

A

A

B

B

Power In

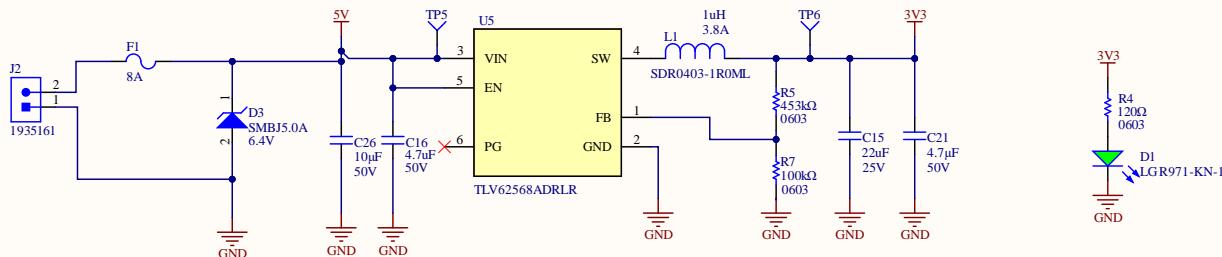
Designed for 3.3V - 5.5V input

Route for 1A in

Inductor: SDR0403-1R0ML
1uH, 20%, 33mOhm DCR (max)
3.8A (rms), 5.5A (sat), 3.2mm tall

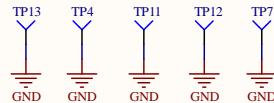
Maximum output current = 2A
Maximum output power = 6.6W
Expected efficiency at 1A = 94.3%

Route for 1A out



Current Calculations
Green LED voltage drop: 2.2V
 $- I = (3.3 - 2.2V)/120 = 9.17mA$

GND Test Points

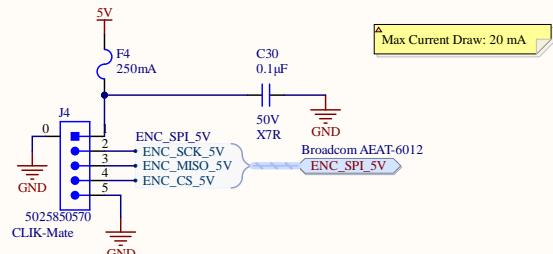


Title: Power	
Project: Gimbal.PjPcb	
Rev: 2	Checker: Lance Bantoto
Engineer: Aidan Gratton	
Date: 2020-12-03	Sheet: 1 of 6

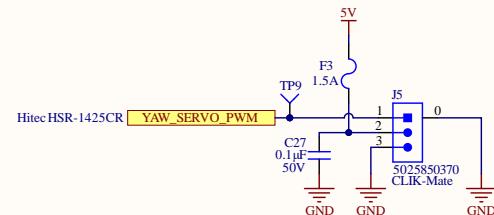


A

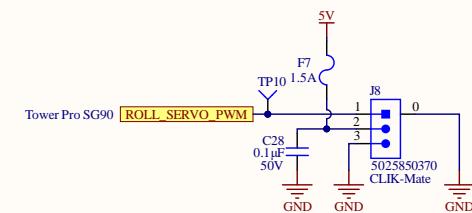
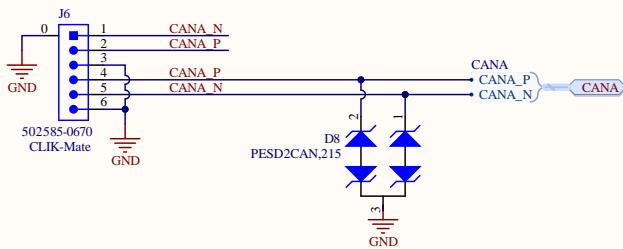
Broadcom AEAT-6012 Encoder



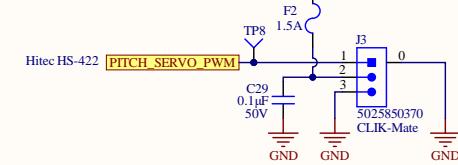
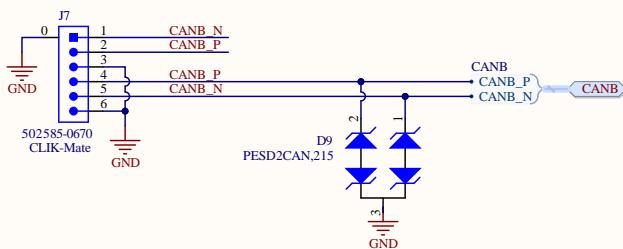
Servos



CAN Bus A



CAN Bus B



Title: Connectors	
Project: Gimbal.PnjPcb	
Rev: 2	Checker: Lance Bantoto
Engineer: Aidan Gratton	
Date: 2020-12-03	Sheet: 2 of 6



A

A

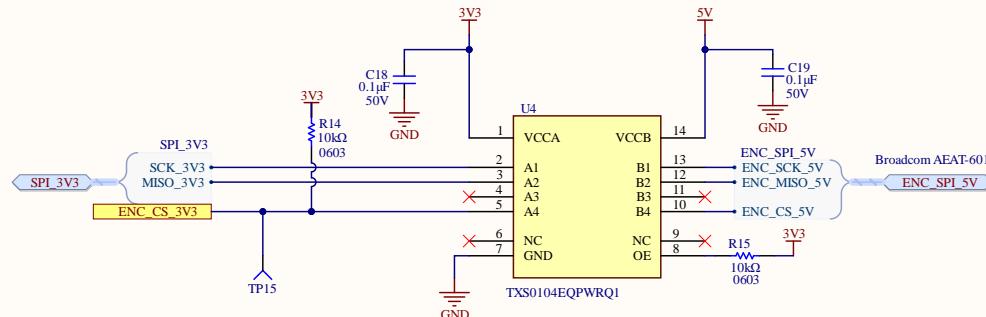
5V Rail Monitoring



B

B

SPI Encoder Level Shifter



C

C

D

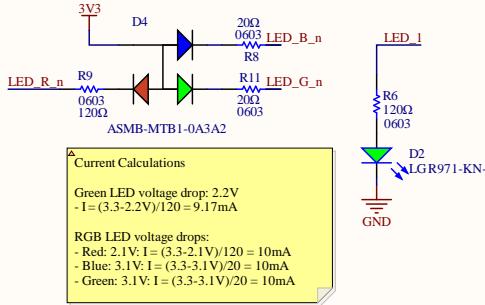
D

Title: Sensors	
Project: Gimbal.PjPcb	
Rev: 2	Checker: Lance Bantoto
Engineer: Aidan Gratton	
Date: 2020-12-03	Sheet: 3 of 6

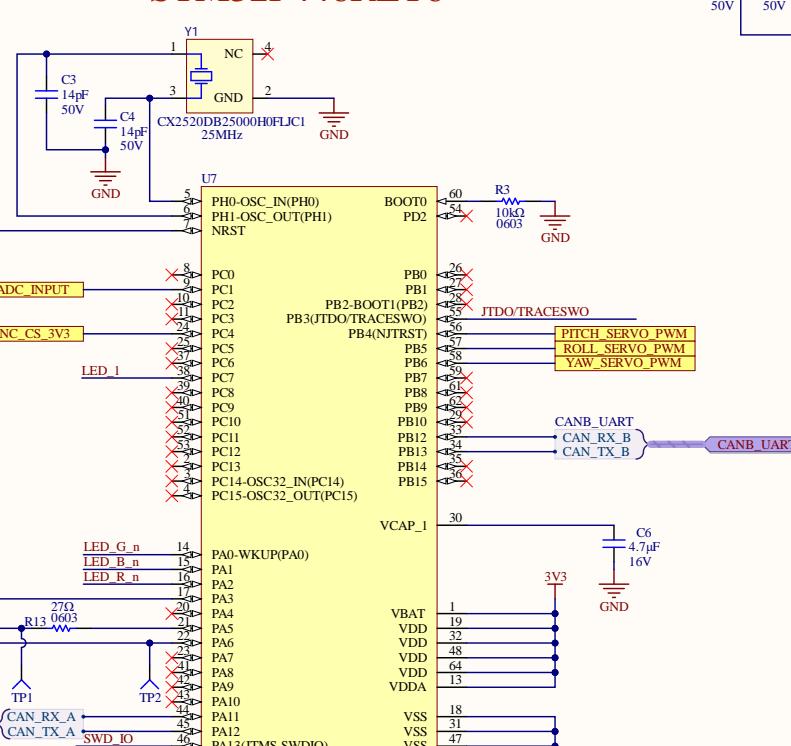


A

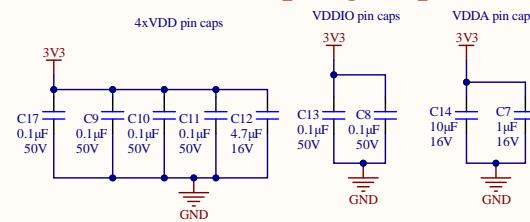
Status/Debug LEDs



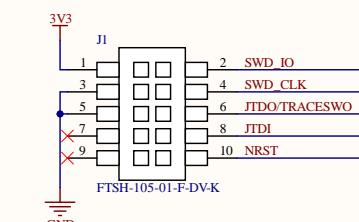
STM32F446RET6



Decoupling Caps



Debug/Programming



B

C

D

Title: Microcontroller

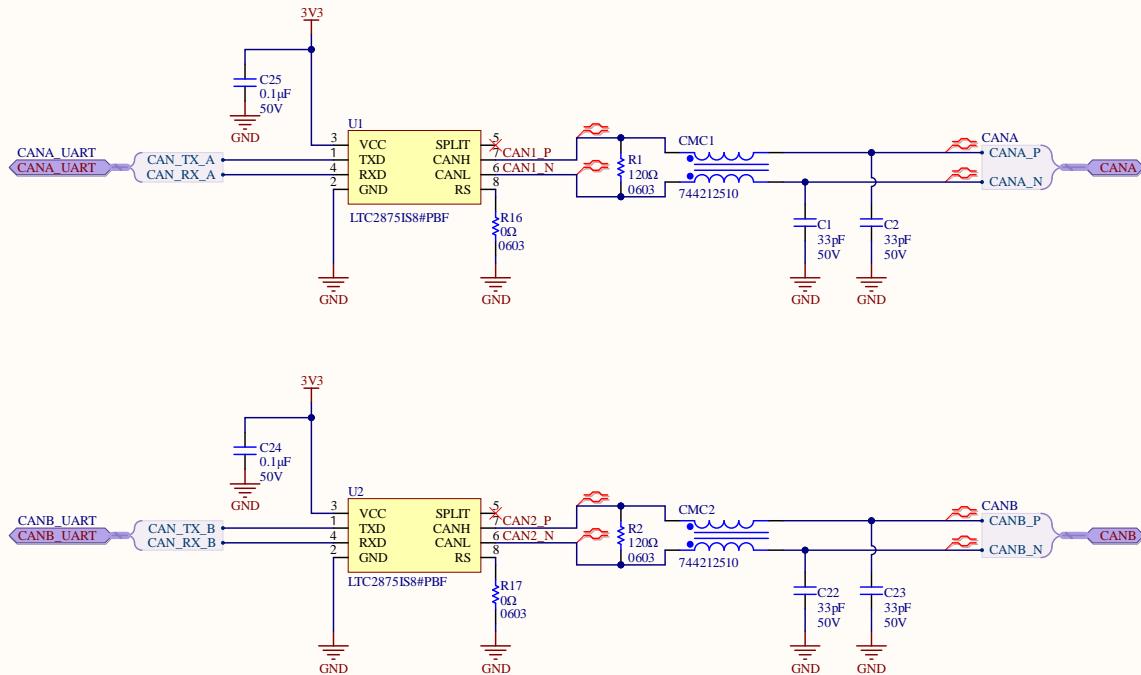
Project: Gimbal.PjPrjPcb

Rev: 2 Checker: Lance Bantoto

Engineer: Aidan Gratton

Date: 2020-12-03 Sheet: 5 of 6

CAN Transceivers



Title: CAN	
Project: Gimbal.PnjPcb	
Rev: 2	Checker: Lance Bantoto
Engineer: Aidan Gratton	
Date: 2020-12-03	Sheet: 6 of 6