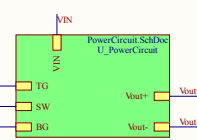
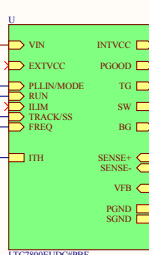
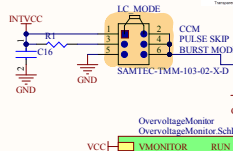


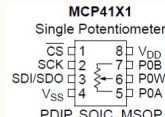
Single-pole Tripple-throw Analog Switch



Voltage: 0 ~ 5.2V
Current: basically no current
Capacitor in between



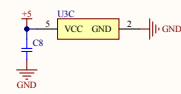
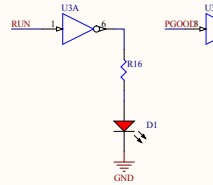
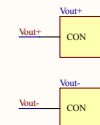
Digital Potentiometer
5kΩ



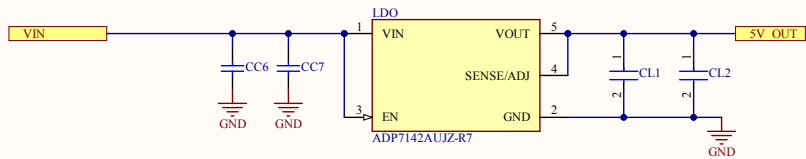
RV2 Voltage: 0 ~ 2V

RV1 Voltage: 0 ~ 950mV

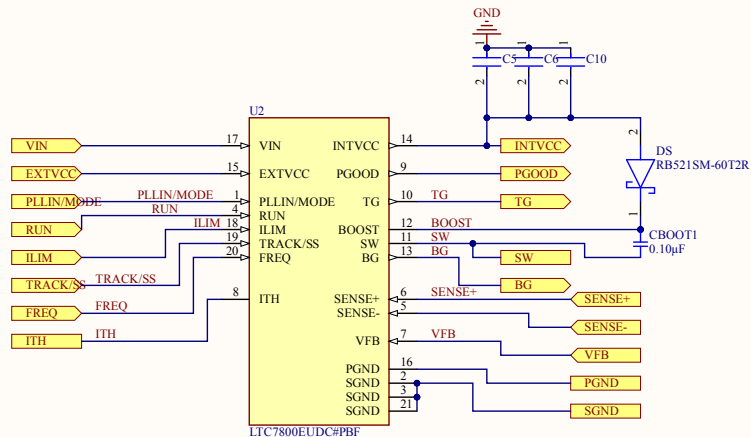
Current: $1.2 / 24k = 0.05mA$



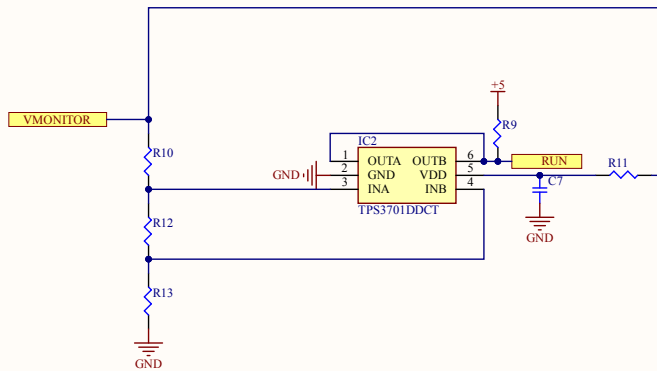
Title		
Size	Number	Revision
A3		
Date:	7/30/2021	Sheet of
File:	C:\Users\BackSchDoe	Drawn By:



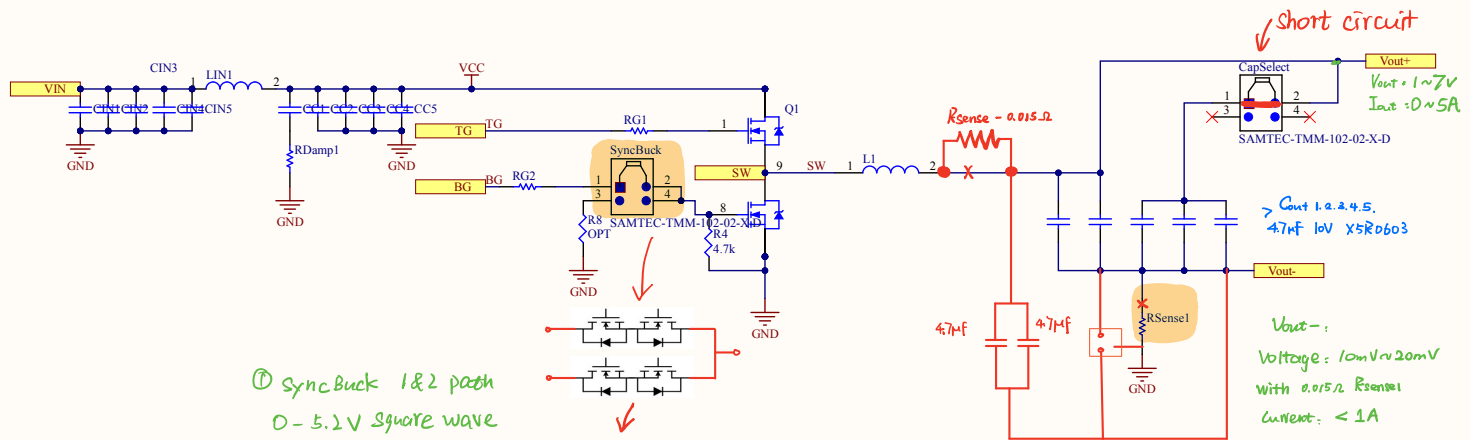
Title		
Size A4	Number	Revision
Date: 7/30/2021	Sheet of	
File: C:\Users\LinearRegulator\SchDoc	Drawn By:	



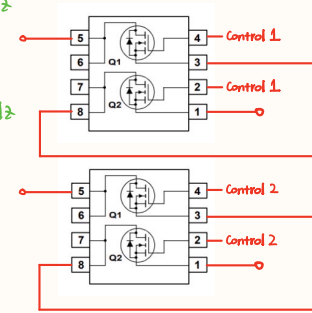
Title		
Size A4	Number	Revision
Date: 7/30/2021	Sheet of	
File: C:\Users\...LTC7800EUDC#PBF SchDoc	Drawn By:	



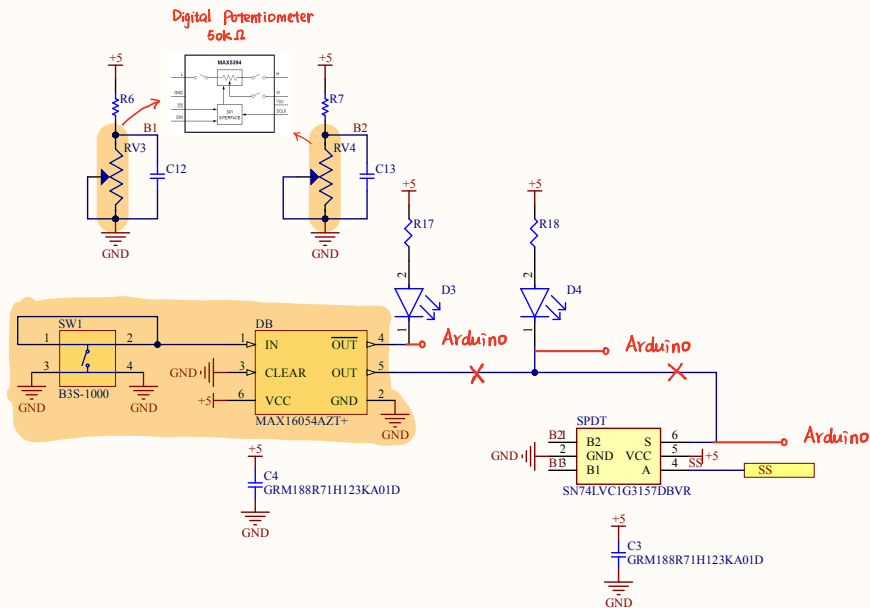
Title		
Size A4	Number	Revision
Date:	7/30/2021	Sheet of
File:	C:\Users\...\OvervoltageMonitor.SchDoc	Drawn By:



- ① SyncBuck 1&2 path
0-5.2V square wave
freq: 320k or 2.25MHz
- ② SyncBuck 3&4 path
-1V ~ 1V voltage
freq: 320k or 2.25MHz



Title		
Size A4	Number	Revision
Date: 7/30/2021	Sheet of	
File: C:\Users\...PowerCircuit.SchDoc	Drawn By:	



Title		
Size A4	Number	Revision
Date:	7/30/2021	Sheet of
File:	C:\Users\Setpoint\Circuit\SchDoc	Drawn By:



THE UNIVERSITY of EDINBURGH

School of Engineering

Buck Converter Lab

Buck Converter
7-20V Input
Adj. 1-5 V Output
4 A Max Output
320-1300 kHz Adj.

UCC

Track/SS

BG

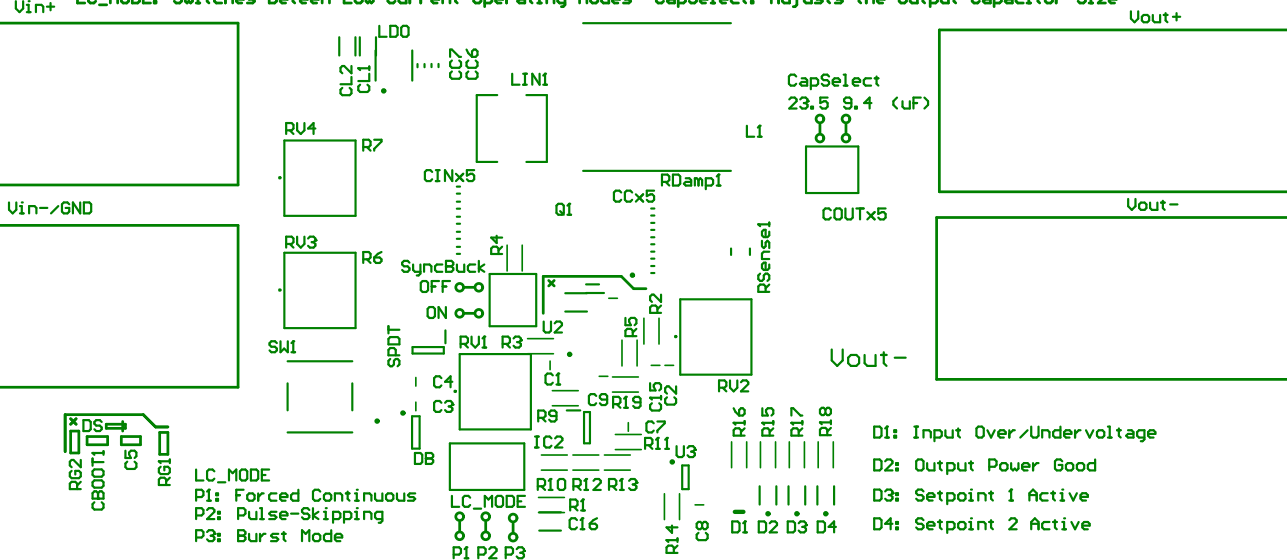
TG

SW

ITH

Vout+

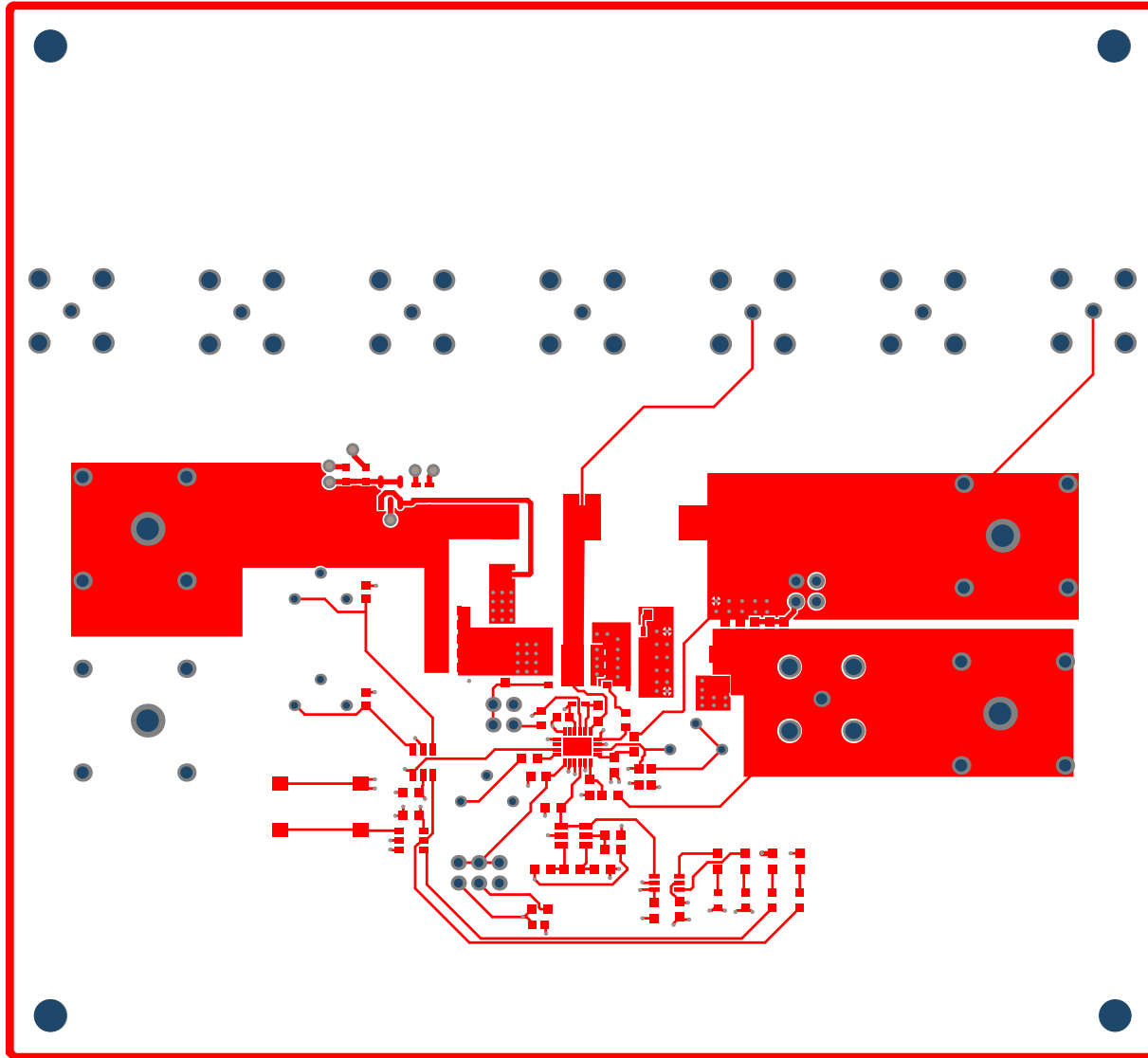
SW1: Switches Between Setpoint 1 & 2 RV1: Adjusts Switching Frequency RV2: Adjusts the Feedback Gain
RV3/4: Adjusts Setpoint 1/2 SyncBuck: Switches Between Synchronous and Non-Synchronous Switching
LC_MODE: Switches Between Low Current Operating Modes CapSelect: Adjusts the Output Capacitor Size

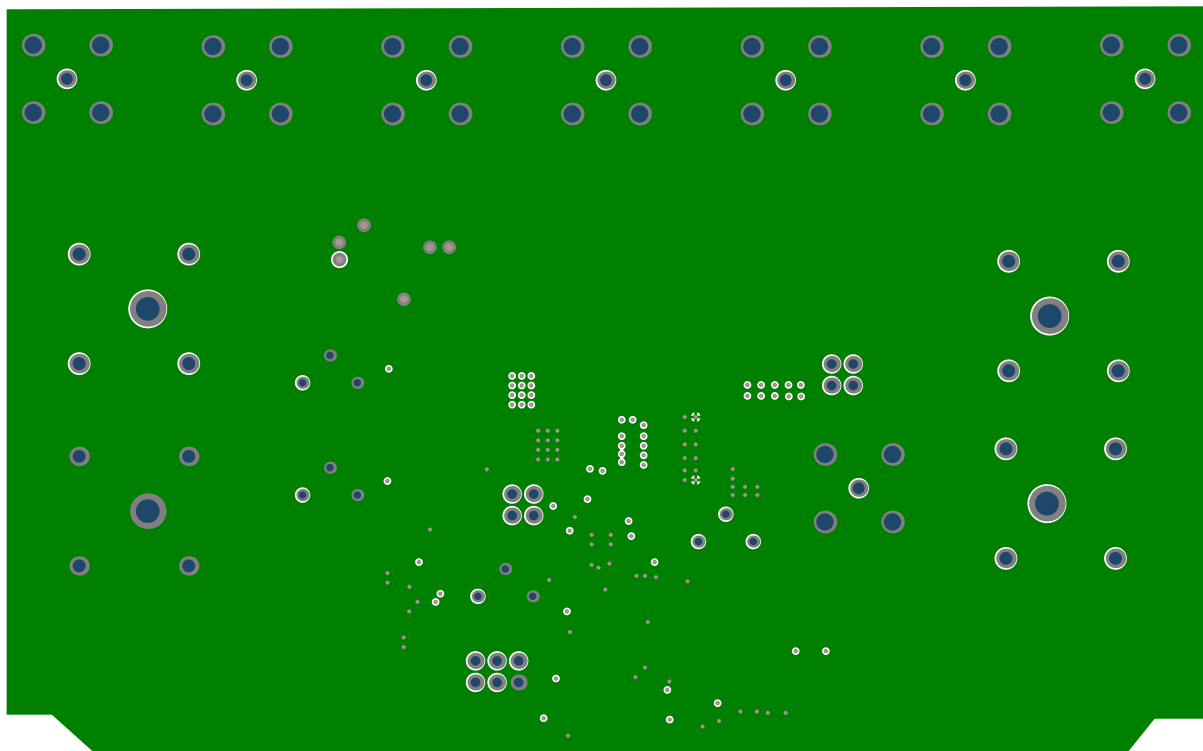


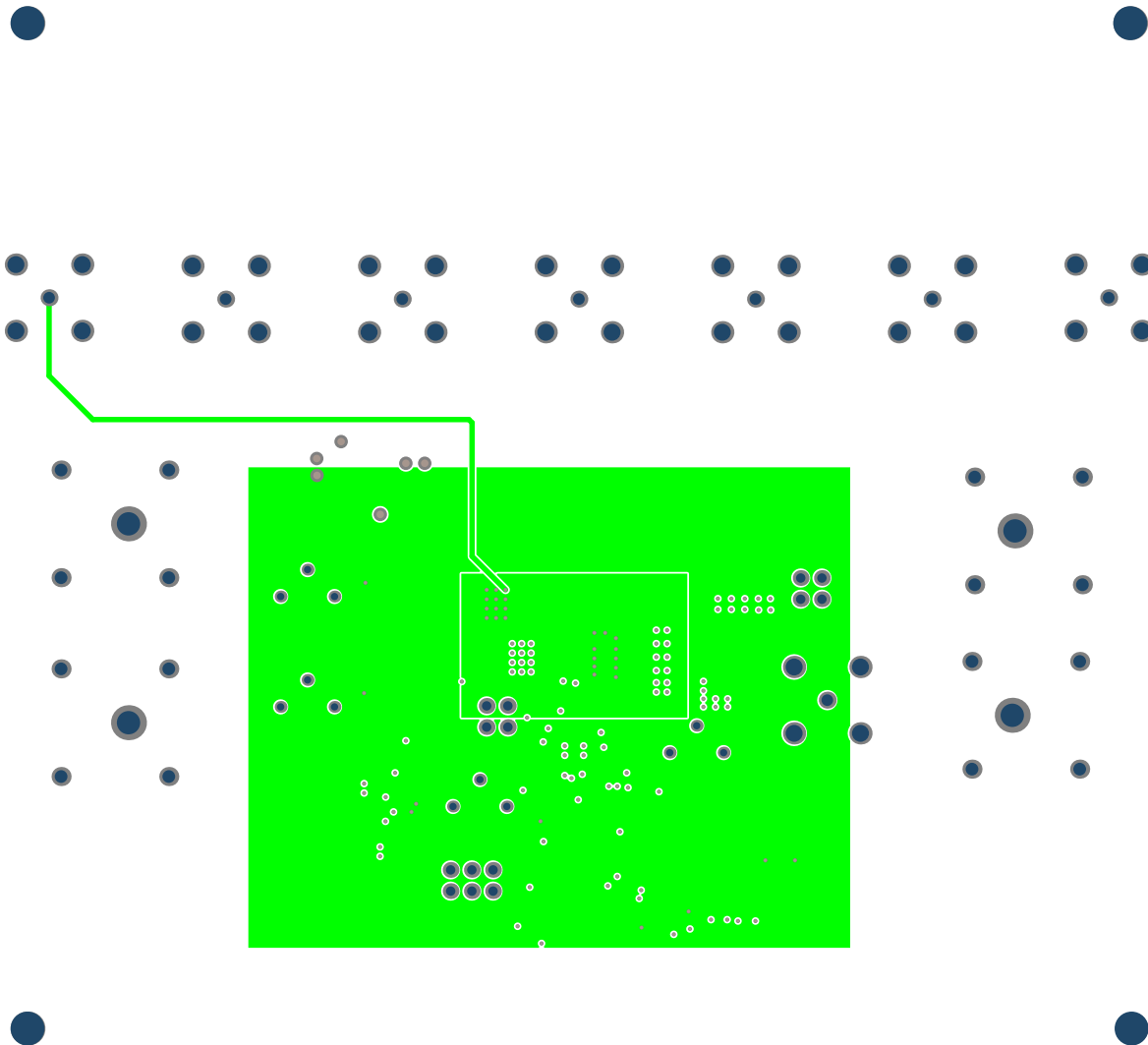
WARNING: Components May Become Hot
Do Not Touch With Fingers

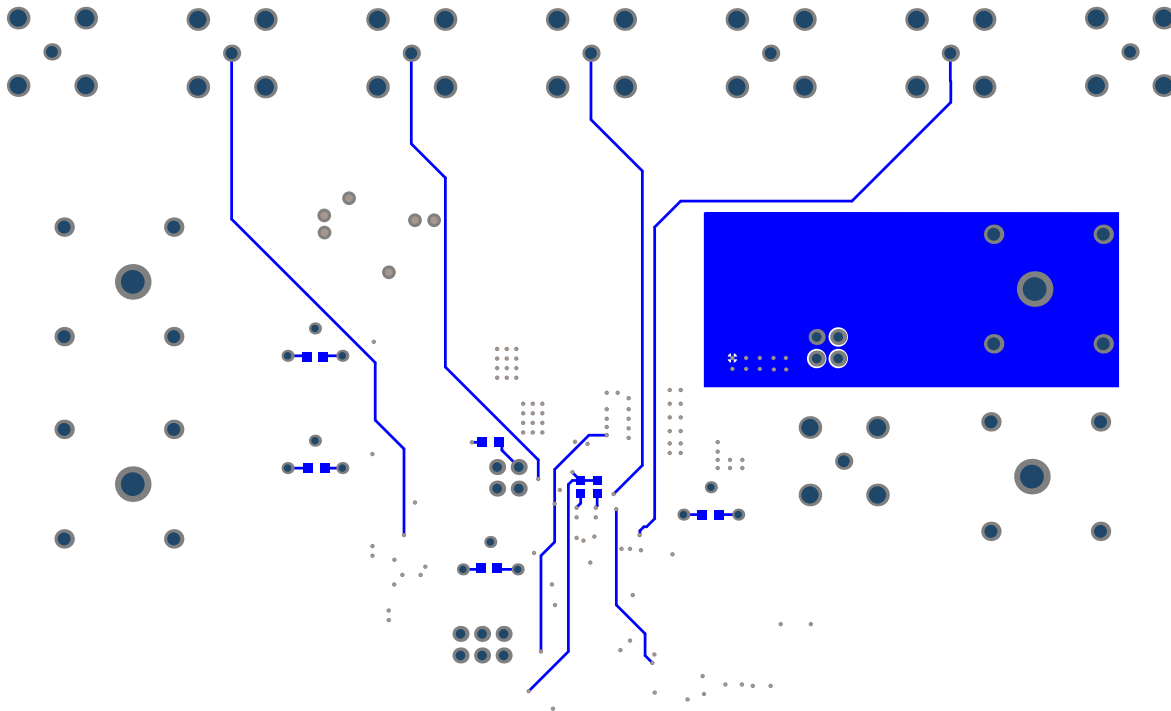


Do Not Adjust Jumpers
When Circuit is Powered









C14

C2
C10

R8

C11

C15

C13

Board Stack Report