



Q25056-SCH_revK
M17 SIDE SWEEP BOARD

Rev E - Major CHANGES from Design review.
Precharge to use micro to control.

Rev F - References cleaned up for LAYOUT

Rev G - DIODE added to Pre charge.
changed resistors from 0402 to 0603
changed HIGH current FETs to LOW current FETs
changed JTAG port to smaller version
added a NON-POP cap for possible filtering for Vac Fan
added 2 NON-POP resistors for possible increase in discharge time of BULK CAPS

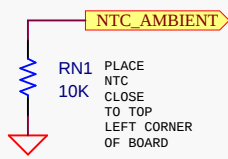
Rev H - Changed Precharge flyback diode connection to Precharge in.

Rev J - Changed Op-Amps for Vac fan circuits from OPA2727 to LM358D.
OPA2727 were having latch-up issues due to ESD coming from FAN.

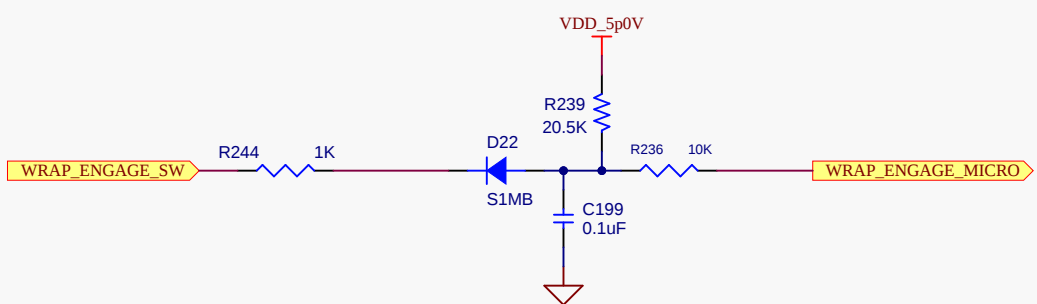
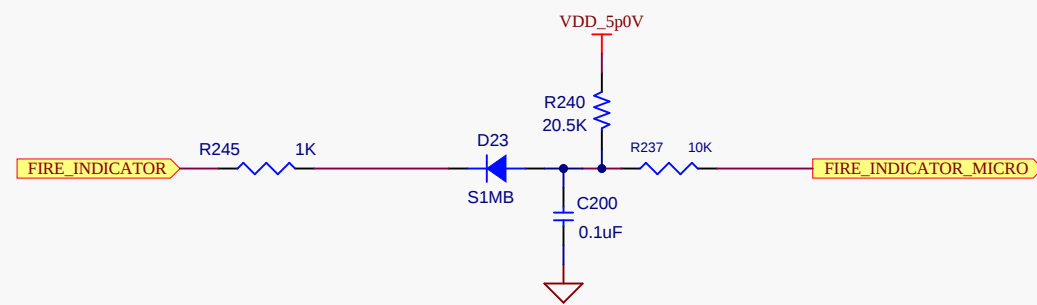
Rev K - Convert to Altium
Cleaned up excessive text notes, removed notes can be found in changelog in SVN
Change CAN chip to CAN FD part
Add bidirectional TVS diode to PRECHARGE_IN at J4
Add output protections to Dust Vac 1 & 2 and Dry Vac circuits
Changes summary:
+C205, C206, C207, C208, C209, C210, C211, C212, C213, C214
+D25, D26, D28, D29, D30
+R238, R249, R250, R251, R252, R253, R254
-C198, CIN3, CIN4

PCB
BOM
Q25056-PCB_revD

FW1
BOM
Q30073-002

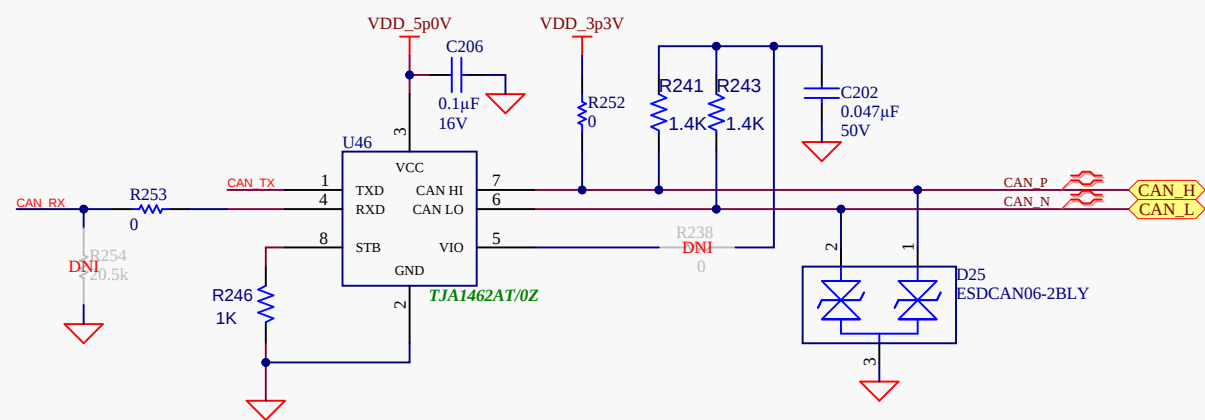


INPUTS

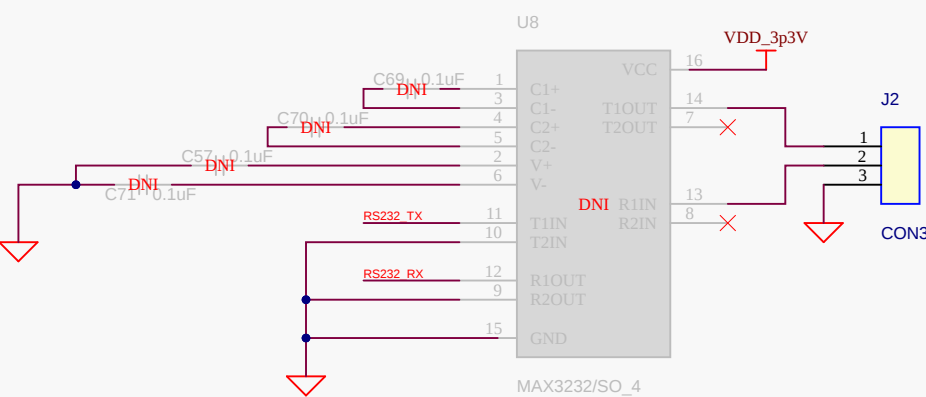


CAN COMMUNICATIONS

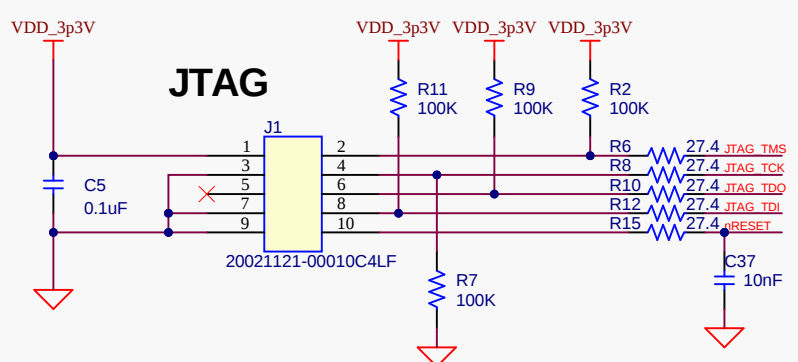
12V Going out the CAN J1-4 powers the User Interface Module



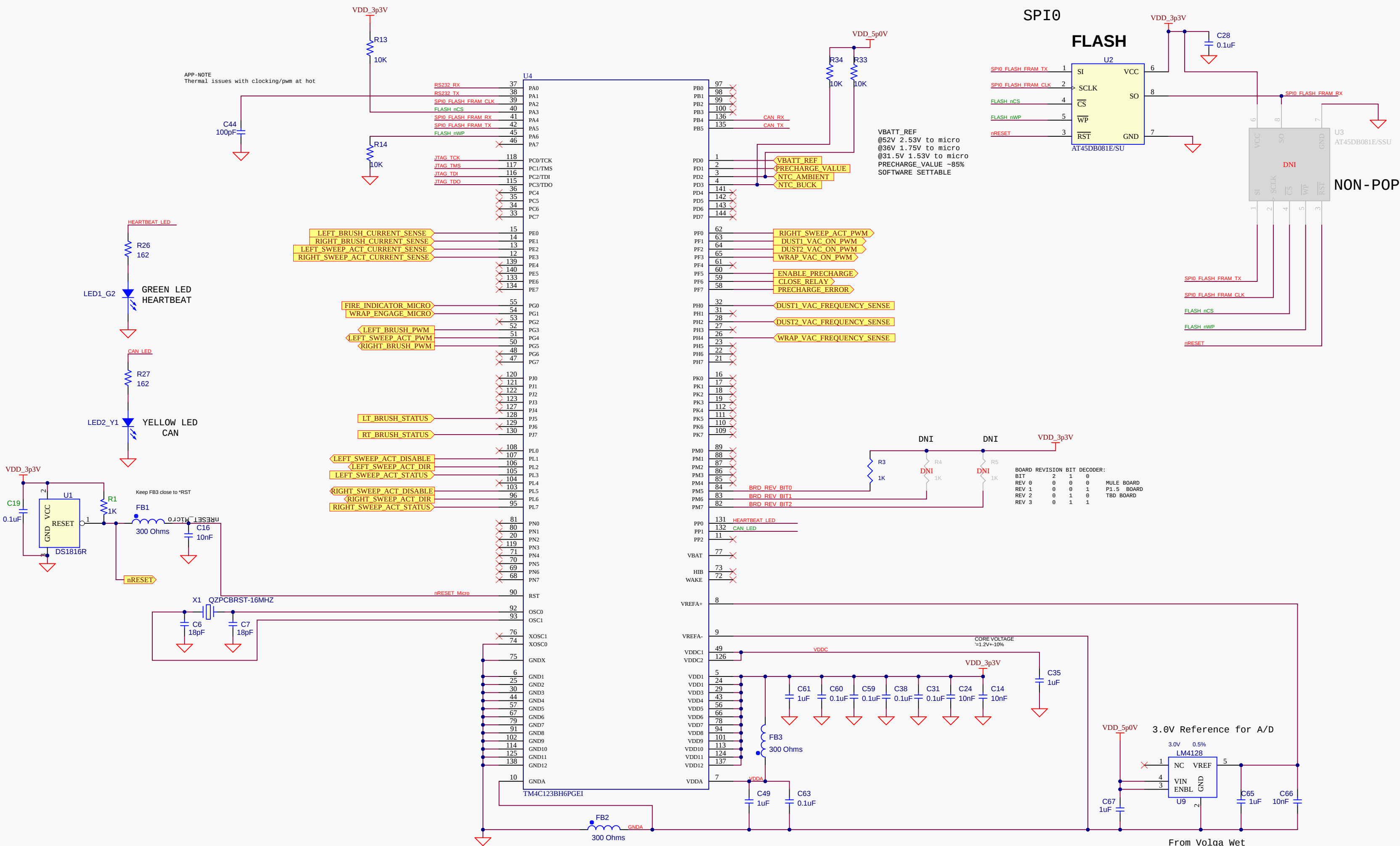
RS-232 SERIAL PORT



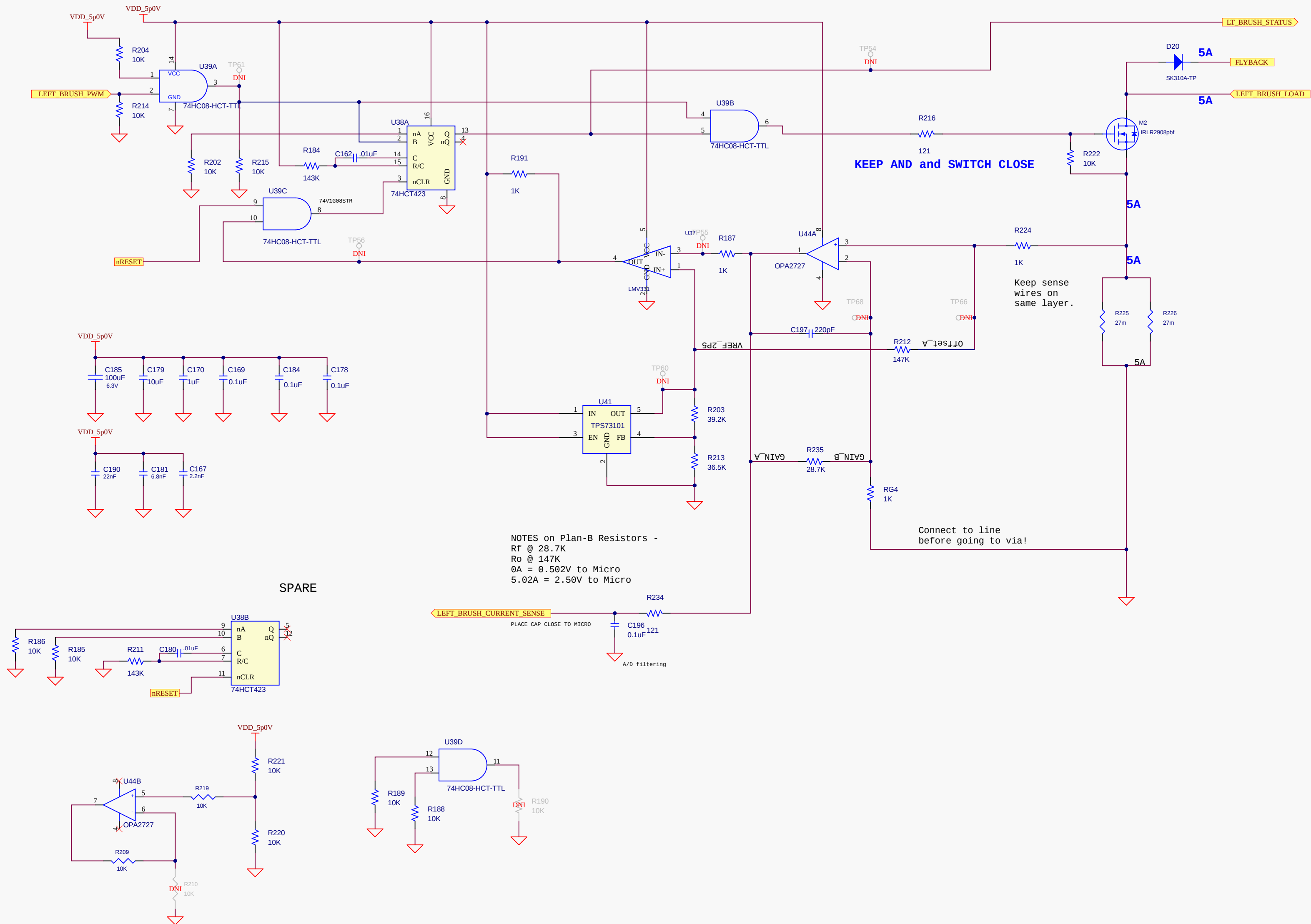
JTAG



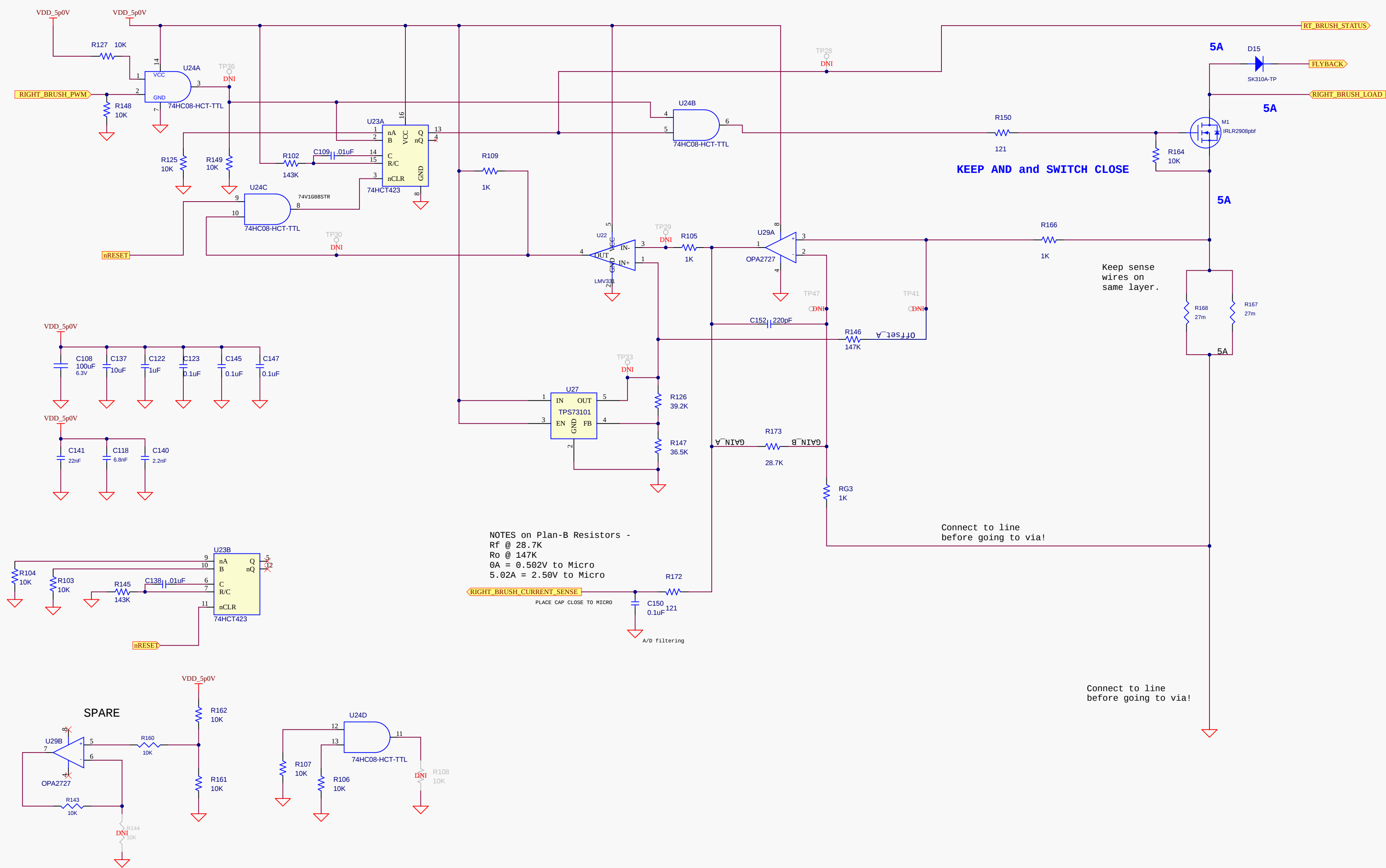
LIGHTNING SWEEP BOARD MICRO AND COMMUNICATIONS



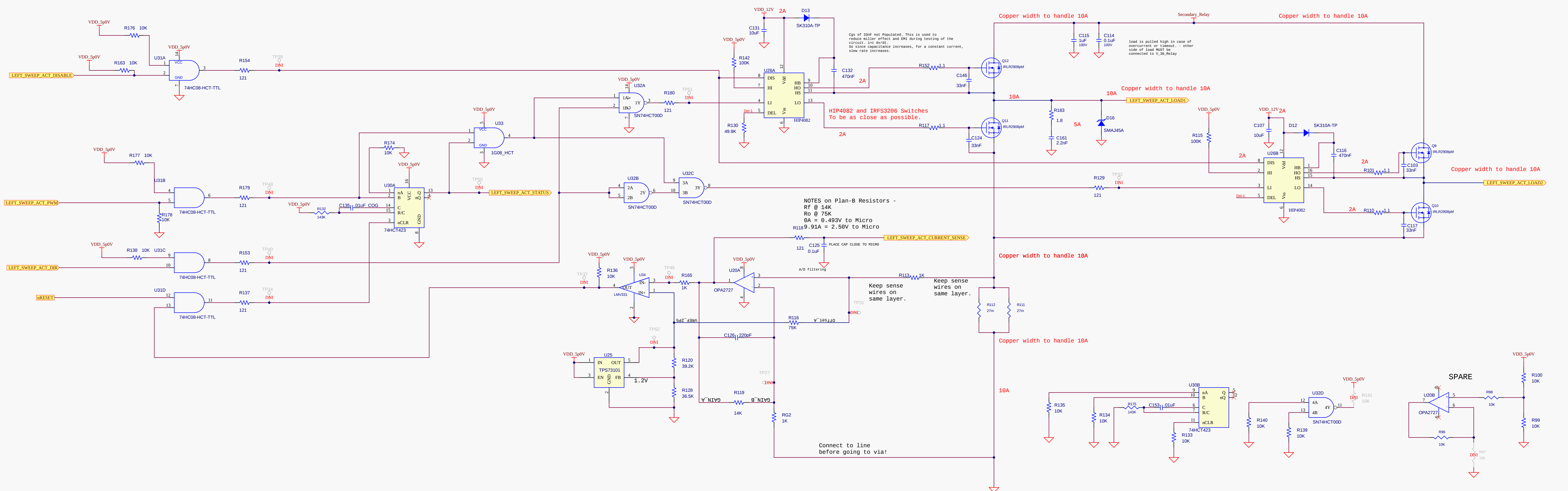
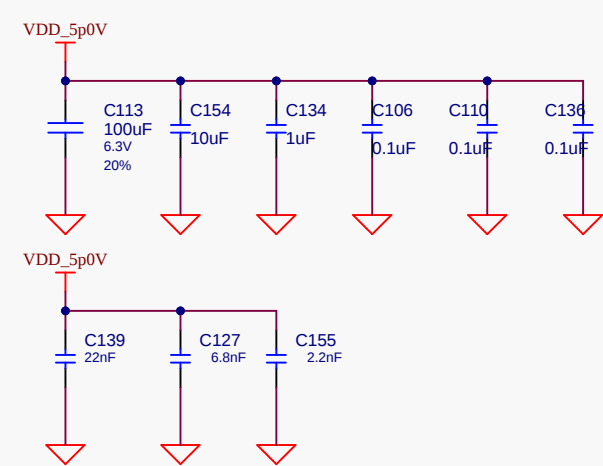
LIGHTNING
SWEEP BOARD LSDPWM
LEFT BRUSH



**LIGHTNING
SWEEP BOARD LSDPWM
RIGHT BRUSH**



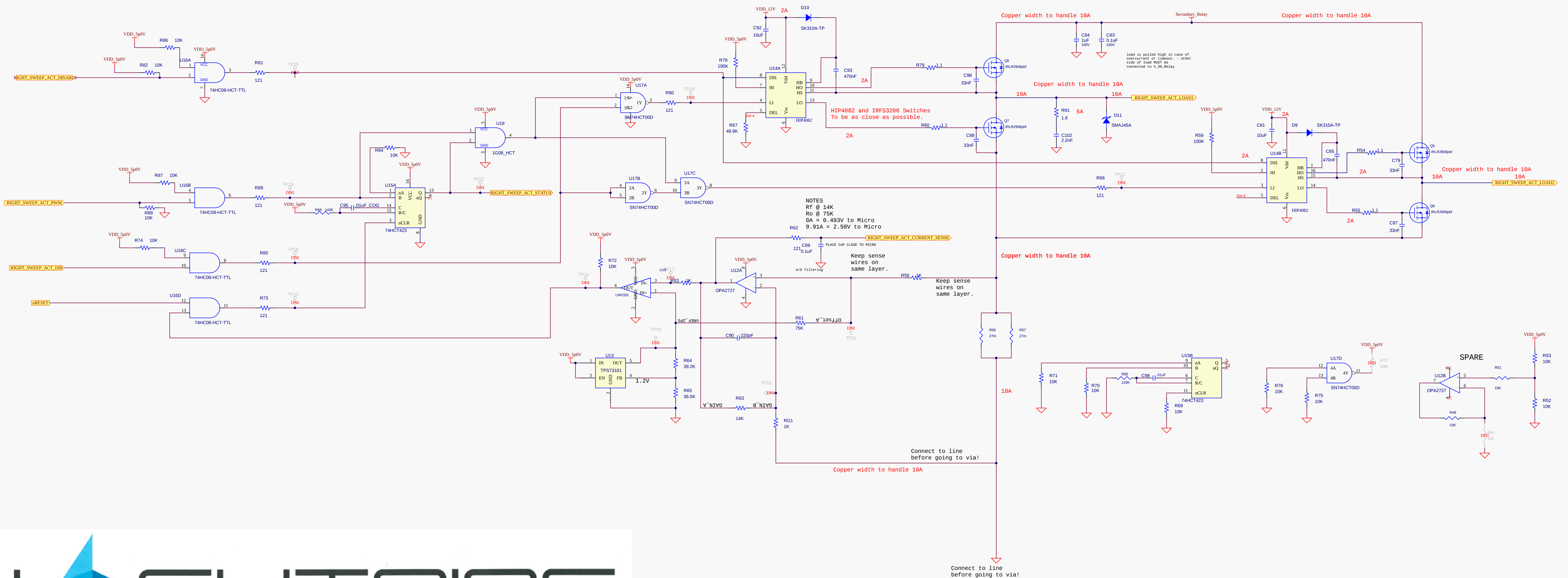
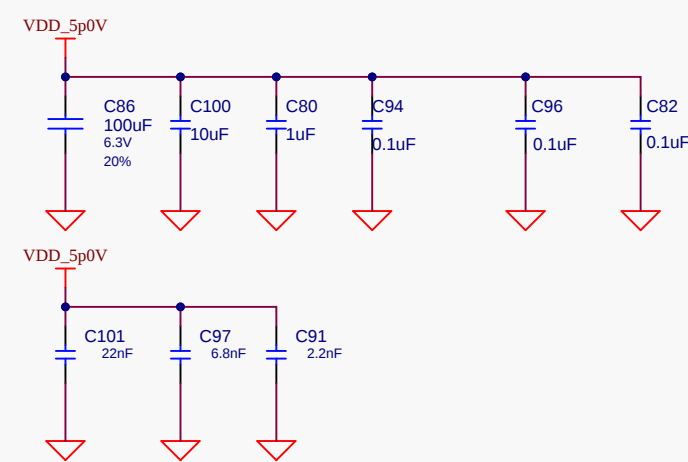
LEFT BRUSH ACT



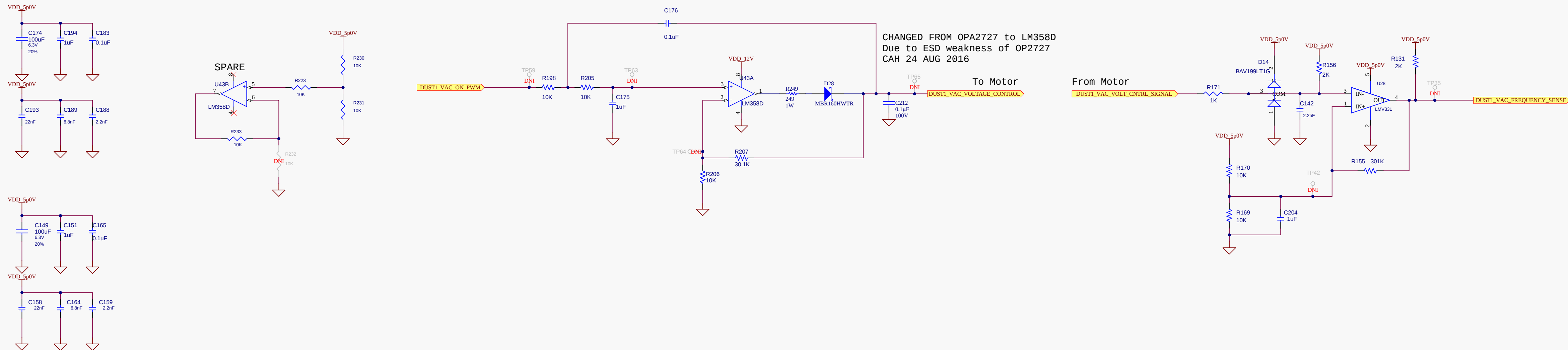
LIGHTNING

SWEEP BOARD H - BRIDGE

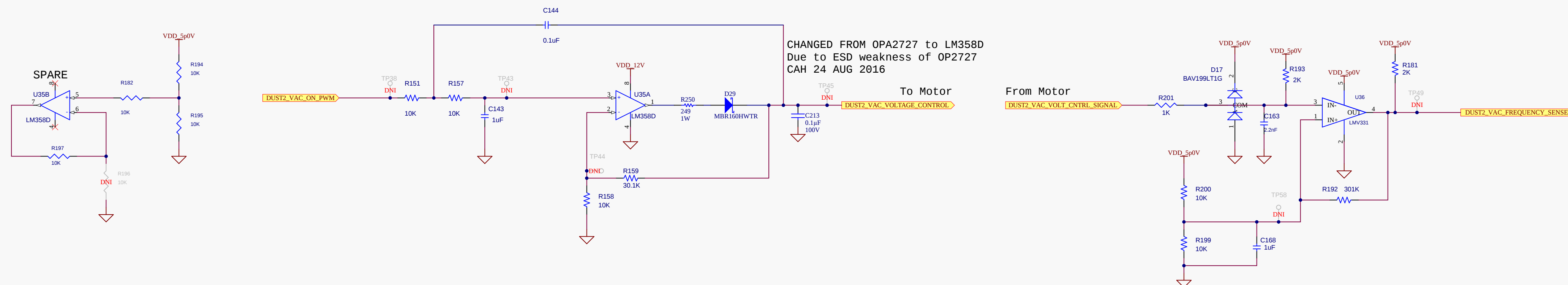
RIGHT BRUSH ACT

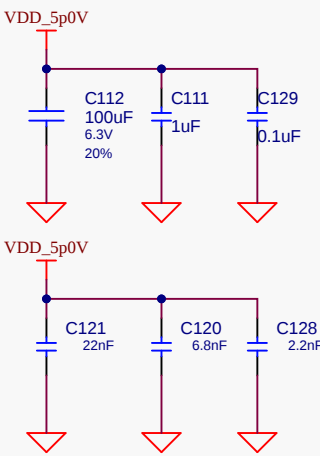


DUST 1 VAC CONTROL & CURRENT MONITOR

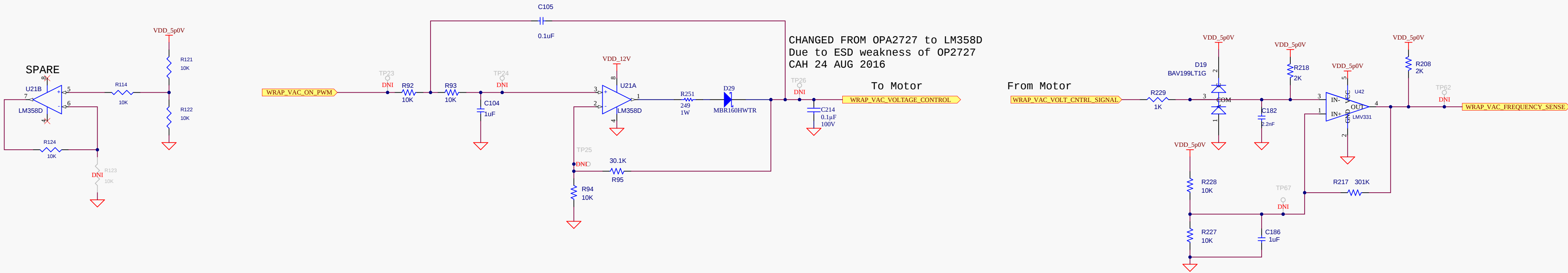


DUST 2 VAC CONTROL & CURRENT MONITOR





DRY VAC CONTROL



LIGHTNING
SIDE SWEEP BOARD PRE-CHARGE
BUCK

