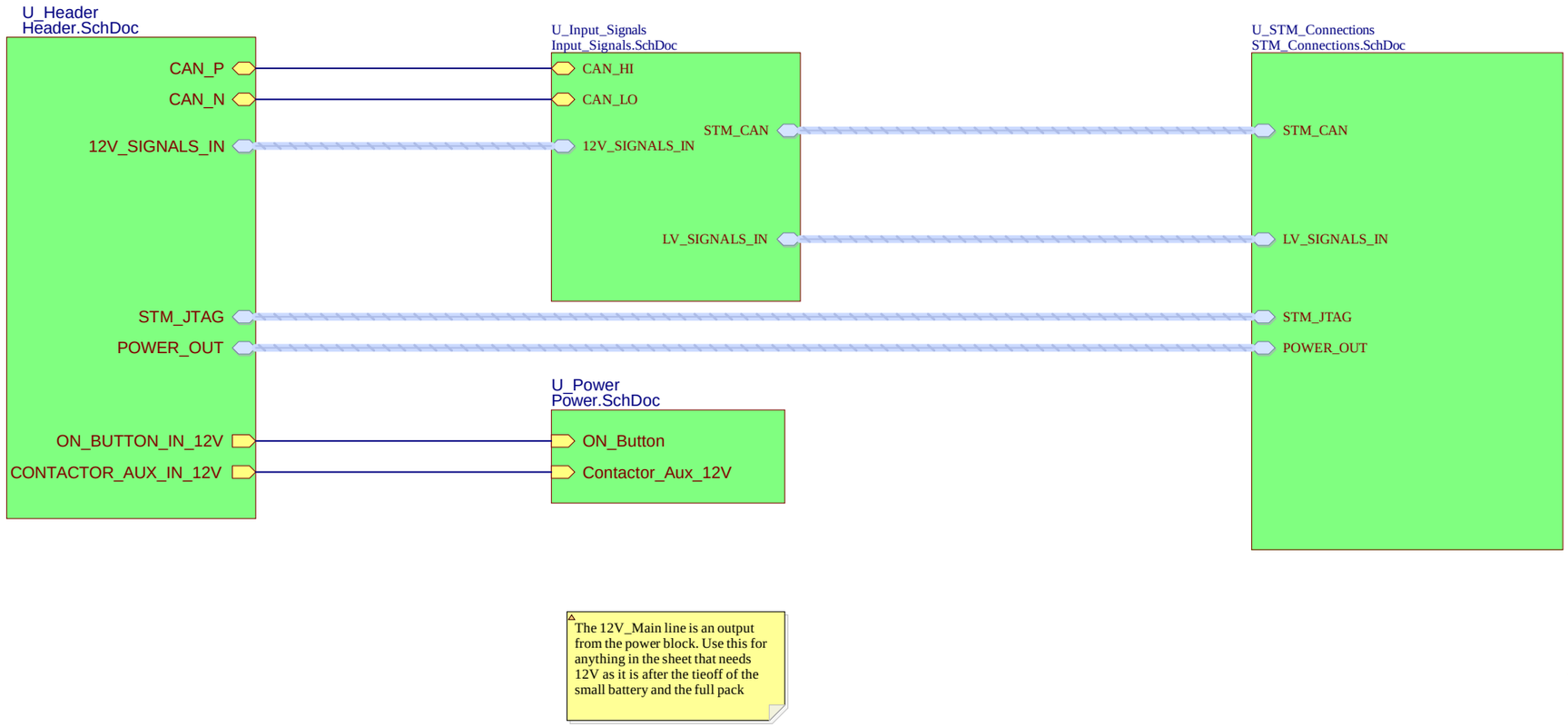

The 12V_Main line is an output from the power block. Use this for anything in the sheet that needs 12V as it is after the tieoff of the small battery and the full pack

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CAD SOFTWARE: Altium Designer		

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 1 of 8

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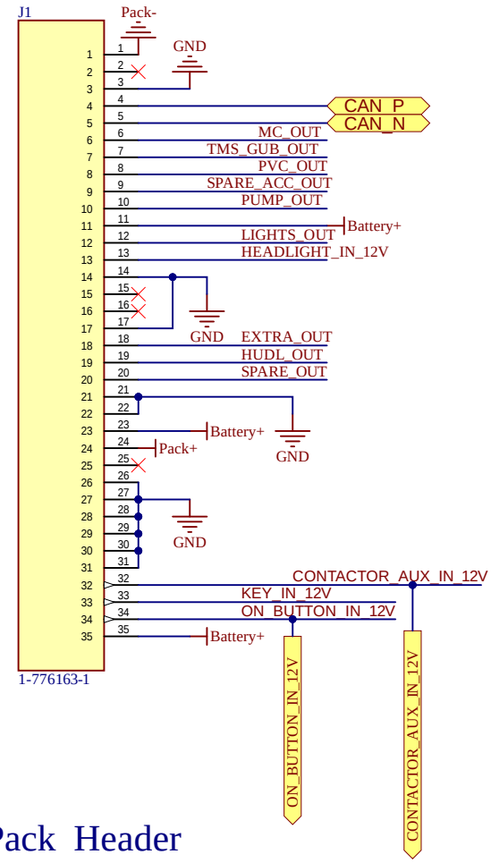
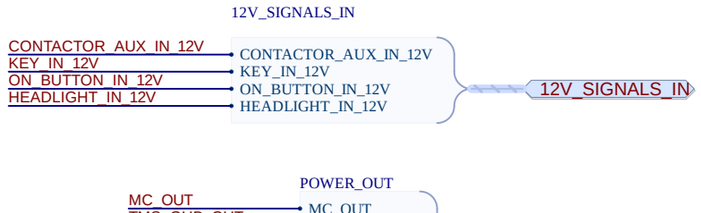
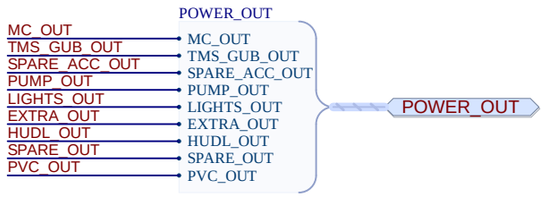
Main Header



12V0 line comes from PVC, passes through fuse, then is fed back to PVC





JTAG

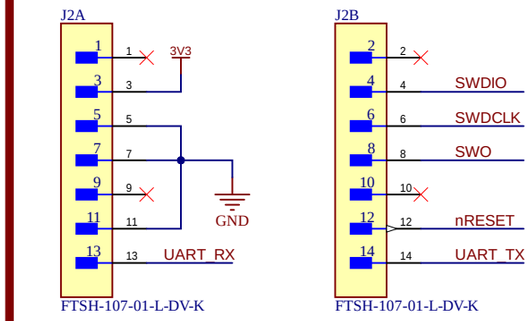
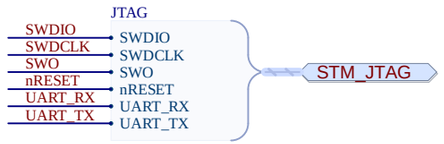


Table 4. **CN4 STDC14 connector pinout**

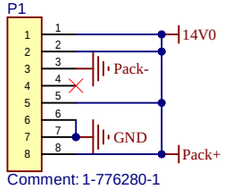
STDC14 pin number	MIPI-10 pin number	Pin description	Type
1	-	Reserved[1]	-
2	-	Reserved[1]	-
3	1	T_VCC	I
4	2	T_JTMS/T_SWDIO	I/O
5	3	GND	S
6	4	T_JCLK/T_SWCLK	O
7	5	GND	S
8	6	T_JTDO/T_SWO[2]	I
9	7	T_JRCLK	I
10	8	T_JTDI/NC[3]	O
11	9	GNDDETECT	O
12	10	T_NRST	O
13	-	T_VCP_RX	O
14	-	T_VCP_TX	I

1. *Do not connect on target.*
2. *SWO is optional, required only for Serial Wire Viewer (SWV) trace.*
3. *NC means not required for SWD connection.*



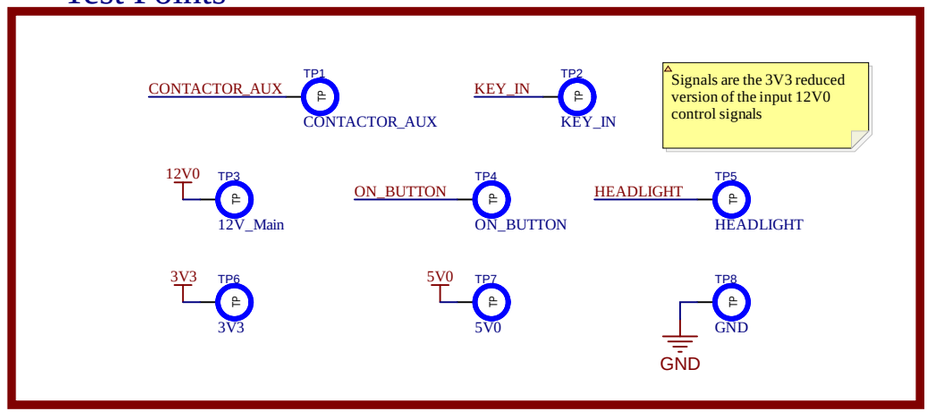
Pack Header

EVT standardized power port



- 14V0 is the voltage from the DC:DC from the main pack
- Battery+ is the smaller battery

Test Points



check if there is a preference for test point styles

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CAD SOFTWARE: Altium Designer		

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.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE — Sheet 2 of 8

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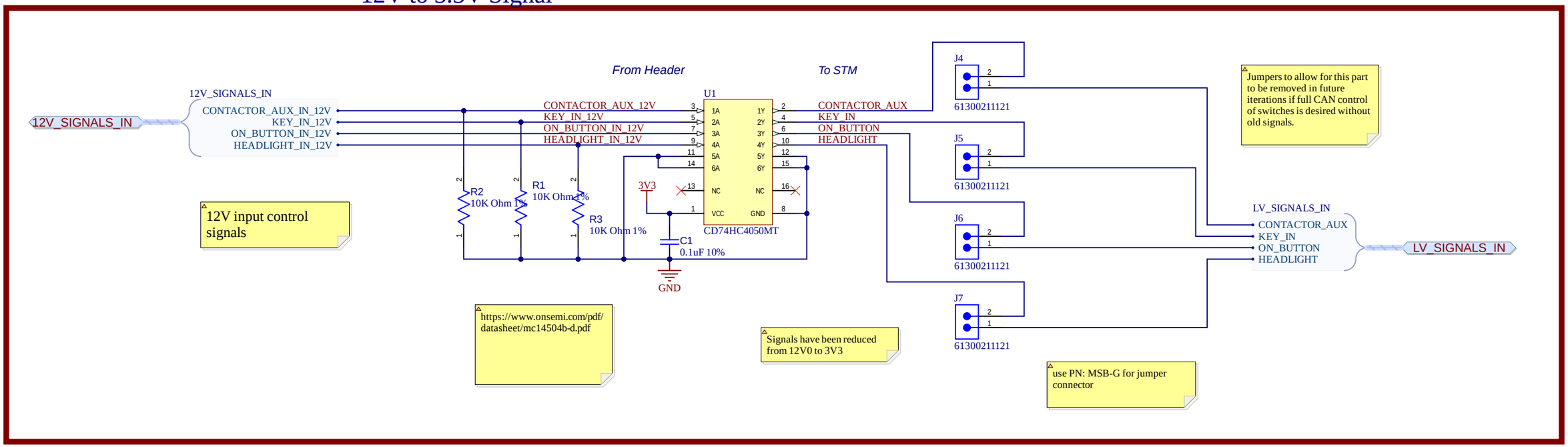
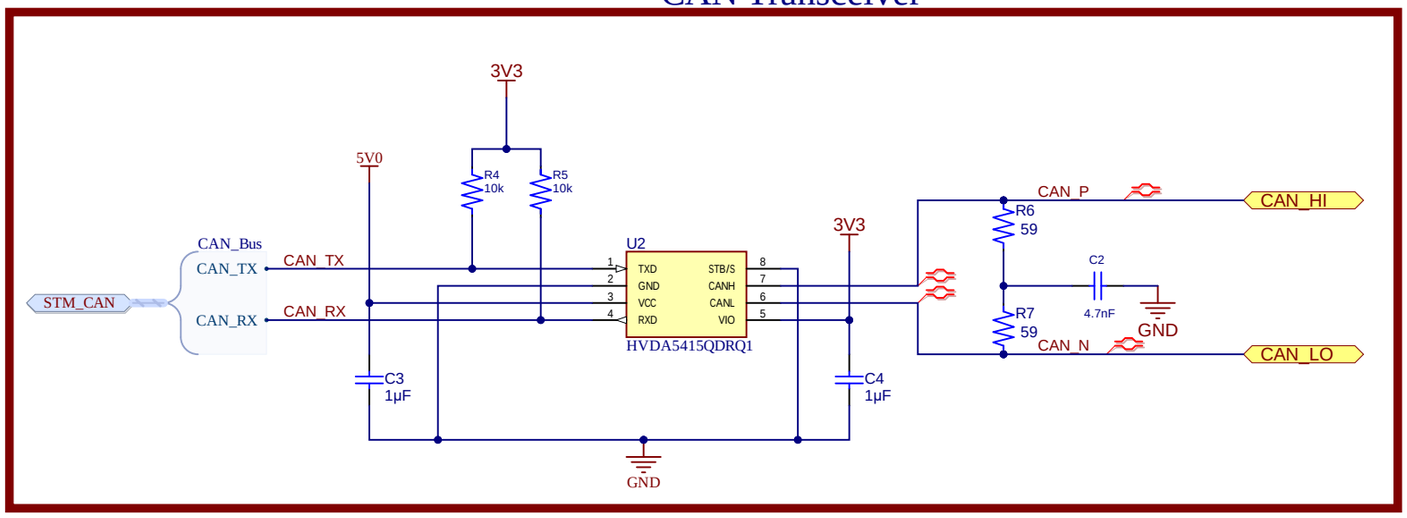
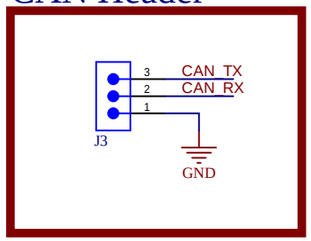
12V to 3.3V Signal



CAN Transceiver



CAN Header



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CAD SOFTWARE: Altium Designer		

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TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 4 of 8

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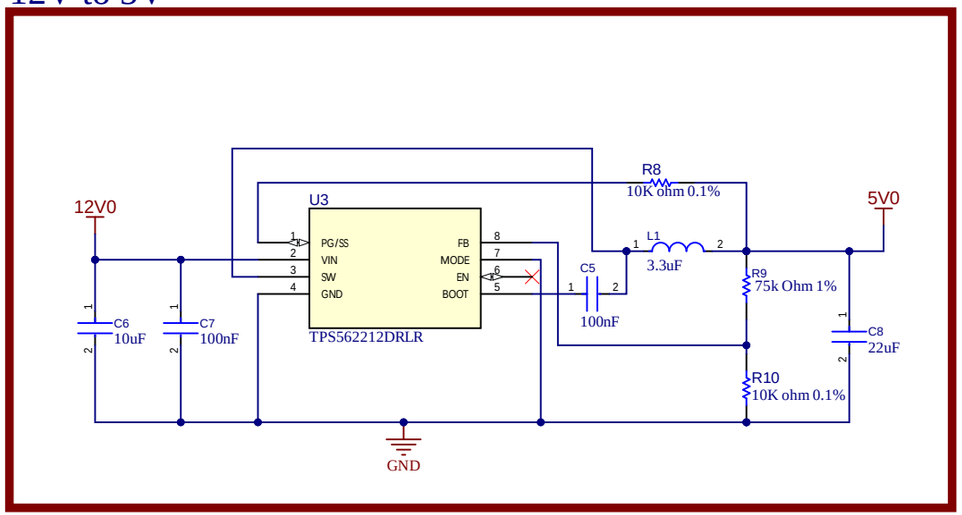
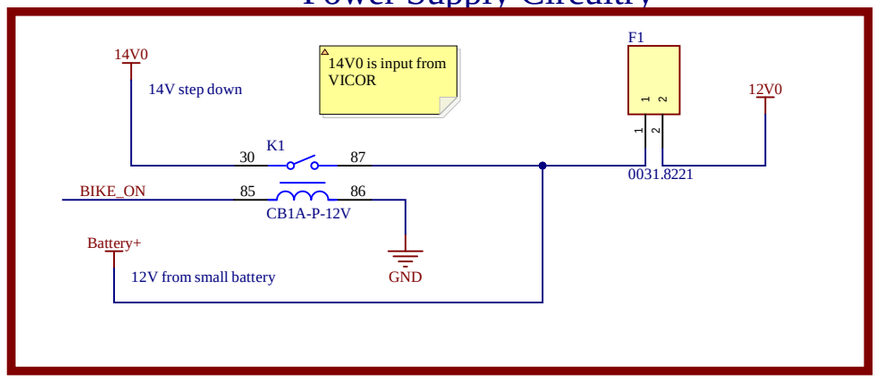
12V to 5V

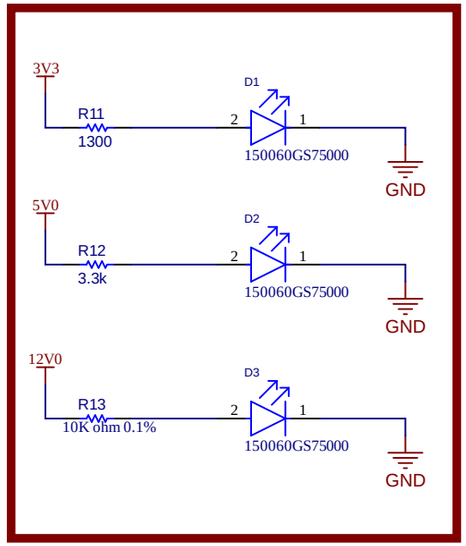


Power Supply Circuitry

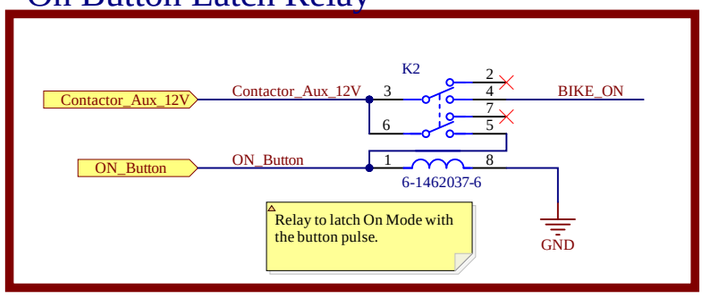


This will be used on the design for any system using 12V. Needs to be after the tieoff point and fuse so that the rail can be powered by either the battery or the step down from the main pack

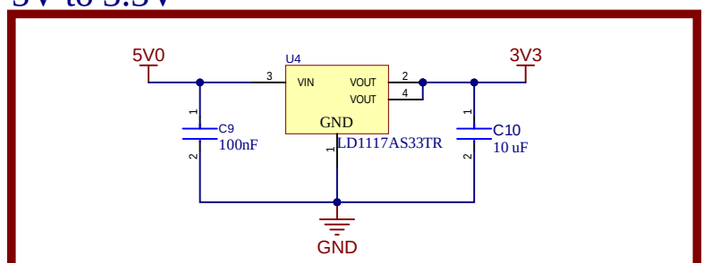
Power Indicator LEDs



On Button Latch Relay



5V to 3.3V



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CAD SOFTWARE: Altium Designer		

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 3 of 8

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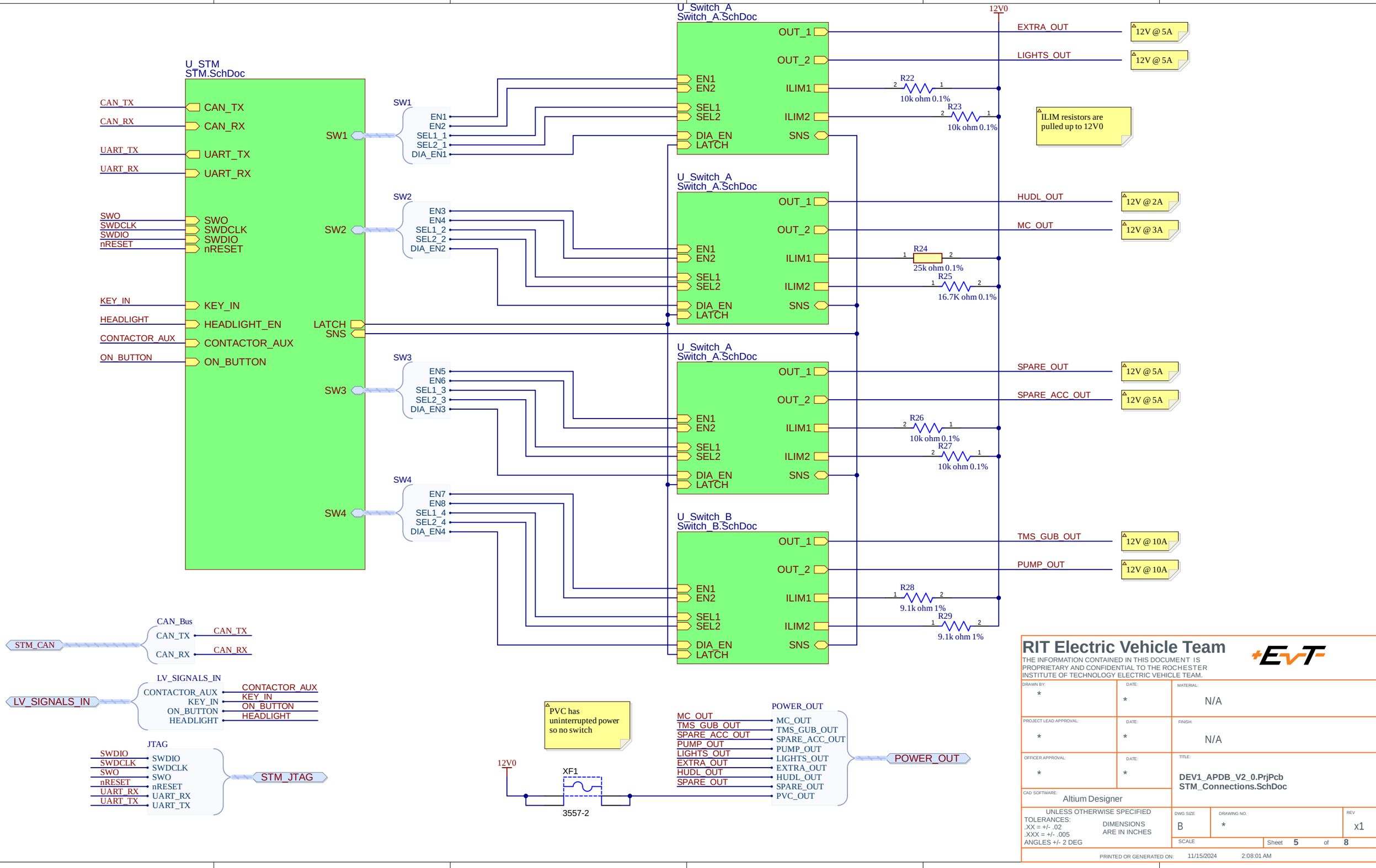
U_STM
STM.SchDoc
CAN_TX
CAN_RX
UART_TX
UART_RX
SWO
SWDCLK
SWDIO
nRESET
KEY_IN
HEADLIGHT
CONTACTOR_AUX
ON_BUTTON
SW1
SW2
SW3
SW4
LATCH
SNS
U_Switch_A
Switch_A.SchDoc
U_Switch_B
Switch_B.SchDoc
EN1
EN2
SEL1_1
SEL2_1
DIA_EN1
EN3
EN4
SEL1_2
SEL2_2
DIA_EN2
EN5
EN6
SEL1_3
SEL2_3
DIA_EN3
EN7
EN8
SEL1_4
SEL2_4
DIA_EN4
OUT_1
OUT_2
ILIM1
ILIM2
DIA_EN
SEL1
SEL2
LATCH
12V0
EXTRA_OUT
LIGHTS_OUT
HUDL_OUT
MC_OUT
SPARE_OUT
SPARE_ACC_OUT
TMS_GUB_OUT
PUMP_OUT
12V @ 5A
12V @ 2A
12V @ 3A
12V @ 10A
R22
10k ohm 0.1%
R23
10k ohm 0.1%
ILIM resistors are pulled up to 12V0
R24
25k ohm 0.1%
R25
16.7K ohm 0.1%
R26
10k ohm 0.1%
R27
10k ohm 0.1%
R28
9.1k ohm 1%
R29
9.1k ohm 1%
CAN_Bus
STM_CAN
LV_SIGNALS_IN
LV_SIGNALS_IN
JTAG
STM_JTAG
PVC has uninterrupted power so no switch
XF1
3557-2
POWER_OUT
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TITLE:
DEV1_APDB_V2_0.PrjPcb
STM_Connections.SchDoc
CAD SOFTWARE:
Altium Designer
UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES
DWG SIZE
B
DRAWING NO.
REV
x1
SCALE
Sheet 5 of 8
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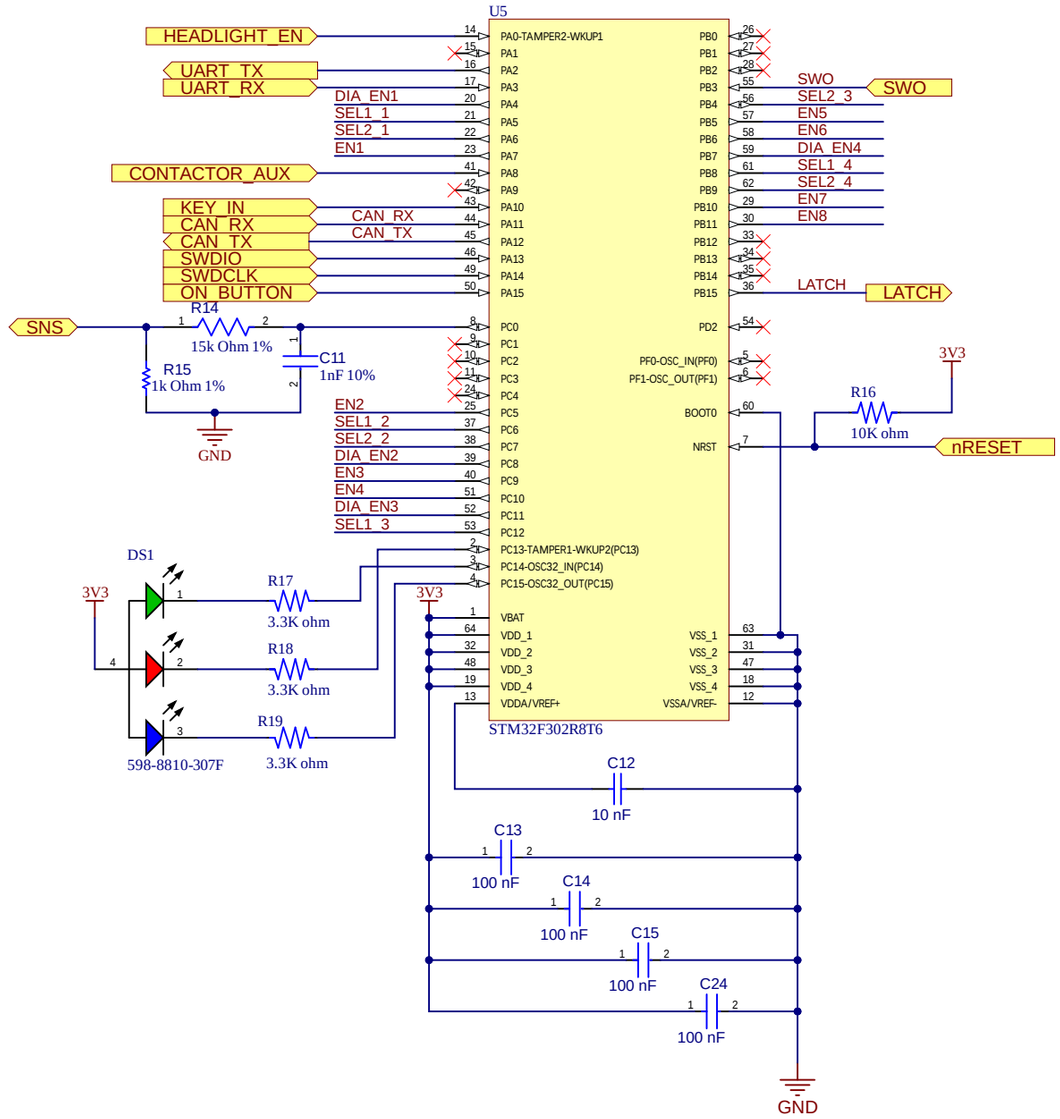
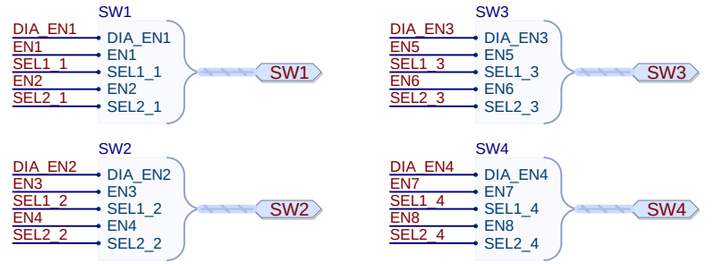
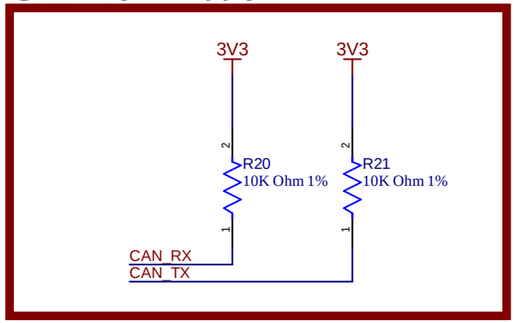
STM32





CAN Termination



Layout all power paths for 15A continuous with 20C temp rise.

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CAD SOFTWARE: Altium Designer		

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TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 7 of 8

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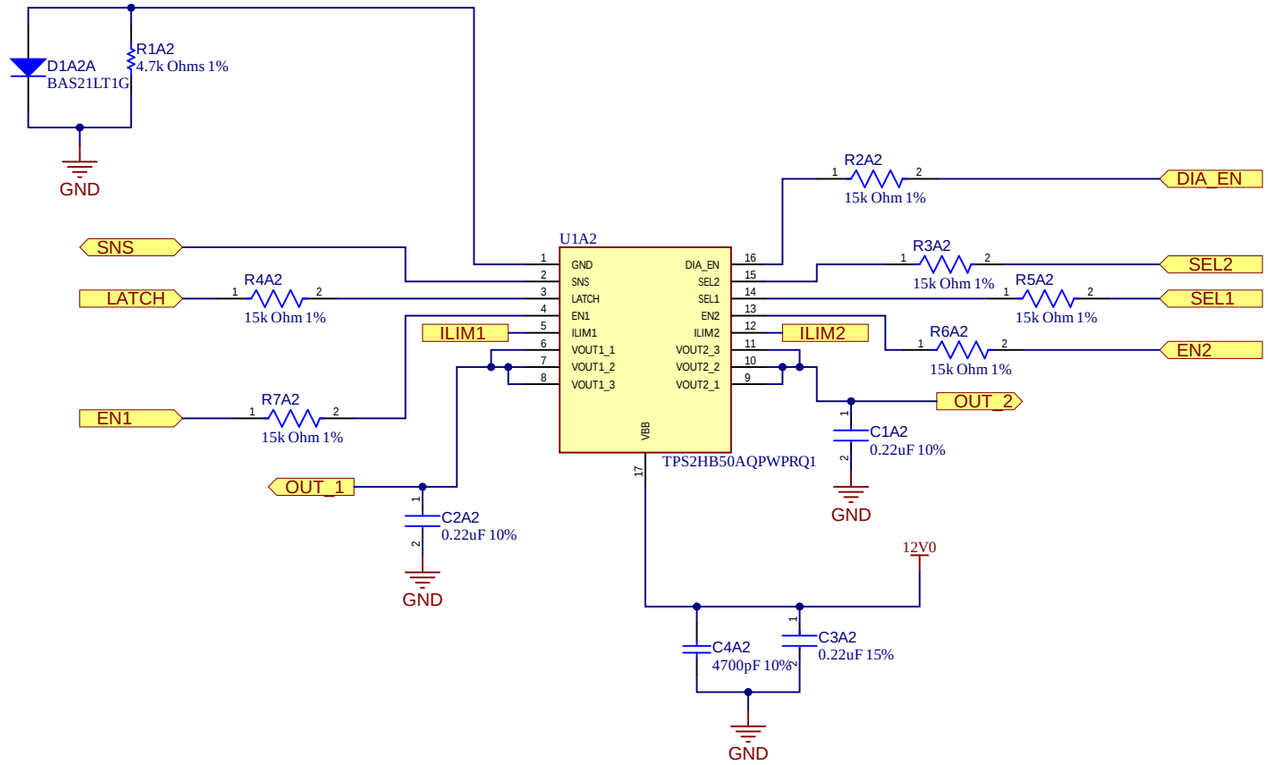

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PROJECT LEAD APPROVAL: *	DATE: *	FINISH: N/A
OFFICER APPROVAL: *	DATE: *	TITLE: DEV1_APDB_V2_0.PrjPcb Switch_A.SchDoc
CAD SOFTWARE: Altium Designer		

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TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 8 of 8

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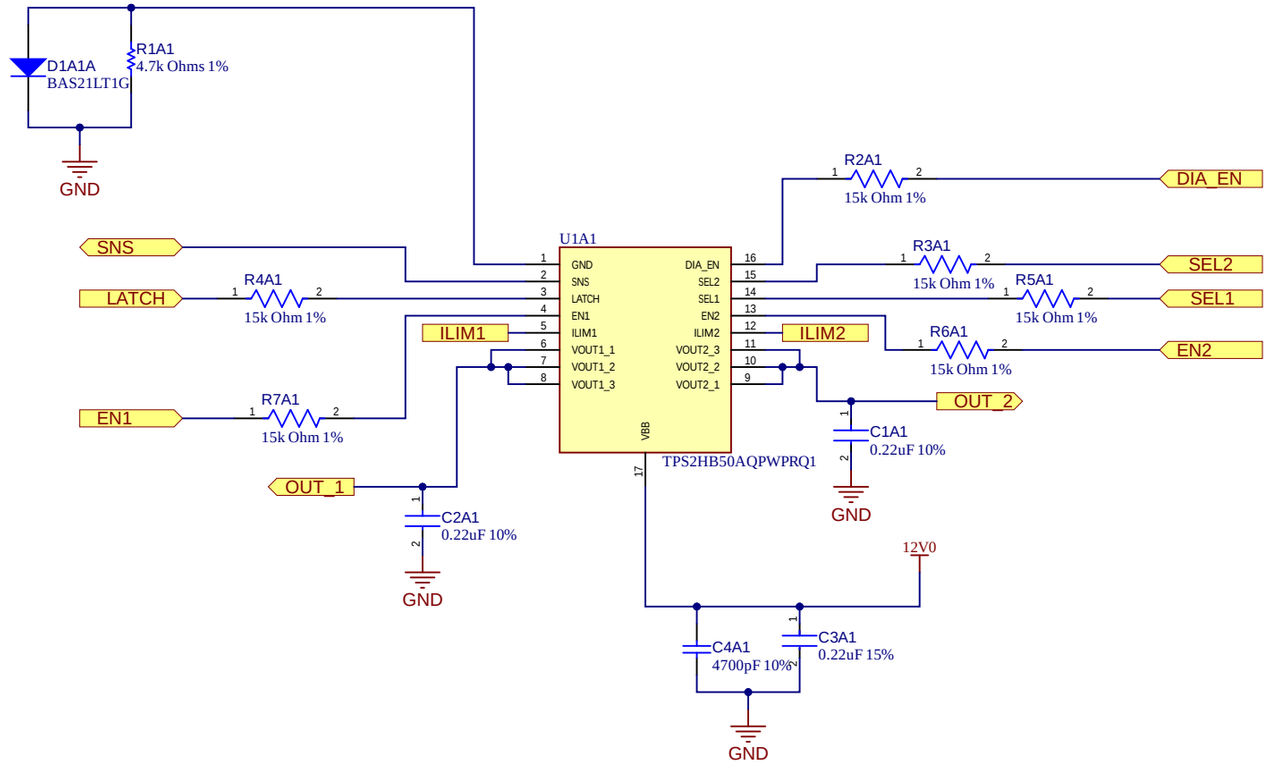

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PROJECT LEAD APPROVAL: *	DATE: *	FINISH: N/A
OFFICER APPROVAL: *	DATE: *	TITLE: DEV1_APDB_V2_0.PrjPcb Switch_A.SchDoc
CAD SOFTWARE: Altium Designer		

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 8 of 8

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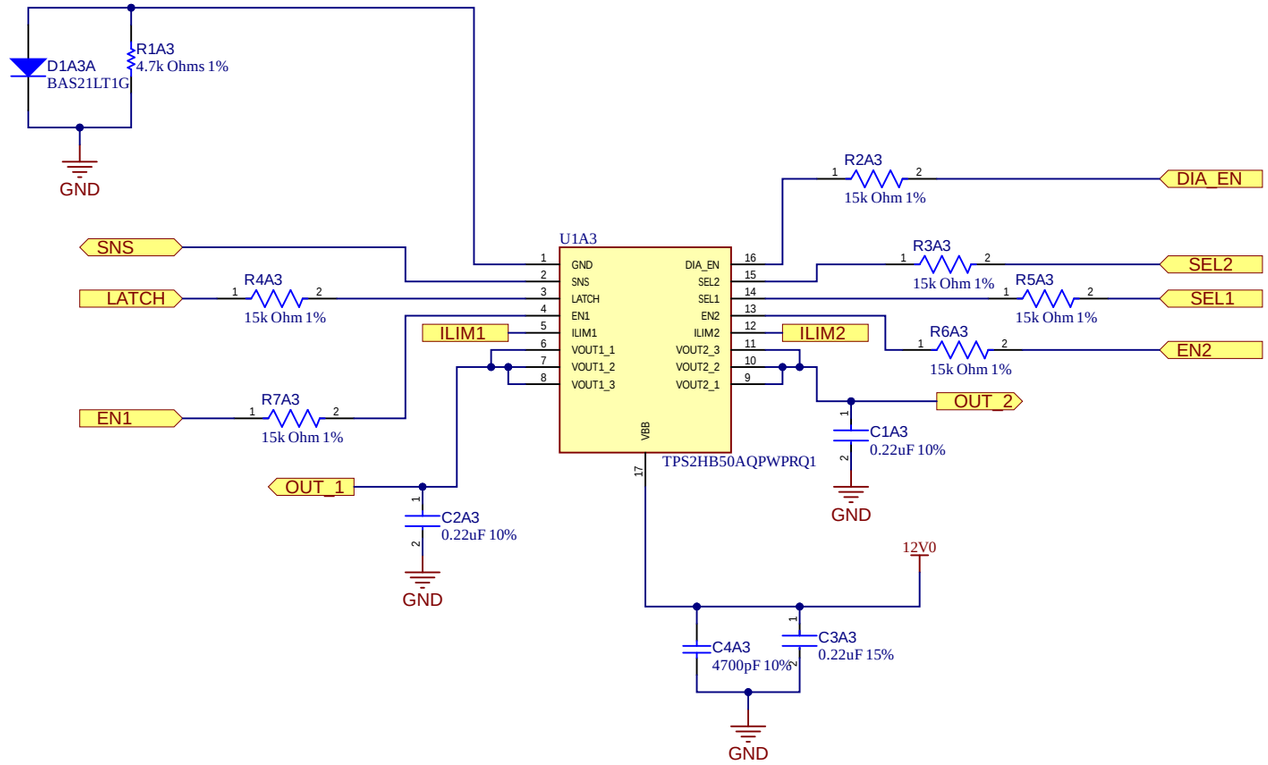

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OFFICER APPROVAL: *	DATE: *	TITLE: DEV1_APDB_V2_0.PrjPcb Switch_A.SchDoc
CAD SOFTWARE: Altium Designer		

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 8 of 8

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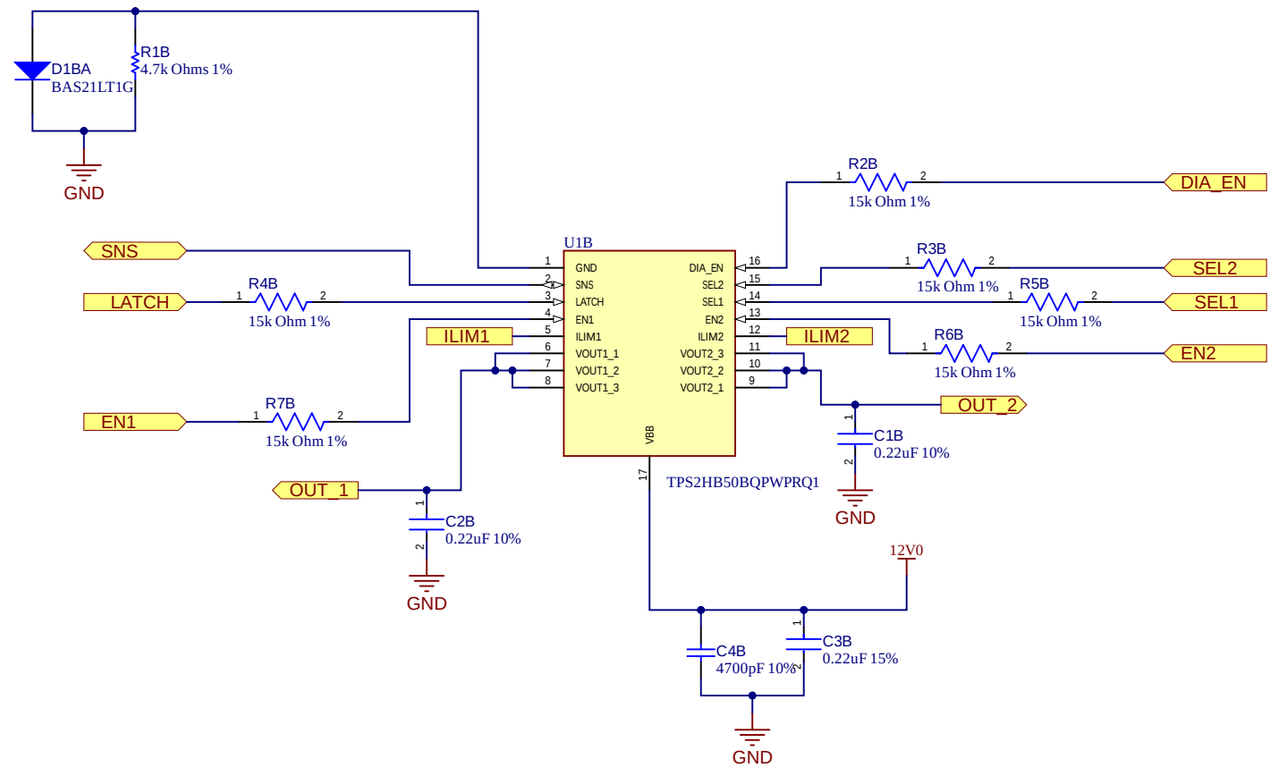

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PROJECT LEAD APPROVAL: *	DATE: *	FINISH: N/A
OFFICER APPROVAL: *	DATE: *	TITLE: DEV1_APDB_V2_0.PrjPcb Switch_B.SchDoc
CAD SOFTWARE: Altium Designer		

UNLESS OTHERWISE SPECIFIED
TOLERANCES:
.XX = +/- .02
.XXX = +/- .005
ANGLES +/- 2 DEG
DIMENSIONS ARE IN INCHES

DWG SIZE	DRAWING NO.	REV
B	*	x1

SCALE | Sheet 6 of 8

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