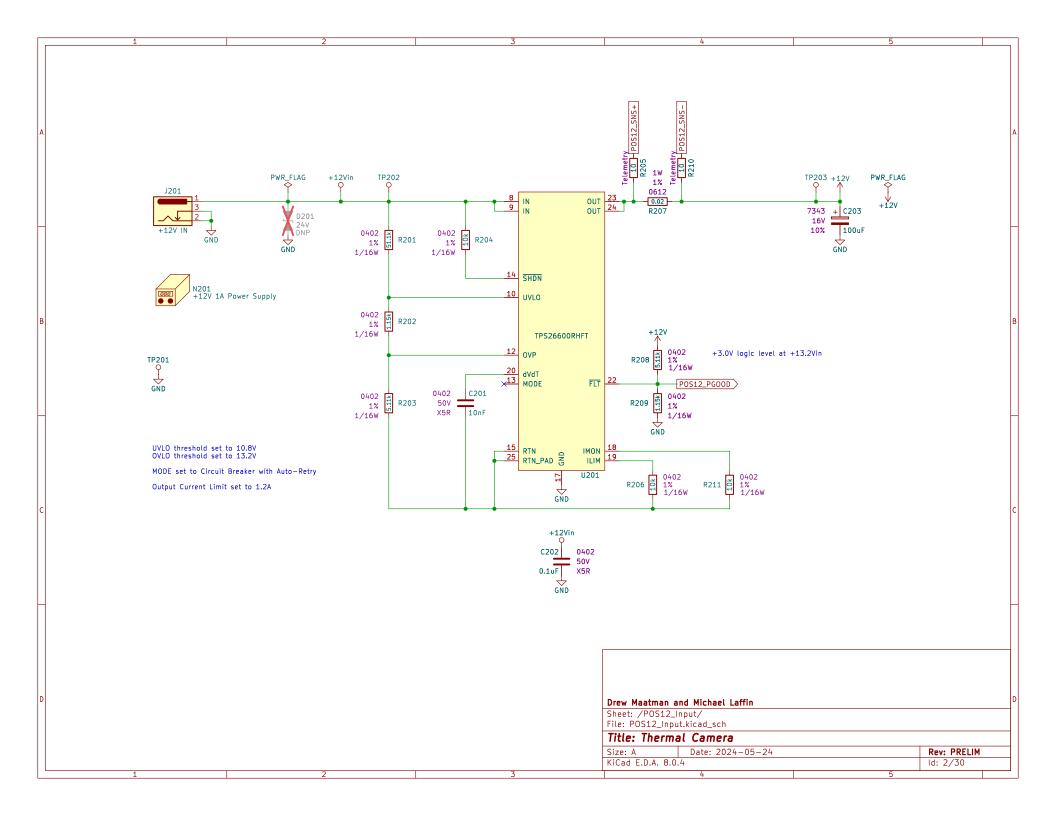
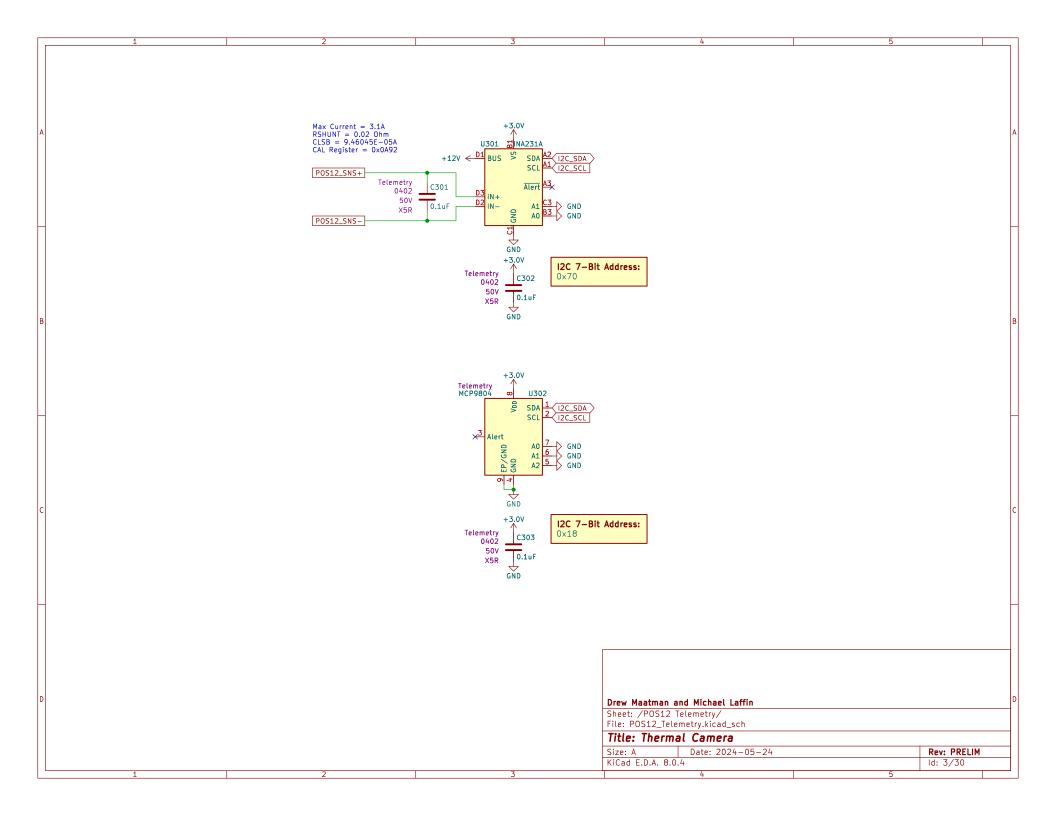
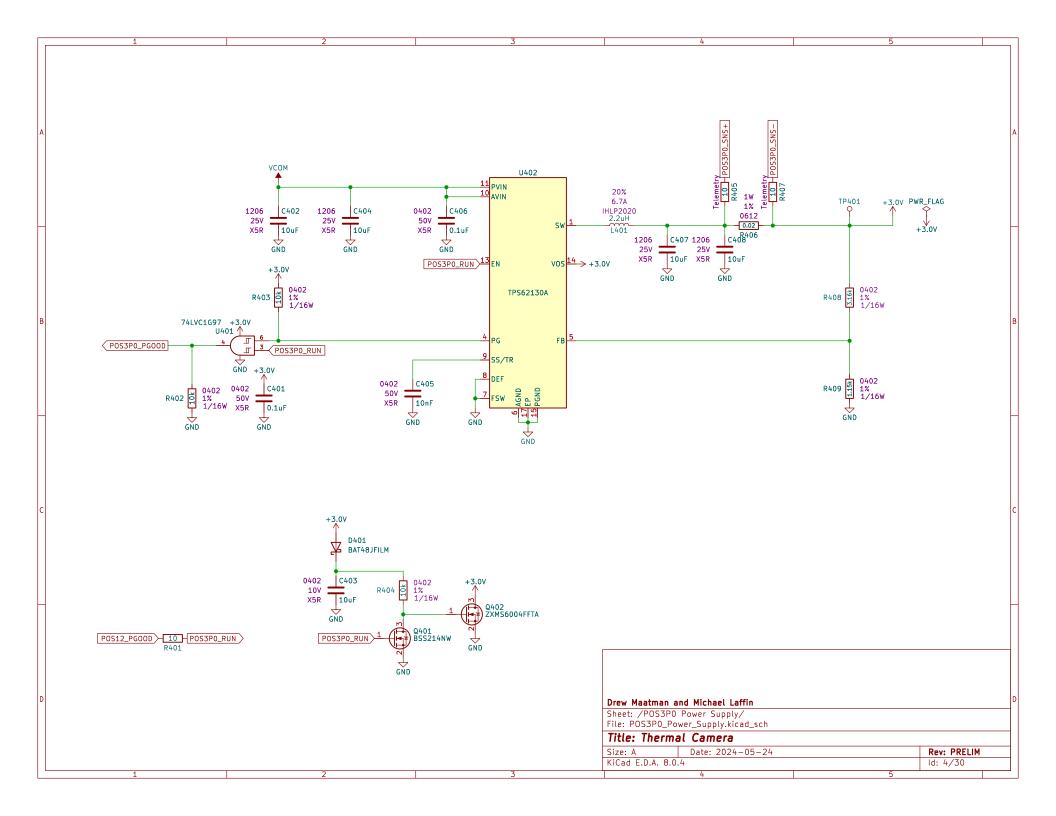
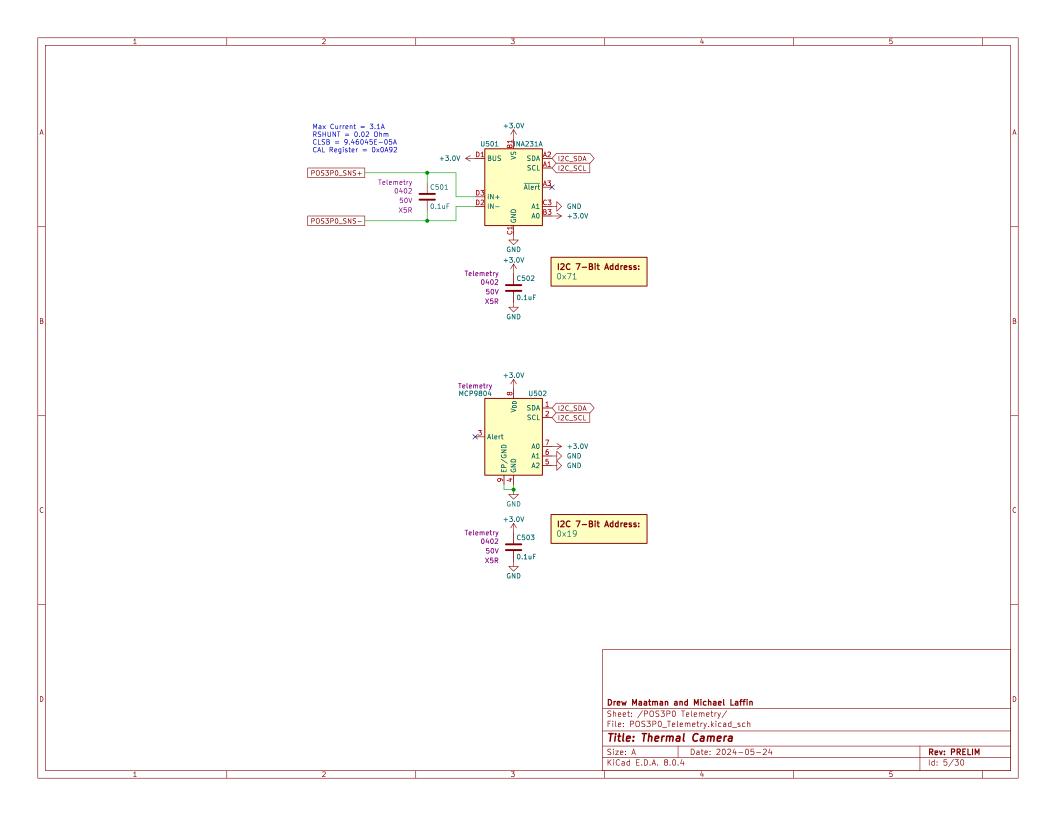
Thermal Camera

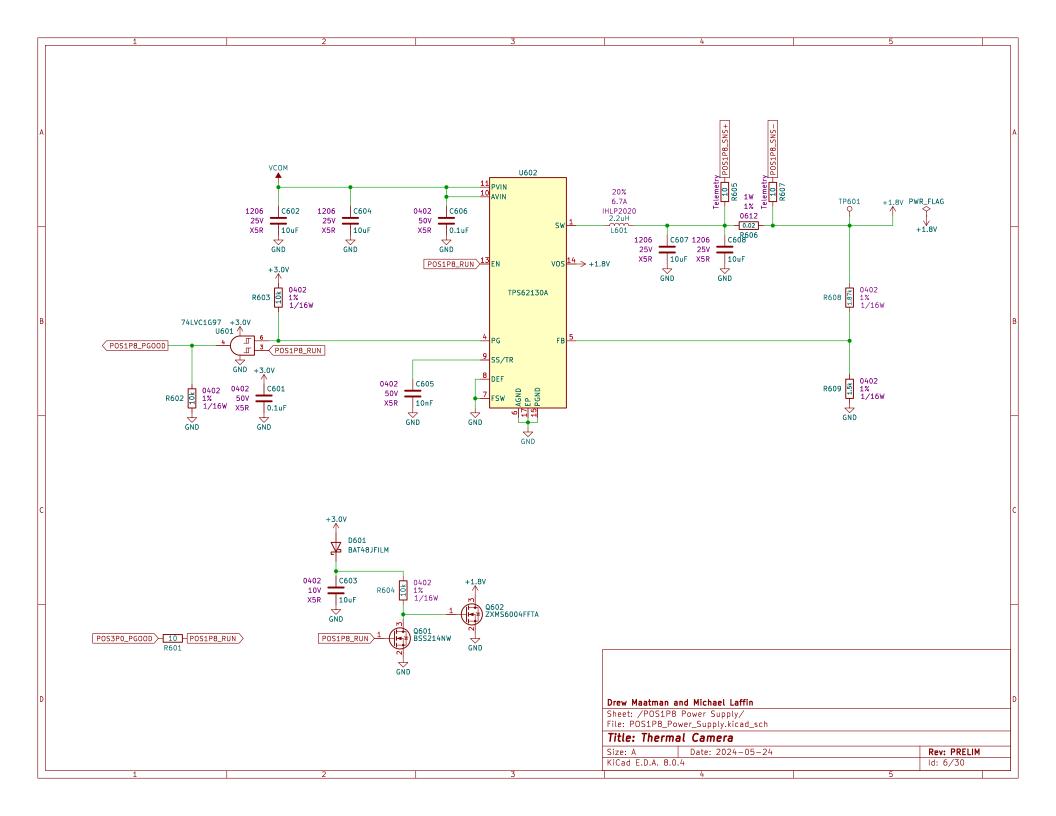
https://github.com/drewsum/Thermal_Camera					
01. Table of Contents					
02. POS12 Input	POS12_Input	14. Battery Management	Battery Management	26. Upstream USB Port	Upstream USB Port
03. POS12 Telemetry	POS12 Telemetry	15. PIC32MZ DA Programming	PIC32MZ DA Programming	27. PGOOD LEDs	PGOOD LEDs
04. POS3PO Power Supply	POS3PO Power Supply	16. PIC32MZ DA Clocking	PIC32MZ DA Clocking	28. Status LEDs	Status LEDs
05. POS3PO Telemetry	POS3PO Telemetry	17. PIC32MZ DA Power	PIC32MZ DA Power	29. Capacitive Touch	Capacitive Touch
06. POS1P8 Power Supply	POS1P8 Power Supply	18. PIC32MZ DA 1	PIC32MZ DA 1	30. Mechanical	Mechanical
07. POS1P8 Telemetry	POS1P8 Telemetry	19. PIC32MZ DA 2	PIC32MZ DA 2		
08. POS2P8 Power Supply	POS2P8 Power Supply	20. External Storage	External Storage		
09. POS2P8 Telemetry	POS2P8 Telemetry	21. Graphic LCD	Graphic LCD		
10. POS1P2 Power Supply	POS1P2 Power Supply	22. USB UART	USB UART		
11. POS1P2 Telemetry	POS1P2 Telemetry	23. Elapsed Time Counter	Elapsed Time Counter		
12. LCD Backlight Power Supply	LCD Backlight Power Supply	24. FLIR Lepton Sensor	FLIR Lepton Sensor		
13. LCD Backlight Telemetry	LCD Backlight Telemetry	25. USB Hub	USB Hub		
			Drew Maatman and Michael Laffin		
			Sheet: / File: Thermal_Camera.kicad_sch		
				2024-05-24	Rev: PRELIM
			KiCad E.D.A. 8.0.4		ld: 1/30

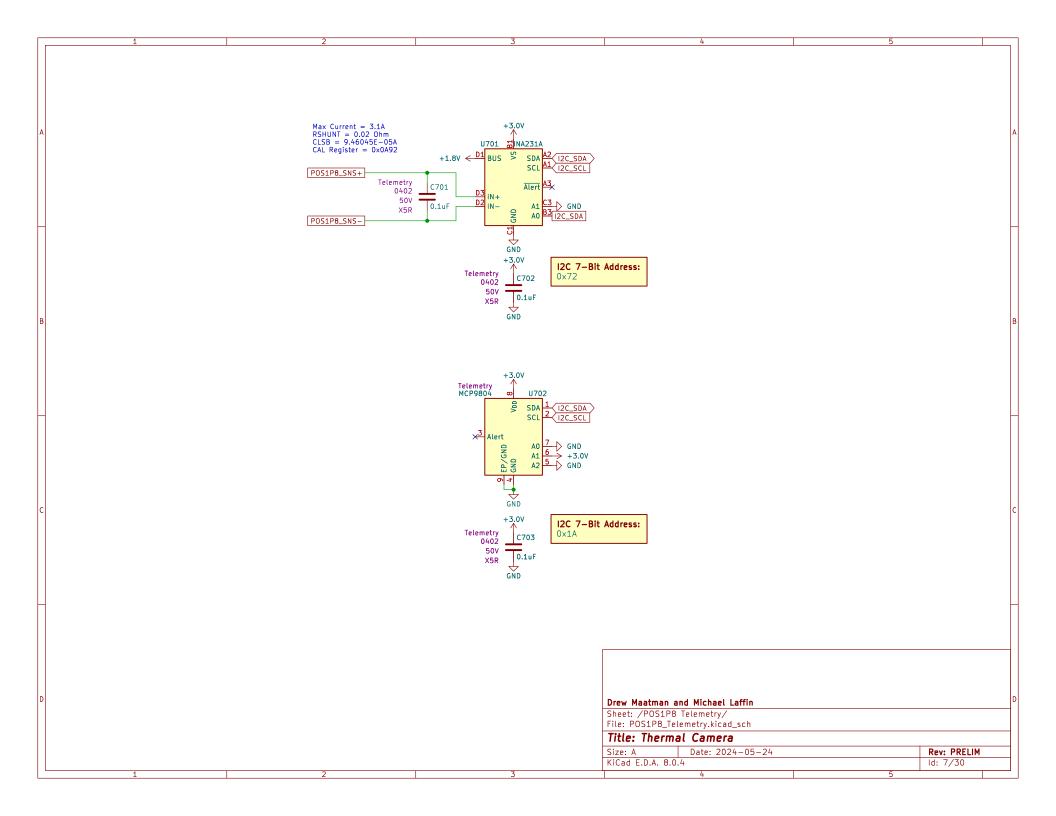


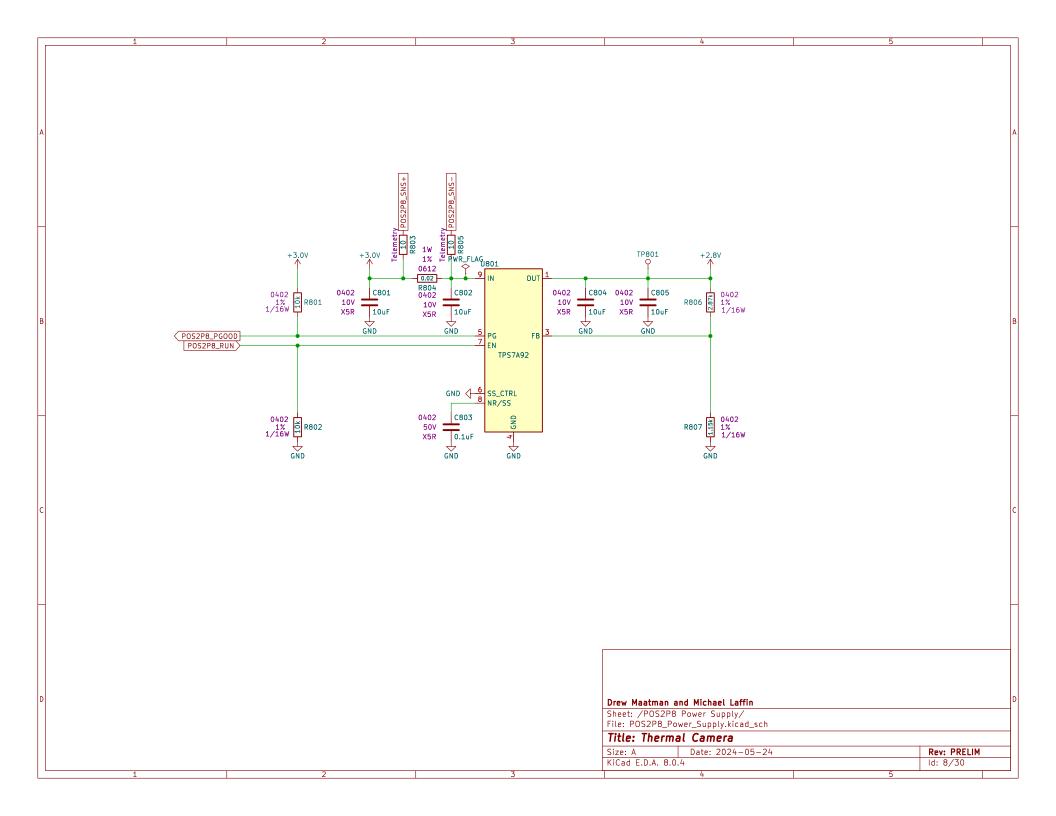


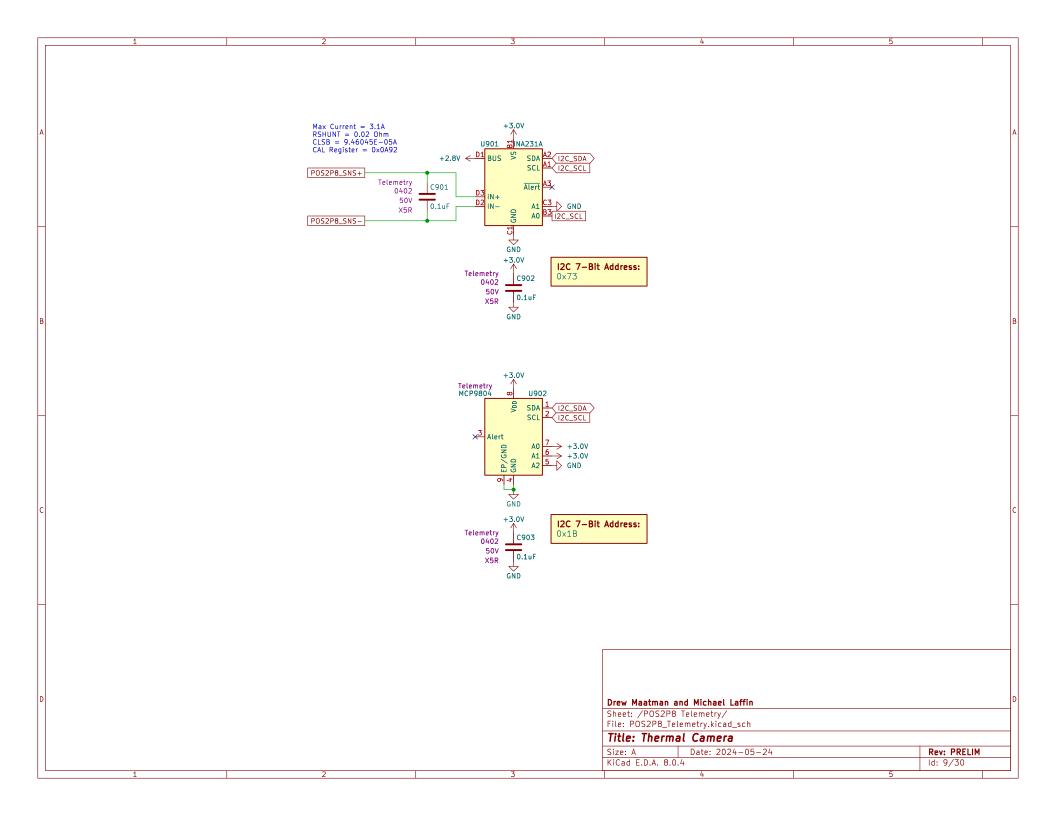


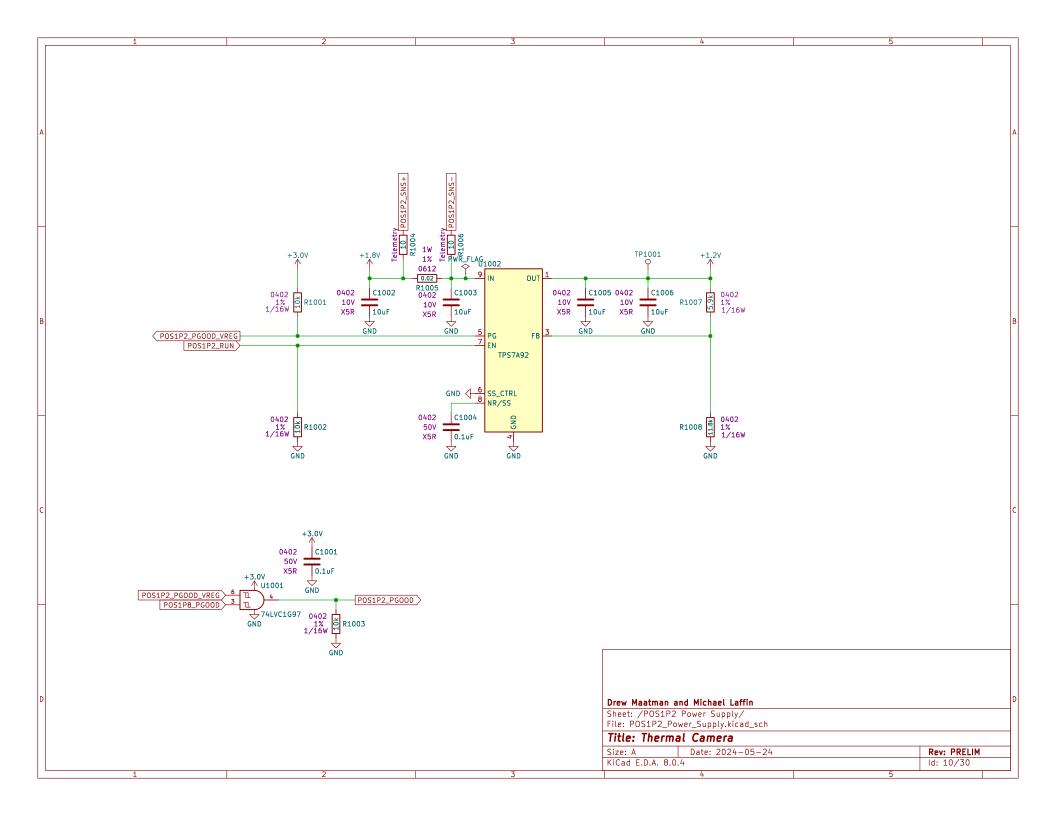


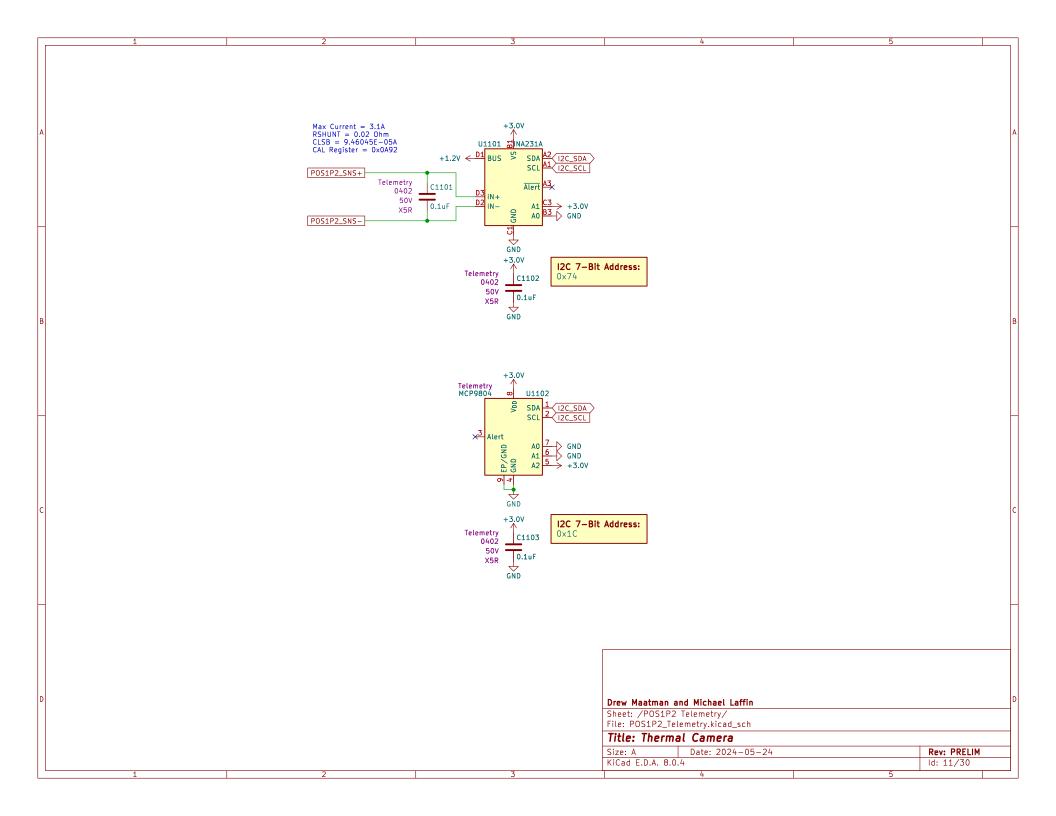


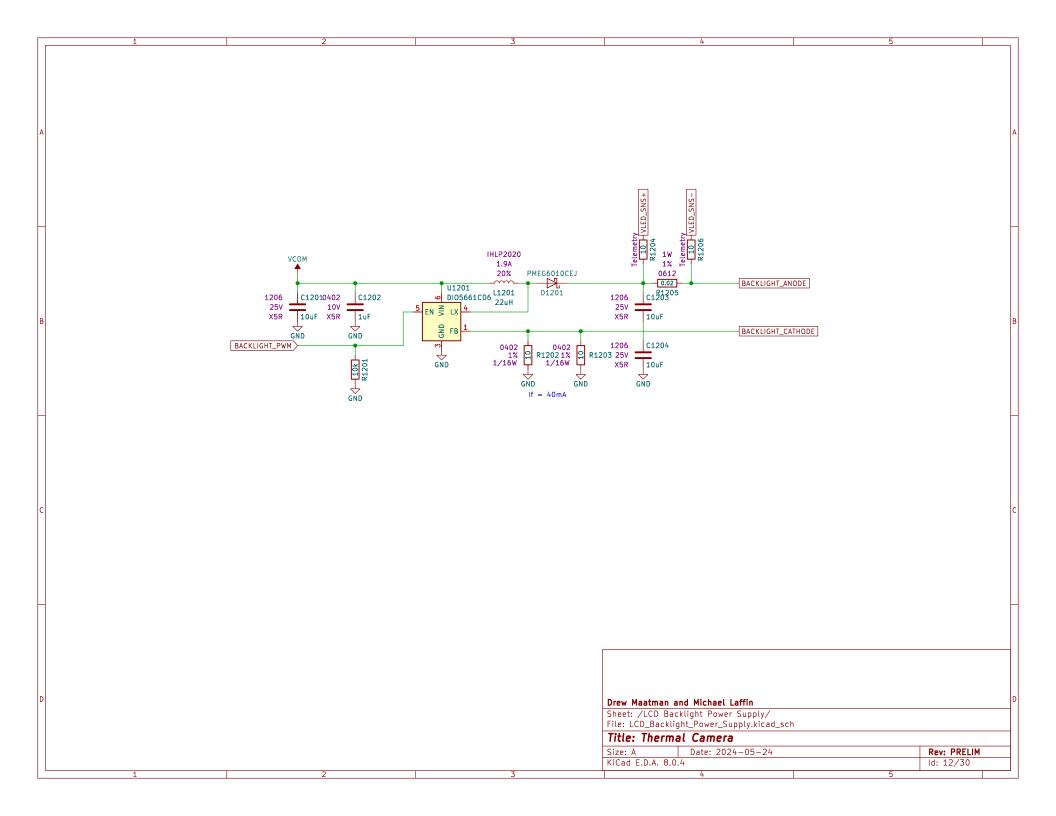


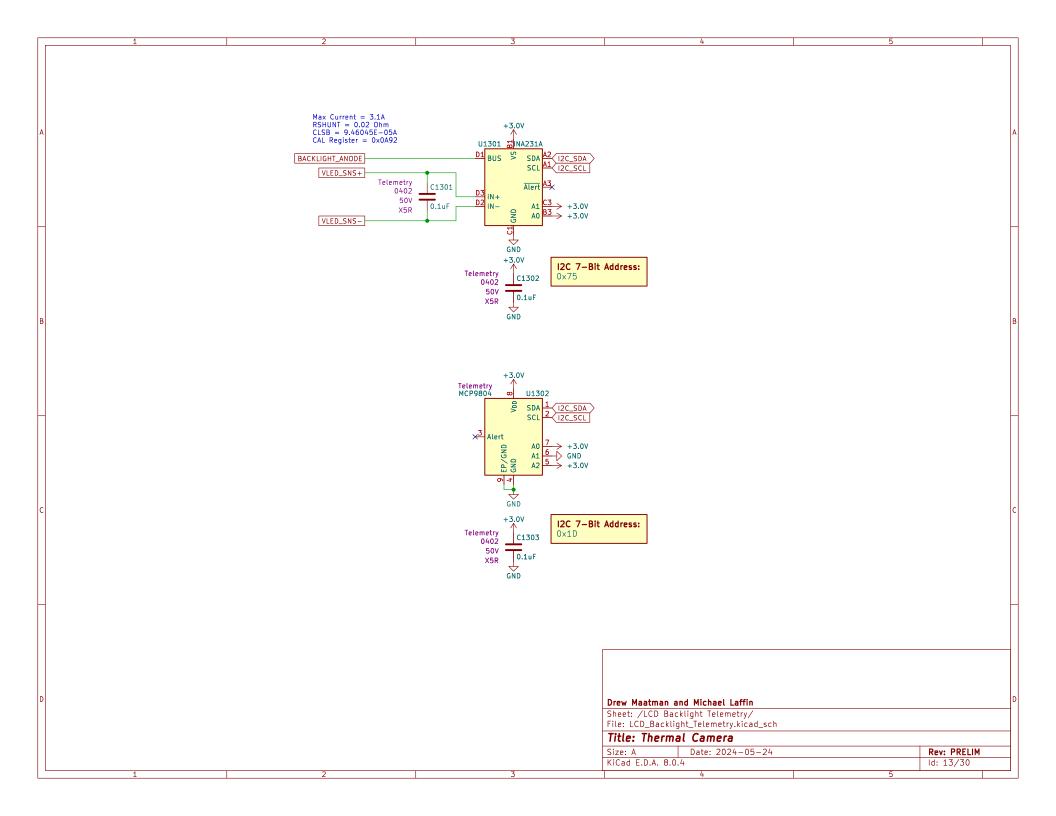


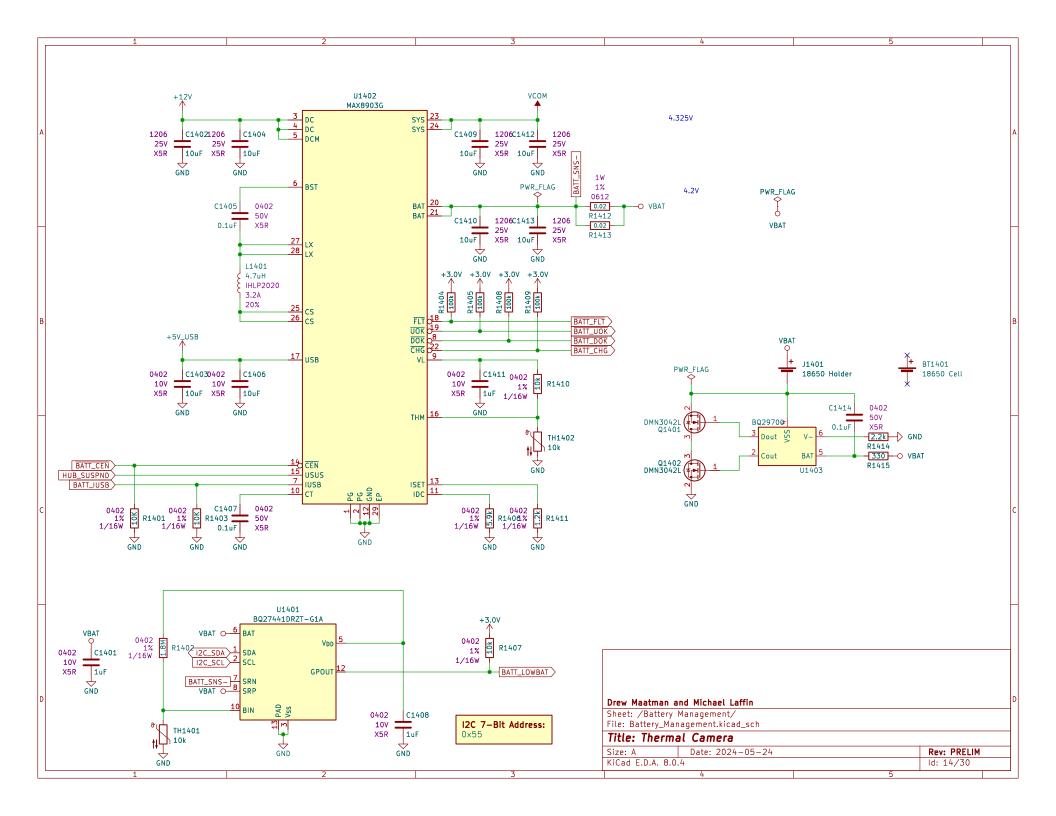


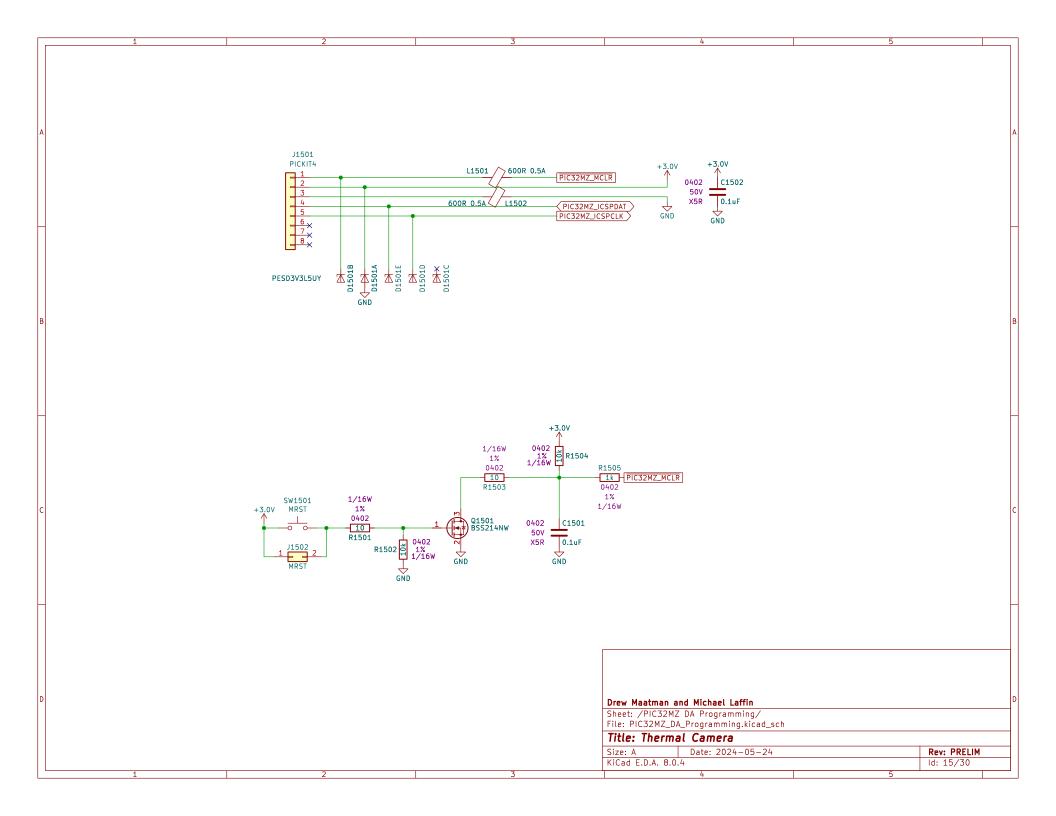


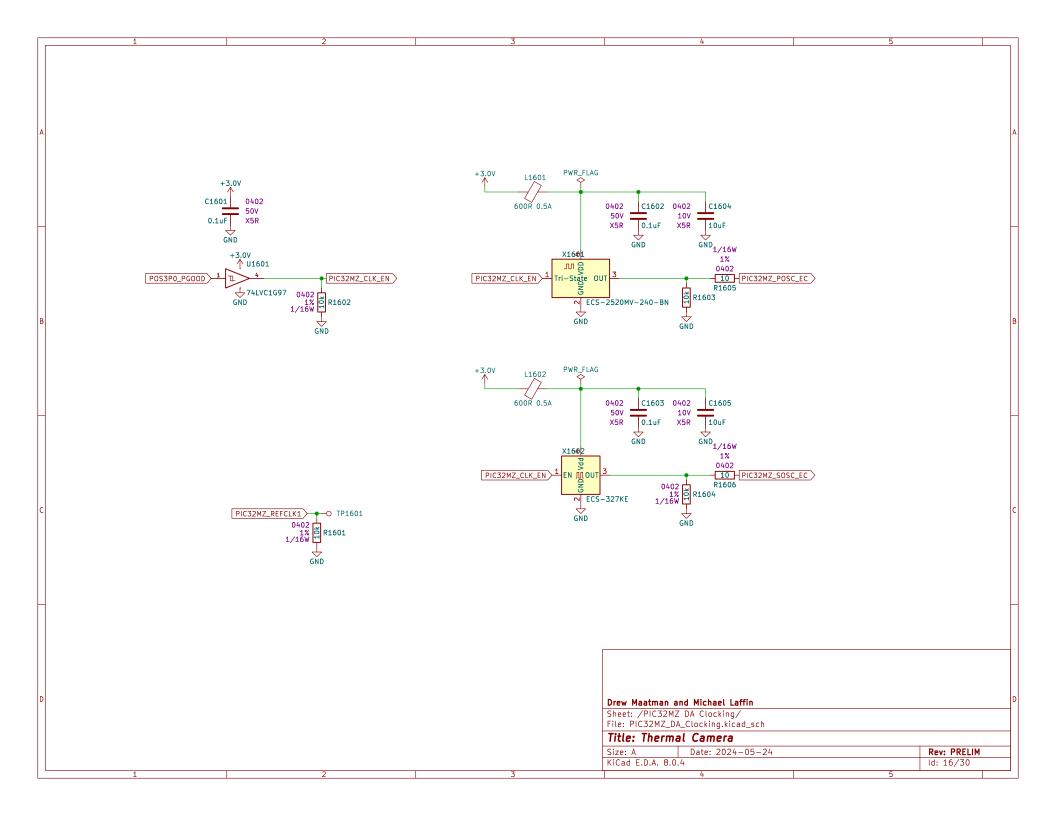


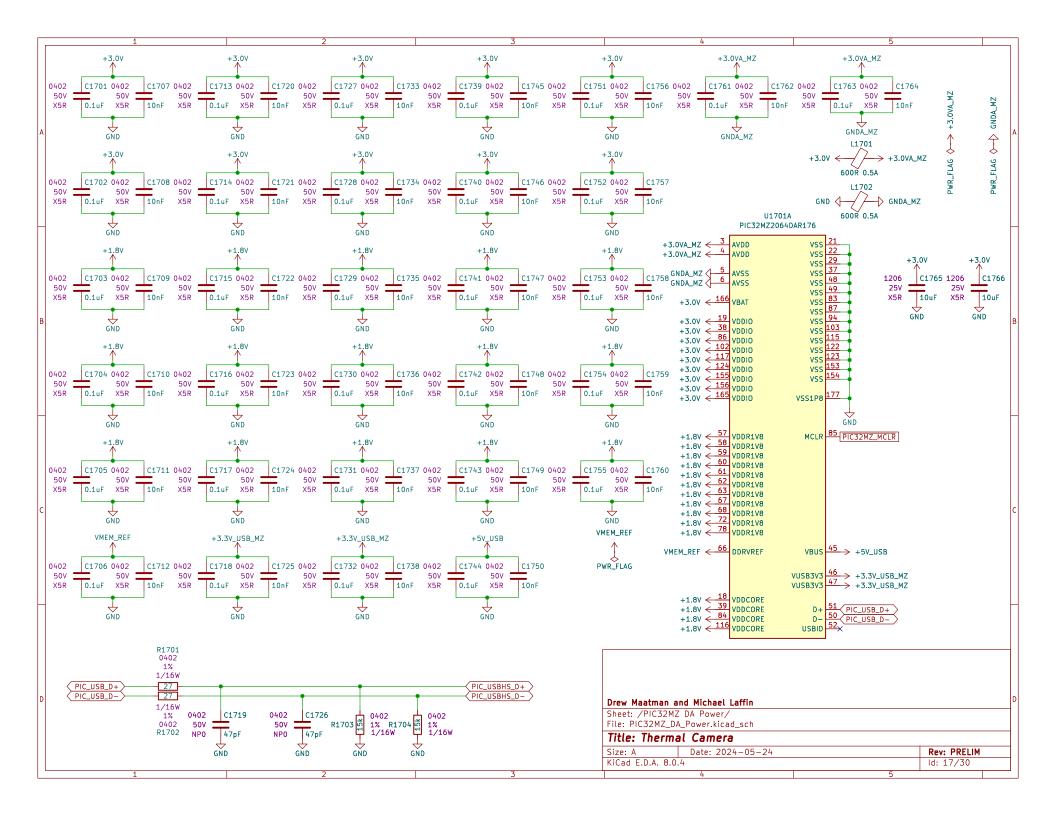


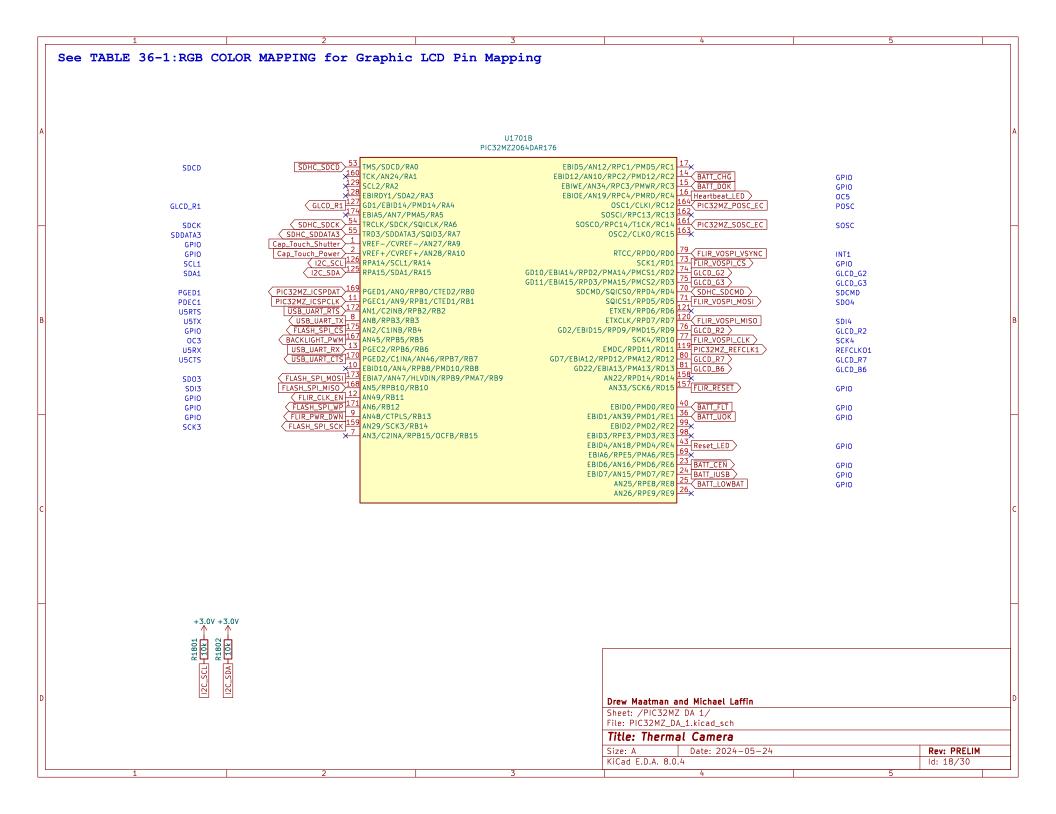












See TABLE 36-1:RGB COLOR MAPPING for Graphic LCD Pin Mapping U1701C PIC32MZ2064DAR176 GLCD_R6 91 GD6/EBIA11/RPF0/PMA11/RF0 90 GD5/EBIA10/RPF1/PMA10/RF1 41 RPF2/SDA3/RF2 EXERR/RPF3/RF3 EXERR/RF73/RF3 PMD9 (PD6/KSDA5/PMD9 ETXERR/RJ0 GLCD_R6 GLCD_R5 EMDIO/RJ1 EBIRDY3/AN32/RJ2 GP10 GLCD_B4 GD20/EBIA22/RJ3 GLCD_B4 GLCD_B1 89 GD17/EBID9/RPF4/SDA5/PMD9/RF4 GLCD_B0 89 GD16/EBID8/RPF5/SCL5/PMD8/RF5 82 RPF8/SCL3/RF8 GLCD_VSYNC VSYNC/EBICSO/RJ4 GLCD_B1 GLCD_VSYNC GLCD_HSYNC GLCD_B0 HSYNC/EBICS1/RJ5 GLCD_HSYNC 48 GLCD_GCLK GCLK/EBICS2/RJ6 GLCD_GCLK X27 TD0/AN31/RPF12/RF12 47 GLCD_GEN GEN/EBICS3/RJ7 GLCD_GEN X28 TDI/AN17/SCK5/RF13 ETXD0/RJ8 LCD_CTP_INT **GPIO** 112 LCD _CTP_RESET | 146 GLCD_B2 | 111 LCD_ENABLE | ETXD1/RJ9 GLCD_R3 | 96 | 6D3/EBIA8/RPG0/PMA8/RG0 | 5D_SPL_SCK | 30 | AN14/C1IND/SCK2/RG6 | AN14/C1IND/SCK2/RG6 | AN13/C1INC/RPG7/SDA4/RG7 | SD_SPL_CS | 35 | SD_SPL_CS | 55 | EBIA2/AN23/C2INC/RPG9/PMA2/RG9 | SDHC_SDDATA2 | 65 | TRDJ/SDDATA0/SQID0/RG13 | TRDJ/SDDATA2/SQID2/RG14 | AN21/RG15 GPIO GD18/EBIBS1/RJ10 GLCD_R3 GLCD_B2 ERXCLK/EREFCLK/RJ11 GLCD_R4 GPIO 145 GLCD_G1 144 GLCD_R0 143 GLCD_G0 GD9/EBIBS0/RJ12 SCK2 GLCD_G1 GDO/EBID13/PMD13/RJ13 SDI2 GLCD_R0 SD02 GD8/EBID11/PMD11/RJ14 GLCD_G0 EBIAO/PMAO/RJ15 142 GPIO SDDATA1 137 GLCD_B7 GD23/EBIA16/RKO **SDDATAO** GLCD_B7 SDDATA2 EBIA1/AN38/PMA1/RK1 EBIA3/AN11/PMA3/RK2 GPI0 GLCD_G4 GD12/EBIA17/RK3 GLCD_G4 133 GLCD_G5 132 GLCD_G6 131 GLCD_G7 110 ETXD2/RHO 109 ETXD3/RH1 GD13/EBIA18/RK4 GLCD_G5 GD14/EBIA19/RK5 GLCD_G6 SDHC_SDWP 141 SDWP/EBIRP/RH2 GD15/EBIA20/RK6 SDWP GLCD_G7 140 AN35/RH3 GD19/EBIA21/RK7 130 GLCD_B3 GLCD_B3 AN35/RH3 ×35 AN20/RH4 POS12_PG00D 1001 POS3P0_PG00D 1011 POS1P8_PG00D 139 ERXD1/RH5 POS1P8_PG00D 103 POS1P8_PG00D 103 POS1P8_PG00D 108 POS1P8_PG0D 108 POS1P8_PG00D **GPIO GPIO** GPIO **GPIO GPIO GPIO GPIO** | 104| | 25 | 104| | 25 | 105 | 104| | 26 | 105 | 104| | 27 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 | 105 **GPIO GPIO** GLCD_B5 Drew Maatman and Michael Laffin Sheet: /PIC32MZ DA 2/ File: PIC32MZ_DA_2.kicad_sch Title: Thermal Camera Date: 2024-05-24 Rev: PRELIM Size: A KiCad E.D.A. 8.0.4 ld: 19/30

