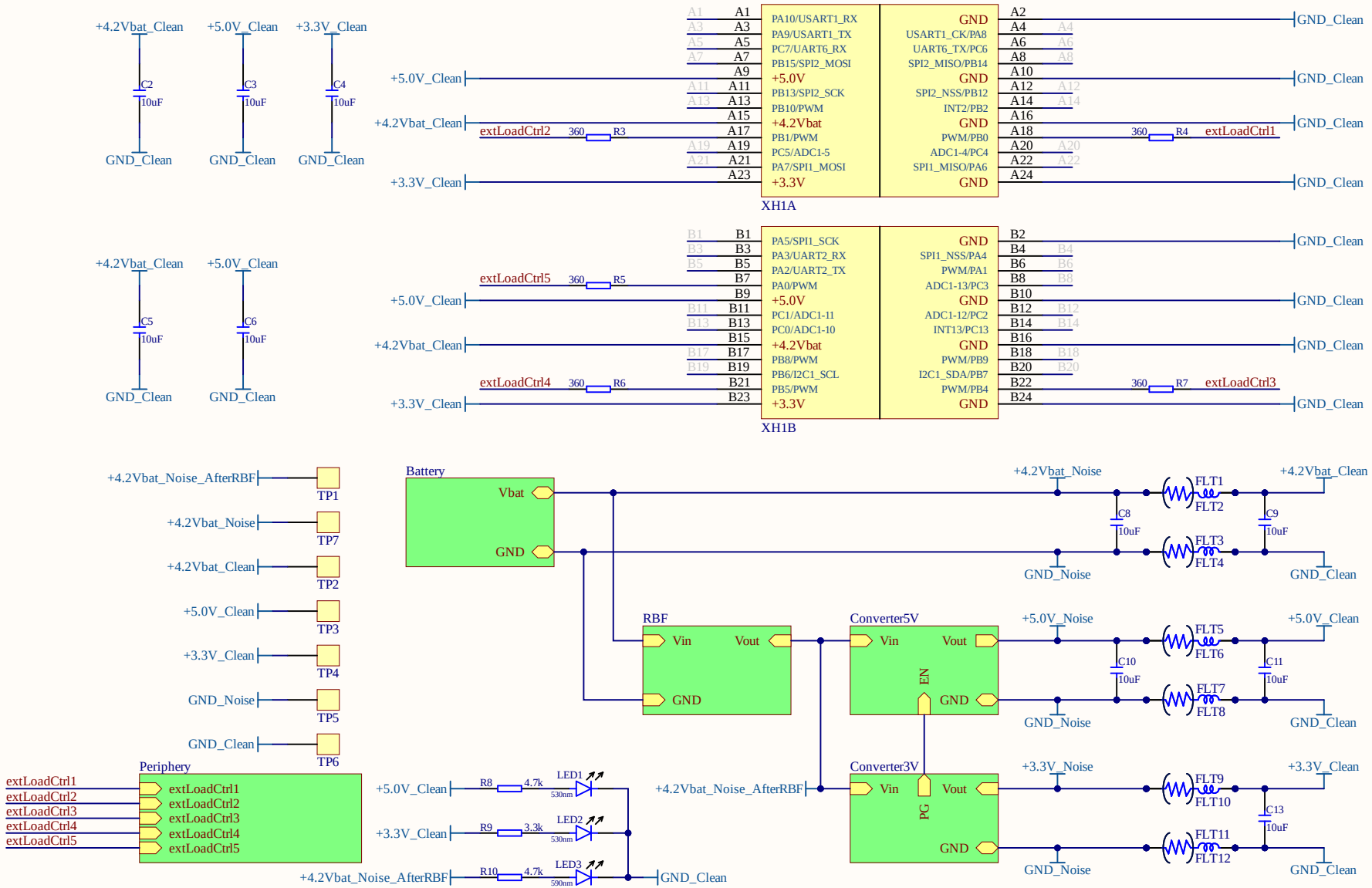
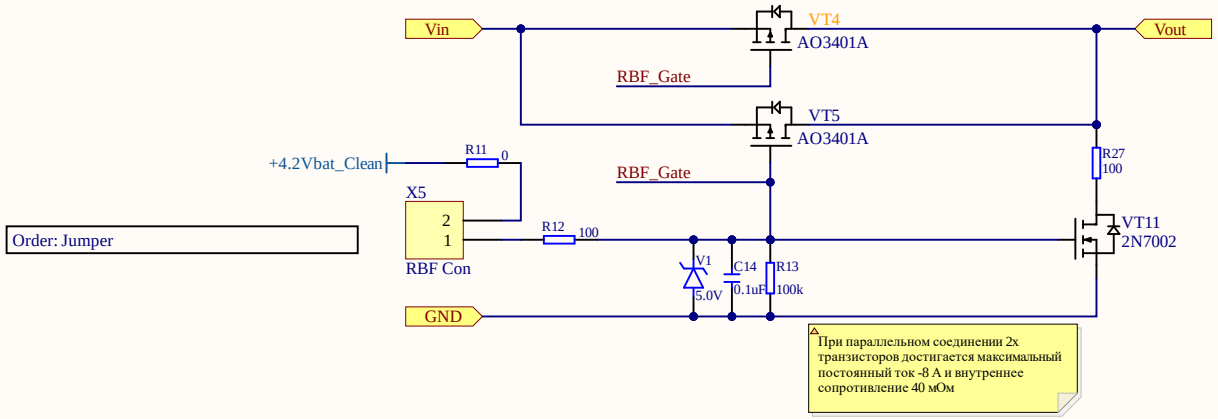
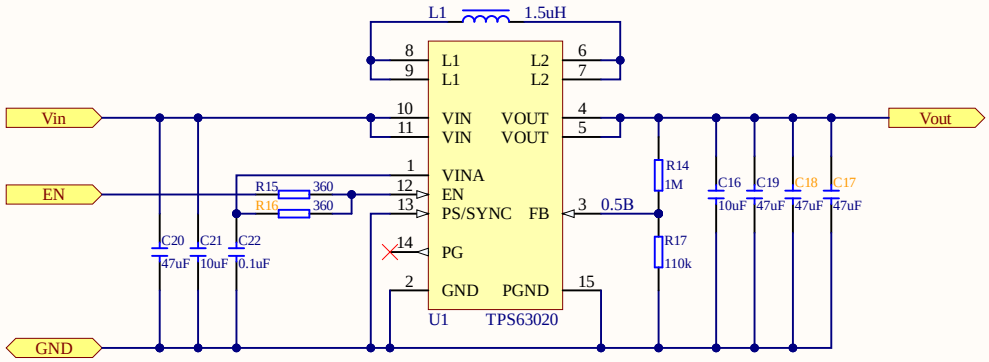

+4.2Vbat_Clean
+5.0V_Clean
+3.3V_Clean
C2
C3
C4
10uF
GND_Clean
XH1A
PA10/USART1_RX
PA9/USART1_TX
PC7/UART6_RX
PB15/SPI2_MOSI
+5.0V
PB13/SPI2_SCK
PB10/PWM
+4.2Vbat
PB1/PWM
PC5/ADC1-5
PA7/SPI1_MOSI
+3.3V
GND
USART1_CK/PA8
UART6_TX/PC6
SPI2_MISO/PB14
SPI2_NSS/PB12
INT2/PB2
PWM/PB0
ADC1-4/PC4
SPI1_MISO/PA6
extLoadCtrl2
extLoadCtrl1
360
R3
R4
C5
C6
XH1B
PA5/SPI1_SCK
PA3/UART2_RX
PA2/UART2_TX
PA0/PWM
PC1/ADC1-11
PC0/ADC1-10
PB8/PWM
PB6/I2C1_SCL
PB5/PWM
SPI1_NSS/PA4
PWM/PA1
ADC1-13/PC3
ADC1-12/PC2
INT13/PC13
PB9
I2C1_SDA/PB7
PWM/PB4
extLoadCtrl5
extLoadCtrl4
extLoadCtrl3
R5
R6
R7
+4.2Vbat_Noise_AfterRBF
+4.2Vbat_Noise
GND_Noise
TP1
TP7
TP2
TP3
TP4
TP5
TP6
Battery
Vbat
GND
RBF
Vin
Vout
Converter5V
Converter3V
EN
PG
C8
C9
C10
C11
C13
FLT1
FLT2
FLT3
FLT4
FLT5
FLT6
FLT7
FLT8
FLT9
FLT10
FLT11
FLT12
Periphery
R8
R9
R10
4.7k
3.3k
LED1
LED2
LED3
530nm
590nm

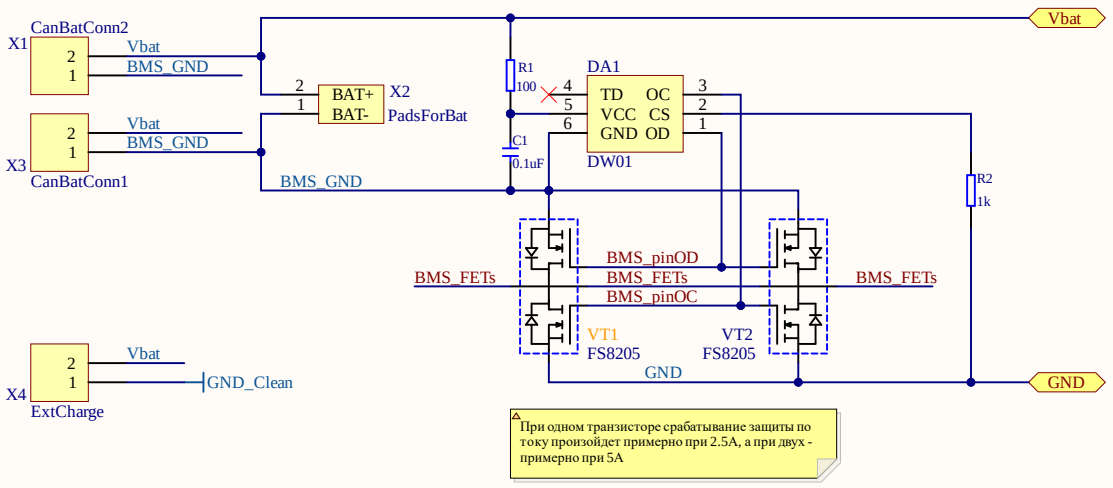
main.SchDoc


Vin
VT4
AO3401A
Vout
RBF_Gate
VT5
AO3401A
+4.2Vbat_Clean
R11
0
X5
2
1
RBF Con
Order: Jumper
RBF_Gate
R27
100
R12
100
VT11
2N7002
V1
5.0V
C14
0.1uF
R13
100k
GND
При параллельном соединении 2х транзисторов достигается максимальный постоянный ток -8 А и внутреннее сопротивление 40 мОм

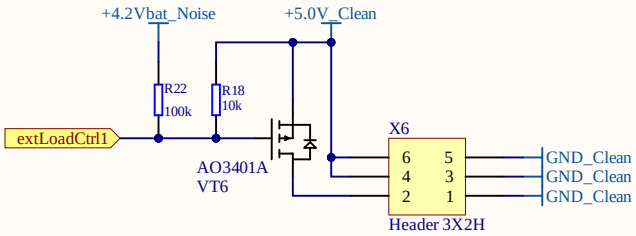
RBF.SchDoc

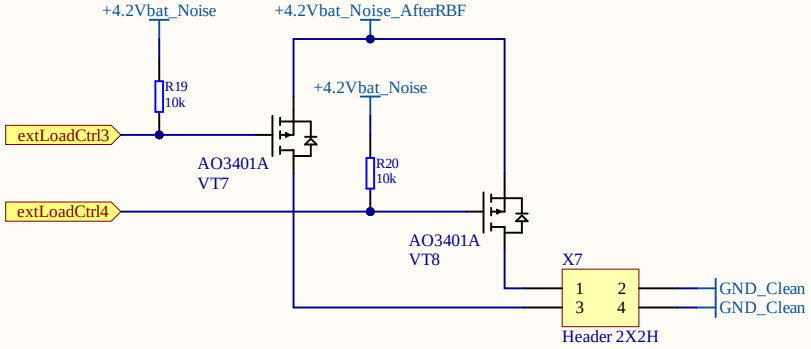


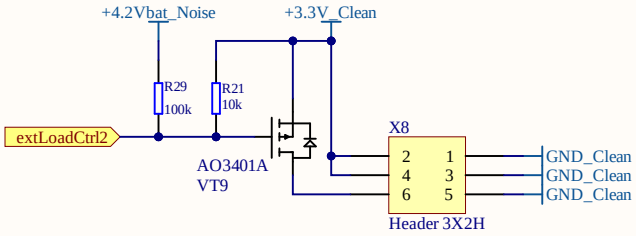
Converter5V.SchDoc

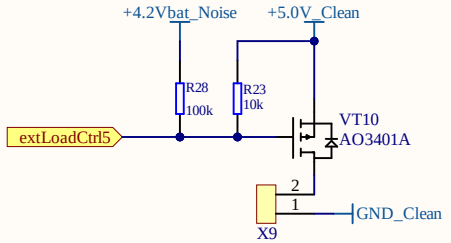


Battery.SchDoc

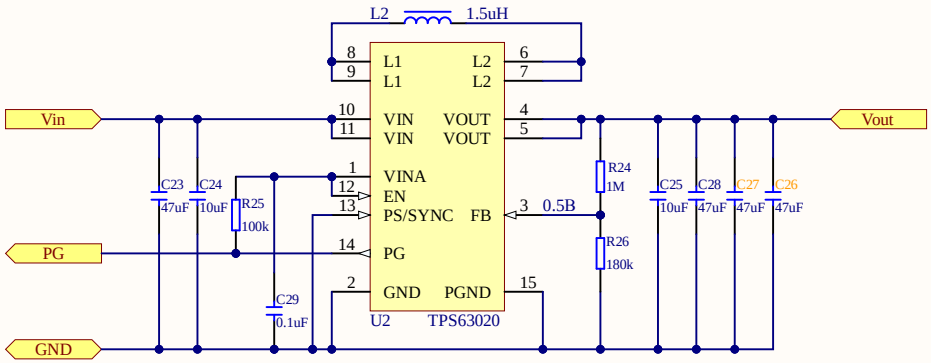




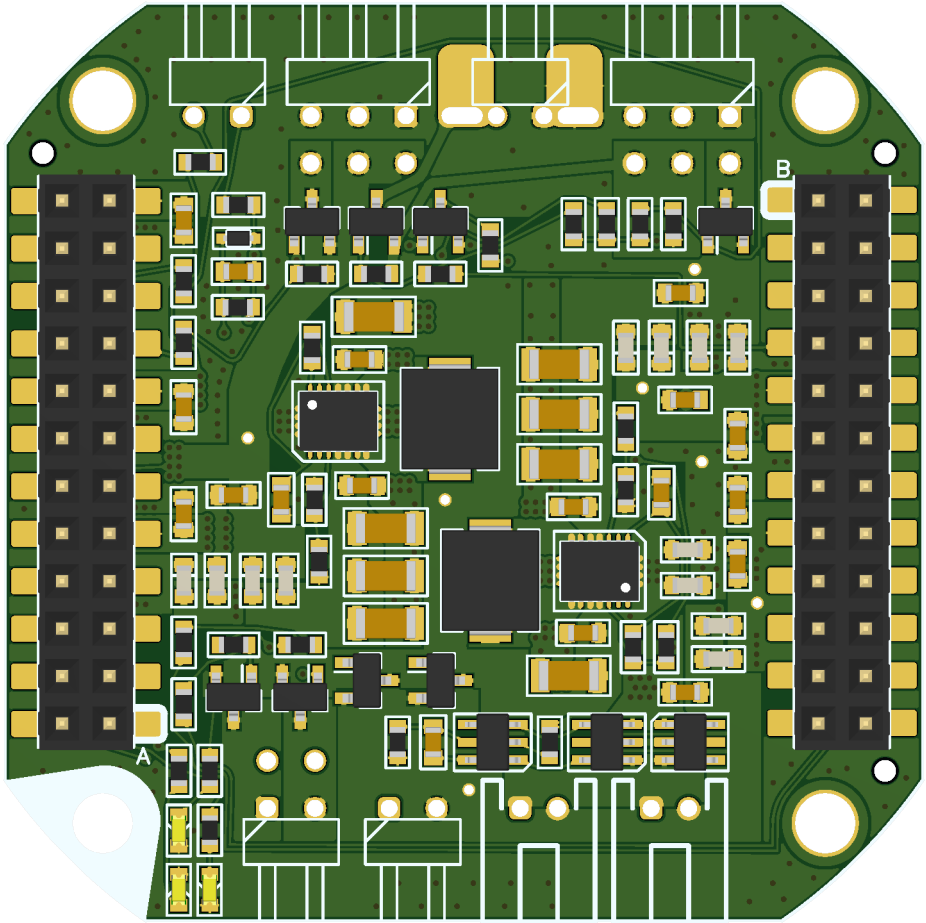


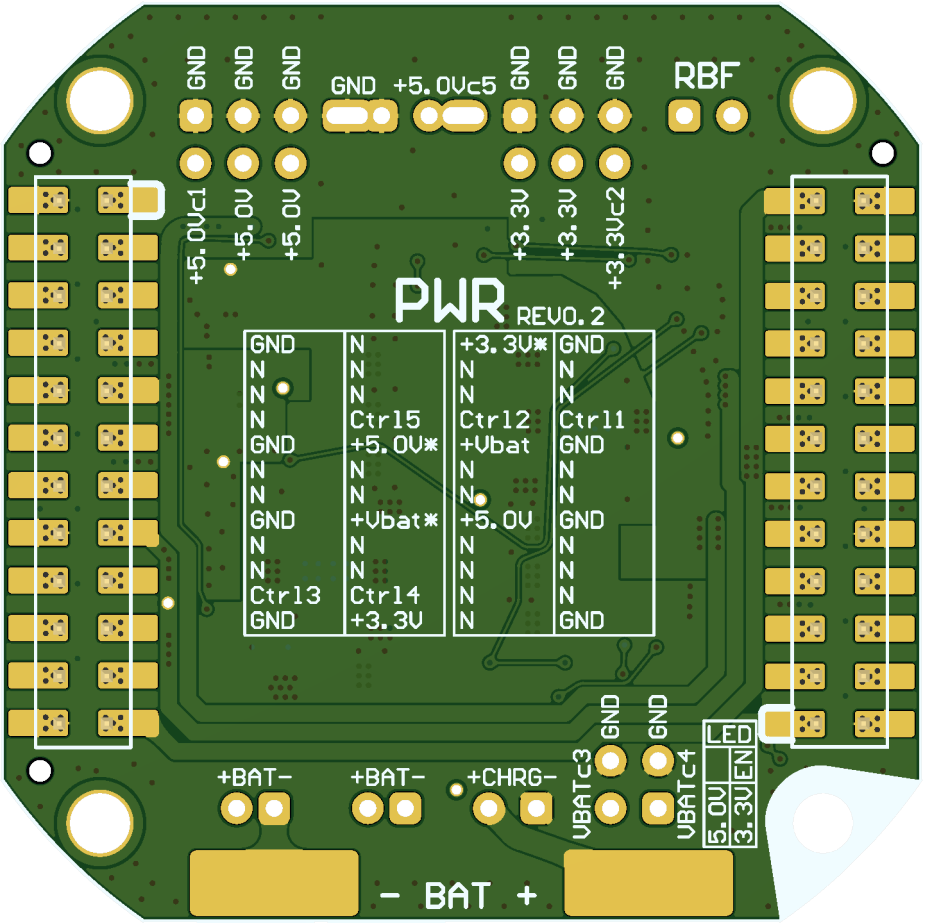


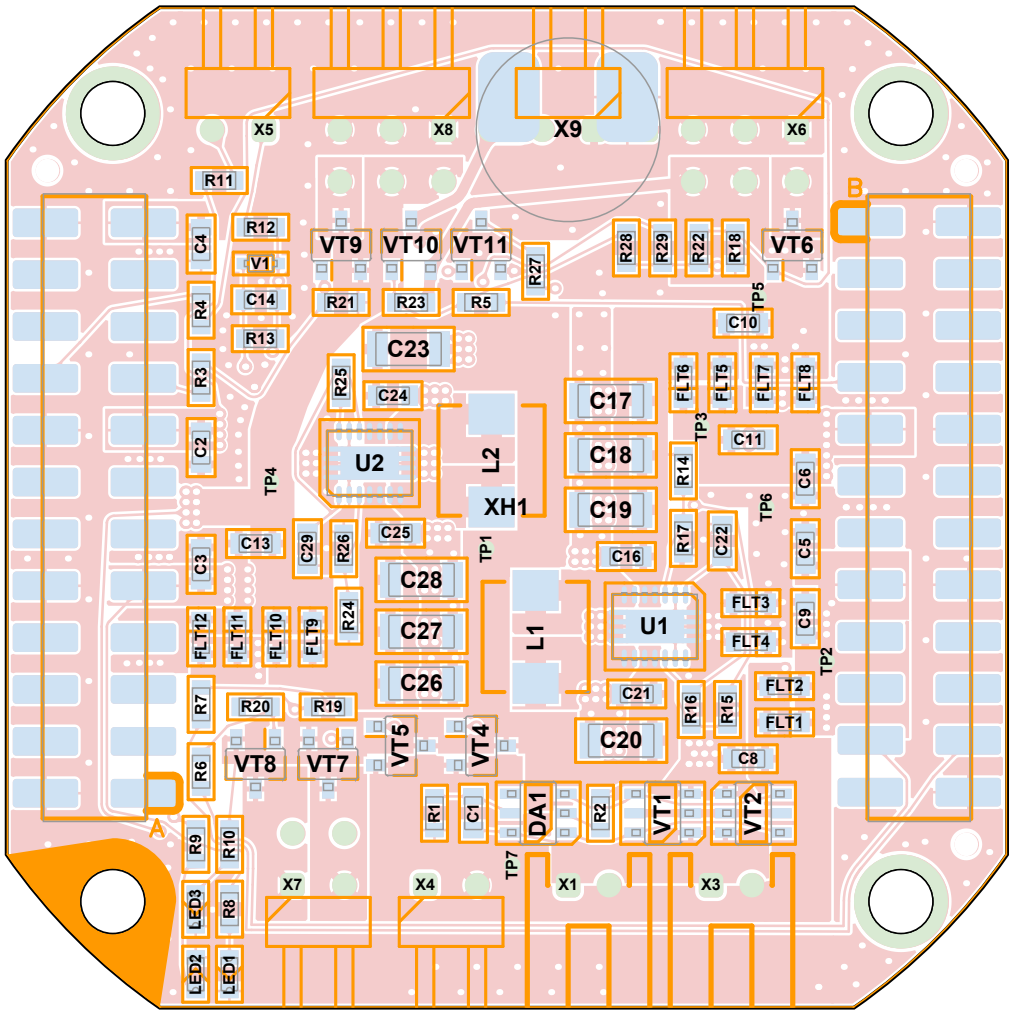
Periphery.SchDoc

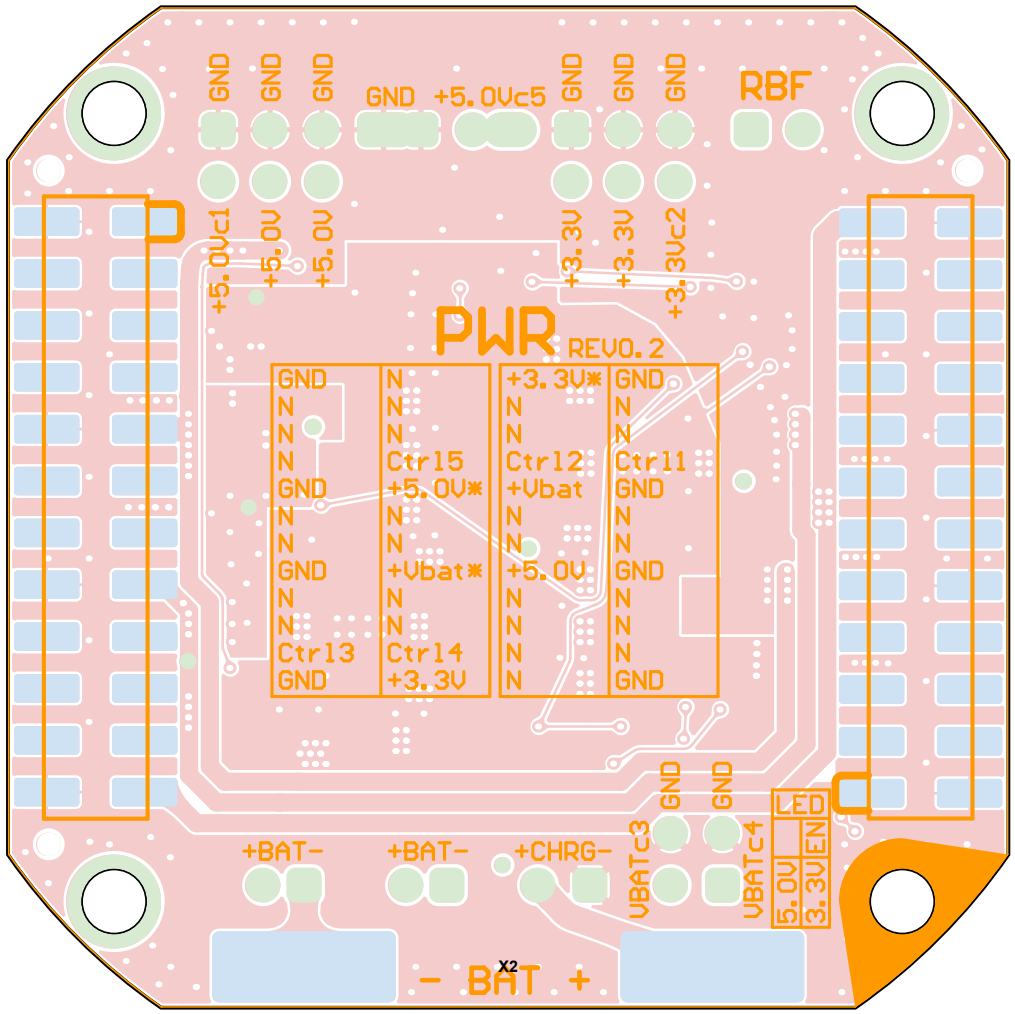


Converter3V.SchDoc


B
A


GND
GND
GND
GND
+5.0Vc5
GND
GND
GND
RBF
+5.0Vc1
+5.0V
+5.0V
+3.3V
+3.3V
+3.3Vc2
PWR
REV0.2
GND N N N GND N N GND N N N Ctrl3 GND
N N N Ctrl5 +5.0V* N N +Vbat* N N Ctrl4 +3.3V
+3.3V* N N Ctrl2 +Vbat N N +5.0V N N N N
GND N N Ctrl1 GND N N GND N N N GND
+BAT-
+BAT-
+CHRG-
VBATc3
GND
GND
VBATc4
LED
5.0V
3.3V
EN
- BAT +


X5
X8
X9
X6
R11
R12
V1
C14
R13
C4
R4
R3
C2
VT9
VT10
VT11
R27
R28
R29
R22
R18
VT6
R21
R23
R5
TP5
C10
C23
R25
C24
U2
L2
XH1
C17
C18
C19
FLT6
FLT5
FLT7
FLT8
TP3
C11
R14
C6
TP4
TP1
TP6
C13
C29
R26
C25
C16
R17
C22
C5
C3
C28
C27
C26
L1
U1
FLT3
FLT4
C9
TP2
FLT12
FLT11
FLT10
FLT9
R24
R7
R20
R19
C21
R16
R15
FLT2
FLT1
C20
C8
VT5
VT4
VT8
VT7
R6
R1
C1
DA1
R2
VT1
VT2
R9
R10
TP7
X1
X3
X7
X4
LED3
R8
LED2
LED1
A
B


GND
GND
GND
GND
+5.0Vc5
GND
GND
GND
RBF
+5.0Vc1
+5.0V
+5.0V
+3.3V
+3.3V
+3.3Vc2
PWR
REV0.2
GND
N
N
N
GND
N
N
N
GND
N
N
N
Ctrl3
GND
N
N
N
Ctrl5
+5.0V*
N
N
+Vbat*
N
N
Ctrl4
+3.3V
+3.3V*
N
Ctrl2
+Vbat
N
N
+5.0V
N
N
N
N
Ctrl3
GND
N
N
N
Ctrl1
GND
N
N
GND
N
N
N
GND
+BAT-
+BAT-
+CHRG-
VBATc3
GND
GND
VBATc4
LED
5.0V
3.3V
EN
X2
- BAT +