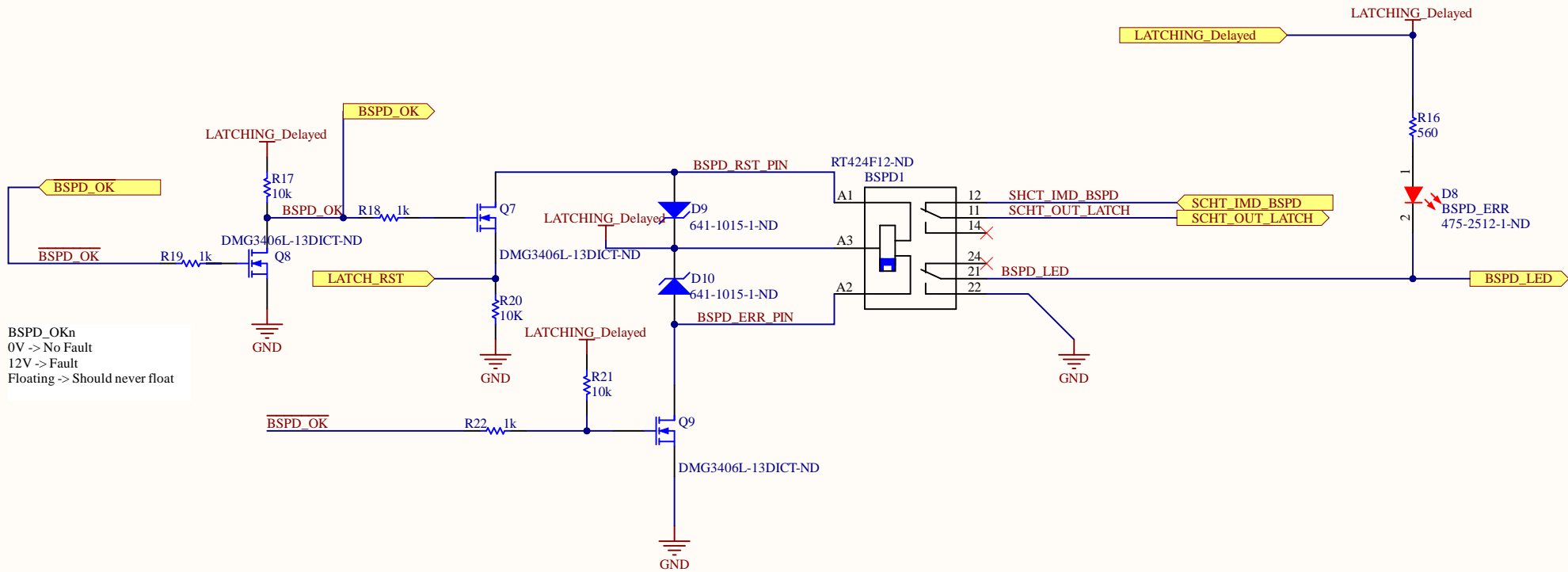
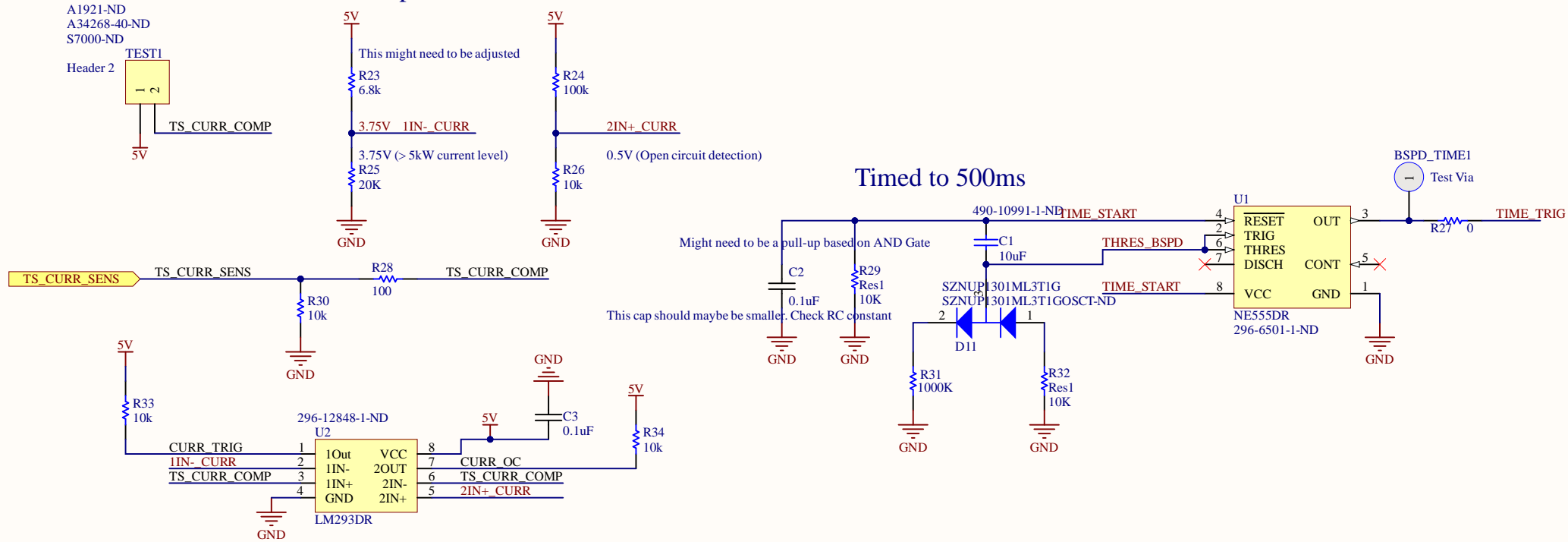


BSPD_OKn
0V -> No Fault
12V -> Fault
Floating -> Should never float



| | | |
|-------|---|----------|
| Title | | |
| Size | Number | Revision |
| A4 | | |
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| File: | C:\UMSAE Electric\...\4c - Latching BSPD1 | By: |

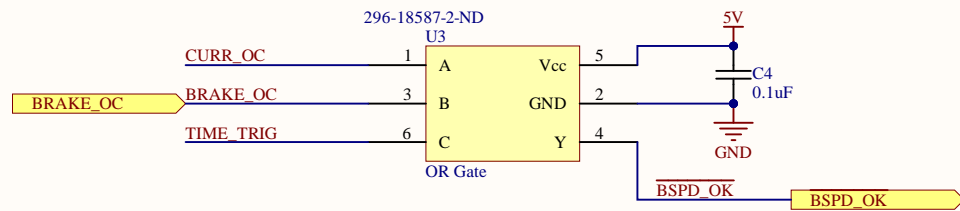
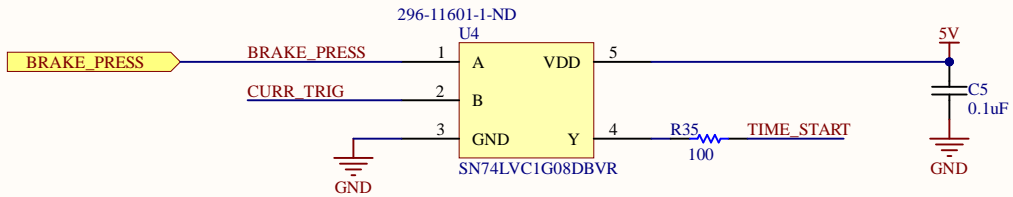
Current Sensor Comparator



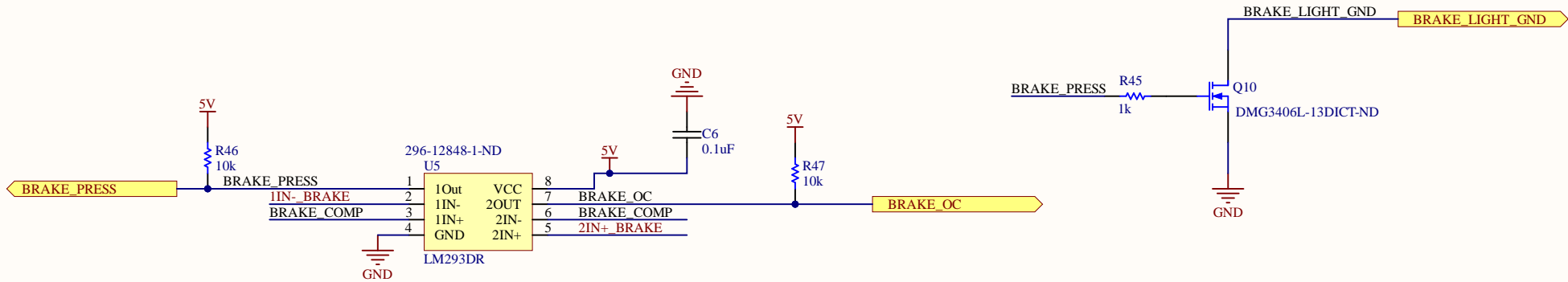
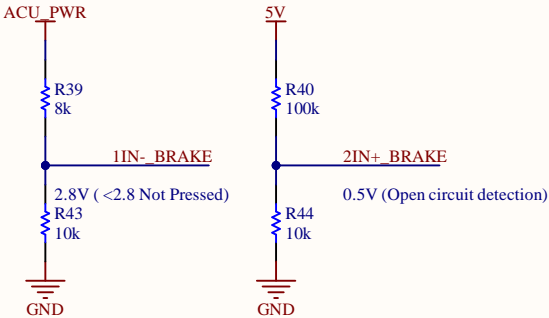
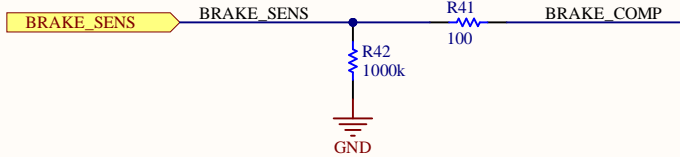
CURR_TRIG:
5V if TS_CURR_COMP > 1IN_CURR (3.75V)
0V if TS_CURR_COMP < 1IN_CURR (3.75V)

CURR_OC:
0V if TS_CURR_COMP > 2IN+_CURR (0.5V)
5V if TS_CURR_COMP < 2IN+_CURR(0.5V)

AND to timer



| | | |
|------------|--|----------|
| Title | | |
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| File: | C:\UMSAE Electric\...4d - BSPD Detection\PowerSchDoc | |

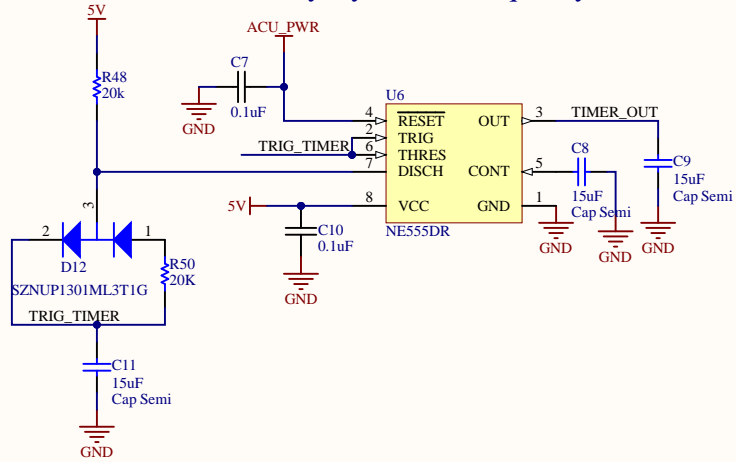


BRAKE_PRESS:
5V if BRAKE_COMP > 1IN- BRAKE (2.5V) (Pressed)
0V if BRAKE_COMP < 1IN- BRAKE (2.5V) (not pressed)

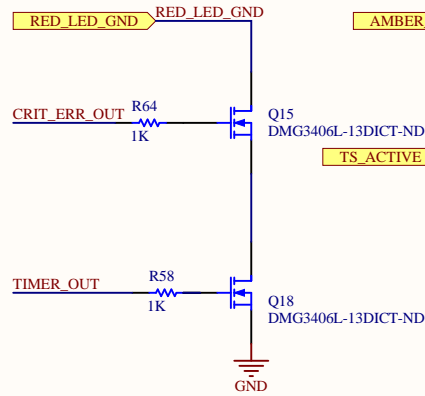
BRAKE_OC:
0V if BRAKE_COMP > 2IN+ BRAKE (0.5V)
5V if BRAKE_COMP < 2IN+ BRAKE (0.5V)

| | | |
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| Title | | |
| Size | Number | Revision |
| A4 | | |
| Date: | 1-09-2025 | Sheet of |
| File: | C:\UMSAE Electric\...4e - Brake Detection\SubBy: | |

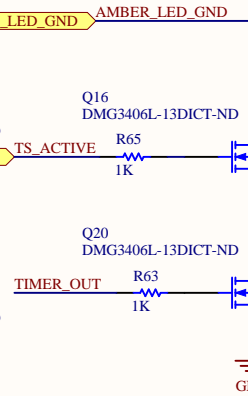
555 Timer Control Duty Cycle and Frequency



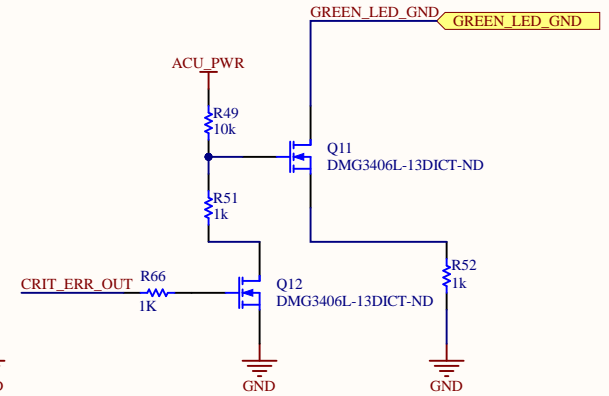
RED LED



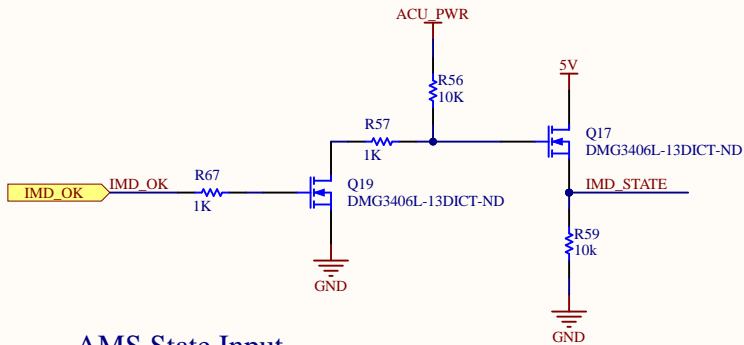
AMBER LED



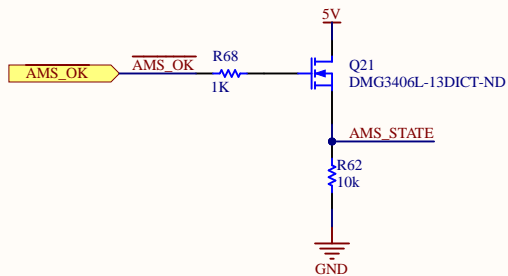
GREEN LED



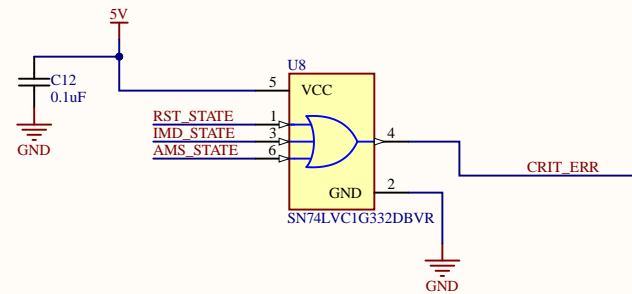
IMD State Input



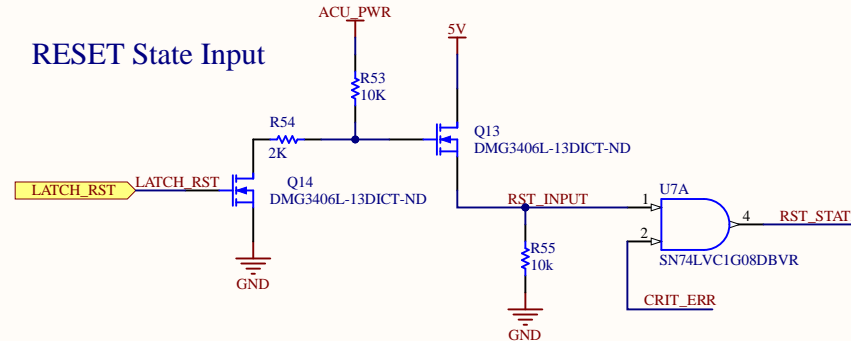
AMS State Input



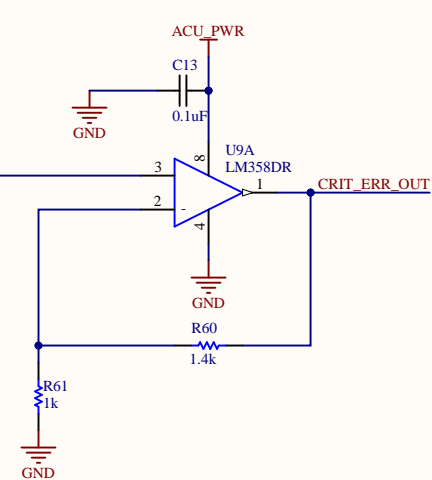
OR Gate Fault Output



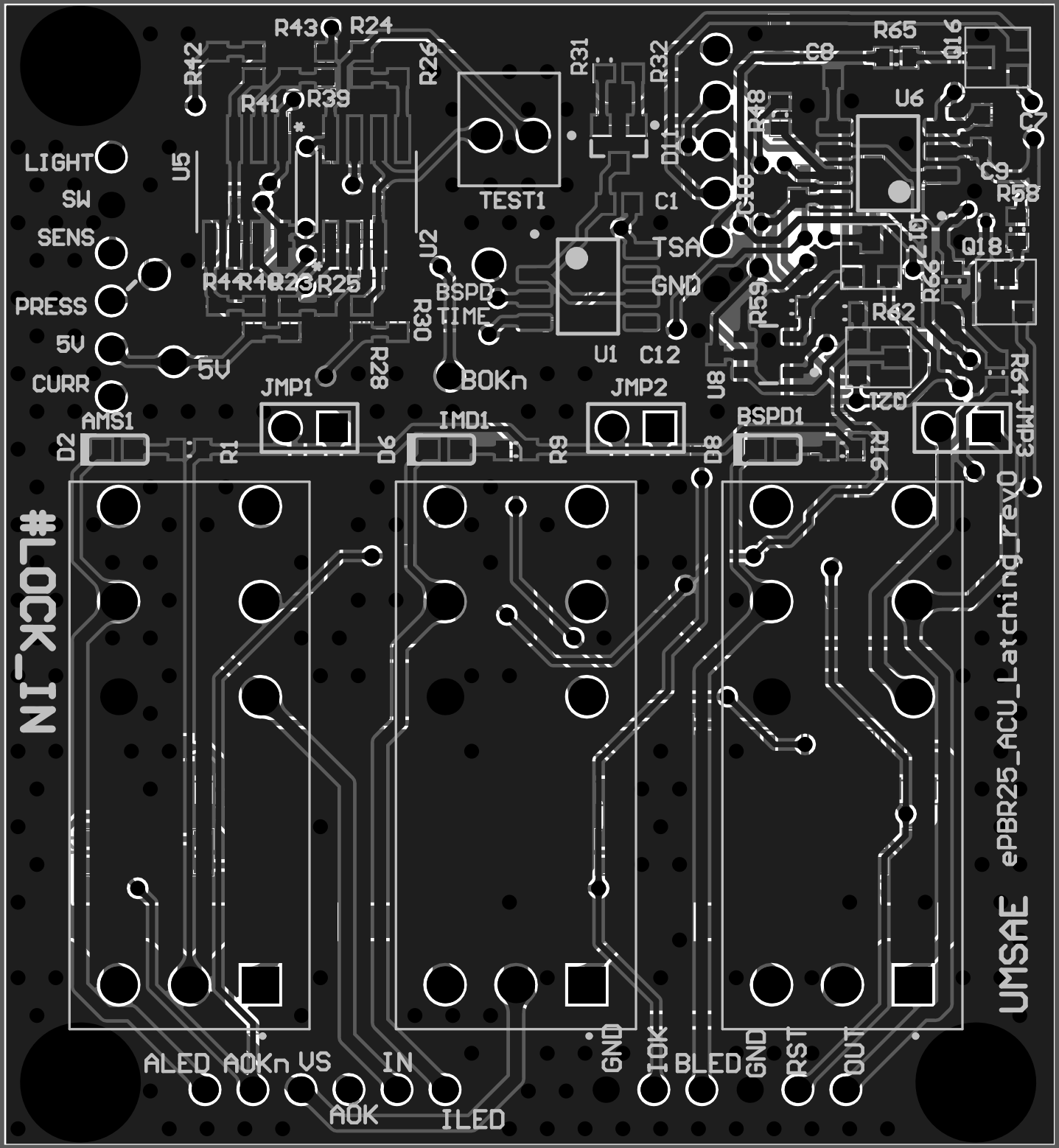
RESET State Input



LED Driver MOSFET Control



| | | |
|--------------------|--|-----------------|
| Title | | |
| STATUS LIGHT LOGIC | | |
| Size | Number | Revision |
| A4 | ePBR25_ACU_LATCHING 5 - STATUS LIGHTS | 0 |
| Date: | 1-09-2025 | |
| File: | C:\UMSAE Electric\5 - Status Lights | Sheet of 1 OF 1 |
| Download By: | | |



#LOCK_IN

UMSAE ePBR25_ACU_Latching_rev0

