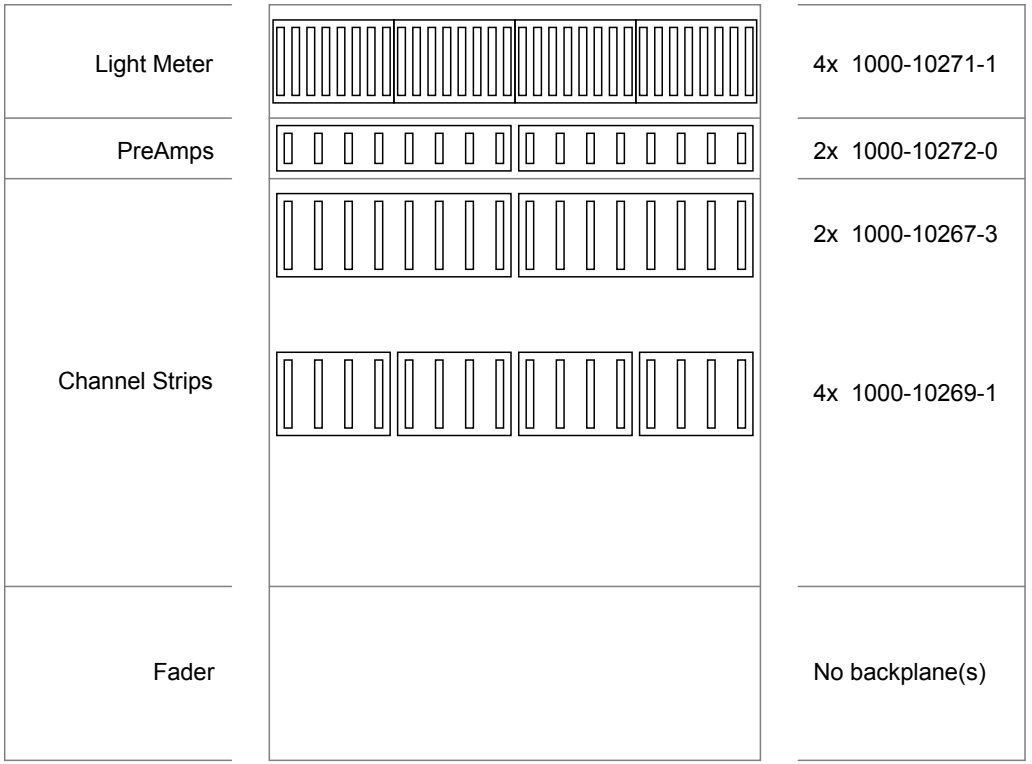
+5V/15A rail

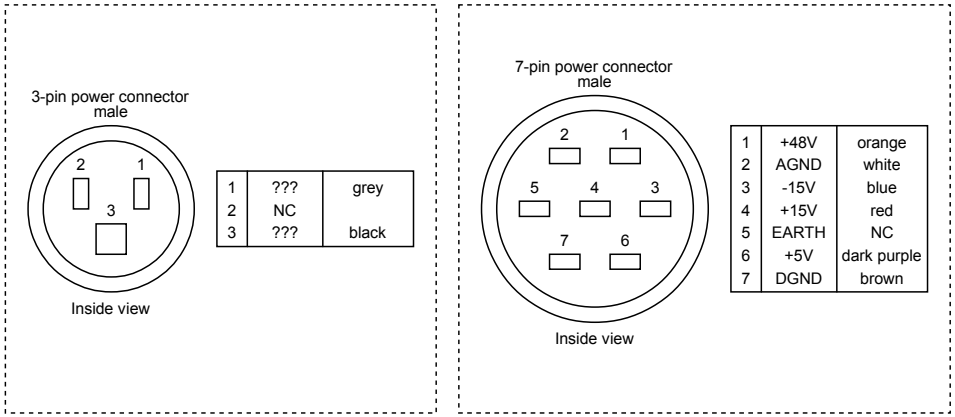


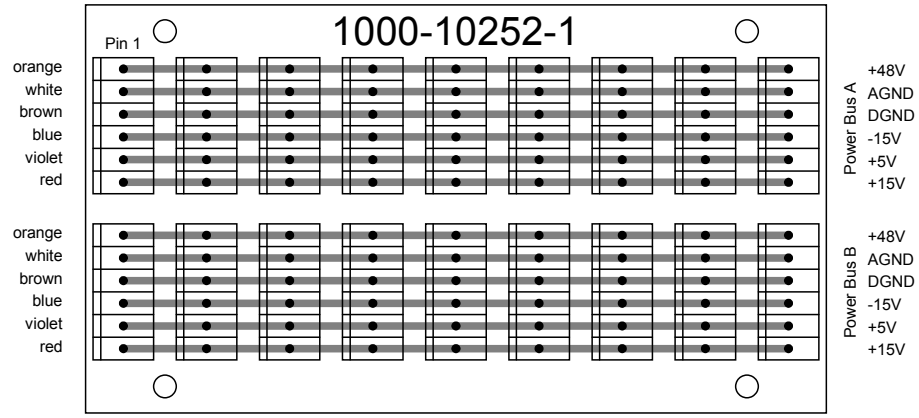
+48V/0.5A phantom power



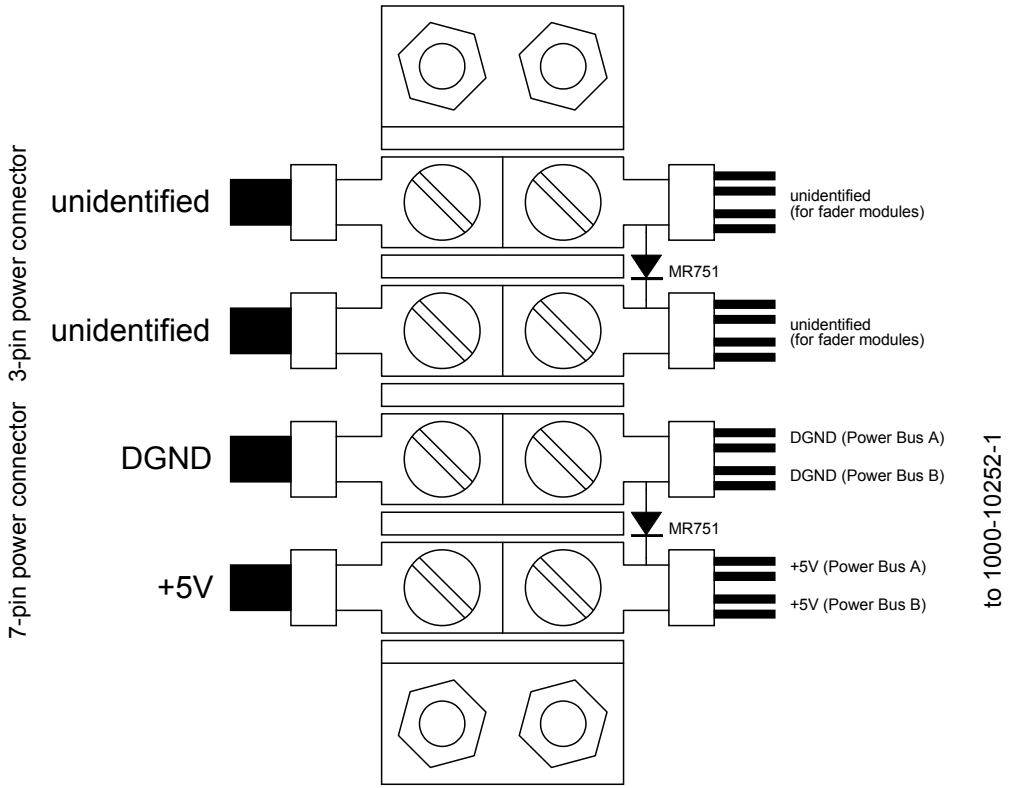
Note: VR4 is an unidentified 15V Zener diode. Use 1N5352B (5W) instead.

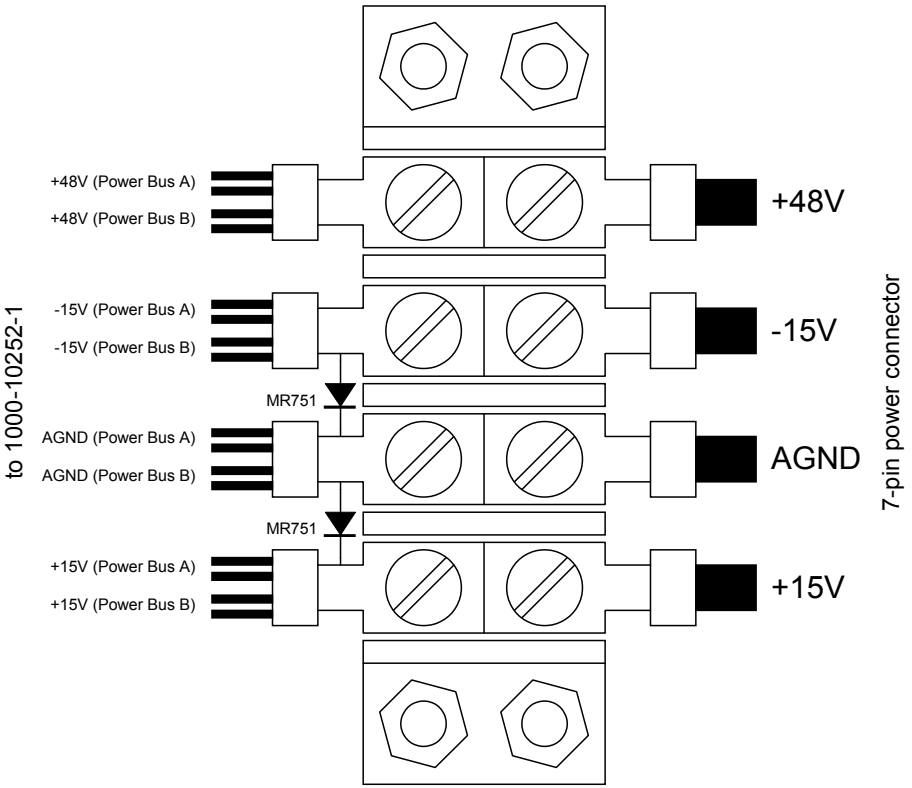

Light Meter
4x 1000-10271-1
PreAmps
2x 1000-10272-0
Channel Strips
2x 1000-10267-3
4x 1000-10269-1
Fader
No backplane(s)



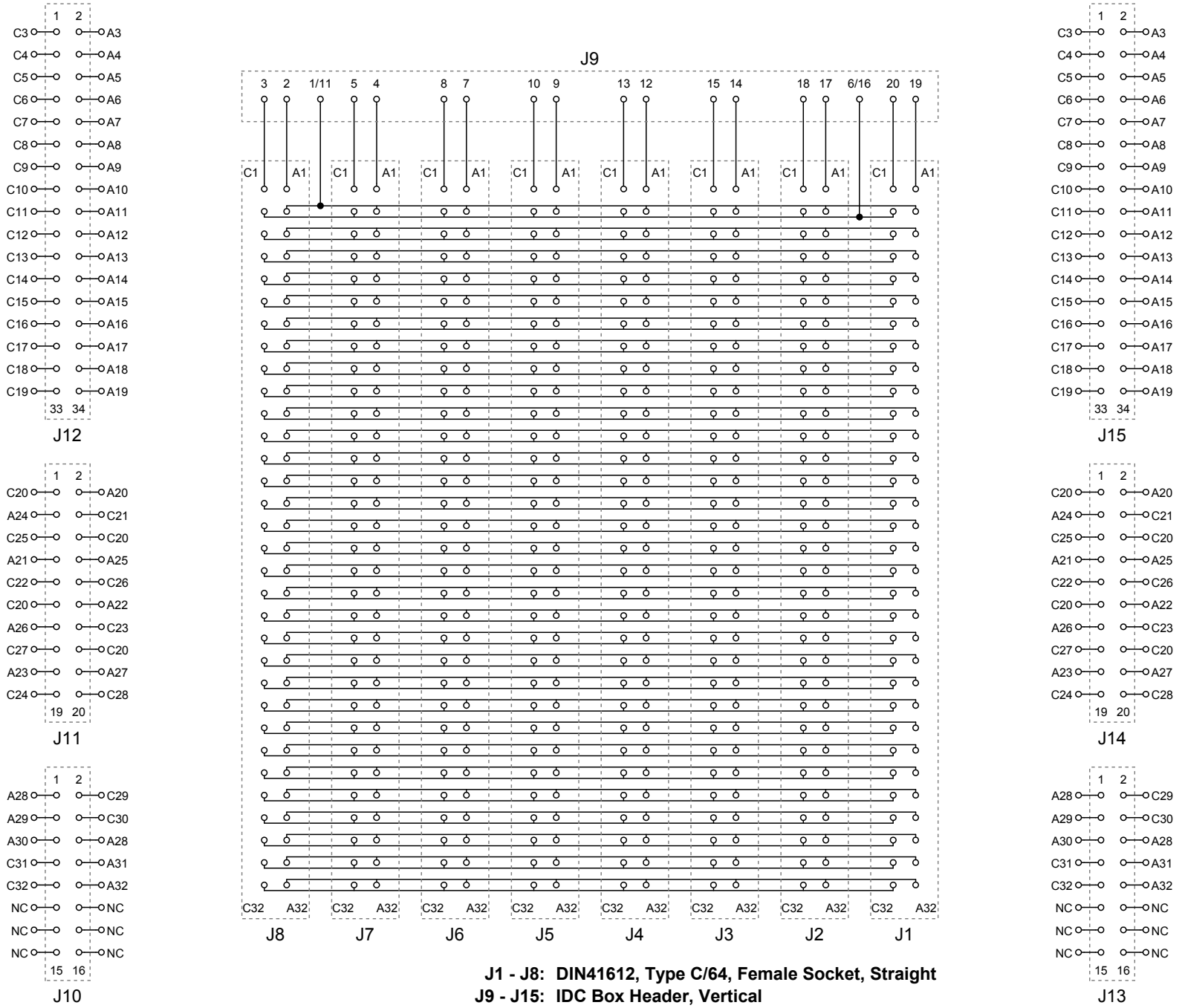


All connectors: 3.96 mm single-row PCB header, Vertical

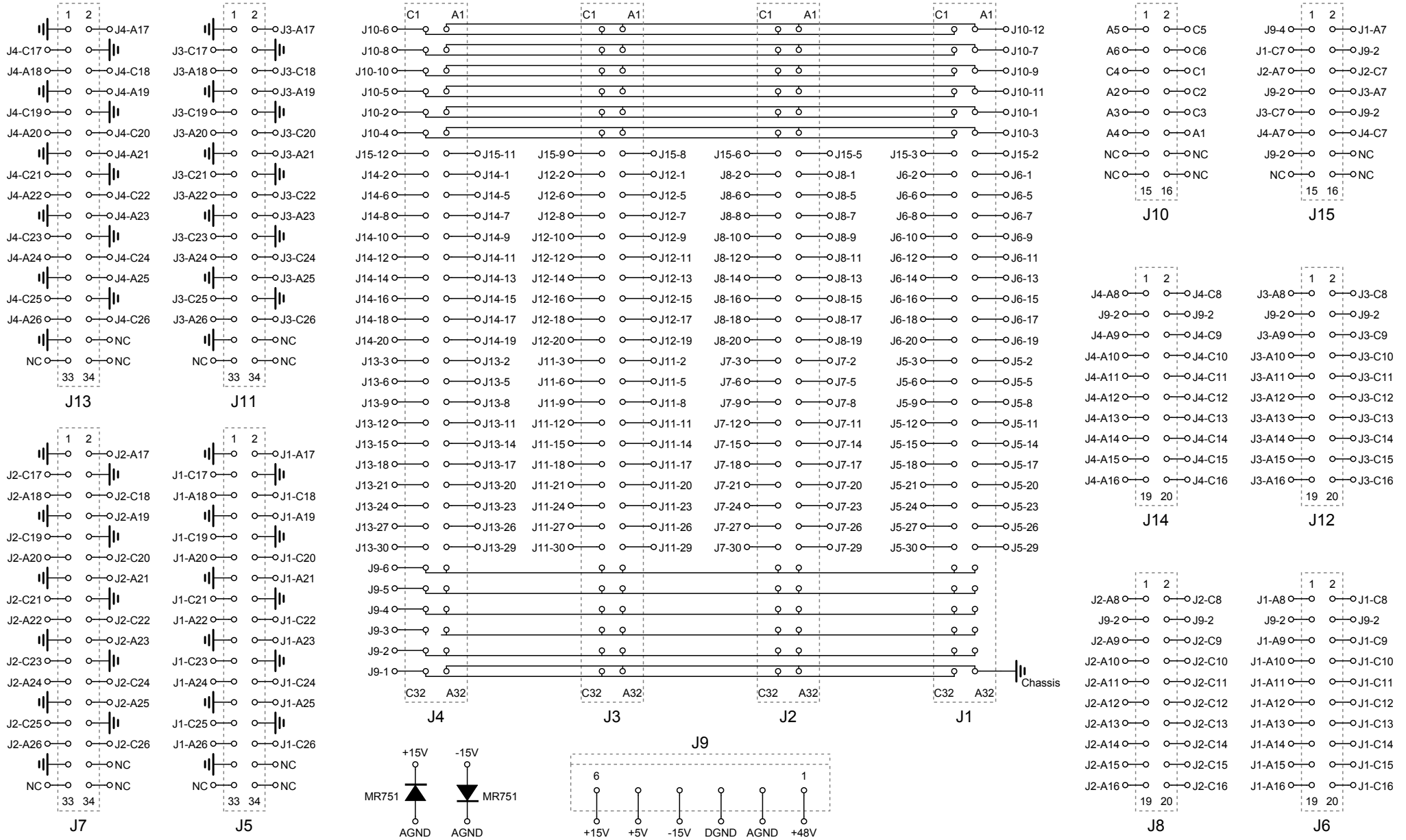




Note: Each rail is connected by 4 wires: two assigned to Power Bus A and two to Power Bus B. The two wires of each pair are soldered to the corresponding conductor track on the underside of the board, centered and spaced approximately 1 cm apart.

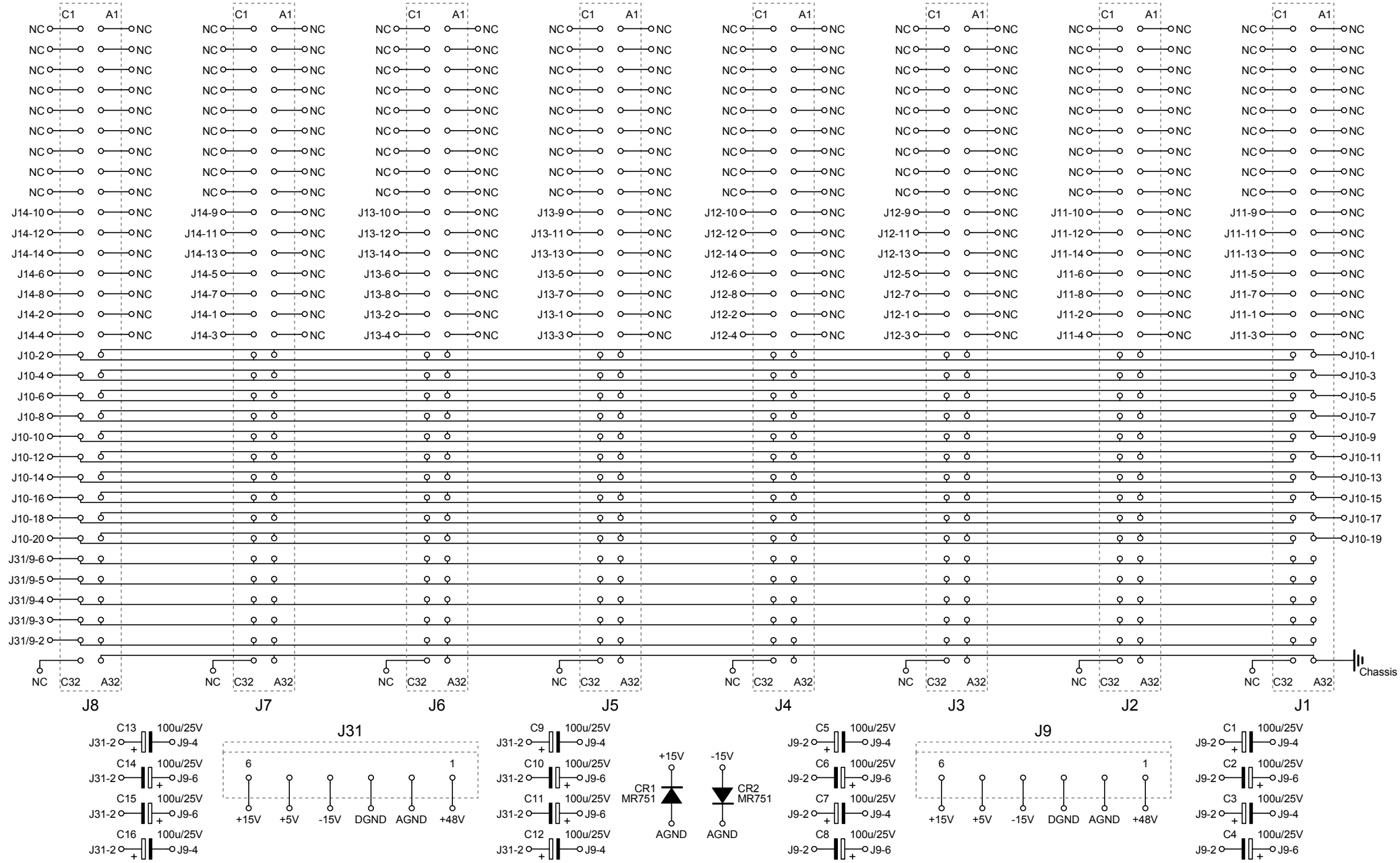


J1 - J8: DIN41612, Type C/64, Female Socket, Straight
J9 - J15: IDC Box Header, Vertical



J1 - J4: DIN41612, Type C/64, Female Socket, Straight
J5 - J8, J10 - J15: IDC Box Header, Vertical
J9: 3.96 mm single-row PCB header, Vertical

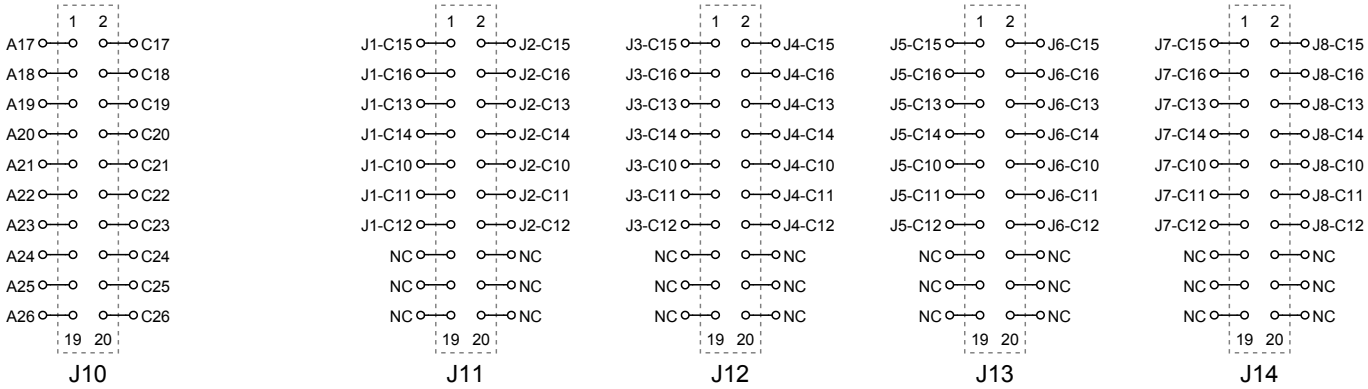
Series Ten	**Channel Frame**	1000-10269-1 P2 MBD Channel Strip Backplane	**4/9**



J1 - J8: DIN41612, Type C/64, Female Socket, Straight

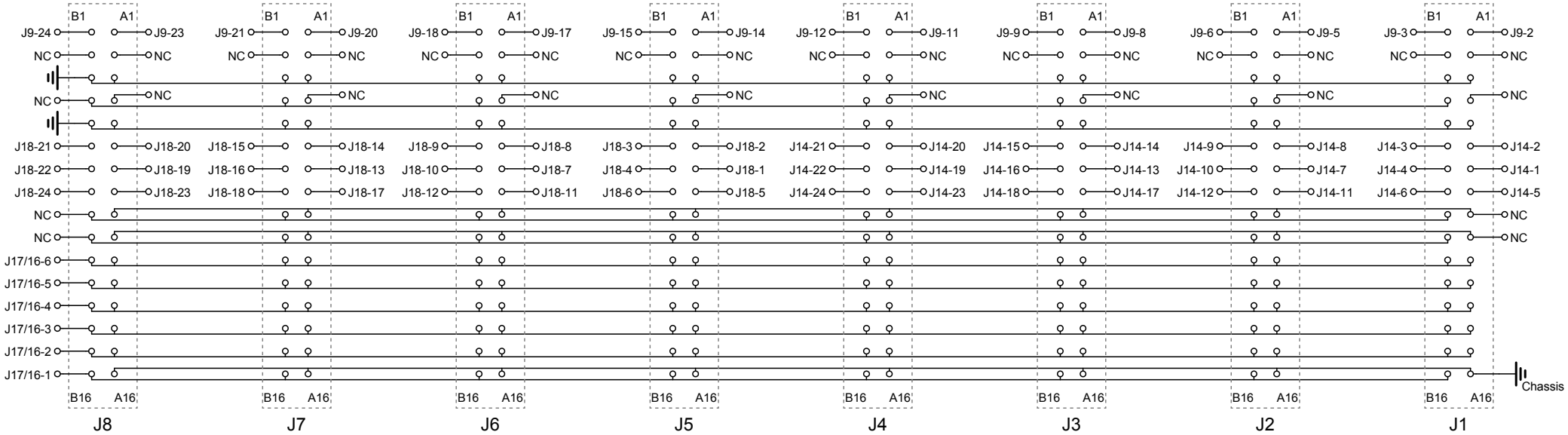
J9, J31: 3.96 mm single-row PCB header, Vertical

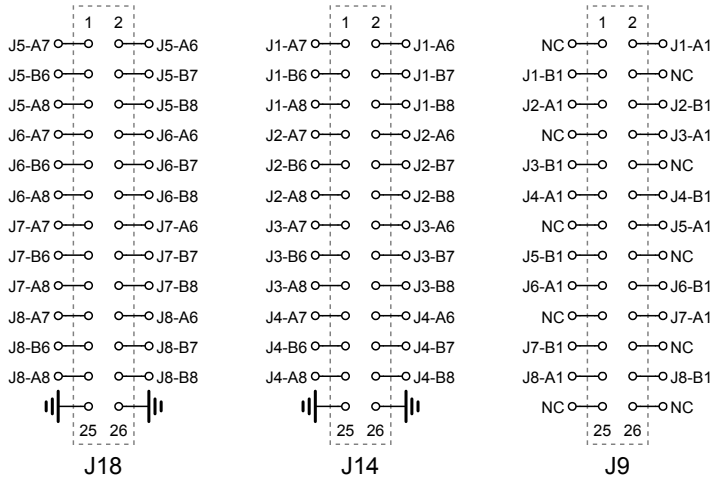
Series Ten	**Channel Frame**	1000-10271-1 40 SEG. LIGHT METER MBD Light Meter Backplane Sheet 1/2	**5/9**

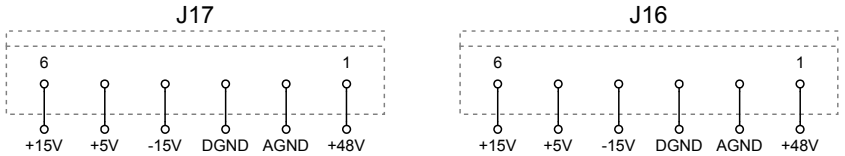


Note: In the PCB layout, headers J15 - J30 (2.54 mm, 3-pin, single-row, vertical) are designated and indicated in the silkscreen, but were never populated during assembly.

J10 - J14: IDC Box Header, Vertical

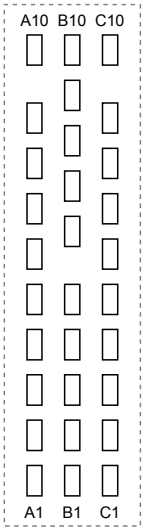




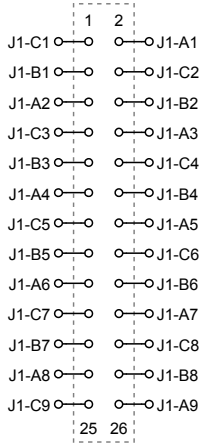


Note: In the PCB layout, headers J10, J11, J13, J15, J19 (IDC Box Header, Vertical) and J12, J20 (unidentified) are designated and indicated in the silkscreen, but were never populated during assembly.

J1 - J8: DIN41612, Type B/2, Female Socket, Straight
J9, J14, J18: IDC Box Header, Vertical
J16, J17: 3.96 mm single-row PCB header, Vertical

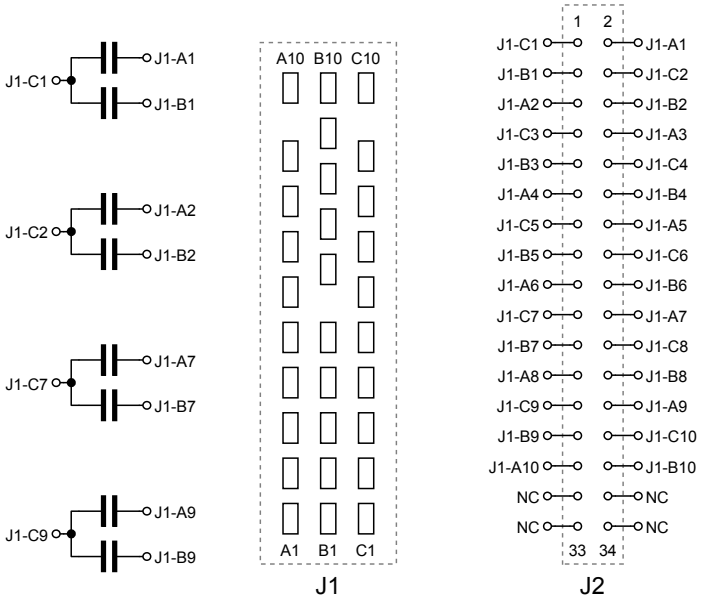


J1



J2

J1: DIN41622, Female Socket, 3-row, 30-pin (10 contacts per row)
J2: IDC Box Header, Vertical



Note: All capacitors are 10nF multilayer ceramic capacitors, soldered directly to the pins of connector J1.

J1: DIN41622, Female Socket, 3-row, 30-pin (10 contacts per row)
J2: IDC Box Header, Vertical