

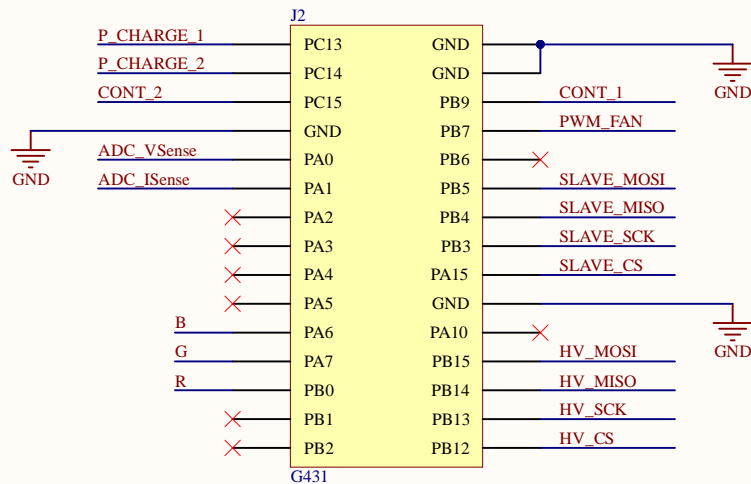
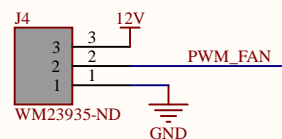
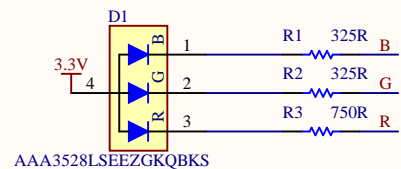
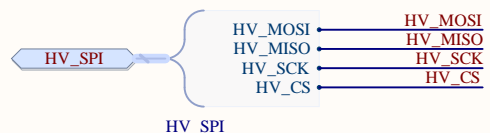
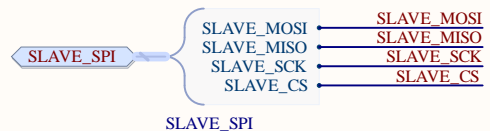
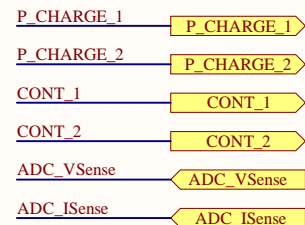
Title		
Size	Number	Revision
A4		
Date:	11-05-2022	Sheet of
File:	C:\Users\...\Connectors.SchDoc	Drawn By:

1

2

3

4



Title: *

Size: A4

Author: *

Date: 2022-11-05

Revision: *

Sheet 2 of 6

File: MCU_Platform.SchDoc

*
*
*
*

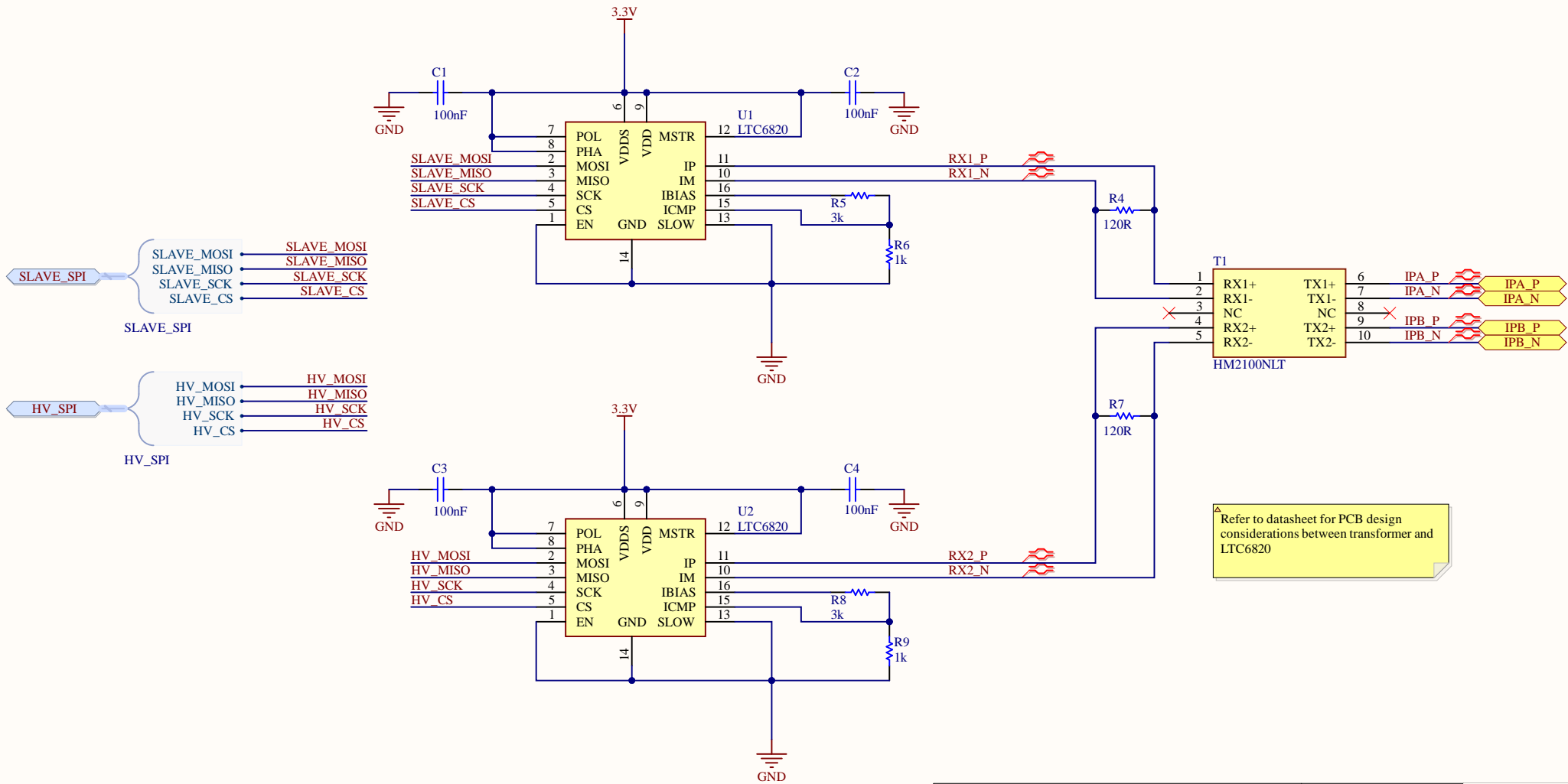
WATERLOOP

1

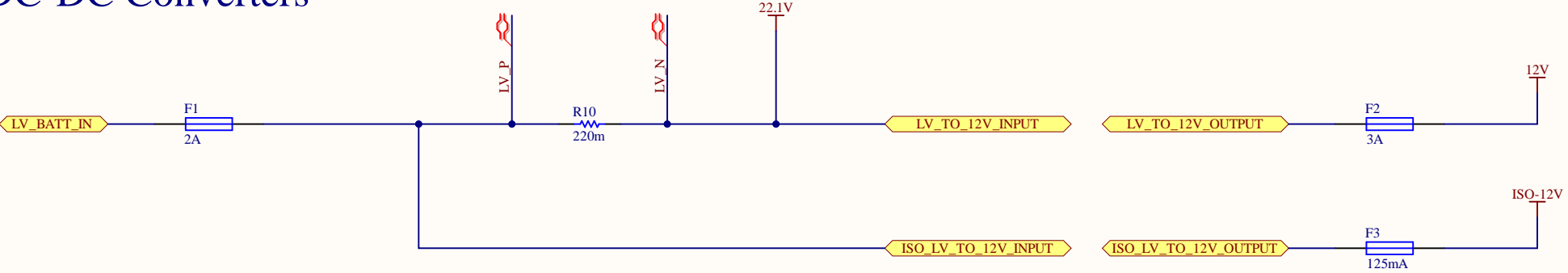
2

3

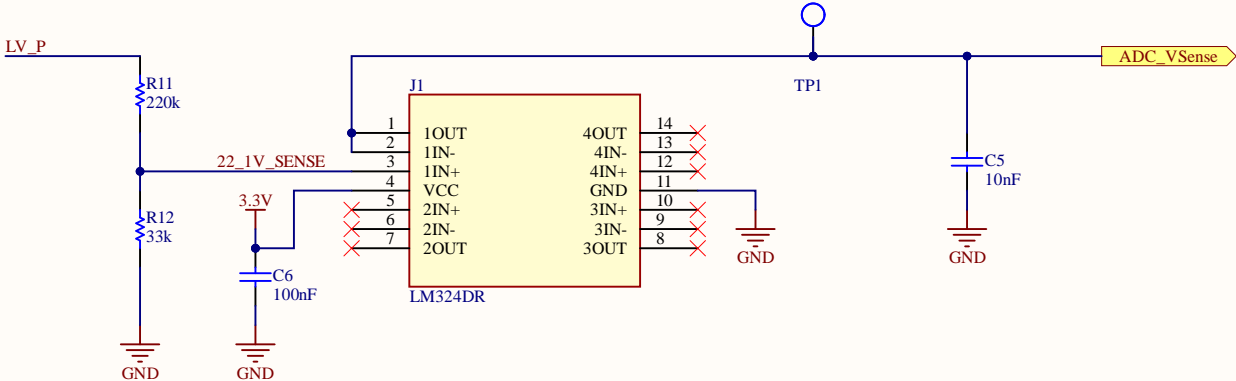
4



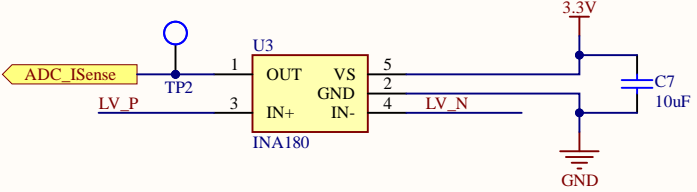
DC-DC Converters



LV Voltage Sensing

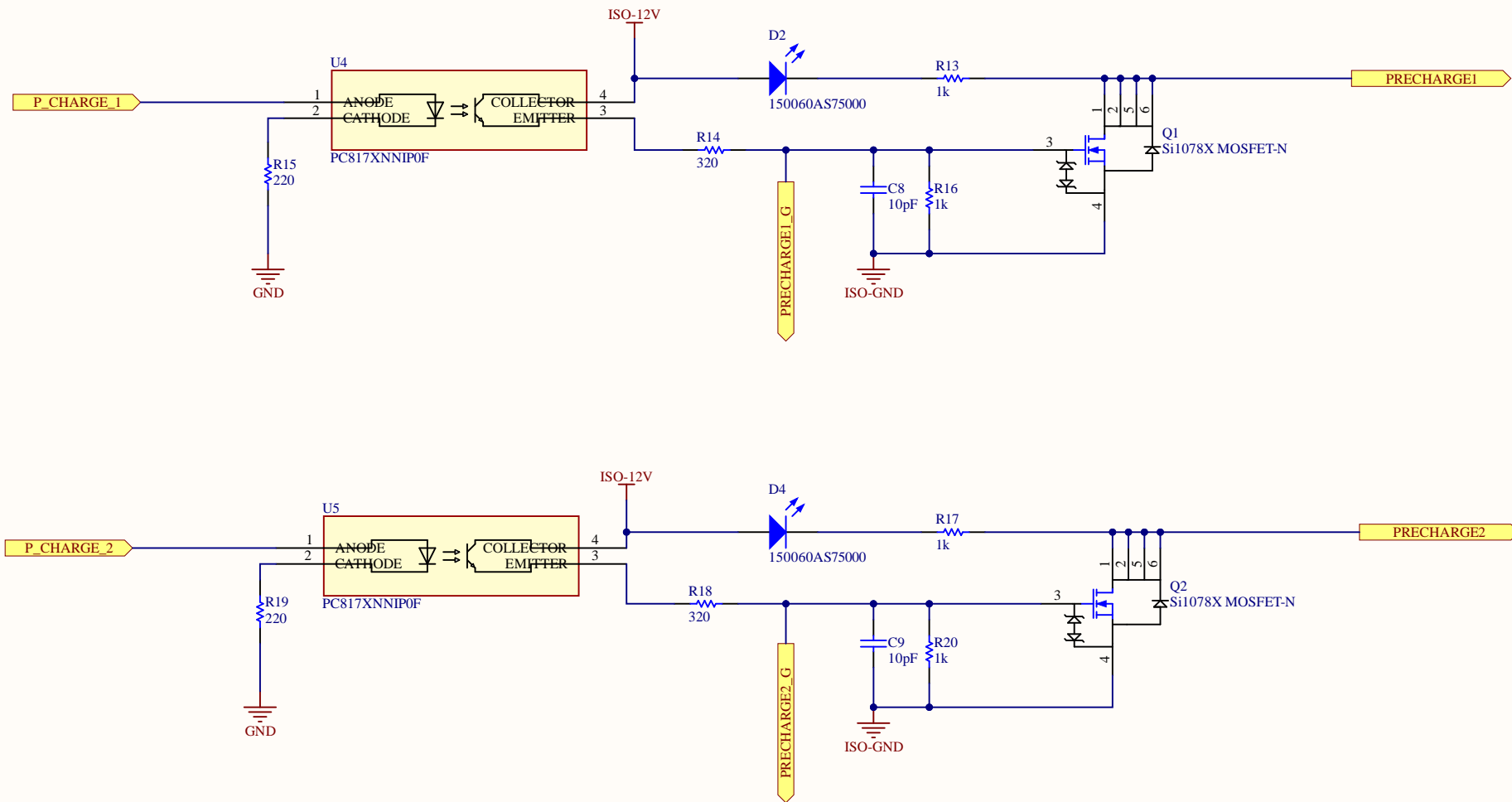


LV Current Sensing



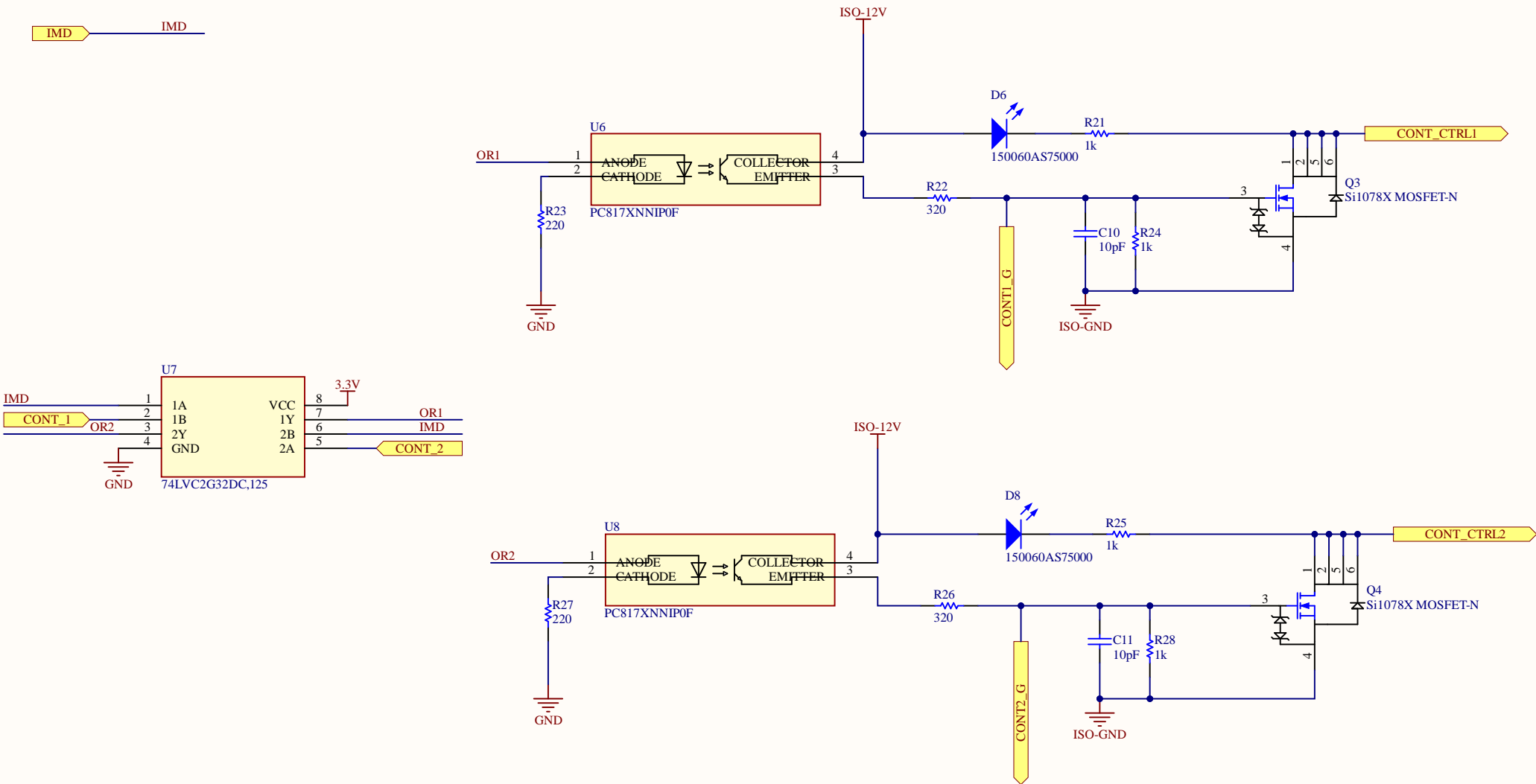
Precharge

Refer to LTSPICE simulation



Title: *		* * * *	
Size: A4	Author: *		
Date: 2022-11-05	Revision: *		
File: Precharge.SchDoc	Sheet 5 of 6		

Contactor



Title		
Size	Number	Revision
A4		
Date:	11-05-2022	Sheet of
File:	C:\Users\...\Contactor.SchDoc	Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
MTJ-88ARX1-FSM-LV	RJ45 Connector	[NoValue], *1	MTJ-88ARX1-FSM-LV	MTJ-88ARX1-FSM-LV	2
10V	C0805C103K8RAC780 0. 10000pF ±10% 10V Ceramic Capacitor X7R 0805 (2012 Metric)	C1, C2, C3, C4	0805 - Capacitor	Capacitor - Nonpolarized	4
Capacitor - Nonpolarized	Nonpolarized Capacitor	C5, C6, C7, C8, C9, C10, C11	0603 - Capacitor	Capacitor - Nonpolarized	7
AAA3528LSEEZGKOBK S	Red, Green, Blue (RGB) 621nm Red, 525nm Green, 465nm Blue LED Indication - Discrete 1.8V Red, 2.7V Green, 2.7V Blue 4-PLCC	D1	4-PLCC RGB LED	RGB LED- Common Anode	1
150060AS75000	Amber 605nm LED Indication - Discrete 2V 0603 (1608 Metric)	D2, D4, D6, D8	0603 - Resistor	LED	4
Fuse	Fuse	F1, F2, F3	3557-2	Fuse	3
LM324DR	General Purpose Amplifier 4 Circuit 14- SOIC	J1	LM324DR	LM324DR	1
G431	G431 Connector (PH2RA-30-UA) to Board. CONN HEADER R/A 30POS 2.54MM.	J2	G431 MCU (Board + Connector)	G431	1
MOLEX0039301021	Connector Header Through Hole, Right Angle 2 pin 0.165" (4.20mm)	J3, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17	MOLEX0039301021	MOLEX0039301021	14
WM23935-ND	Conn Power HDR 3 POS 4.2mm Solder RA Thru-Hole 3 Terminal 1 Port Mini-Fit Jr Bag	J4	MOLEX_39303037	WM23935-ND	1
1760520000	1x3 Screw Terminal Block	P1	1760520000	1760520000	1
SI1078X MOSFET-N	N-Channel 30 V (D-S) MOSFET	Q1, Q2, Q3, Q4	SI1078X NMOS 30V	SI1078X MOSFET-N	4
1%	RC0603FR-07232RL, RES 232 OHM 1% 1/10W 0603, RC0603FR-07120RL 120 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film, RMCFO603FT3K00. 3 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Automotive AEC-Q200 Thick Film, RC0603FR- 071KL. 1 kOhms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	R1, R2, R3, R4, R5, R6, R7, R8, R9	0603 - Resistor	Resistor	9
Resistor	Resistor	R10	2512 - RESISTOR	Resistor	1
Resistor	Resistor	R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30	0603 - Resistor	Resistor	20
HM2100NLT	Pulse Transformer 1:1 Surface Mount 150µH, 450µH	T1	HM2100NLT	HM2100NLT	1
LTC6820	LTC6820	U1, U2	LT6820_QFN	LTC6820	2
INA180	0V to 26V Current Sense Amplifier	U3	INA180	INA180	1
PC817XNNIPOF	Transistor Output Optocouplers Photocoupler	U4, U5, U6, U8	PC817XNNIPOF_SHP	PC817XNNIPOF	4
74LVC2G32DC,125	IC GATE OR 2CH 2-INP 8TSSOP	U7	VSSOP8_SOT765- 1_NEX	74LVC2G32DC,125	1