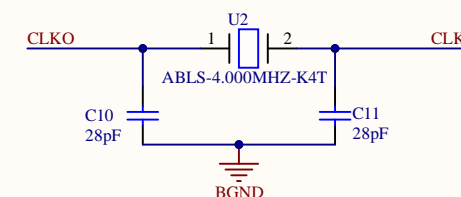
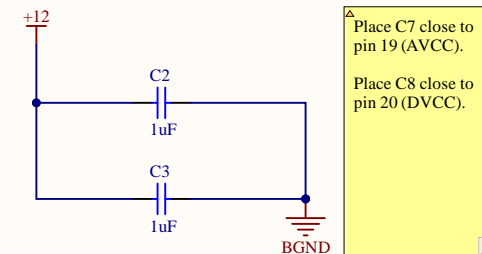


Component List:

- Resistors: R1 (100k), R2 (100k), R3 (100k), R4 (100k), R6 (100m), R8 (10k), R9 (120), R10 (5k), R11 (3k), R12 (1k).
- Capacitors: C1 (1uF), C4 (1uF), C5 (1uF), C6 (1uF), C7 (1uF), C9 (4.7nF).
- ICs: U1 (LTC2949), T1 (HM2101NLT).
- Headers: P1 (1x6), P8 (1x2), P9 (1x2).
- Test Points: TP1, TP2, TP3, TP4.


Connections and Annotations:

- Power Supply:** VBAT is connected to TP1 and V1. VREF is connected to +12V and VREF. IOVCC is connected to P1 pin 1. AGND is connected to P1 pin 2. DGND is connected to P1 pin 3. GND is connected to P1 pin 4.
- Signal Connections:** SDA is connected to P8 pin 1. SCL is connected to P8 pin 2. CLKO is connected to P8 pin 3. CLKI is connected to P8 pin 4. RX+ is connected to P8 pin 5. RX- is connected to P8 pin 6. TX+ is connected to P8 pin 7. TX- is connected to P8 pin 8.
- Test Points:** TP1 is connected to VBAT. TP2 is connected to VBATM. TP3 is connected to RX+. TP4 is connected to RX-.
- Annotations:**
 - SPI:** Tie IOVCC to a voltage $\geq 1.8V$ and $\leq 4.5V$ and bypass with 1uF to DGND.
 - ISOSPI:** Tie IOVCC to DGND.
 - For SPI operations:**
 - Connect Pin 1 to
 - Connect Pin 2 to
 - For ISOSPI operations:**
 - Connect Pin 1 to
 - Connect Pin 2 to



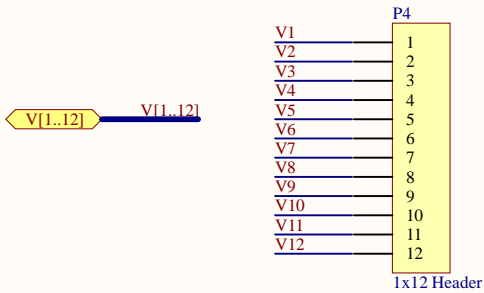
For SPI operations:
- Connect Pin 1 to Pin 3
- Connect Pin 2 to Pin 4

For ISOSPI operations:
- Connect Pin 1 to Pin 5
- Connect Pin 2 to Pin 6

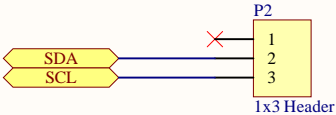
Title: <i>LTC2949 Test Board</i>			Waterloop 200 University Avenue W Engineering 5, 1104 Waterloo, Ontario N2L 3G1	
Size: A4	Author: Leo Xie & Naveela Sookoo			
Date: 2022-02-25	Revision: 1	Sheet 2 of 3		
File: LTC2949.SchDoc				

CONNECTORS

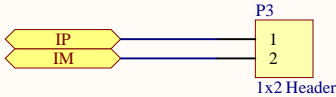
LTC2949 Voltage Inputs and GPIO Pins



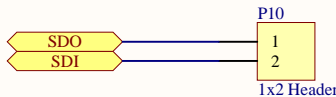
LTC2949 I/O Pins



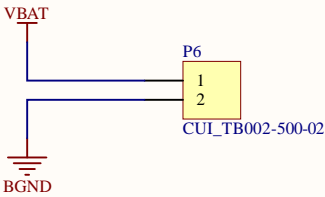
Isolated Interface Positive I/O



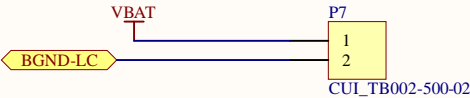
Serial Peripheral Interface



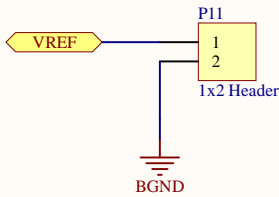
Battery Connector



Motor Connector



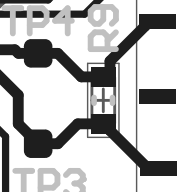
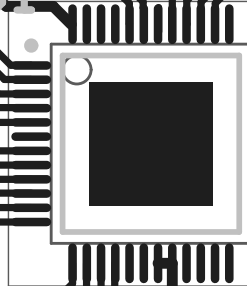
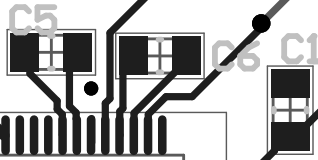
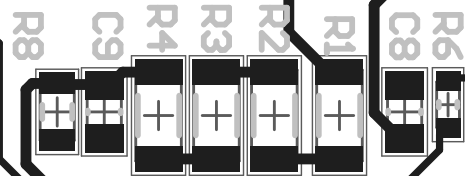
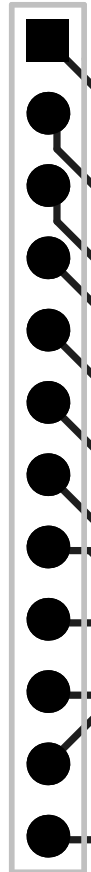
VREF 3.3V Header



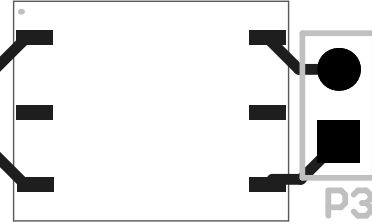
Current Sensing Battery Conn Motor Conn

J1

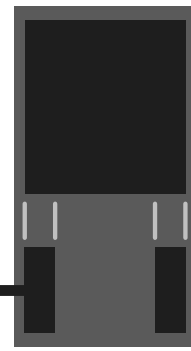
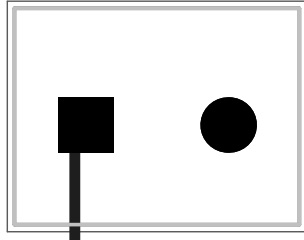
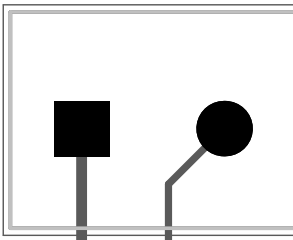
P4



TP3



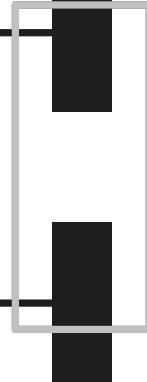
T1



D1



U2



LTC2949 Test Board
Leo & Naveela

TP1

TP2