

Plainsong Metronome

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NOTES

- Rev A -> Rev B changes:

- Button added and R1 removed for BOOT0 operation
- Input PS change to +12VDC, 1A
- VCAP_1 (pin 22) connection to +3V3 cut
- MCU pin changes (Rev A -> Rev B):

--- PA0 -> PB5	--- PA3 -> PB13	--- PB13 -> PA3
--- PA1 -> PB3	--- PB5 -> PA0	--- PC13 -> N/C

- U3 Pin 26 connected to +1V8
- Digi-pots and associated resistors removed - MAX9867 can adjust volume
- FFC pin connection changes (Rev A -> Rev B):

--- Pin 15 -> GND	--- Pin 30 -> +12V (not +9V)
--- Pin 17 -> GND	

- Rev A -> Rev B PCB changes:

- USB con board cut-out increased vertically

ADDITIONAL DOCUMENTATION

PCB: 2025001 B Soutra Plainsong Metronome_PCB.PcbDoc

BoM: 2025001 B Soutra Plainsong Metronome_BoM.pdf

Draft: 2025001 B Soutra Plainsong Metronome_DRAFT1.PCBDwf

2025001 B Soutra Plainsong Metronome_DRAFT2.PCBDwf

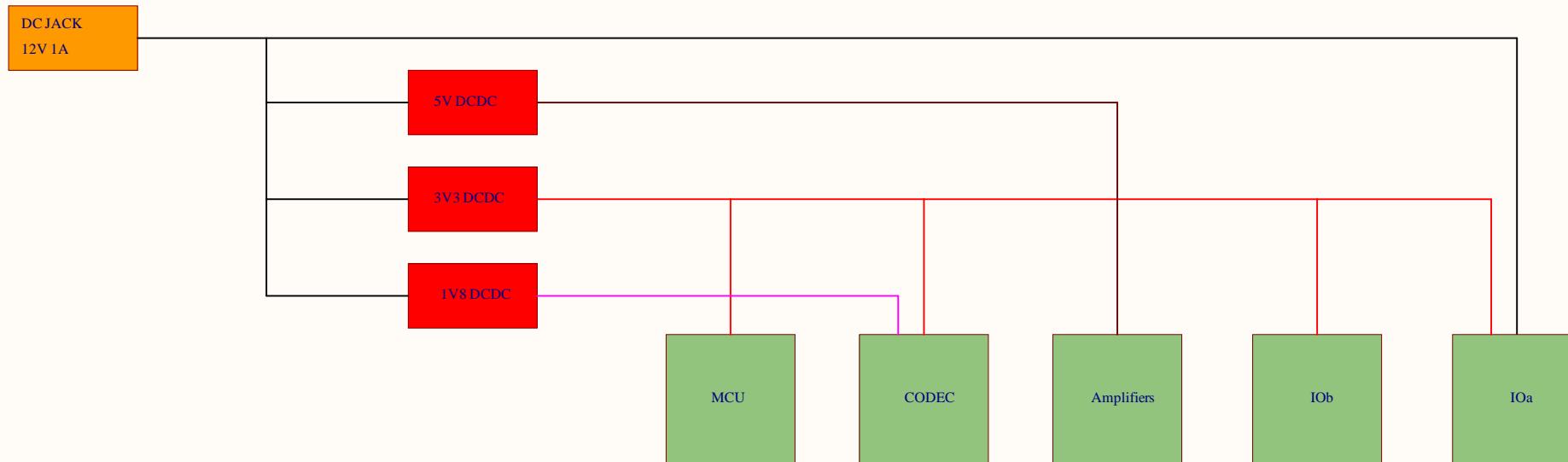
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Title: Plainsong Metronome	Engineer: S.Thomas
Project: 2025001 B Soutra Plainsong Metronome	Approval: S.Thomas
Sch Rev: B	Date: 28/10/2025
File Name: Title-Page.SchDoc	Sheet 1 of 9
Size: A4	Scale: 1:1
Libraries: ST_Library.LibPkg	

Power Tree



LEGEND

- █ - Input Connector
- █ - Power Conversion
- █ - Powered Device/Sub-Circuit
- █ - Output Connector

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Approval: S.Thomas

Sch Rev: B Date: 28/10/2025

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REFERENCE DOCUMENTS

BoM: 2025001 B Soutra PIRev: 1B Metronome_SoulPkg.LibPkg

PCB: 2025001 B Soutra PIRev: 1B Metronome_PCB.PcbDoc

Draft: Draft_Doc.draft Rev: B

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Metronome_PCB.PcbDoc

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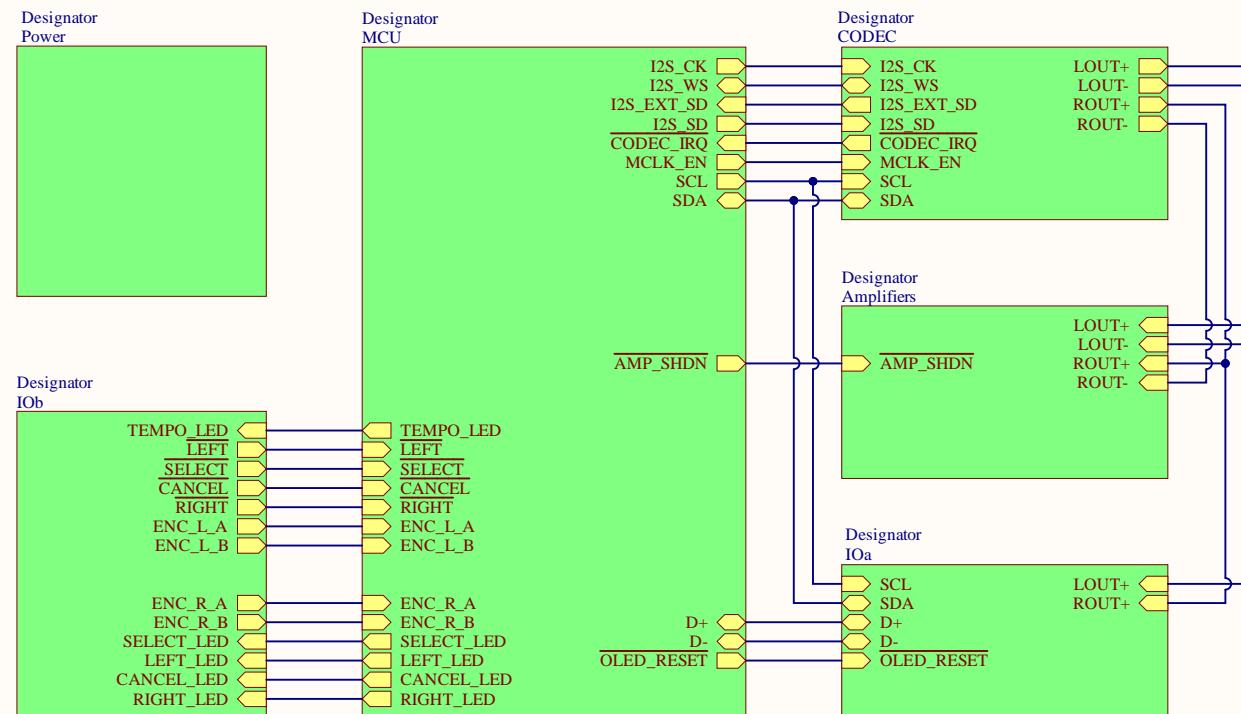
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Block Diagram

A



B

C

D

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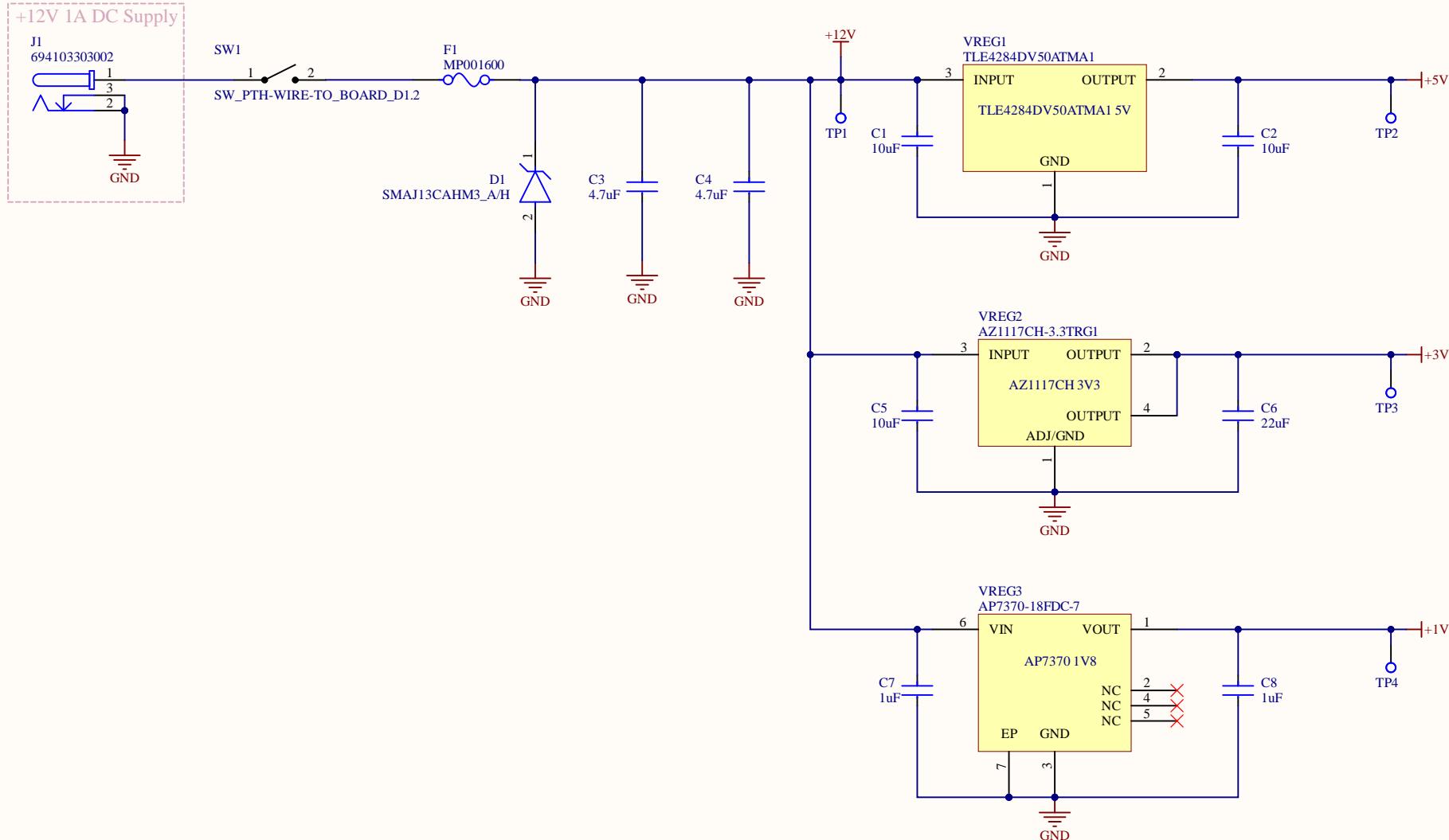
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BoM: 2025001 B Soutra PIRev: 1 B Metronome_SchDoc.LibPkg	Metronome_PCB.LibPkg
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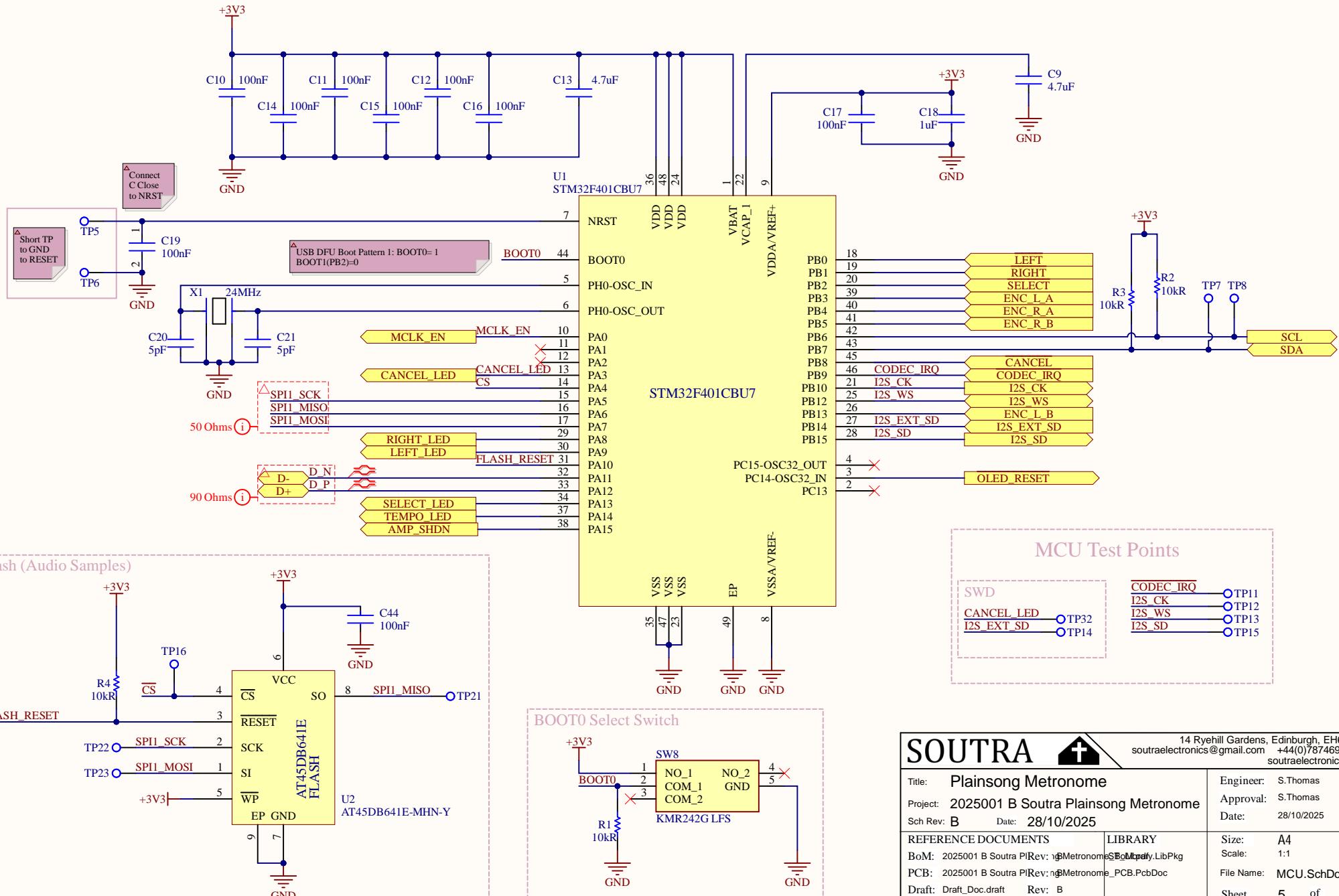
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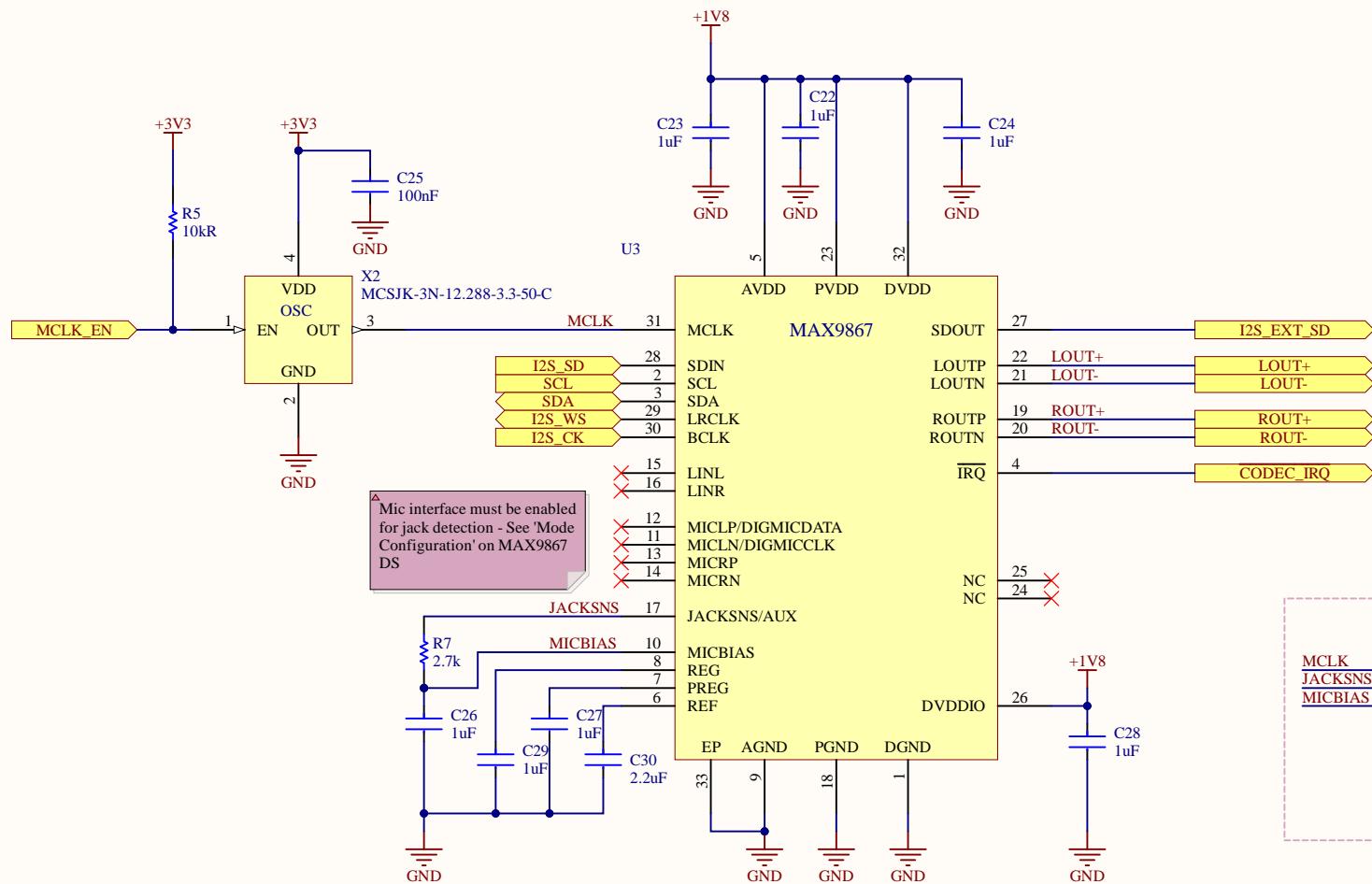
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 Sheet 4 of 9



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REFERENCE DOCUMENTS	LIBRARY	Size: A4
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Draft: Draft_Doc.draft	Rev: B	Sheet 5 of 9



CODEC Test Points

MCLK	TP24	LOUT+	TP25
JACKSNS	TP26	LOUT-	TP27
MICBIAS	TP28	ROUT+	TP29
		ROUT-	TP30

Refer to datasheets for layout and groundings advice

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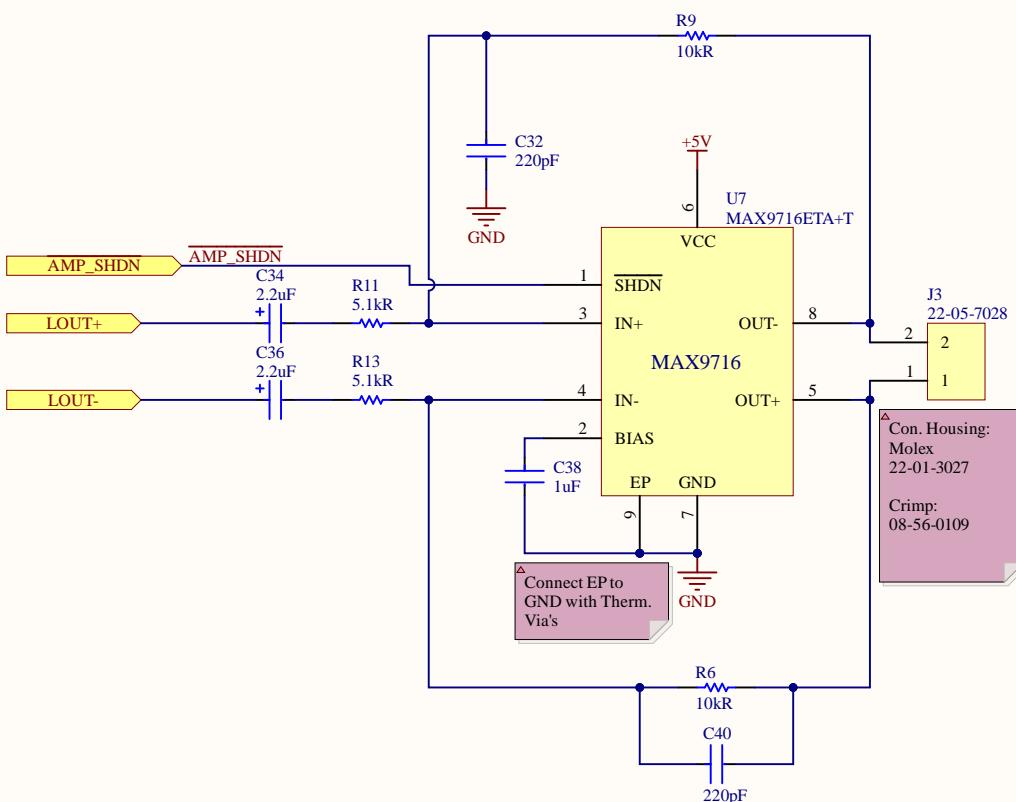
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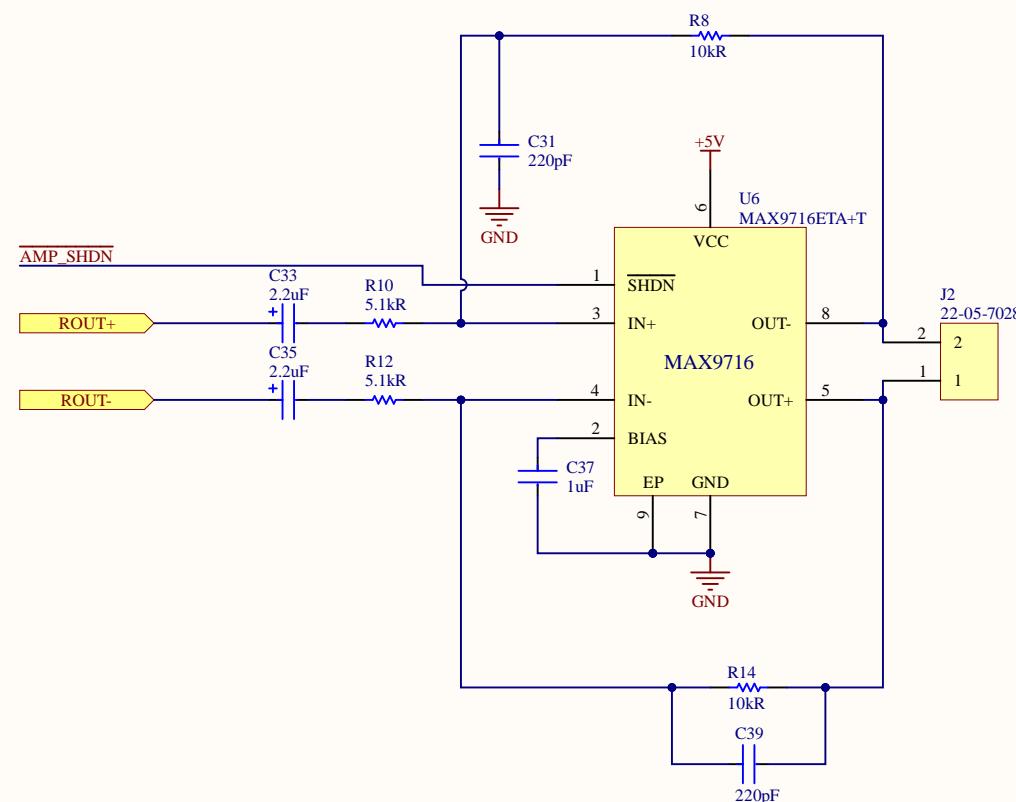
3

4

LEFT Channel



RIGHT Channel



Amp Test Points

AMP_SHDN → TP31

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Metronome.LibPkg

Metronome_PCB.PcbDoc

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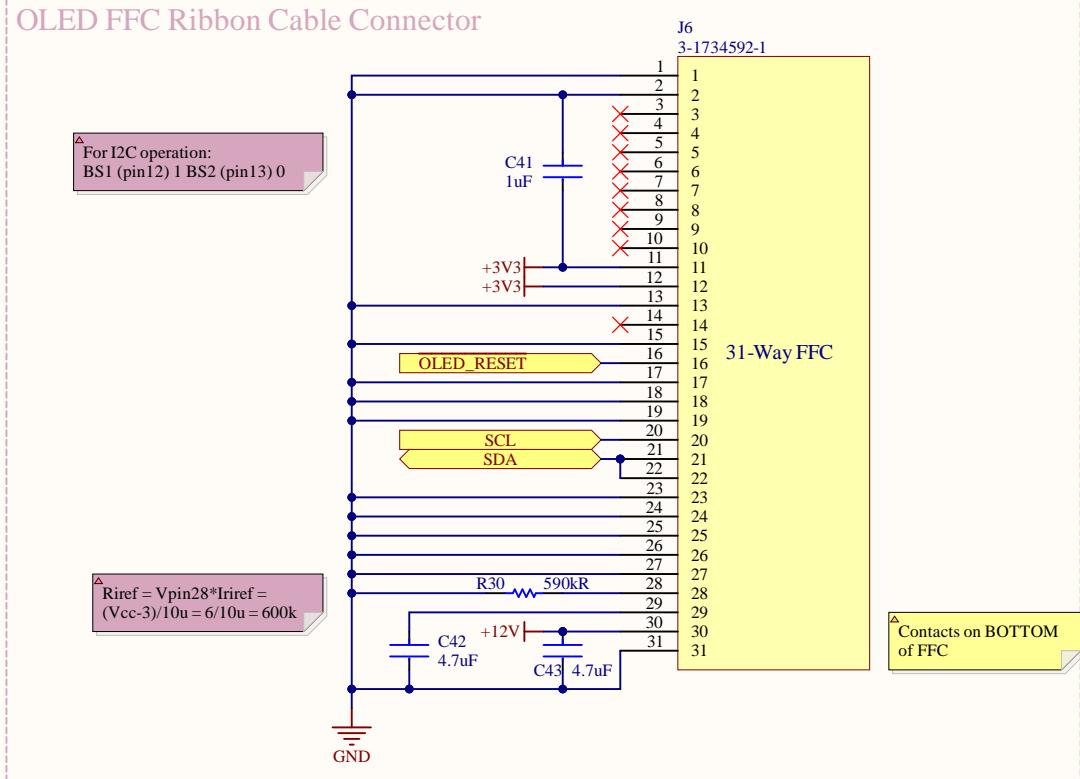
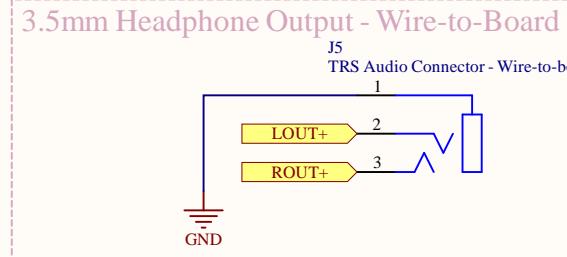
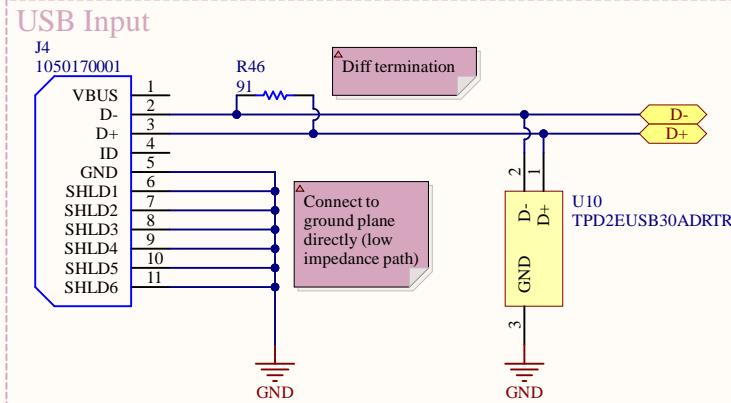
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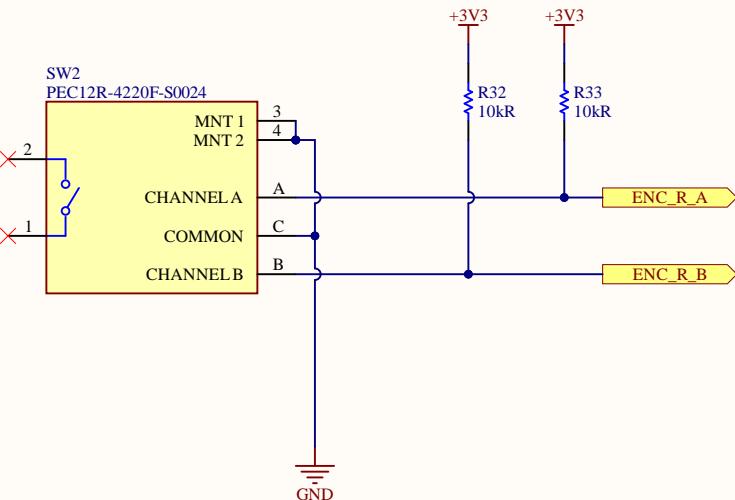


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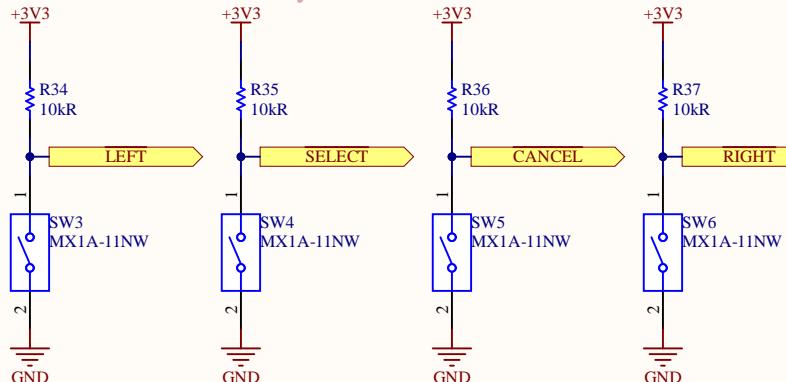
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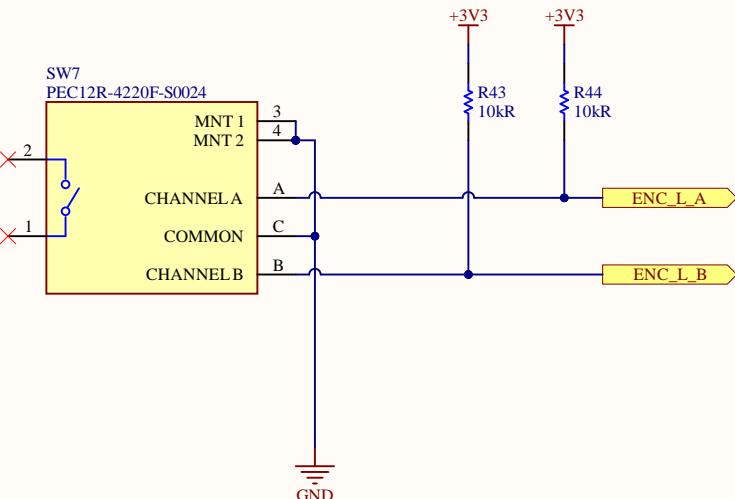
Left Encoder



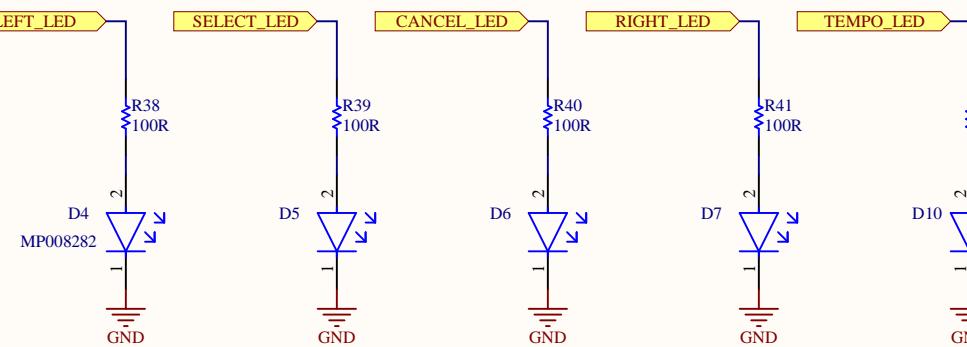
Selection Switches - Cherry MX



Right Encoder



Indicator LEDs



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