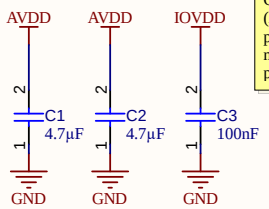
Current Rating of VL53L5 TOF Sensor:

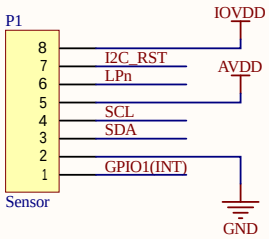
Device State	Average current consumption				Unit
	AVDD		IOVDD		
	Typ.	Max.	Typ.	Max.	
LP idle	45	300	0.1	1	µA
HP idle	1.3	1.6	2.8	35	mA
Active ranging[1]	45	50	50	80	mA

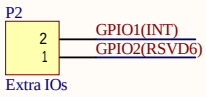
1. Active ranging is when the device is actively ranging. The current consumption is not affected by 4x4 or 8x8 zone configuration

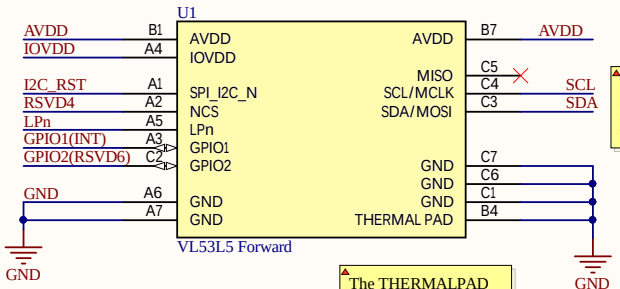
IOVDD peak current will be the average value +10 mA.
AVDD peak current will be the average current +10 mA.



Capacitors on the external supplies (AVDD and IOVDD) should be placed as close as possible to the module pins.

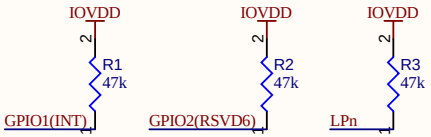


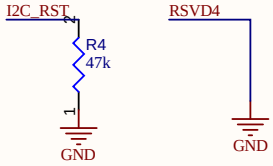




Both SCL & SDA are already connected to the VCC with 2.2K pull up Res.

The THERMALPAD pin has to be connected to ground plane.



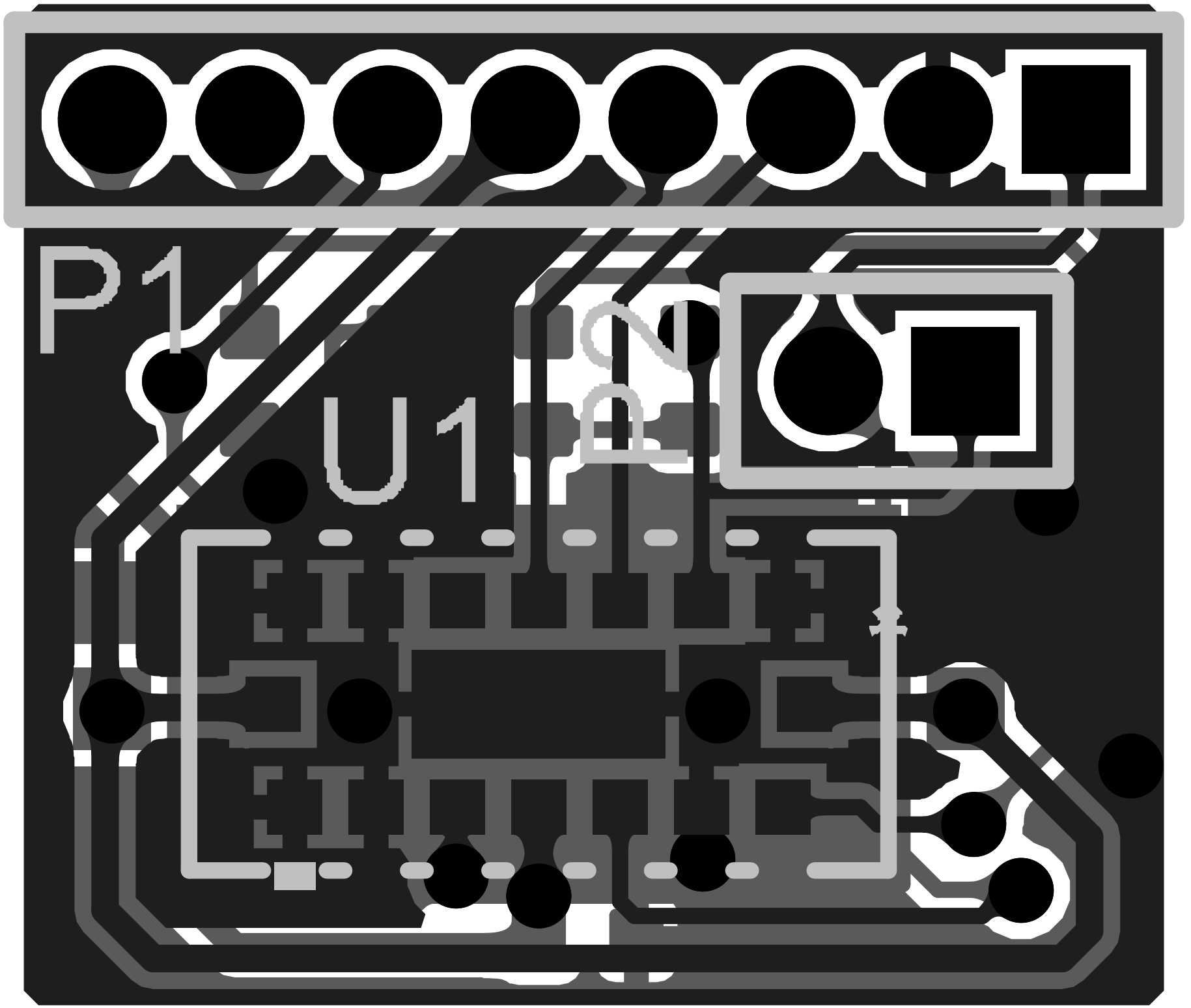


Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

Project: TOF Sensor Board

Drawing number: Master Project	Rev: A	Format: A4 Q	Laboratory: PBL	Sheet: SensorBoard.SchDoc	
Date: 12/22/2021 1:10:09 PM			Drawn by: Iman Ostovar	Page 1 of 1	

File: C:\Users\topolonelli\Documents\Matrix_ToF_Drones_public\Hardware\SensorBoard\SensorBoard.SchDoc


P1
U1

Comment	Description	Designator	Footprint	LibRef	Quantity
Capacitor 1 uF +/- 10%	Chip Capacitor, 1 uF, +	C1, C2	CAPC1005X55X25ML5	CMP-001-00009-6	2
Capacitor 100nF +/-20	Chip Capacitor, 100nF	C3	CAPC0402(1005)60_L	CMP-001-00065-4	1
Sensor	Header, 8-Pin	P1	MHDR1X8	MHDR1X8	1
Extra IOs	Header, 2-Pin	P2	MHDR1X2	MHDR1X2	1
Resistor 47K5 +/-1 % 0	Chip Resistor, 47,5 kO	R1, R2, R3, R4	RESC0402(1005)_L	CMP-009-00137-3	4
VL53L5 Forward	No Description Availa	U1	ARRAY_53L5_STM	VL53L5	1