

# Genesys ZU

## Variant: 3EG

# 5/5/2021

# Rev D.1

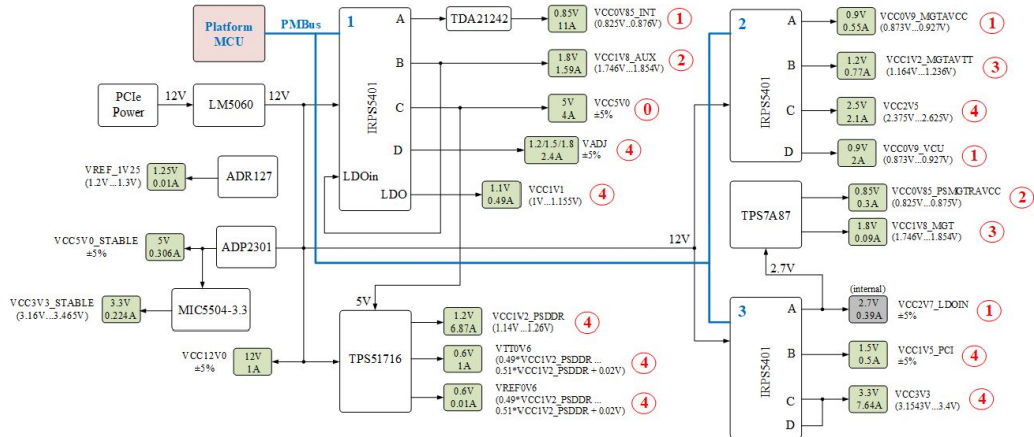
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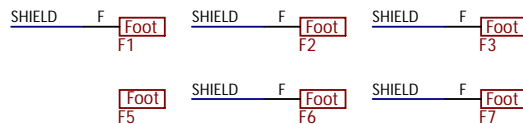
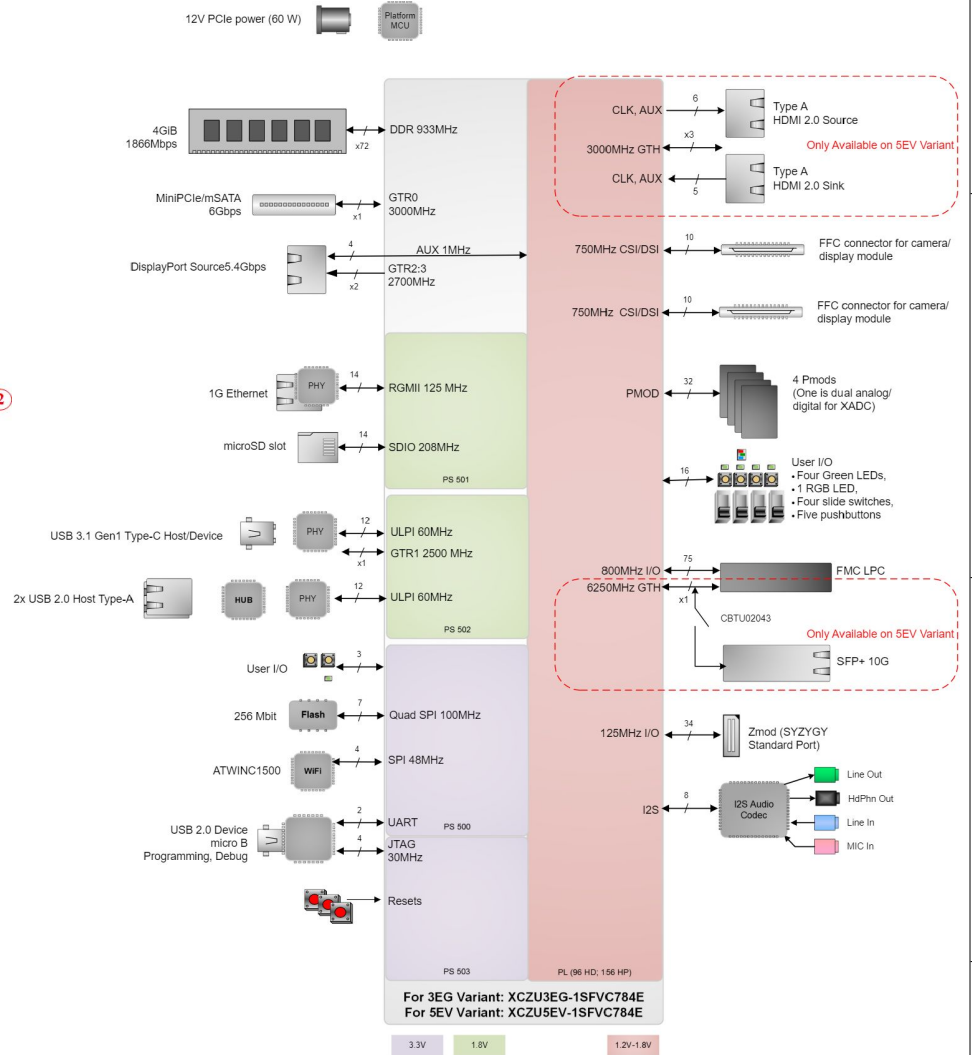
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Engineer	EG		
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# Power Tree



# Block Diagram



Foot F4

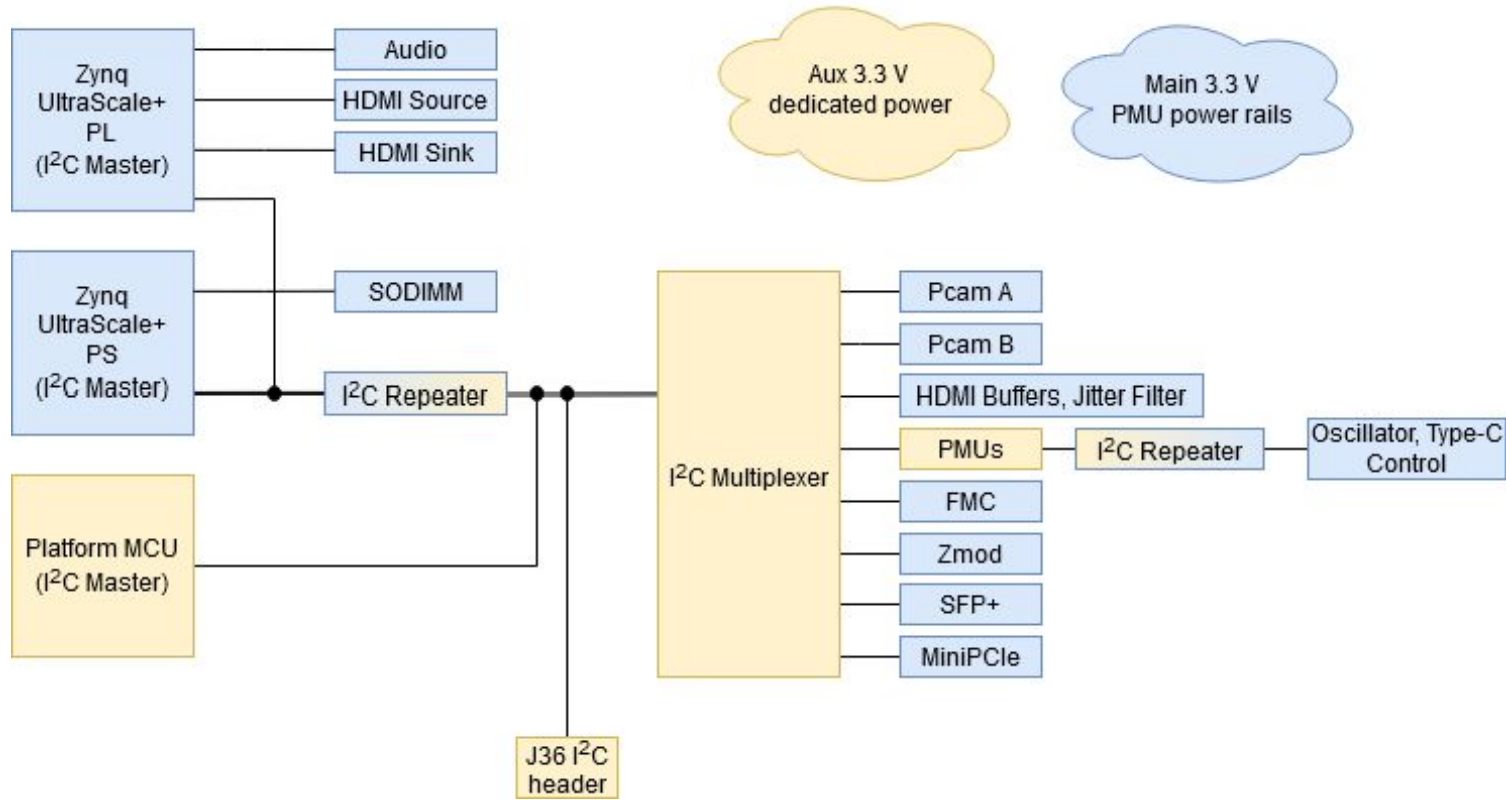
Foot F8

- Genesys ZU
- Insert Contacts Down
- UKCA
- Chinese ROHS
- ROHS
- Digilent Inc.
- CE
- Xilinx

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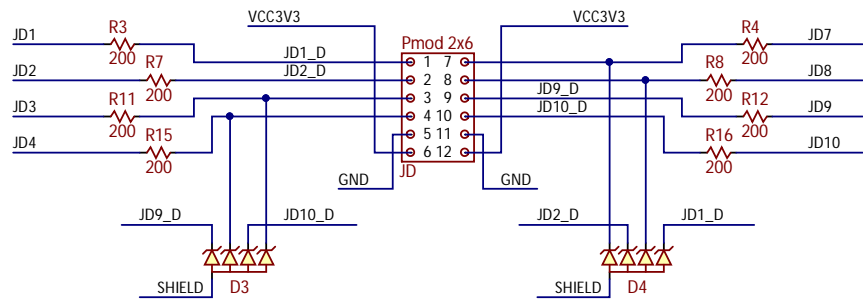
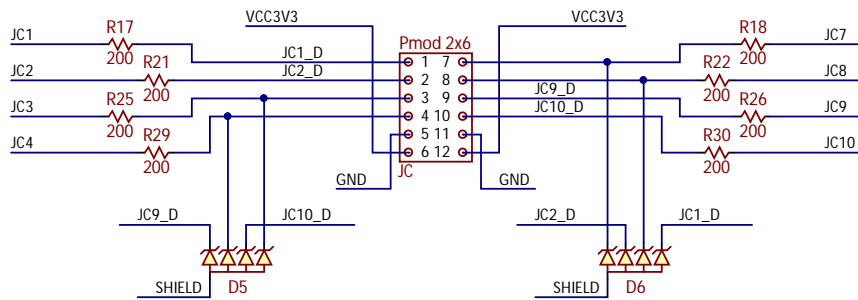
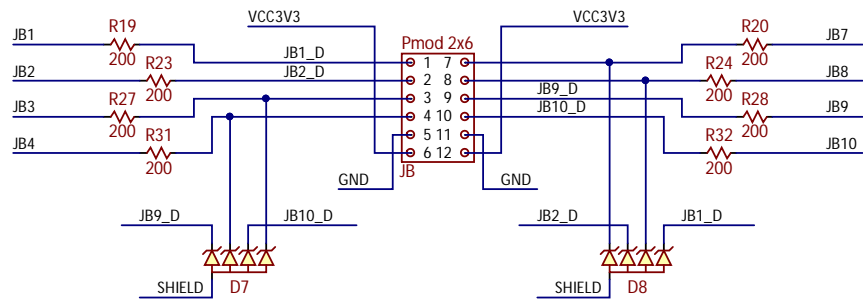
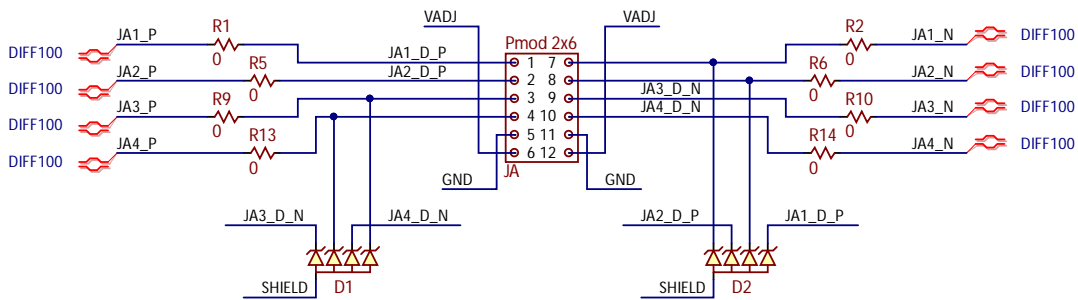
## I2C Diagram



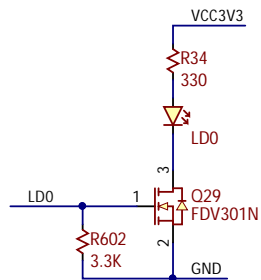
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<b>Genesys ZU-3EG</b>		<b>D.1</b>
		Copyright 2021
Circuit	I2C Diagram	
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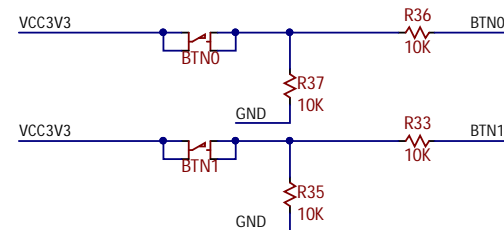
### XADC PMOD



### MIO LED



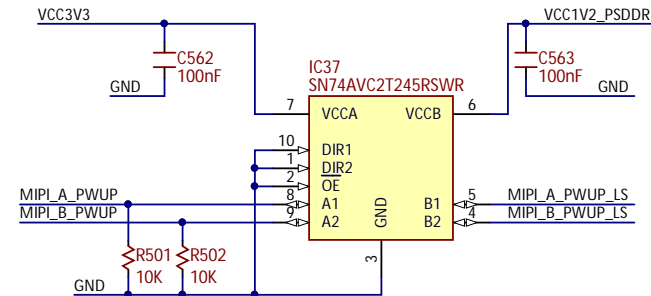
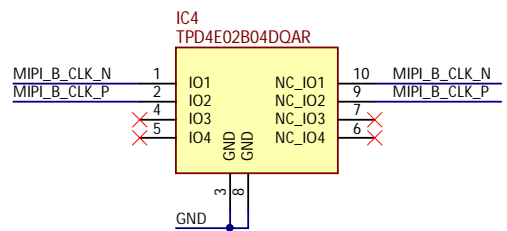
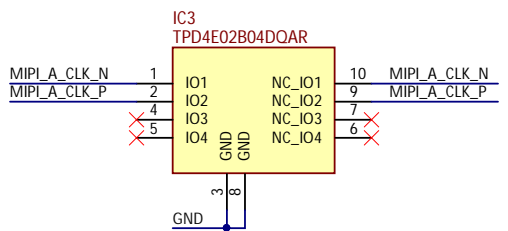
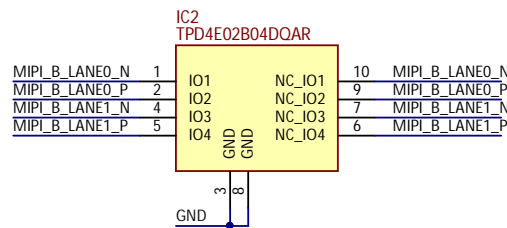
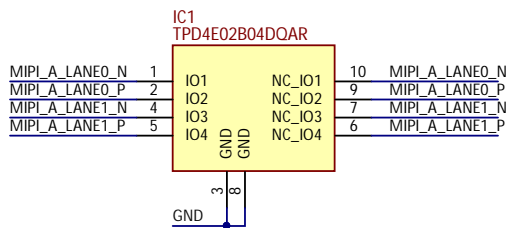
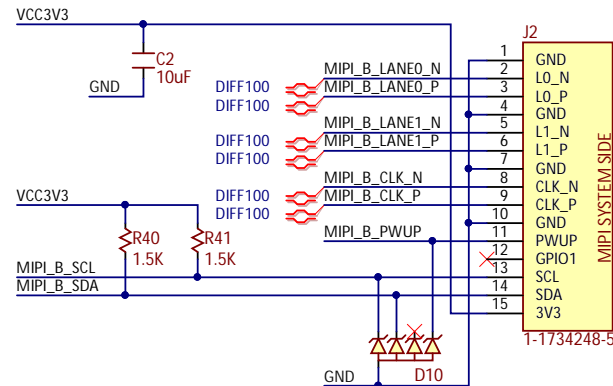
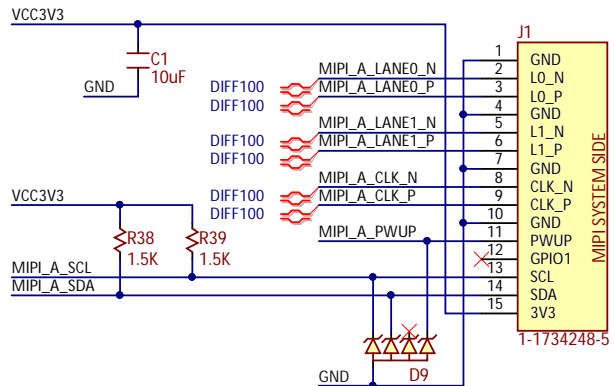
### MIO BUTTONS



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PMODs, MIO BUTTON		
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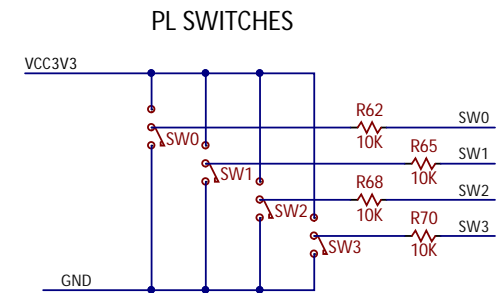
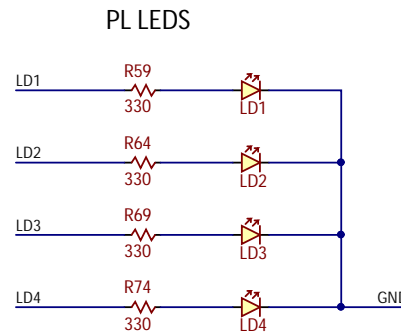
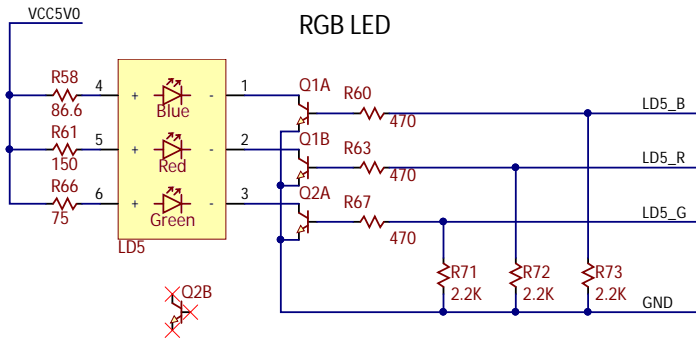
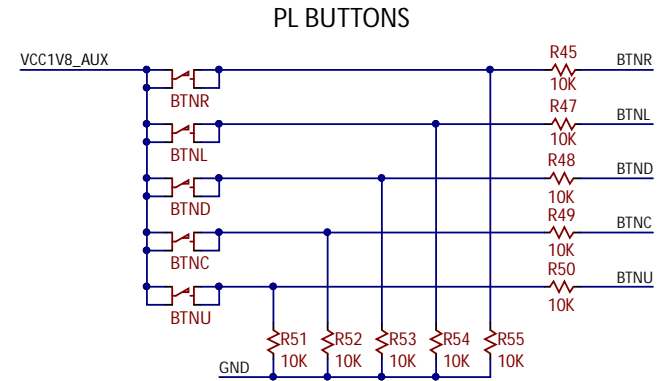
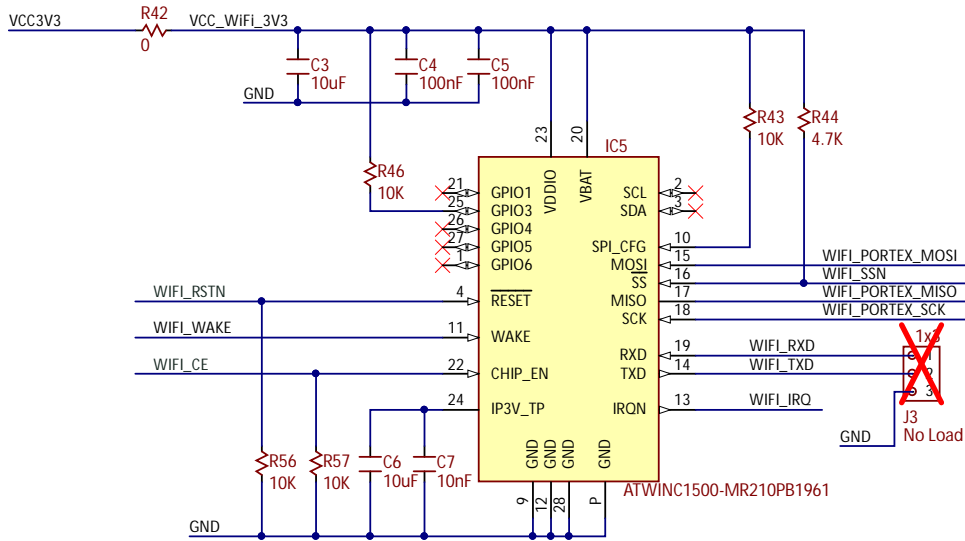




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Circuit			
MIPI Interfaces			
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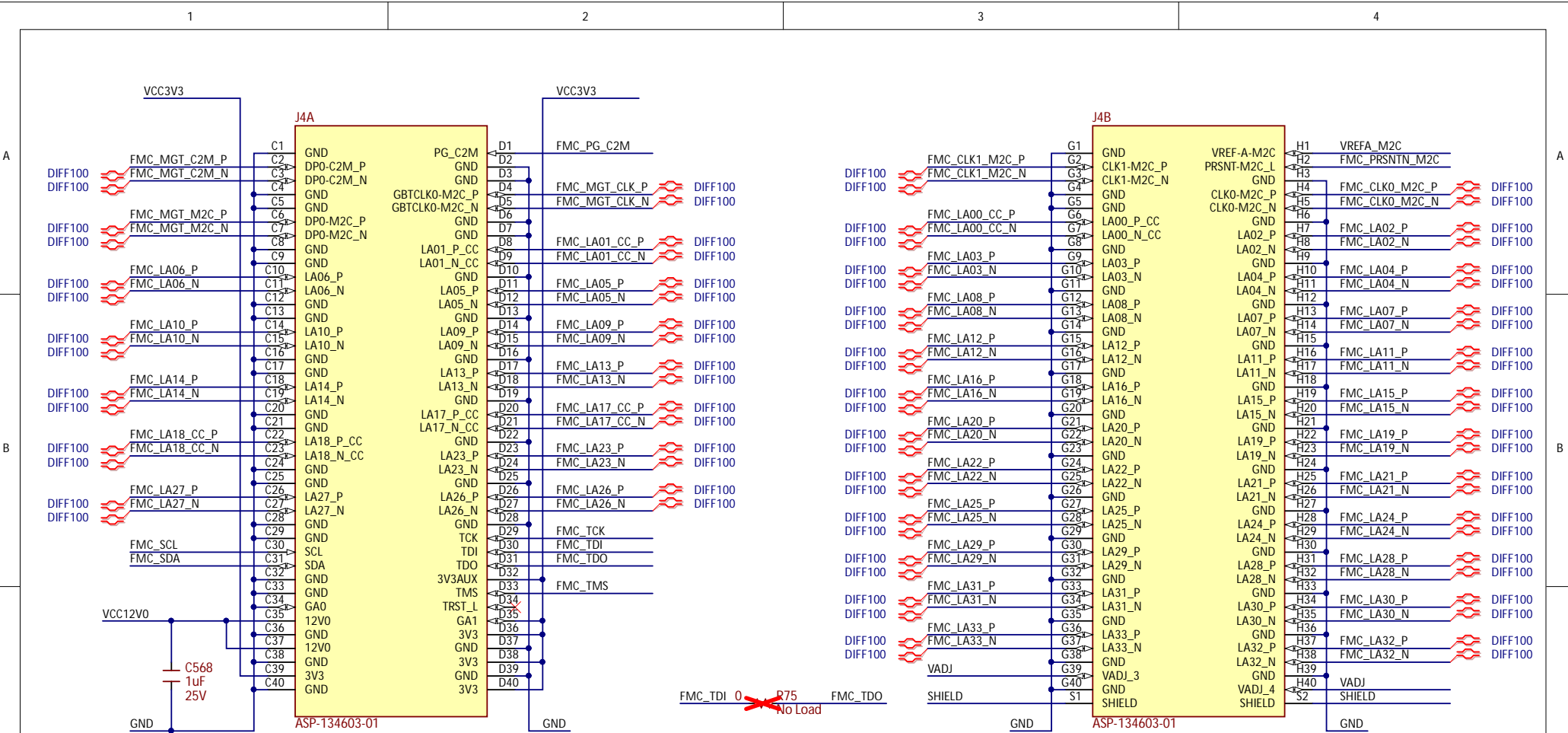


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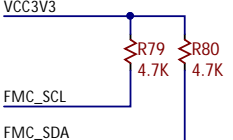
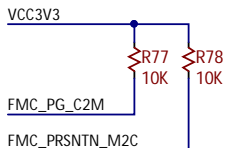
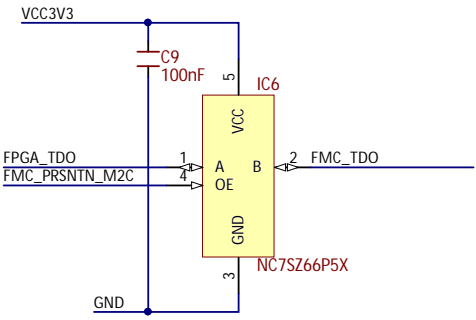
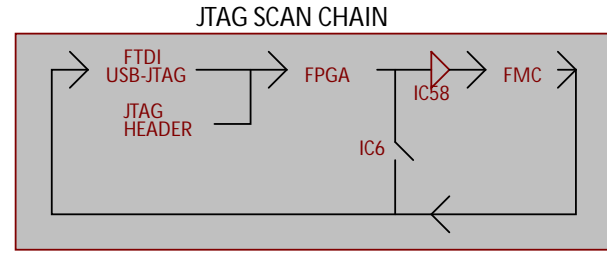


Title		Rev
Genesys ZU-3EG		D.1
Circuit		Copyright 2021
WI-FI, LEDs, BUTTONS etc.		
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I2C 7-bit addresses ending with bits 01 (due to GAX pins).  
 E.g. FMC module EEPROM 7-bit address will be, in binary: 1010001.



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Circuit		Copyright 2021
FMC LPC		
Doc#	500-383	
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Author	IC	
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A

B

C

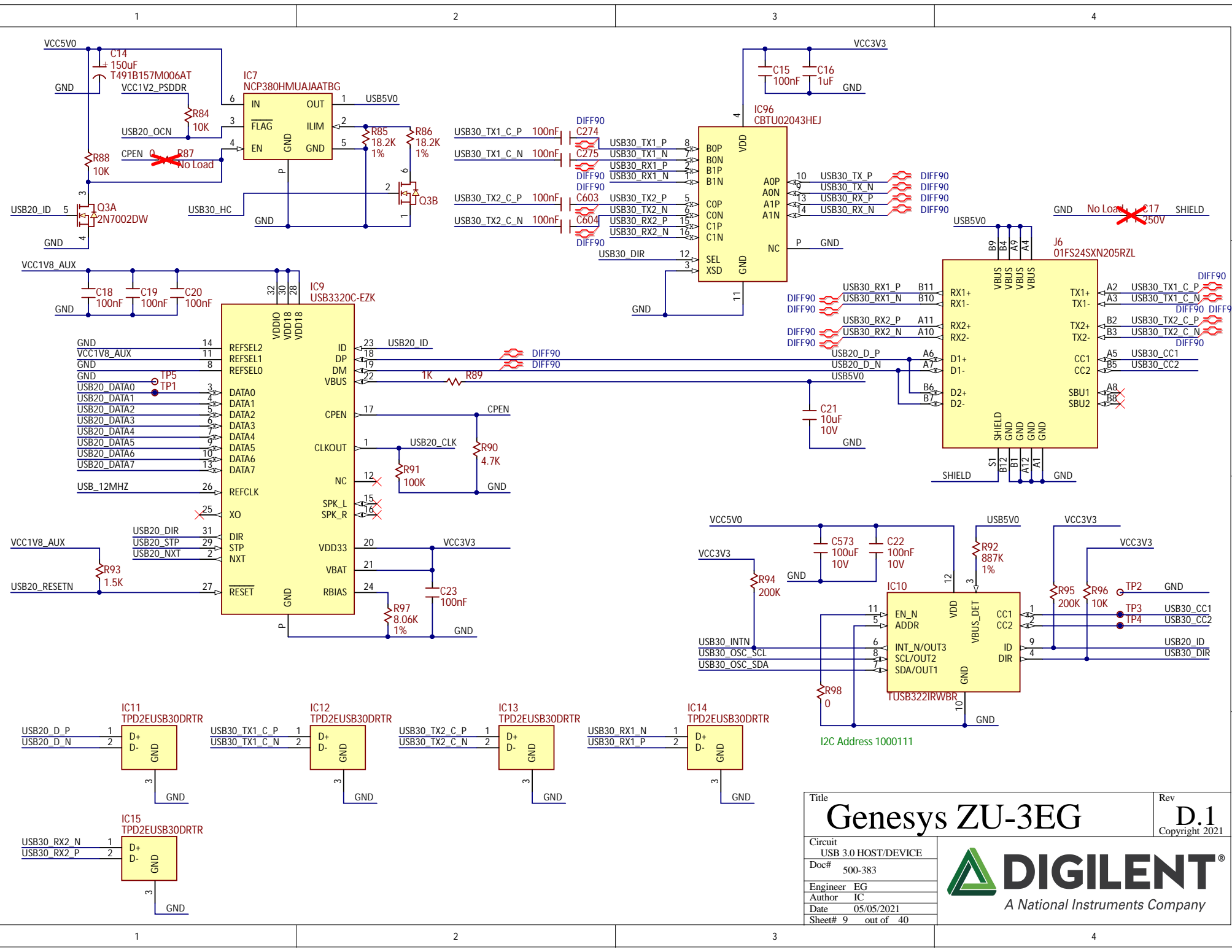
D

A

B

C

D



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<b>Genesys ZU-3EG</b>		<b>D.1</b>
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USB 3.0 HOST/DEVICE		
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Engineer	EG	
Author	IC	
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A

B

C

D

1

2

3

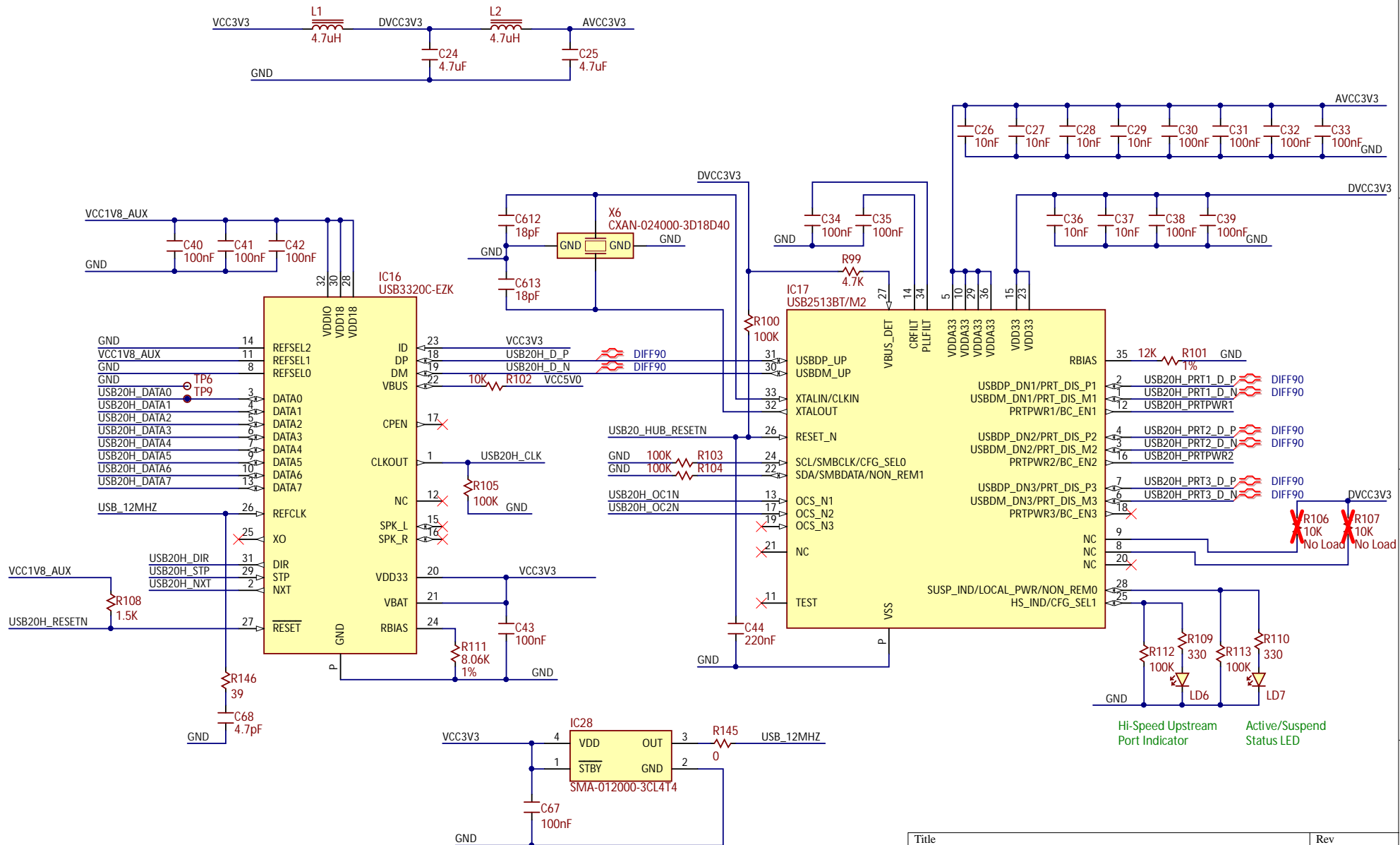
4

A

B

C

D



Title		Rev
<h1>Genesys ZU-3EG</h1>		<b>D.1</b> Copyright 2021
Circuit		
USB 2.0 HOST PHY & HUB		
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Author	IC	
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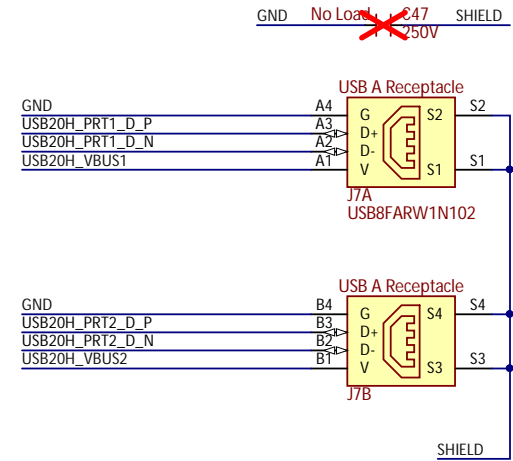
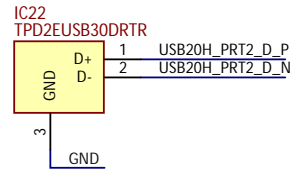
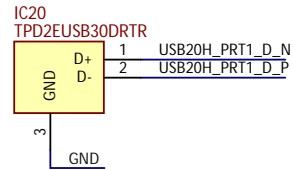
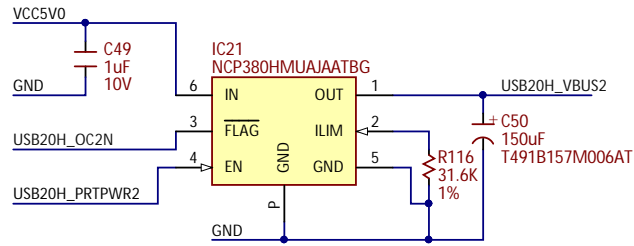
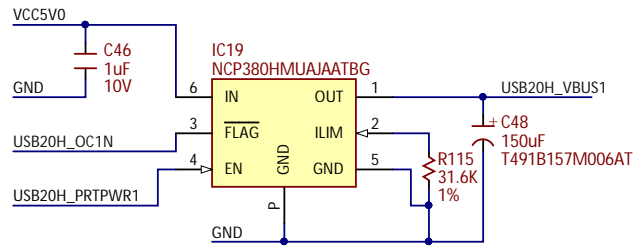
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1

2

3

4



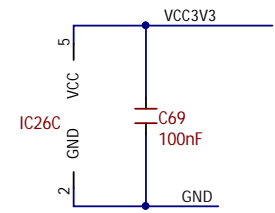
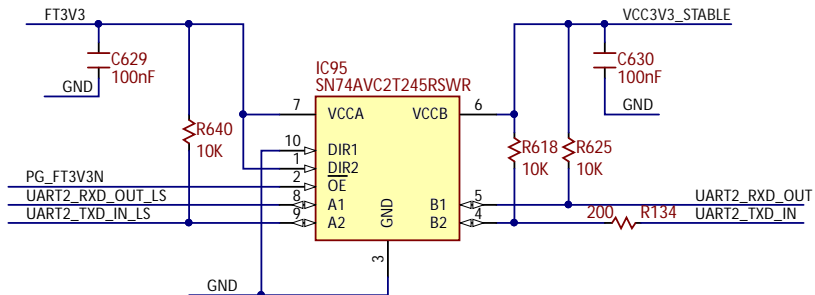
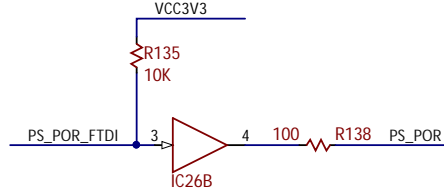
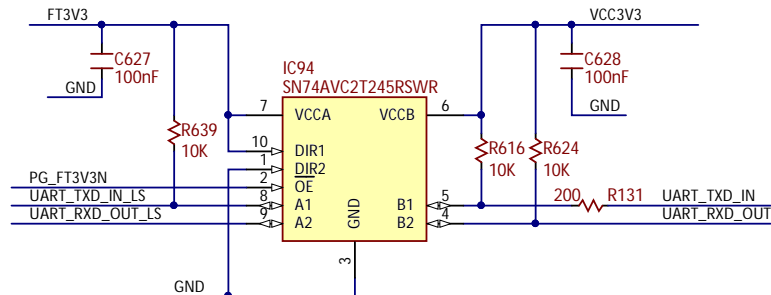
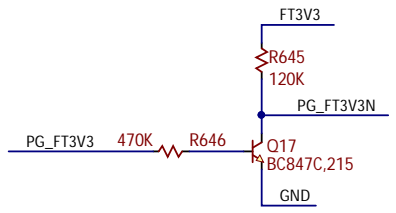
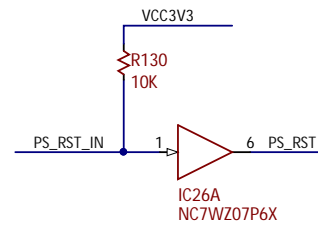
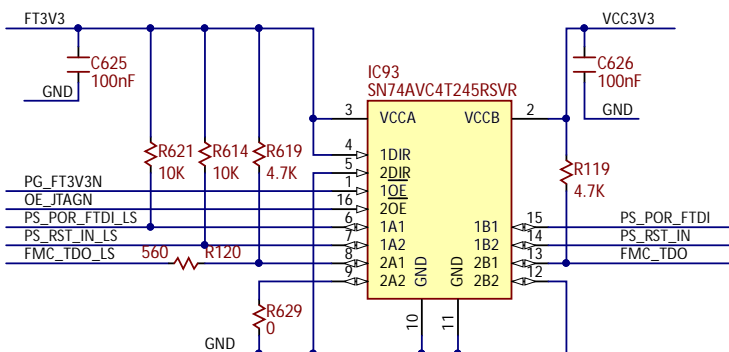
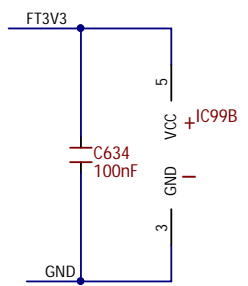
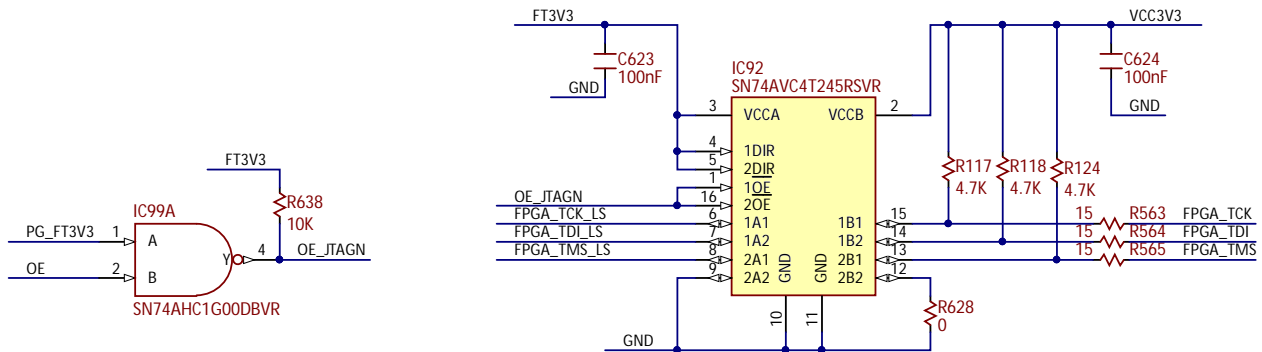
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Genesys ZU-3EG		D.1
		Copyright 2021
Circuit		
USB 2.0 HUB CONN		
Doc# 500-383		
Engineer EG		
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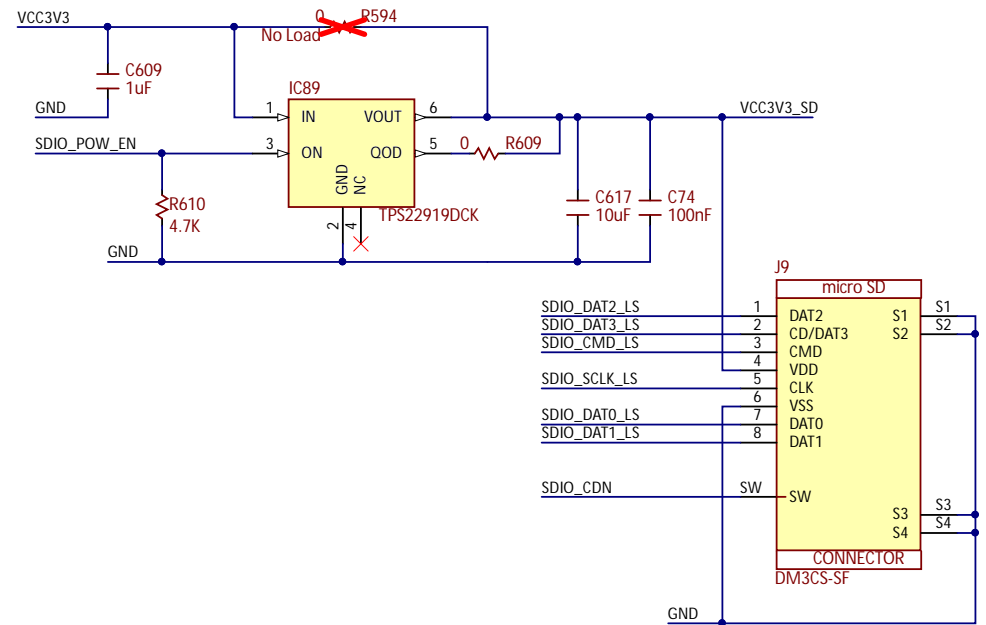
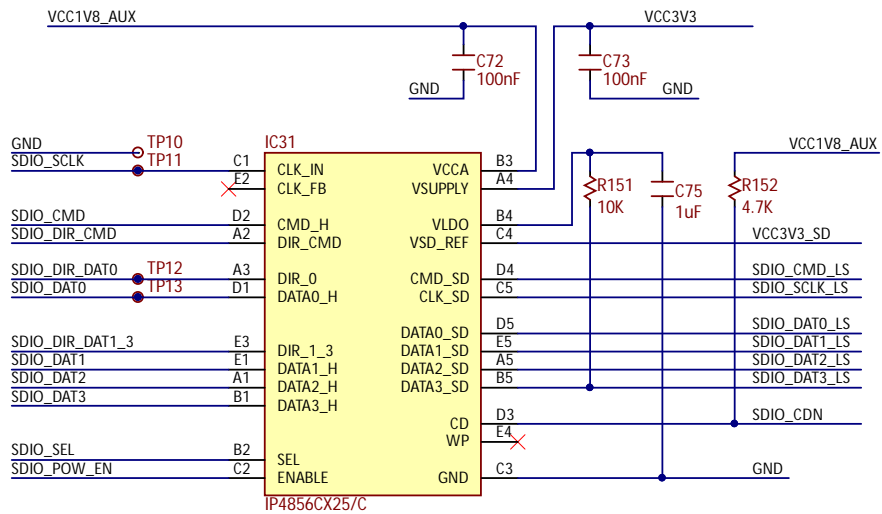
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Circuit	USB PROG/UART	 <b>DIGILENT</b> <sup>®</sup> A National Instruments Company	
Doc#	500-383		
Engineer	EG		
Author	IC		
Date	05/05/2021		
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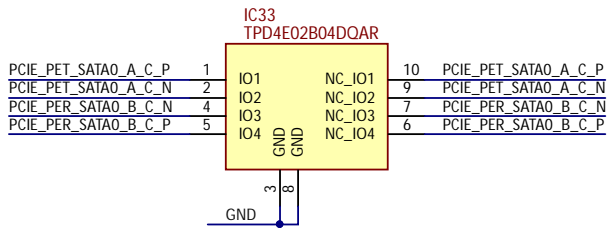
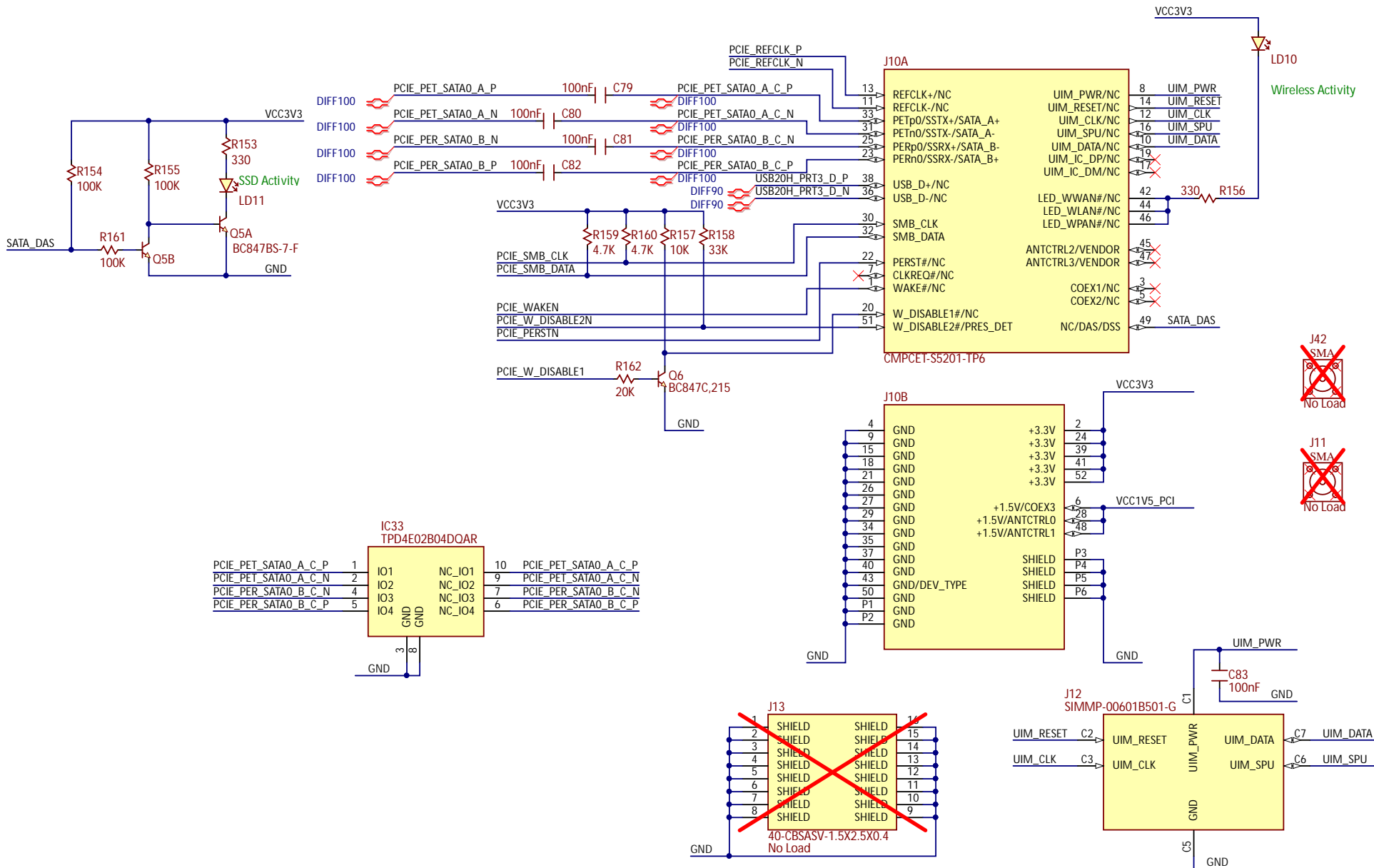


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Circuit		USB PROG BUFFERS		Doc#		500-383	
Author		EG		Date		05/05/2021	
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Title		Rev
<b>Genesys ZU-3EG</b>		<b>D.1</b>
		Copyright 2021
Circuit	SD CARD	
Doc#	500-383	
Engineer	EG	
Author	IC	
Date	05/05/2021	
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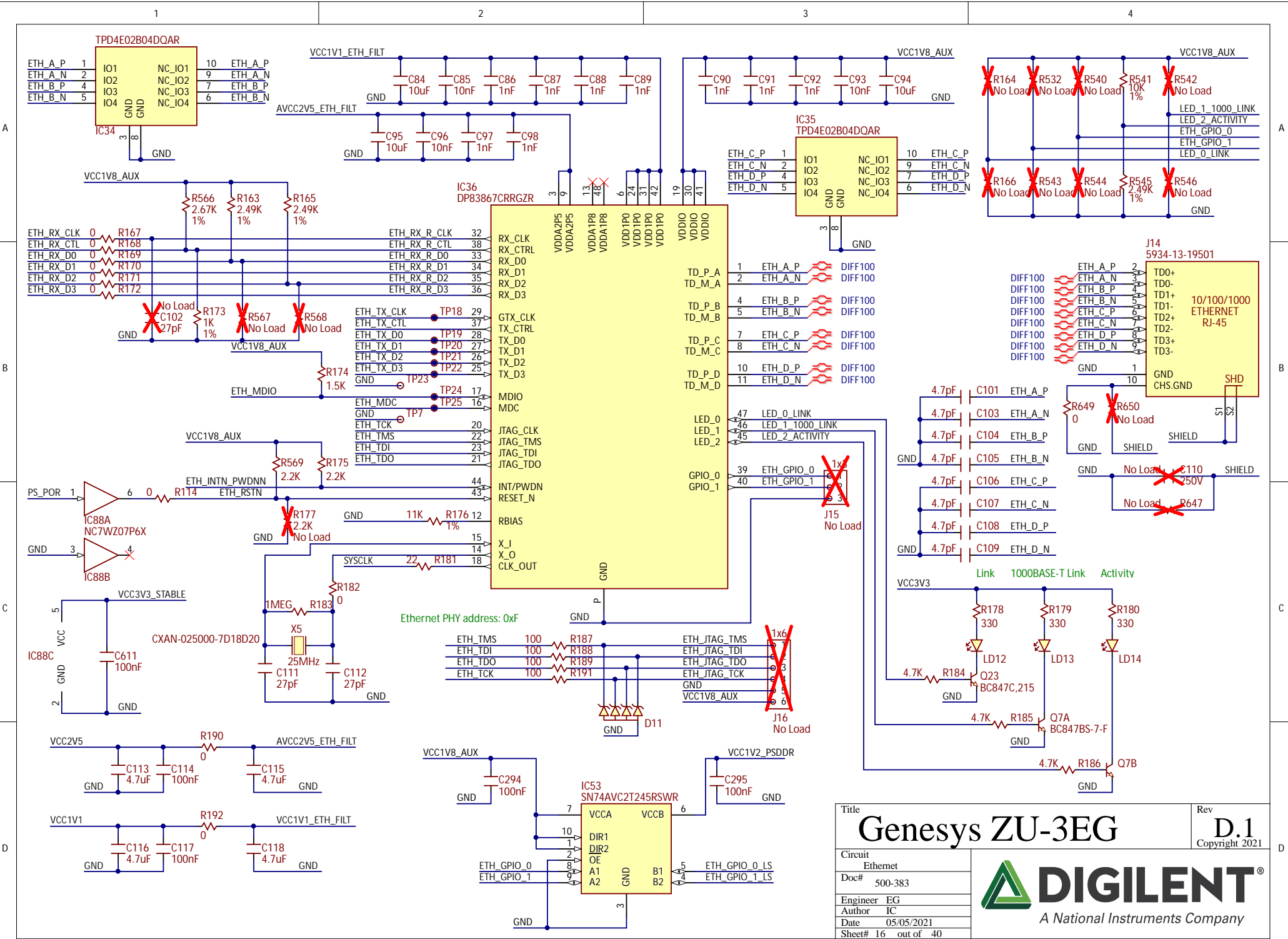
F11 SMT Standoff  
S001-00001-B01

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F14 SMT Standoff  
S001-00001-B01

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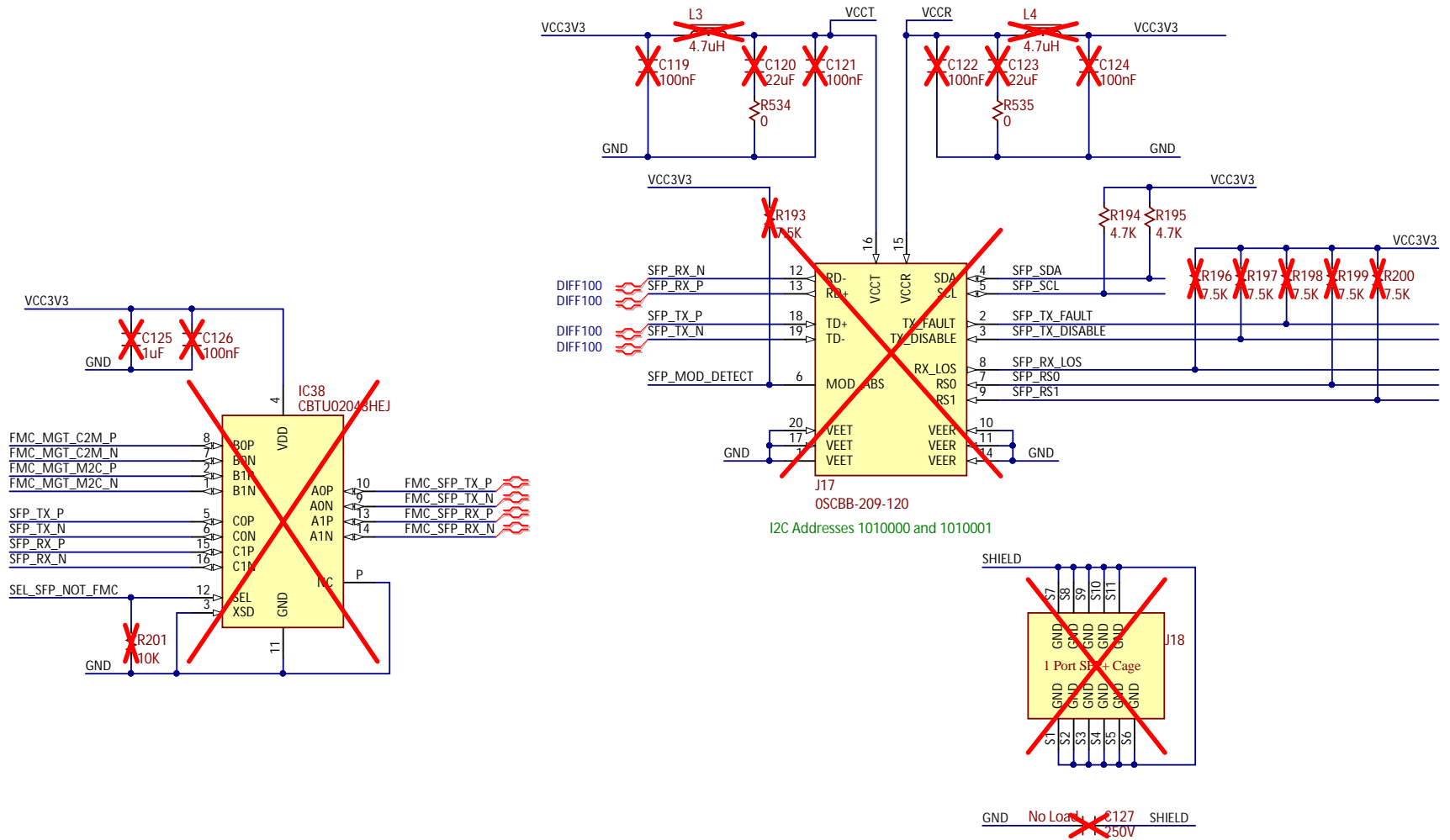
Title	Genesys ZU-3EG	Rev	D.1
Circuit	Mini PCIe / SATA	Copyright	2021
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Engineer	EG		
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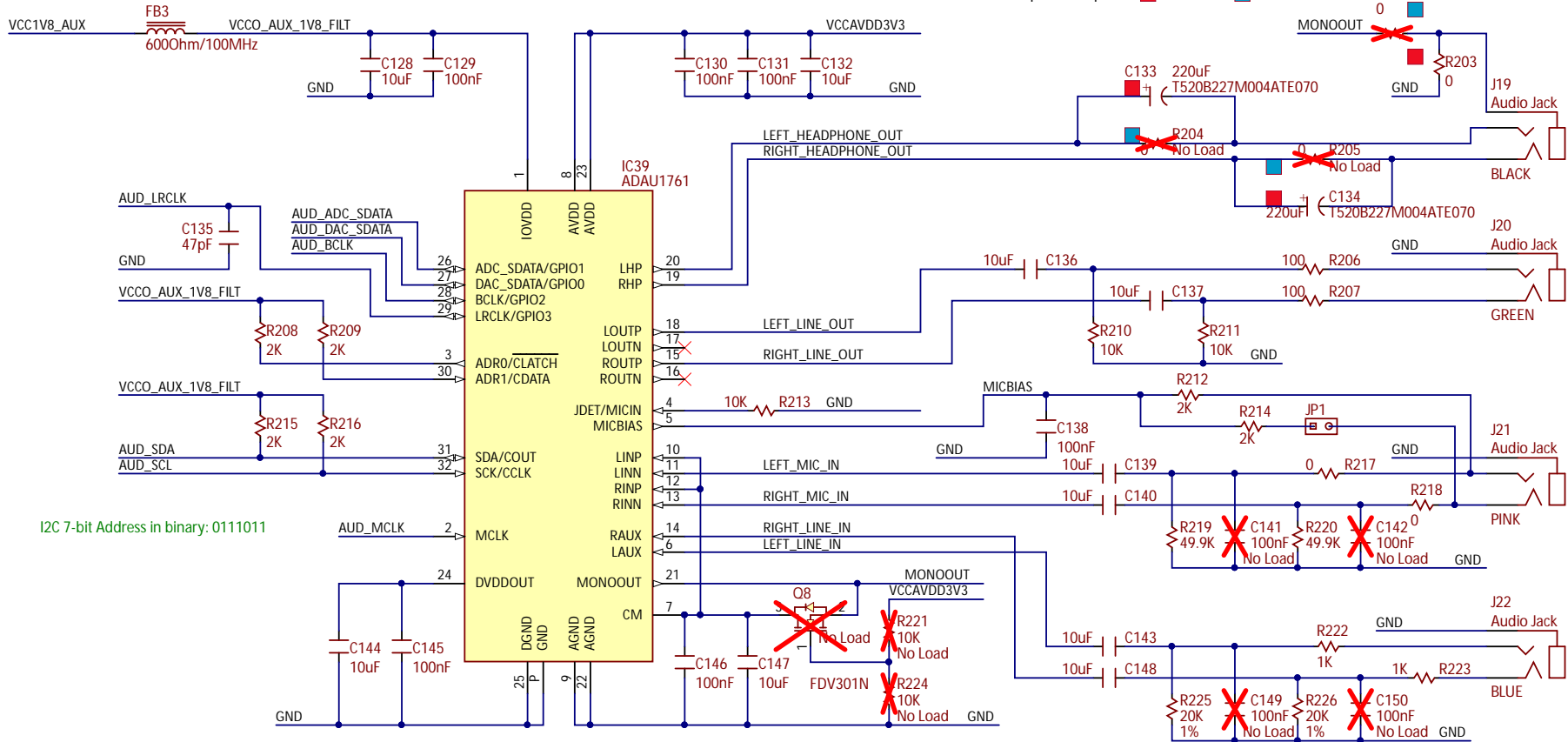


SFP+ cannot be used simultaneously with neither HDMI Source nor Sink due to the limited number of QPLL/CPLL primitives available in the GTH Quad.

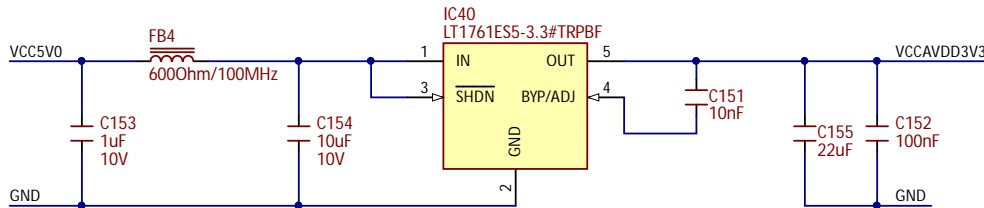
Title		Rev
Genesys ZU-3EG		D.1
		Copyright 2021
Circuit	SFP+	
Doc#	500-383	
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NOTE: Load No Load  
 Capless Headphone ■ ■  
 AC-Coupled Headphone ■ ■



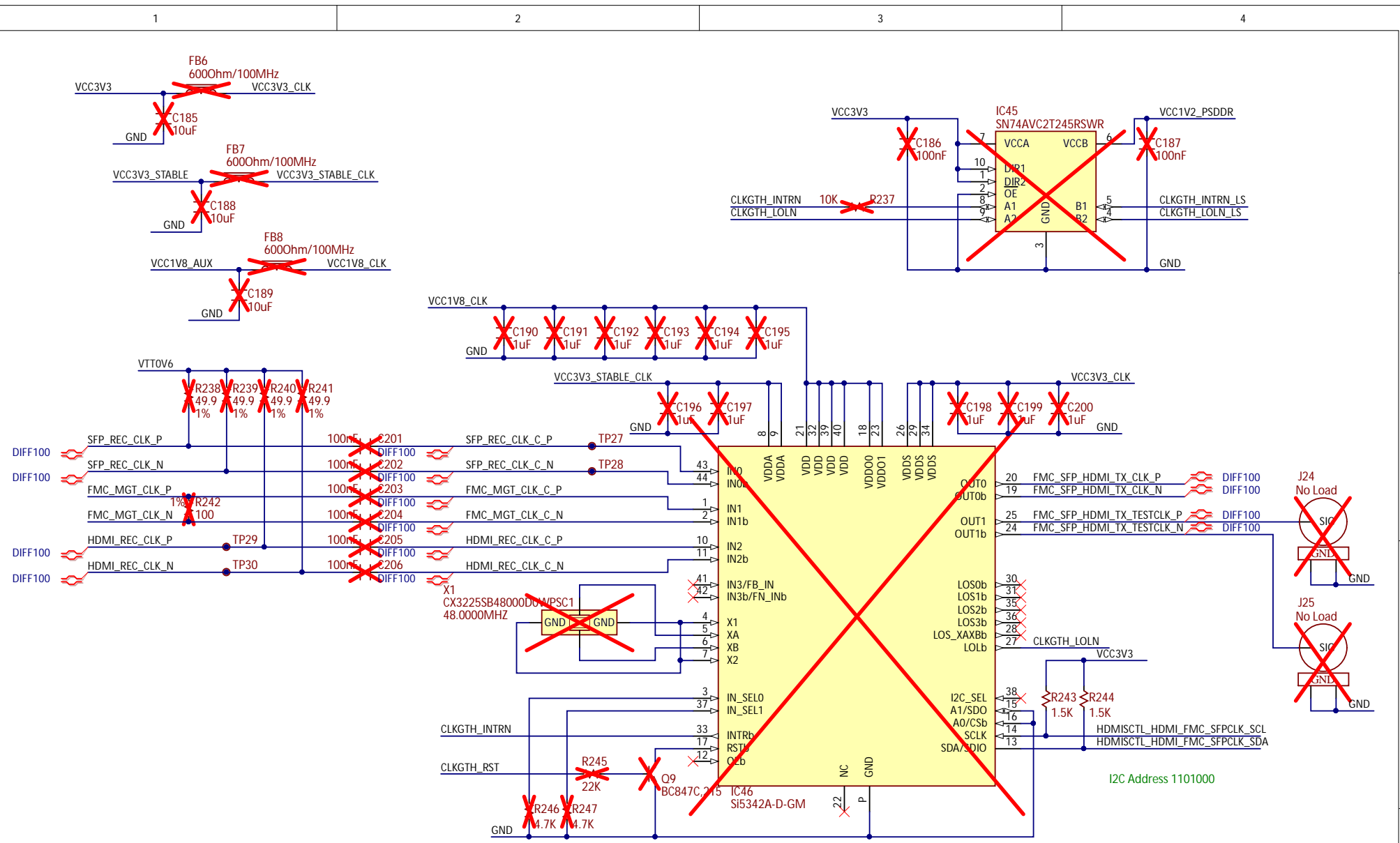
I2C 7-bit Address in binary: 0111011



Title		Rev
<b>Genesys ZU-3EG</b>		<b>D.1</b>
		Copyright 2021
Circuit	AUDIO	
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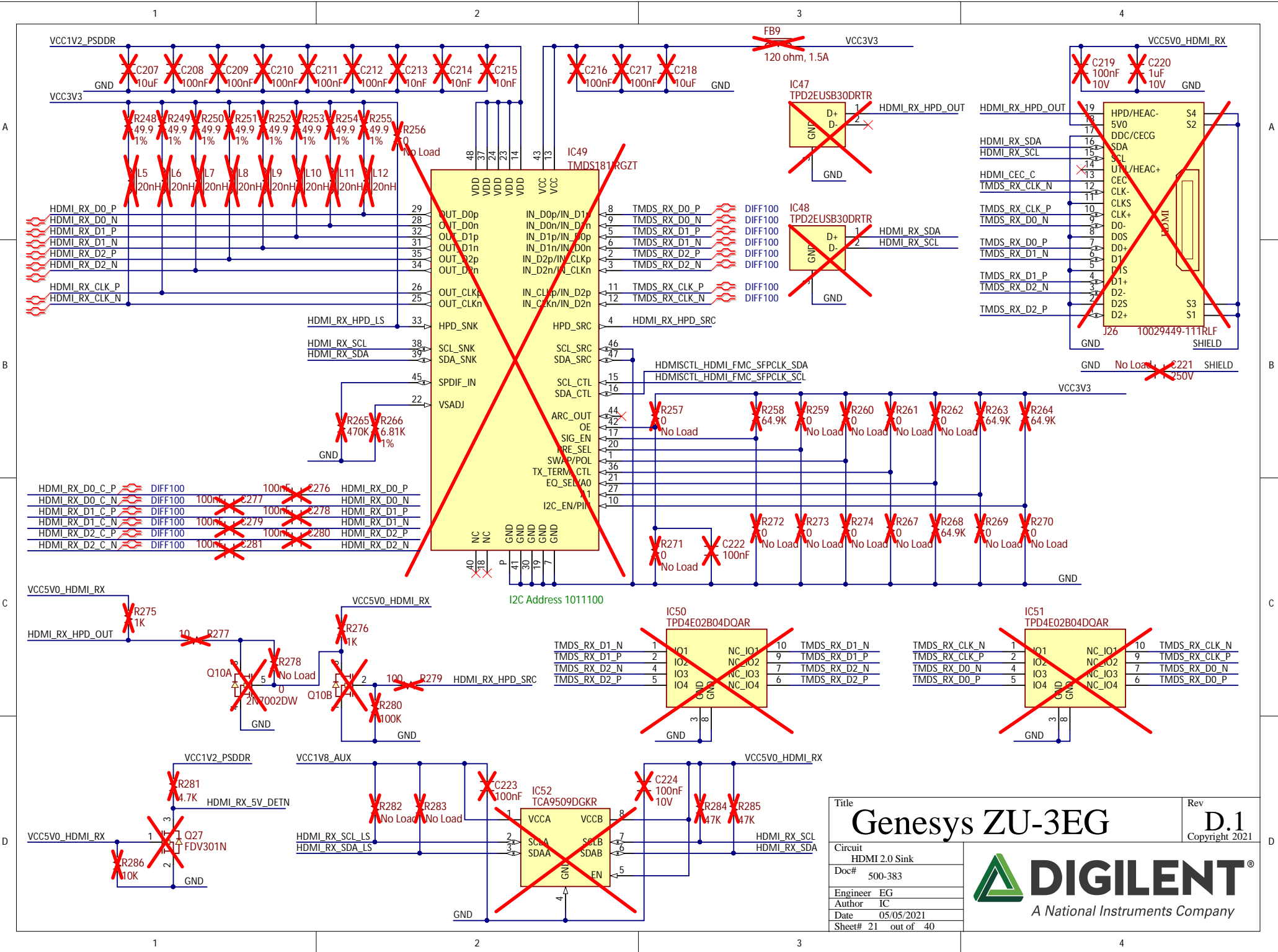
Upon board powerup, the first setting that must be done via I2C to the Si5342 is VDDIO level = 3.3V, by setting the IO\_VDD\_SEL bit to logic '1'.

Title		Rev
<b>Genesys ZU-3EG</b>		<b>D.1</b>
Circuit		Copyright 2021
FMC, SFP, HDMI Clock		
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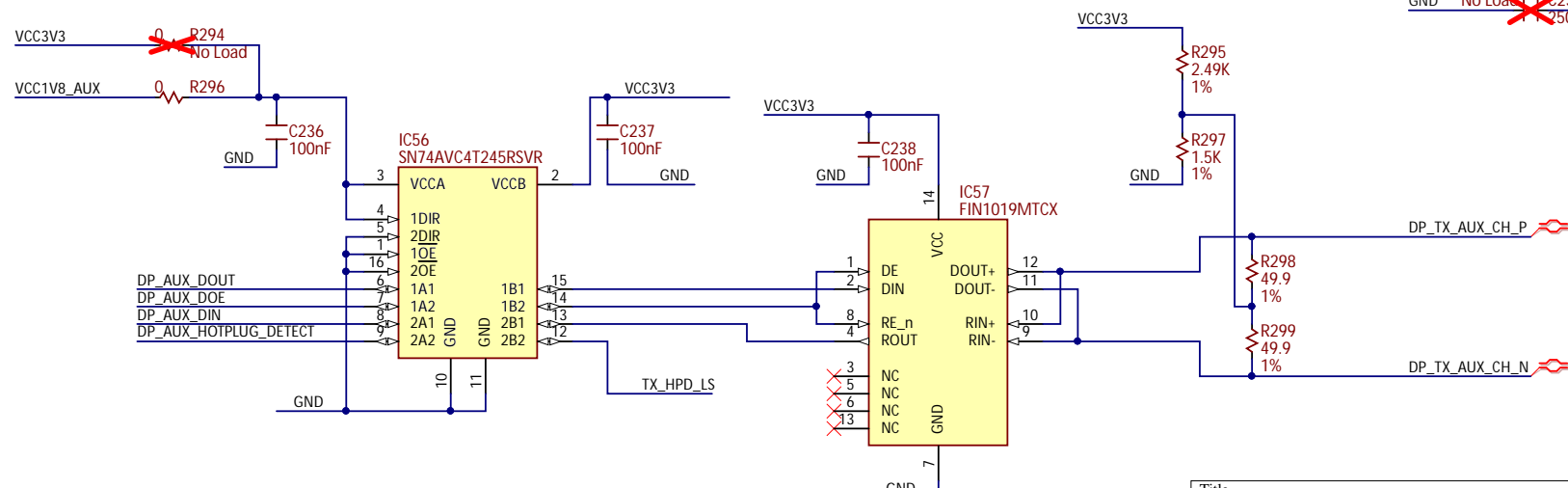
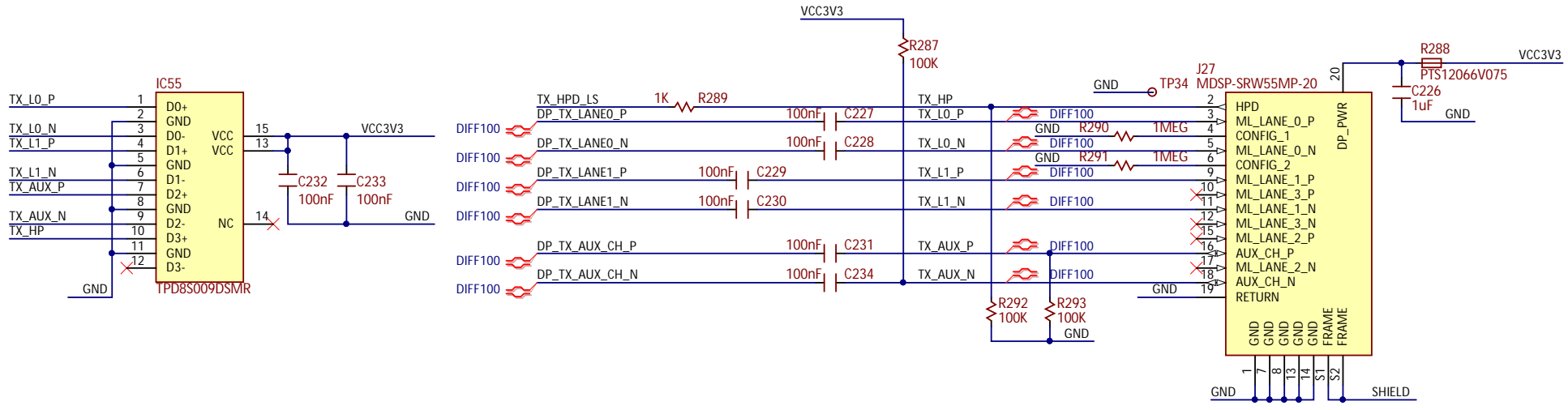
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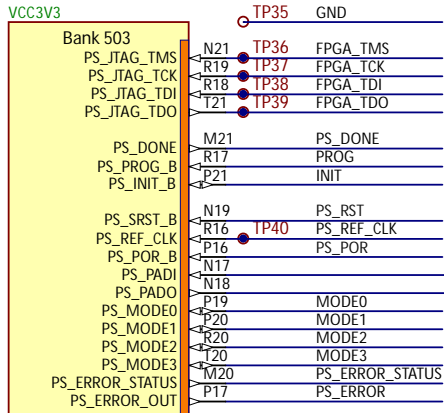
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Circuit		Copyright 2021	
HDMI 2.0 Sink			
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Engineer	EG		
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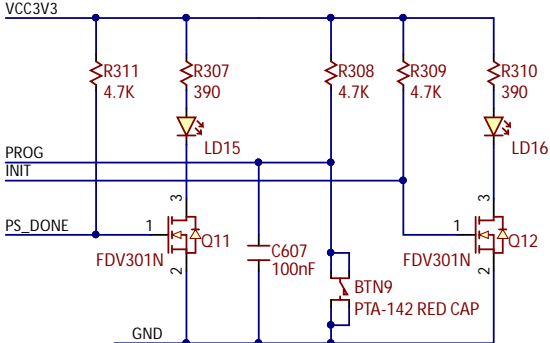
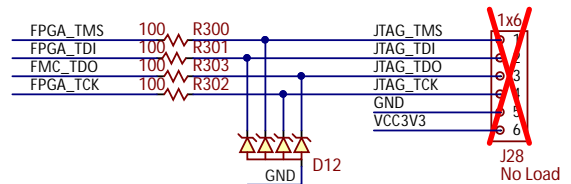
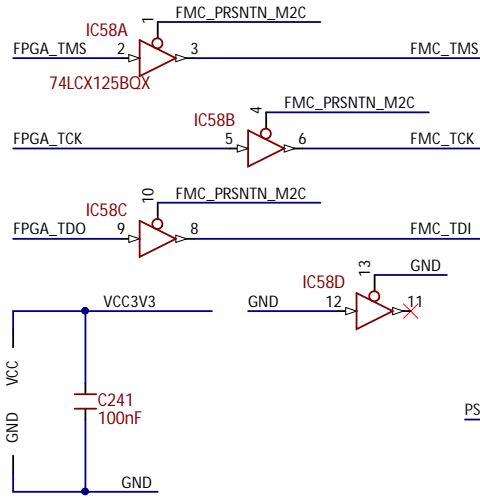


Title		Rev	
Genesys ZU-3EG		D.1	
Circuit		Copyright 2021	
DisplayPort Source			
Doc#	500-383		
Engineer	EG		
Author	IC		
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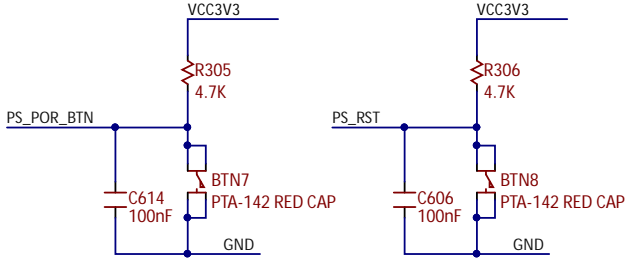
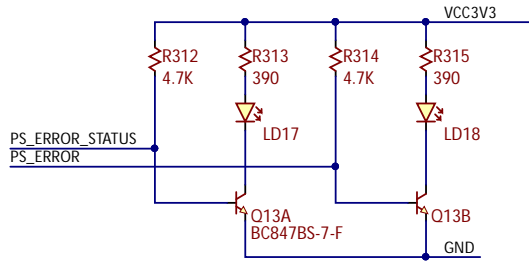




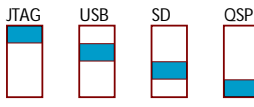
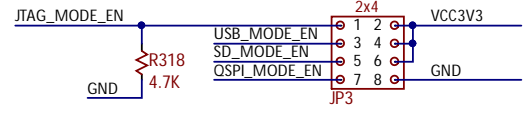
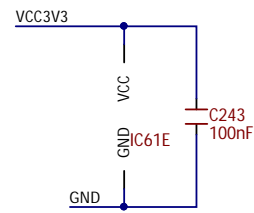
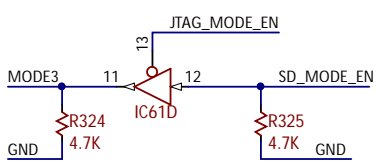
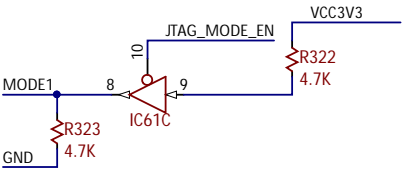
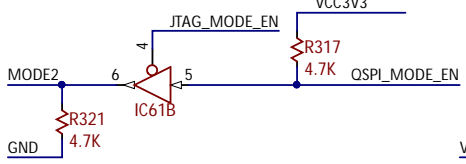
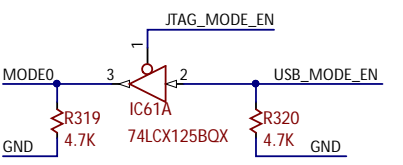
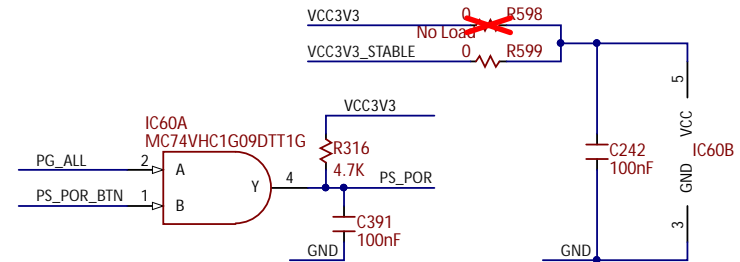
IC59L  
XCZU3EG-1SFVC784E



PL Configuration Reset



PS Power On Reset PS System Reset

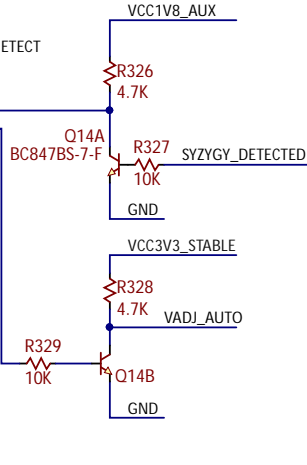
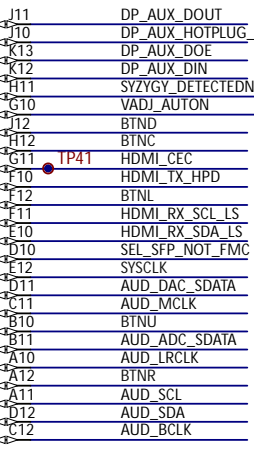
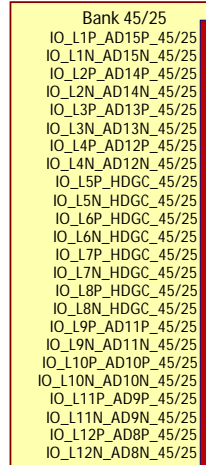
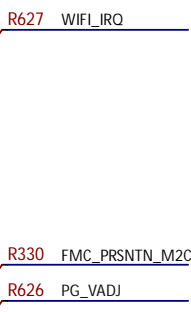
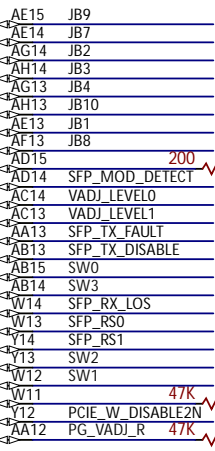
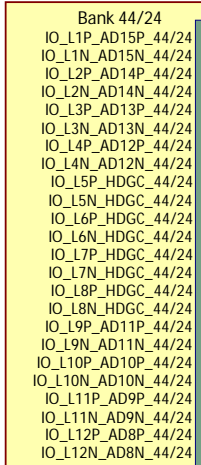
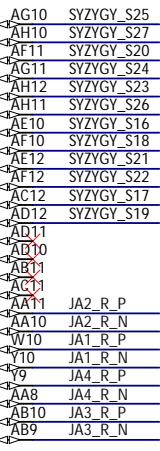
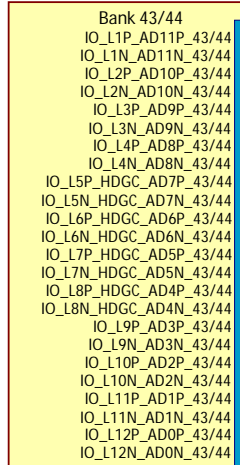


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VADJ

VCC3V3

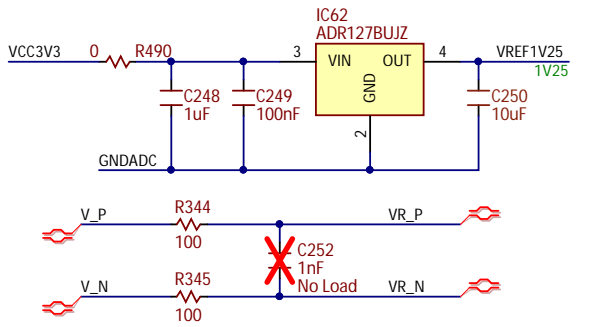
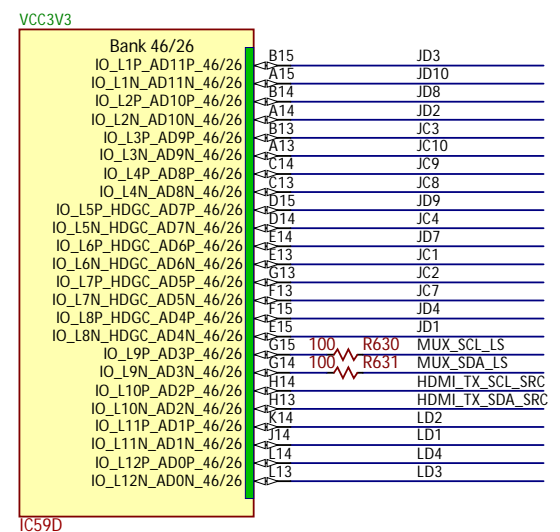
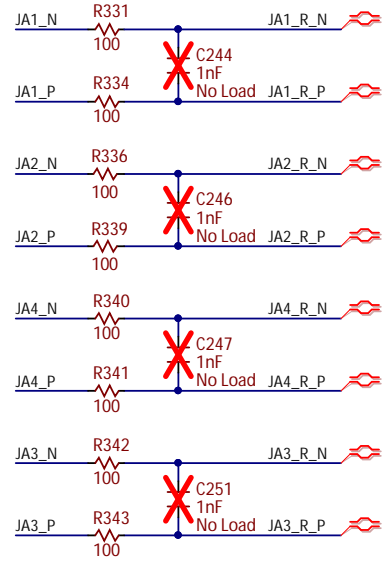
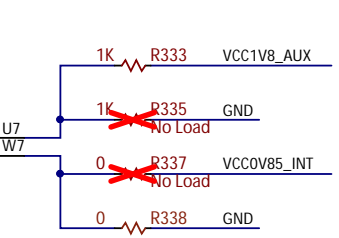
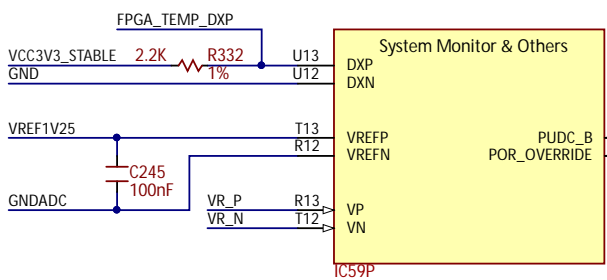
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IC59A

IC59B

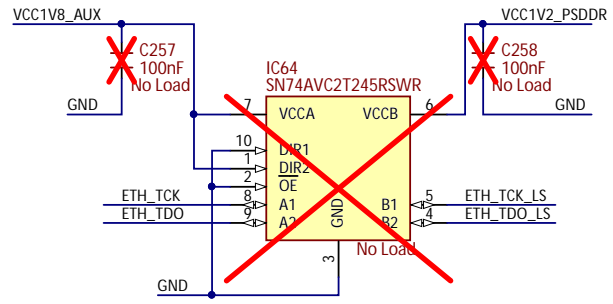
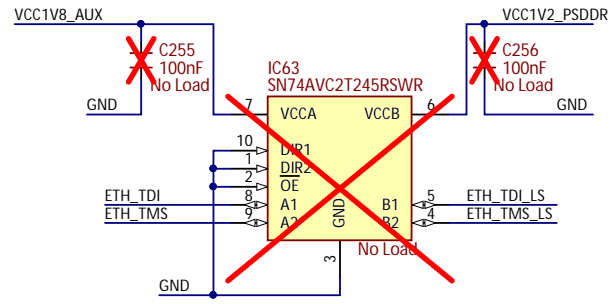
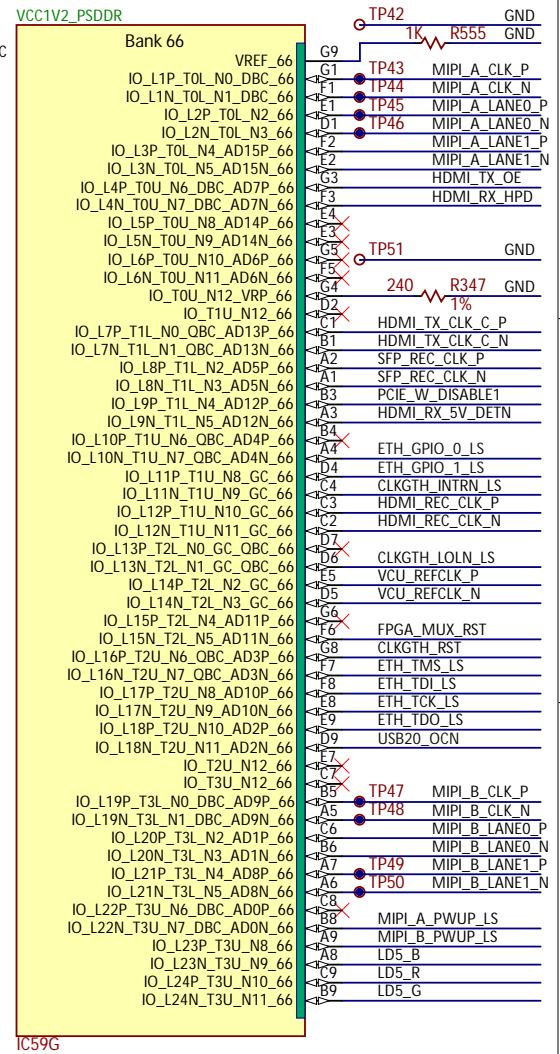
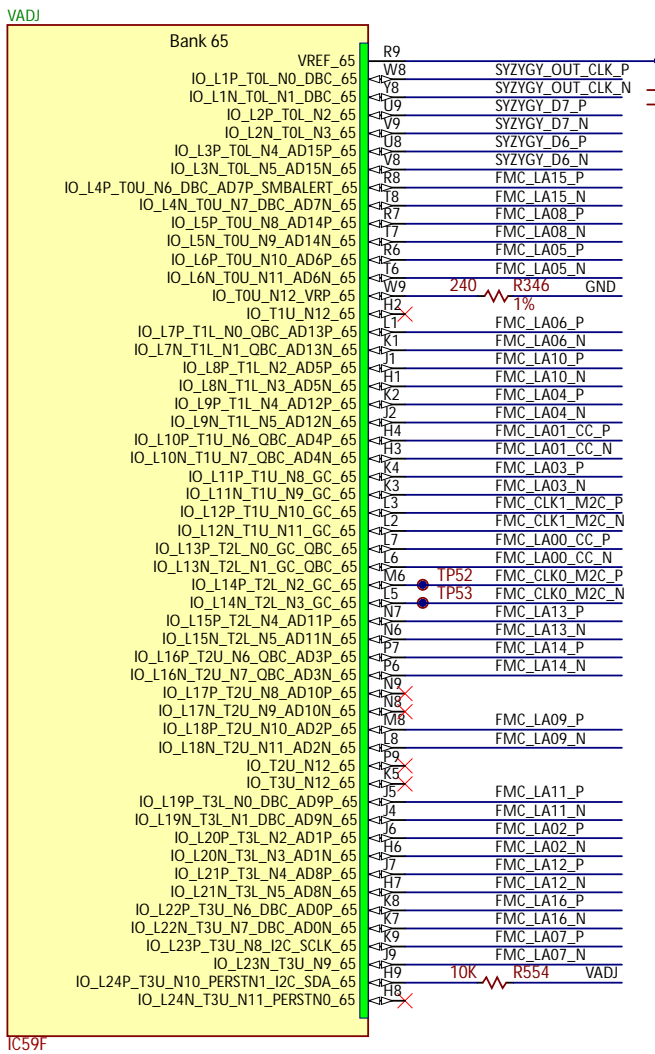
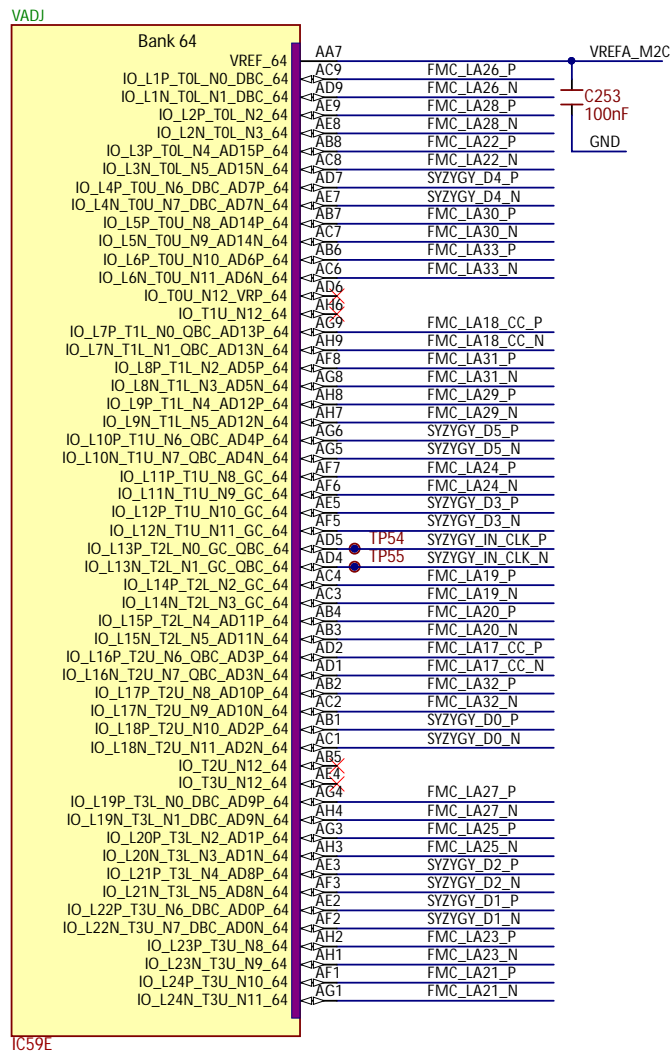
IC59C



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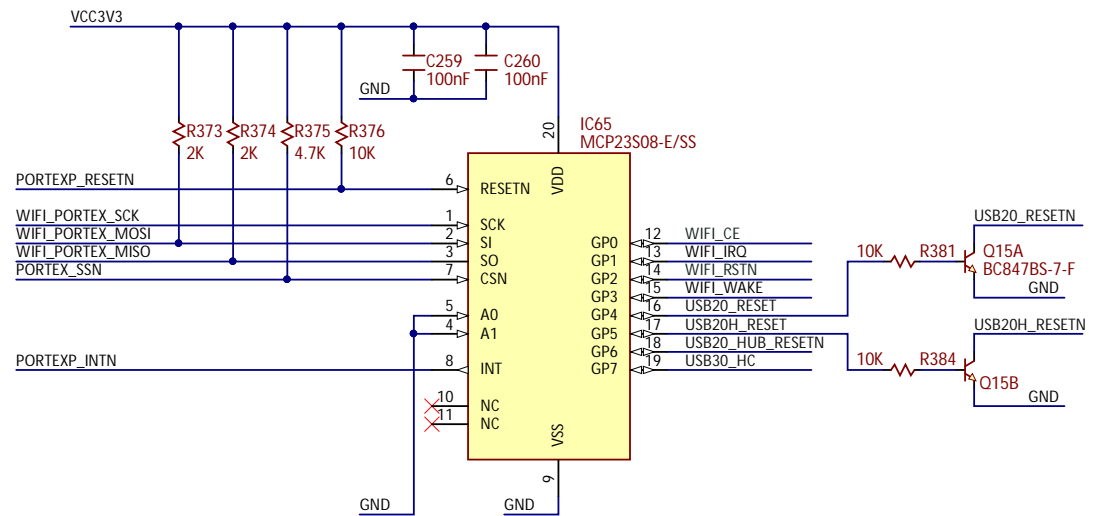
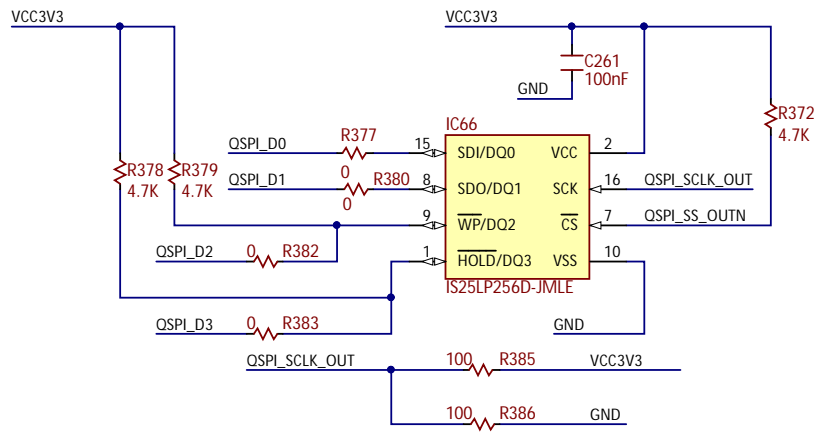
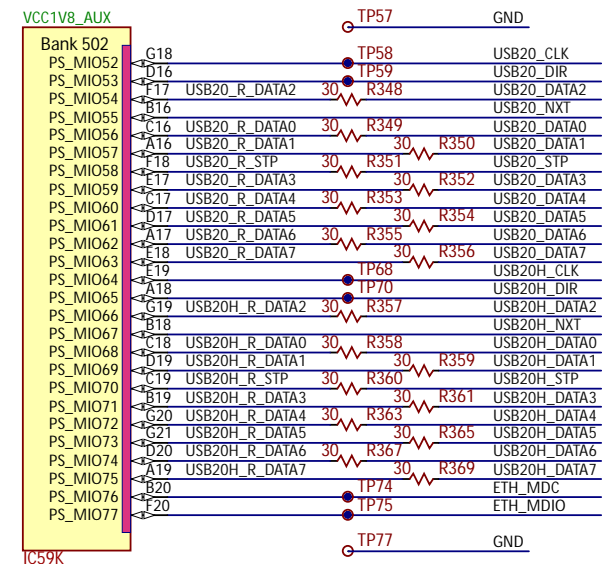
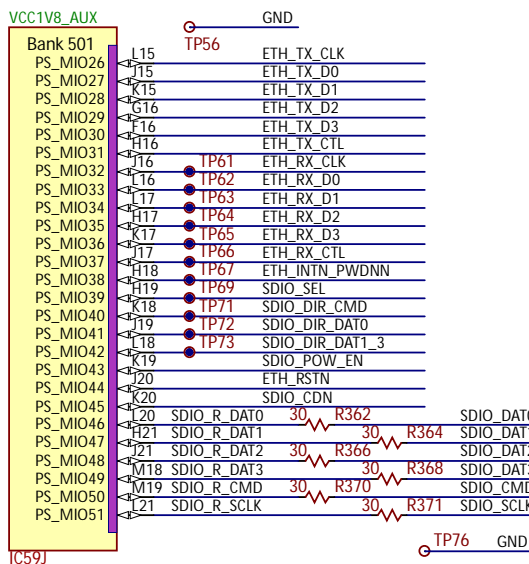
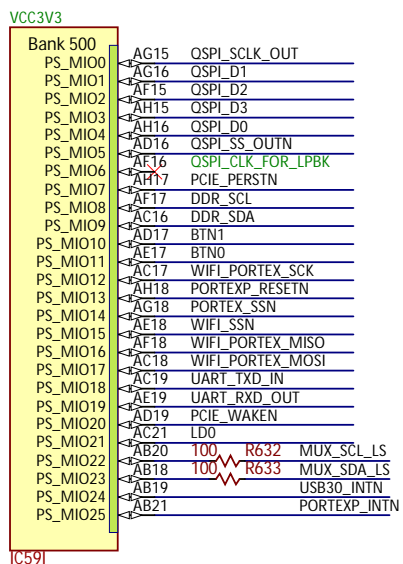


If a DCI standard is required on FMC\_LA15\_P and/or FMC\_LA07\_P, follow the requirements outlined in UG571, under section "Special DCI Requirements in Some Banks".

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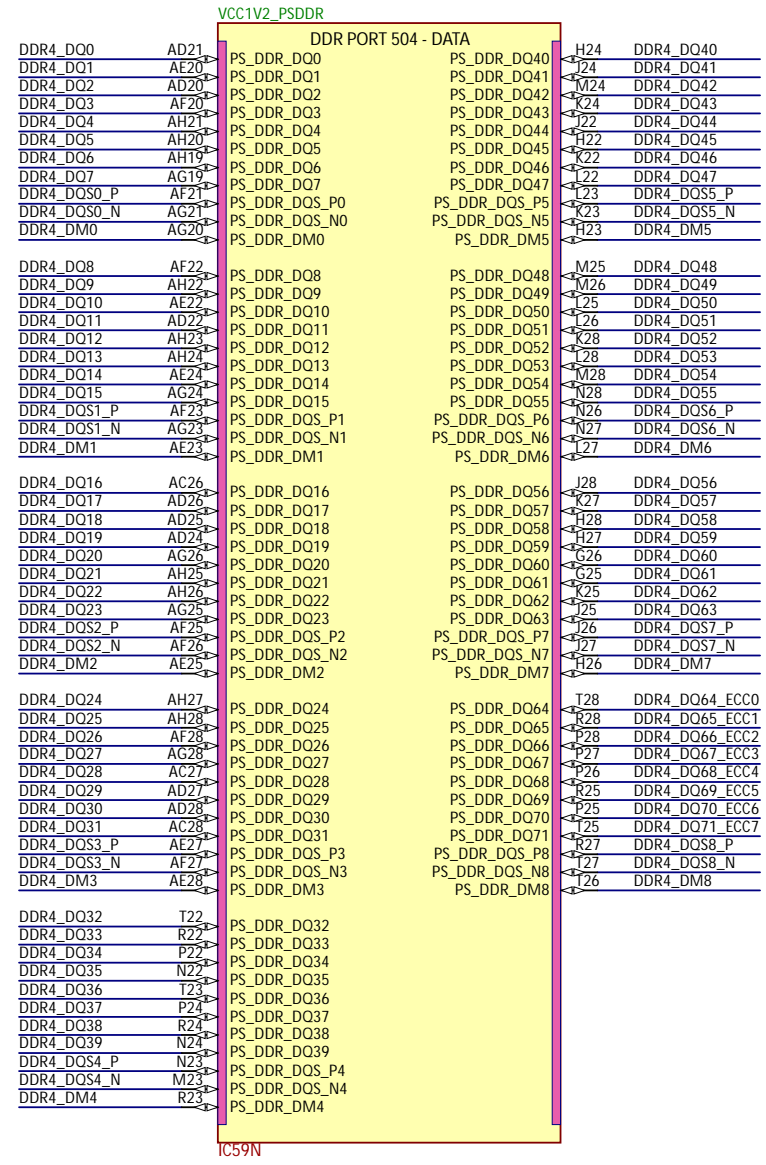
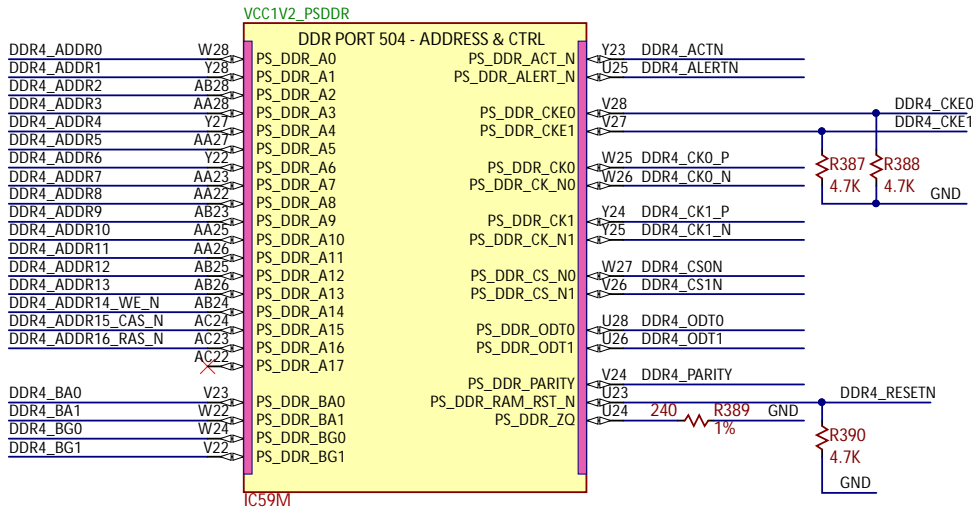


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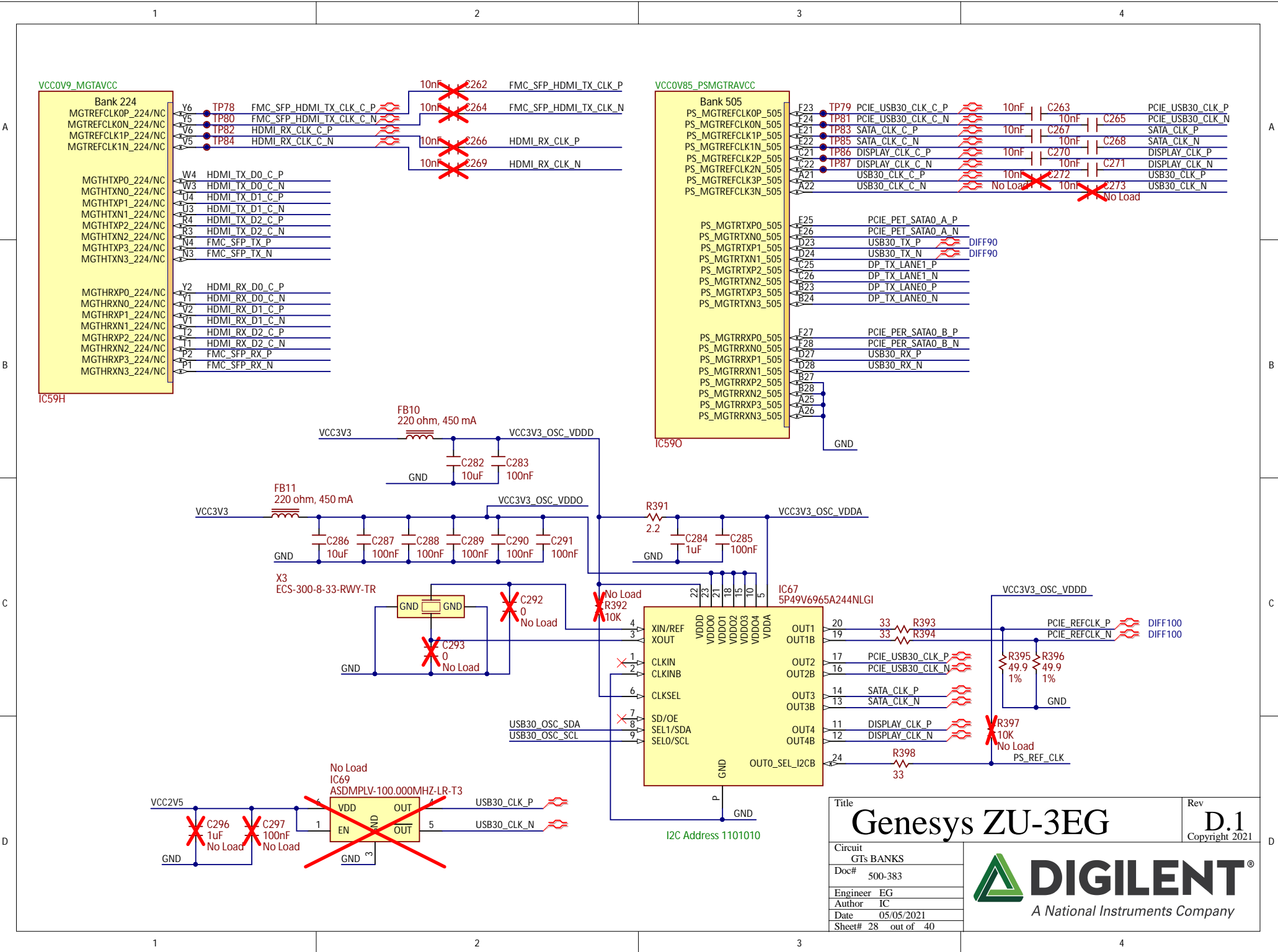




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A

B

C

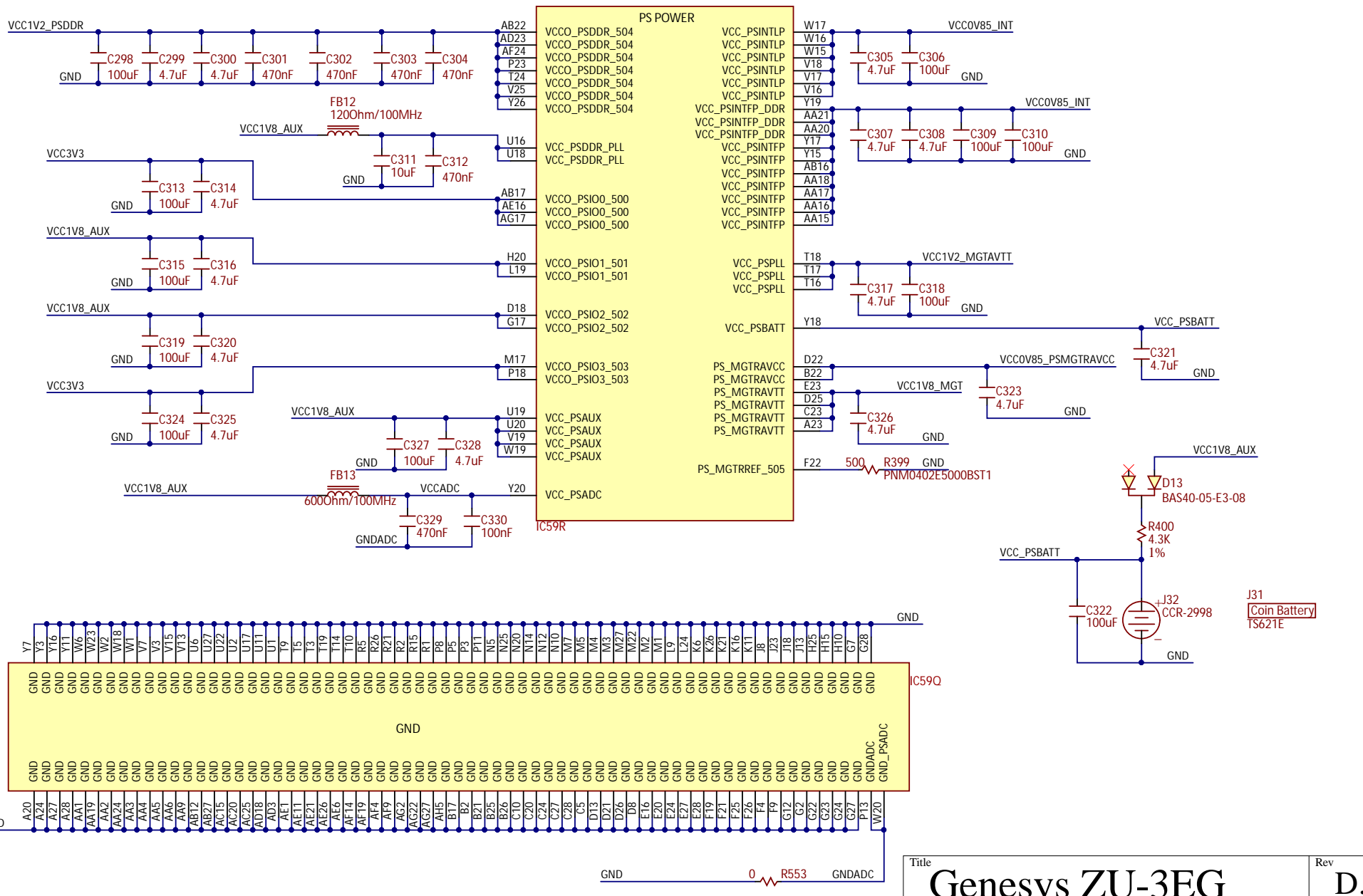
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2

3

4



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Circuit		PS POWER_GND		Doc#		500-383	
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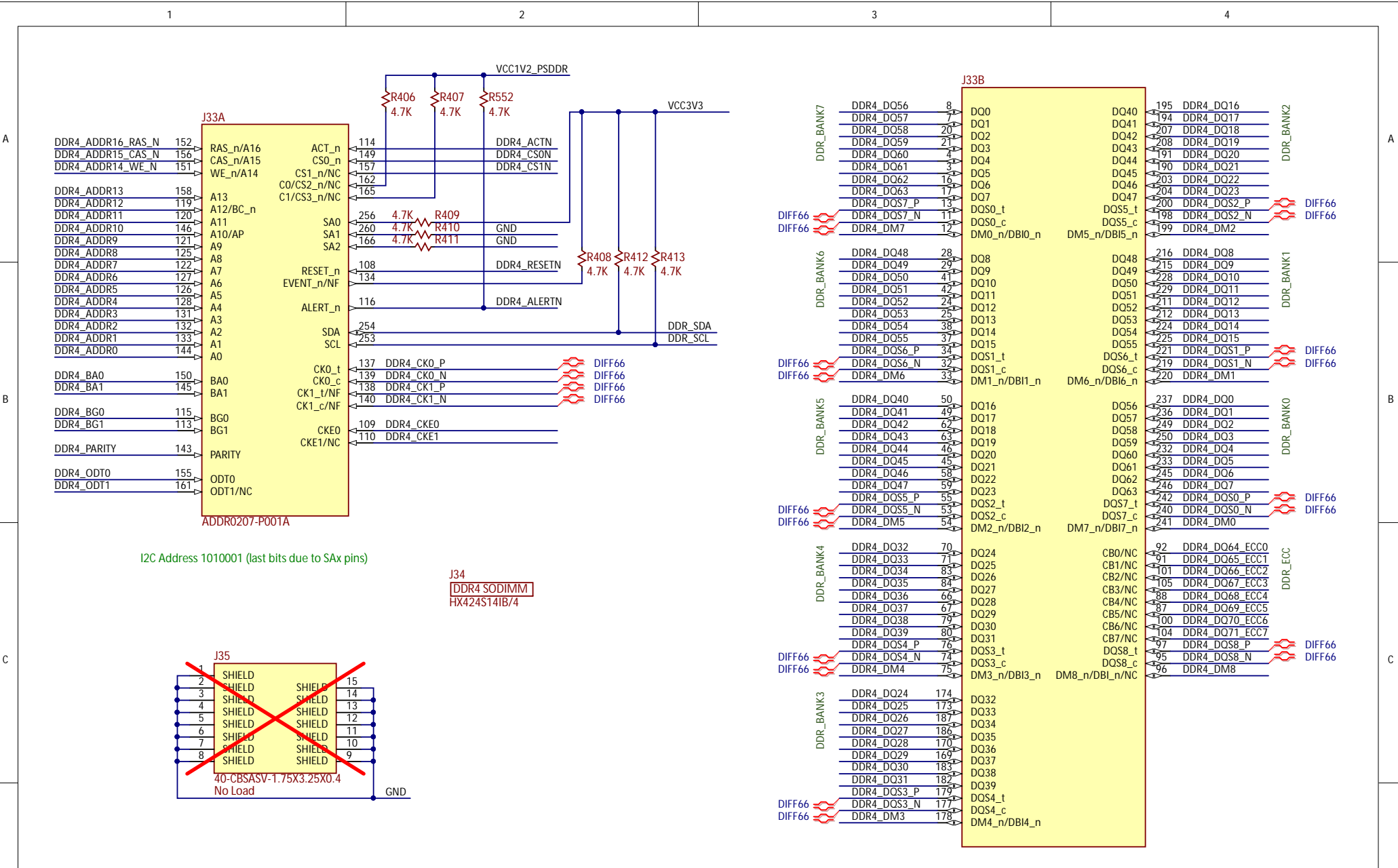
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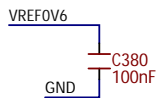
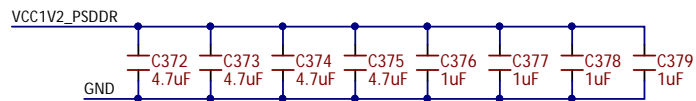
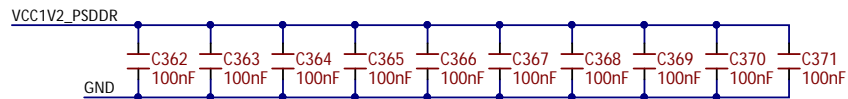
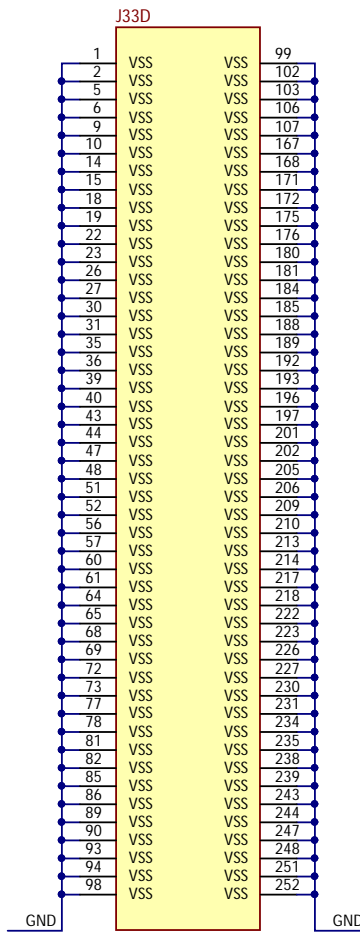
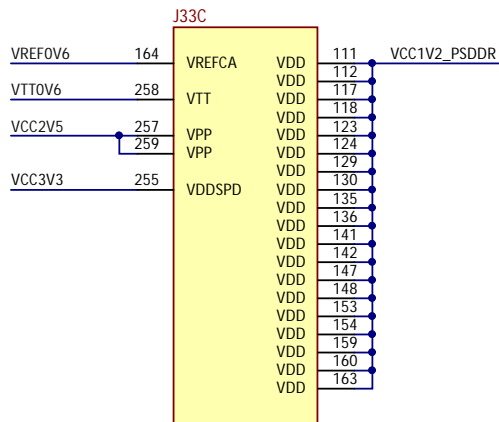
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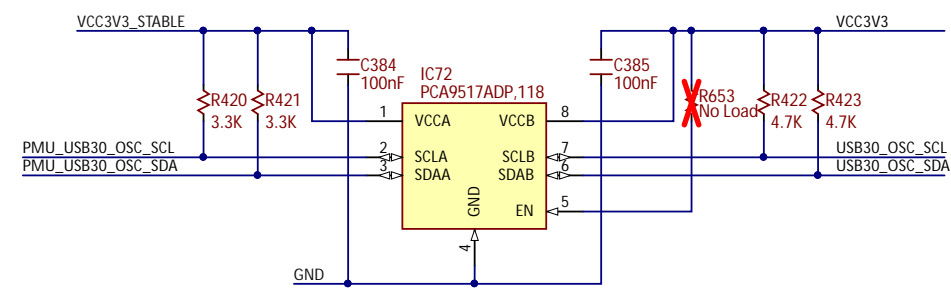
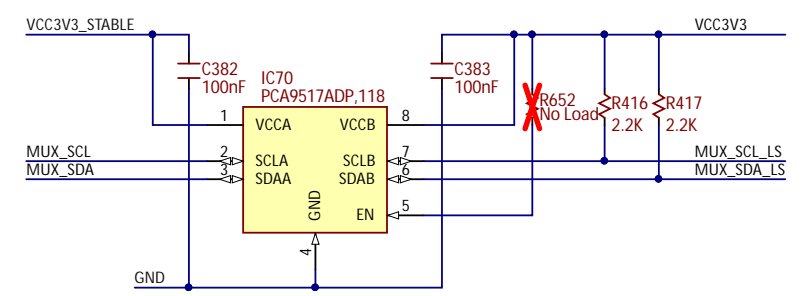
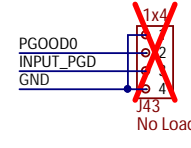
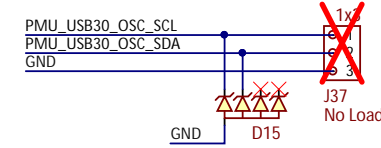
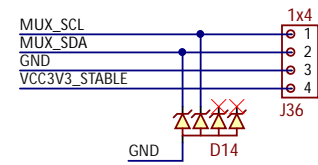
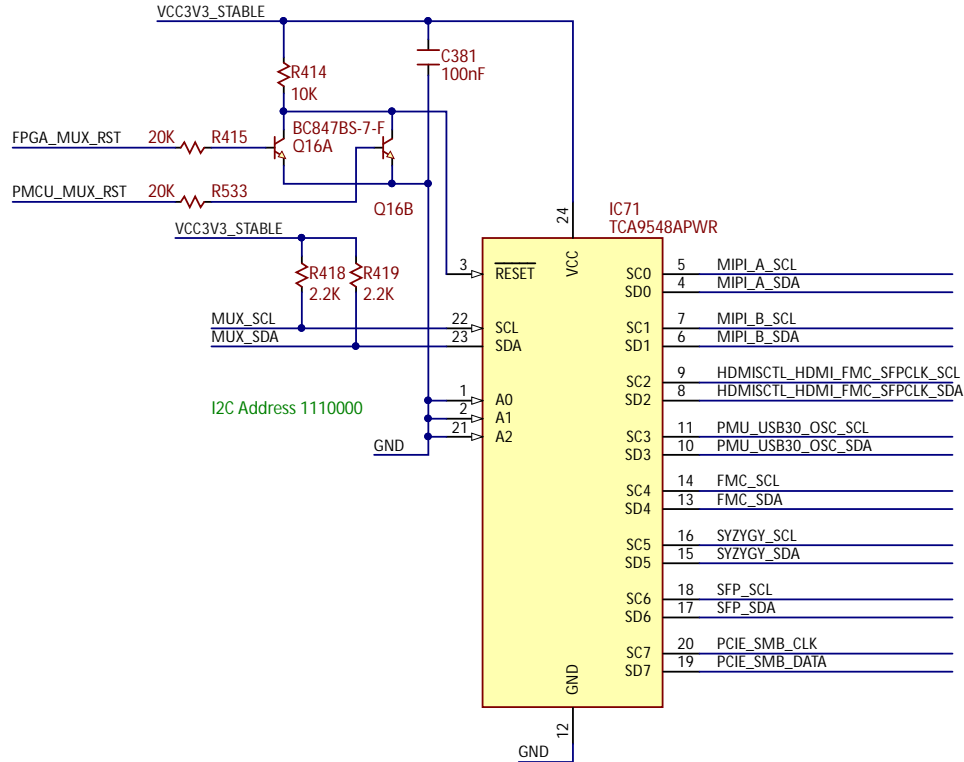
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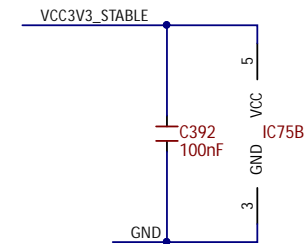
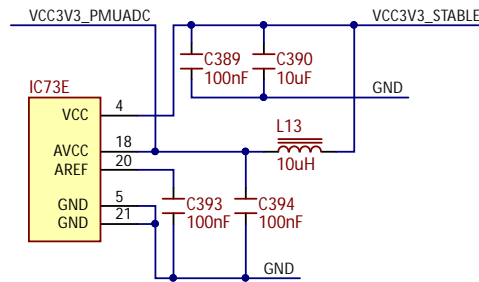
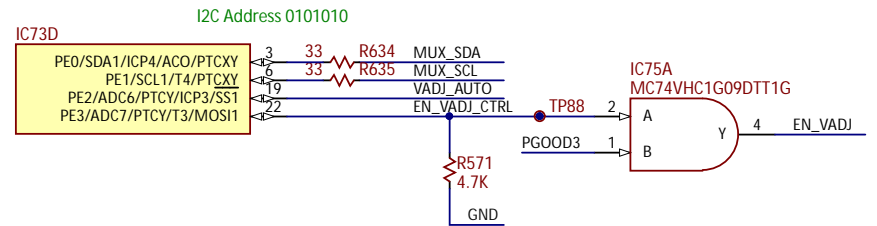
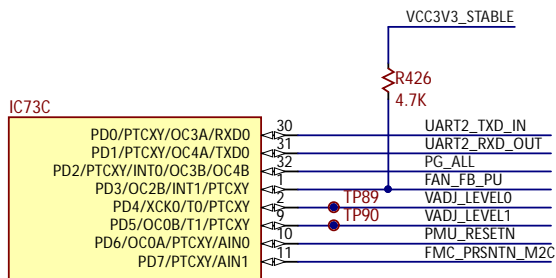
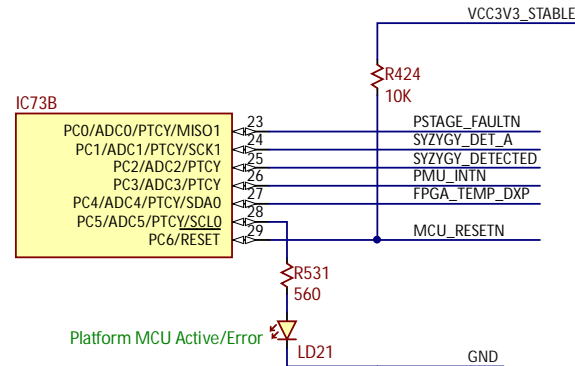
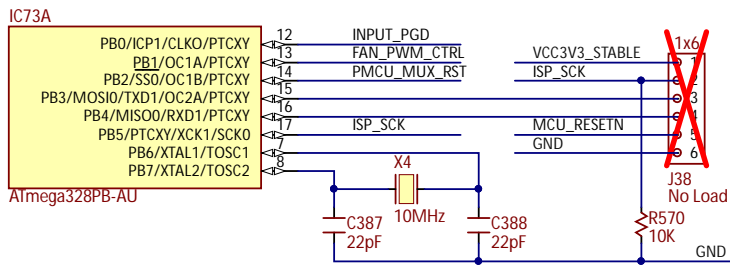




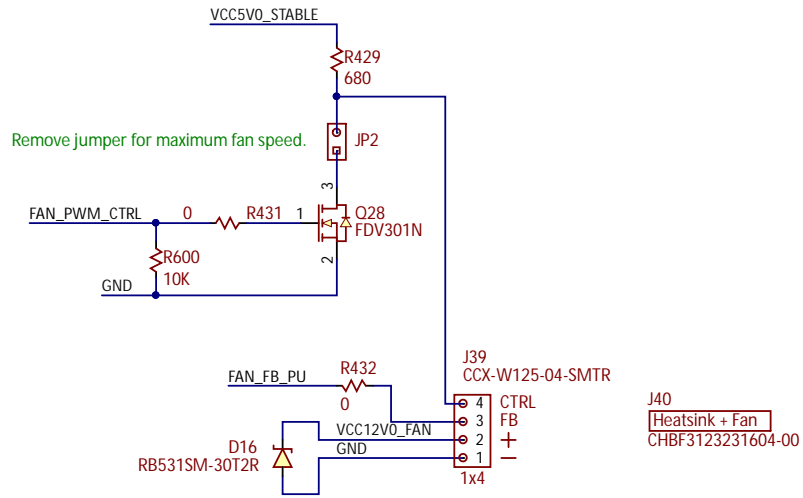


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Circuit		
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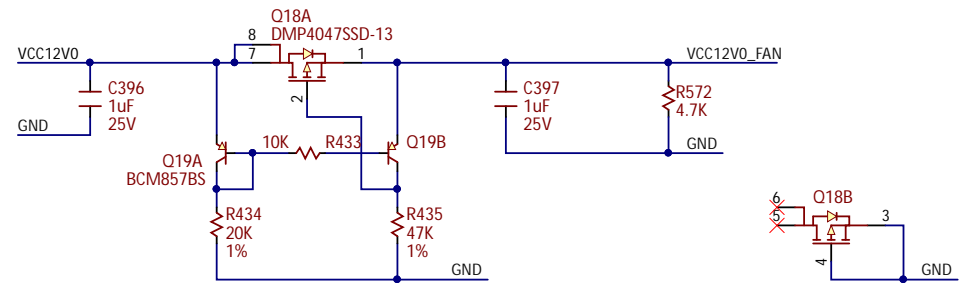




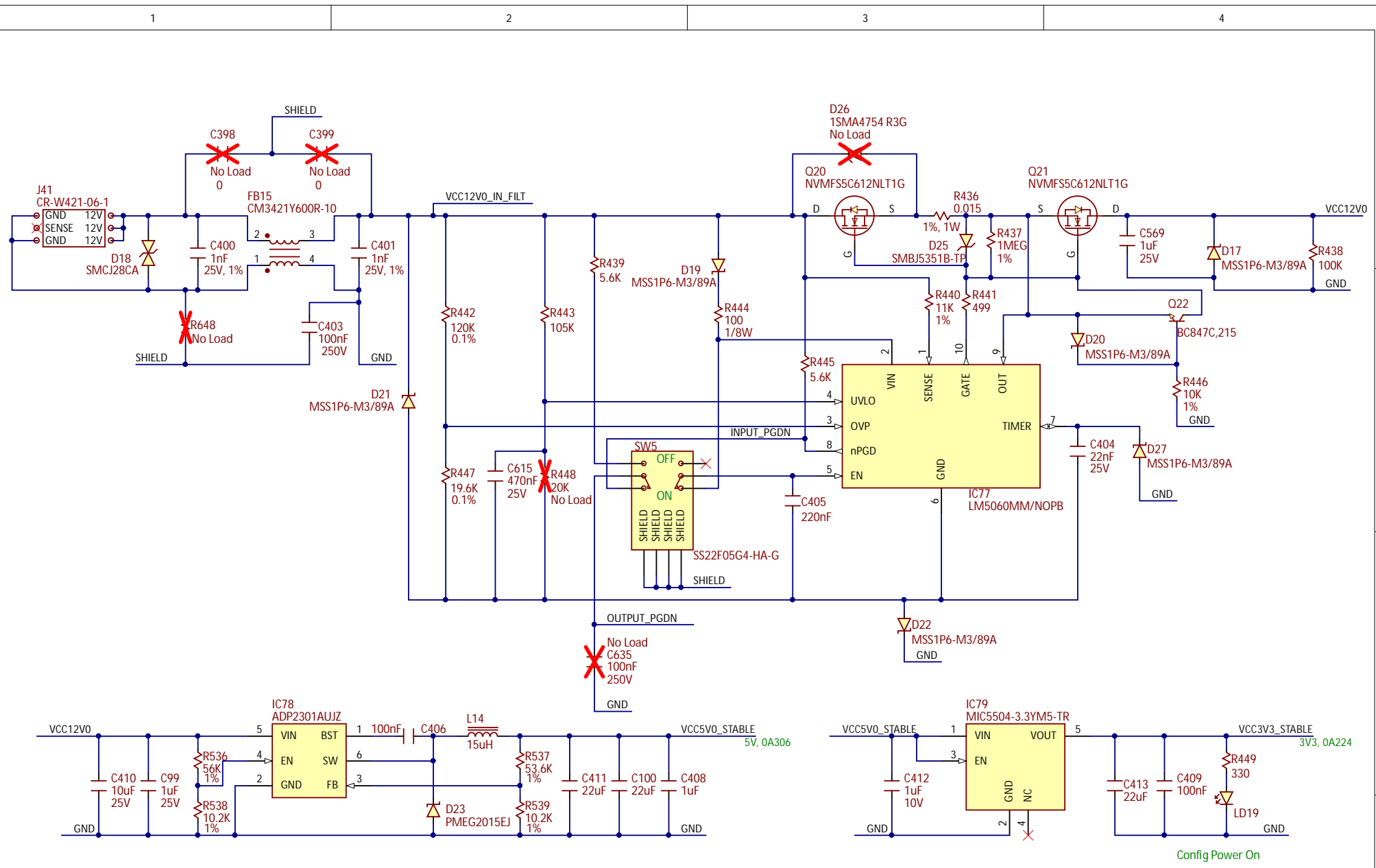
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Circuit Platform MCU	 A National Instruments Company	
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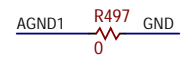
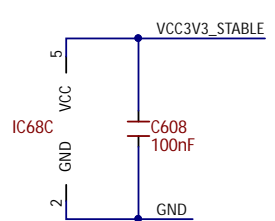
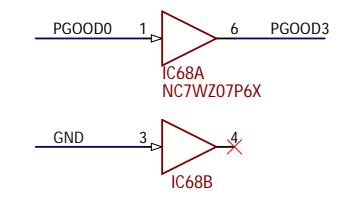
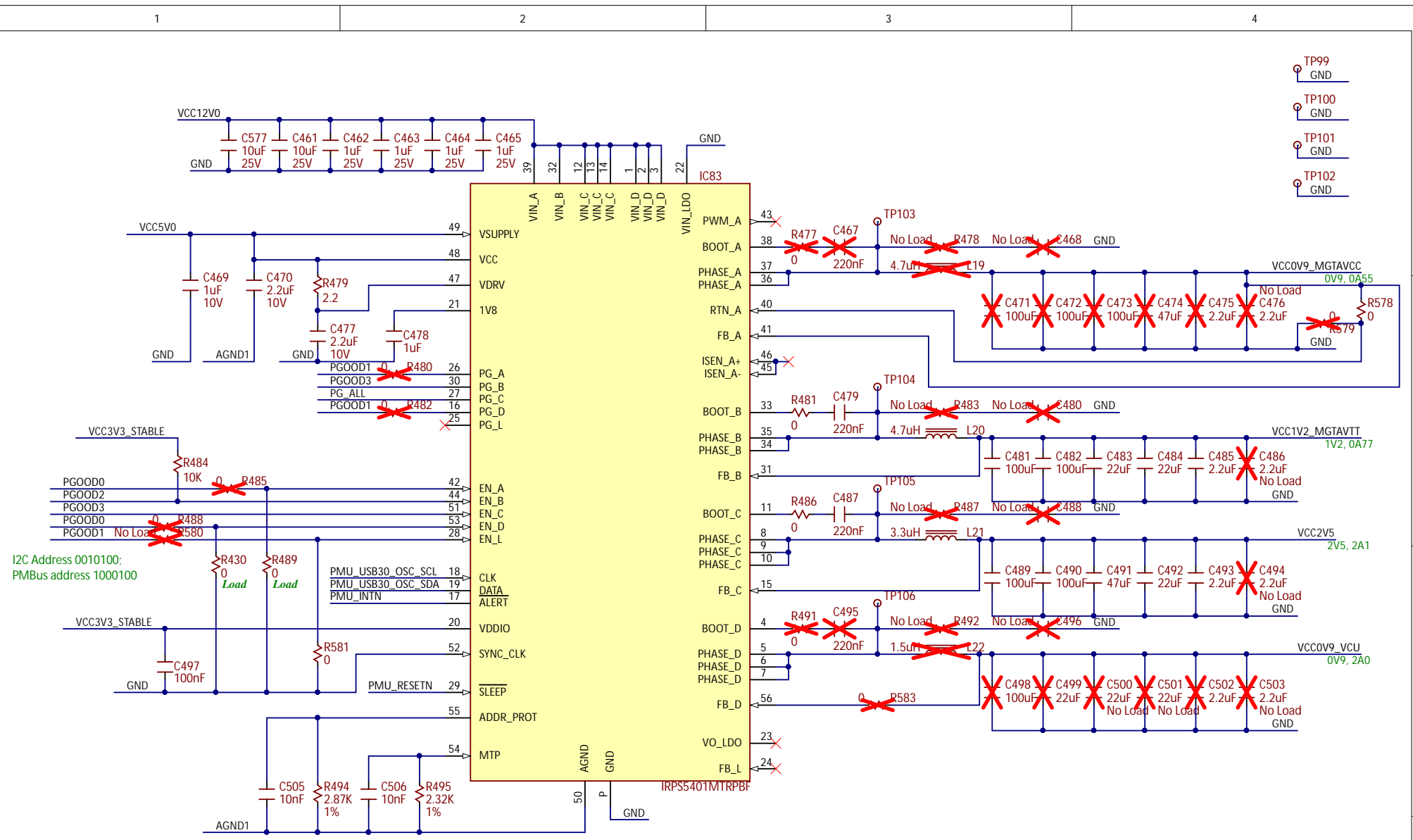


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