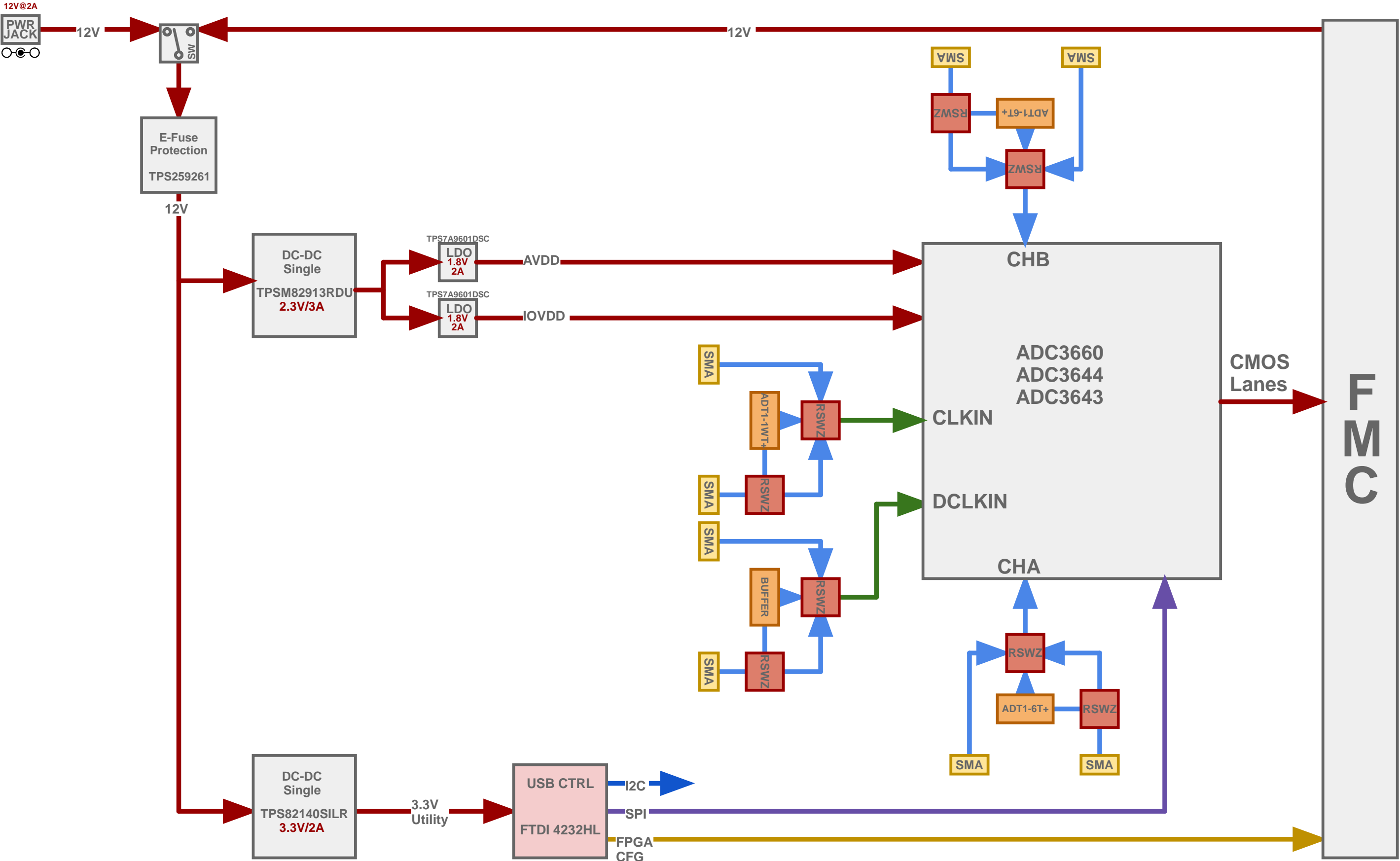


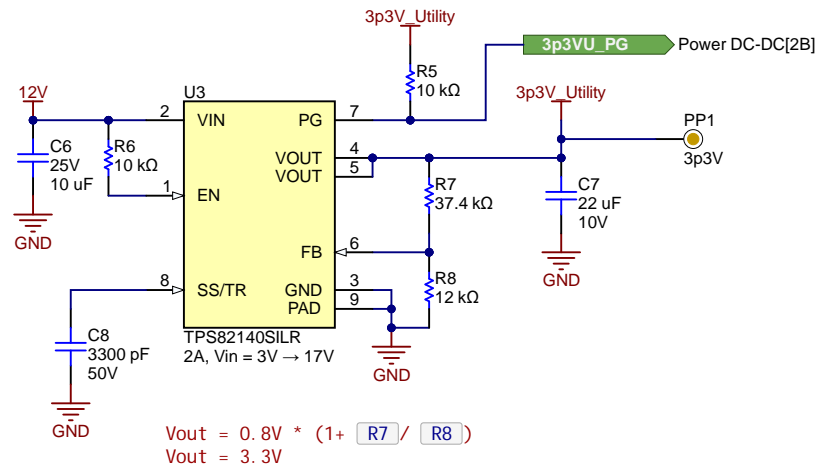
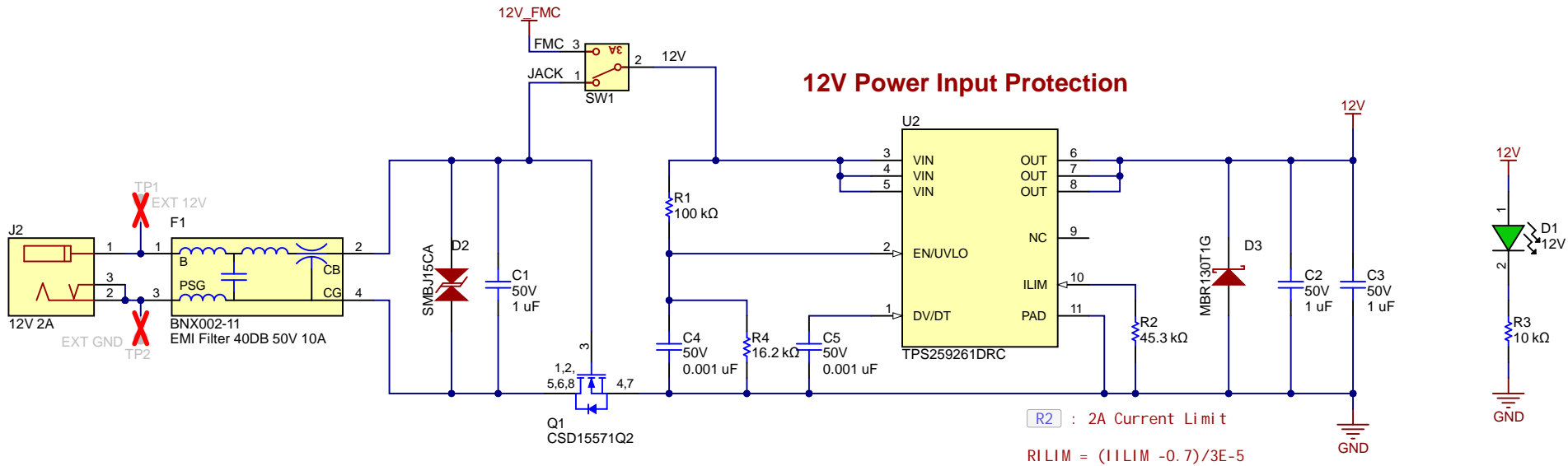
Block Diagram



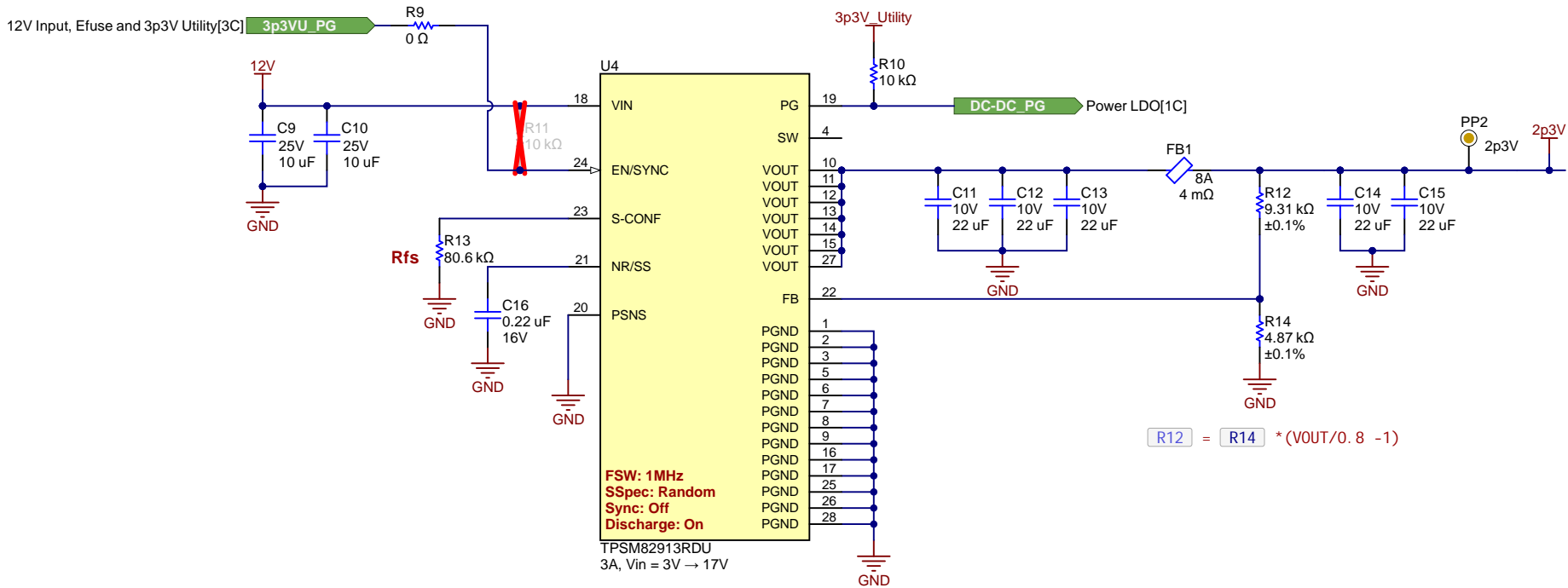
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TID #: <a href="#">N/A</a>	Project Title: <a href="#">ADC3644EVM</a>	
Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">Block Diagram</a>
SVN Rev: <a href="#">4d8f6644f88f576e517212000035654fdd63702 (ADC3643)</a>	Sheet: <a href="#">1</a> of <a href="#">15</a>	
Drawn By: <a href="#">GBR</a>	File: <a href="#">Block Diagram.SchDoc</a>	Size: <a href="#">B</a>
Engineer: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	

12V Input & 3.3V Utility



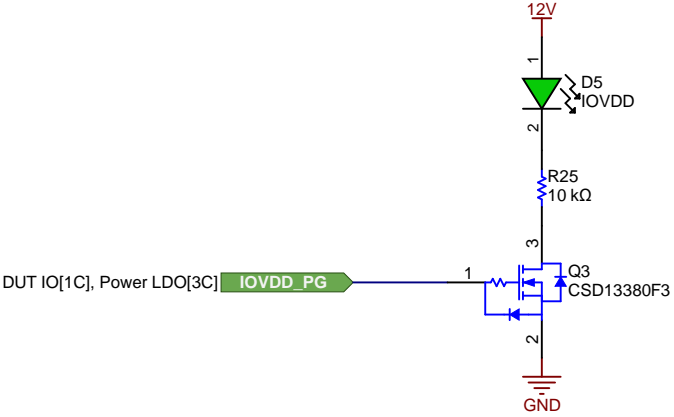
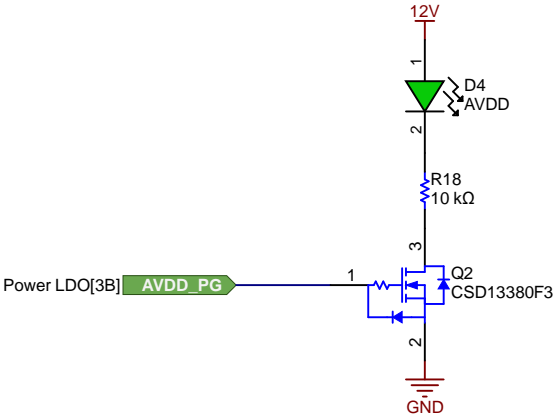
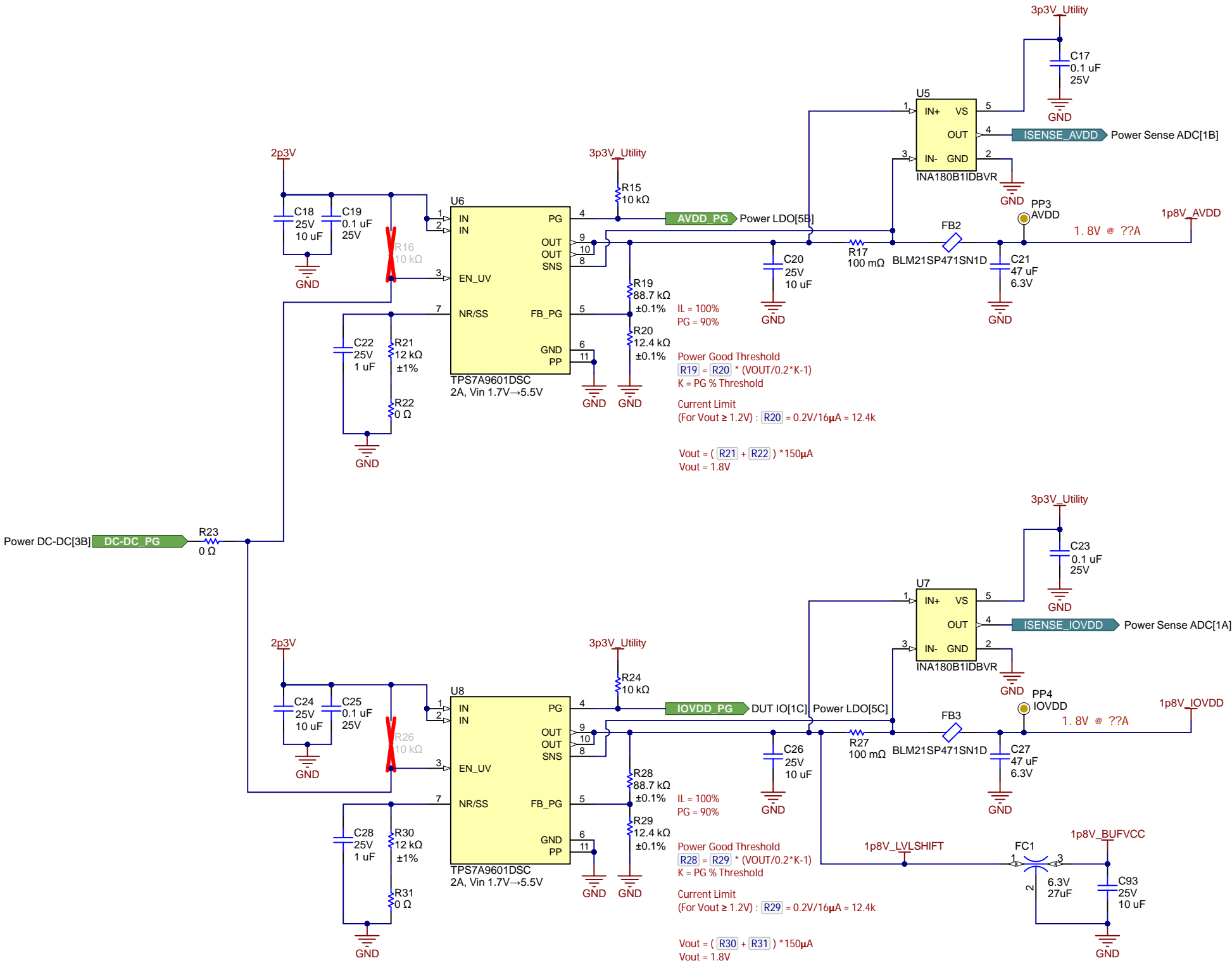
DC/DC regulator



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Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">DC/DC regulator</a>
SVN Rev: <a href="#">c5e7066f3c60874fd8f4c346880f30e5d5a902</a>	<a href="#">ADC3643</a>	Sheet: 3 of 15
Drawn By: <a href="#">GBR</a>	File: <a href="#">Power DC-DC.SchDoc</a>	Size: B
Engineer: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	

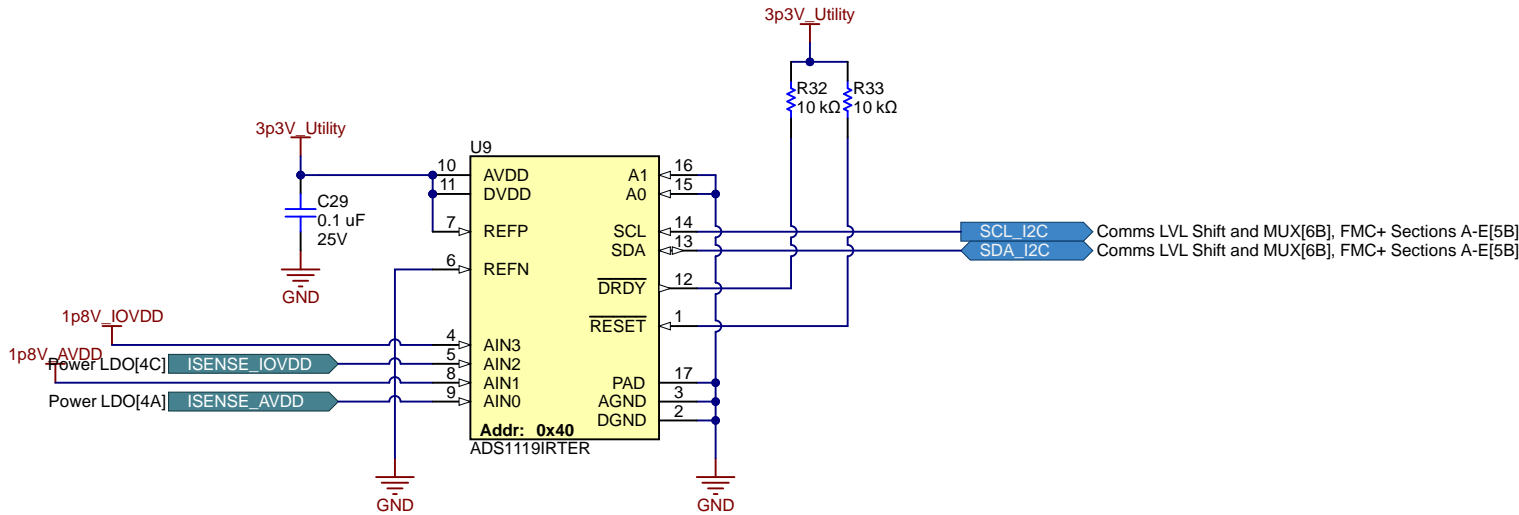
LDOs



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Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 8/27/2025
TID #: <a href="#">N/A</a>	Project Title: <a href="#">ADC3644EVM</a>	
Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">LDOs</a>
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Drawn By: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	

Sense ADC

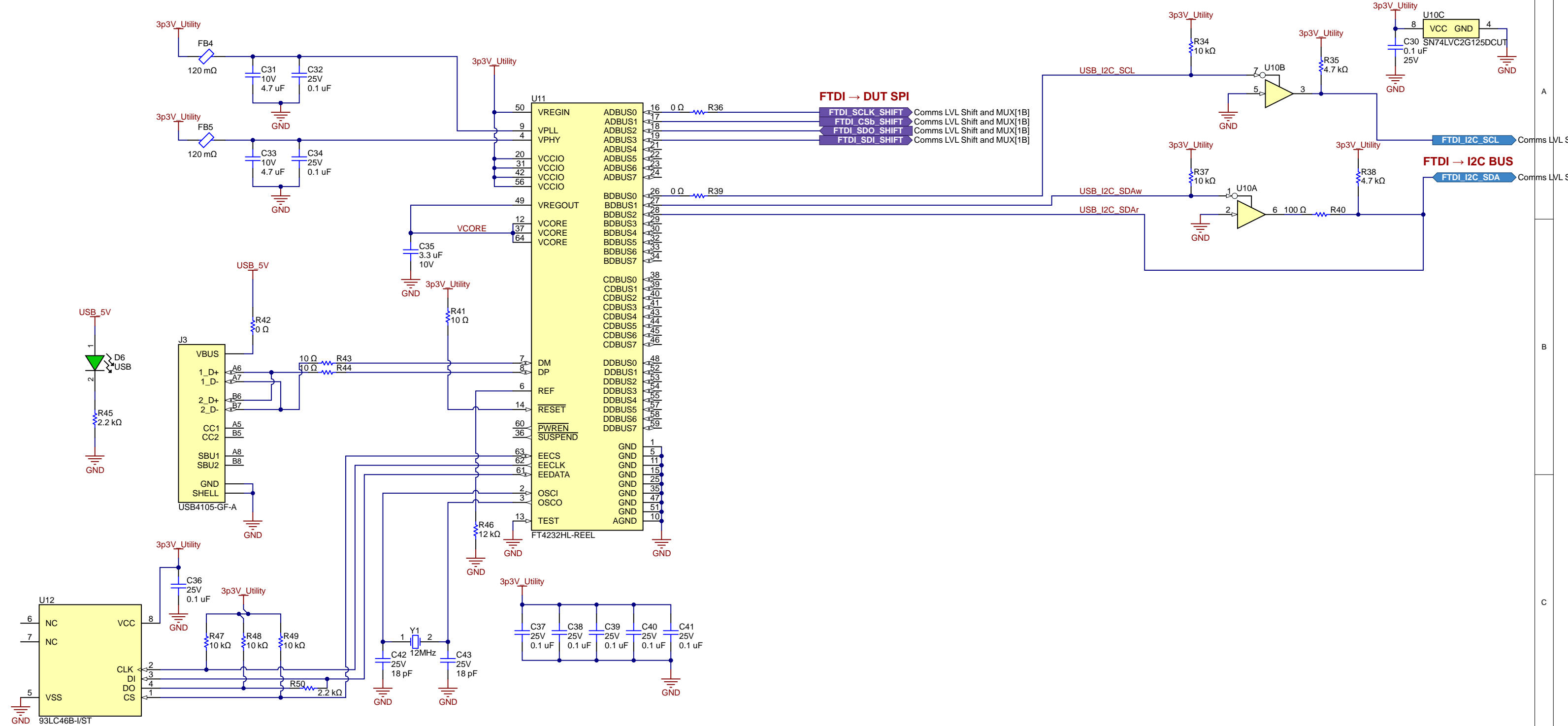


ADS1119RTE Addresses		
A0	A1	Addr
GND	GND	0x40
GND	DVDD	0x41
GND	SDA	0x42
GND	SCL	0x43
DVDD	GND	0x44
DVDD	DVDD	0x45
DVDD	SDA	0x46
DVDD	SCL	0x47
SDA	GND	0x48
SDA	DVDD	0x49
SDA	SDA	0x4A
SDA	SCL	0x4B
SCL	GND	0x4C
SCL	DVDD	0x4D
SCL	SDA	0x4E
SCL	SCL	0x4F

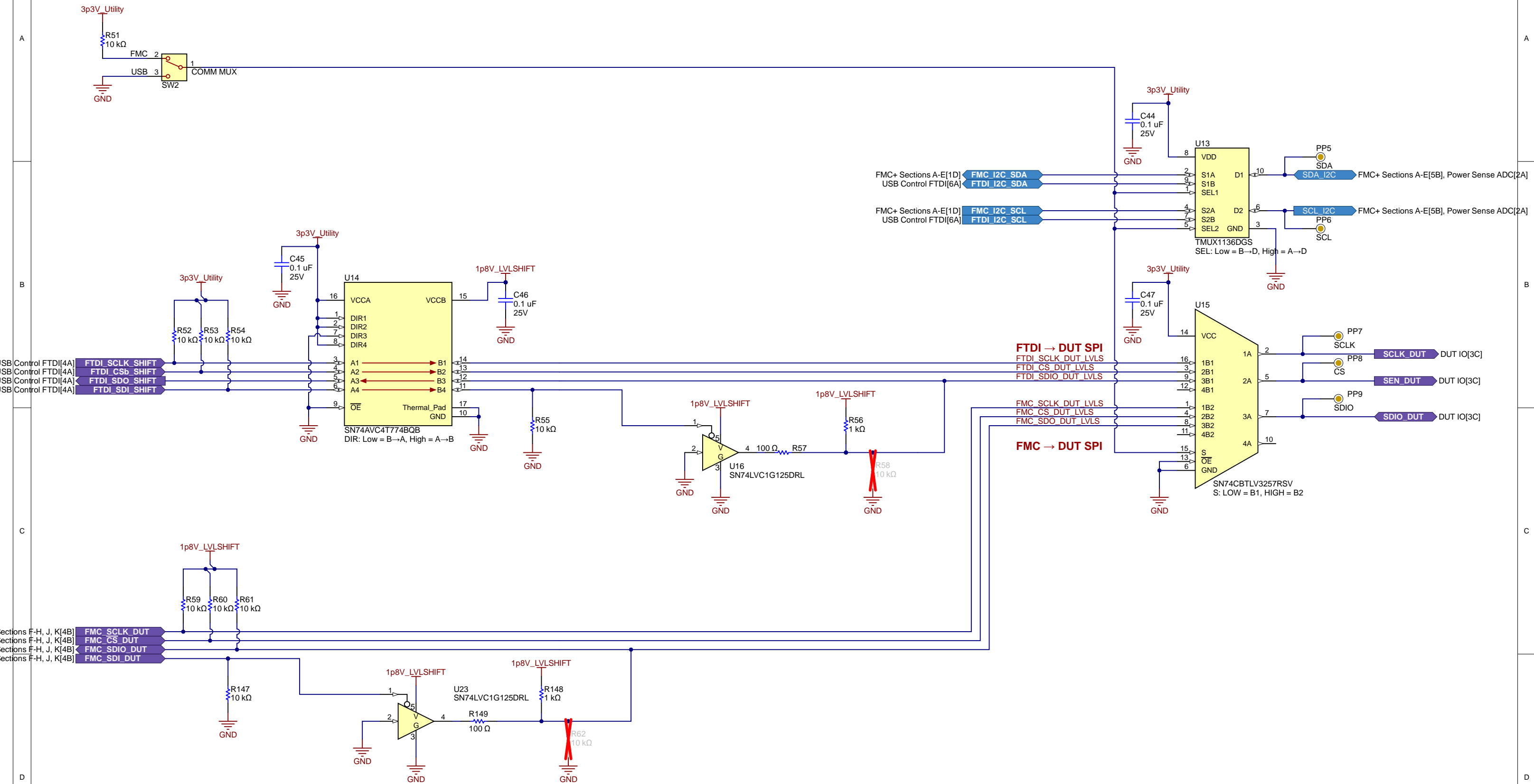
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Drawn By: <a href="#">GBR</a>	File: <a href="#">Power Sense ADC.SchDoc</a>		Size: B
Engineer: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>		

FTDI Control



## Comms Lvl Shift & Mux



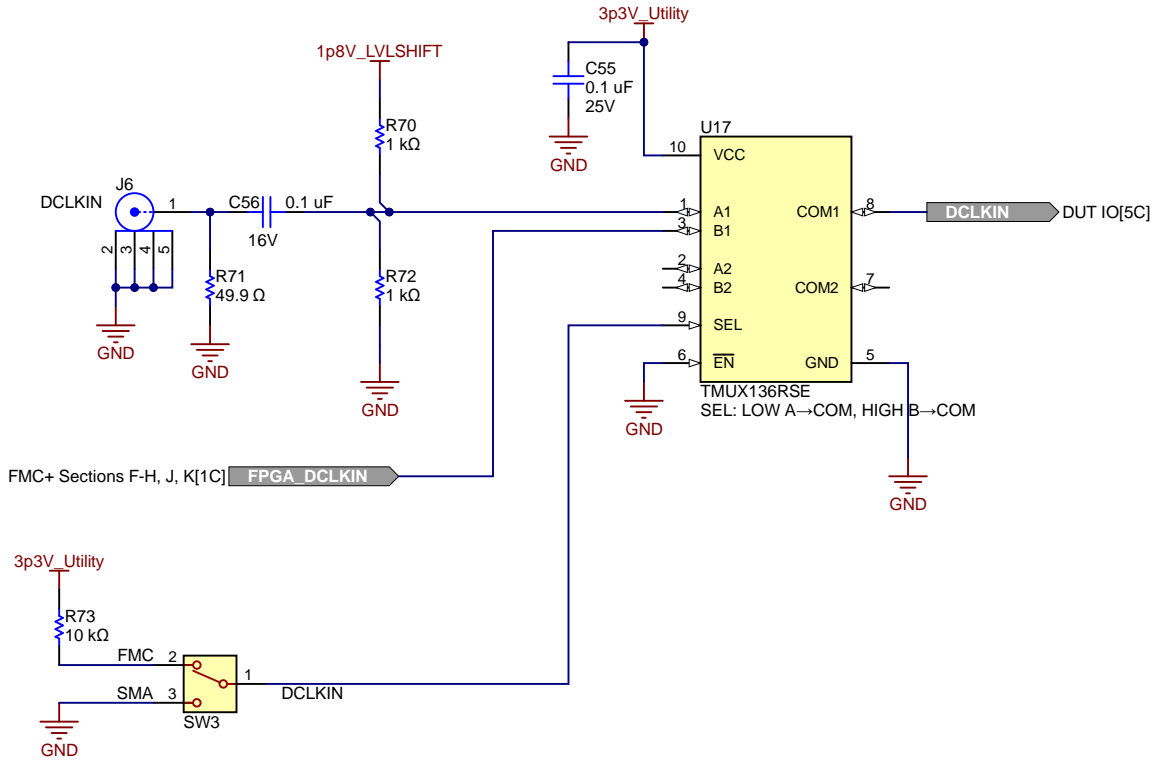
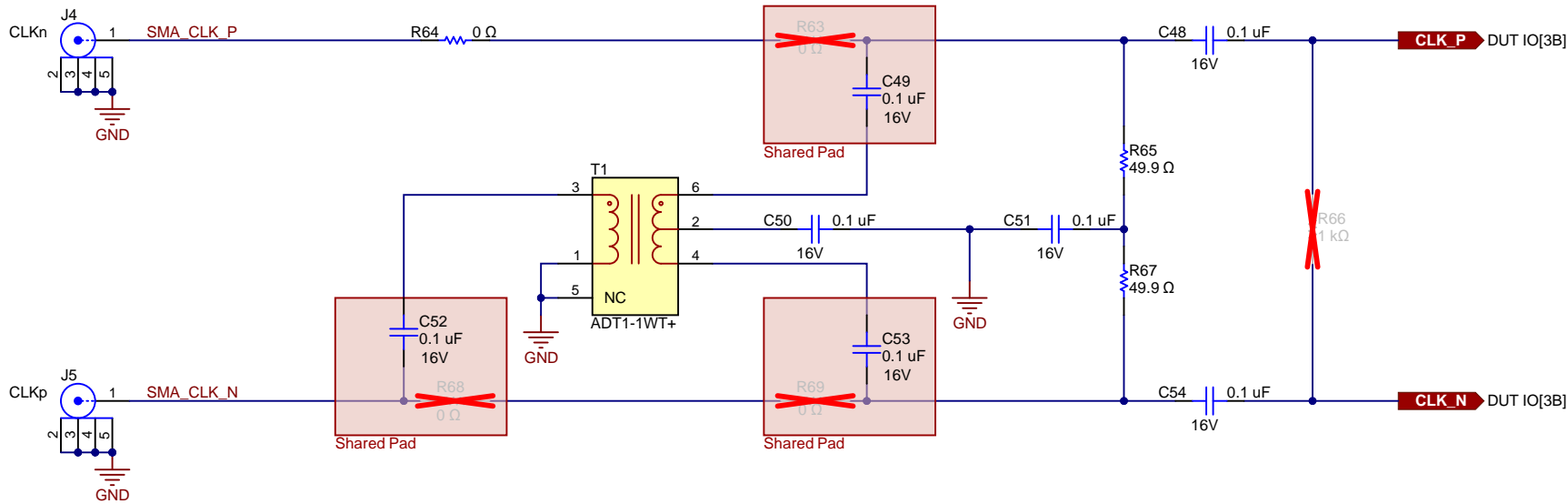
Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 8/27/2025	 <b>TEXAS INSTRUMENTS</b>  <a href="http://www.ti.com">http://www.ti.com</a> © Texas Instruments 2025
TID #: <a href="#">N/A</a>	Project Title: <a href="#">ADC3644EVM</a>		
Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">Comms Lvl Shift &amp; Mux</a>	
SVN Rev: <a href="#">d3304445b3f3aafcd159533241454965f5102</a>		Sheet: <a href="#">7</a> of <a href="#">15</a>	
Drawn By:	File: <a href="#">Comms LVL Shift and MUX.SchDoc</a>	Size: B	
Engineer: <a href="#">GBR</a>	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>		

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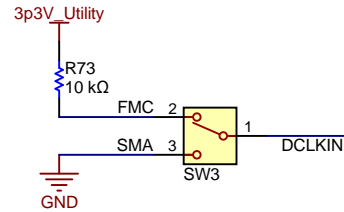
CLK & DCLKIN

CLK

DCLKIN



FMC+ Sections F-H, J, K[1C] FPGA\_DCLKIN



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SVN Rev: <a href="#">e63b644e523db21c21145286615492701e5692</a>	<a href="#">ADC3643</a>	Sheet: 8 of 15
Drawn By: <a href="#">GBR</a>	File: <a href="#">CLK and DCLKIN.SchDoc</a>	Size: B
Engineer: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	

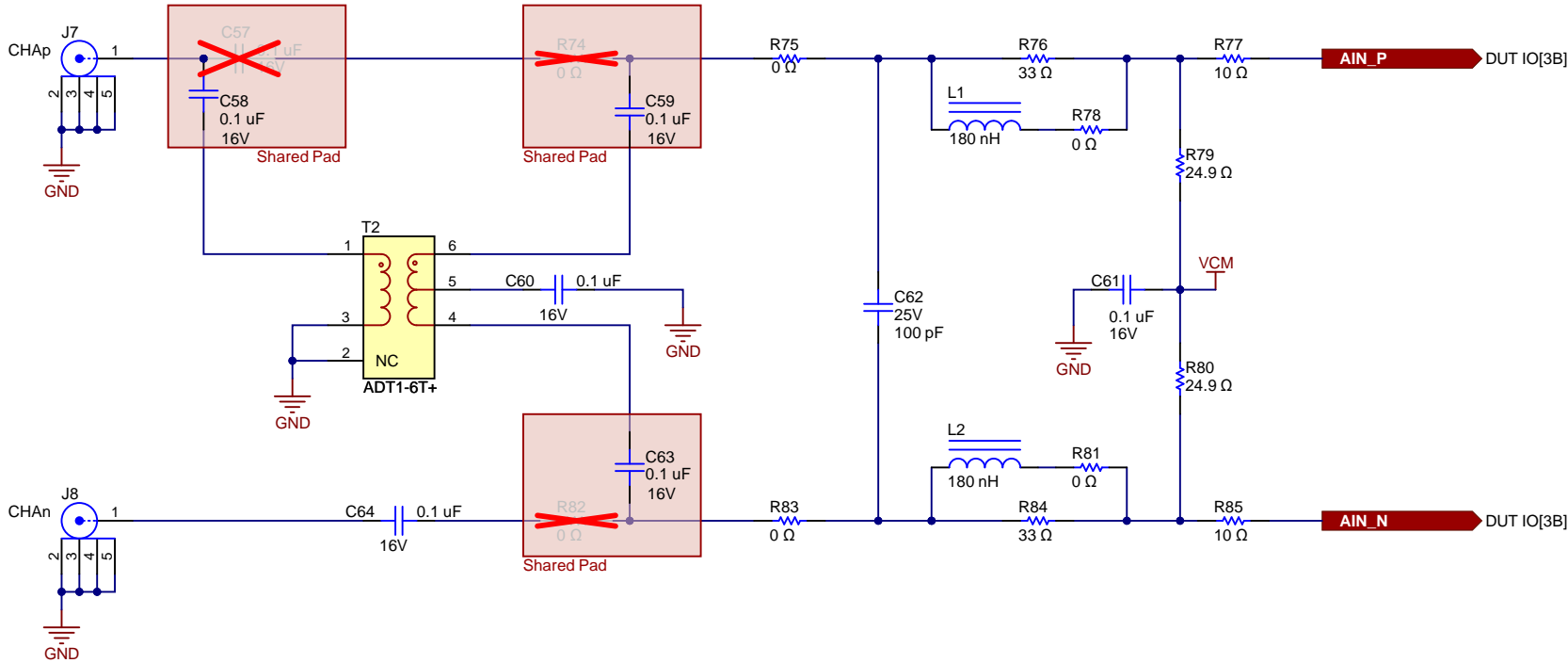


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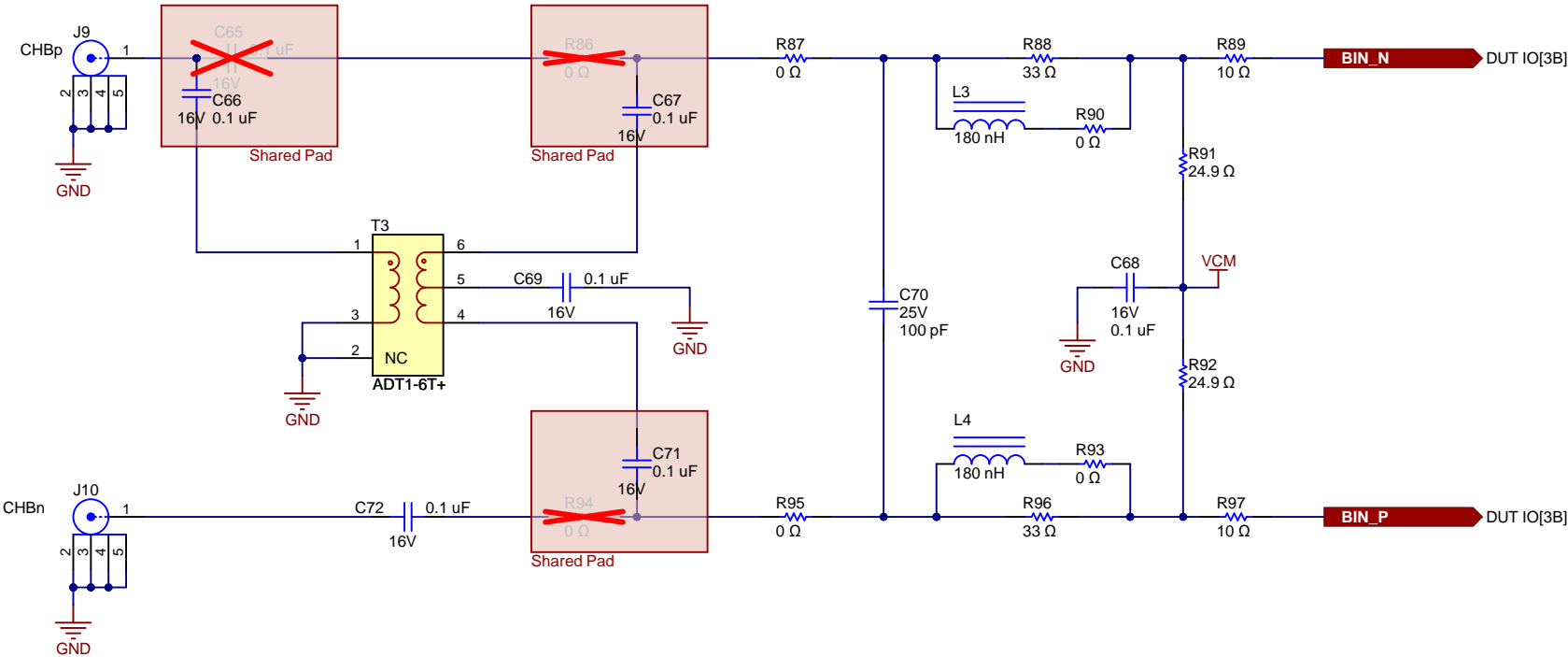


ADC Inputs

CH A



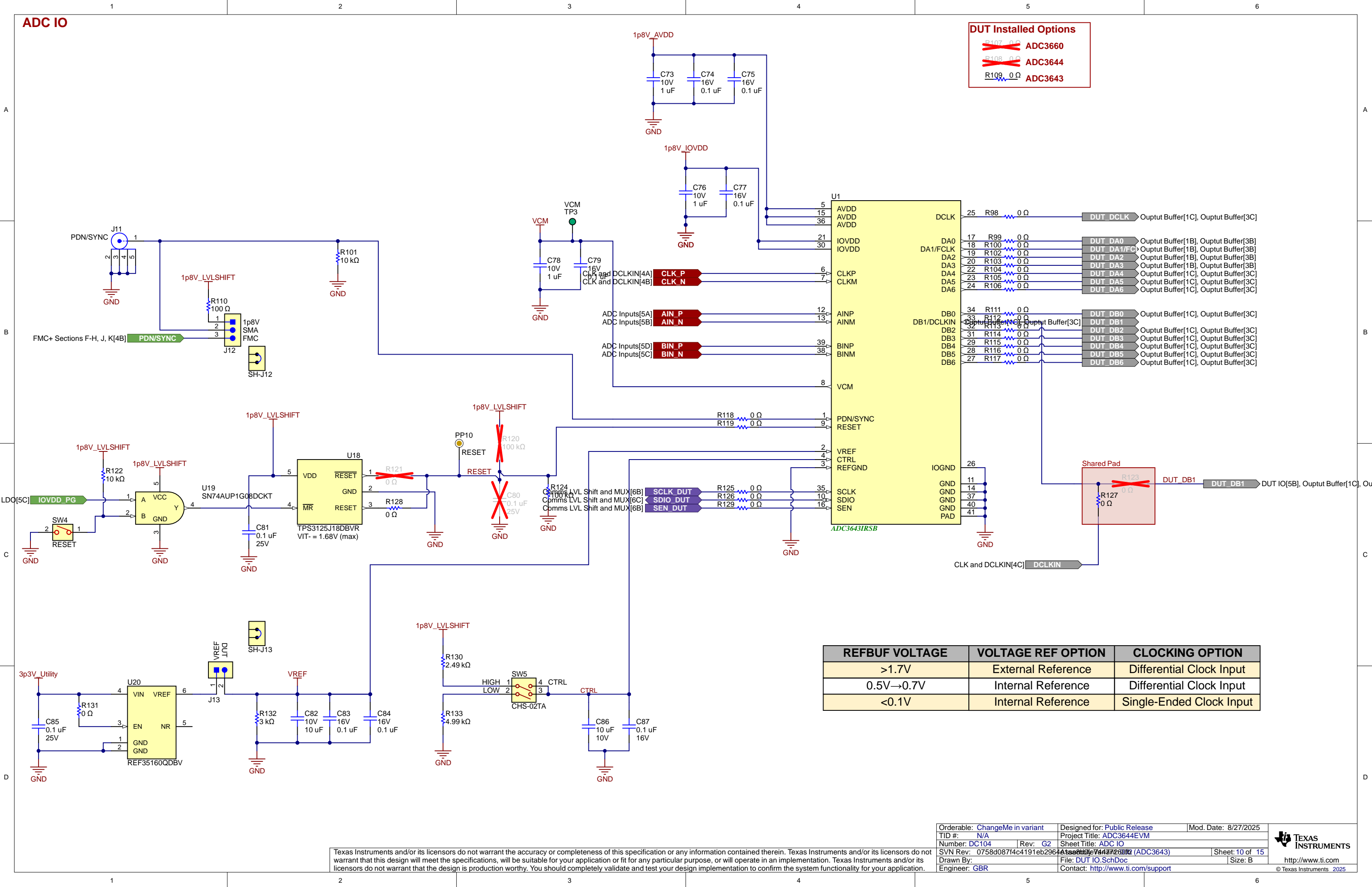
CH B



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TID #: N/A	Project Title: <a href="#">ADC3644EVM</a>	
Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">ADC Inputs</a>
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Drawn By: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	Size: B

ADC IO



DUT Installed Options

~~R107, 0 Ω~~ ADC3660

~~R108, 0 Ω~~ ADC3644

R109, 0 Ω ADC3643

REFBUF VOLTAGE	VOLTAGE REF OPTION	CLOCKING OPTION
>1.7V	External Reference	Differential Clock Input
0.5V→0.7V	Internal Reference	Differential Clock Input
<0.1V	Internal Reference	Single-Ended Clock Input

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Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 8/27/2025
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Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">ADC IO</a>
SVN Rev: 0758d087f4c4191eb2964474726002	Assembled by: <a href="#">ADC3643</a>	Sheet: 10 of 15
Drawn By:	File: <a href="#">DUT IO.SchDoc</a>	Size: B
Engineer: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	

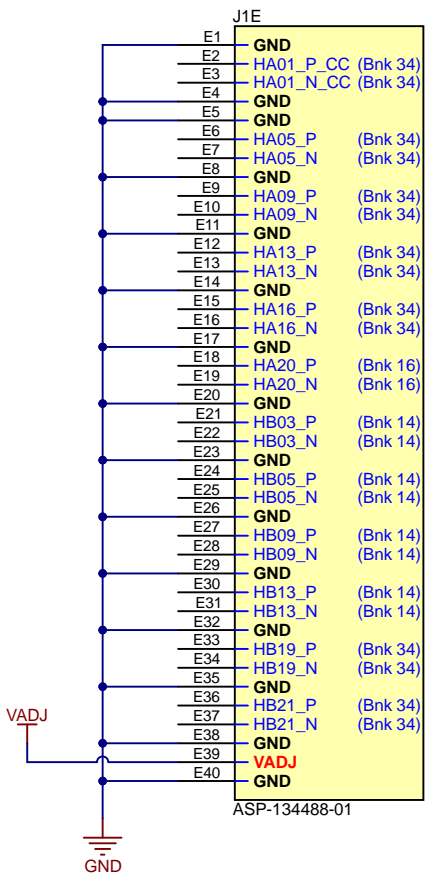
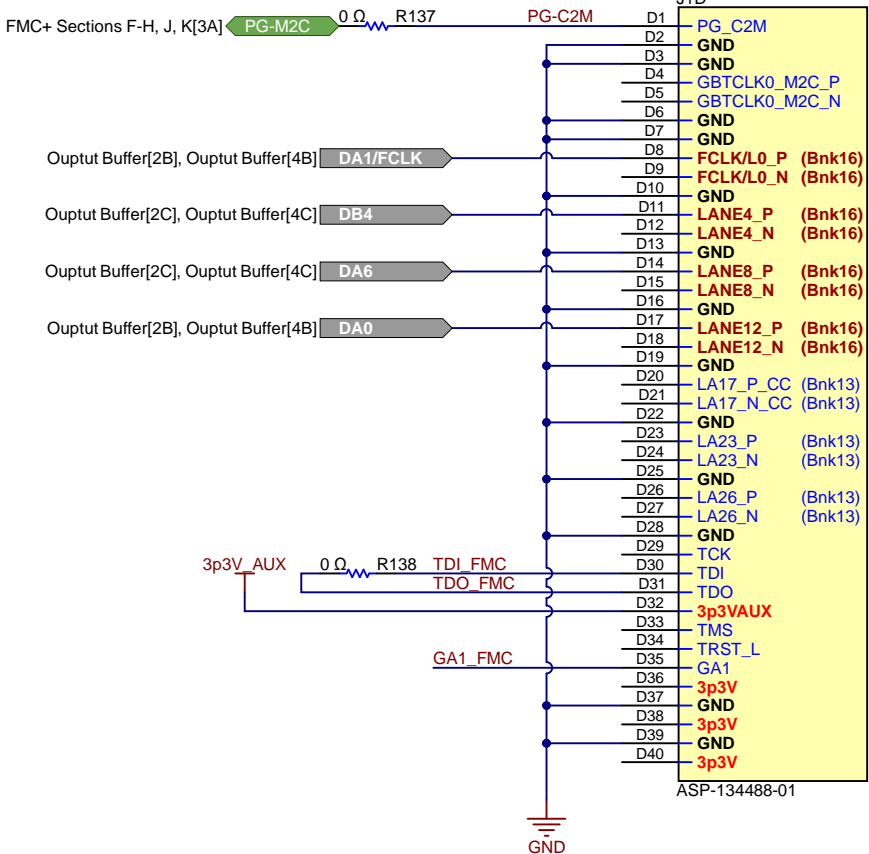
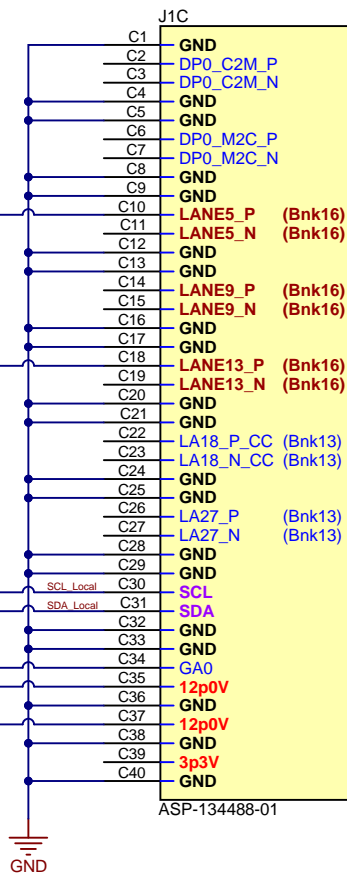
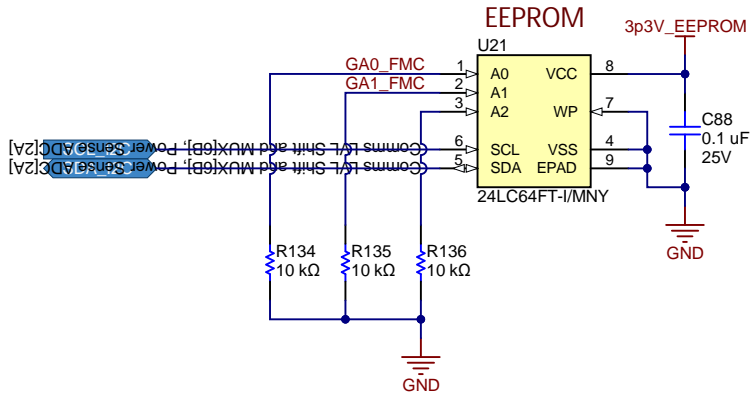
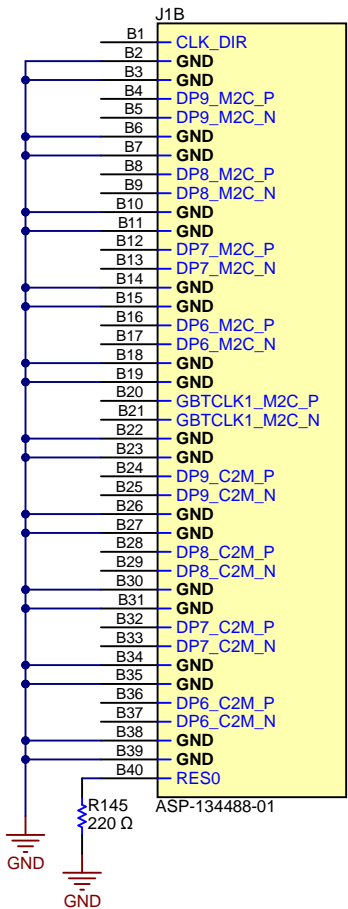
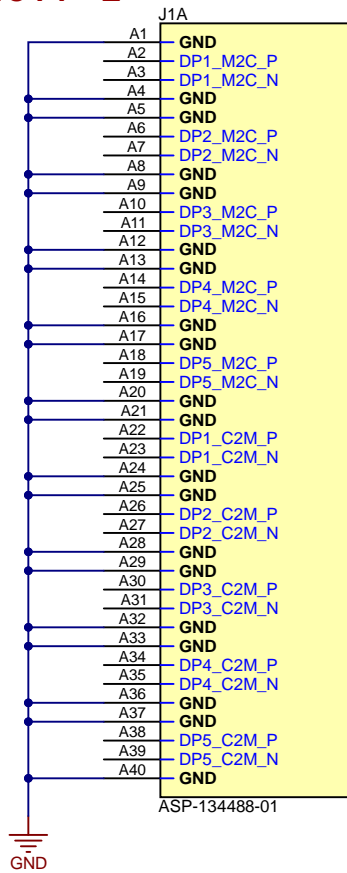
FMC+ Section Rows A - E

A

B

C

D



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Number: DC104	Rev: G2	Sheet Title: FMC+ Section Rows A - E
SVN Rev: c5e7066f3c60874fd8f4c346880f305da1902	ADC3643	Sheet: 11 of 15
Drawn By:	File: FMC+ Sections A-E.SchDoc	Size: B
Engineer: GBR	Contact: http://www.ti.com/support	

FMC+ Section Rows F - H, J, K

A

B

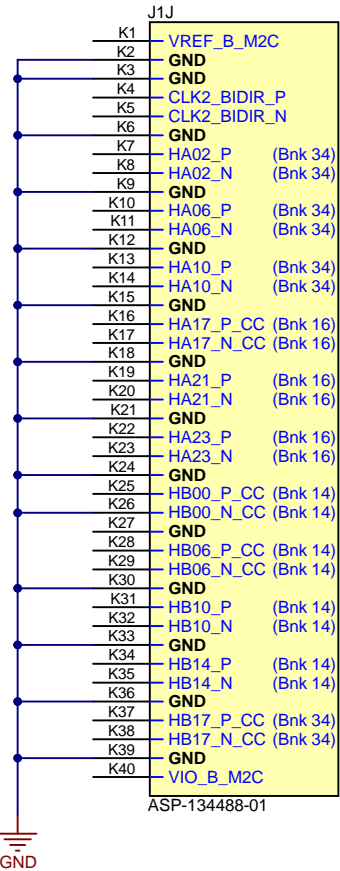
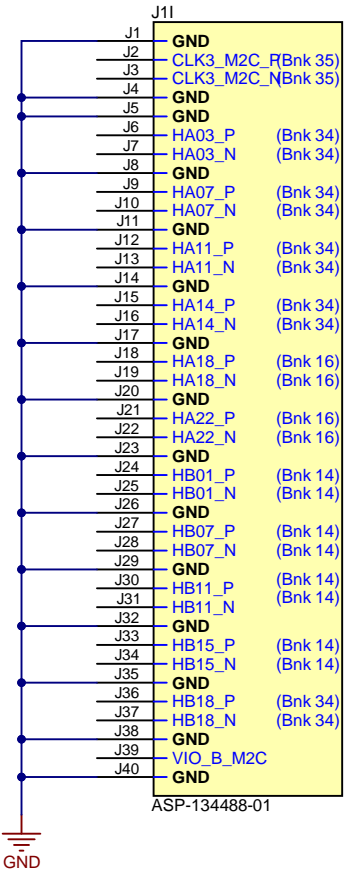
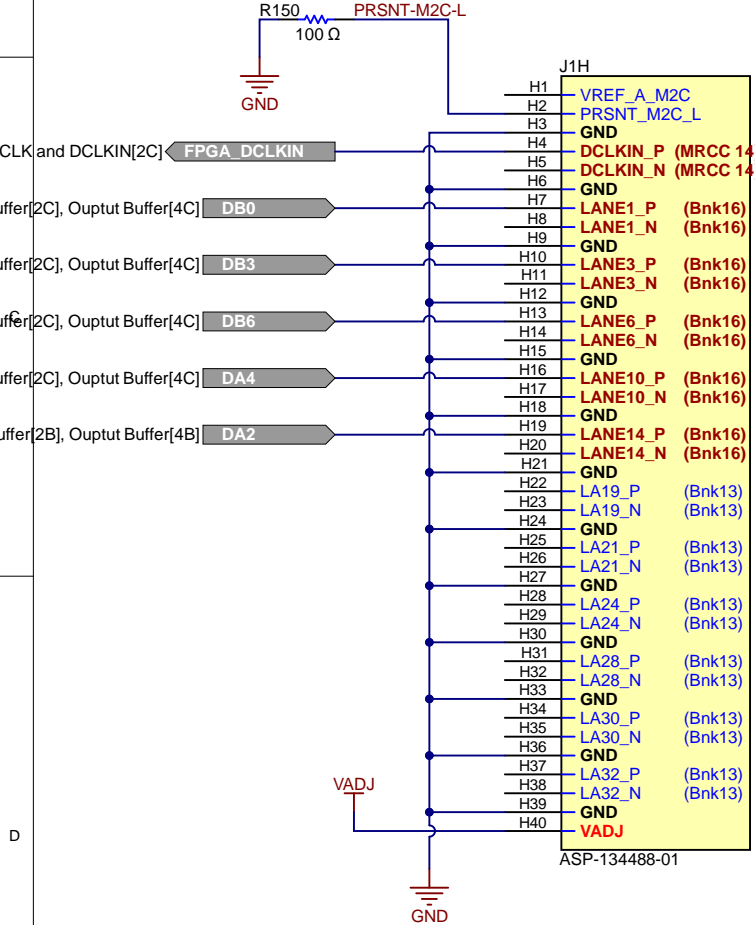
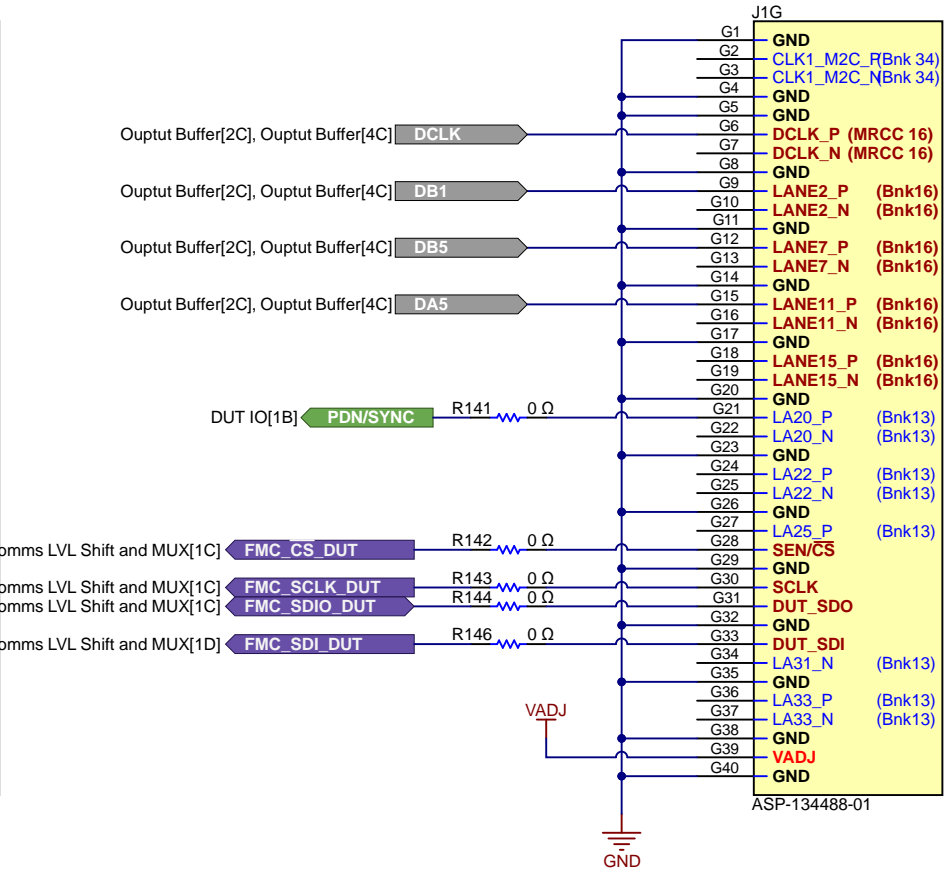
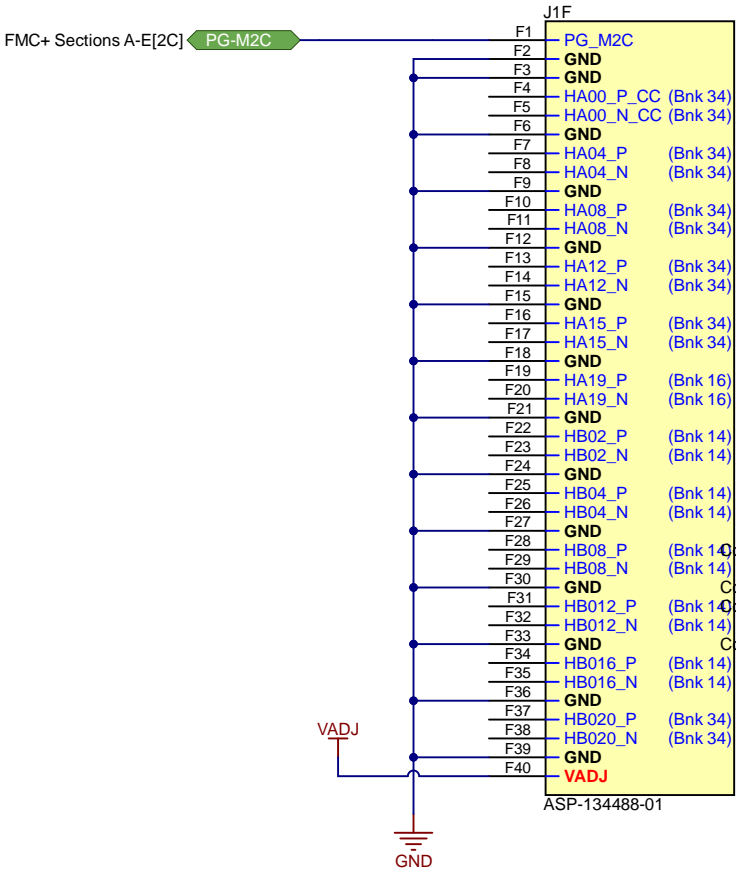
D

A

B

C

D



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Orderable: ChangeMe in variant	Designed for: Public Release	Mod. Date: 8/27/2025
TID #: N/A	Project Title: ADC3644EVM	
Number: DC104	Rev: G2	Sheet Title: FMC+ Section Rows F - H, J, K
SVN Rev: c5e7066f3c60874fd84c3f16880f1305da1400	File: FMC+ Sections F-H, J, K.SchDoc	Sheet: 12 of 15
Drawn By:	Contact: http://www.ti.com/support	Size: B
Engineer: GBR		

Output Buffer

A

B

C

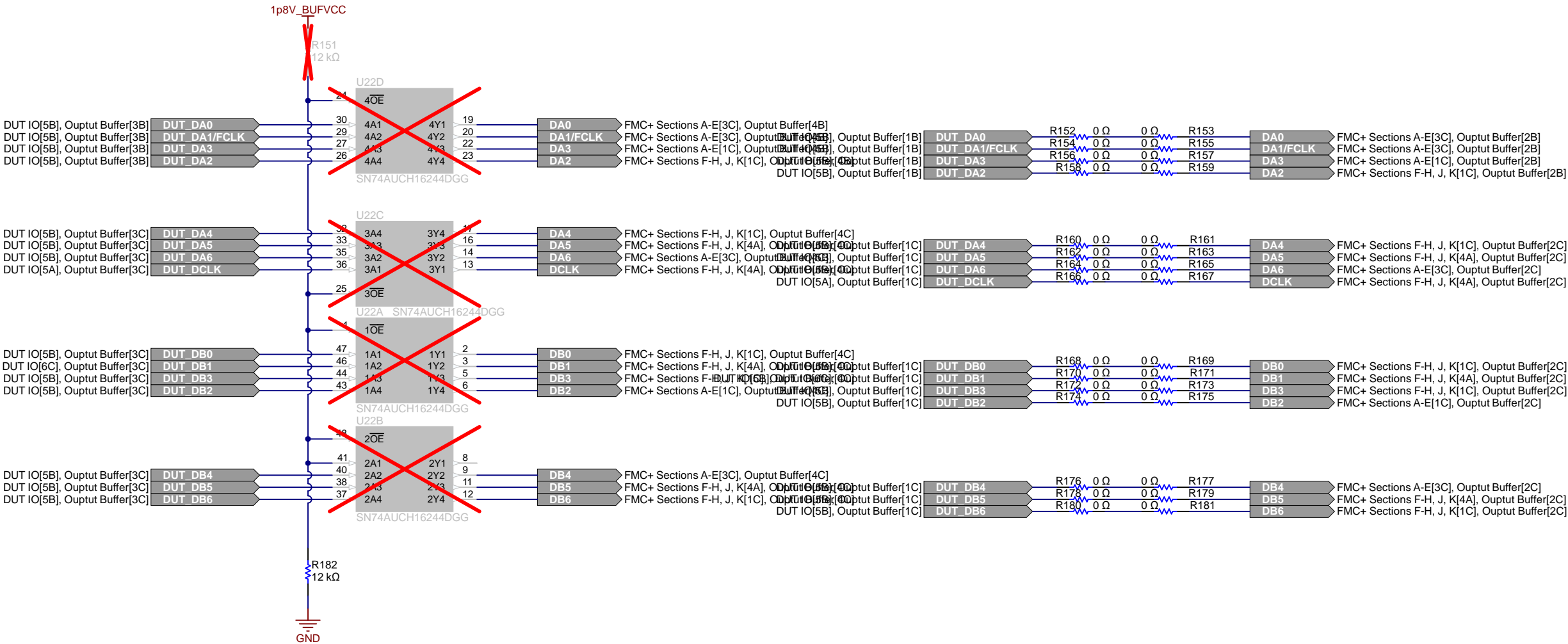
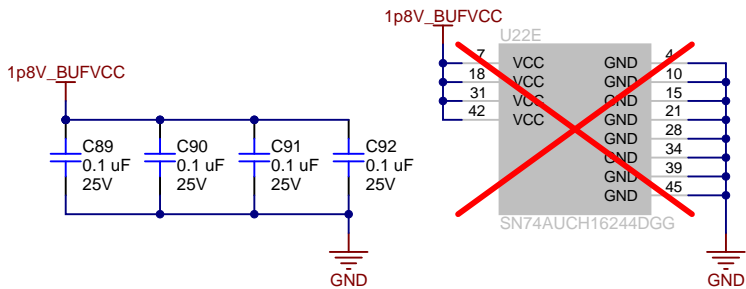
D

A

B

C

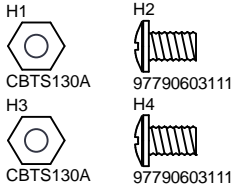
D



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Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">Output Buffer</a>	
SVN Rev: 0758d087f4c4191eb29644a4772802		<a href="#">Assembled by 44772802 (ADC3643)</a>	Sheet: 13 of 15
Drawn By:		File: <a href="#">Ouput Buffer.SchDoc</a>	Size: B
Engineer: <a href="#">GBR</a>		Contact: <a href="#">http://www.ti.com/support</a>	

Hardware & Mechanicals



PCB Number: DC104

PCB Rev: G2



PCB

LOGO

FCC disclaimer



LBL1

PCB Label

THT-14-423-10

Size: 0.65"x0.20"

ZZ1

Assembly Note

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

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

-

Rev History & Variants

Revision History

Rev	Release Date	Notes
G	Feb - 2024	Complete redesign of EVM

Variant(s)

Variant	Notes
001 (ADC3644)	U1: ADC3644  DNI: TP1, TP2, R10, R15, R23, R55, R59, R60, R63, R65, R66, R67, R68, C63, R83, R91, C71, R95, R103, R112, R76, (BUFFER BYPASS), R107, R109
002 (ADC3643)	U1: ADC3643  DNI: TP1, TP2, R10, R15, R23, R55, R59, R60, R63, R65, R66, R67, R68, C63, R83, R91, C71, R95, R103, R112, R76, (BUFFER BYPASS), R107, R109
003 (ADC3660)	U1: ADC3660  DNI: TP1, TP2, R10, R15, R23, R55, R59, R60, R63, R65, R66, R67, R68, C63, R83, R91, C71, R95, R103, R112, R76, (BUFFER BYPASS), R108, R109

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Orderable: <a href="#">ChangeMe in variant</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 8/27/2025
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Number: <a href="#">DC104</a>	Rev: <a href="#">G2</a>	Sheet Title: <a href="#">Rev History &amp; Variants</a>
SVN Rev: <a href="#">5e6878f2674d92c39ae18a4606c9b51470b</a>	Part Number: <a href="#">ADC3643</a>	Sheet: <a href="#">15</a> of <a href="#">15</a>
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Engineer: <a href="#">GBR</a>	Contact: <a href="#">http://www.ti.com/support</a>	