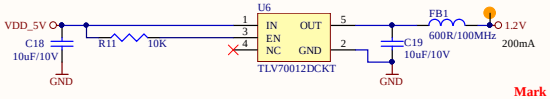
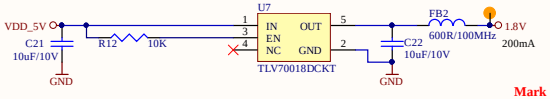
POWER

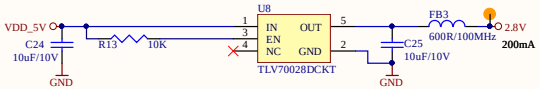
Mark "1V2" on PCB



Mark "1V8" on PCB



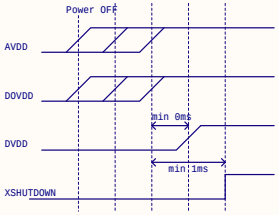
Mark "2V8" on PCB



Add capacitor to ground to make RC timing circuit for EN pins in order to obtain the appropriate power supply sequencing if ncessary

Mark "GND" on PCB

Power Supply Sequence & Requirements



1. AVDD rising can occur before or after DOVDD rising as long as they are rising before XSHUTDOWN rising
2. XSHUTDOWN is pulled up after AVDD and DOVDD are stable
3. DVDD rises after DOVDD, but before XSHUTDOWN is pulled high

Title: BG0250TG			Luxonis Holding 1925 Harmony Park Drive Westminster, CO 80234 United States
Size: Tabloid	Number: D0000999	Revision: R0M0E0	
Date: 10/14/2019 Time: 7:40:08 PM	Sheet 1 of 2		
Drawn by: Brandon Gilles			

BG0250TG

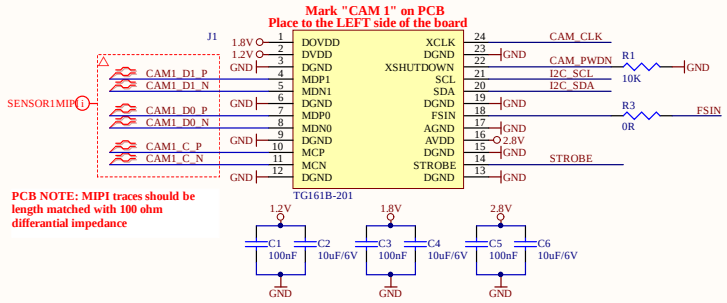
Revision: R0M0E0

MODULE CONNECTOR

MODULE & SENSOR INFORMATION			
MODULE	TG161B-201 OR AN01V32-0JG	I2C Clock Rate	400 kHz Max
SENSOR	OV09282-GA4A B&W 1 Mega pixel CMOS 1/4 inch	I2C Address (8 bits)	0xC0(W) 0xC1(R)
MAX RESOLUTION	1280X800	Sensor Clock Input	6 - 64 MHz (24 MHz typ.)

Supply Information

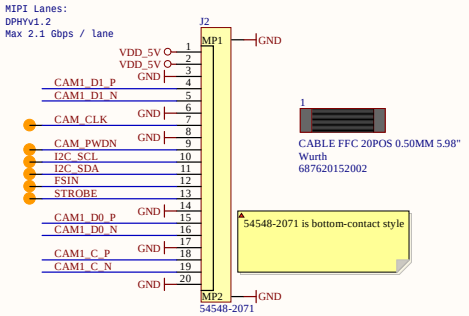
Supply Name		Voltage	Max Current
Module	Sensor		
DOVDD	VDD-IO	1.8V	2.5mA
DVDD	VDD-D	1.2V	52mA
AVDD	VDD-A	2.8V	24mA



PCB NOTE: MIPI traces should be length matched with 100 ohm differantial impedance

The Camera connector wraps around the board.
- The board thickness is 1.60mm.
- The thickness of the module's flex circuit is 0.16mm according to my calipers, so a 5x bend radius on that is 0.8mm radius so 1.6mm diameter. So bending to be flush w/ the board is technically OK according to general rules of thumb (5x FPCB thickness bend radius).
- If bending to flush with board, this takes pi/2 * 1.6 (since it's a half-circle) off the length of the connector, so 2.623mm off the connector.
- Probably want to plan on much more than that, to leave a bit of slack. The Google Coral camera left approximately 2.8mm of slack, for example.
- So going by that, 2.623mm absolute minimum + 2.8mm = 5.423mm of FFC length do do the 180-degree bend, which let's round to 5.5mm to keep things clean on the PCB.

FFC CONNECTION



MTG1 MTG2 MTG3 MTG4

FID1 FID2 FID3 FID4 FID5 FID6

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