

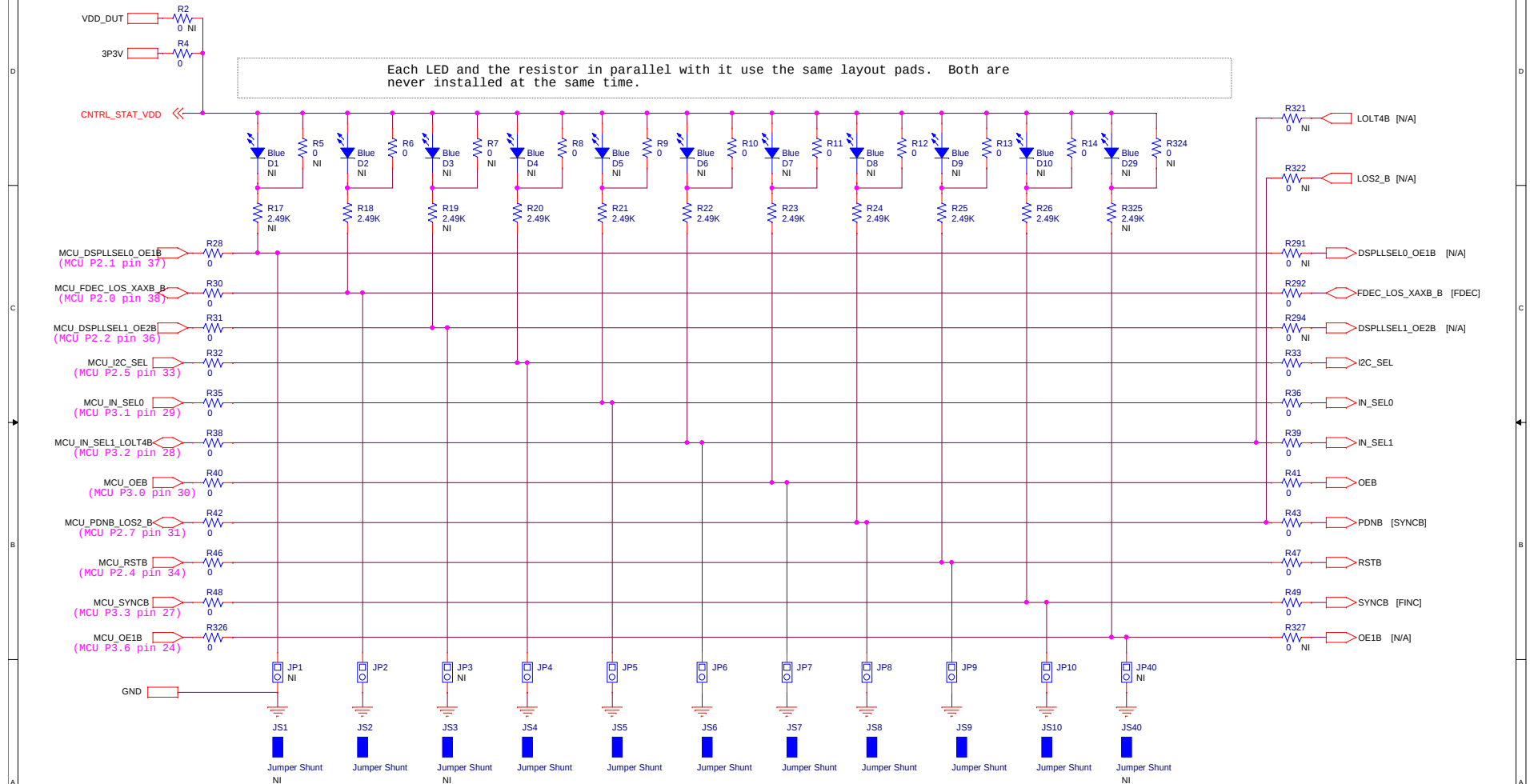
REVISION CONTROL

Rev 2.1 - Jan 12, 2016, Initial Board Release
Included PCB and label on BOM.

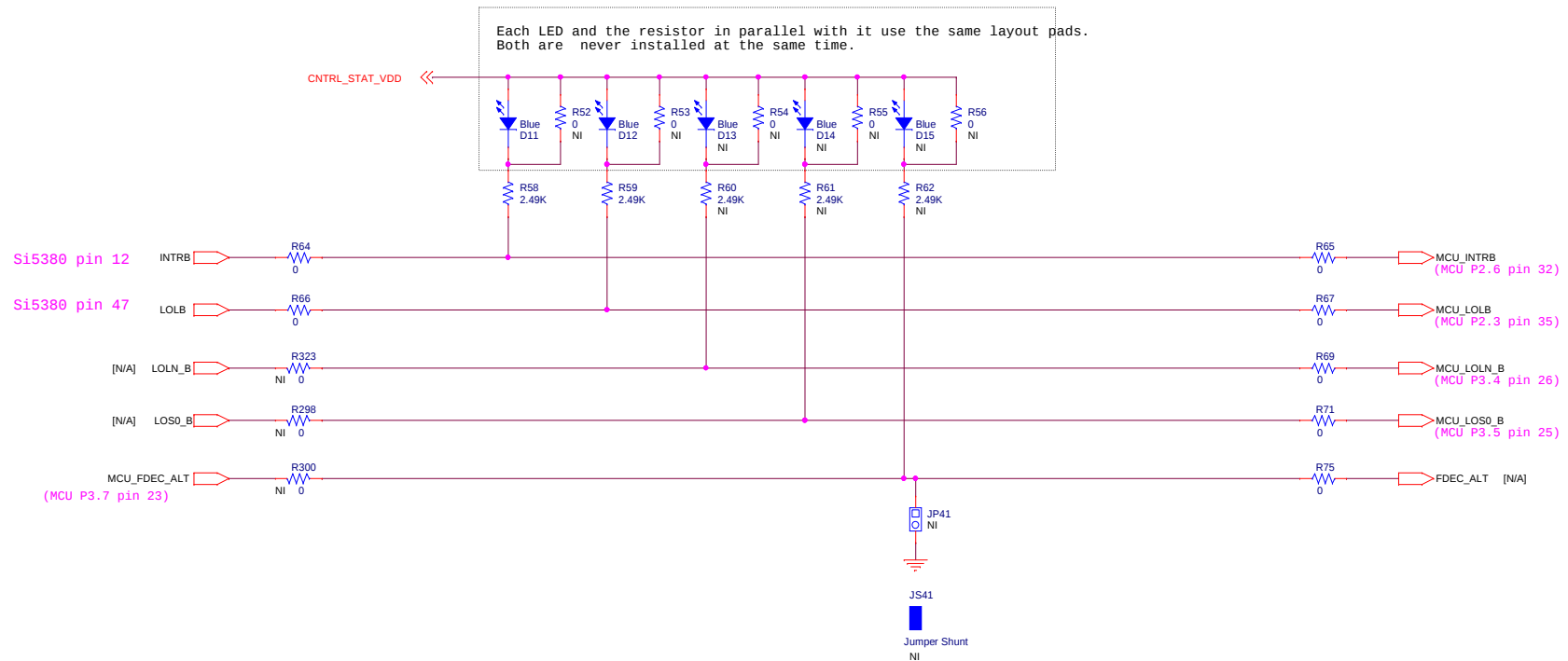
Rev 2.2 - April 13, 2016, changed U6 to custom
part number CF380P0997AGQ

		400 W Cesar Chavez Austin, TX 78701	
SILICON LABS			
Title SI5341-EB_TOP_REVISION			
Size B	Document Number SI5341-D-EB		Rev 2.2
Date: Wednesday, April 13, 2016		Sheet 2 of 44	1

CONTROL PINS CONNECTIONS

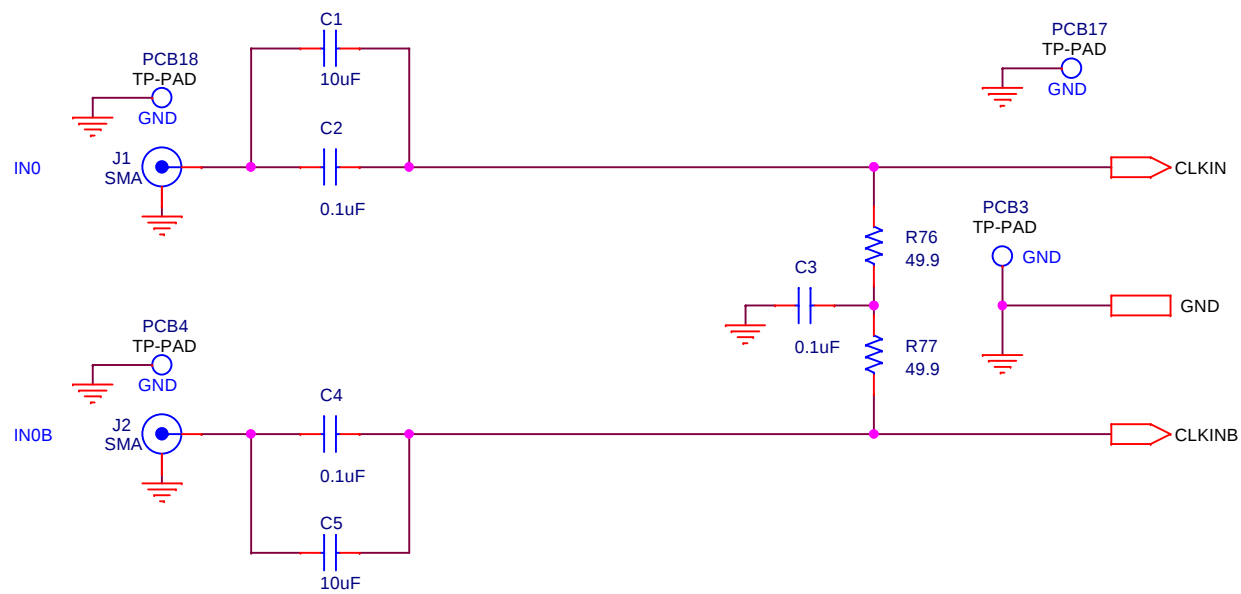


CONTROL PINS CONNECTIONS



Note:
1. "N/A" in brackets indicates that the function is not used for the DUT. [N/A]

		400 W Cesar Chavez Austin, TX 78701
Title		
CONTROL_PINS_P2		
Size	Document Number	Rev
B	SI5341-D-EB	2.2
Date:	Monday, April 11, 2016	Sheet 4 of 44



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLK

Size

A

Document Number

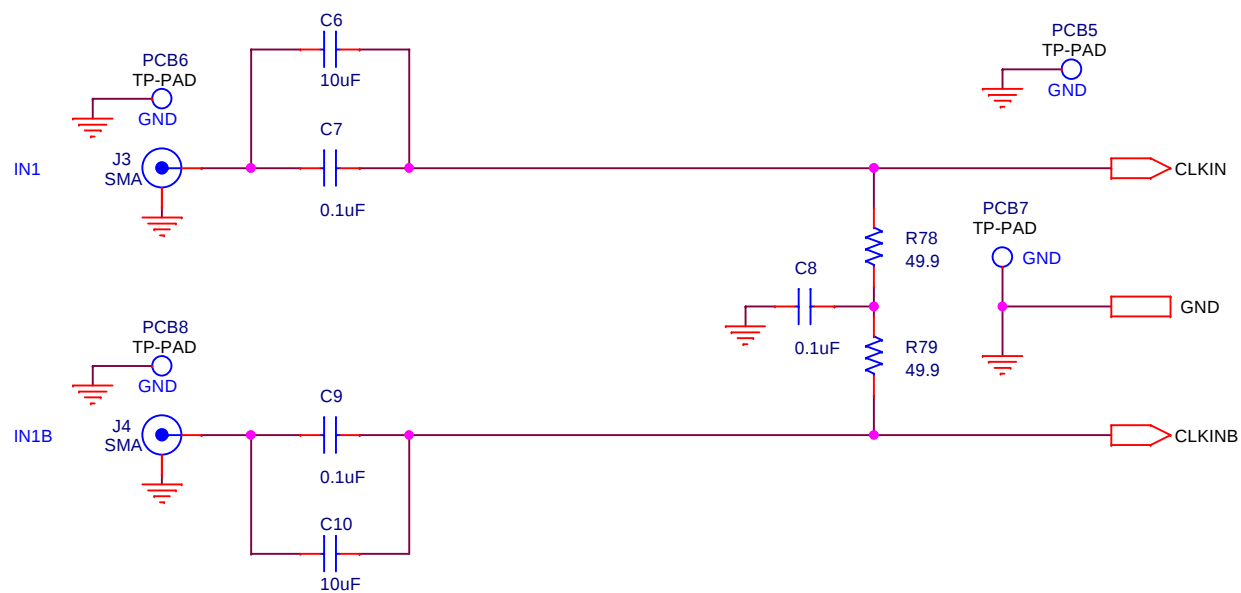
SI5341-D-EB

Rev

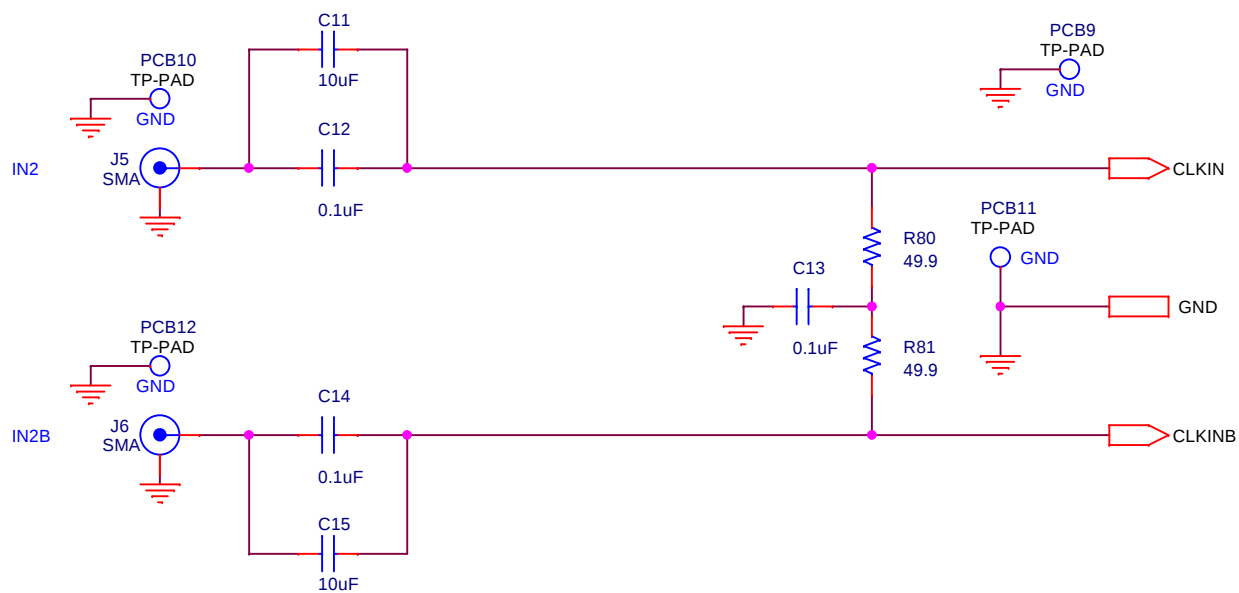
2.2

Date: Monday, April 11, 2016

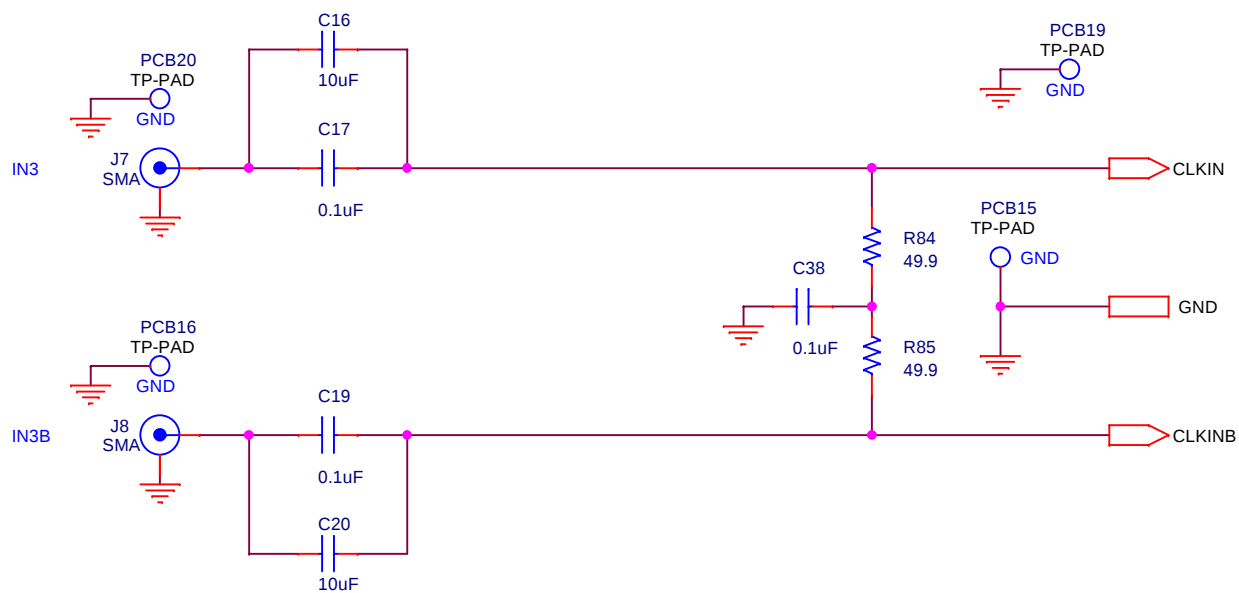
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5341-D-EB	Rev 2.2
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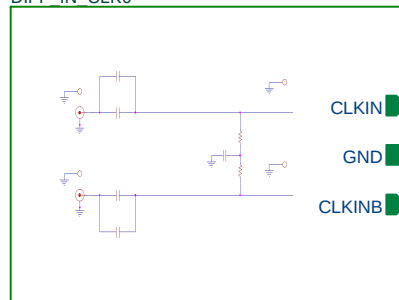


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5341-D-EB	Rev 2.2
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5341-D-EB	Rev 2.2
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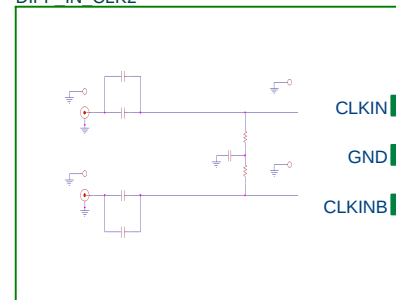
DIFF IN CLK0



CLKIN → CLKIN0
 GND → GND
 CLKINB → CLKIN0B

DIFF_INPUT_CLK

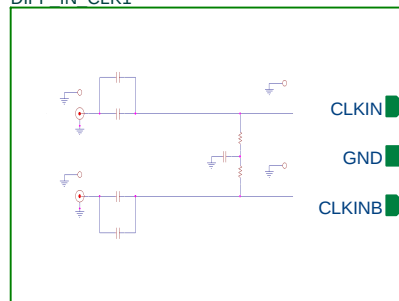
DIFF IN CLK2



CLKIN → CLKIN2
 GND → GND
 CLKINB → CLKIN2B

DIFF_INPUT_CLK

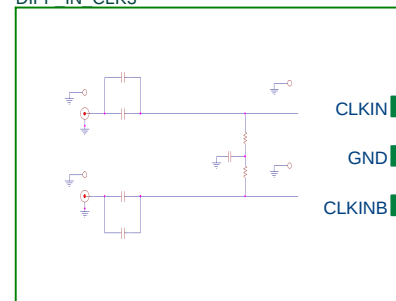
DIFF IN CLK1



CLKIN → CLKIN1
 GND → GND
 CLKINB → CLKIN1B

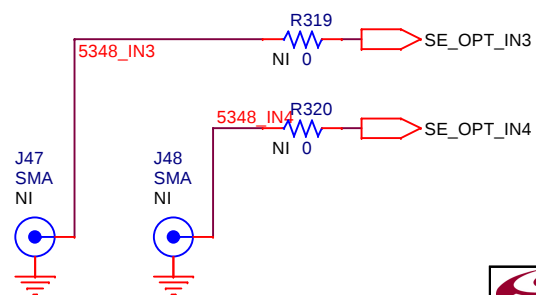
DIFF_INPUT_CLK

DIFF IN CLK3



CLKIN → CLKIN3
 GND → GND
 CLKINB → CLKIN3B

DIFF_INPUT_CLK



Single-ended clocks only.



400 W Cesar Chavez
 Austin, TX 78701

Title

DIFF_INPUT_CLOCKS_4

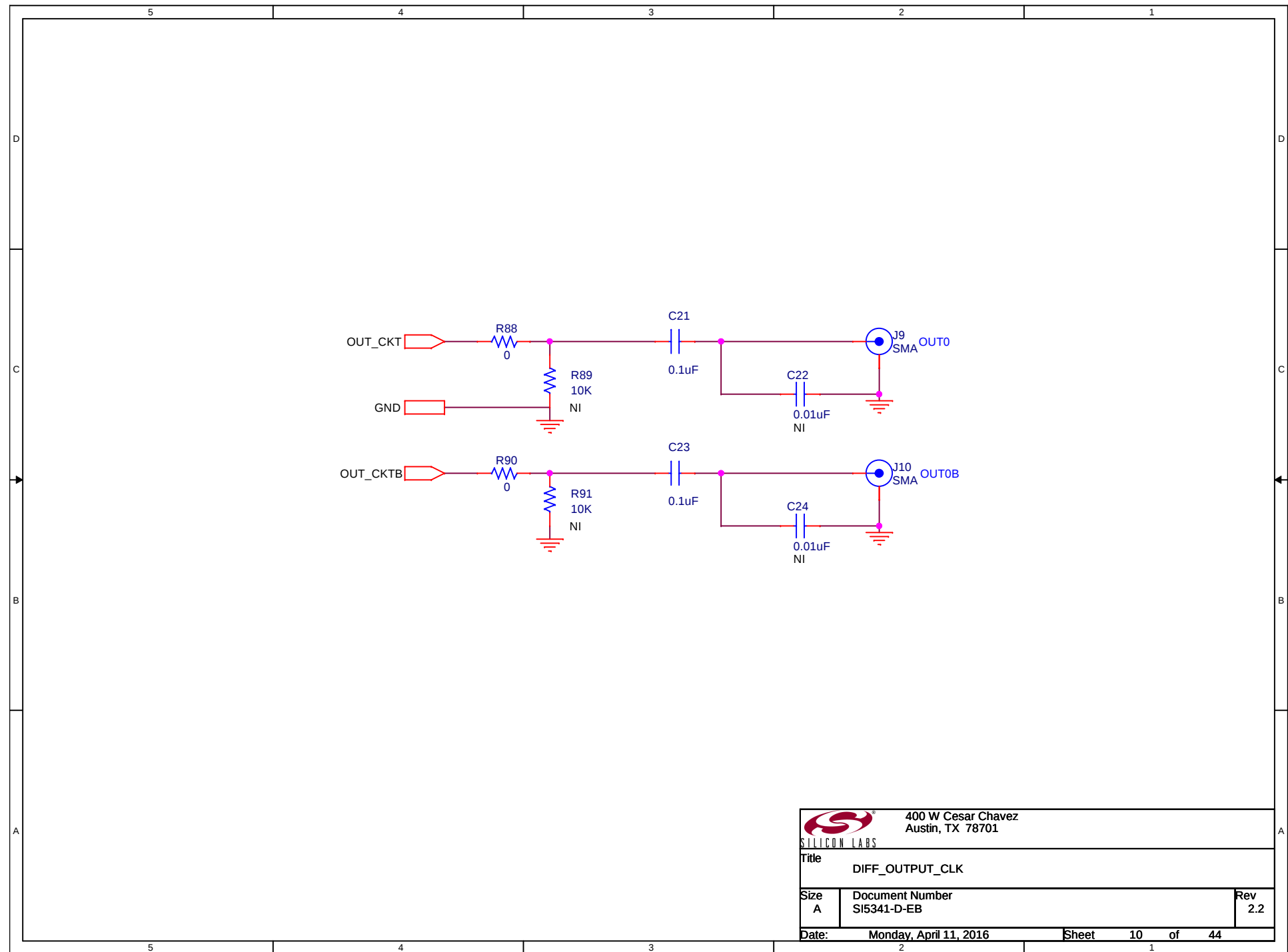
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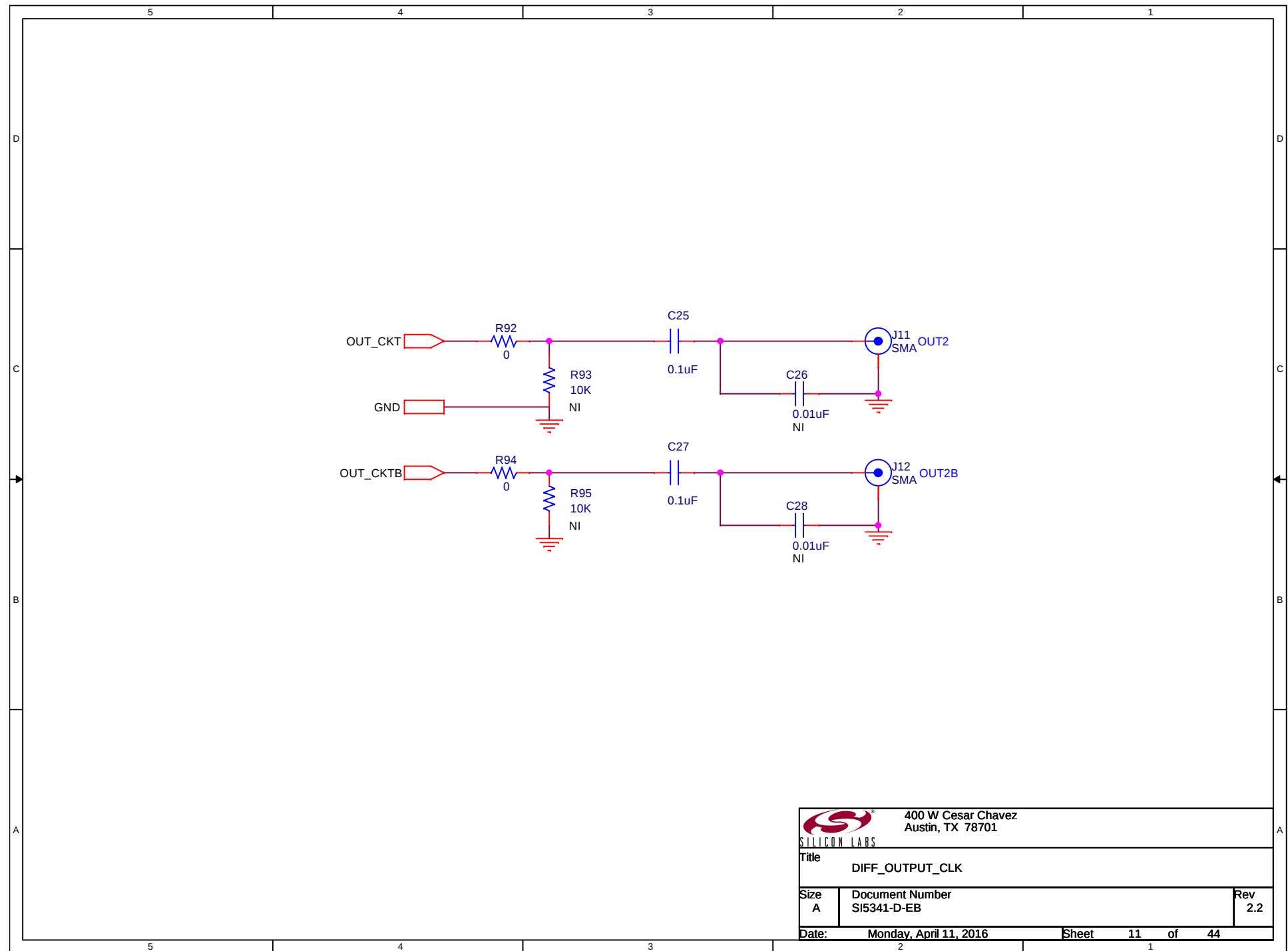
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 SI5341-D-EB

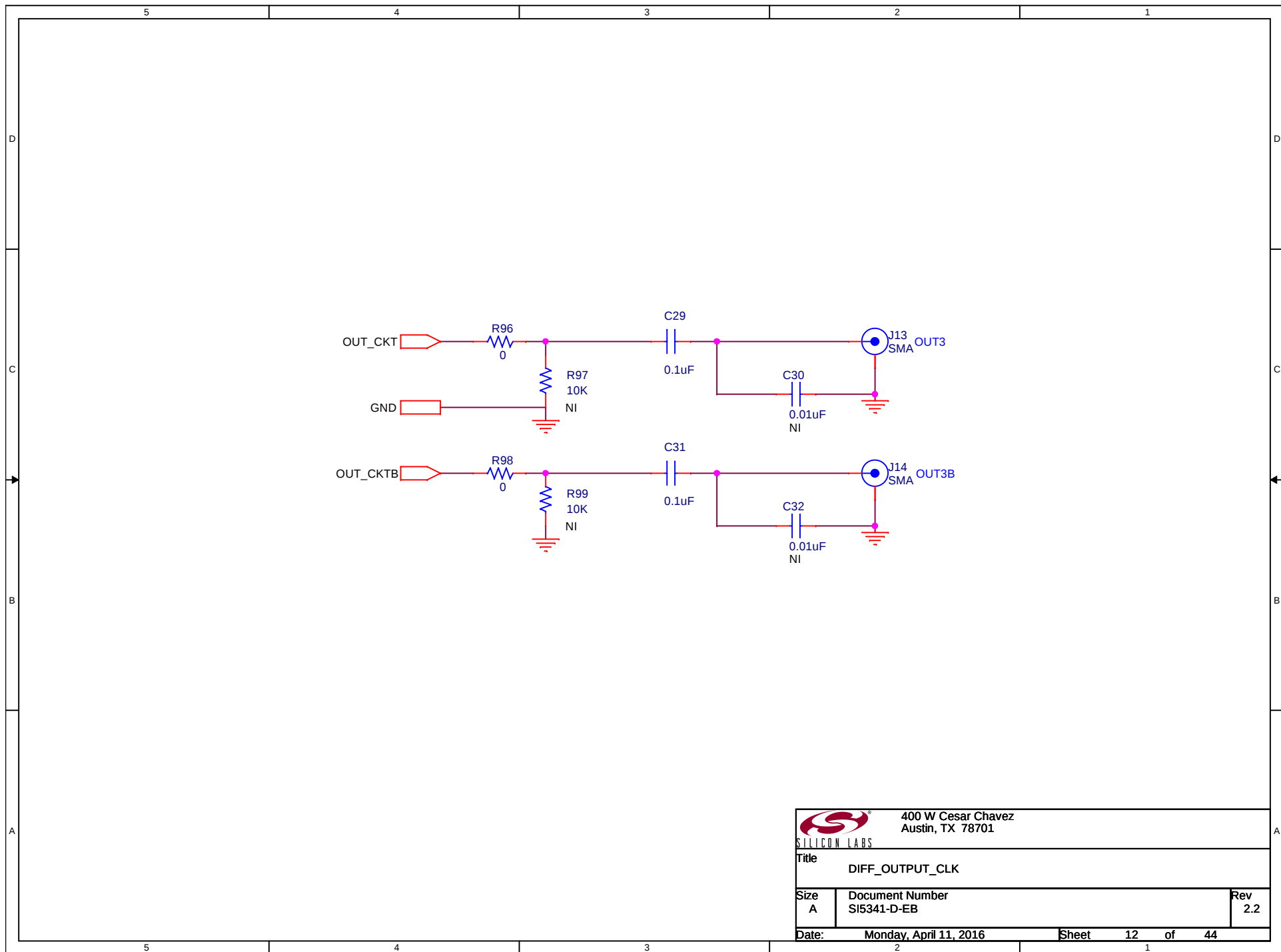
Rev
 2.2

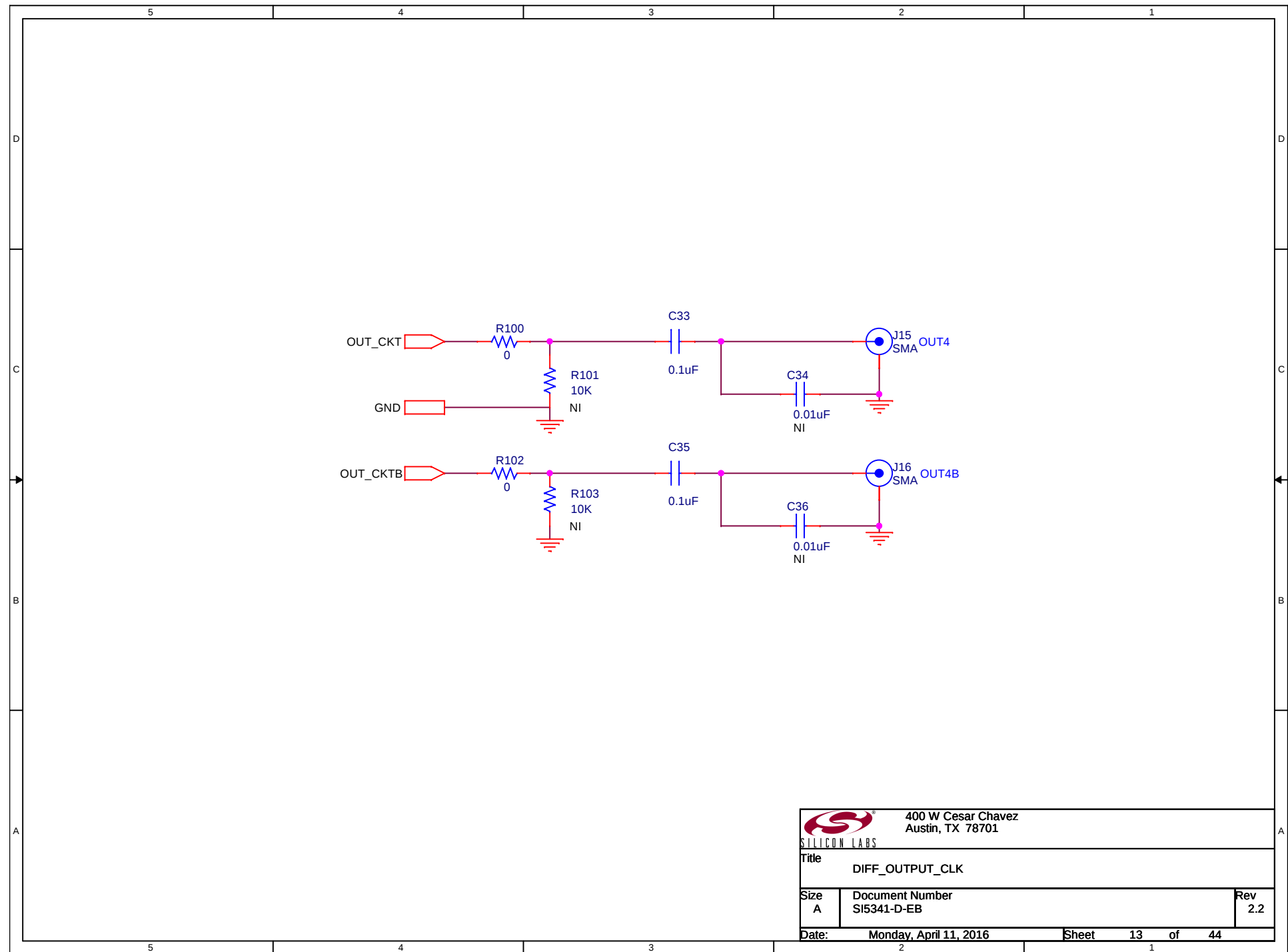
Date: Monday, April 11, 2016

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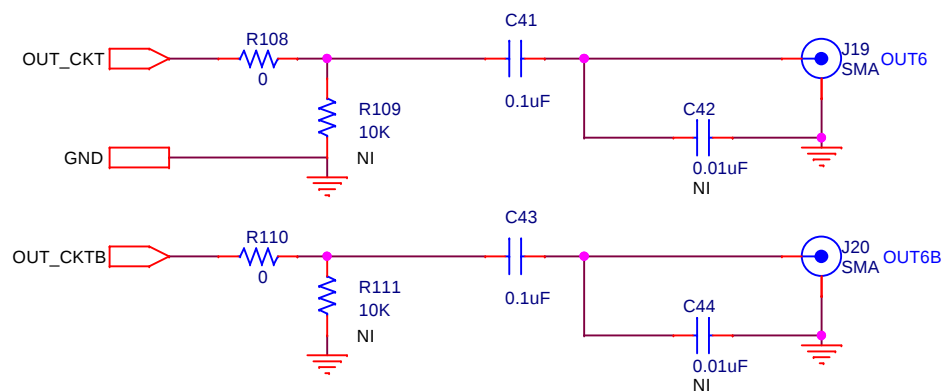




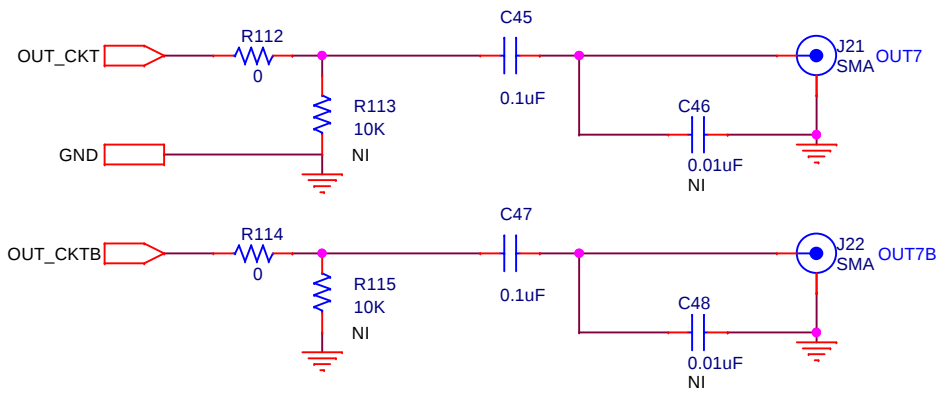




 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
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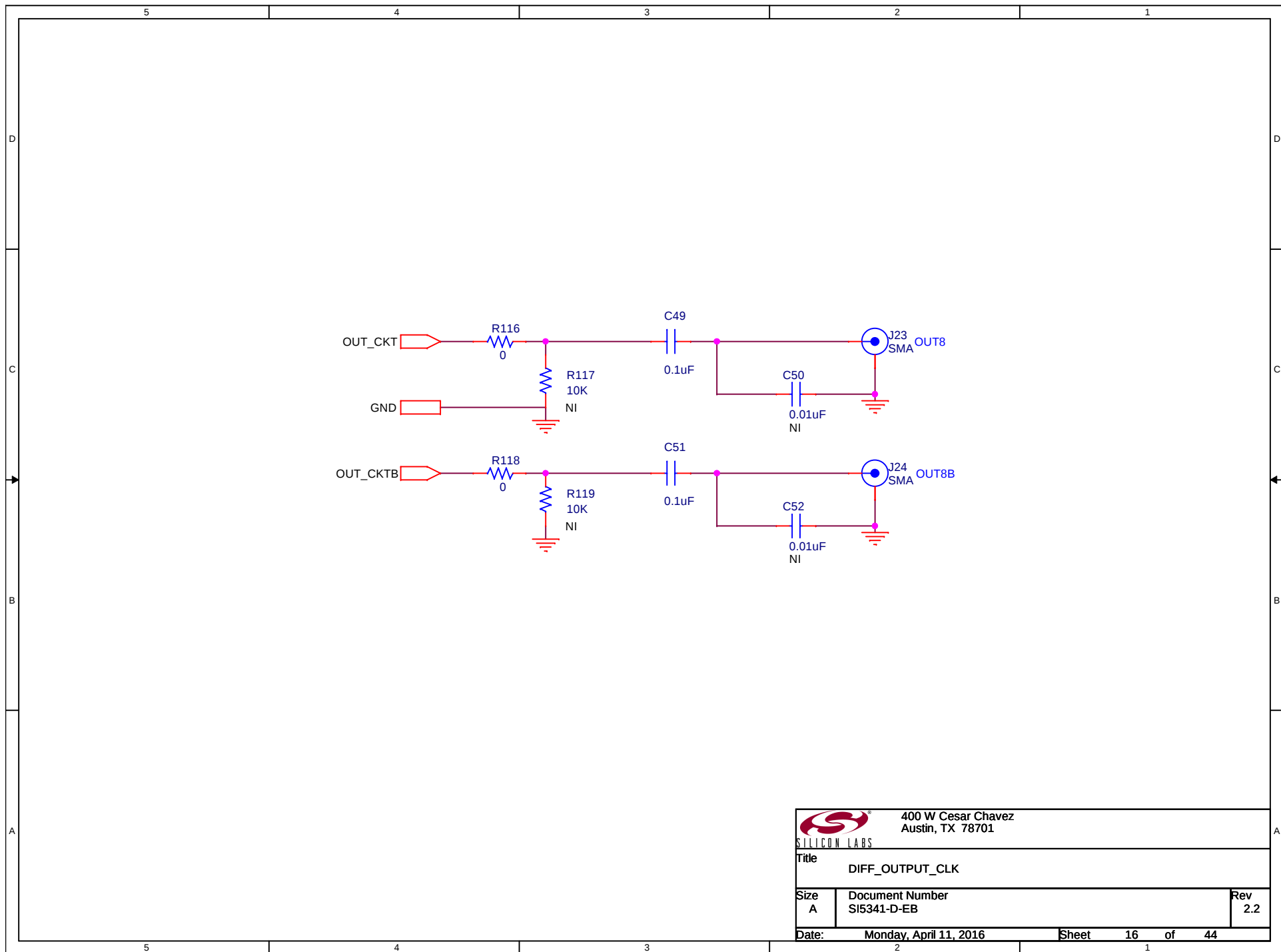


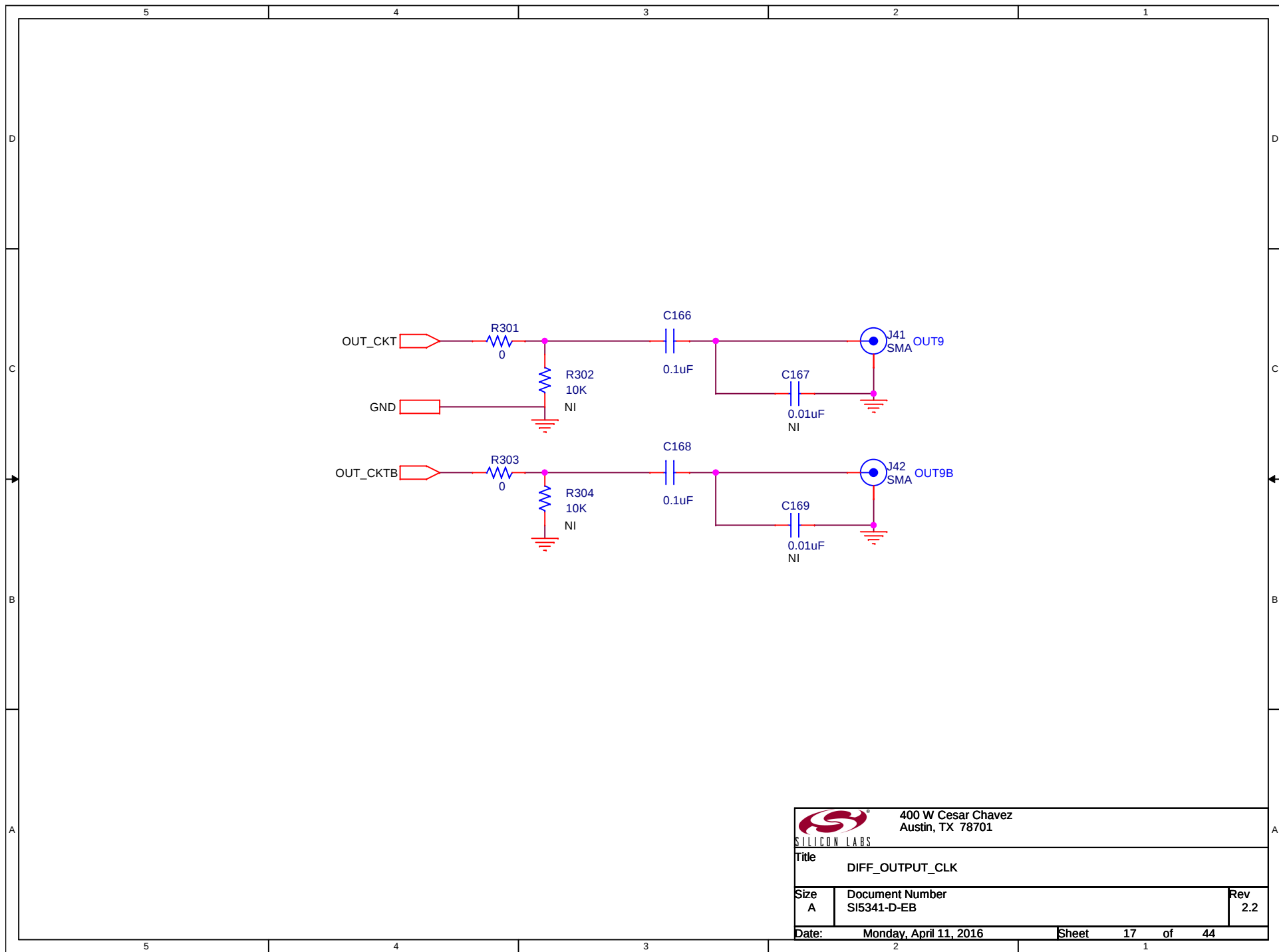
400 W Cesar Chavez
Austin, TX 78701

Title
DIFF_OUTPUT_CLK

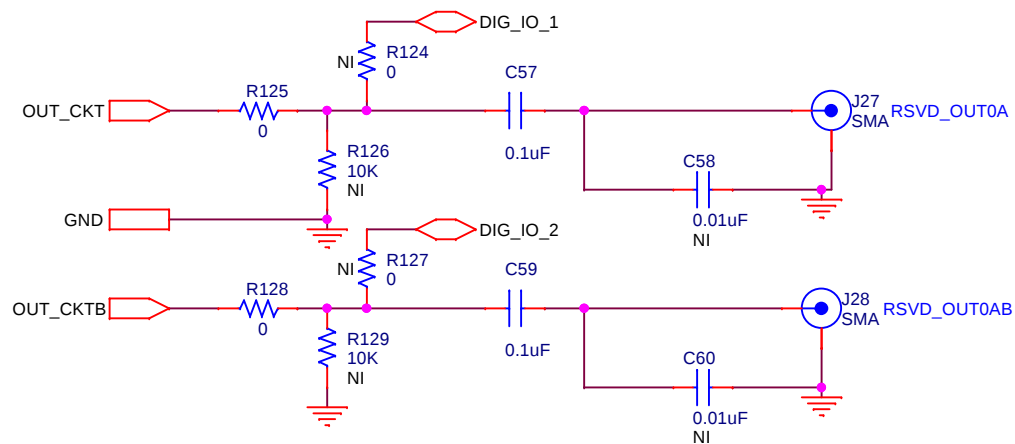
Size A	Document Number SI5341-D-EB	Rev 2.2
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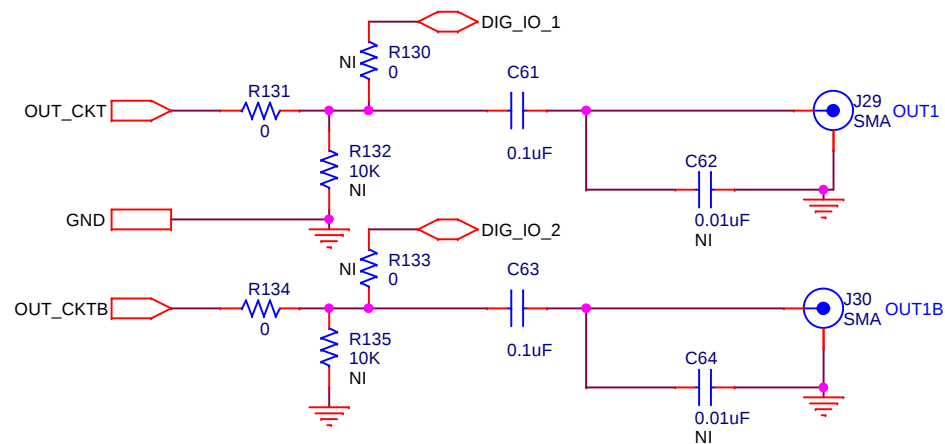


DIFF_OUTPUT_CLK_DIG_IO



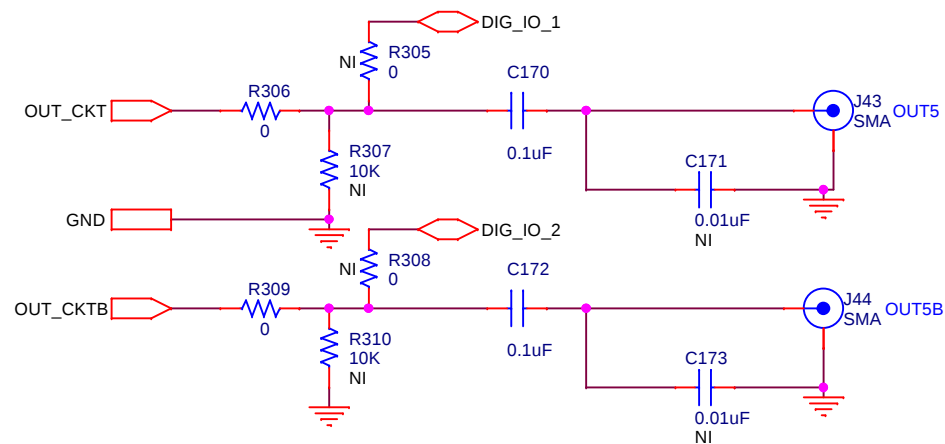
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5341-D-EB	Rev 2.2
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DIFF_OUTPUT_CLK_DIG_IO



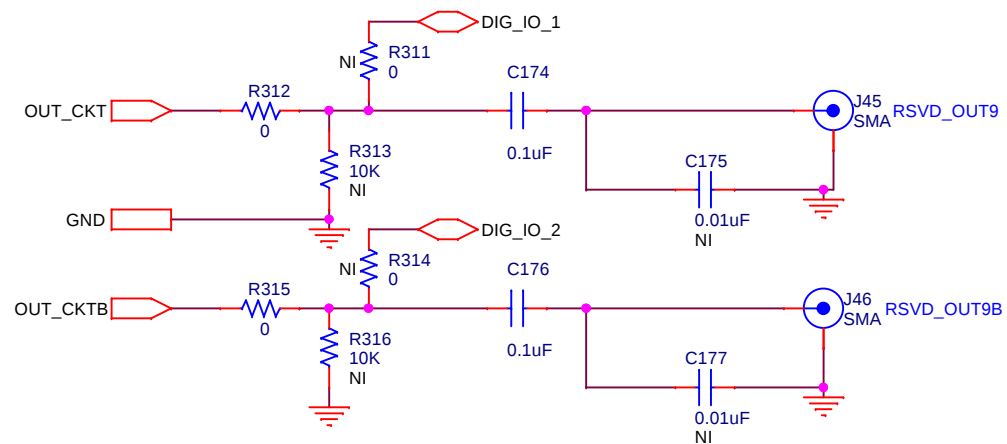
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5341-D-EB	Rev 2.2
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DIFF_OUTPUT_CLK_DIG_IO

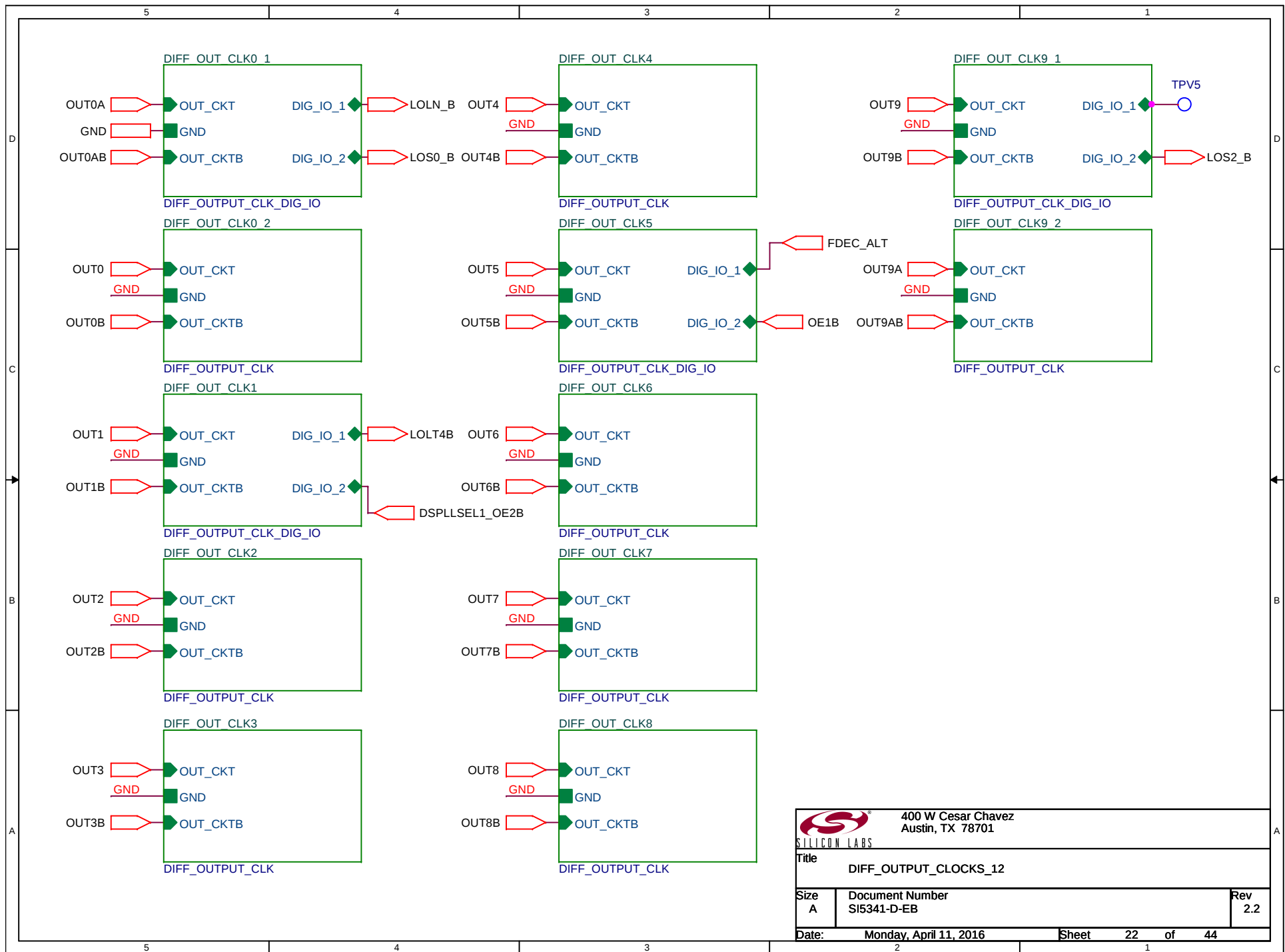


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5341-D-EB	Rev 2.2
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DIFF_OUTPUT_CLK_DIG_IO



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5341-D-EB	Rev 2.2
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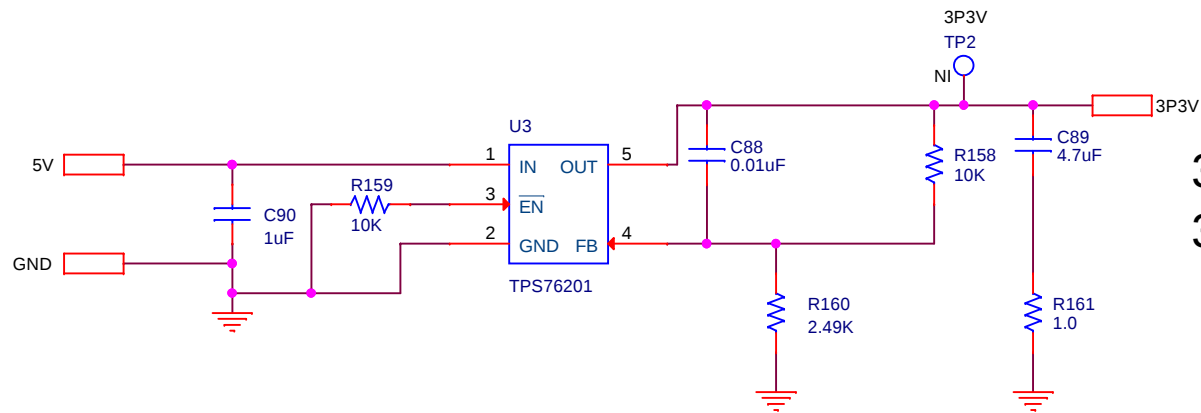
A vertical bar is divided into four segments labeled A, B, C, and D from bottom to top. An arrow points to the boundary between segments B and C.



A vertical bar is divided into four segments labeled A, B, C, and D from bottom to top. An arrow points to the boundary between segments B and C.

5	4	3	2	1	0	446
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Fixed 3.3V 100 mA Voltage Regulator (Enabled, no current measurement supported.)

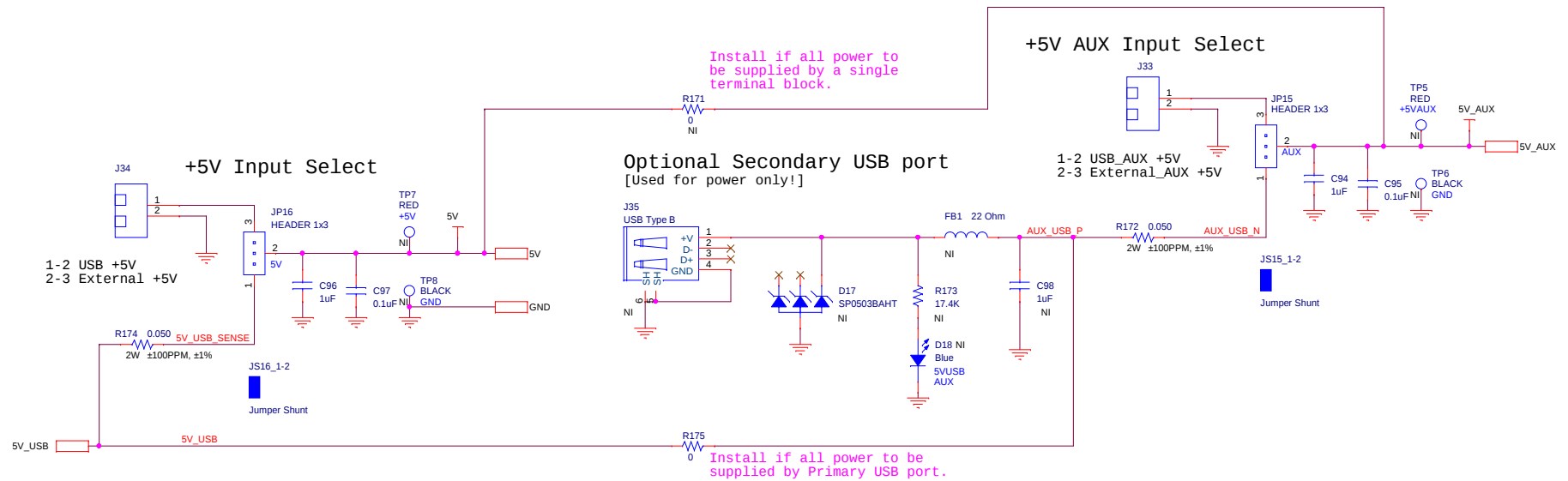


3P3V (In Schematic)
3P3V (Board Silkscreen)

		400 W Cesar Chavez Austin, TX 78701	
Title		FIXED_3V3_REG_TPS76201_EN_NO_IM	
Size A	Document Number SI5341-D-EB	<Variant Name>	Rev 2.2
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[illegible]

MAIN POWER INPUT SELECTS EXTERNAL OR USB

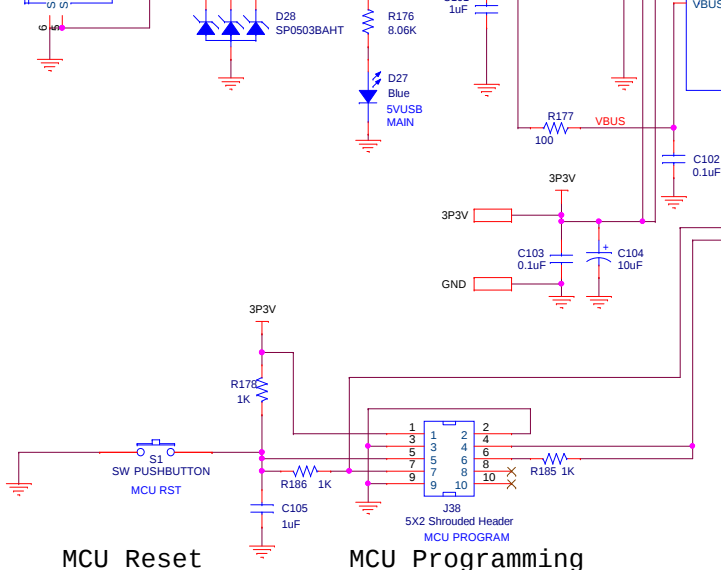
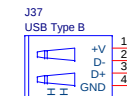
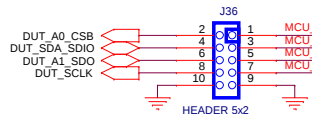


 400 W Cesar Chavez Austin, TX 78701		
Title		
MAIN_POWER_CONNECTIONS		
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8051 MCU

Jumper Shunts

- JS36_1-2
- JS36_3-4
- JS36_5-6
- JS36_7-8
- JS36_9-10



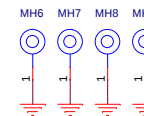
MCU Reset

MCU Programming

Mounting Holes, Screws, and Standoffs

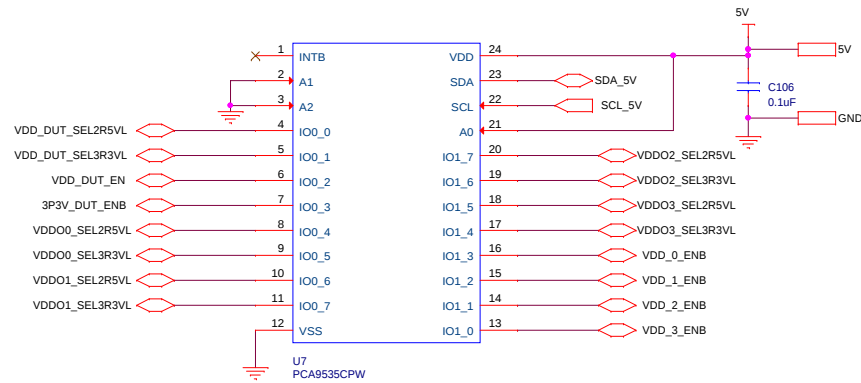


Mounting Holes

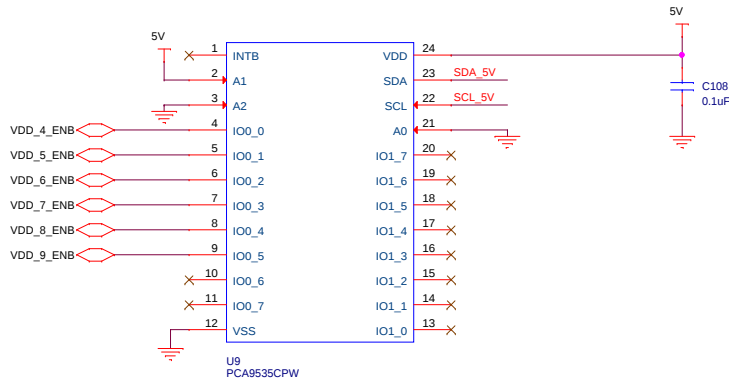


			400 W Cesar Chavez Austin, TX 78701
Title			MCU
Size	Document Number	Rev	
B	SI5341-D-EB	2.2	
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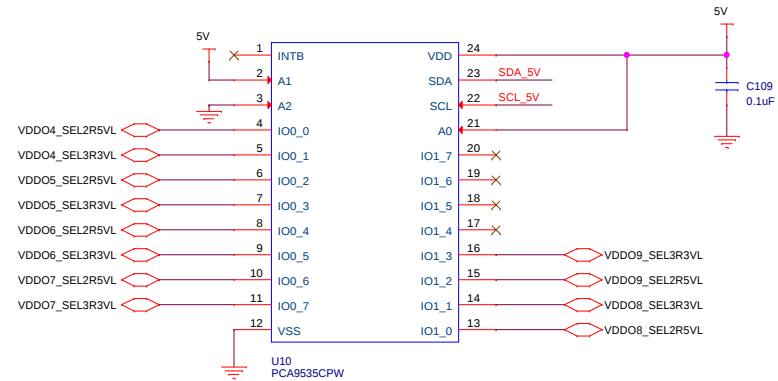
PERIPHERALS



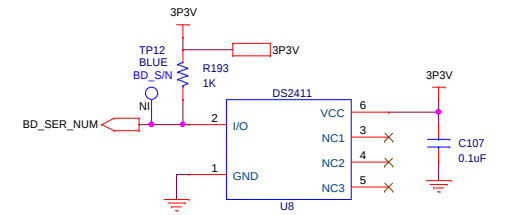
I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100001



I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100010

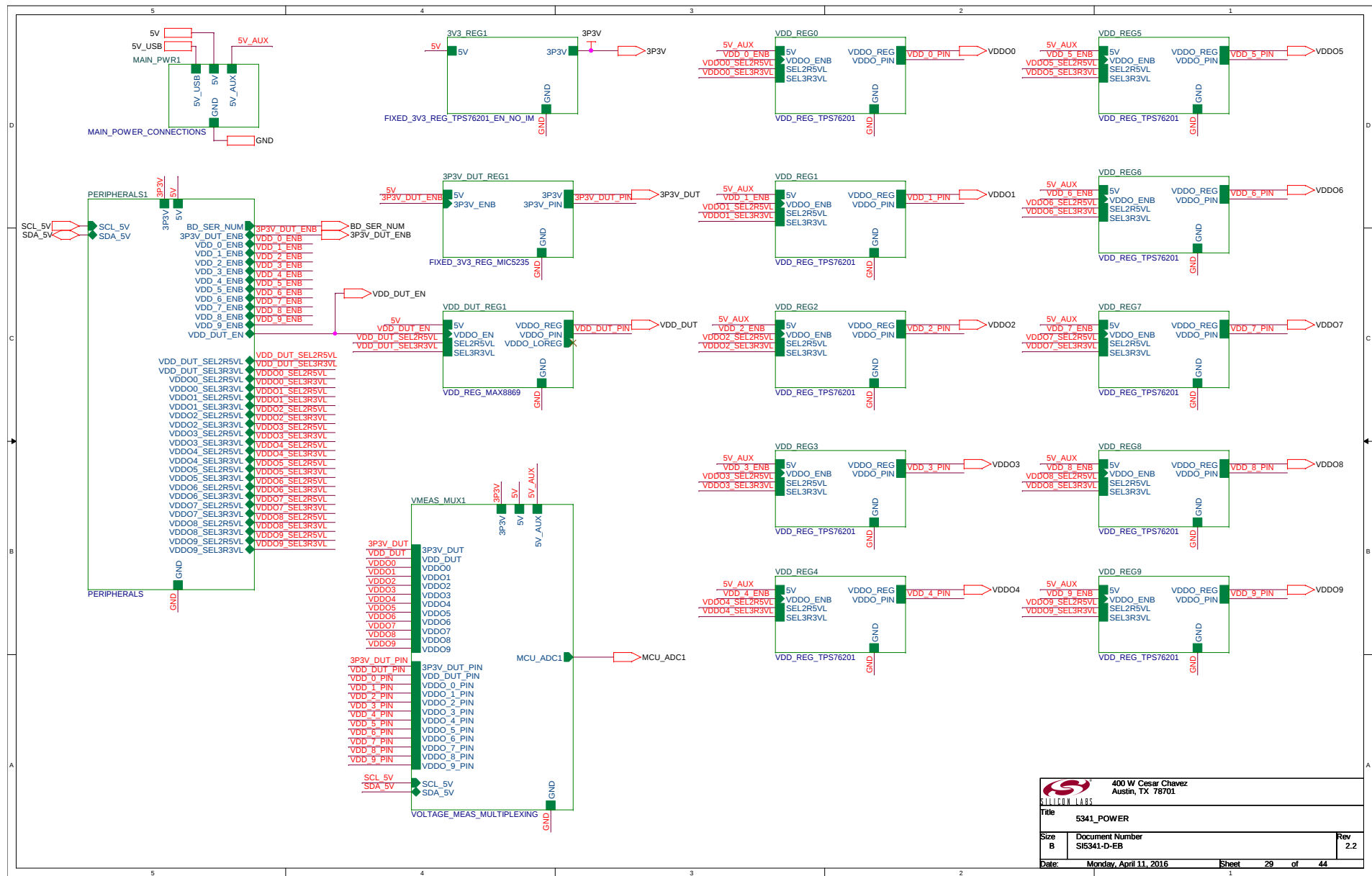


I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100011

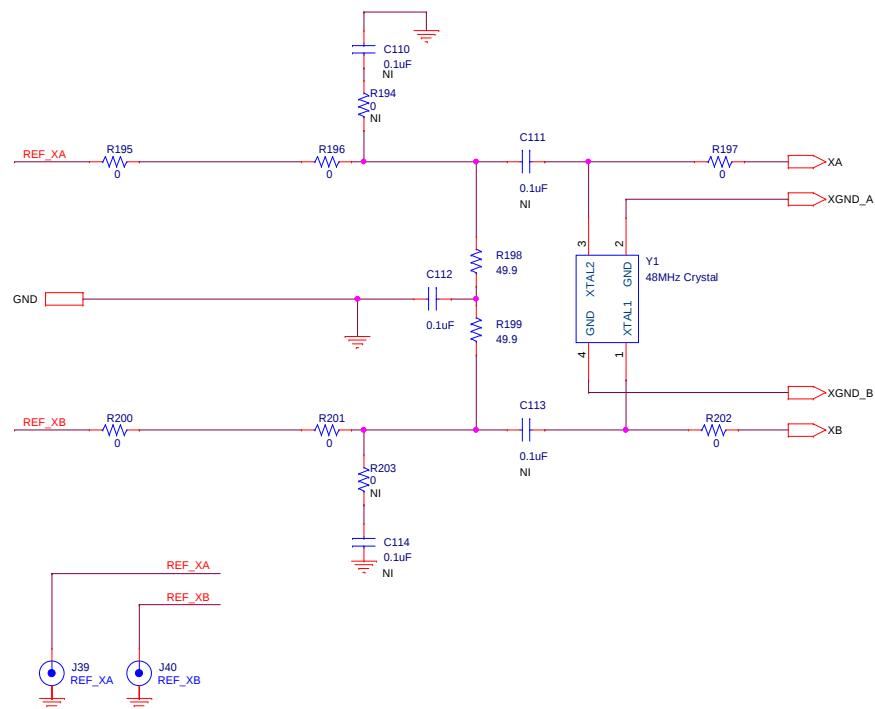


Board Serial Number

		400 W Cesar Chavez Austin, TX 78701	
Title PERIPHERALS			
Size B	Document Number SI5341-D-EB	Rev 2.2	
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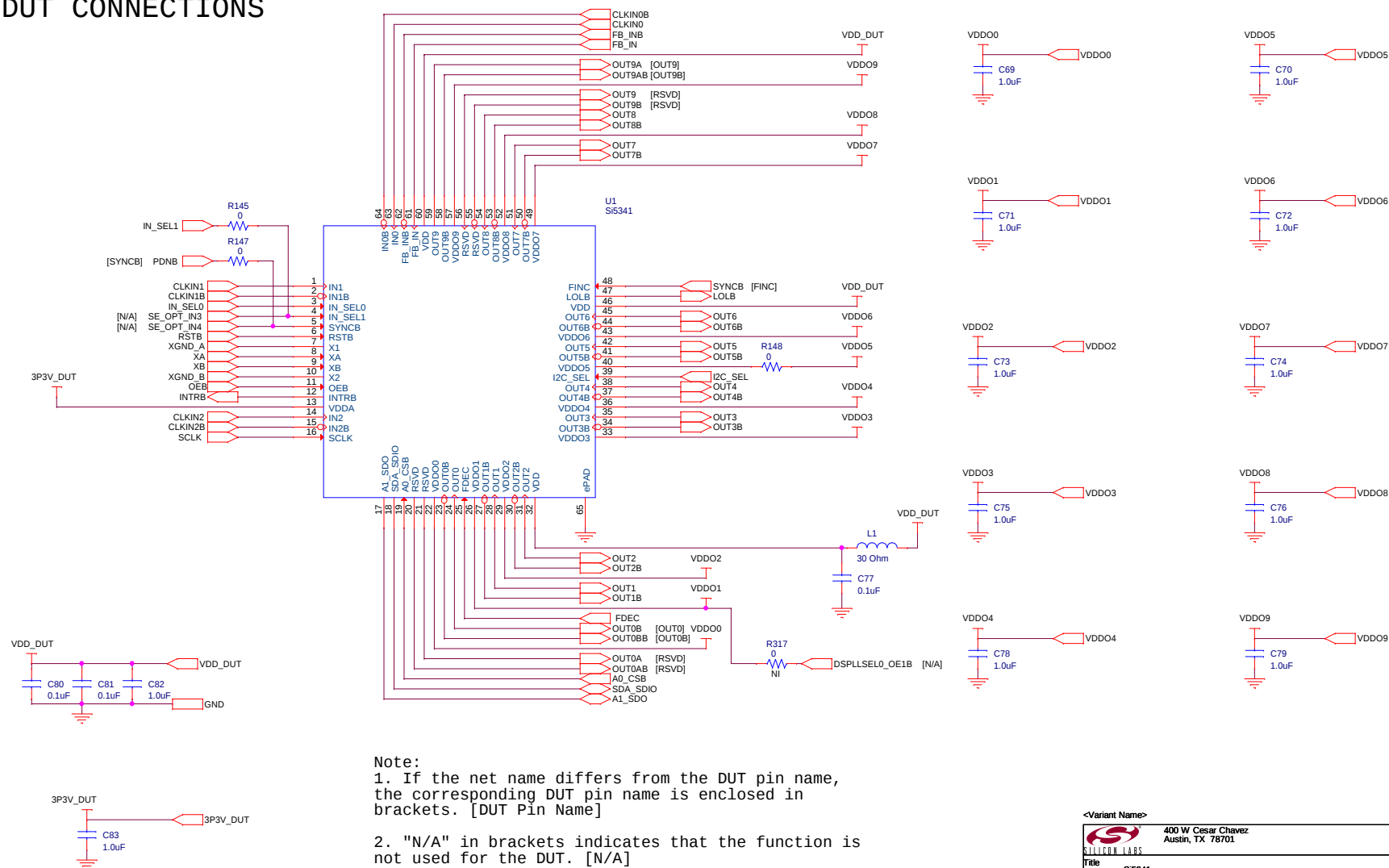


REFERENCE INPUT CONNECTIONS



 400 W Cesar Chavez Austin, TX 78701	
Title	
REFERENCE	
Size	Document Number
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DUT CONNECTIONS

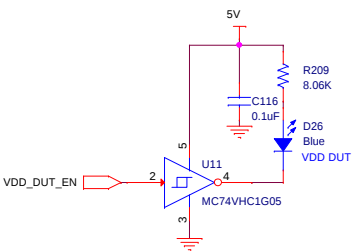
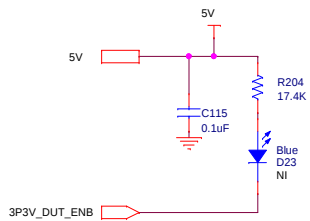
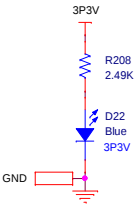
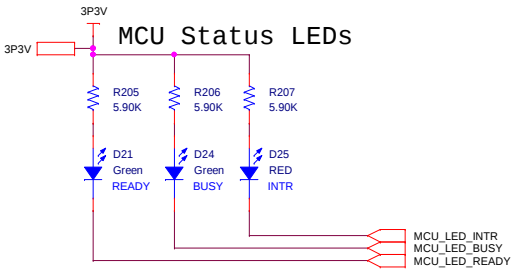


Note:

1. If the net name differs from the DUT pin name, the corresponding DUT pin name is enclosed in brackets. [DUT Pin Name]

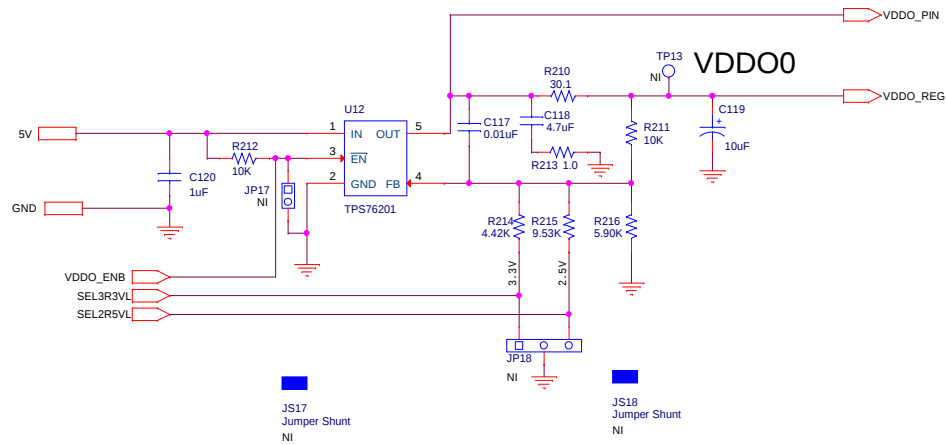
2. "N/A" in brackets indicates that the function is not used for the DUT. [N/A]

LEDS - SUPPLIES & STATUS



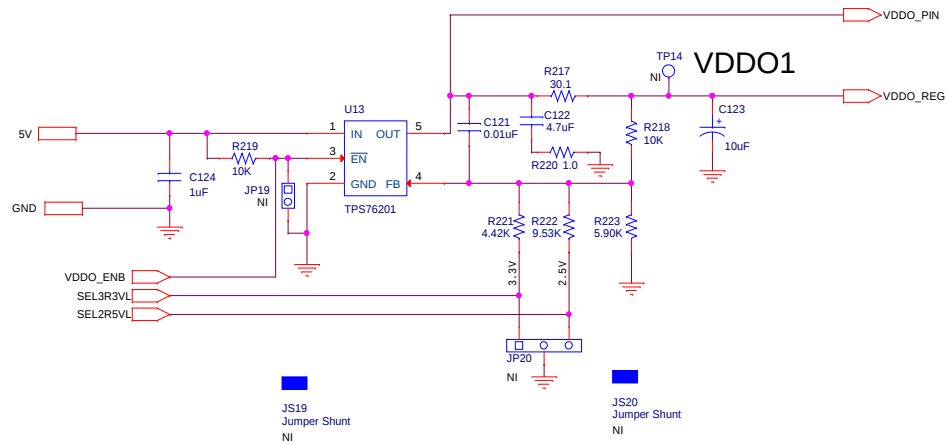
 400 W Cesar Chavez Austin, TX 78701		
Title STATUS_MAIN_SUPPLY_LEDS		
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100 mA Adjustable Voltage Regulator



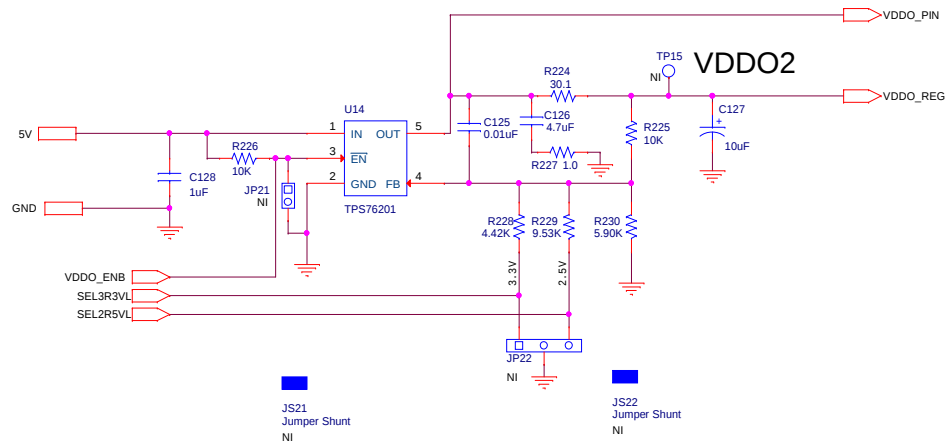
 400 W Cesar Chavez Austin, TX 78701		
Title: VDD_REG_TPS76201		
Size: B	Document Number: SI5341-D-EB	Rev: 2.2
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100 mA Adjustable Voltage Regulator



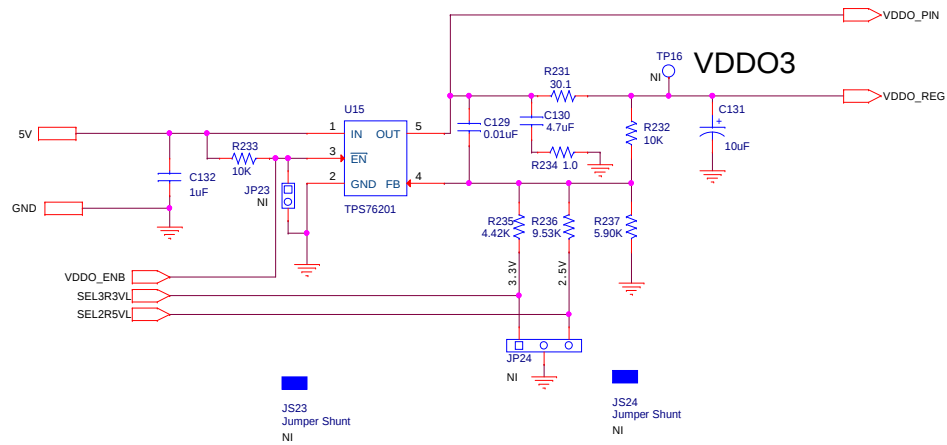
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Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
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100 mA Adjustable Voltage Regulator



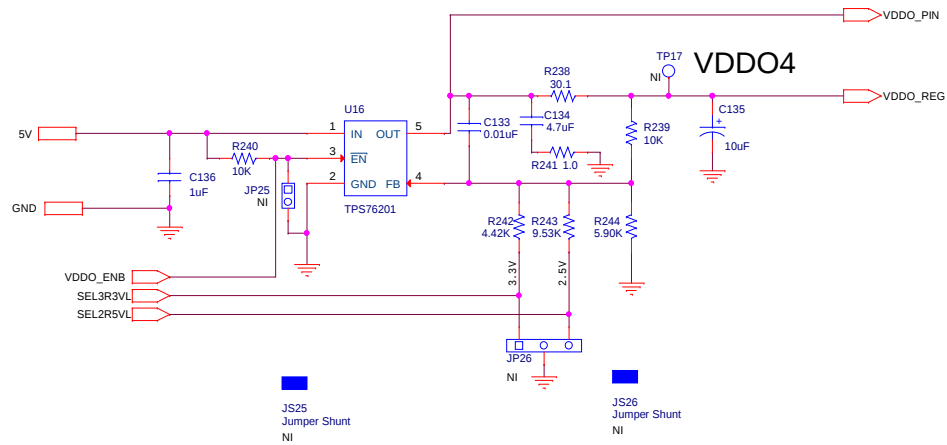
 400 W Cesar Chavez Austin, TX 78701		
Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
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100 mA Adjustable Voltage Regulator



 400 W Cesar Chavez Austin, TX 78701		
Title VDD_REG_TPS76201		
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100 mA Adjustable Voltage Regulator



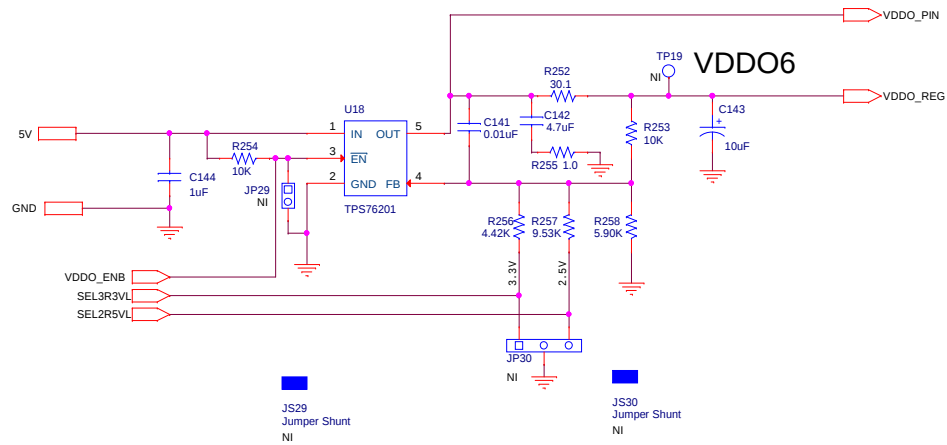
 400 W Cesar Chavez Austin, TX 78701		
Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
B	SI5341-D-EB	2.2
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100 mA Adjustable Voltage Regulator

The schematic diagram illustrates a 100 mA Adjustable Voltage Regulator circuit. The core component is the TPS76201 IC (U17), which is configured as a voltage regulator. The input (IN) is connected to a 5V supply through a 10kΩ resistor (R247) and a 1μF capacitor (C140). The enable pin (EN) is connected to the 5V supply through a 10kΩ resistor (R247) and a 1μF capacitor (C140). The feedback pin (FB) is connected to the output (OUT) through a 1.0kΩ resistor (R248). The output (OUT) is connected to the VDDO5 pin, which is also connected to the VDDO_REG pin. The output is filtered by a 10kΩ resistor (R246) and a 10μF capacitor (C139). The output voltage is adjustable using a potentiometer (TP18) connected to the output, with a 30.1kΩ resistor (R245) and a 0.01μF capacitor (C137) connected to the wiper. The potentiometer is also connected to the 5V supply through a 1.0kΩ resistor (R248). The output voltage is also adjustable using a potentiometer (JP28) connected to the output, with a 4.42kΩ resistor (R249) and a 9.53kΩ resistor (R250) connected to the wiper. The potentiometer is also connected to the 5V supply through a 5.90kΩ resistor (R251). The output voltage is also adjustable using a potentiometer (JS27) connected to the output, with a 4.42kΩ resistor (R249) and a 9.53kΩ resistor (R250) connected to the wiper. The potentiometer is also connected to the 5V supply through a 5.90kΩ resistor (R251). The output voltage is also adjustable using a potentiometer (JS28) connected to the output, with a 4.42kΩ resistor (R249) and a 9.53kΩ resistor (R250) connected to the wiper. The potentiometer is also connected to the 5V supply through a 5.90kΩ resistor (R251).

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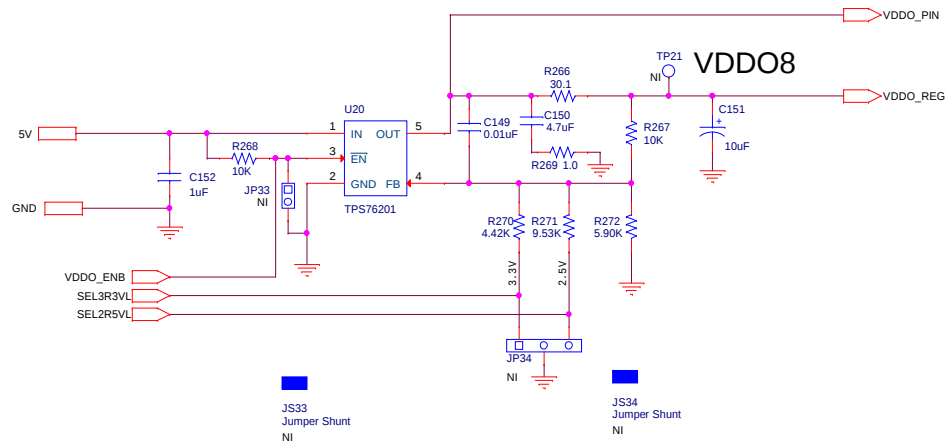
100 mA Adjustable Voltage Regulator



 400 W Cesar Chavez Austin, TX 78701		
Title		
VDD_REG_TPS76201		
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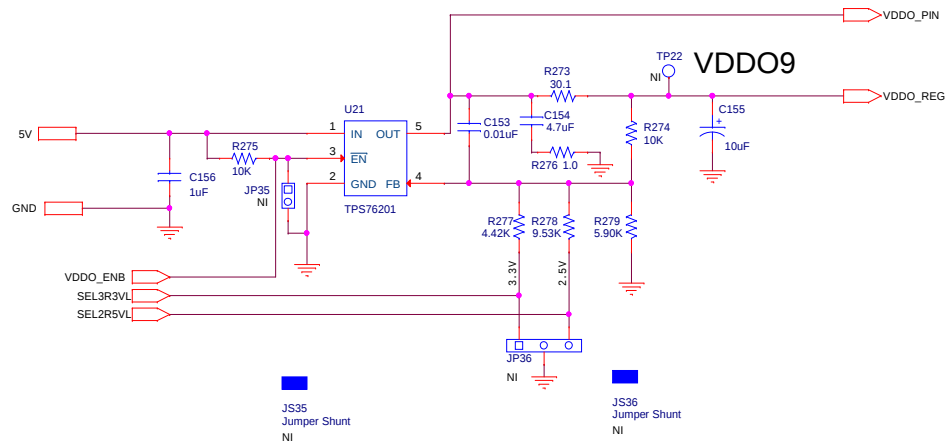
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100 mA Adjustable Voltage Regulator

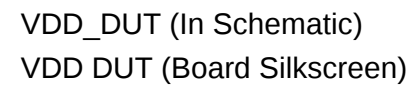


 400 W Cesar Chavez Austin, TX 78701	
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VDD_REG_TPS76201	
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100 mA Adjustable Voltage Regulator



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VOLTAGE MEASUREMENT MULTIPLEXING

