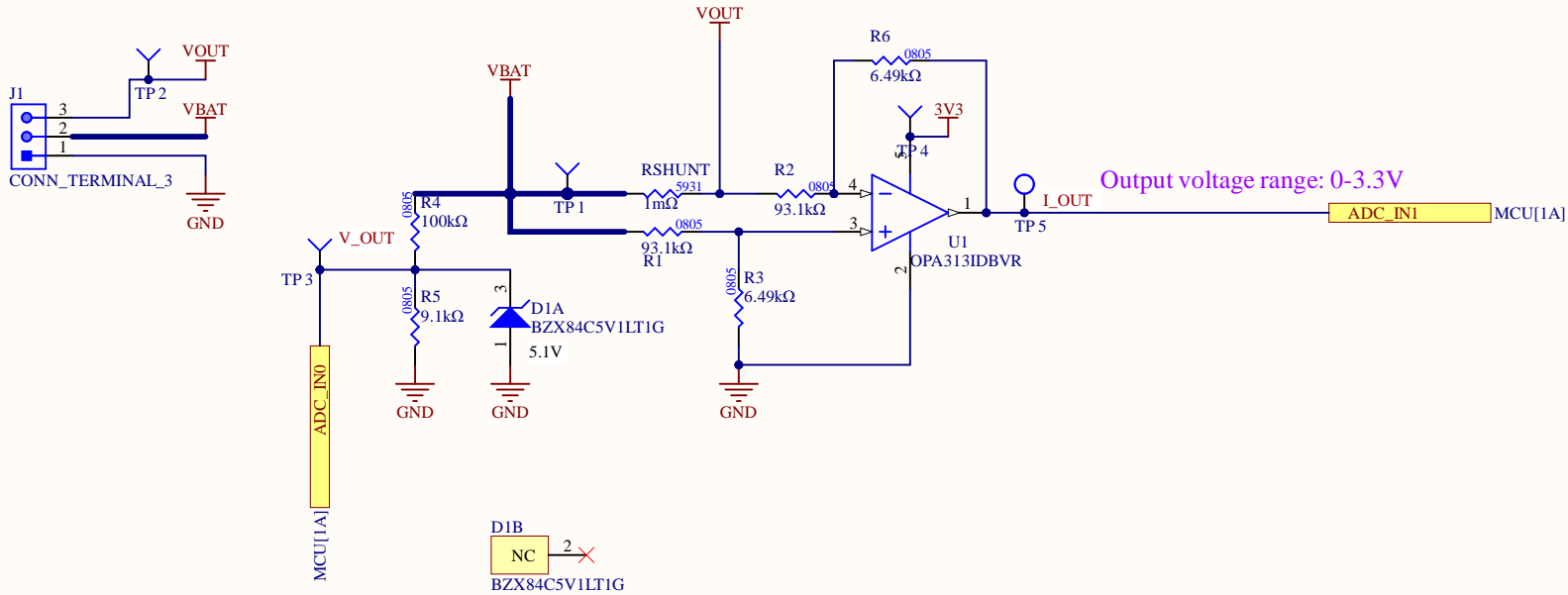
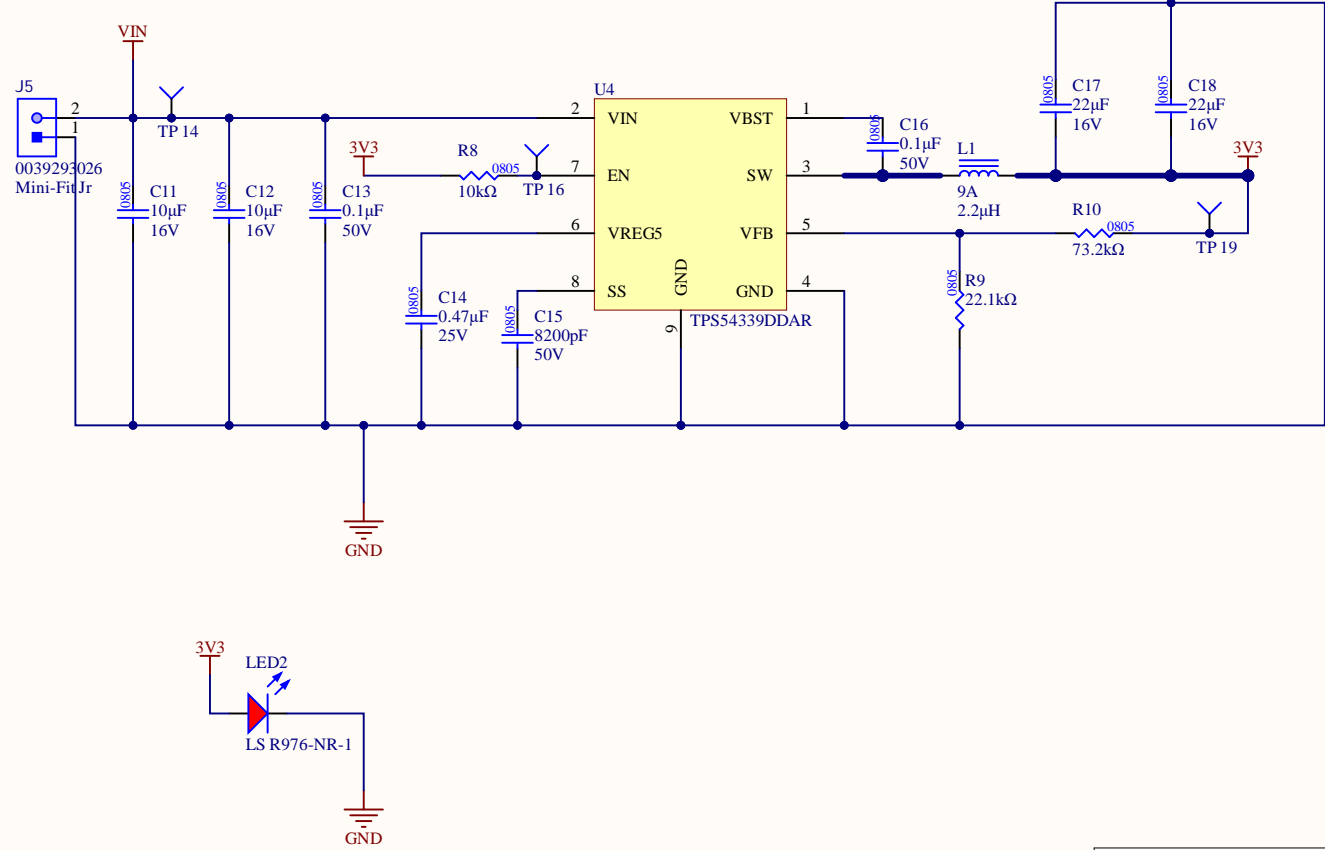


DC-DC Current Sense @ 55A

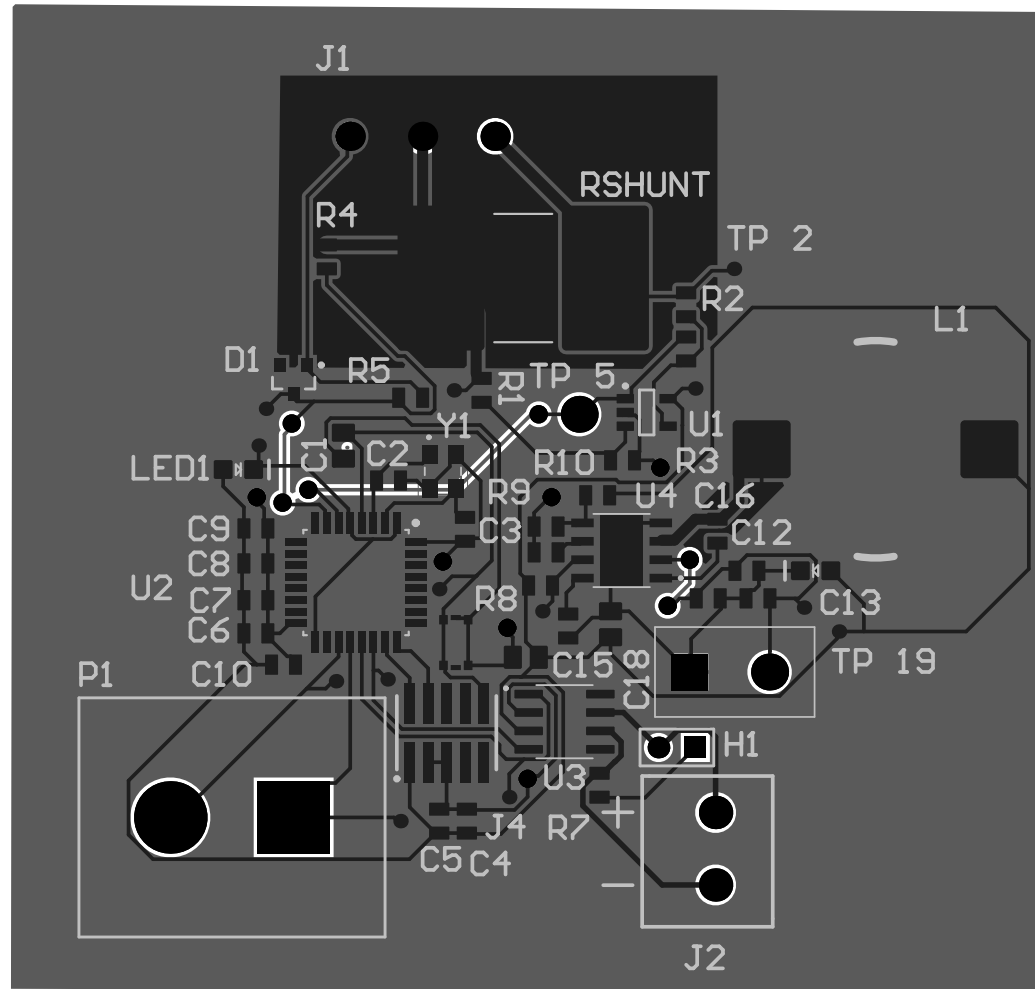


Title		
Size	Number	Revision
A4		
Date:	4-08-2025	Sheet of
File:	C:\Users\...\DD_Current_Sense.SchDoc	Drawn By:

12V - 3V3 Buck Converter @ 3A



Title		
Size	Number	Revision
A4		
Date:	4-08-2025	Sheet of
File:	C:\Users\...\Power.SchDoc	Drawn By:



Comment	Description	Designator	Footprint	LibRef	Quantity
CAP_0.1uF_50V_0805	CAP CER0.1UF 50V X7R0805	C1	CAP2012	CAP_0.1uF_50V_0805	1
CAP_14pF_50V_0805	CERAMIC CAP MLCC HIGH-Q 125C	C2, C3	CAP0805	CAP_14pF_50V_0805	2
CAP_0.1uF_50V_0805	CAP CER0.1UF 50V X7R0805	C4, C5, C13, C16	CAP0805	CAP_0.1uF_50V_0805	4
CAP_100nF_50V_0805	CAP CER0.1UF 50V X7R0805	C6, C8, C9	CAP0805	CAP_100nF_50V_0805	3
CAP_4.7uF_16V_0805	CAP CER4.7UF 16V X5R0805	C7	CAP0805	CAP_4.7uF_16V_0805	1
CAP_1uF_16V_0805	CAP CER1UF 16V X7R0805	C10	CAP0805	CAP_1uF_16V_0805	1
CAP_10uF_16V_0805	CAP CER10UF 16V X5R0805	C11, C12	CAP0805	CAP_10uF_16V_0805	2
CAP_0.47uF_25V_0805	CAP CER0.47UF 25V X5R0805	C14	CAP0805	CAP_0.47uF_25V_0805	1
CAP_8200pF_50V_0805	CAP CER8200PF 50V X7R0805	C15	CAP0805	CAP_8200pF_50V_0805	1
CAP_22uF_16V_0805	CAP CER22UF 16V X5R0805	C17, C18	CAP2012	CAP_22uF_16V_0805	2
BZX84C5V1LT1G	Zener Voltage Regulator, 225 mW, 3-Pin SOT-23, Pb-Free, Tape and Reel	D1	ONSC-SOT-23-3-318-08_V	OMP-1060-00946-1	1
HEADER	HEADER2X1	H1	HDR1X2	HEADER	1
CONN_TERMINAL_3	Header, 3-Pin	J1	WJ127-5.0-3P	CONN_TERMINAL_3	1
CON_2POS_SCREW_TERMINAL	TERMBLK2POS SIDE ENTRY 5MM	J2	1935161	CON_2POS_SCREW_TERMINAL	1
CON_4POS	CONN HEADER VERT 4POS 2.54MM	J3		CON_4POS	1
CON_PROGRAMMING	CONN HEADER SMD 10POS 1.27MM	J4	FTSH-105-01-F-DV4K-P-TR	CON_PROGRAMMING	1
CONN_0039293026	CONN HEADER VERT 2POS MINI-FIT	J5	0039293026	CONN_0039293026	1
IND_2.2uH_9A	INDUCTOR 2.2uH 9A 6.8 MOHM SMD	L1	IND_BOURNS_SDR1806	IND_2.2uH_9A	1
LED_RED	LED RED DIFFUSED 0805 SMD	LED1, LED2	LED_0805_RED	LED_RED	2
CONN_TERMINAL_2	Header, 2-Pin	P1	OSTYK51102030	CONN_TERMINAL_2	1
RES_100Q_0805_1%	RES93.1K OHM 1% 1/8W 0805	R1, R2	RES0805	RES_93.1kQ_0805_1%	2
RES_9.1kQ_0805_5%	RES6.49K OHM 1% 1/8W 0805, RES9.1K OHM 5% 1/8W 0805	R3, R5, R6	RES0805	RES_6.49kQ_0805_1%, RES_9.1kQ_0805_5%	3
RES_100kQ_0805_0.5%	RES100K OHM 0.5% 1/8W 0805	R4	RES0805	RES_100kQ_0805_0.5%	1
RES_120Q_0805_1%	RES120 OHM 1% 1/8W 0805	R7	RES0805	RES_120Q_0805_1%	1
RES_10kQ_0805_5%	RES10K OHM 5% 1/8W 0805	R8	RES0805	RES_10kQ_0805_5%	1
RES_22.1kQ_0805_1%	RES22.1K OHM 1% 1/8W 0805	R9	RES0805	RES_22.1kQ_0805_1%	1
RES_73.2kQ_0805_1%	RES73.2K OHM 1% 1/8W 0805	R10	RES0805	RES_73.2kQ_0805_1%	1
RES_1mQ_5931_1%	RES0.001 OHM 1% 10W 5931	RSHUNT	RES-5931	RES_1mQ_5931_1%	1
SW_PUSHBUTTON	SMT 3.0 X 2.6 MM TACT SWITCH W/IT	S1	TACTILE_SWITCH_SMD	SW_PUSHBUTTON	1
TESTPOINT_LOOP	TESTPOINT THRU-HOLE	TP5	TESTPOINT_LOOP	TESTPOINT_LOOP	1
OPAMP_OPA313IDBVR	IC OPAMP GP 1 CIRCUIT SOT23-5	U1	DBV0005A_LM	OPAMP_OPA313IDBVR	1
STM32F042K6T6TR	ARM Cortex-M0 STM32F0 Microcontroller IC 32-Bit Single-Core 48MHz 32KB (32Kx8) FLASH 32-LQFP (7x7)	U2	LQFP-32	STM32F042K6T6TR	1
TCAN332DR	IC CAN TRANSCEIVER	U3	SOIC127P599X175-8N	TCAN332DR	1
TPS54339	IC REG BUCK ADJUSTABLE 3A 8SOPWR	U4	VREG_LM5017MR/NO PB	TPS54339	1
CRYSTAL_25MHZ_20PF	CRYSTAL 25.0000MHZ 20PF SMD	Y1	XTAL_ECS-250-20-33-CKM-TR	CRYSTAL_25MHZ_20PF	1