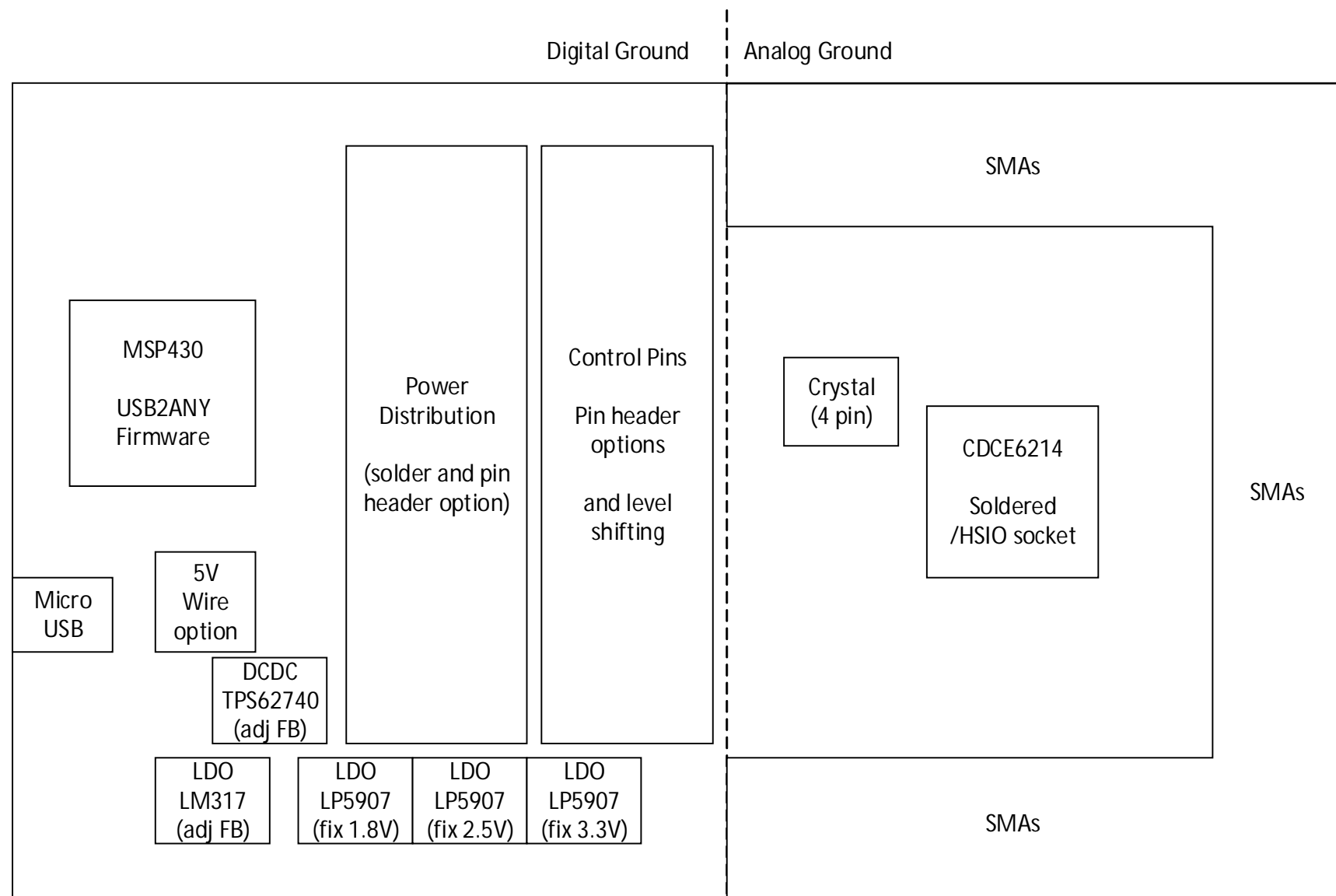


**CDCE6214EVM, CDCE6214IEVM, CDCE6212IEVM, CDC2305EVM**

Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A



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Orderable: <a href="#">EVM_orderable</a>	Designed for: <a href="#">Public Release</a>	Mod. Date: 6/15/2017
TID #: <a href="#">N/A</a>	Project Title: <a href="#">CDCE6214EVM</a>	
Number: <a href="#">SV601290</a>	Rev: <a href="#">A1</a>	Sheet Title: <a href="#">Block Diagram</a>
SVN Rev: <a href="#">Version control disabled</a>	Assembly Variant: <a href="#">[No Variations]</a>	Sheet: <a href="#">1</a> of <a href="#">9</a>
Drawn By: <a href="#">Kammermayer, Patrick</a>	File: <a href="#">SV601290_CoverSheet.SchDoc</a>	Size: <a href="#">B</a>
Engineer: <a href="#">Kammermayer, Patrick</a>	Contact: <a href="#">http://www.ti.com/support</a>	

H1 NY PMS 440 0025 PH  
 H2 NY PMS 440 0025 PH  
 H3 NY PMS 440 0025 PH  
 H4 NY PMS 440 0025 PH

H5 1902C  
 H6 1902C  
 H7 1902C  
 H8 1902C

FID1  
 FID2  
 FID3  
 FID4  
 FID5  
 FID6

PCB Number: SV601290  
 PCB Rev: A1

PCB LOGO  
 Texas Instruments

PCB LOGO  
 Pb-Free Symbol

PCB LOGO  
 FCC disclaimer

Variant/Label Table

Variant	Label Text
001	CDCE6214EVM
002	CDCE6214EVM_LAB
003	CDCE6214I
004	CDCE6212I
005	CDC2305

LBL1

PCB Label

Size: 0.65" x 0.20"

ZZ1

Label Assembly Note

This Assembly Note is for PCB labels only

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.

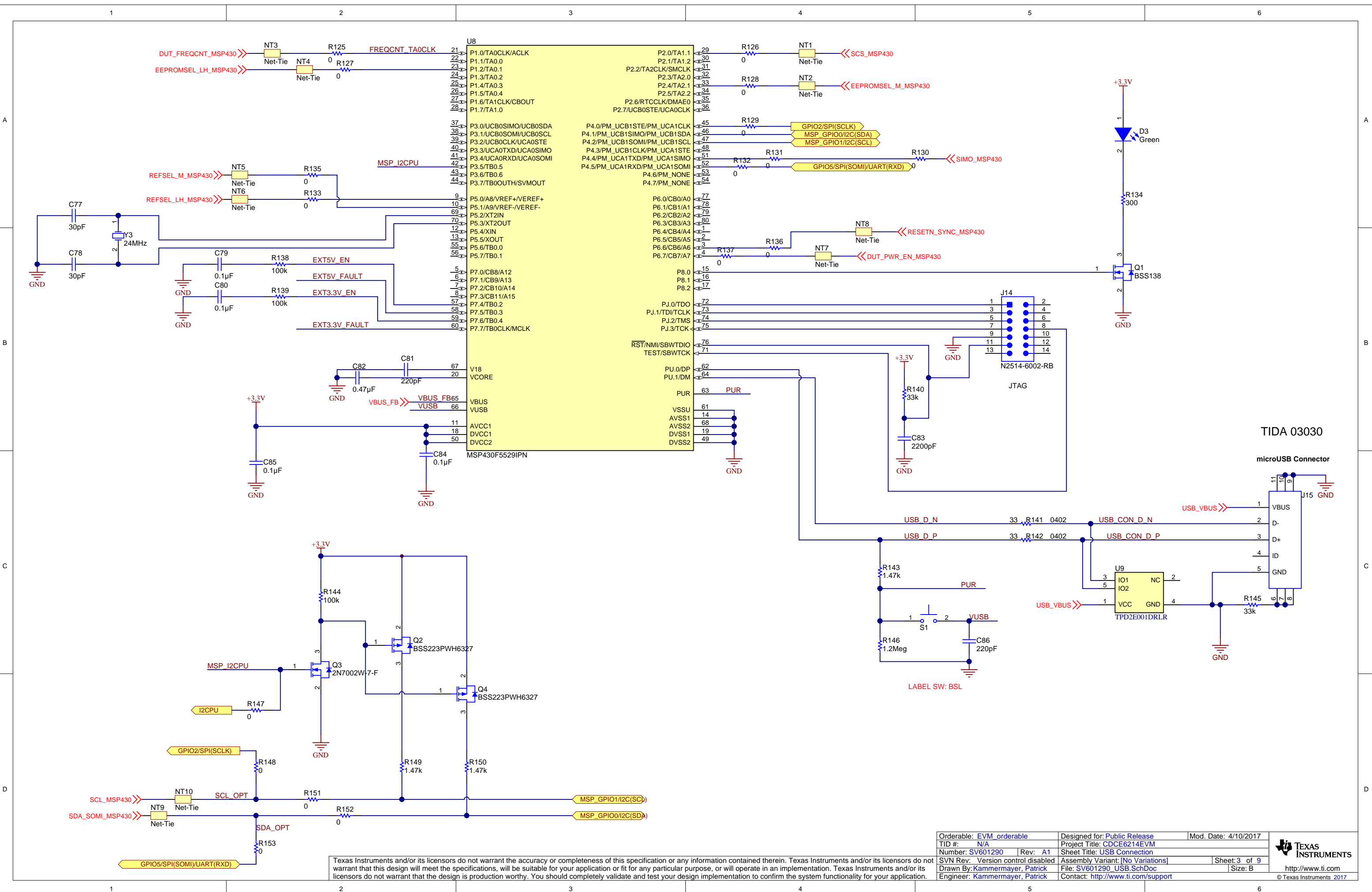
ZZ4

Assembly Note

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

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TID #: <a href="#">N/A</a>	Project Title: <a href="#">CDCE6214EVM</a>	
Number: <a href="#">SV601290</a>	Rev: <a href="#">A1</a>	Sheet Title: <a href="#">Mechanical Components</a>
SVN Rev: <a href="#">Version control disabled</a>	Assembly Variant: <a href="#">[No Variations]</a>	Sheet: <a href="#">2</a> of <a href="#">9</a>
Drawn By: <a href="#">Kammermayer, Patrick</a>	File: <a href="#">SV601290_EVM_Hardware.SchDoc</a>	Size: B
Engineer: <a href="#">Kammermayer, Patrick</a>	Contact: <a href="#">http://www.ti.com/support</a>	



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Orderable: EVM_orderable	Designed for: Public Release	Mod. Date: 4/10/2017
TID #: N/A	Project Title: CDCE6214EVM	
Number: SV601290	Rev: A1	Sheet Title: USB Connection
SVN Rev: Version control disabled	Assembly Variant: [No Variations]	Sheet: 3 of 9
Drawn By: Kammermayer, Patrick	File: SV601290_USB.SchDoc	Size: B
Engineer: Kammermayer, Patrick	Contact: http://www.ti.com/support	



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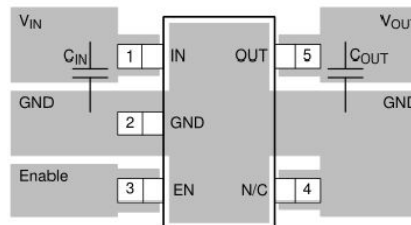
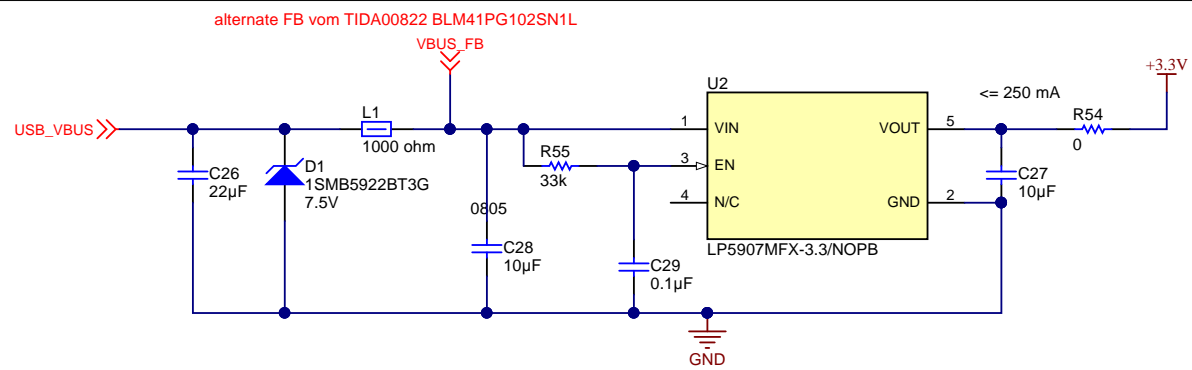


Figure 24. LP5907MF-x.x (SOT-23) Typical Layout

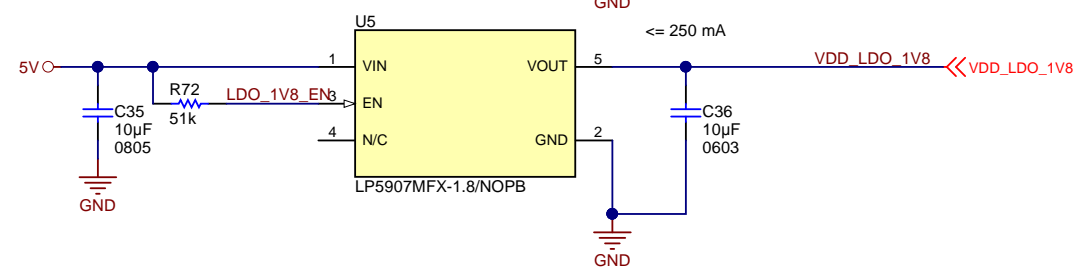
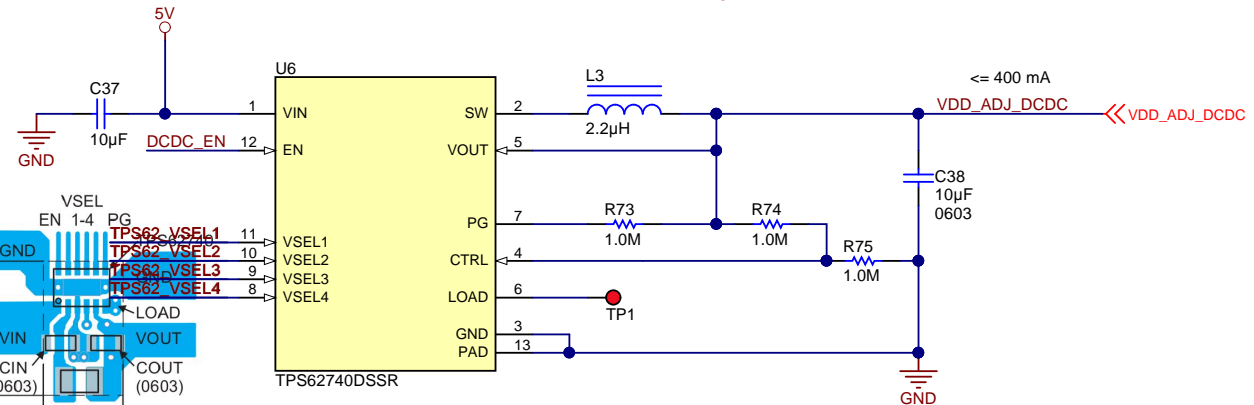
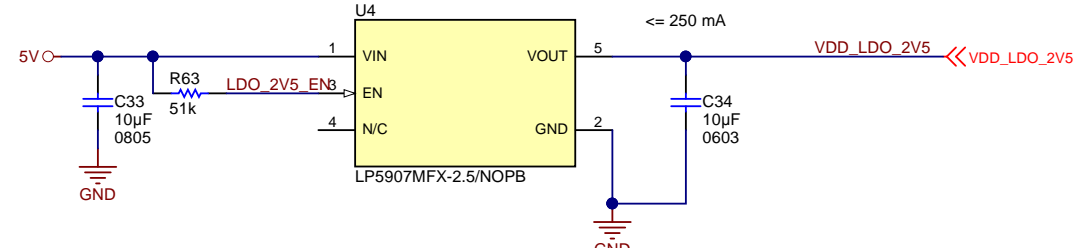
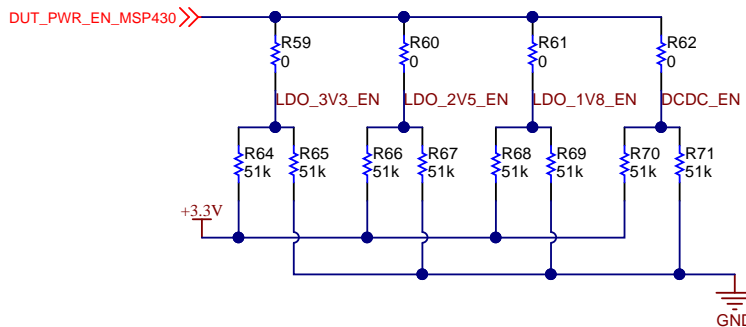
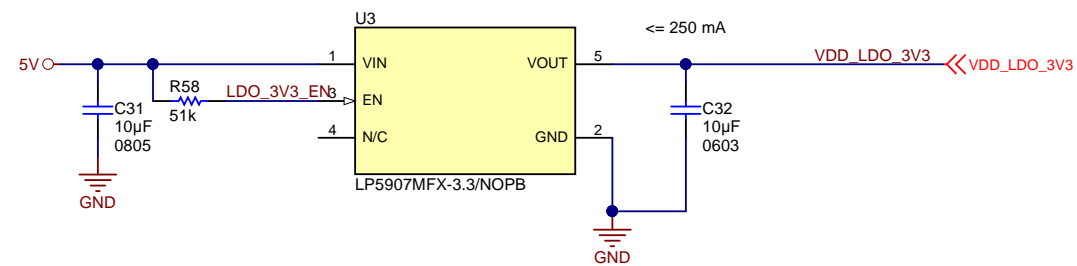
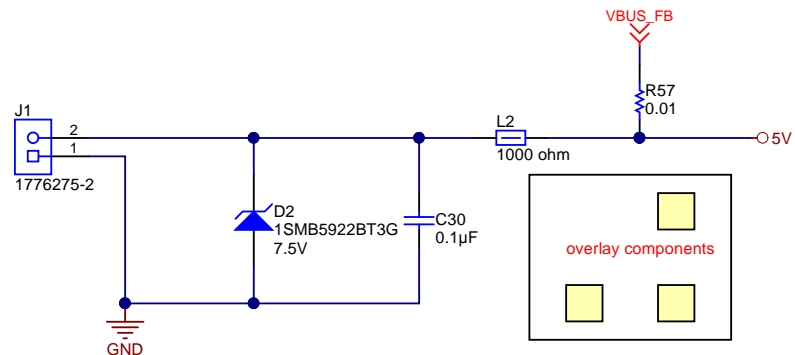
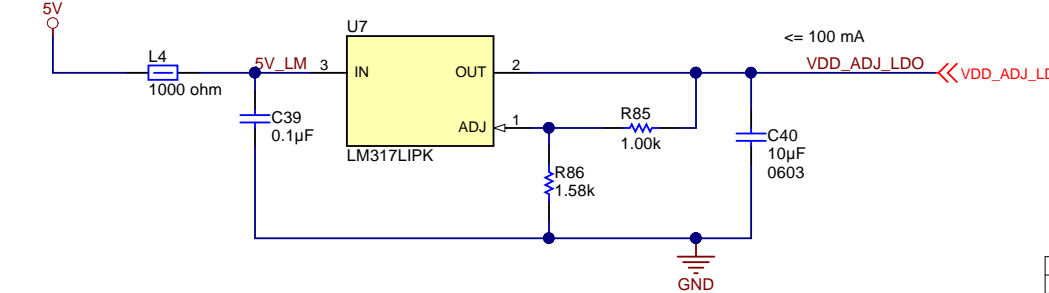
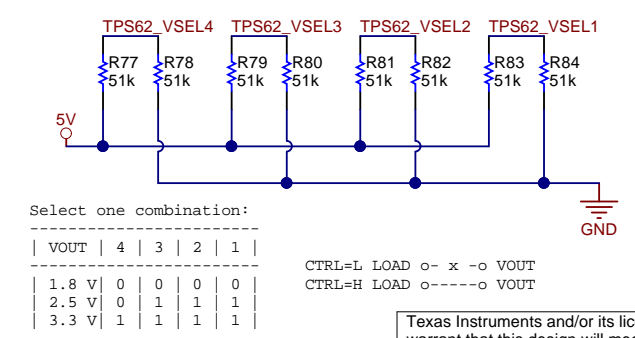
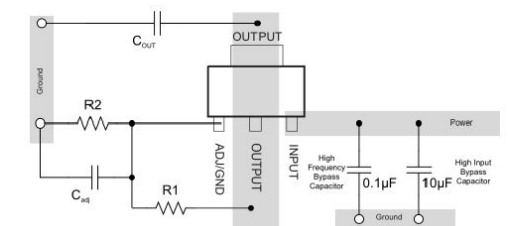


Figure 53. Recommended PCB Layout



Populate R86 feedback pull-down:

VDD_ADJ_LDO	Res in Ohm
1.8 V	442
2.5 V	953
3.3 V	1580



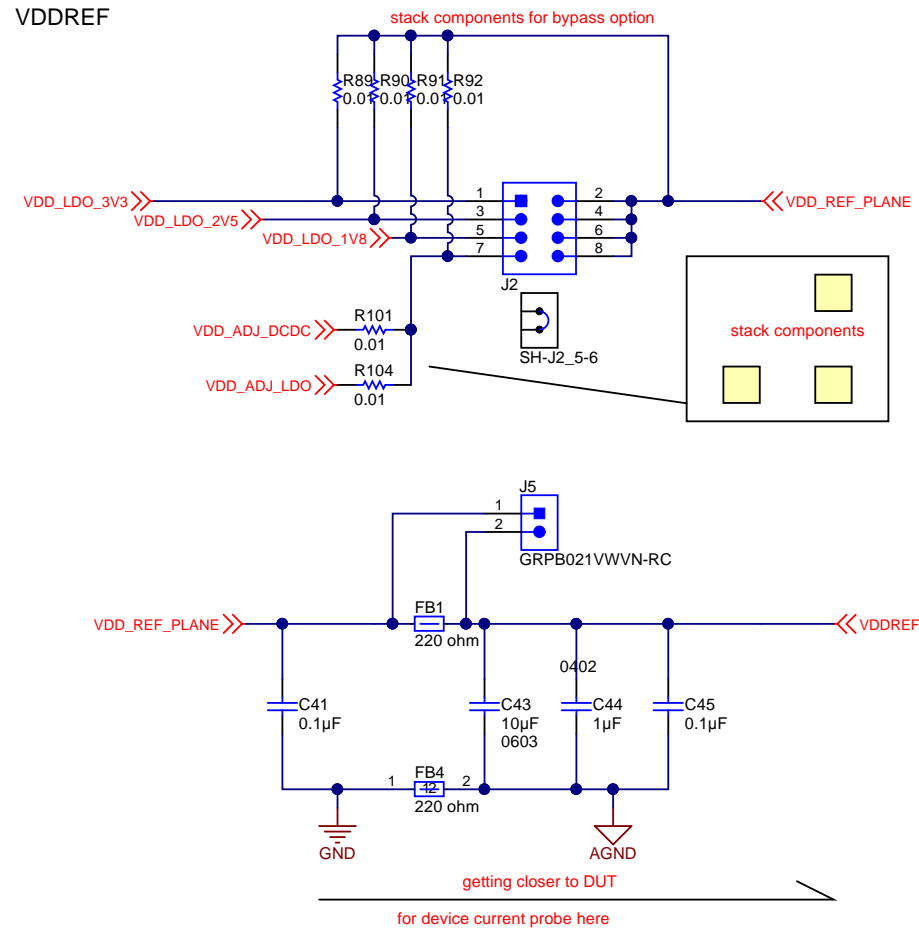
Select one combination:

VOUT	4	3	2	1
1.8 V	0	0	0	0
2.5 V	0	1	1	1
3.3 V	1	1	1	1

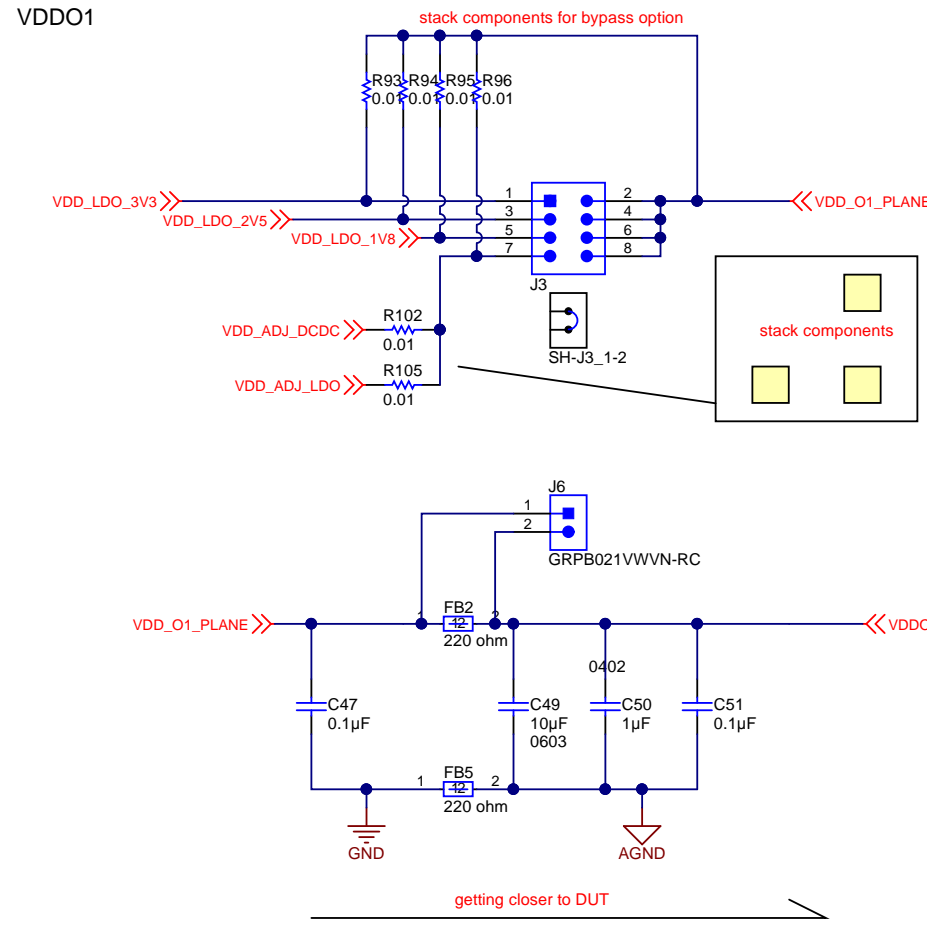
CTRL=L LOAD o- x -o VOUT  
CTRL=H LOAD o-----o VOUT

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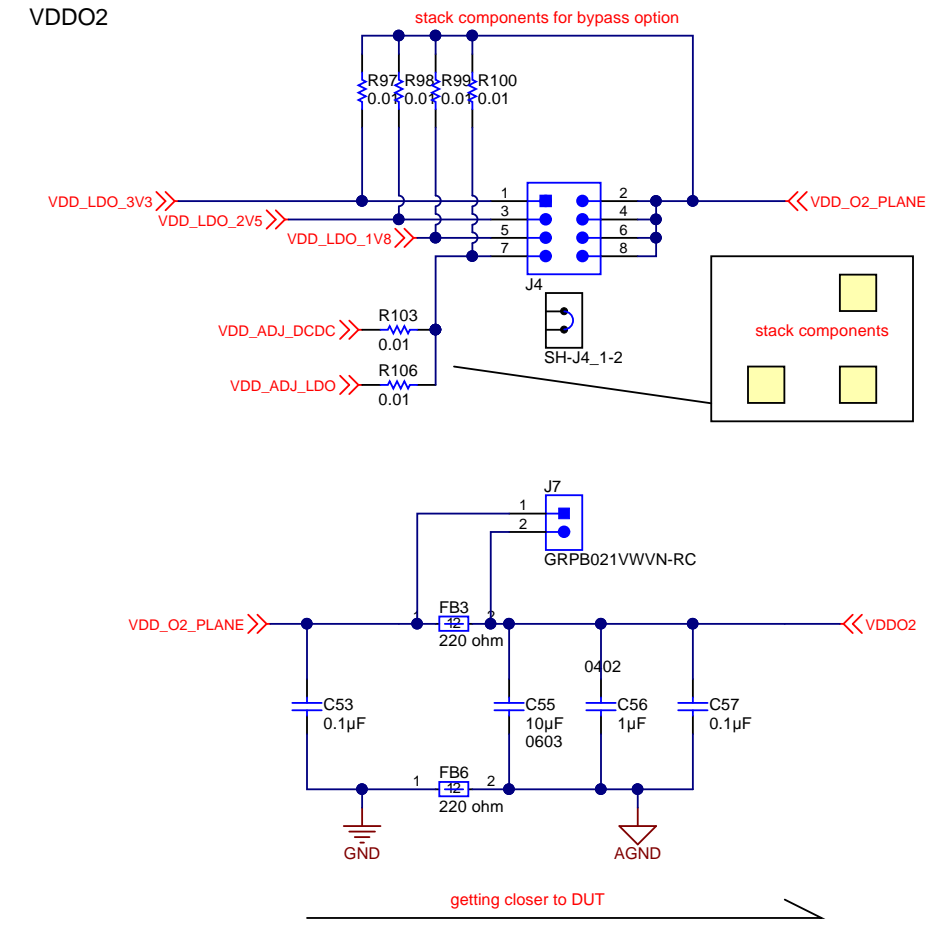
VDDREF



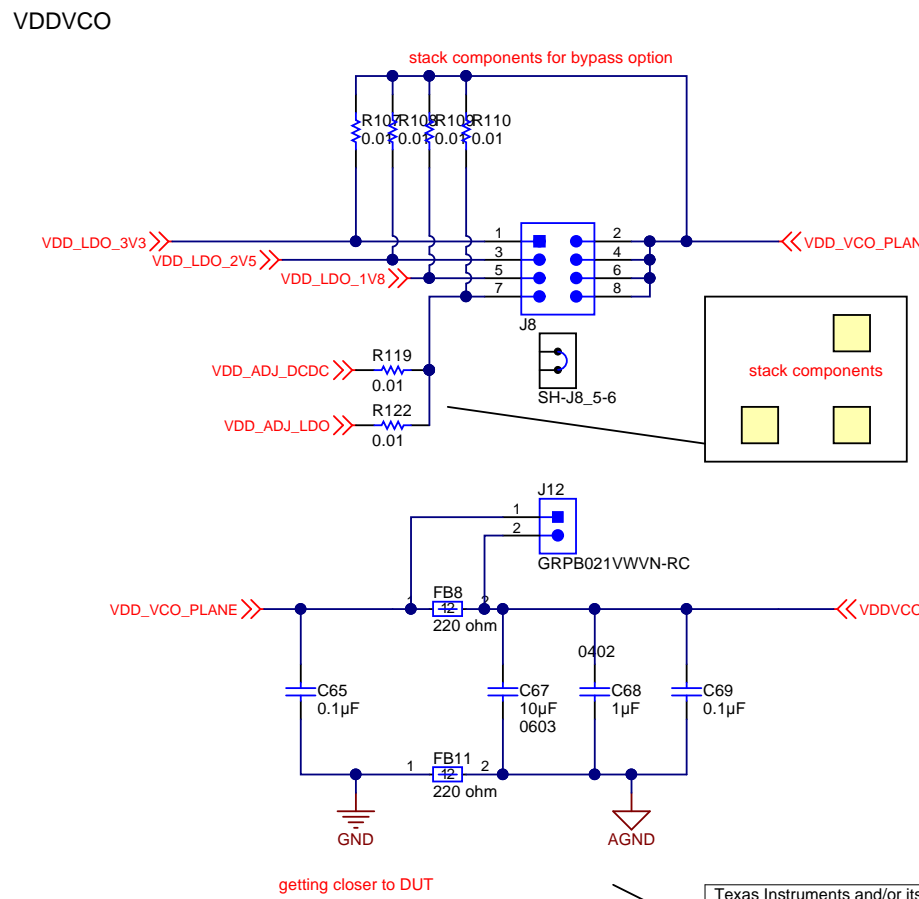
VDDO1



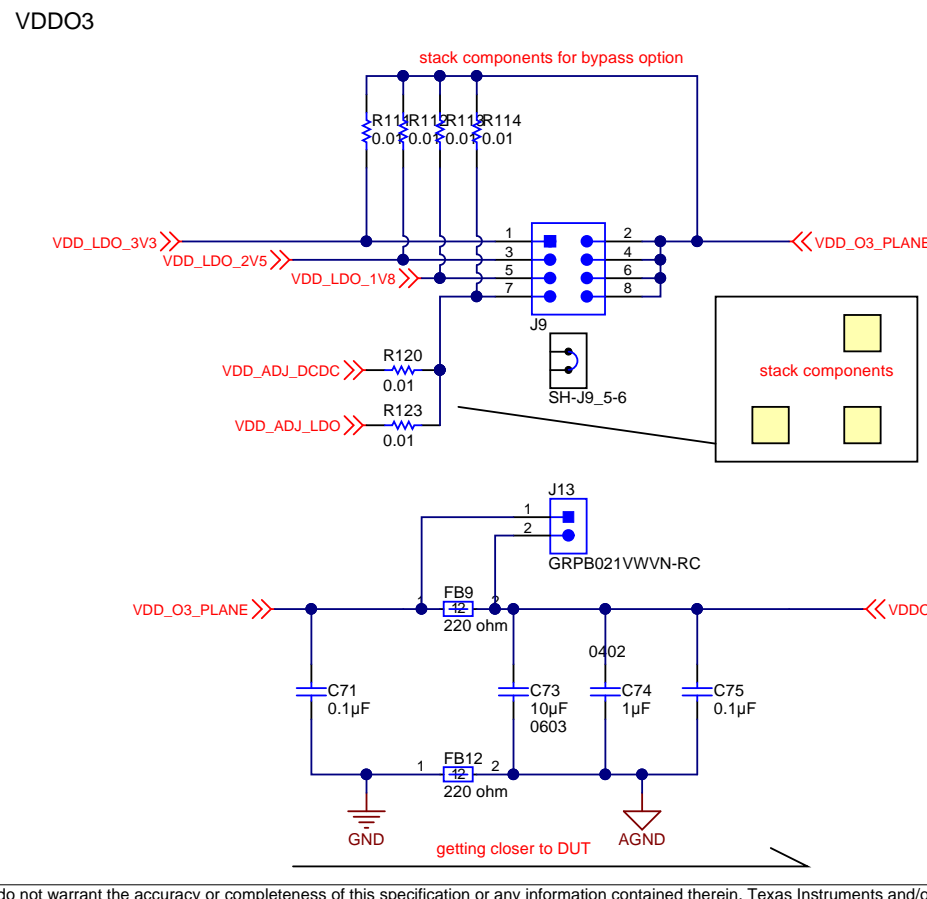
VDDO2



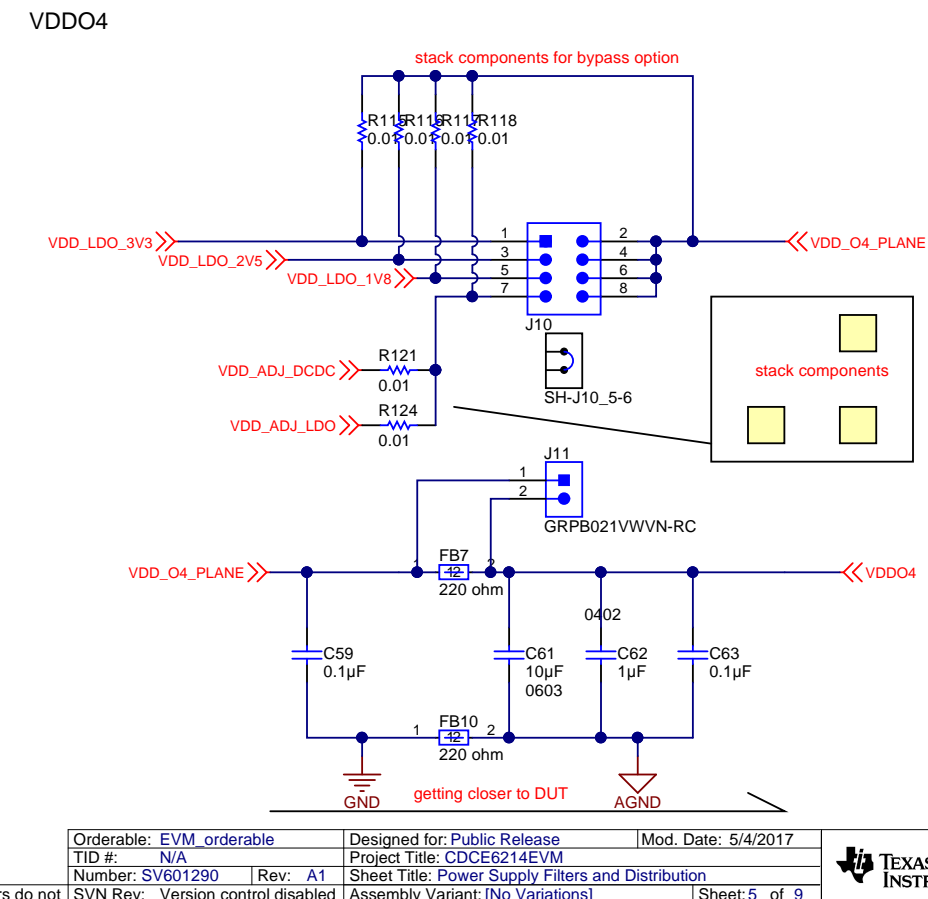
VDDVCO



VDDO3



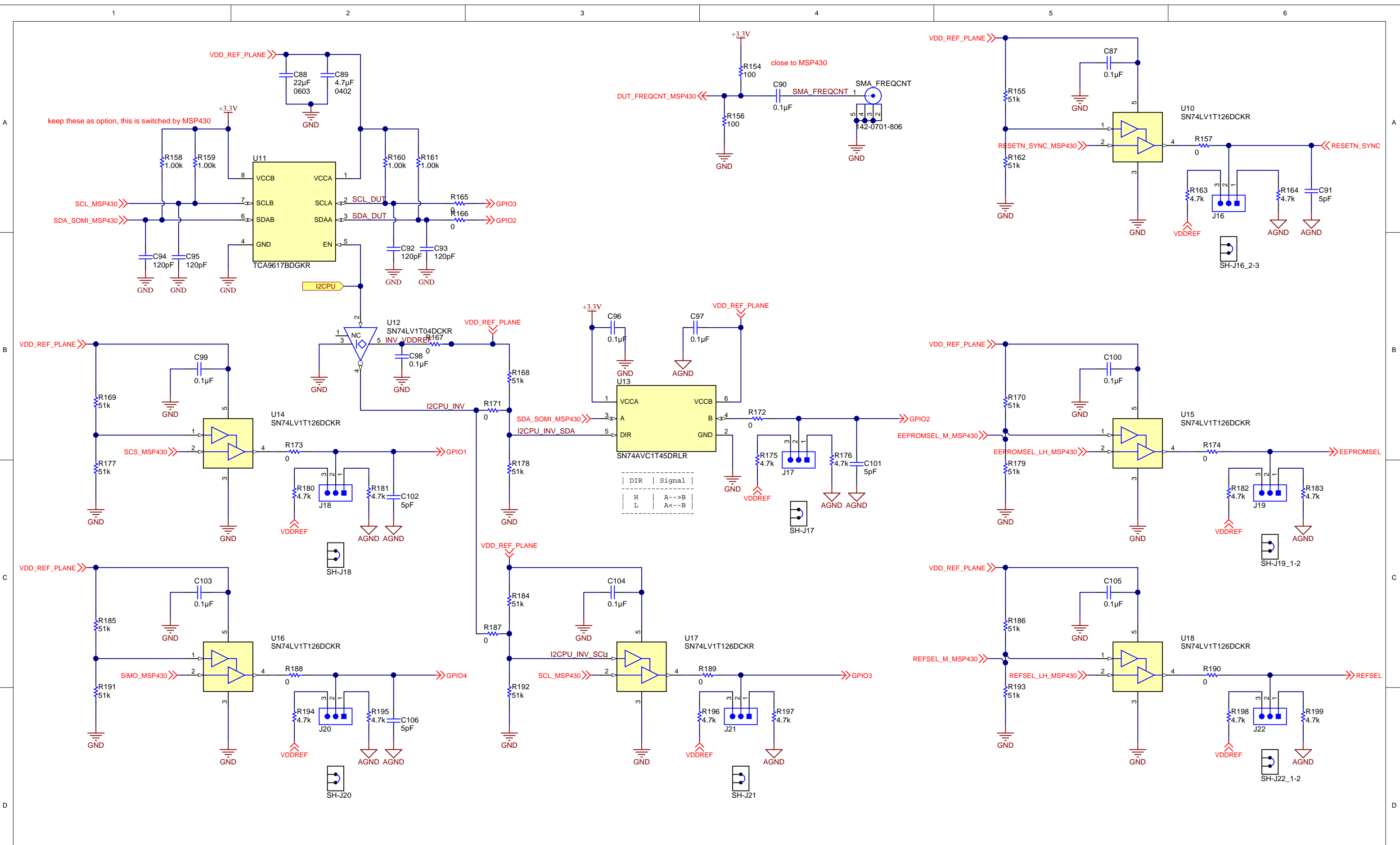
VDDO4



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Orderable: EVM_orderable	Designed for: Public Release	Mod. Date: 5/4/2017
TID #: N/A	Project Title: CDCE6214EVM	
Number: SV601290	Rev: A1	Sheet Title: Power Supply Filters and Distribution
SVN Rev: Version control disabled	Assembly Variant: [No Variations]	Sheet: 5 of 9
Drawn By: Kammermayer, Patrick	File: SV601290_PowerFilterDistr.SchDoc	Size: B
Engineer: Kammermayer, Patrick	Contact: http://www.ti.com/support	

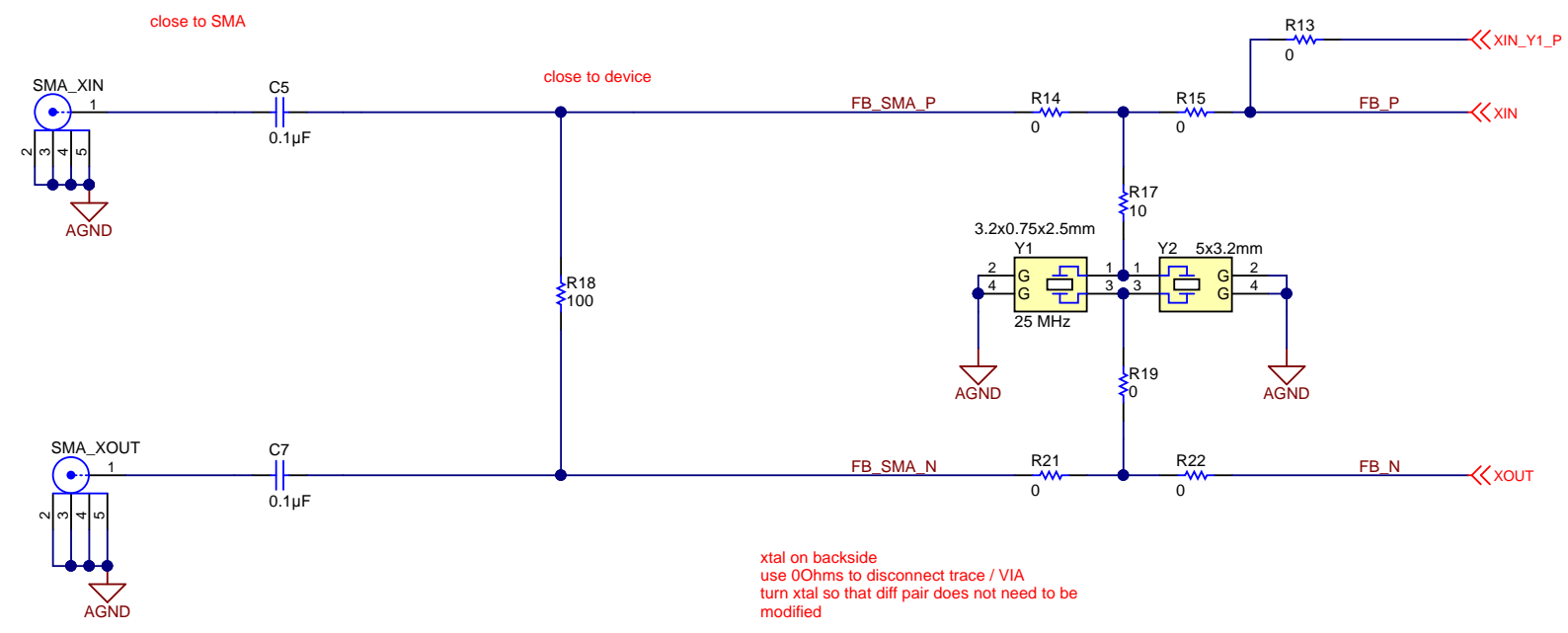
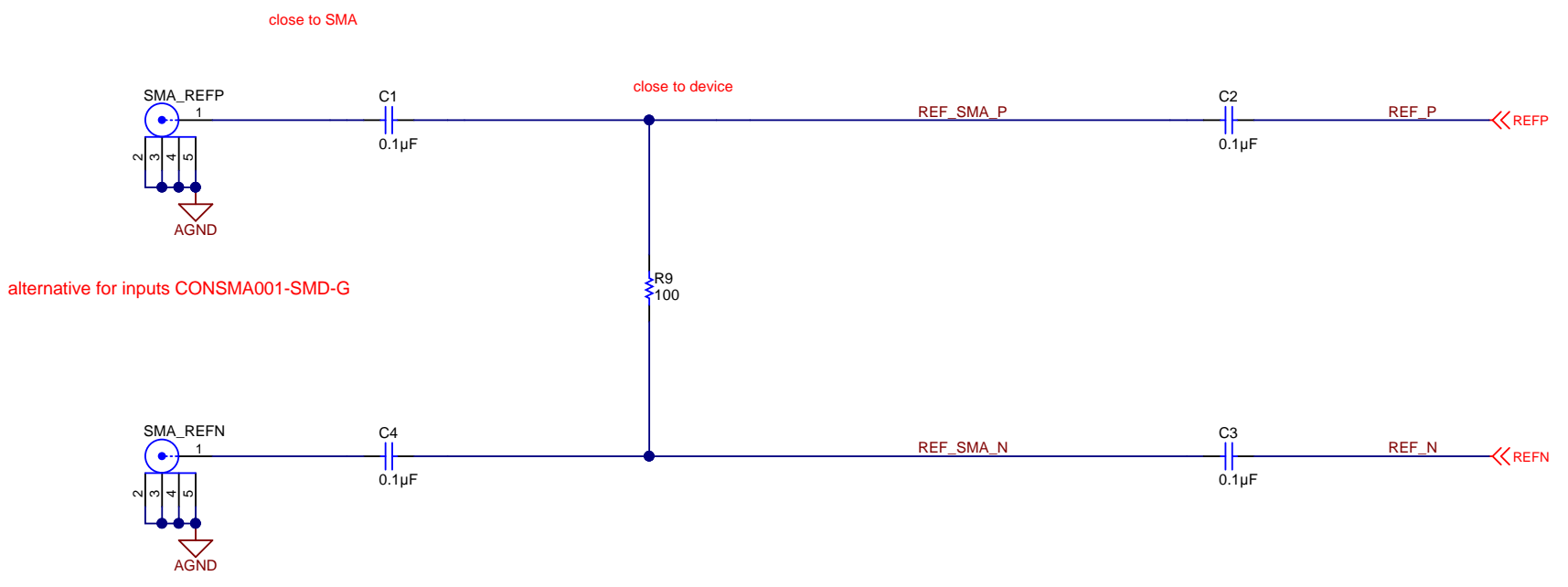




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TID #: N/A	Project Title: CDCE6214EVM	
Number: <a href="#">SV601290</a>	Rev: A1	Sheet Title: Control Pin Level Shifters
SVN Rev: Version control disabled	Assembly Variant: [No Variations]	Sheet: 6 of 9
Drawn By:	File: <a href="#">SV601290_LvlShft.SchDoc</a>	Size: B
Engineer: Kammermayer, Patrick	Contact: <a href="http://www.ti.com/support">http://www.ti.com/support</a>	





xtal on backside  
use 0Ohms to disconnect trace / VIA  
turn xtal so that diff pair does not need to be modified

All diff pairs:  
from DUT to SMA "0Ohm / AC cap"-option route as diffpair 100 Ohm  
from "0Ohm / AC cap"-option to SMA route as short 50 Ohm with tapered trace

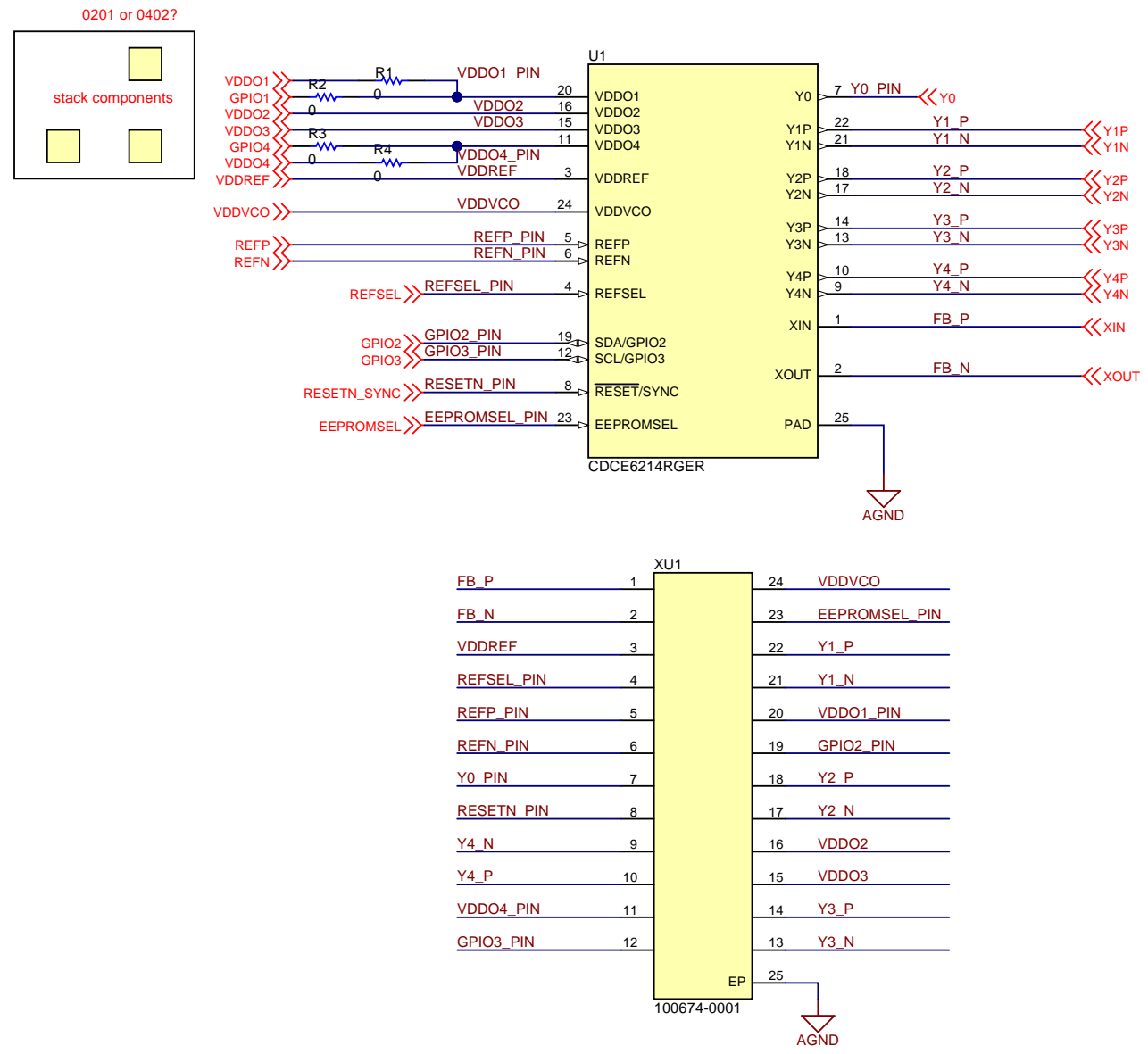
avoid 90 deg or 45 deg bends, prefer ARCs

use GND stitching throughout with 200mil (all 5mm)

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TID #: N/A	Project Title: CDCE6214EVM	
Number: SV601290	Rev: A1	Sheet Title: Reference Clock Inputs
SVN Rev: Version control disabled	Assembly Variant: [No Variations]	Sheet: 7 of 9
Drawn By: Kammermayer, Patrick	File: SV601290_Inputs.SchDoc	Size: B
Engineer: Kammermayer, Patrick	Contact: http://www.ti.com/support	

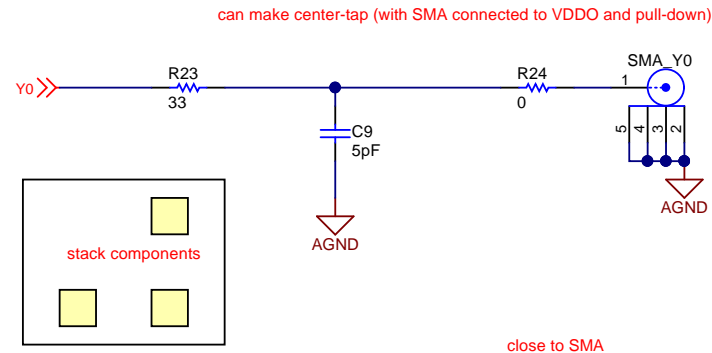




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TID #: N/A	Project Title: CDCE6214EVM	
Number: SV601290	Rev: A1	Sheet: 8 of 9
SVN Rev: Version control disabled	Assembly Variant: [No Variations]	Size: B
Drawn By: Kammermayer, Patrick	File: SV601290_ClockGen.SchDoc	
Engineer: Kammermayer, Patrick	Contact: http://www.ti.com/support	

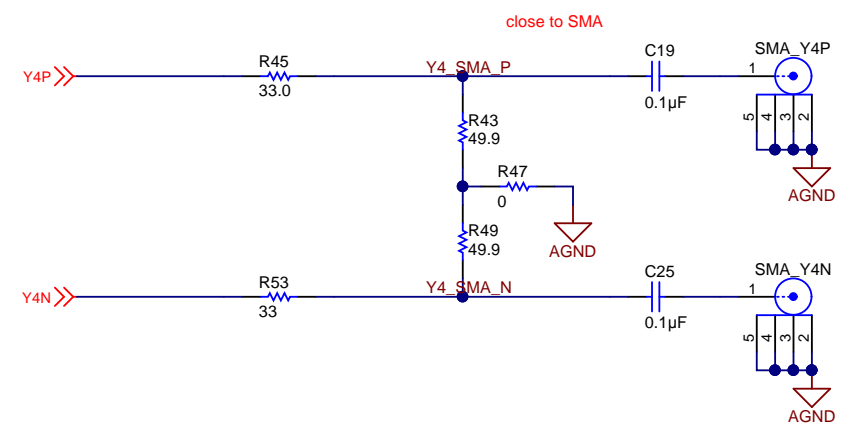
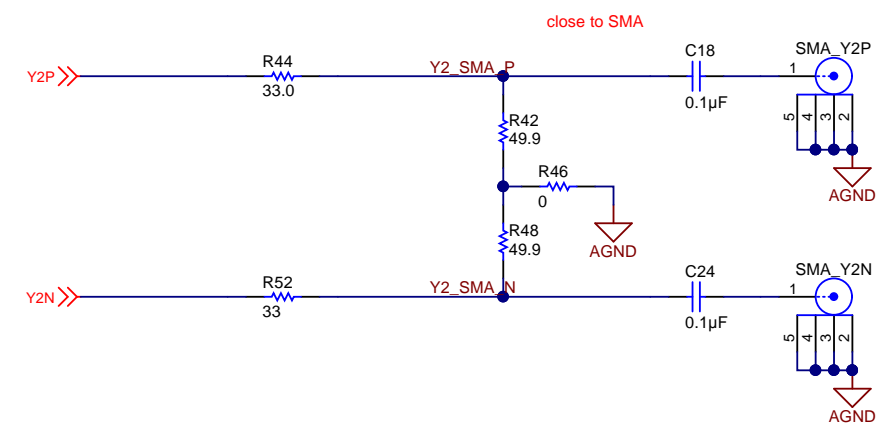
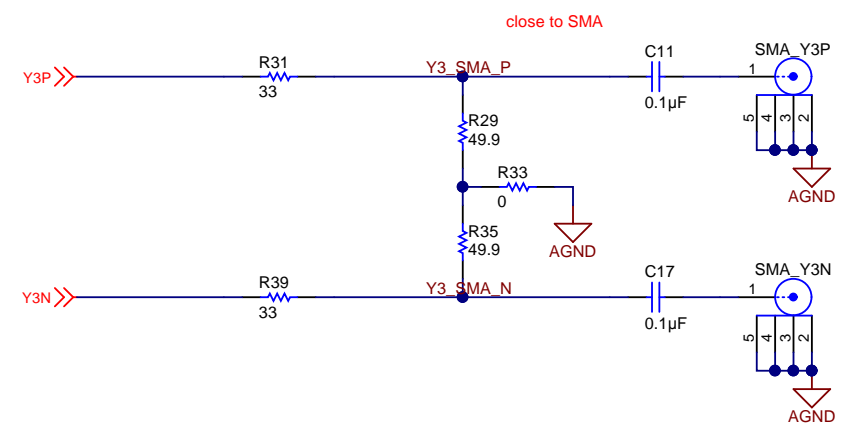
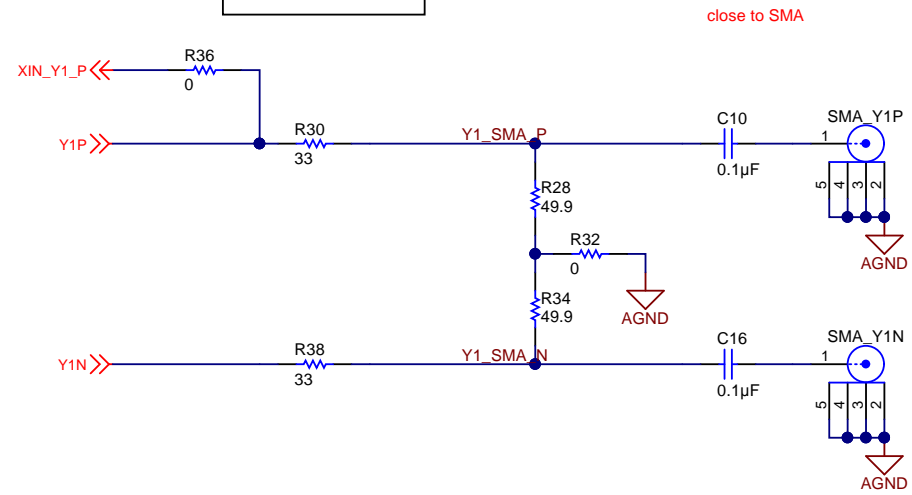




All diff pairs:  
 from DUT to SMA "0Ohm / AC cap"-option route as diffpair 100 Ohm  
 from "0Ohm / AC cap"-option to SMA route as short 50 Ohm with tapered trace  
 avoid 90 deg or 45 deg bends, prefer ARCs  
 use GND stitching throughout with 200mil (all 5mm)

EVM Default

Y1 HCSL for Hi-Z Probe	Y3 LVDS 50 Ohm scope
Y2 HCSL 50 Ohm scope	Y4 LVDS for Hi-Z Probe



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Orderable: EVM_orderable	Designed for: Public Release	Mod. Date: 6/15/2017
TID #: N/A	Project Title: CDCE6214EVM	
Number: SV601290	Rev: A1	Sheet: 9 of 9
SVN Rev: Version control disabled	Assembly Variant: [No Variations]	Size: B
Drawn By: Kammermayer, Patrick	File: SV601290_Outputs.SchDoc	
Engineer: Kammermayer, Patrick	Contact: http://www.ti.com/support	

