

Block Diagram

USB Mini B

FTDI

FTDI_I2C

F2F_SPI

FPGA_PROG

F2F_RESET

FTDI_SPI

FTDI_RESET

Level Shift

SPI MUX

Reset Watchdog

Reset Button

ADC3669

Level Shift

Level Shift

Level Shift

Level Shift

Level Shift

FMC_I2C

FMC_SPI

FMC

GPIO

GPIO Header / SMA

LVDS Interface

CHA

CLK

CHB

Power Monitors

Comms Switch

EEPROM

I2C MUX

I2C Addresses

Address	Chip	Page	Function
0x44	ADS1119	3	Current monitor for all ADC power rails
0x45	ADS1119	3	Voltage monitor for all ADC power rails
0x50	24LC65-I/SM	11	EVM EEPROM

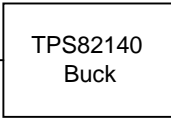
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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 11/27/2024
TID #: N/A	Project Title: ADC3669EVM	
Number: DC276	Rev: C	Sheet Title: Block Diagram
SVN Rev: 5f4375ce9b8073c05a47123204160436d035		Sheet: 1 of 14
Drawn By:	File: Block Diagram.SchDoc	Size: B
Engineer: GBR	Contact: http://www.ti.com/support	

Power Tree

12V JACK

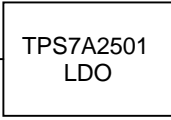
12V FMC



3.3V

2A

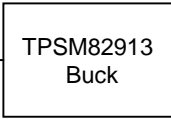
3p3V_Utility



1.8V

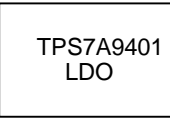
300 mA

1p8V_Utility



2.3V

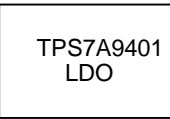
3A



1.2V

1A

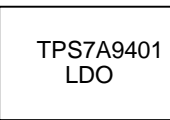
DVDD12 (100 mA)



1.2V

1A

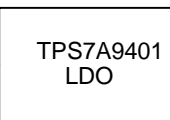
AVDD12 (80 mA)



1.8V

1A

DVDD18 (100mA)



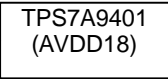
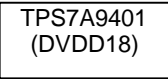
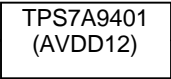
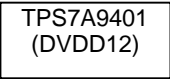
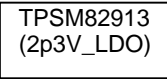
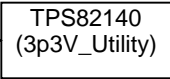
1.8V

1A

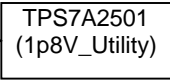
AVDD18 (125 mA)

Power Sequence:

12V



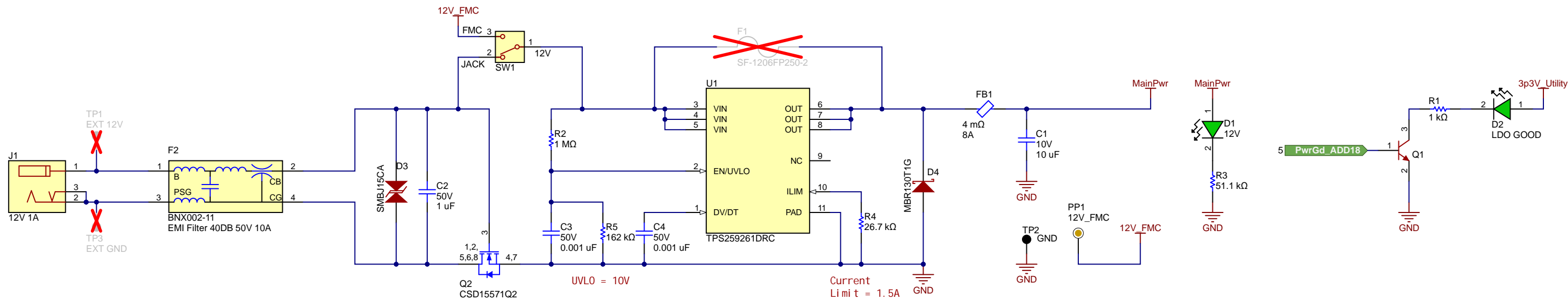
Power Good
LED



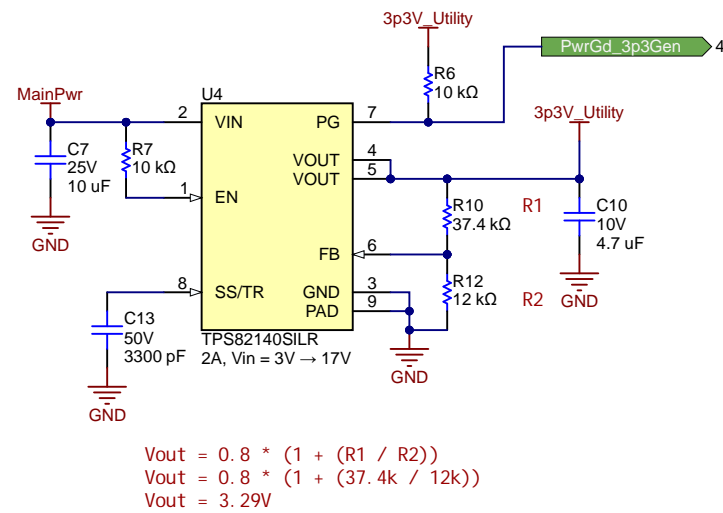
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Orderable: ChangeMe in variant		Designed for: Public Release	Mod. Date: 11/27/2024
TID #: N/A		Project Title: ADC3669EVM	
Number: DC276	Rev: C	Sheet Title:	
SVN Rev:		Assembly Variant: 001	Sheet: 2 of 14
Drawn By:		File: Power Tree.SchDoc	Size: B
Engineer: GBR		Contact: http://www.ti.com/support	

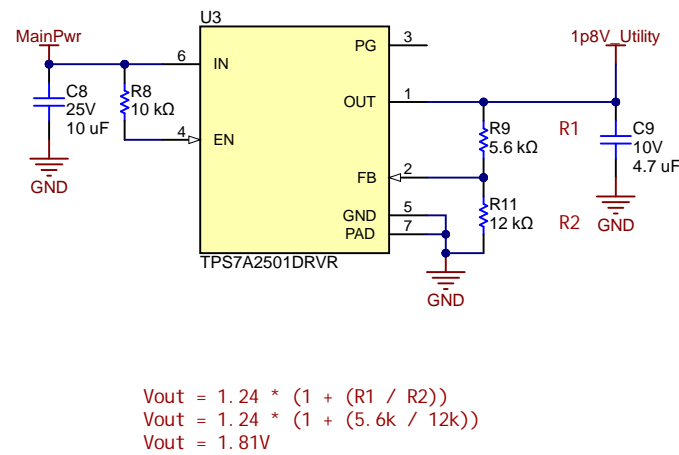
EVM Power



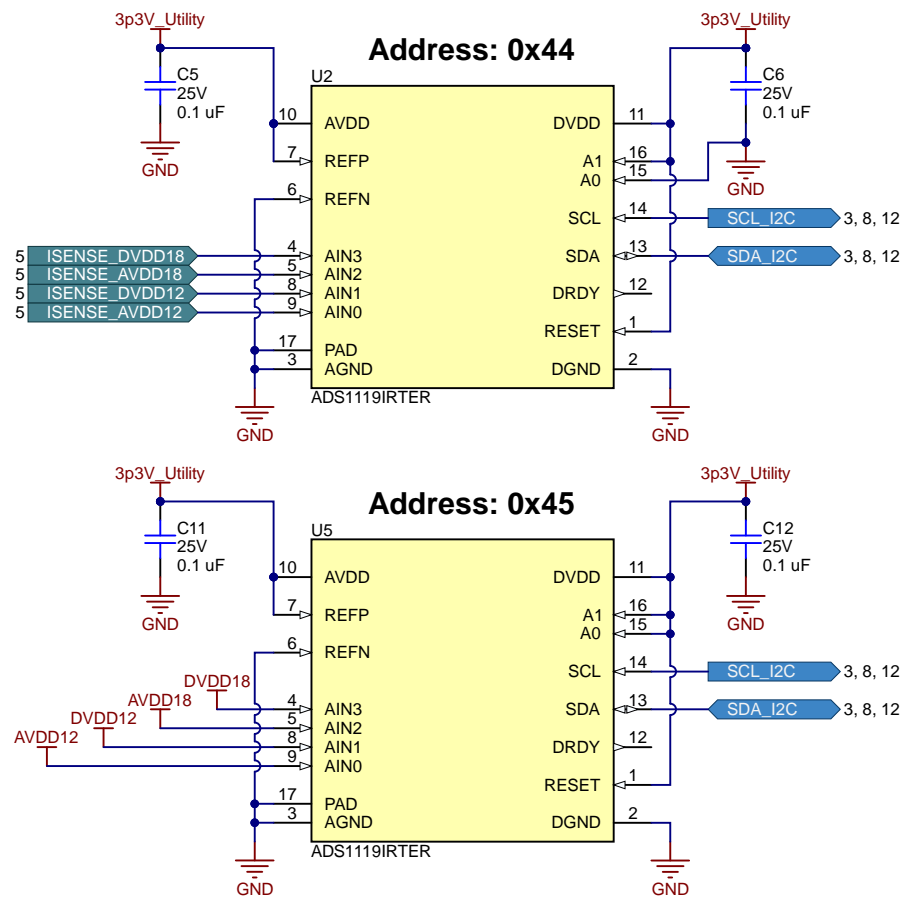
3.3V Utility Rail



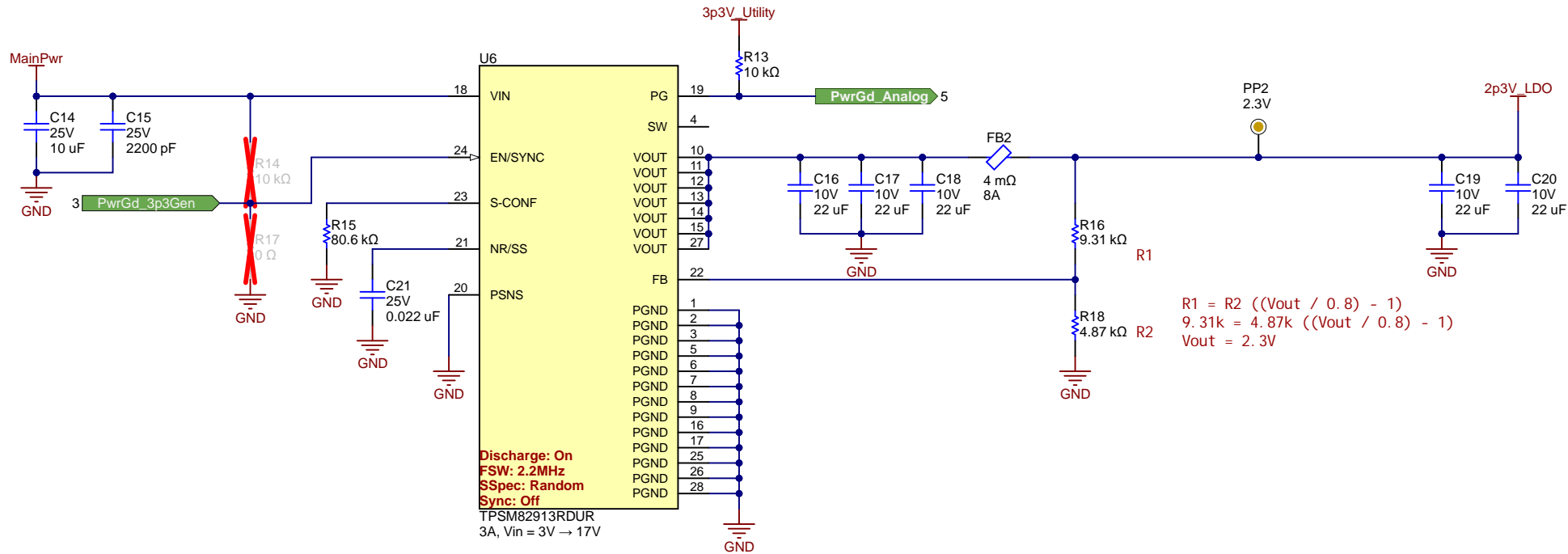
1.8V Utility Rail



Power Monitors



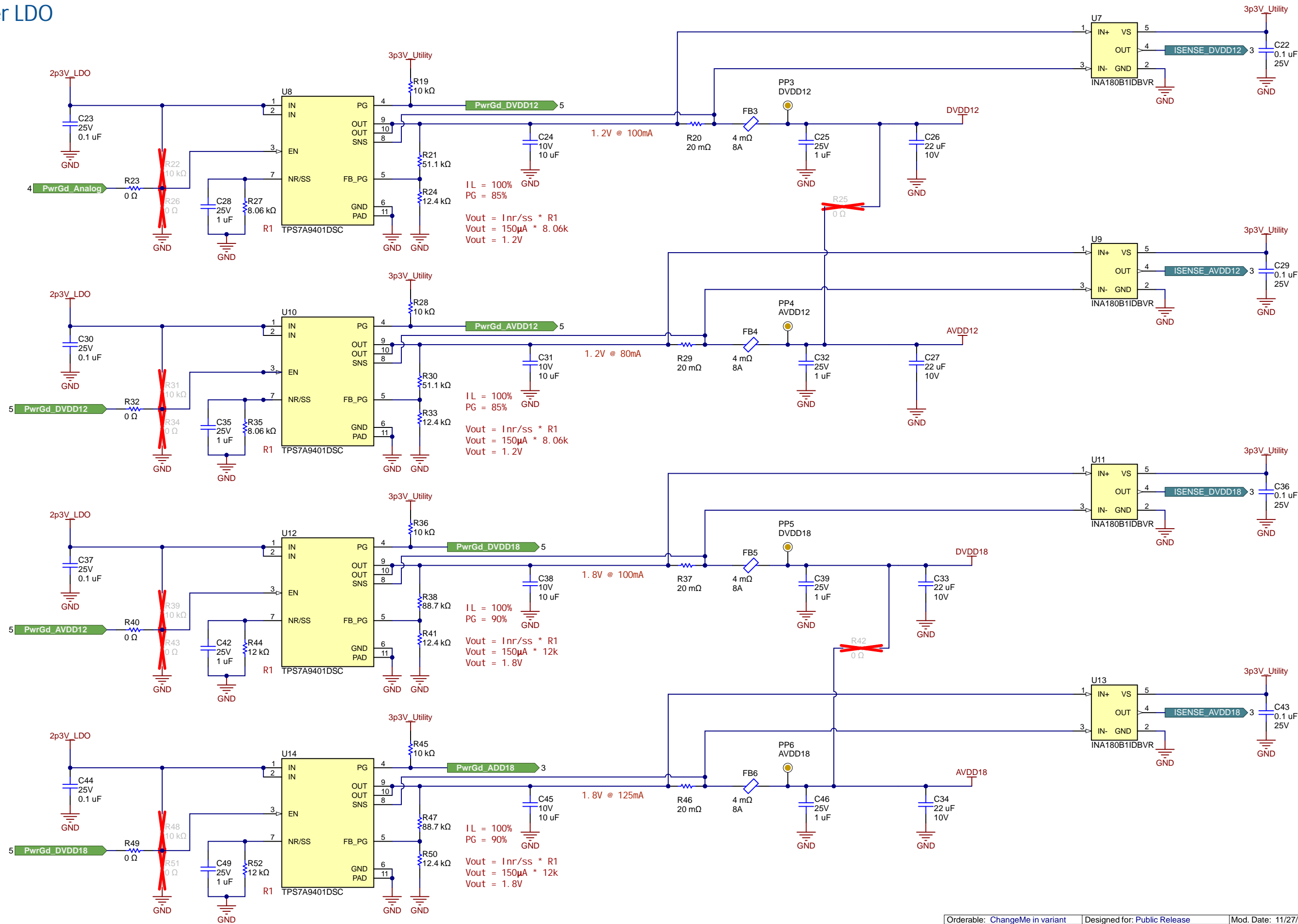
ADC Power DC-DC



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Number: DC276	Rev: C	Sheet: 4 of 14	
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Engineer: GBR		Contact: http://www.ti.com/support	

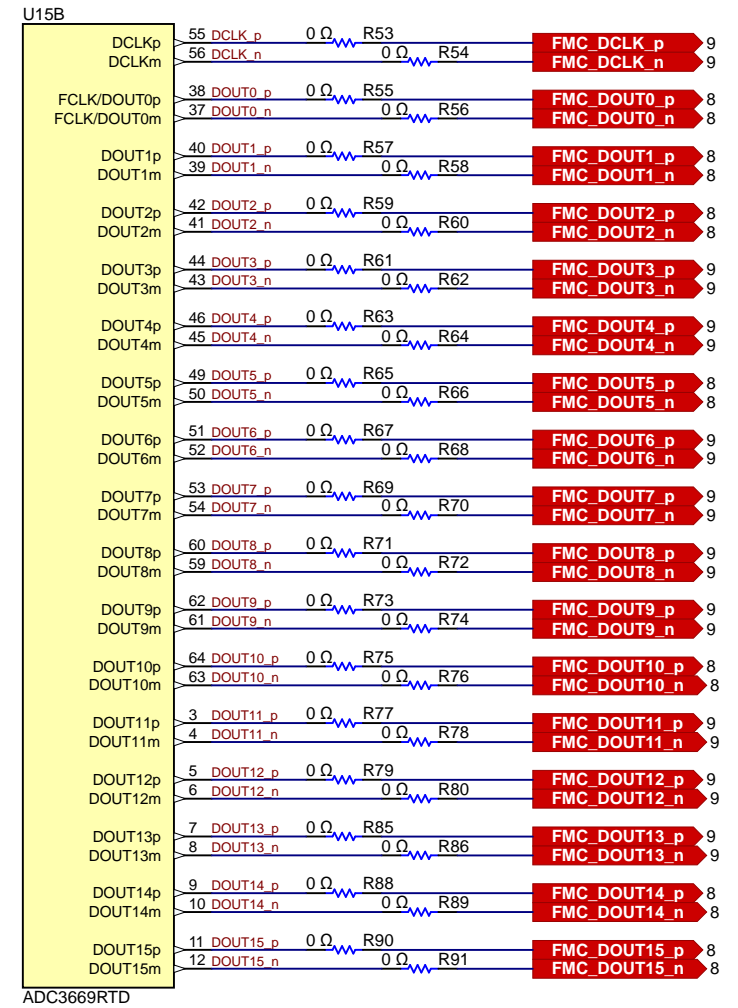
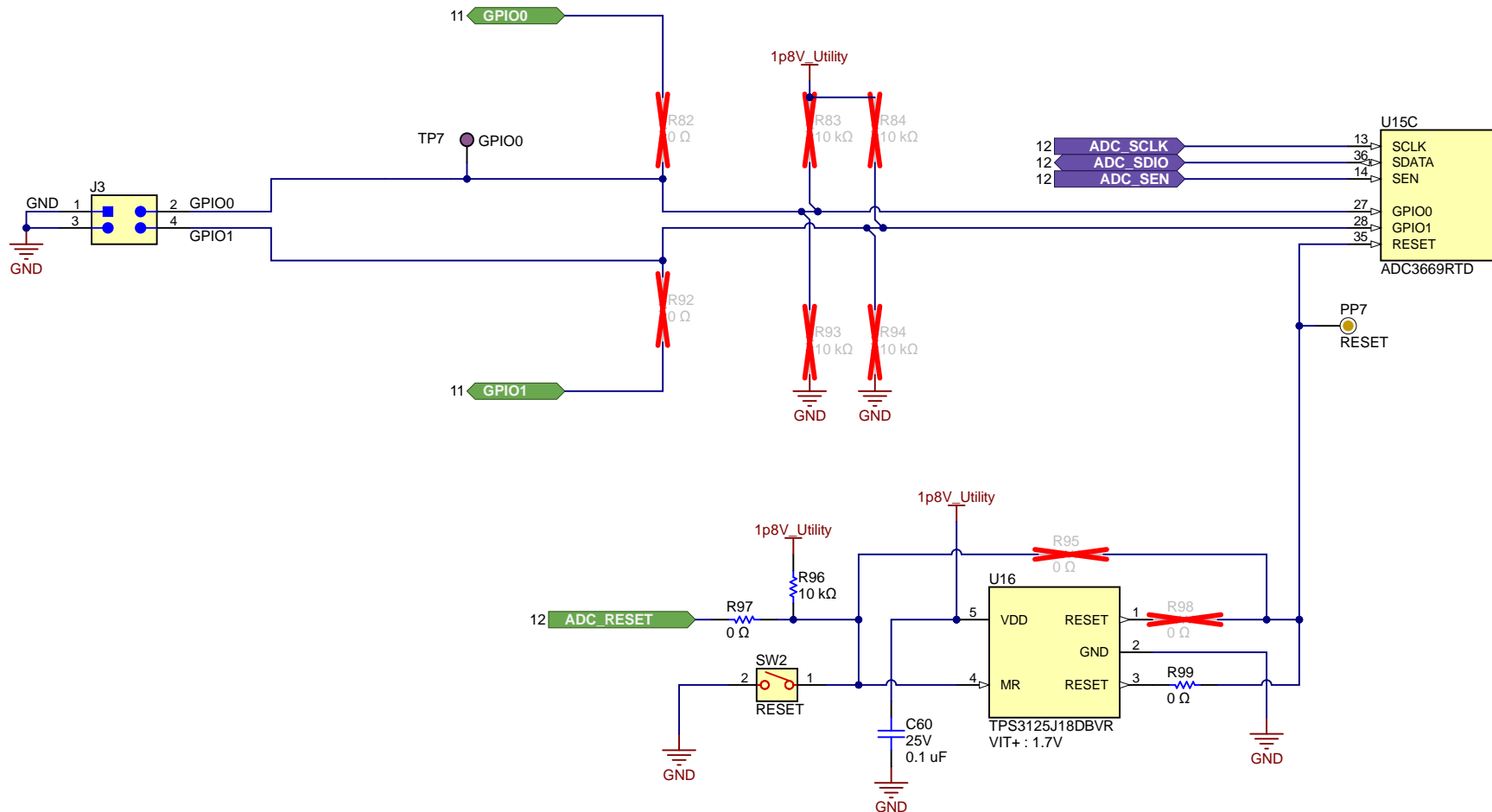
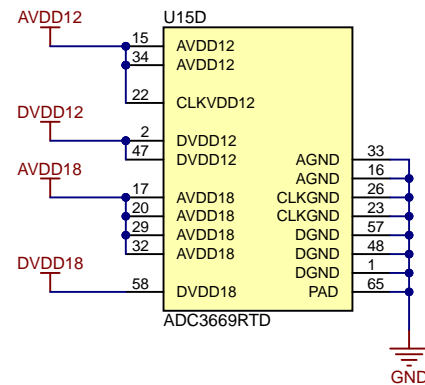
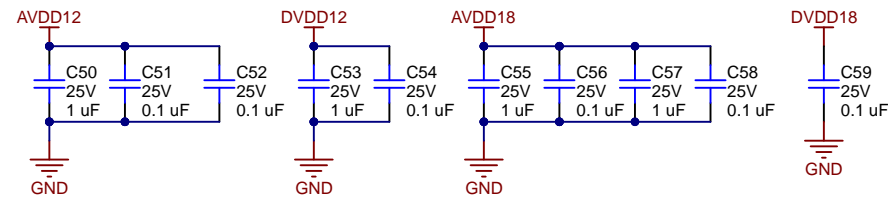
ADC Power LDO



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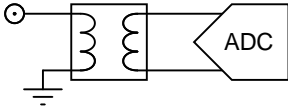
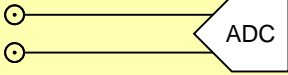
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Number: DC276	Rev: C	Sheet Title: ADC Power
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Drawn By:	File: ADC Power.SchDoc	Size: B
Engineer: GBR	Contact: http://www.ti.com/support	

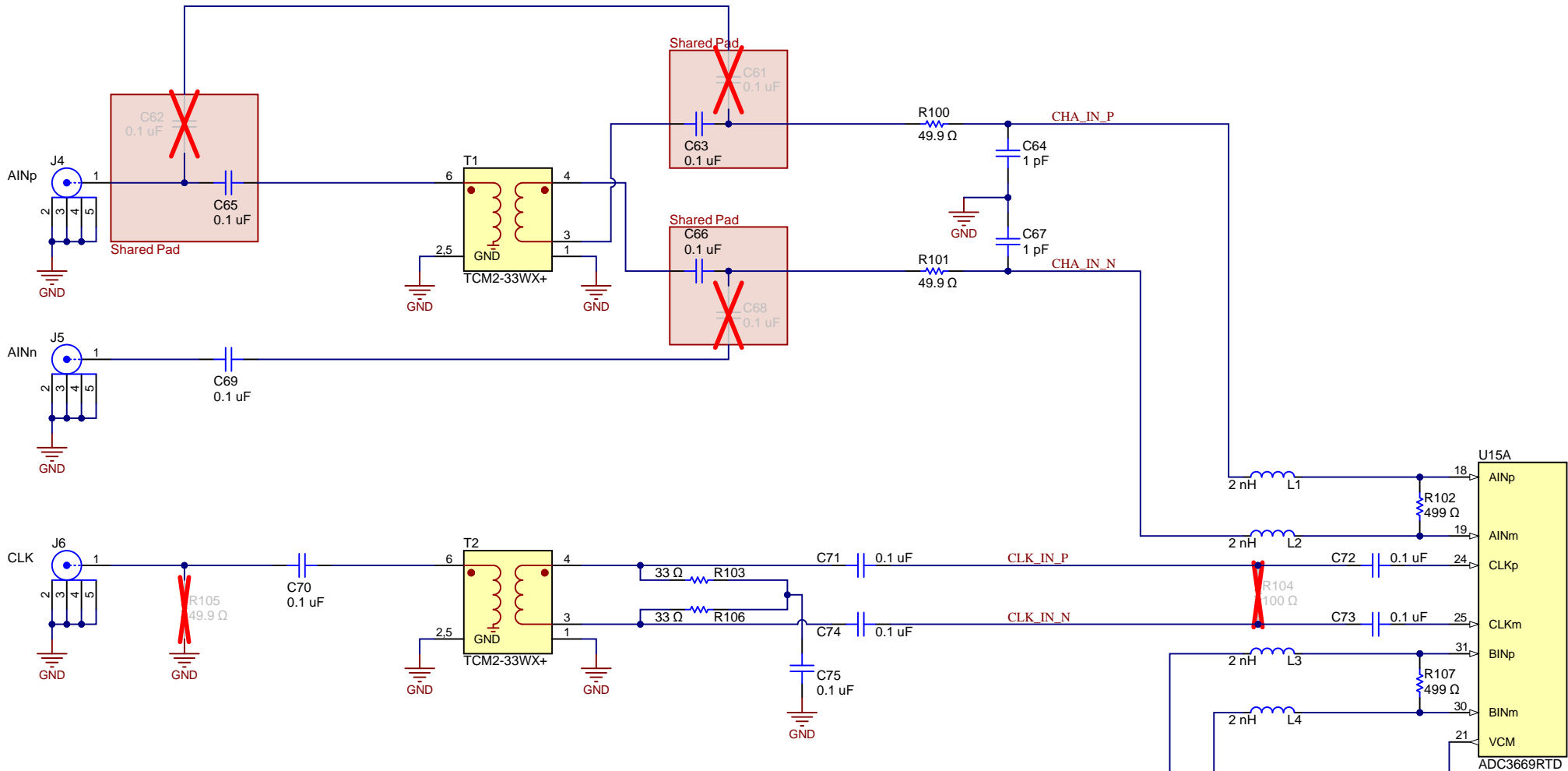
ADC IO



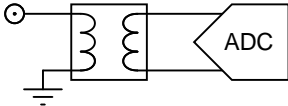
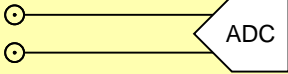
ADC Analog Input

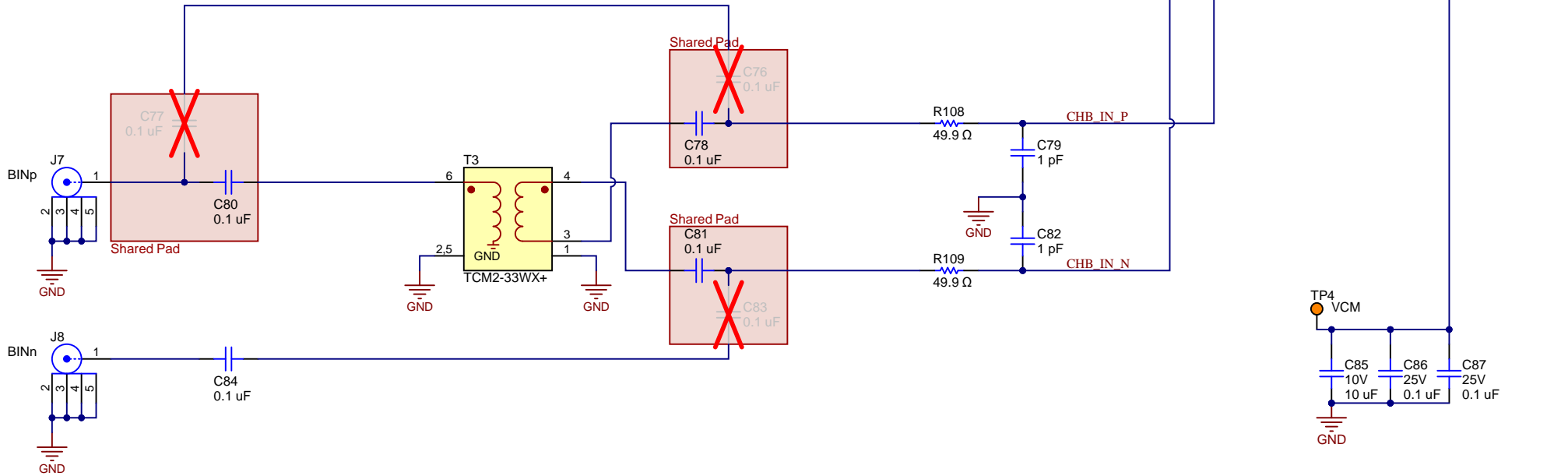
Channel A

Configuration	Visual	Install	Remove
Single to Diff Balun		C65, C63, C66	C62, C69, C68, C61
Differential		C62, C69, C68, C61	C65, C63, C66



Channel B

Configuration	Visual	Install	Remove
Single to Diff Balun		C80, C78, C81	C77, C84, C83, C76
Differential		C77, C84, C83, C76	C80, C78, C81



FMC Section Rows A - E

A

B

C

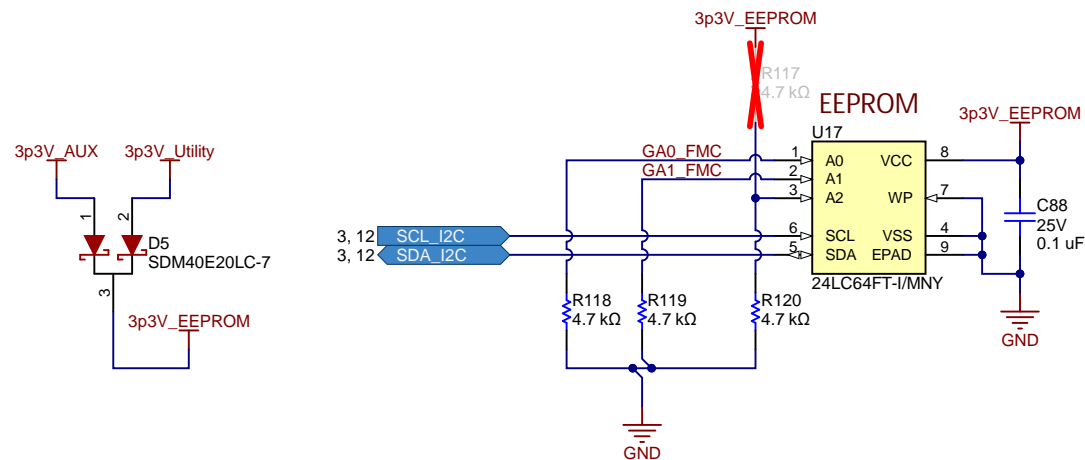
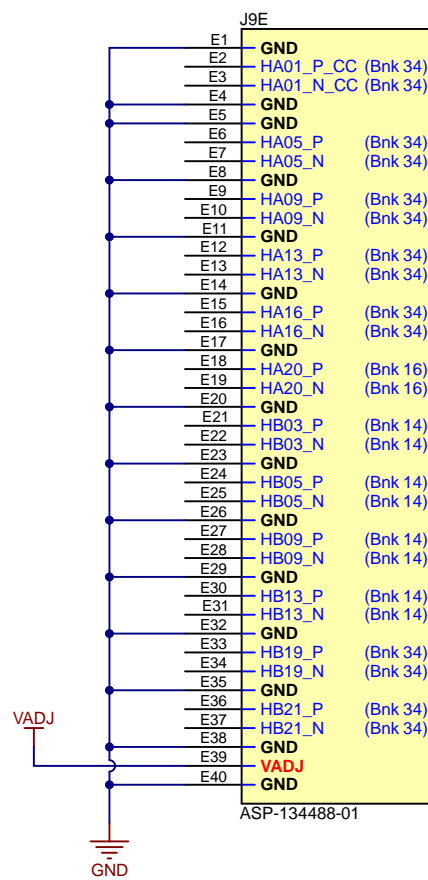
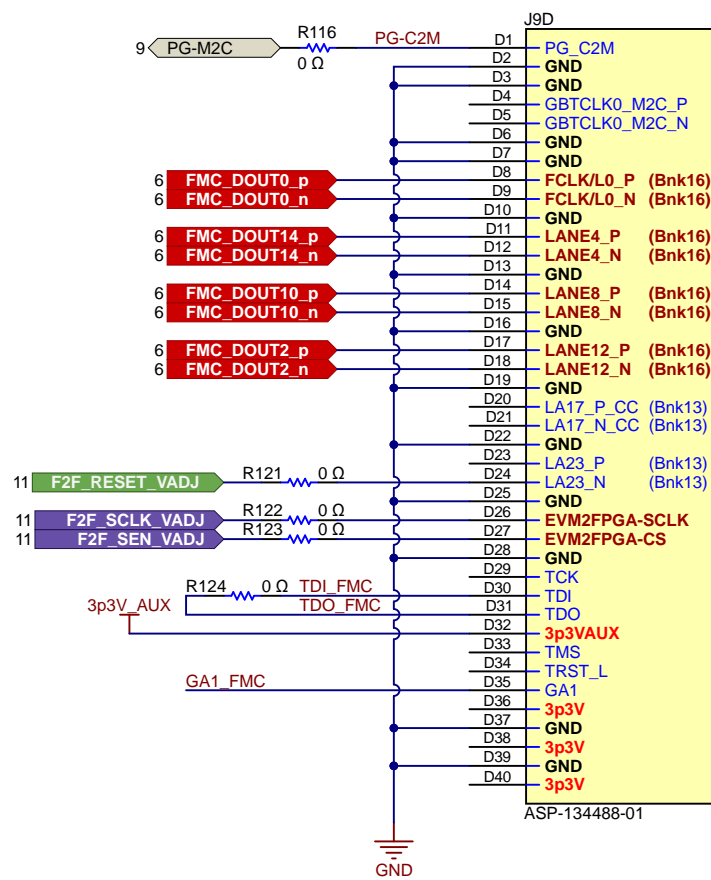
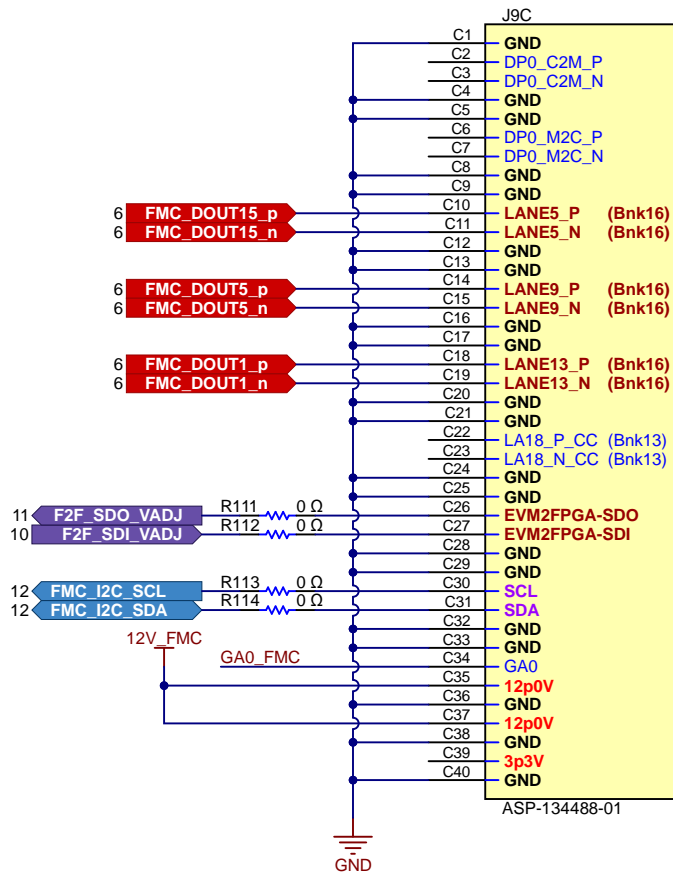
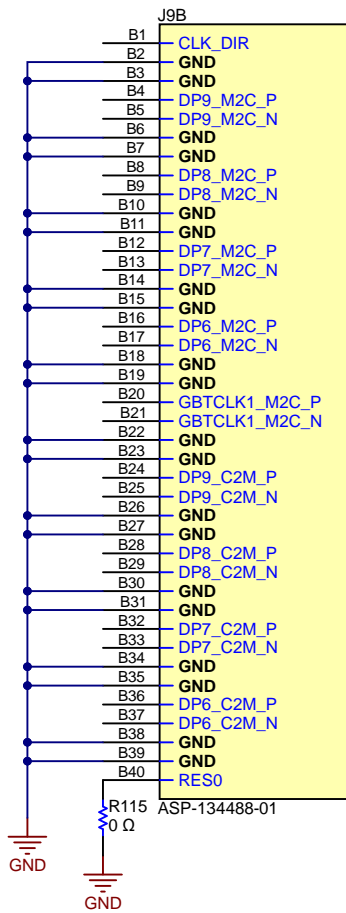
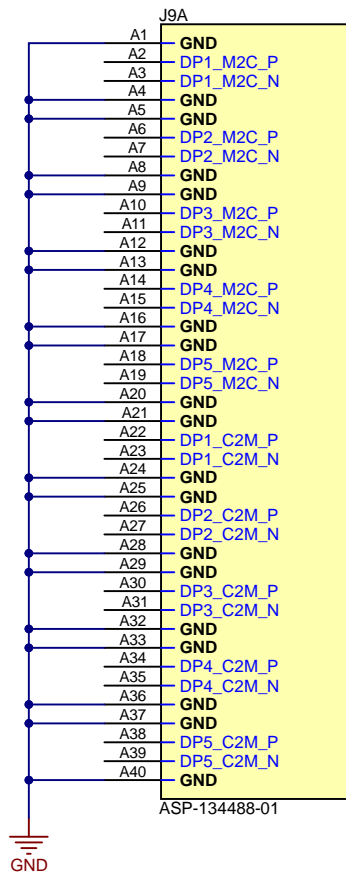
D

A

B

C

D



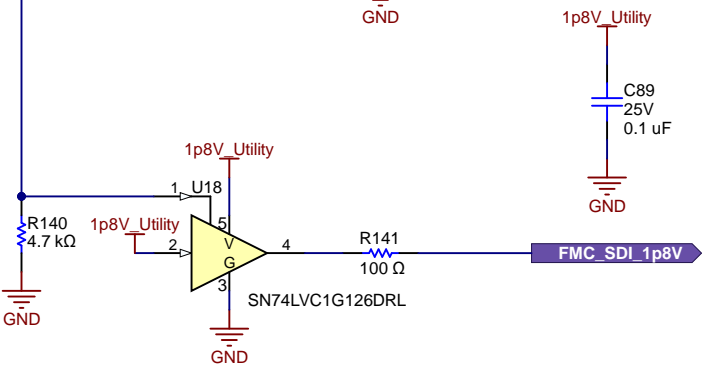
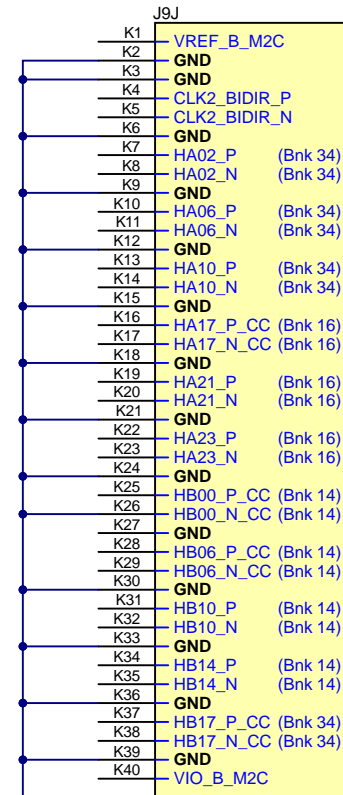
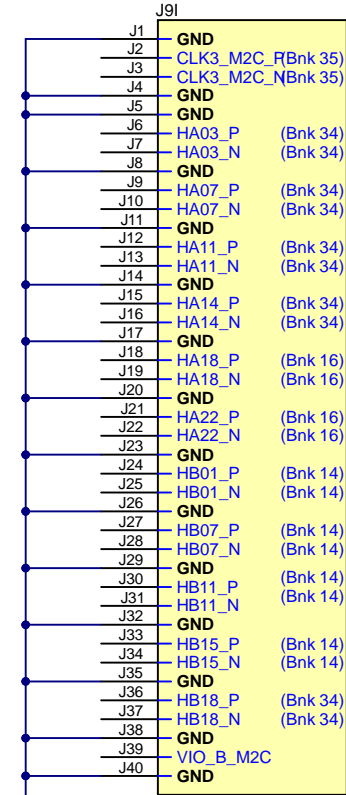
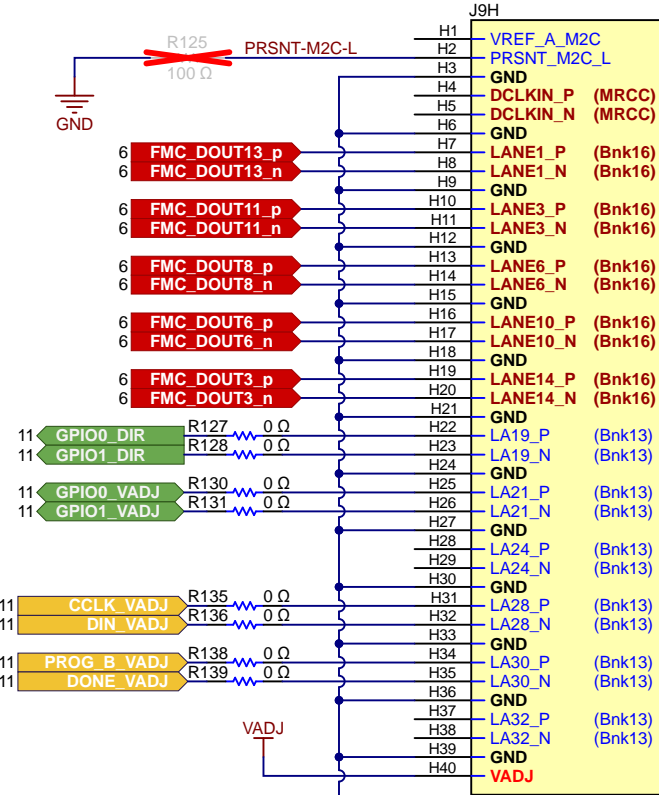
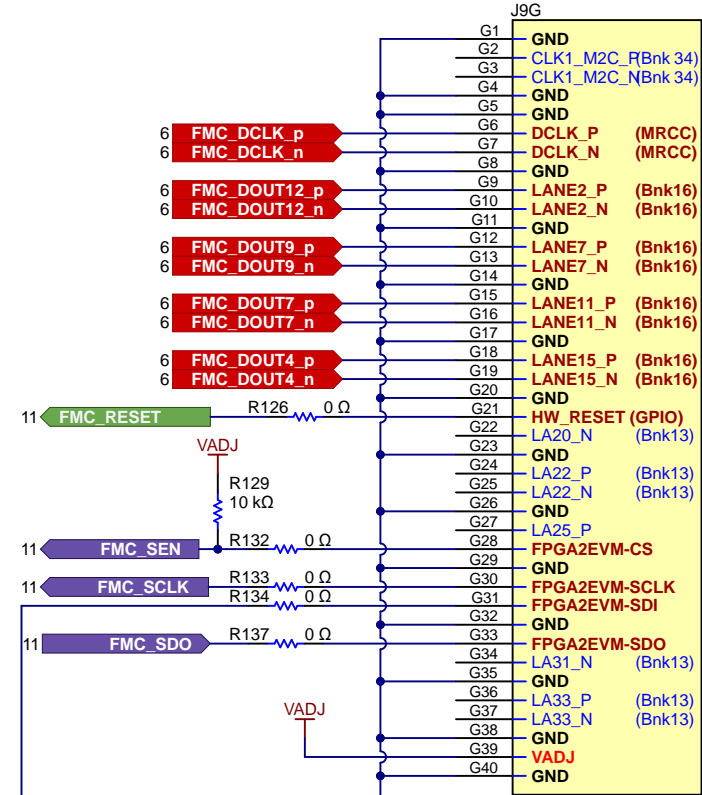
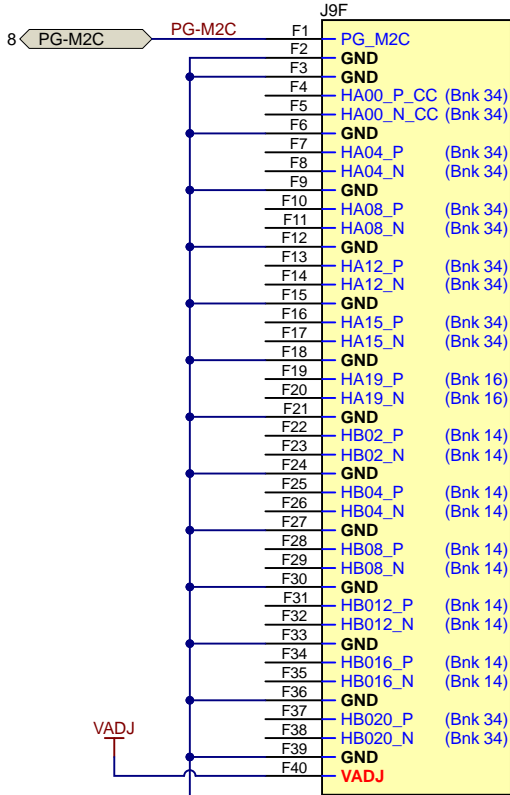
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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 11/27/2024
TID #: N/A	Project Title: ADC3669EVM	
Number: DC276	Rev: C	Sheet Title: FMC Section Rows A - E
SVN Rev:	Assembly Variant: 001	Sheet: 8 of 14
Drawn By:	File: FMC Sections 1-7 .SchDoc	Size: B
Engineer: GBR	Contact: http://www.ti.com/support	

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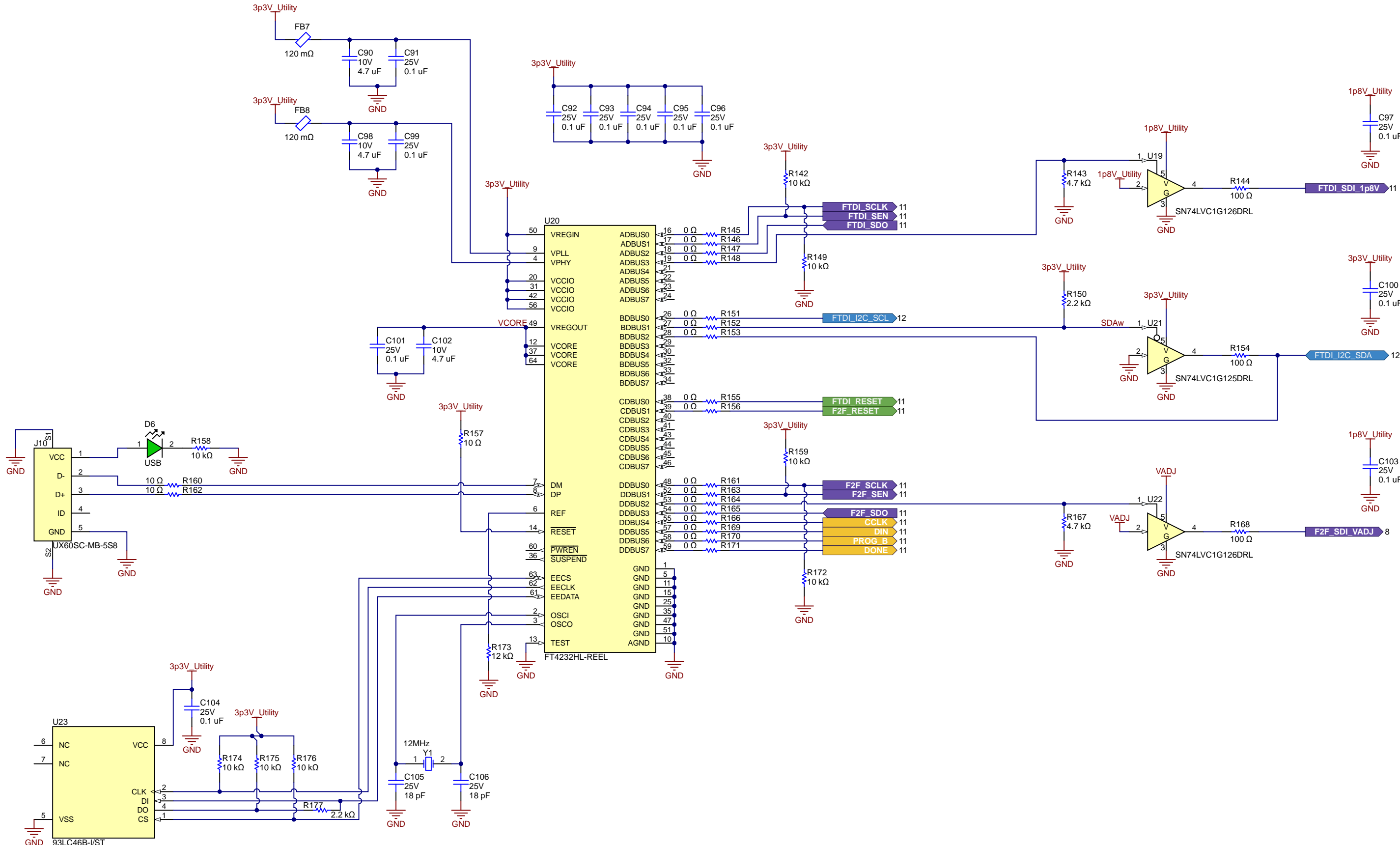
FMC Section Rows F - H, J, K



Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 11/27/2024
TID #: N/A	Project Title: ADC3669EVM	
Number: DC276	Rev: C	Sheet Title: FMC Section Rows F - H, J, K
SVN Rev:	Assembly Variant: 001	Sheet: 9 of 14
Drawn By:	File: FMC Sections 8-14.SchDoc	Size: B
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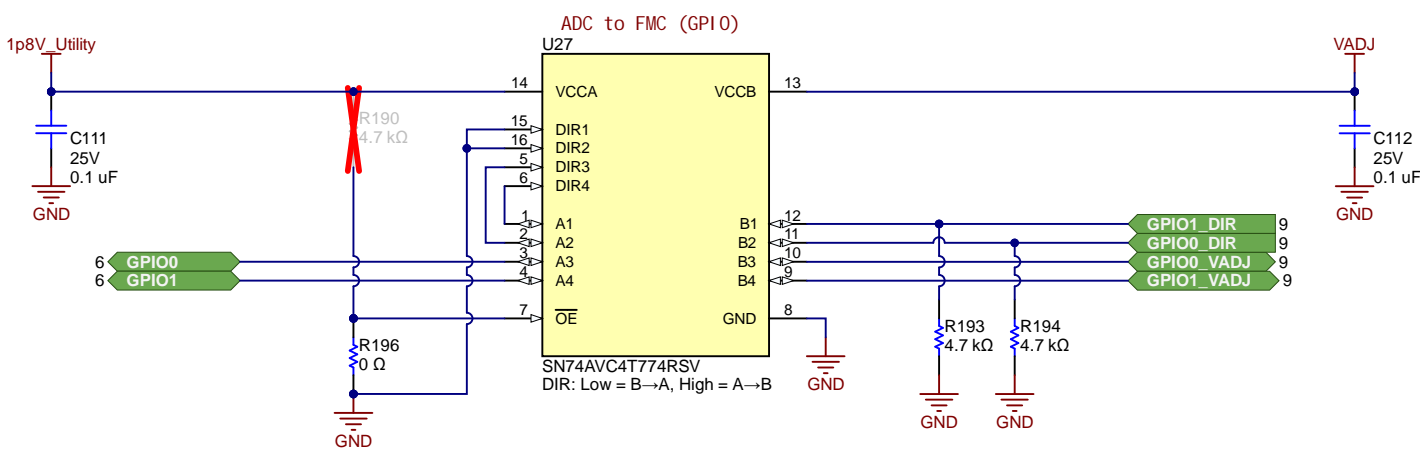
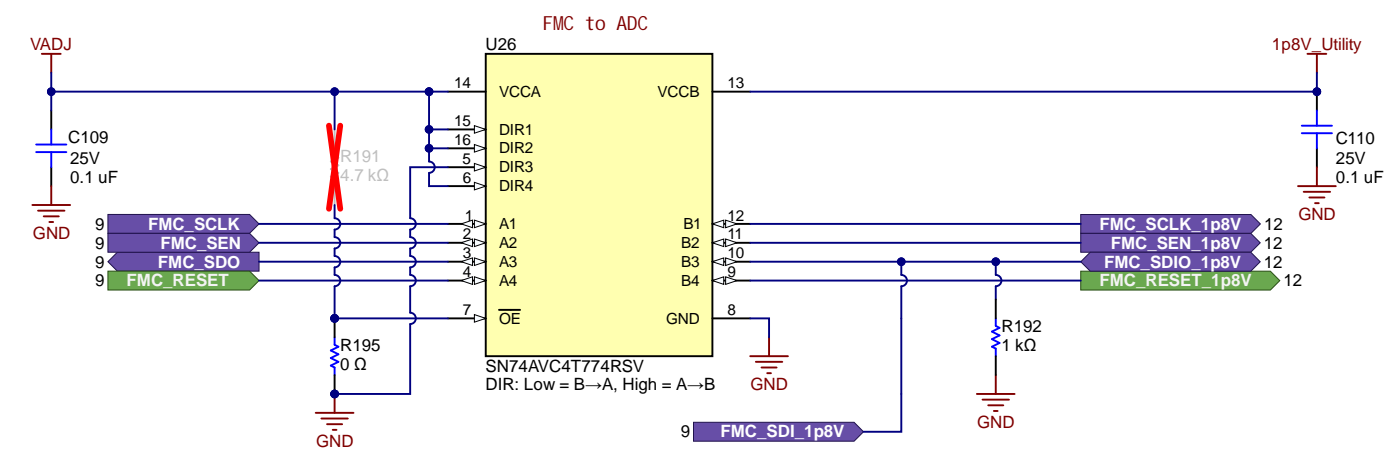
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FTDI USB

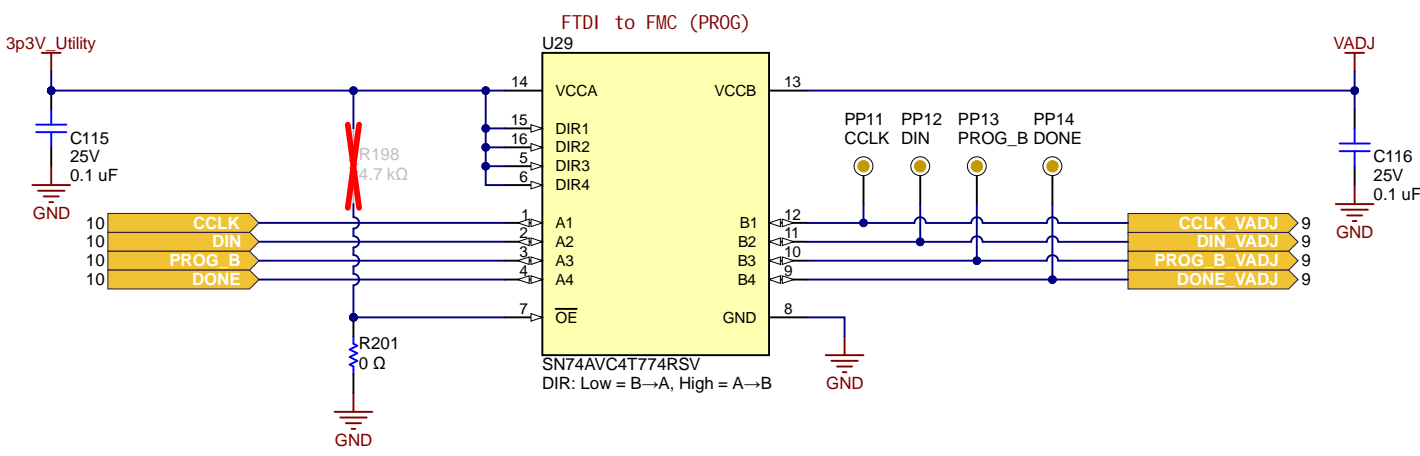
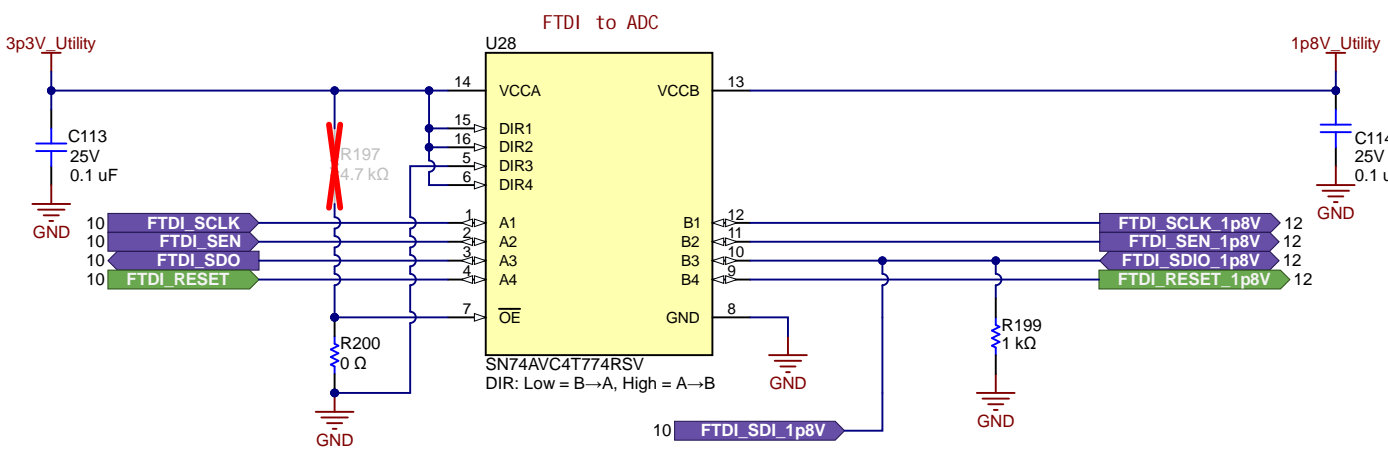


Communications Level Shift

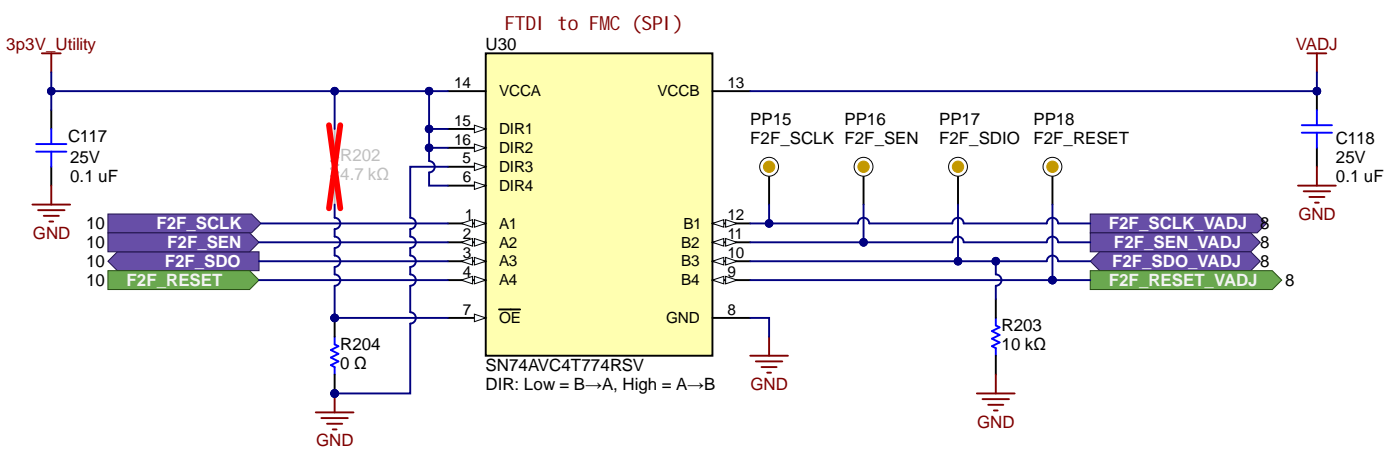
A



B



C



D

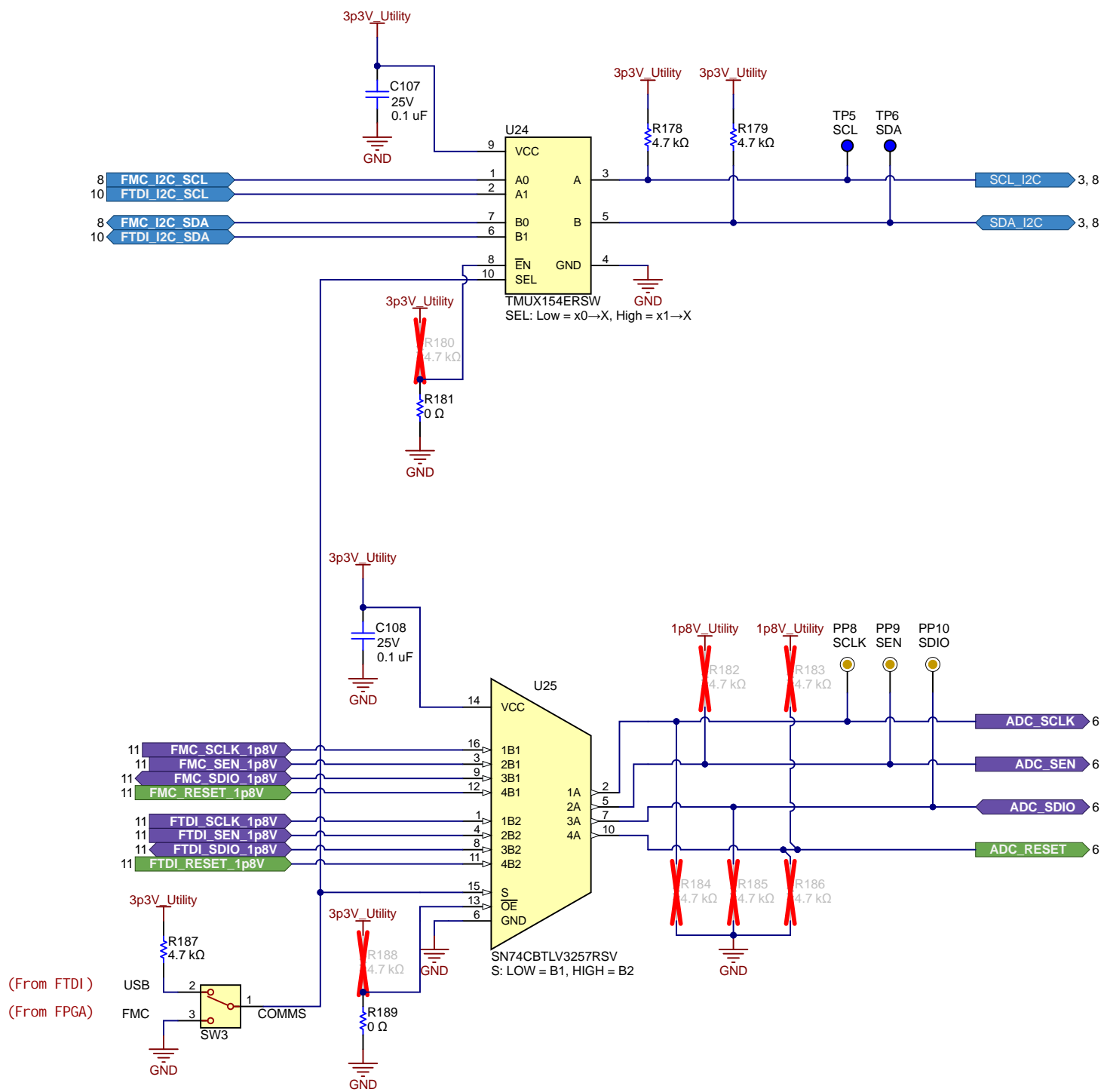
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Number: DC276	Rev: C	Sheet Title: Comms Level Shift.SchDoc
SVN Rev: d7ea3a715d4e2940924336520b6c07a18887	Sheet: 11 of 14	Size: B
Drawn By: GBR	File: Comms Level Shift.SchDoc	Contact: http://www.ti.com/support
Engineer: GBR		

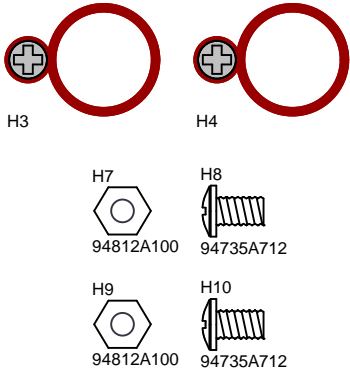
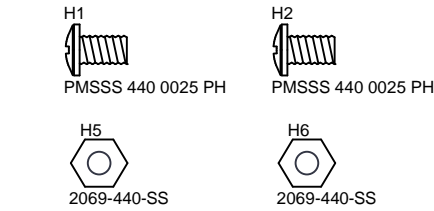
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I2C/SPI Mux



Mechanicals



PCB Number: DC276
PCB Rev: C



PCB
LOGO
FCC disclaimer



Size: 0.65"x0.20"
LBL1

PCB Label

THT-14-423-10

ZZ1
Label Assembly Note
This Assembly Note is for PCB labels only. Put sticker on top of board.

ZZ2
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

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TID #: N/A		Project Title: ADC3669EVM	
Number: DC276	Rev: C	Sheet Title: Mechanicals	
SVN Rev:		Assembly Variant: 001	Sheet: 13 of 14
Drawn By:		File: Hardware.SchDoc	Size: B
Engineer: GBR		Contact: http://www.ti.com/support	

Rev History & Variants

Revision History

Rev	Release Date	Notes
E1	Jan-2023	Initial Release
A	Oct-2023	Used for preproduction sampling
B	Aug-2024	Released at RTM for production evaluation

Variant(s)

Variant	Notes
001	Original DNI components Used for production build
002	