

A

A

B

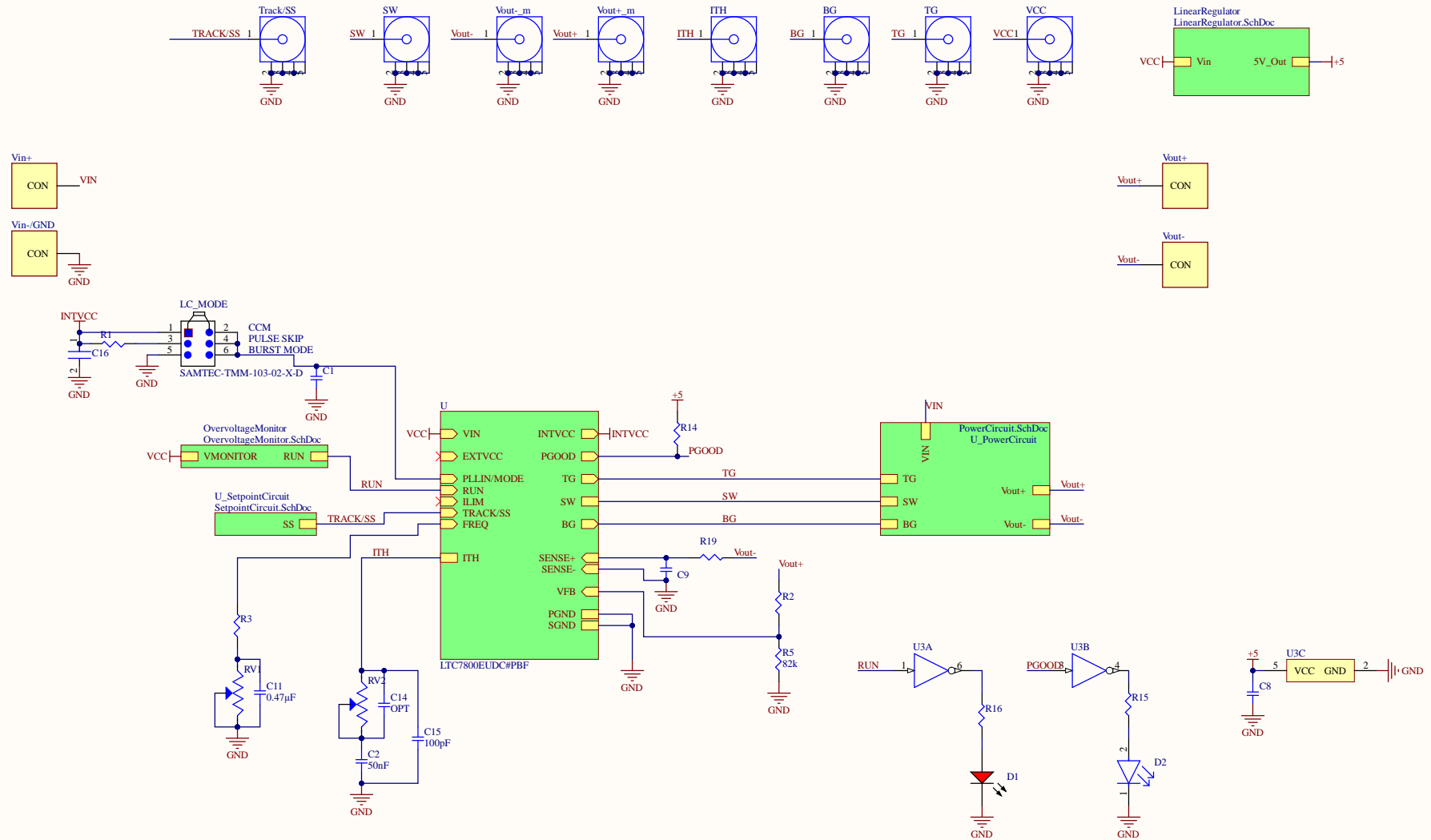
B

C

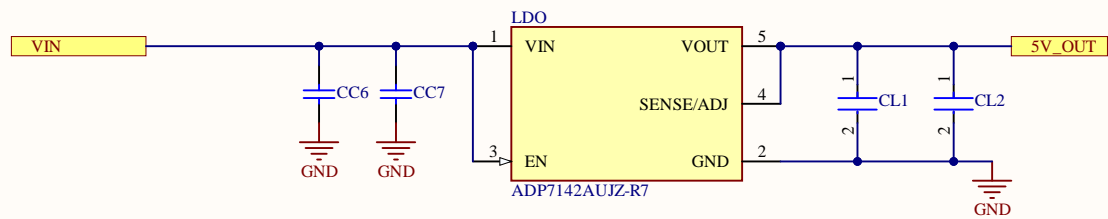
C

D

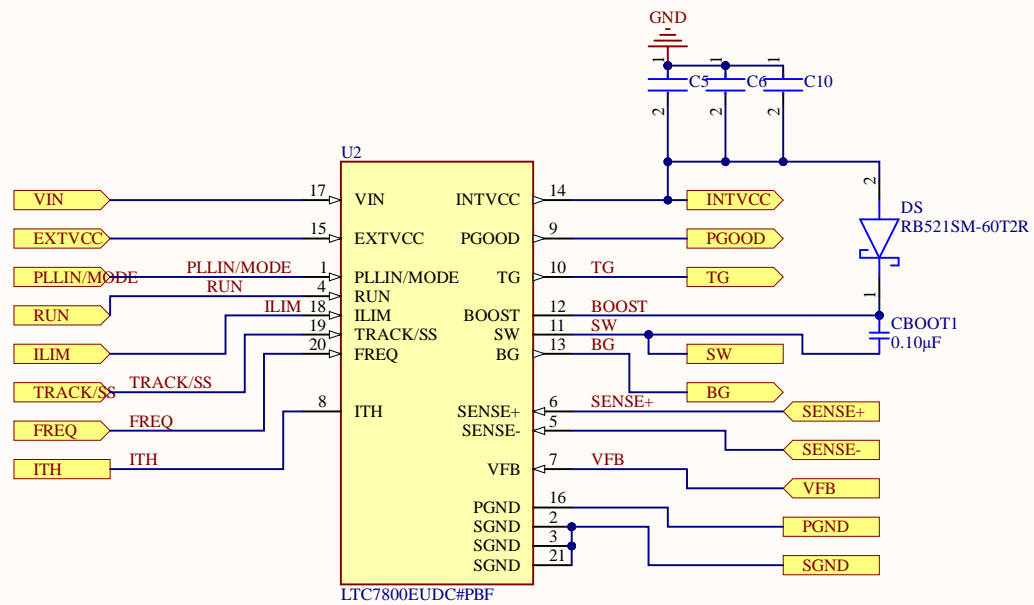
D



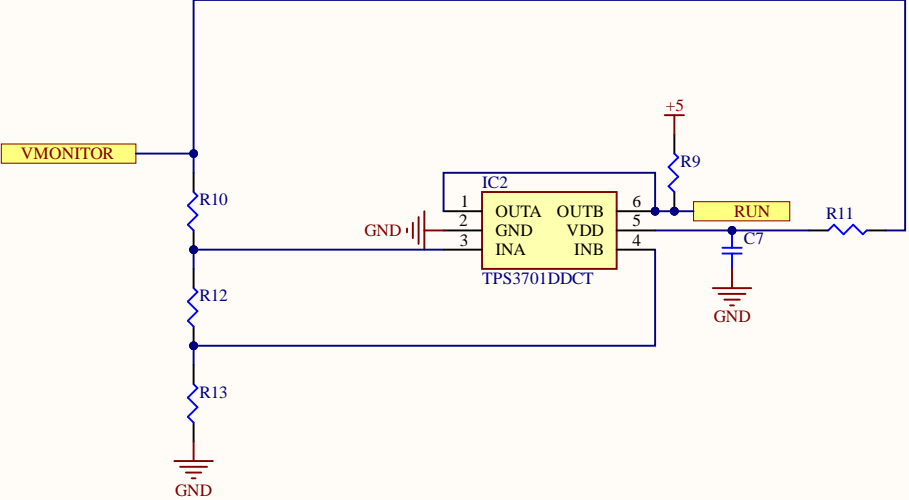
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Size	Number	Revision
A3		
Date:	7/30/2021	Sheet of
File:	C:\Users\...\Buck.SchDoc	Drawn By:



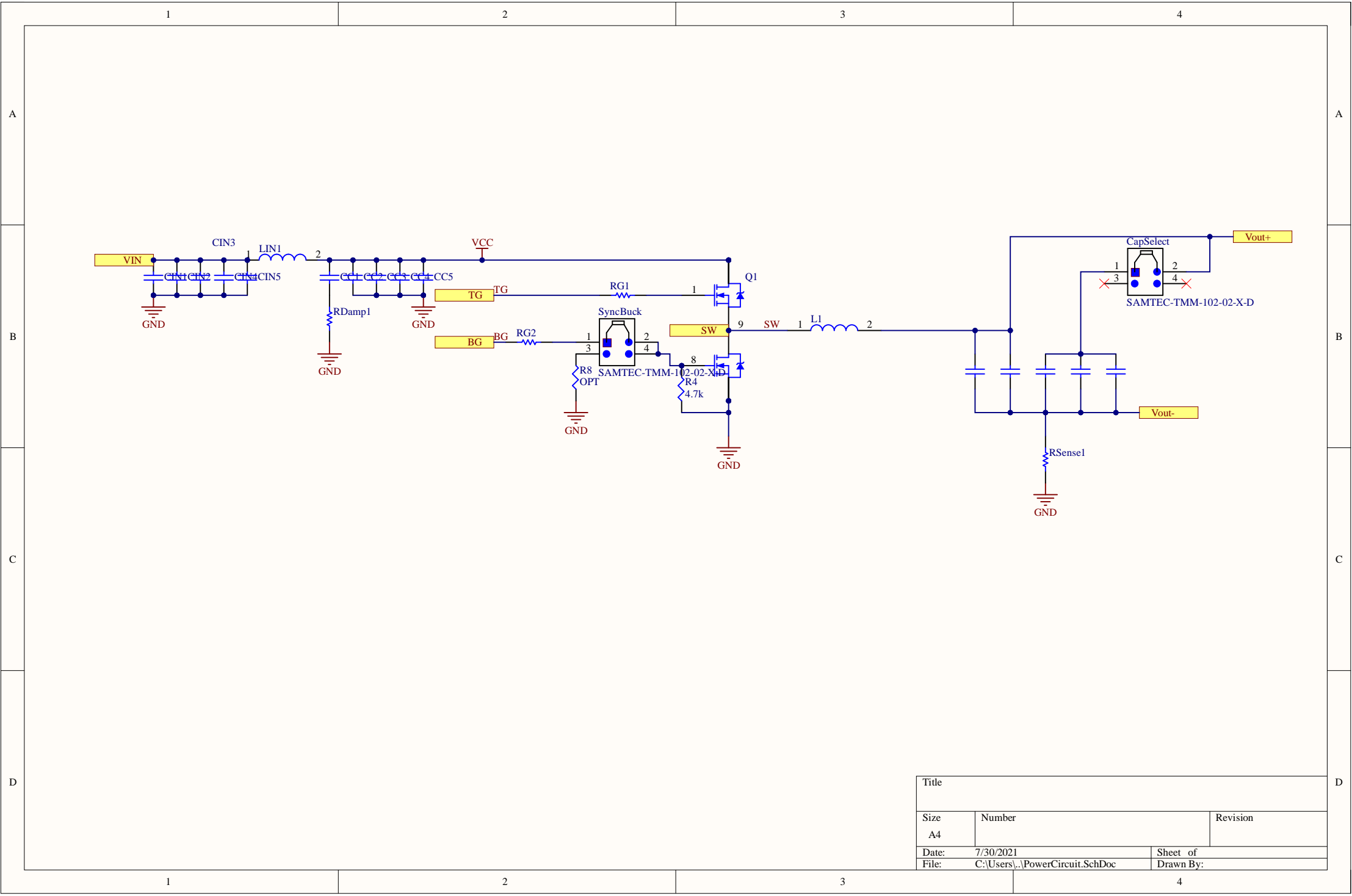
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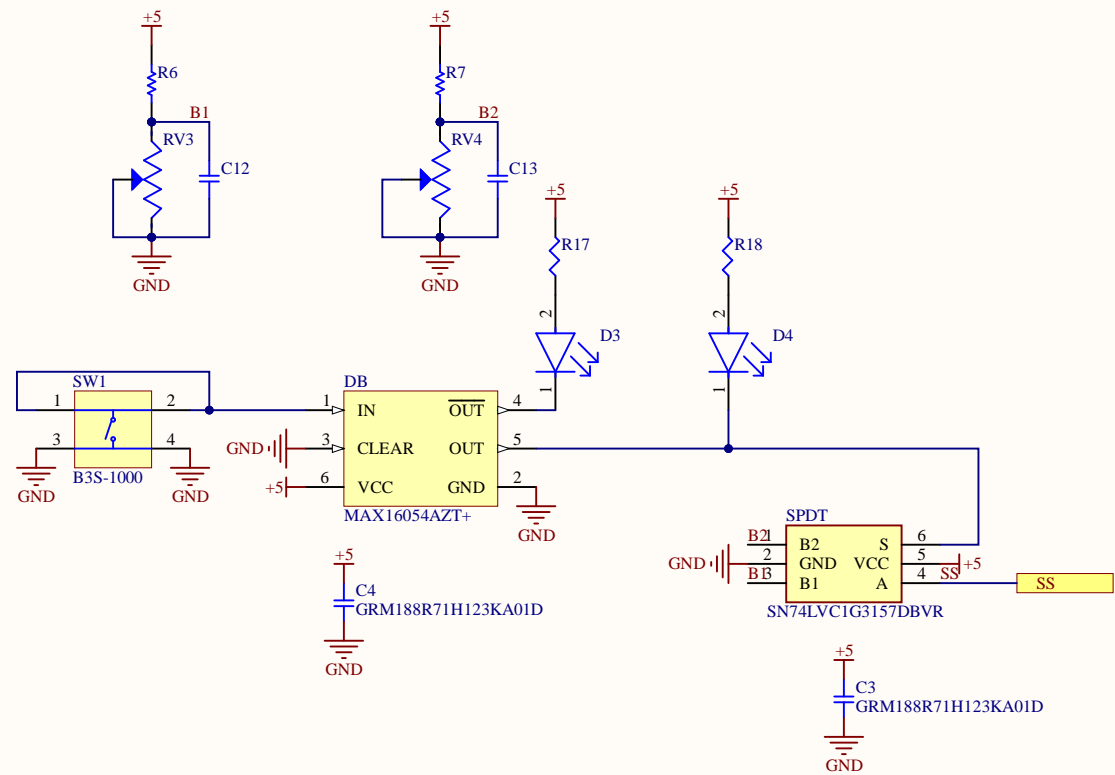


Title		
Size A4	Number	Revision
Date:	7/30/2021	Sheet of
File:	C:\Users\...\LTC7800EUDC#PBF.SchDoc	Drawn By:



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





Title		
Size A4	Number	Revision
Date:	7/30/2021	Sheet of
File:	C:\Users\...\SetpointCircuit.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.

VCC

Track/SS

BG

TG

SW

ITH

Vout+

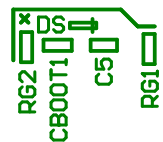
SW1: Switches Between Setpoint 1 & 2 RV1: Adjusts Switching Frequency RV2: Adjusts the Feedback Gain
RV3/4: Adjusts Setpoint 1/2 SyncBuck: Switches Between Synchronous and Non-Synchronous Switching
LC_MODE: Switches Between Low Current Operating Modes CapSelect: Adjusts the Output Capacitor Size

Vin+

Vout+

Vout-

Vout-



LC_MODE

P1: Forced Continuous
P2: Pulse-Skipping
P3: Burst Mode

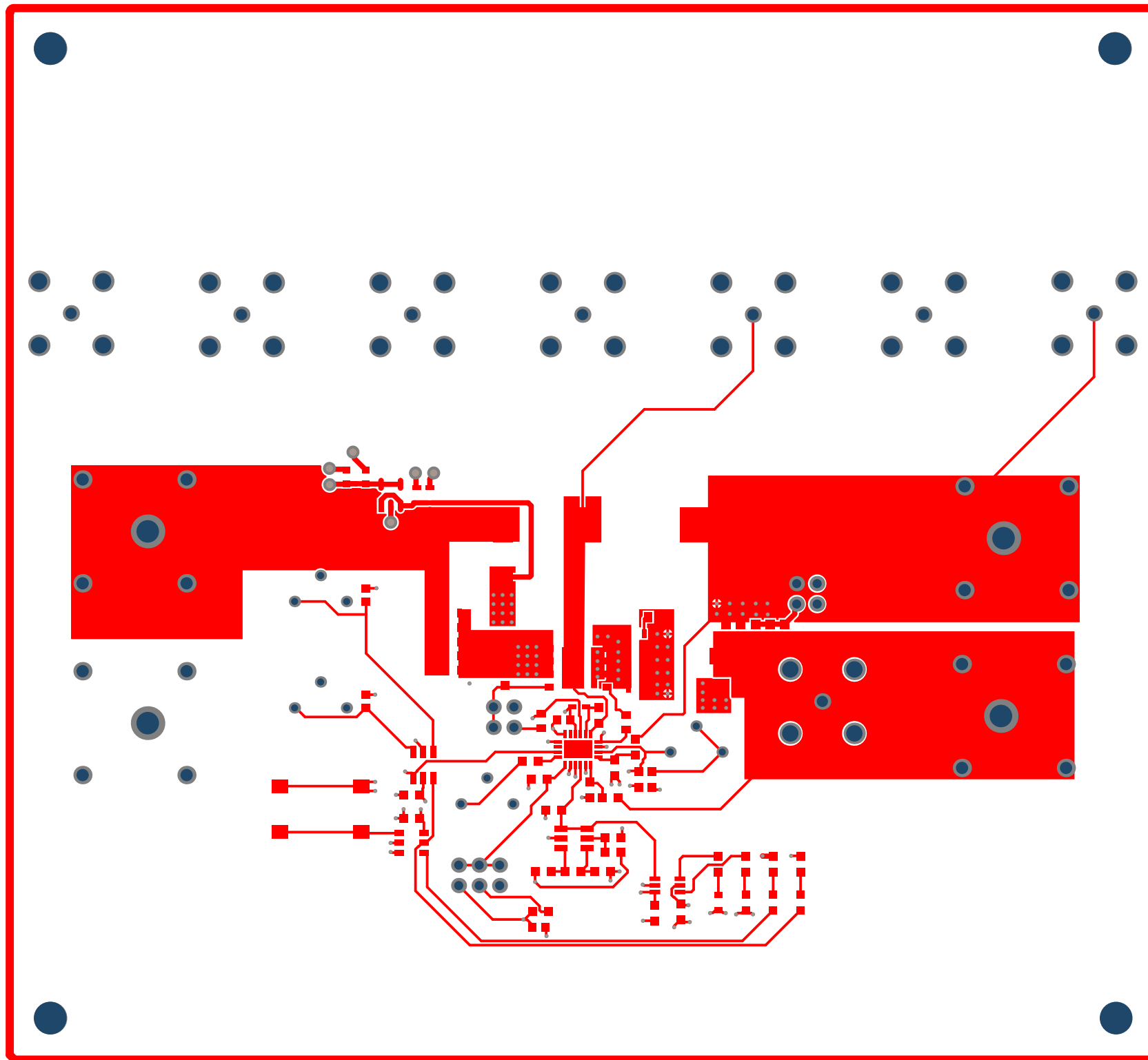


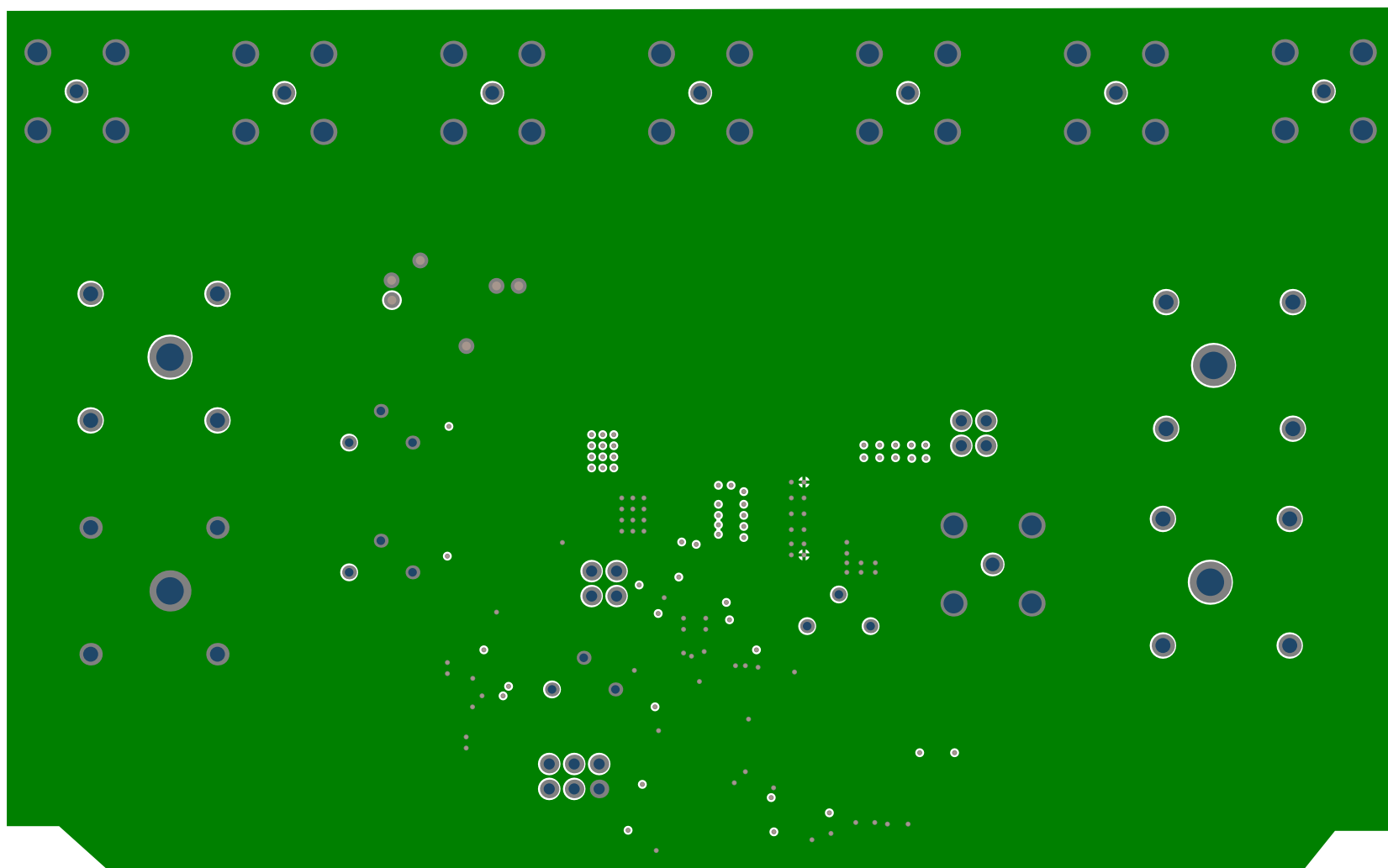
WARNING: Components May Become Hot
Do Not Touch With Fingers

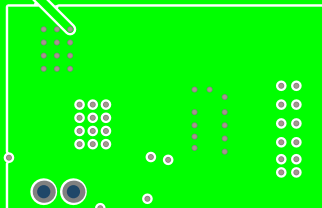
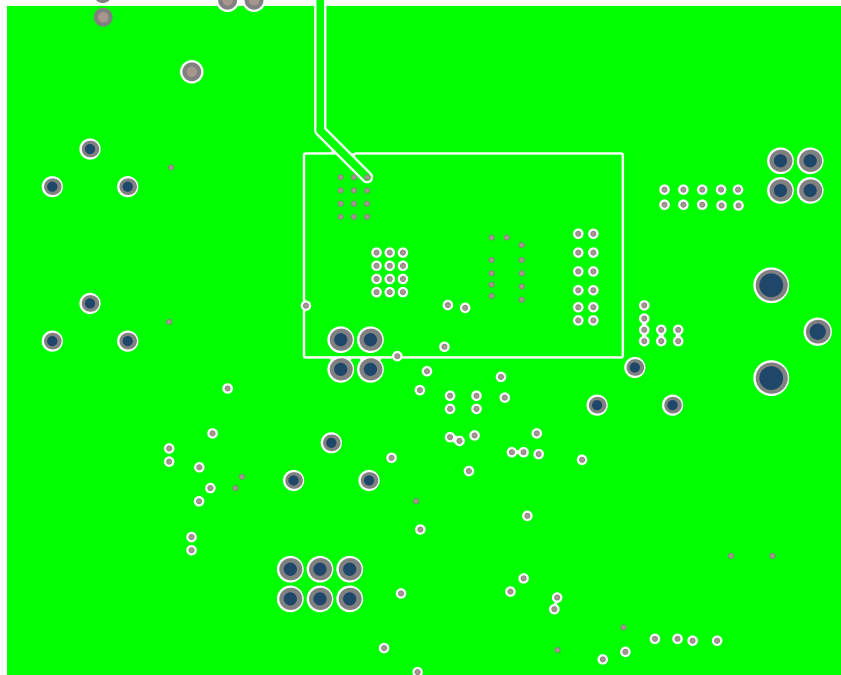
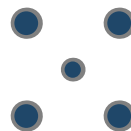
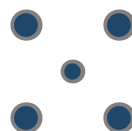
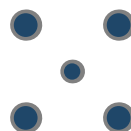
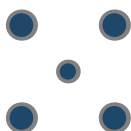
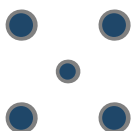
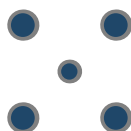
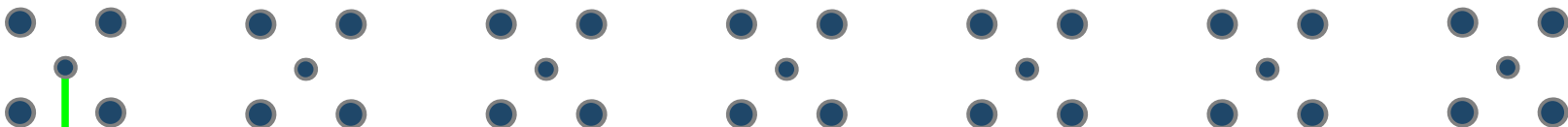


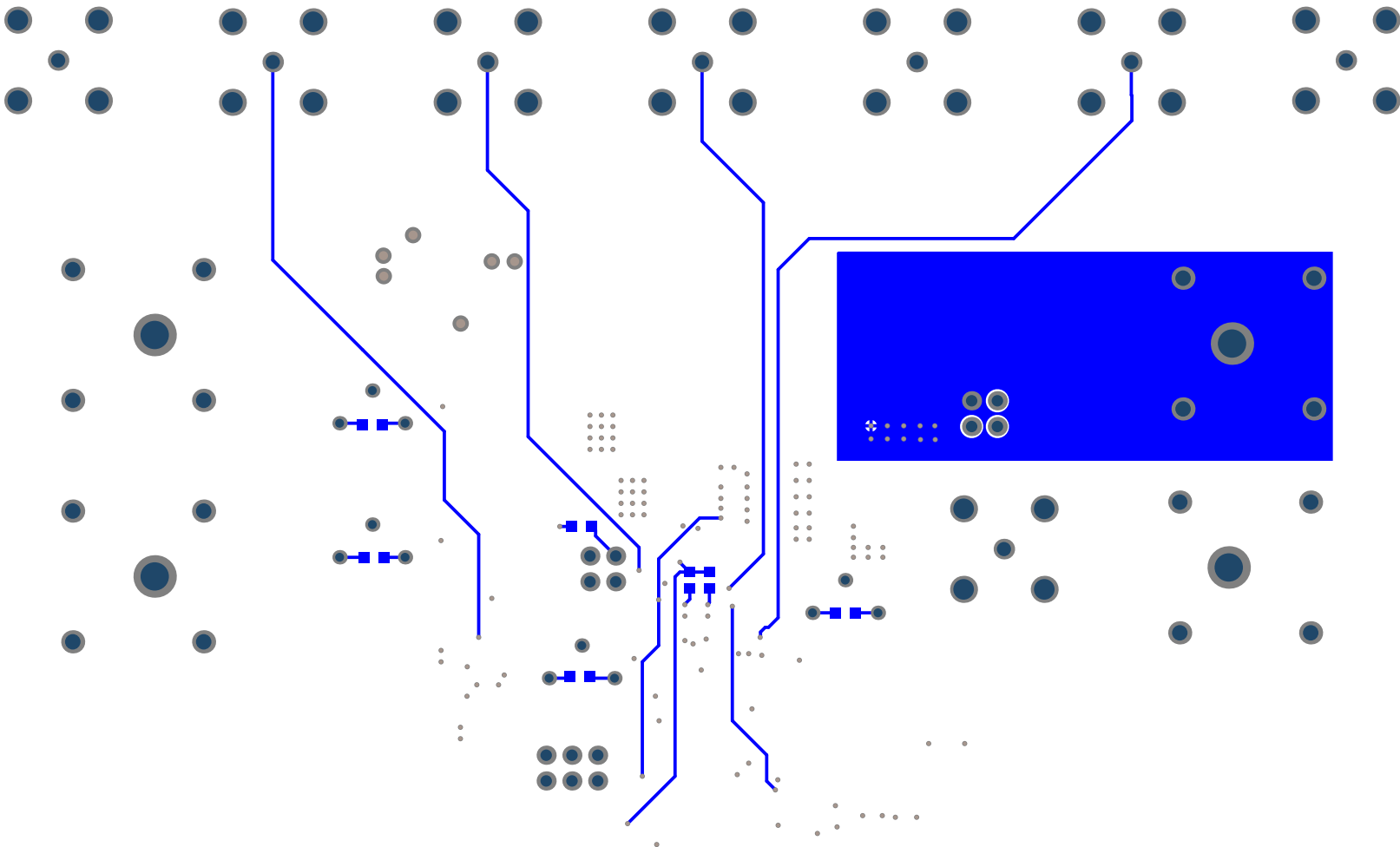
Do Not Adjust Jumpers
When Circuit is Powered

D1: Input Over/Undervoltage
D2: Output Power Good
D3: Setpoint 1 Active
D4: Setpoint 2 Active









20
010

10
4

89
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10
11

10
13

10
15

Board Stack Report