Job: Update KiCAD amplifier schematic and prep BOM for assembly April 5th, 2022

Notes:

This work was completed by Arham one month ago, but key problems with the work were just discovered.

Tasks:

1. Two polarity reversal protection diodes were added. EGP51G-E3/CGICT-ND. As originally requested, “One should point from -V to ground, the other from ground to +V.”
   1. This task is not done correctly. The diodes have been added in series, which would create an unwanted diode drop on the power supply lines.

Machine generated alternative text:
+48V 
EGP51G-E3 C 
000 
22uF 
GND 
Power conneciton 
EGP51G-E3 C 
22uF 

* 1. They need to be in parallel with the buffer capacitors, in the reverse direction so as to ground the incorrectly applied voltage:

Machine generated alternative text:
Power conneciton 
EGP51G-E3_C 
000 
+48V 
22uF 
FLAG 
22uF 
EGP51G-E3 C 

1. On several of the blocks, copper pours did not connect properly. I count 11/32 channels with this problem.

Machine generated alternative text:
DIB 1 com 

* 1. Note the white line connecting from the #3 to the dangling pour. These white lines are always a sign of disconnected things and I’m not sure how they were missed.
  2. Note that one of the devices even grounds to this region of the copper pour, and thus will not function properly.
  3. Here is another example on the other side of the board:

Machine generated alternative text:
+48V 
+48V 
D4 IN com 
SIG 

* 1. See the white line connecting the left portion of the pour to the right portion. In this case, the bypass capacitors are prevented from working.