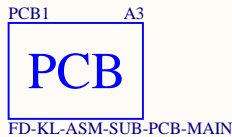


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2	STM32H753
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6	POWER
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8	DEBUG
9	CHARGER

FD-KL-ASM-SUB-PCB-MAIN

Revisions			
Rev	Description	Date	Approved
A1	Initial release for production	11/23/2021	M. Beach
A2	Added testpoints. Added some alternates to BOM.	11/29/2021	M. Beach
A3	Changed U1 to TPS79920YZU Added C87-89, TP85. Removed R1, C1.	12/11/2021	M. Beach



STM32H753

CAMERA HEADER

DEBUG

SECURE ELEMENT
LCD / BACKLIGHT
FLASH

AVALANCHE
NOISE SOURCE

KEYPAD
SD CARD
JTAG

LICENCE: CERN-OHL-S v2

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Source location: foundationdevices.com/passport-electronics

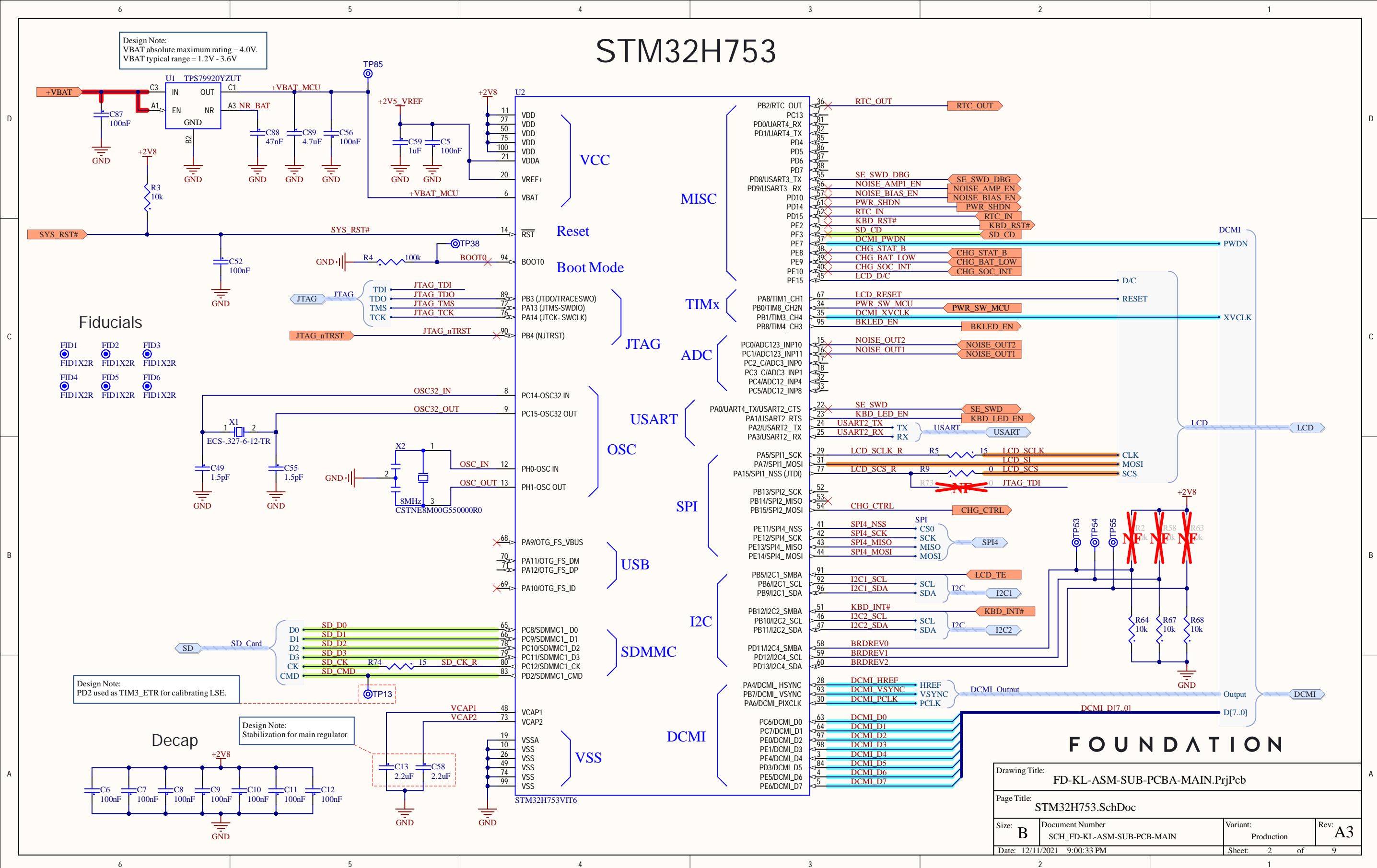
As per CERN-OHL-S v2 section 4, should You produce hardware based on this source, You must where practicable and applicable maintain the Source Location visible (1) on the packaging of the hardware, (2) on the circuit board(s) via silkscreen or copper, (3) in any documentation, and (4) on other products you make using this source.



REGULATORS

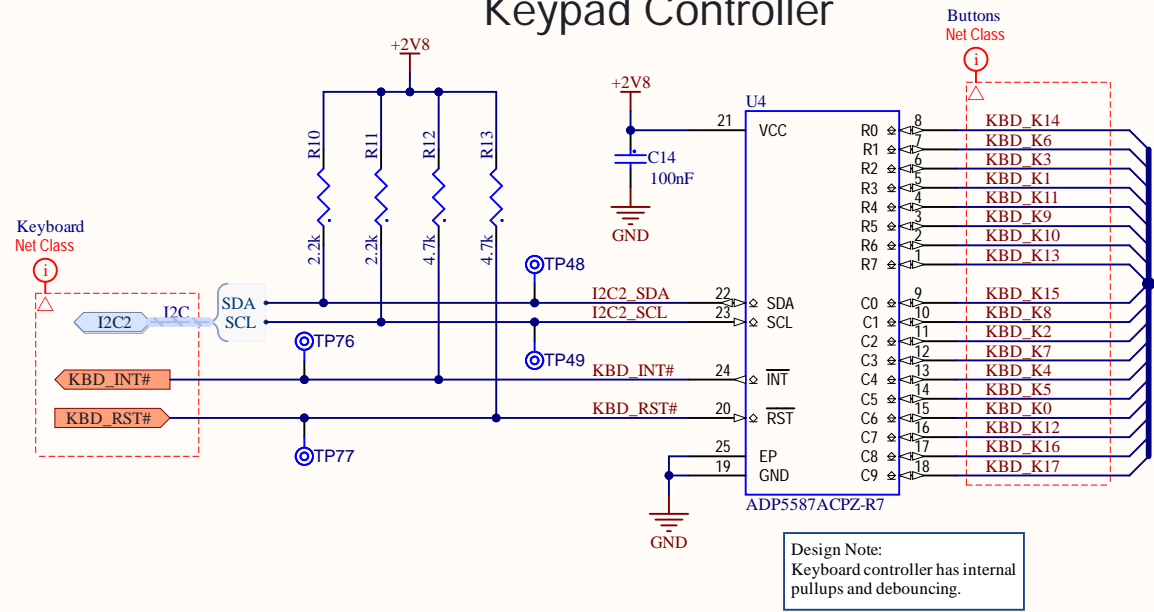
CHARGER

Engineer: M. Beach	FOUNDATION			Foundation Devices Inc 6 Liberty Sq #6018 Boston, MA 02109	
Designer: M. Beach	Drawing Title: FD-KL-ASM-SUB-PCBA-MAIN.PrjPcb				
	Page Title: Title.SchDoc				
Approved: M. Beach Date: 12/11/2021	Size: B	Document Number SCH_FD-KL-ASM-SUB-PCB-MAIN	Variant: Production	Rev: A3	
	Date: 12/11/2021 9:00:32 PM		Sheet: 1 of 9		

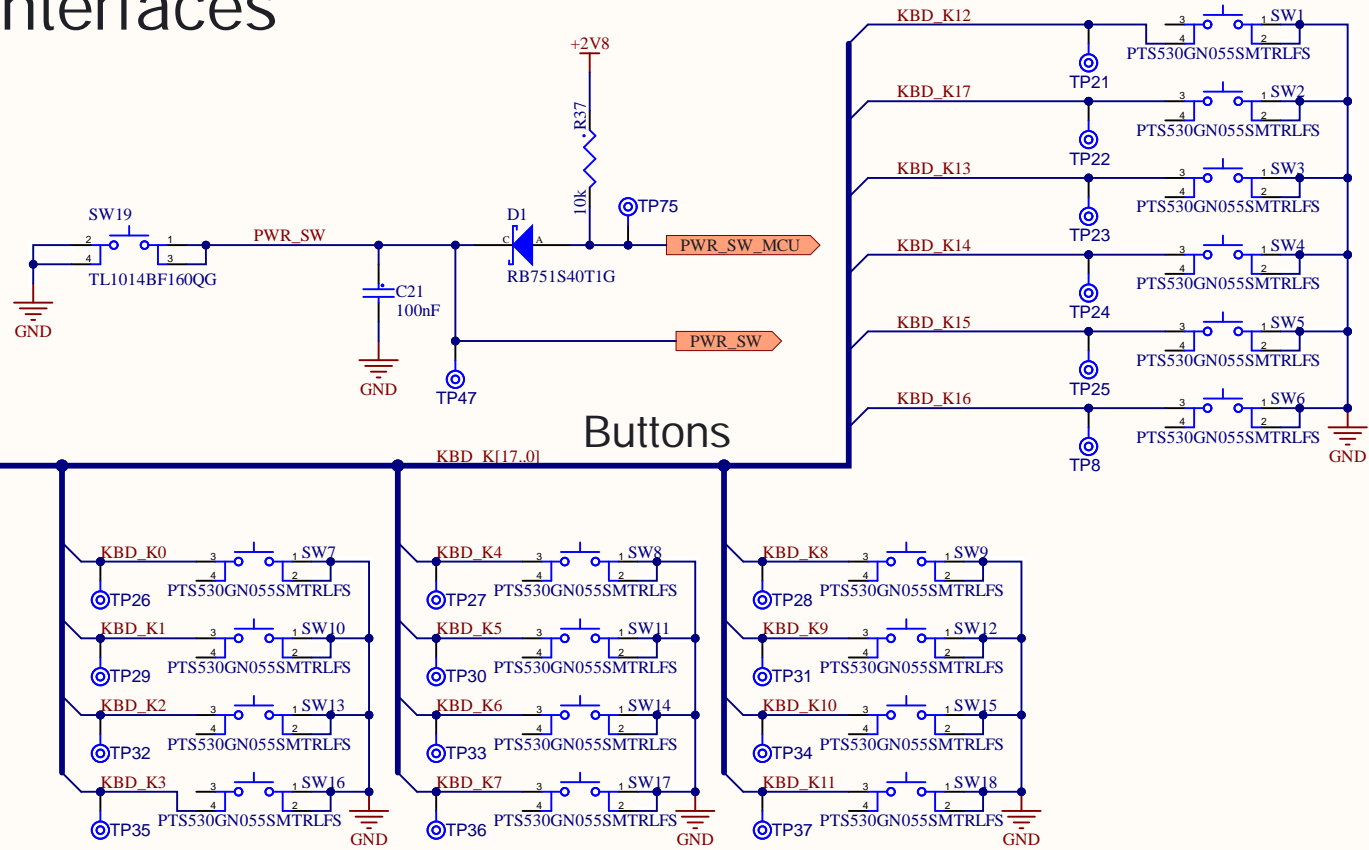


Interfaces

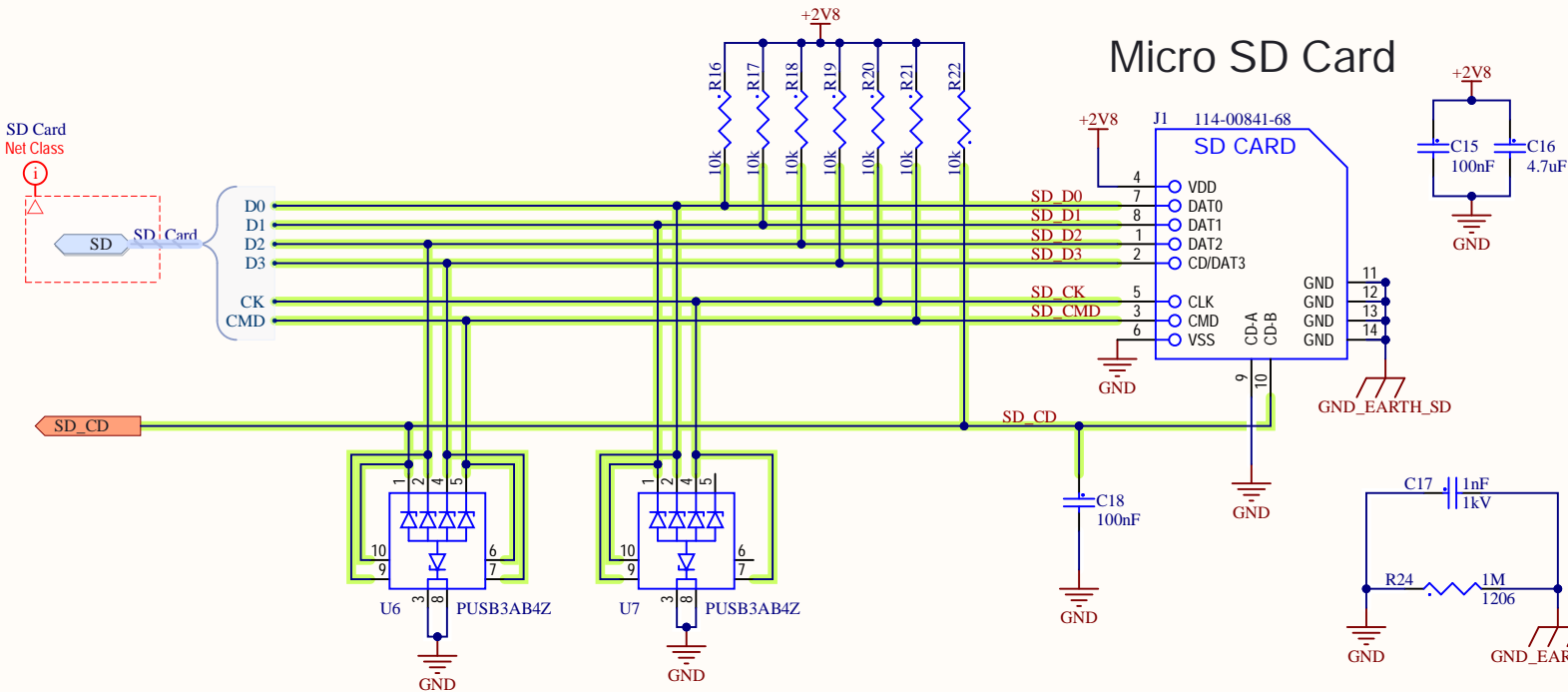
Keypad Controller



Buttons



Micro SD Card



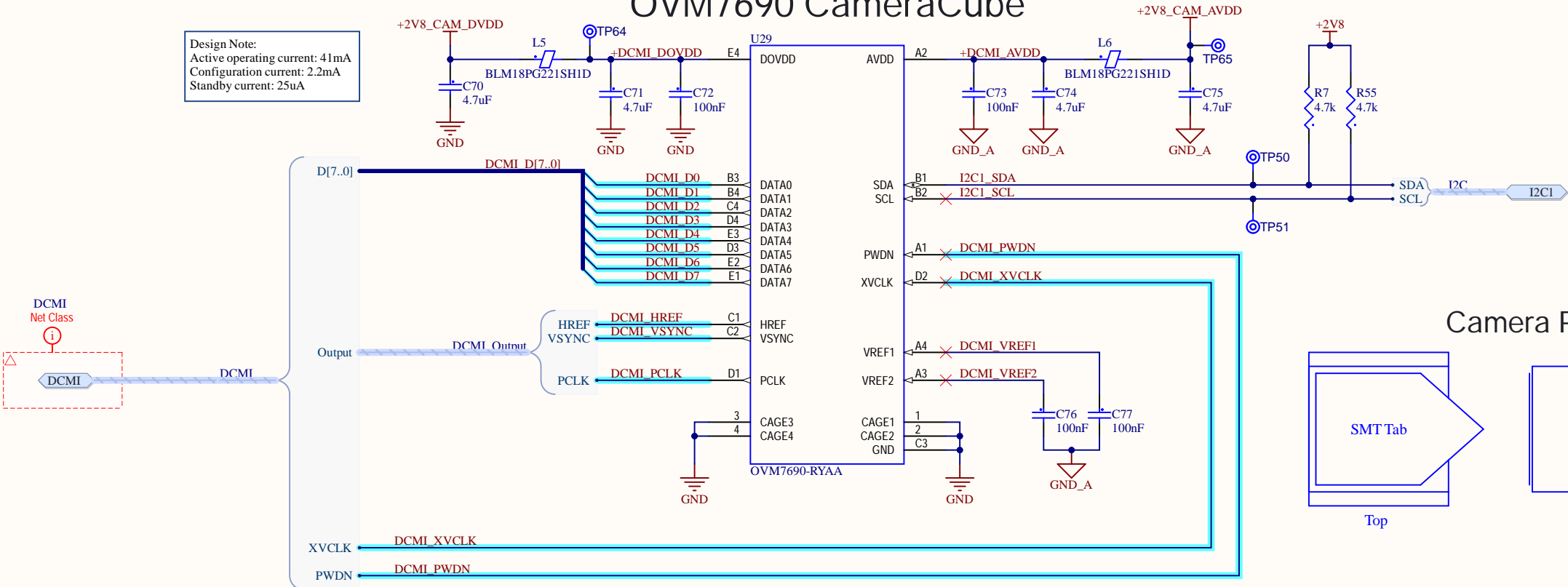
FOUNDATION

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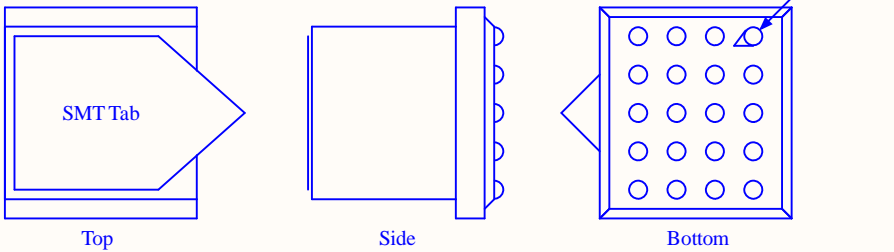
Camera

OVM7690 CameraCube

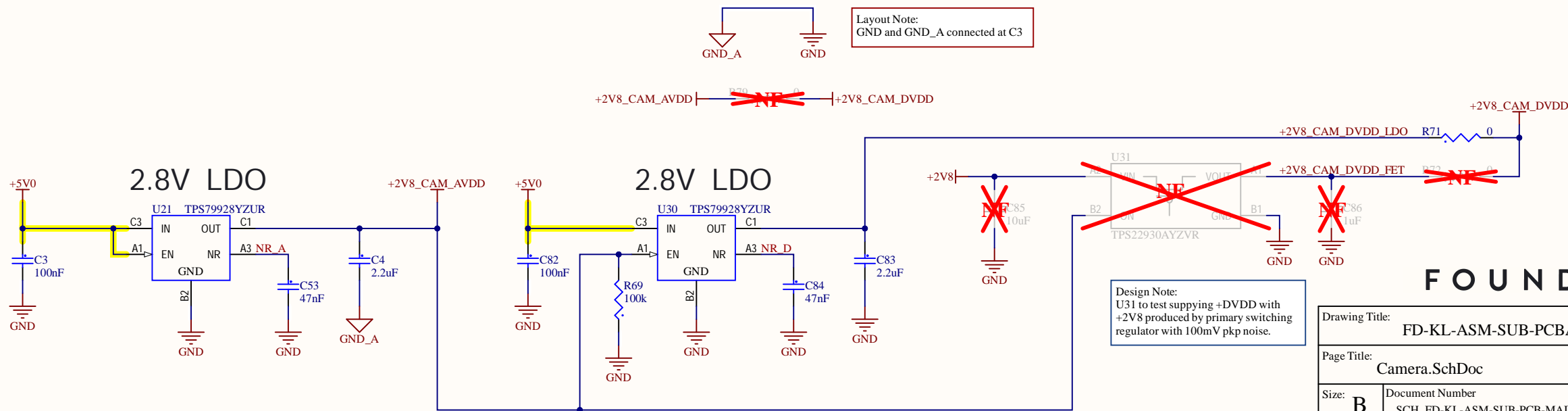
Design Note:
Active operating current: 41mA
Configuration current: 2.2mA
Standby current: 25uA



Camera Pin 1 Location



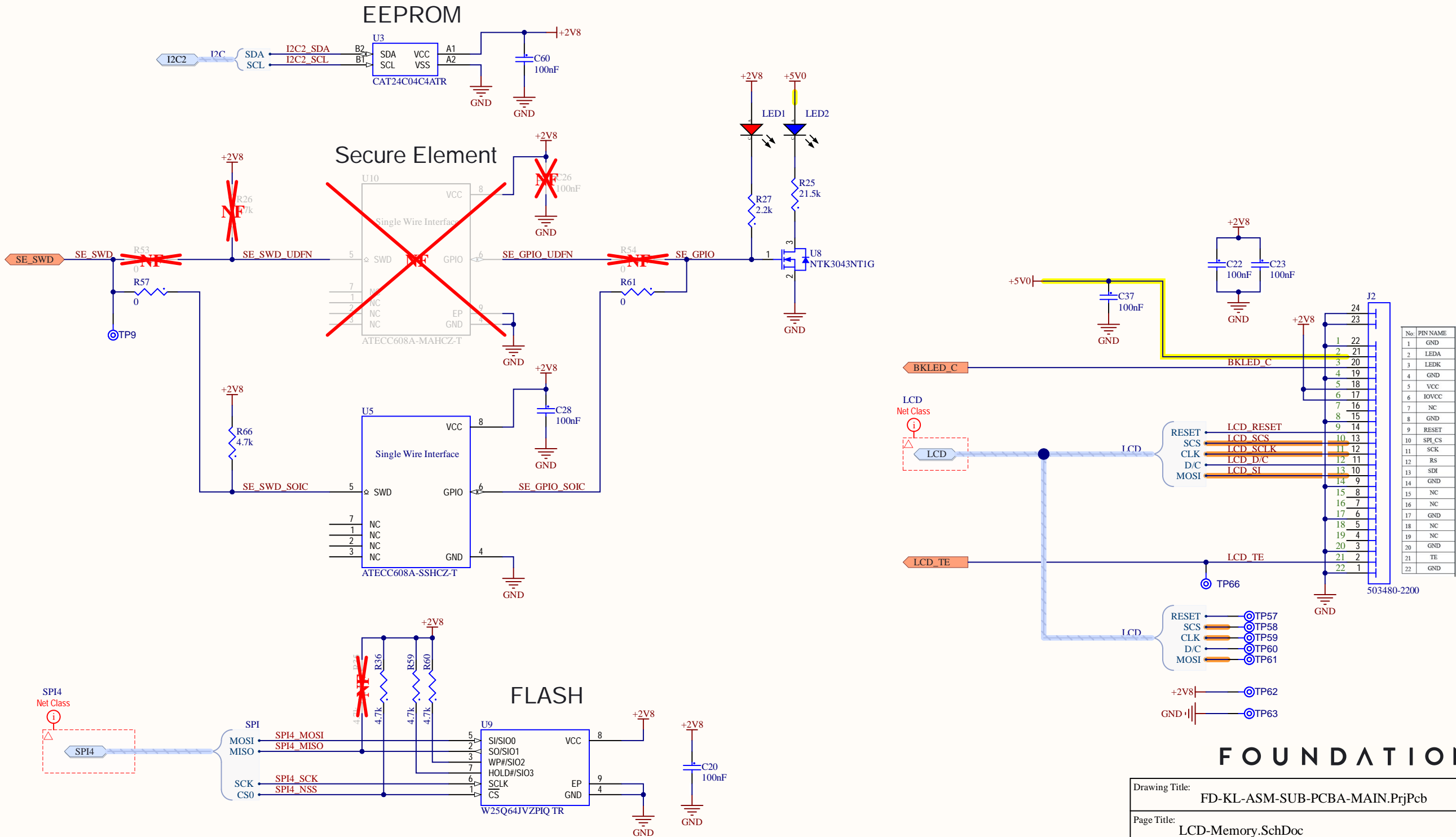
Layout Note:
GND and GND_A connected at C3



FOUNDATION

Drawing Title: FD-KL-ASM-SUB-PCBA-MAIN.PrjPcb			
Page Title: Camera.SchDoc			
Size: B	Document Number SCH_FD-KL-ASM-SUB-PCB-MAIN	Variant: Production	Rev: A3
Date: 12/11/2021 9:00:33 PM		Sheet: 4 of 9	

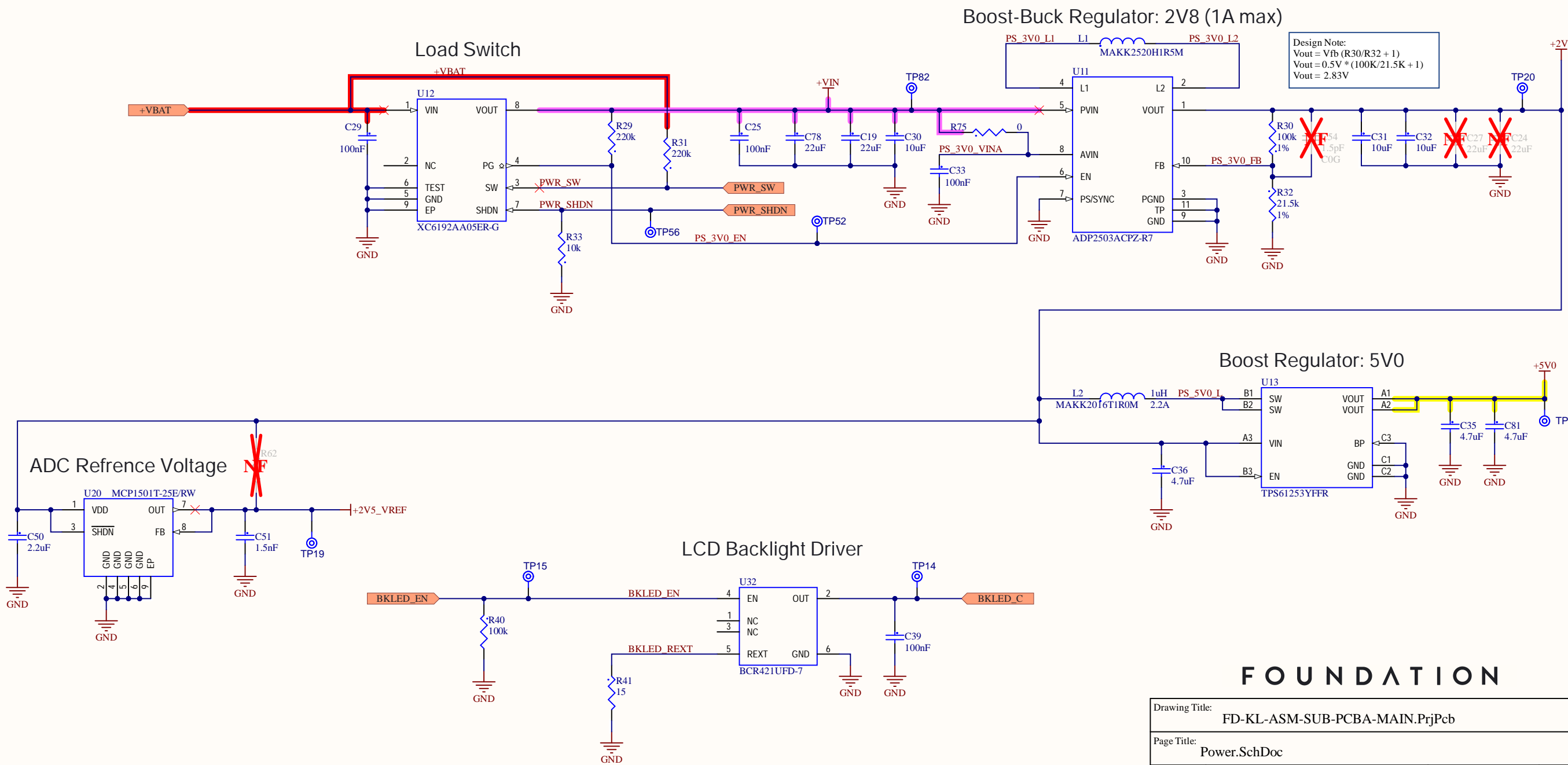
LCD, MEMORY



FOUNDATION

Drawing Title: FD-KL-ASM-SUB-PCBA-MAIN.PrfPcb			
Page Title: LCD-Memory.SchDoc			
Size: B	Document Number: SCH_FD-KL-ASM-SUB-PCB-MAIN	Variant: Production	Rev: A3
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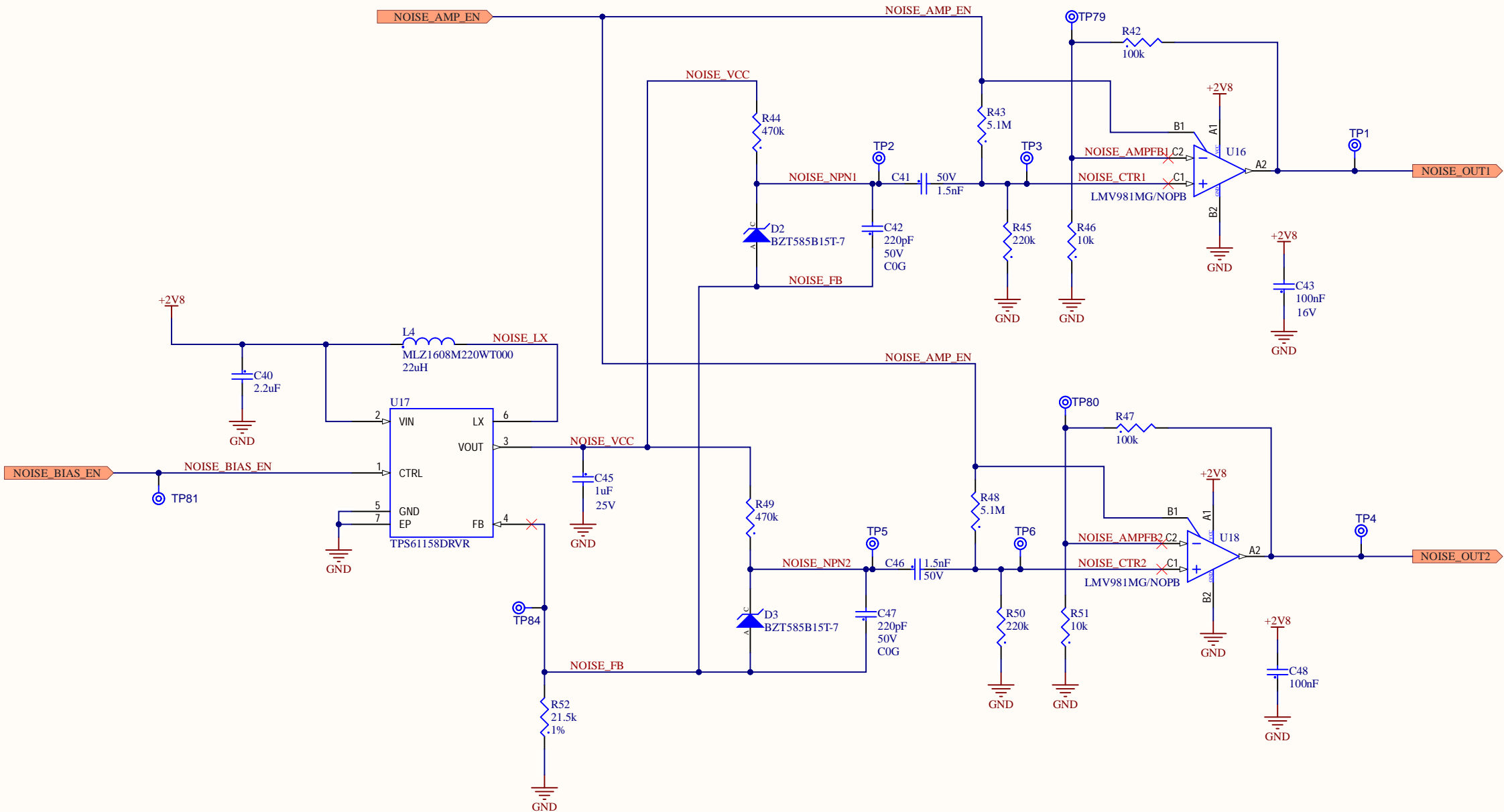
Power Regulators



FOUNDATION

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Page Title: Power.SchDoc			
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Date: 12/11/2021 9:00:34 PM		Sheet: 6 of 9	

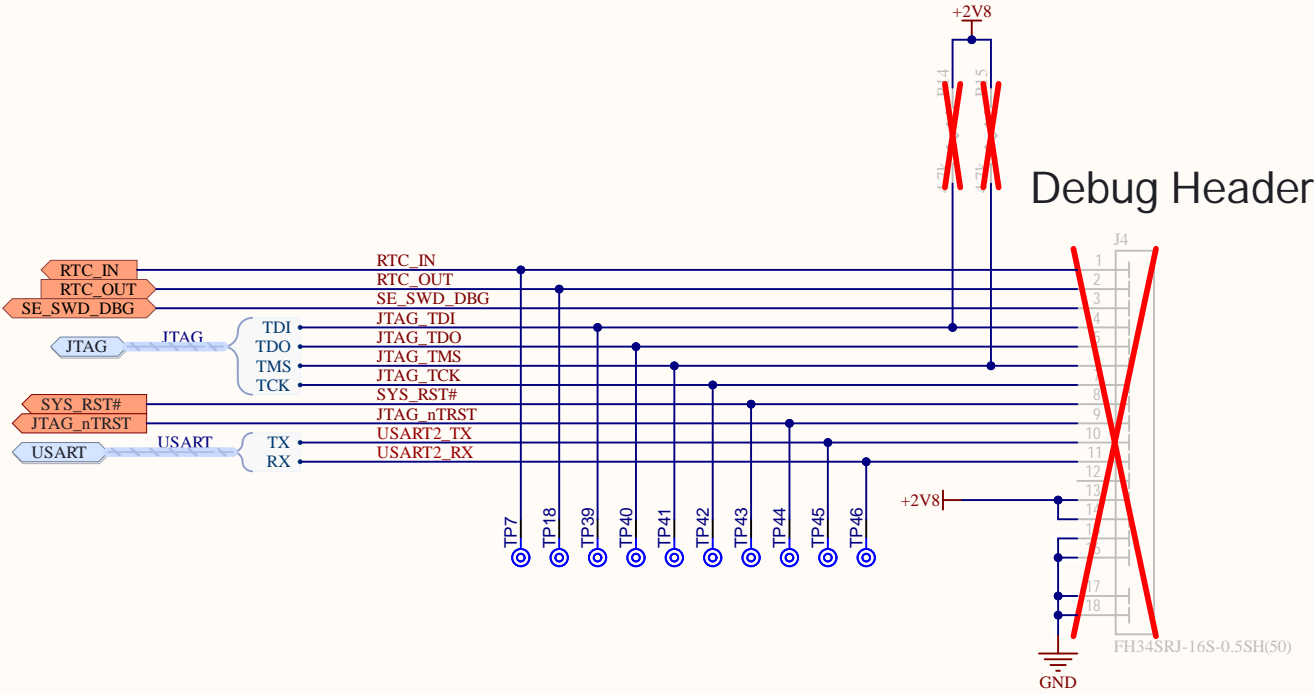
Avalanche Breakdown Noise Source



Circuit designed by:
Andrew 'bunnie' Huang
@bunniestudios
betrusted.io

FOUNDATION

Drawing Title: FD-KL-ASM-SUB-PCBA-MAIN.PrfPcb			
Page Title: Noise.SchDoc			
Size: B	Document Number SCH_FD-KL-ASM-SUB-PCB-MAIN	Variant: Production	Rev: A3
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FOUNDATION

Drawing Title: FD-KL-ASM-SUB-PCBA-MAIN.PrjPcb			
Page Title: Debug.SchDoc			
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