


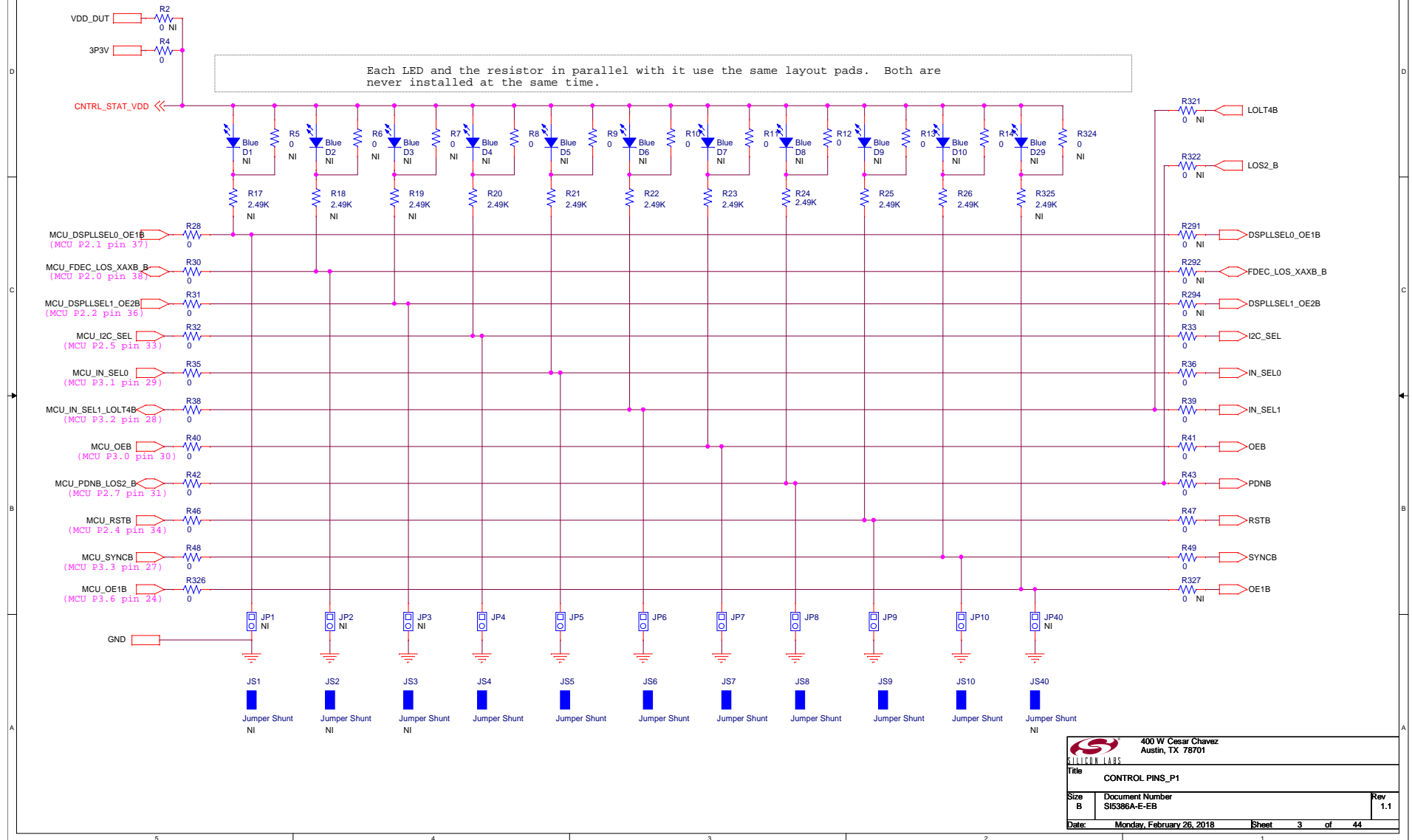
REVISION CONTROL

Rev 1.0 - October 27, 2017, Initial Board Release.

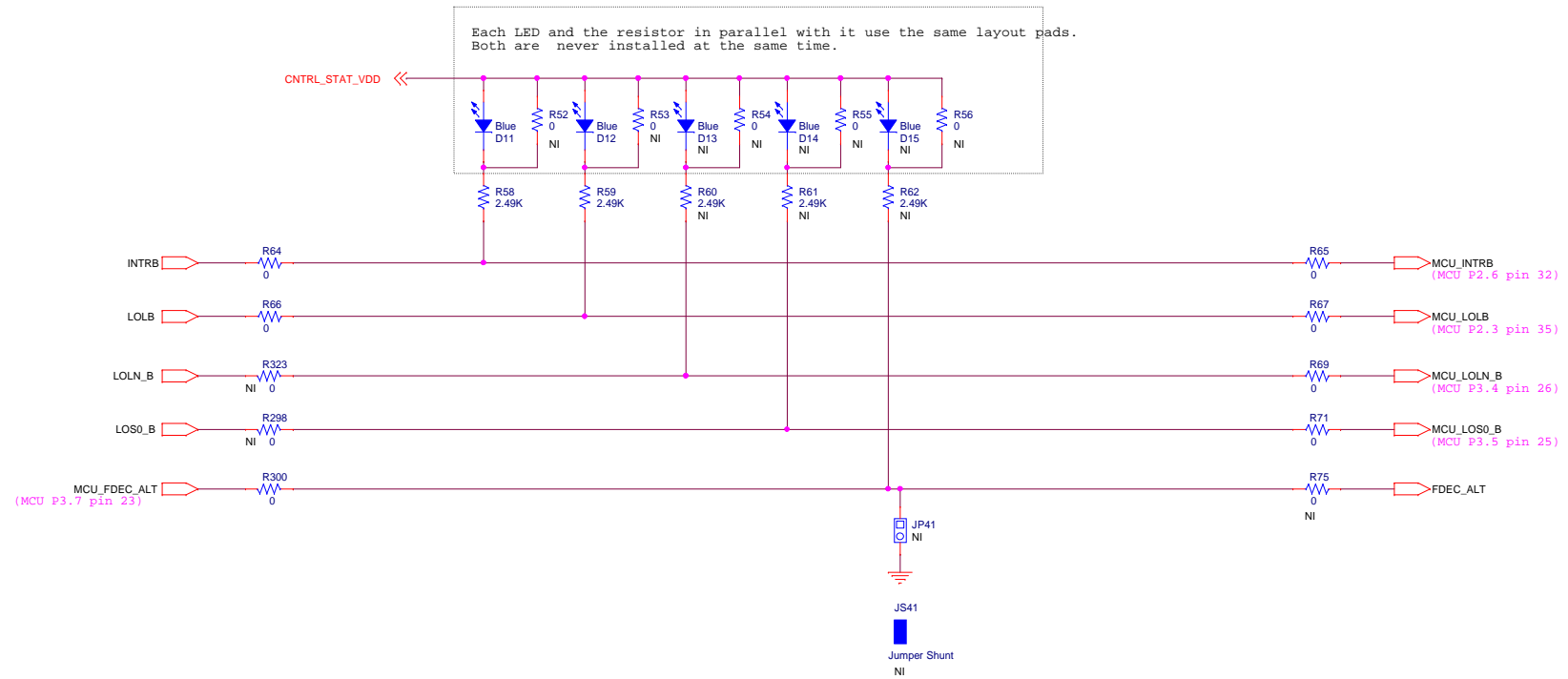
Rev 1.1 - Feb 26, 2018, Change X1 to part # 7X54070001
Travis Turner


		400 W Cesar Chavez Austin, TX 78701	
Title			
SI5386-EB_TOP_REVISION			
Size	Document Number		Rev
B	SI5386A-E-EB		1.1
Date:	Monday, February 26, 2018	Sheet	2 of 44

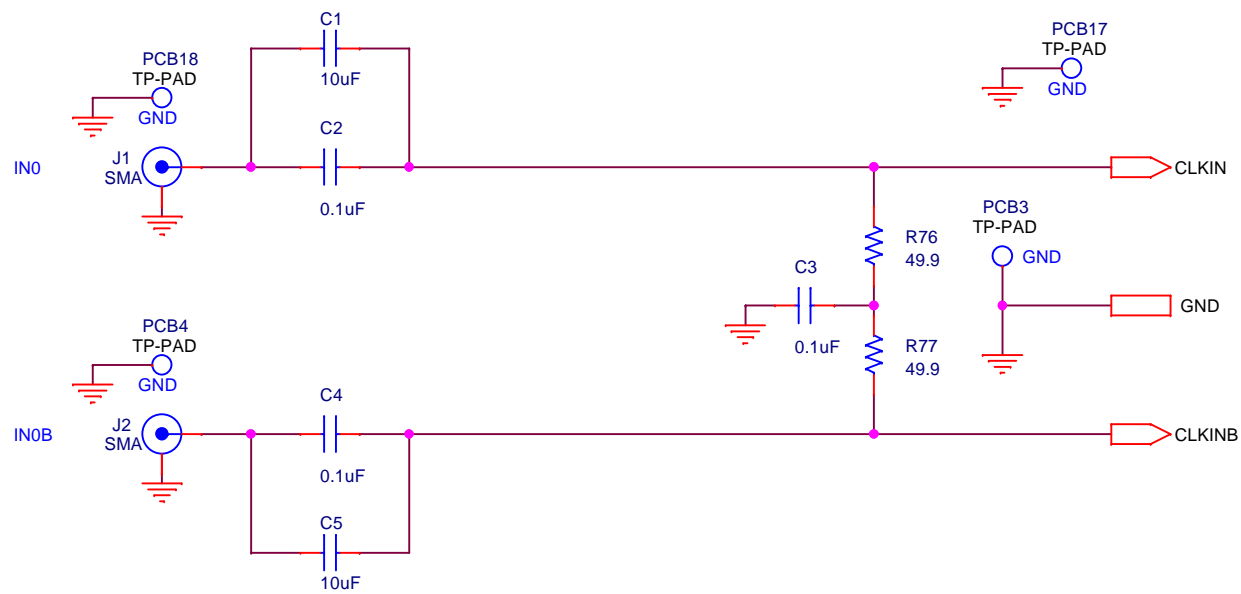
CONTROL PINS CONNECTIONS



CONTROL PINS CONNECTIONS



		400 W Cesar Chavez Austin, TX 78701	
Title CONTROL_PINS_P2			
Size B	Document Number SI5386A-E-EB	Rev 1.1	
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400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLK

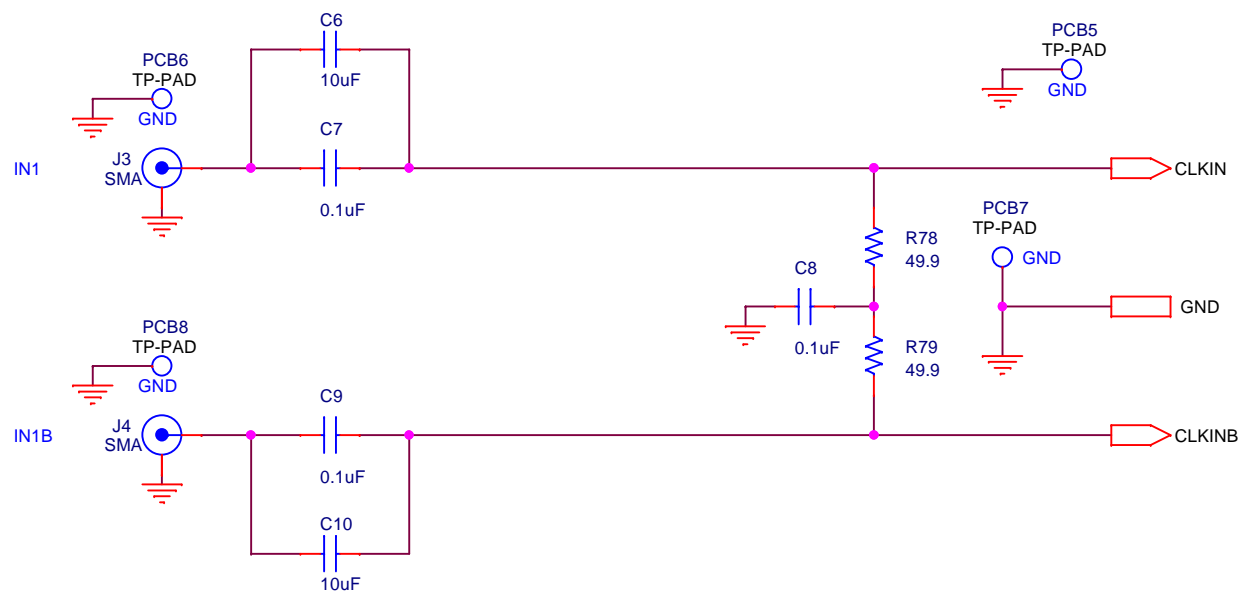
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Document Number
SI5386A-E-EB

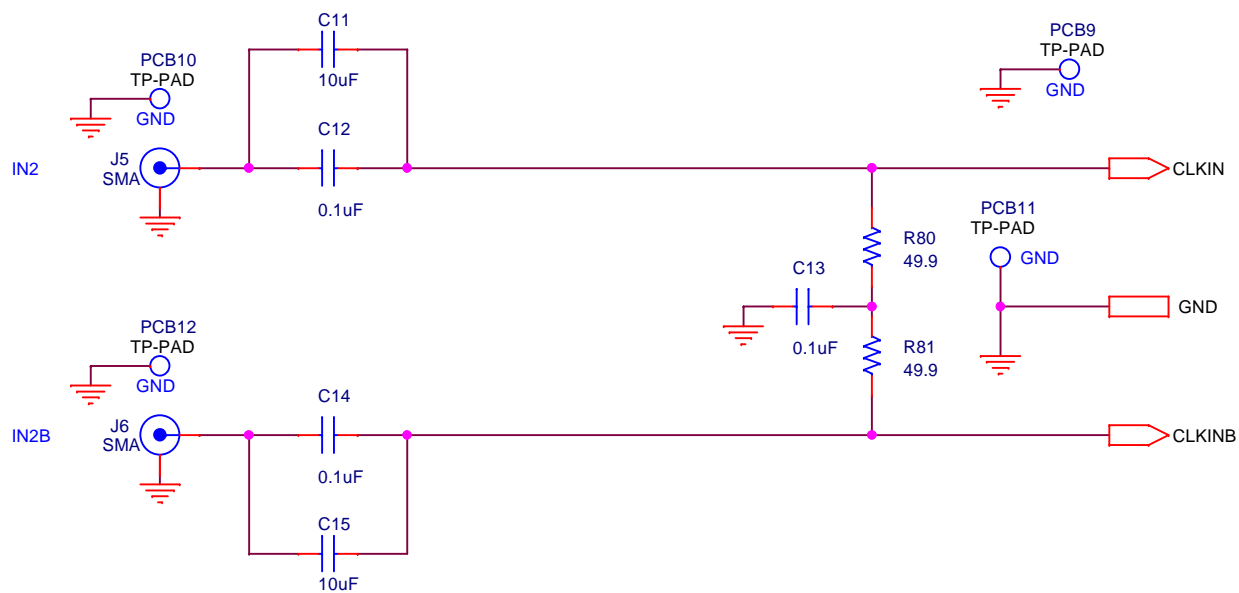
Rev
1.1


Date: Monday, February 26, 2018

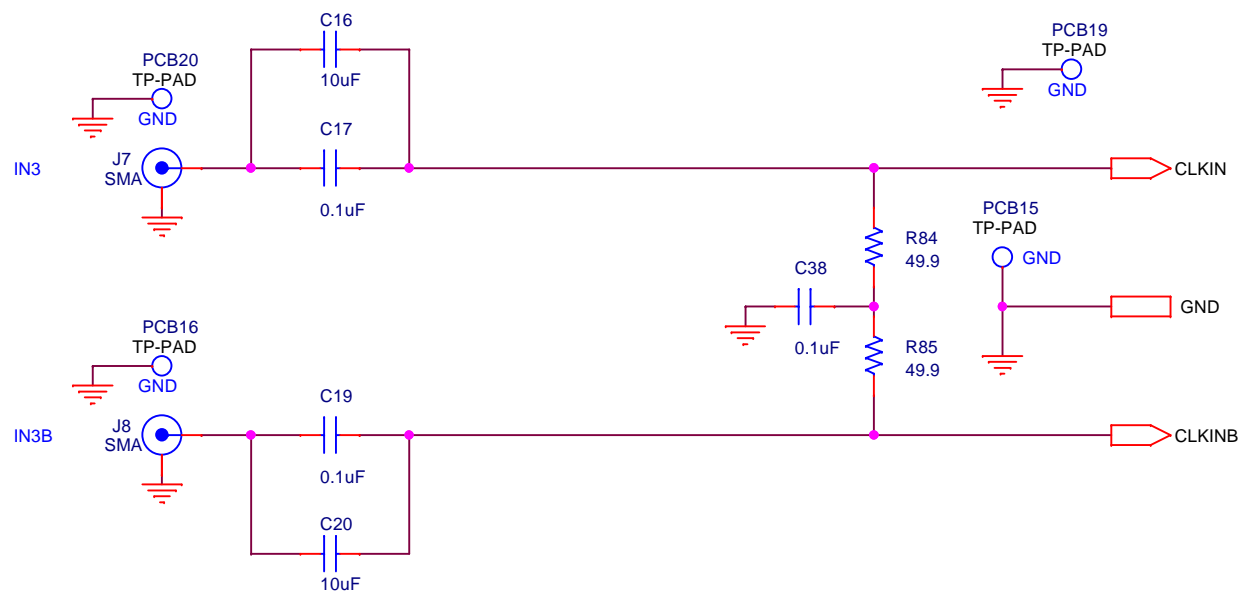
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5386A-E-EB	Rev 1.1
Date:	Monday, February 26, 2018	Sheet 6 of 44

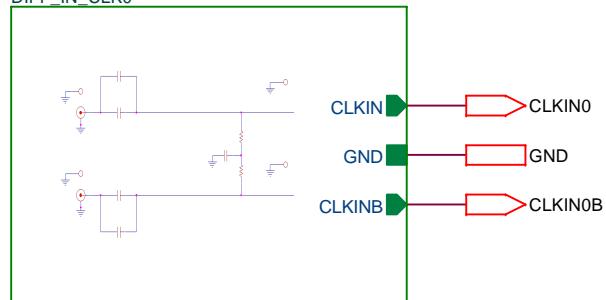


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Title DIFF_INPUT_CLK		
Size A	Document Number SI5386A-E-EB	Rev 1.1
Date:	Monday, February 26, 2018	Sheet 7 of 44



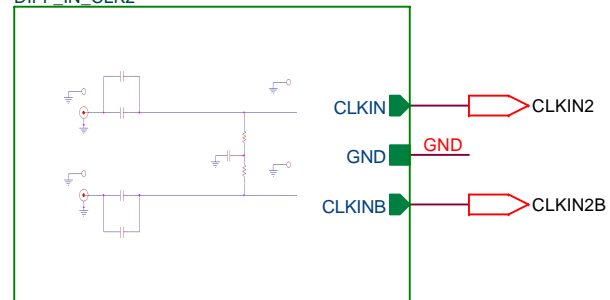
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5386A-E-EB	Rev 1.1
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DIFF_IN_CLK0



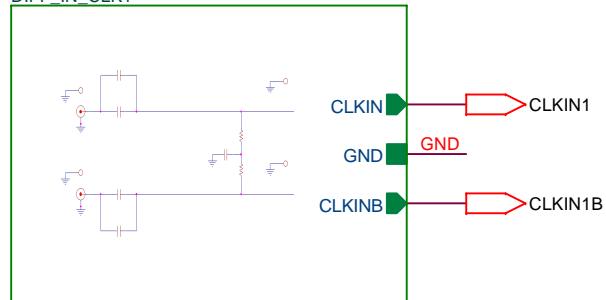
DIFF_INPUT_CLK

DIFF_IN_CLK2



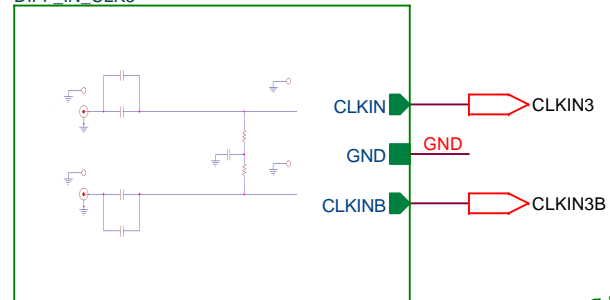
DIFF_INPUT_CLK

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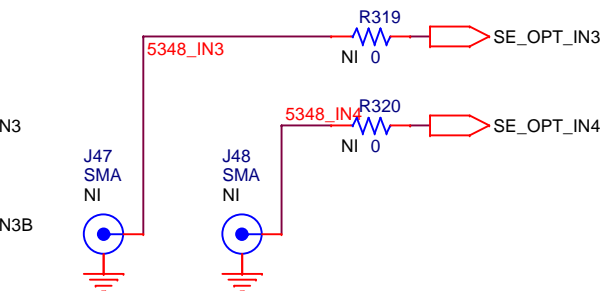


DIFF_INPUT_CLK

DIFF_IN_CLK3



DIFF_INPUT_CLK



Single-ended clocks only.



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_INPUT_CLOCKS_4

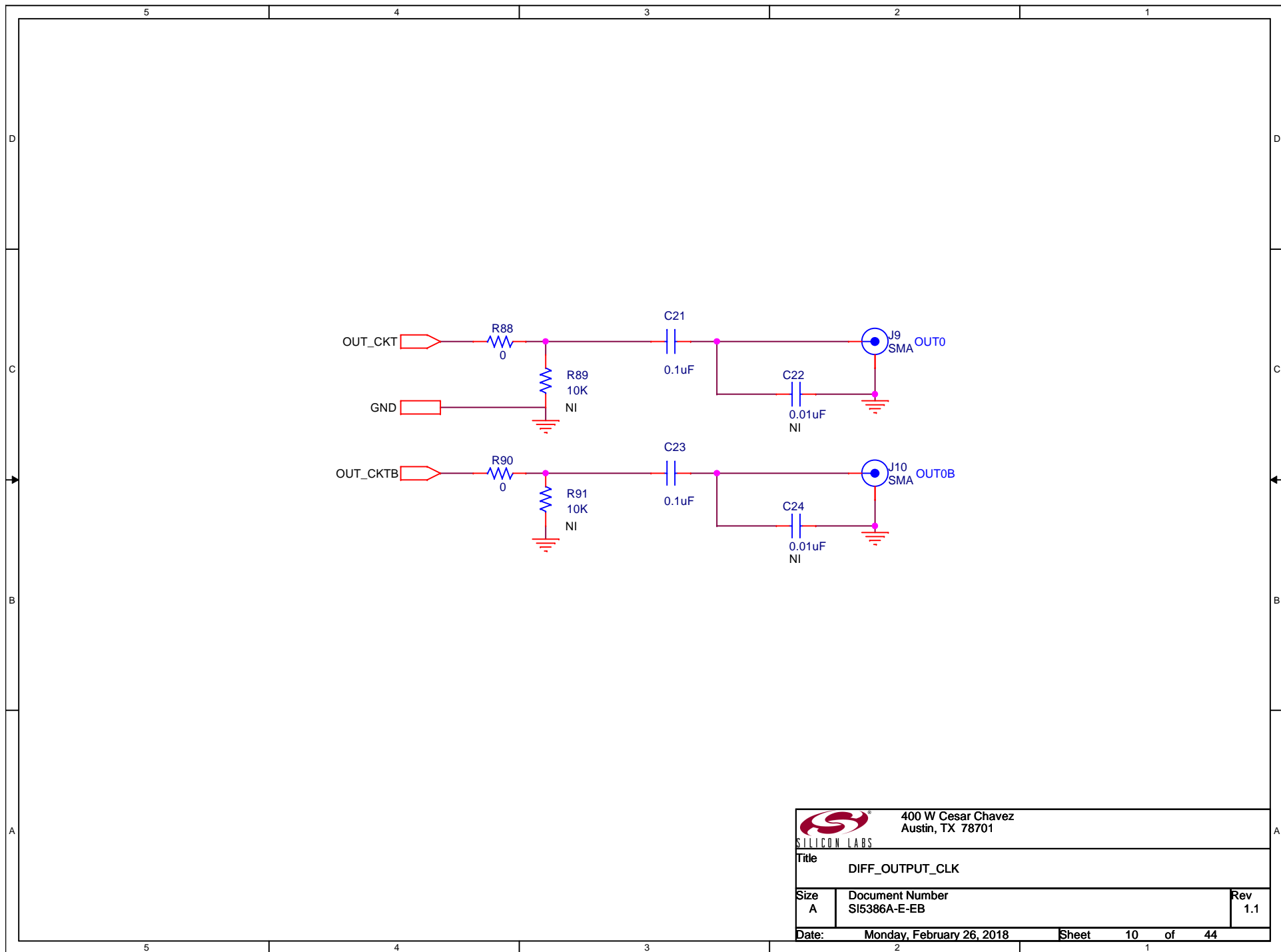
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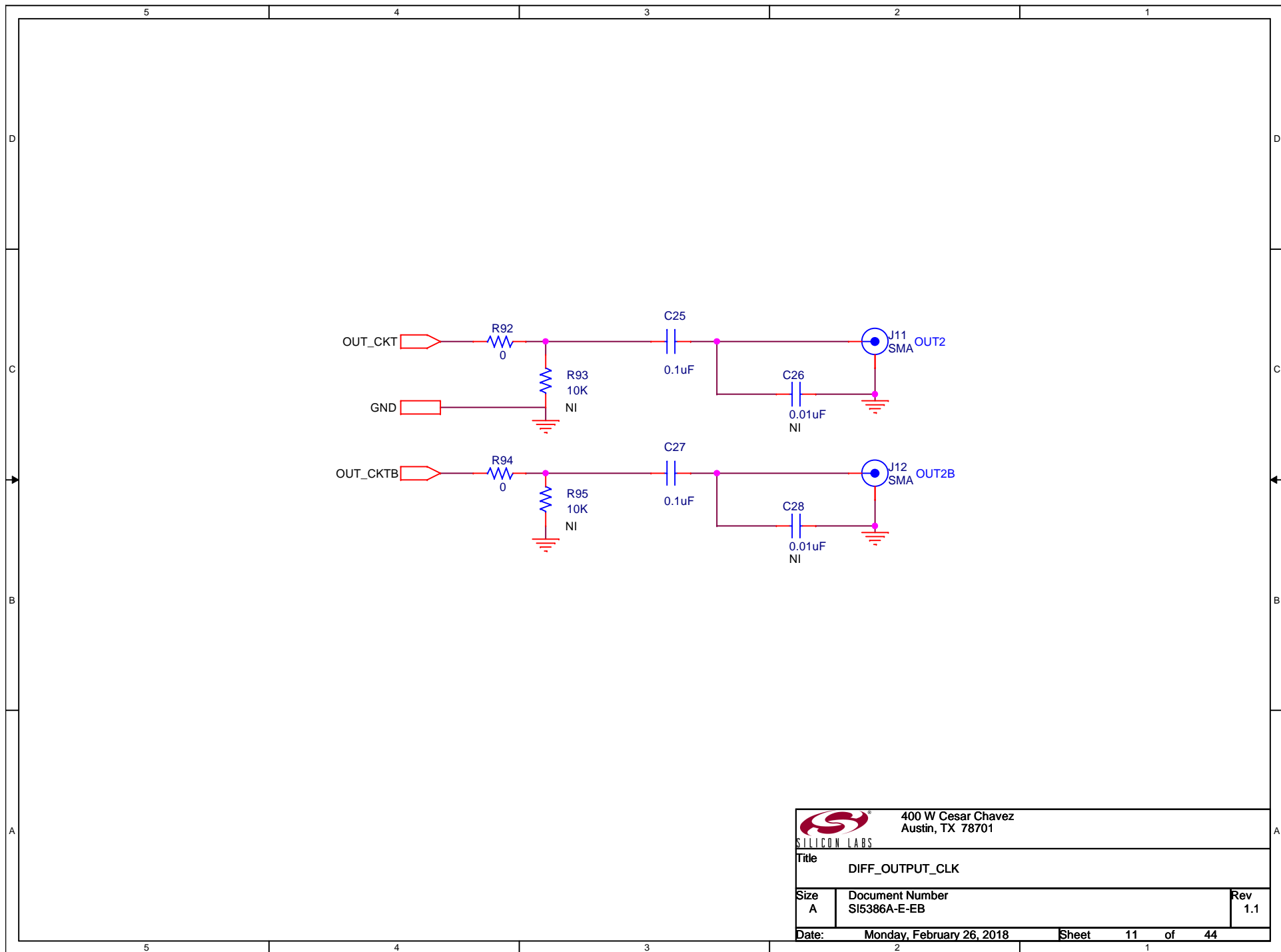
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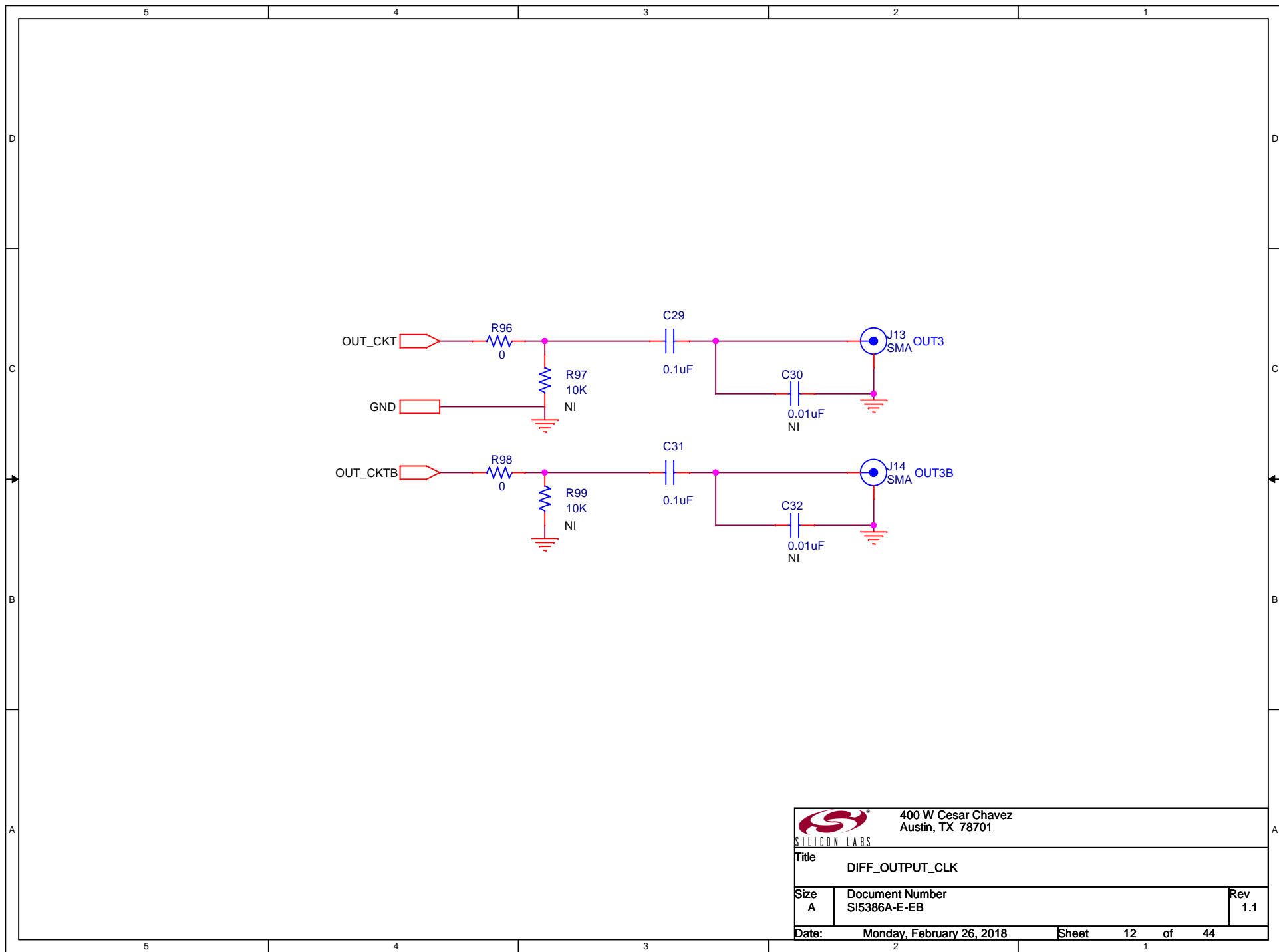
Rev
1.1


Date: Monday, February 26, 2018

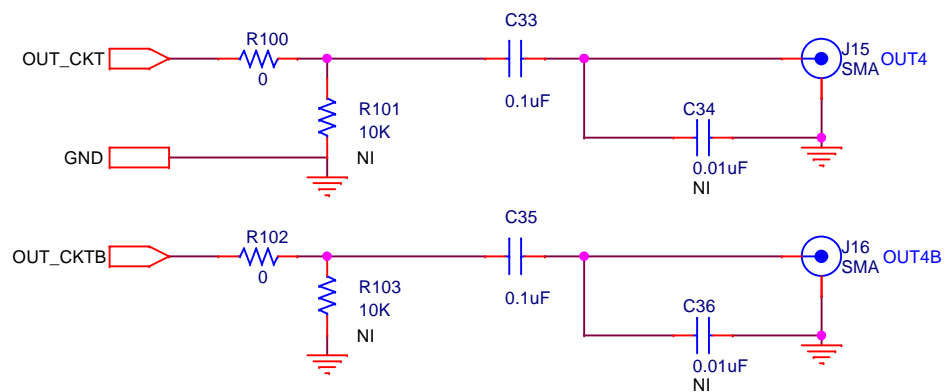
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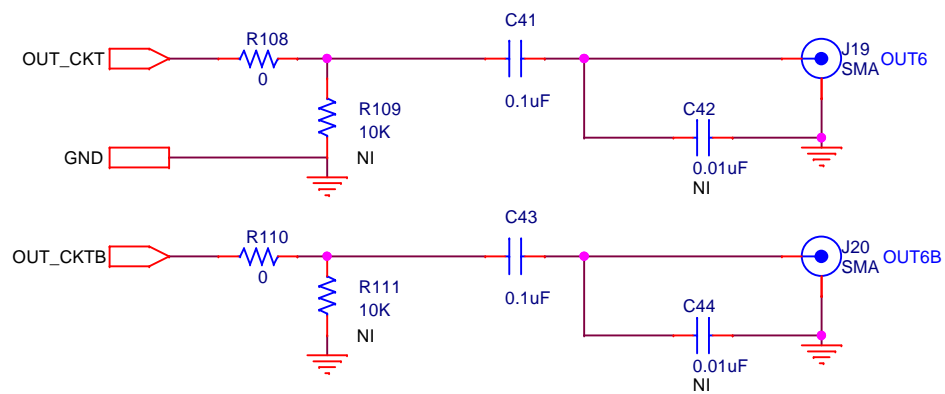




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Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5386A-E-EB	Rev 1.1
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 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5386A-E-EB	Rev 1.1
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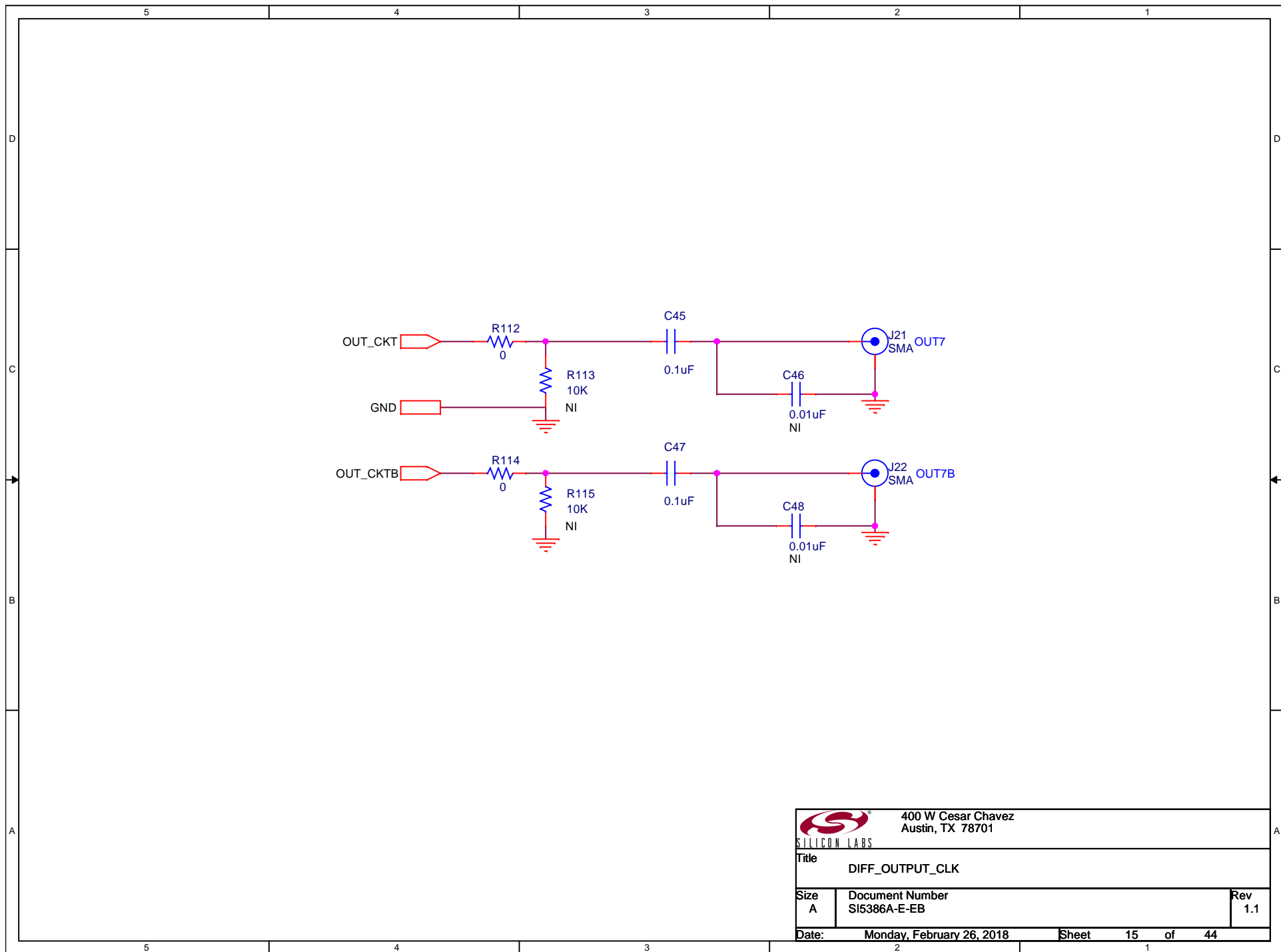
400 W Cesar Chavez
Austin, TX 78701


Title
DIFF_OUTPUT_CLK

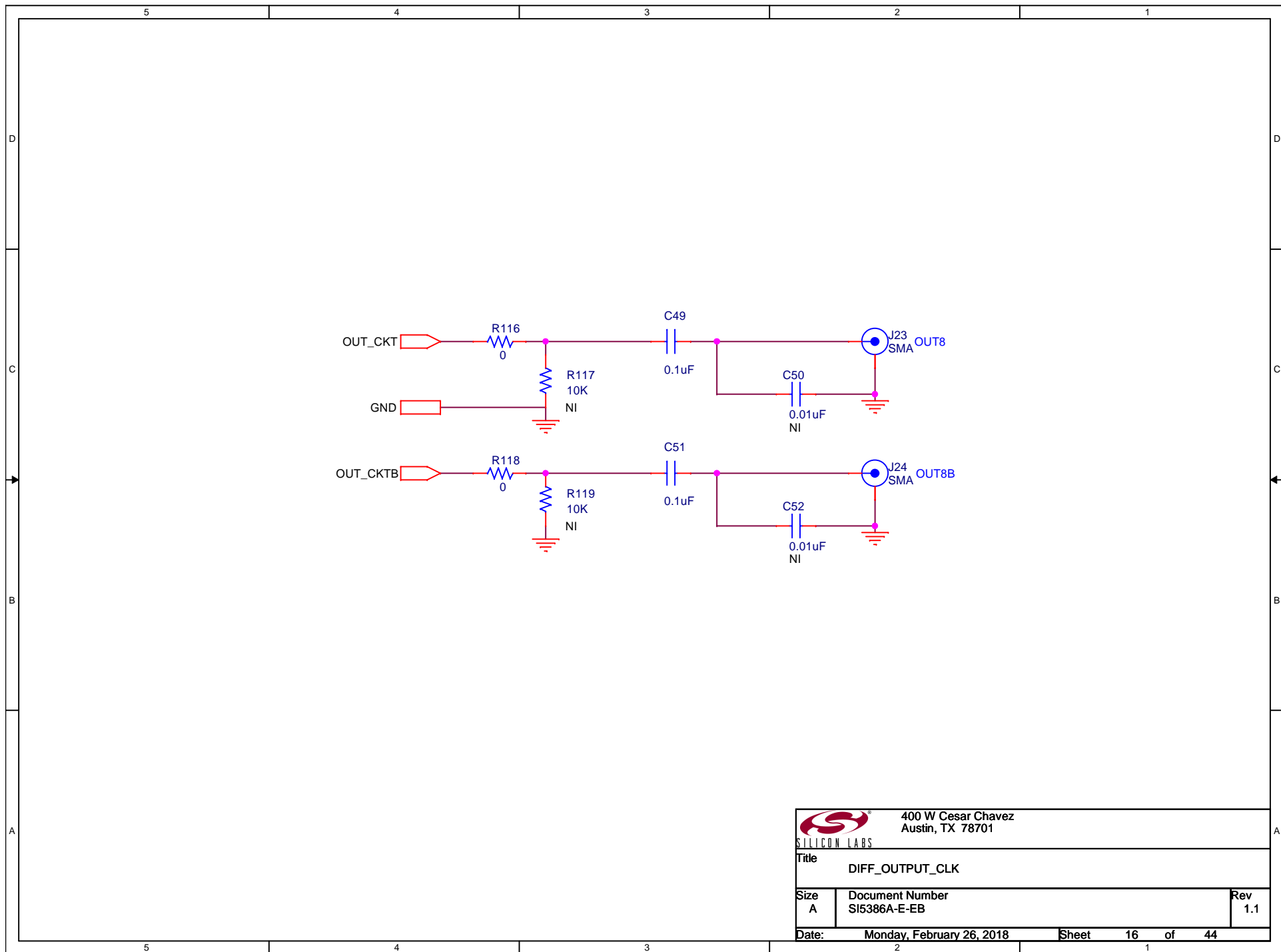
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SI5386A-E-EB


Rev
1.1

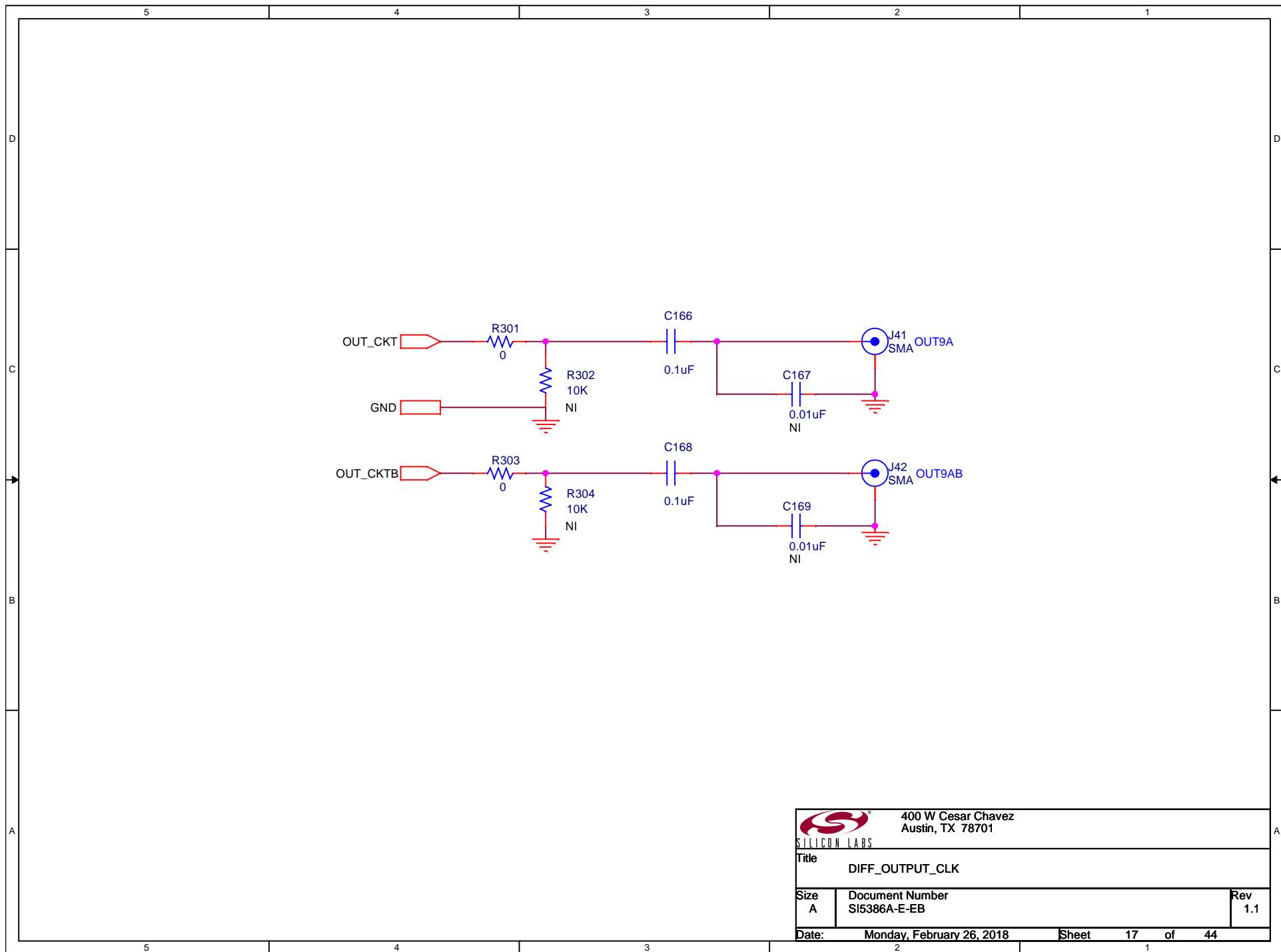
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Title DIFF_OUTPUT_CLK		
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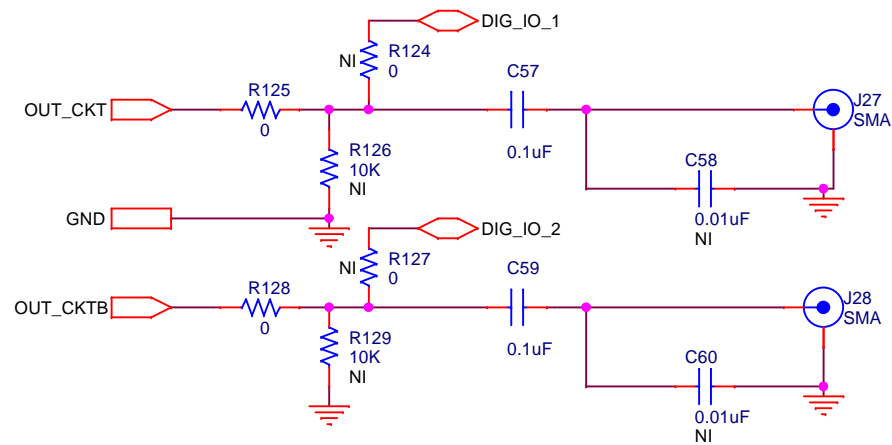


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5386A-E-EB	Rev 1.1
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Title DIFF_OUTPUT_CLK		
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DIFF_OUTPUT_CLK_DIG_IO



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_OUTPUT_CLK_DIG_IO

Size
A

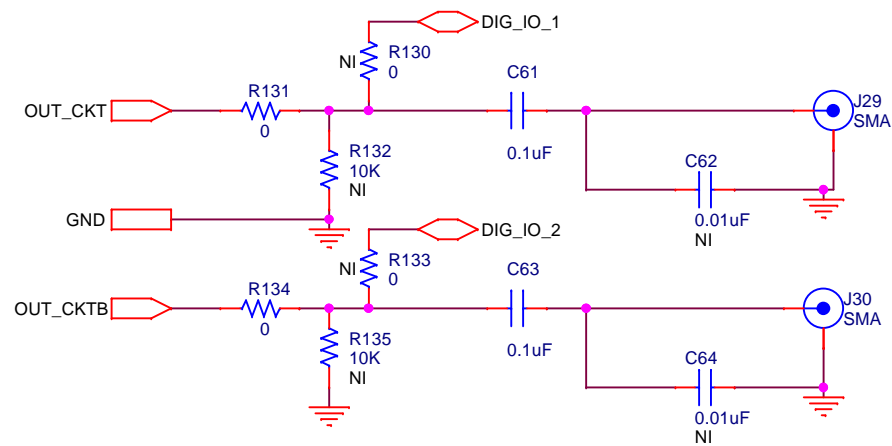
Document Number
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1.1

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DIFF_OUTPUT_CLK_DIG_IO



400 W Cesar Chavez
Austin, TX 78701

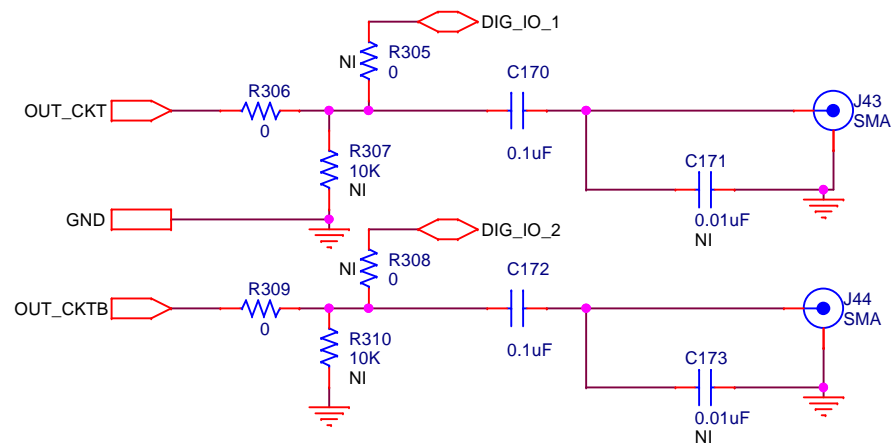
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DIFF_OUTPUT_CLK_DIG_IO

Size A Document Number
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1.1

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DIFF_OUTPUT_CLK_DIG_IO



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_OUTPUT_CLK_DIG_IO

Size
A

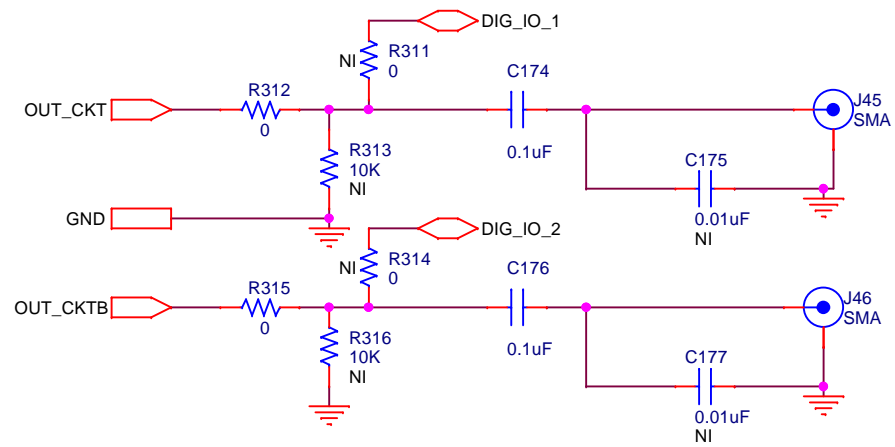
Document Number
SI5386A-E-EB

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1.1

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DIFF_OUTPUT_CLK_DIG_IO



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_OUTPUT_CLK_DIG_IO

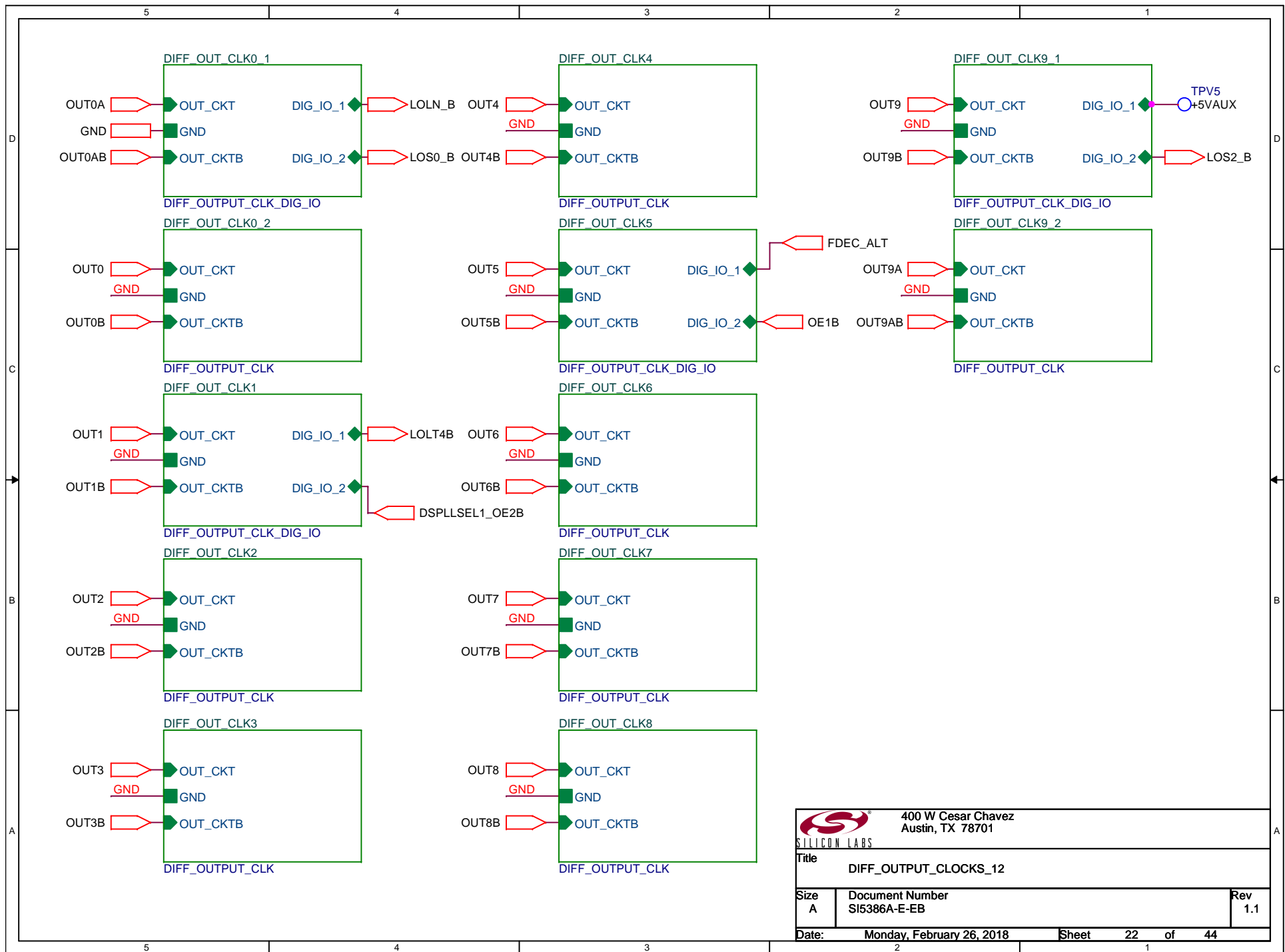
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Document Number
SI5386A-E-EB

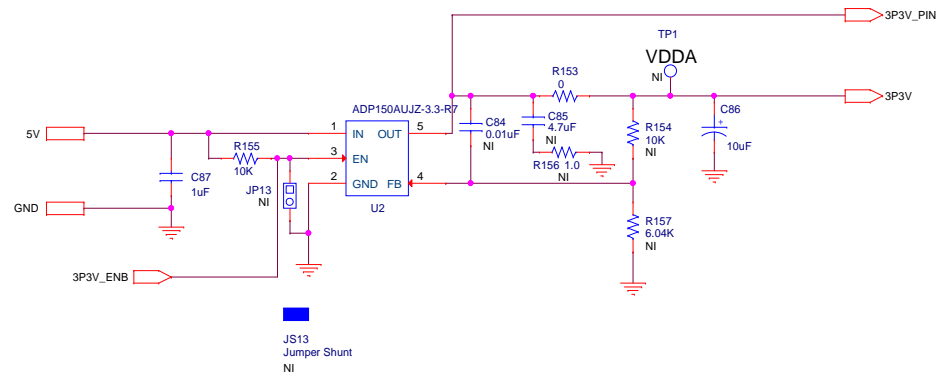
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1.1

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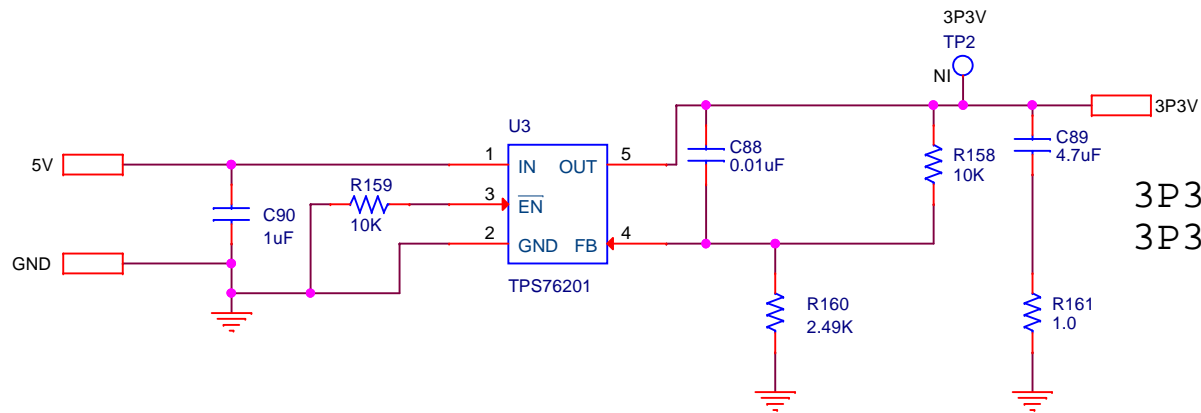
Fixed 3.3V 150 mA Voltage Regulator




3P3V_DUT (In Schematic)
VDDA DUT (Board Silkscreen)

		400 W Cesar Chavez Austin, TX 78701	
Title		VDD_REG_MIC5235	
Size	Document Number	Rev	
B	SI5386A-E-EB	1.1	
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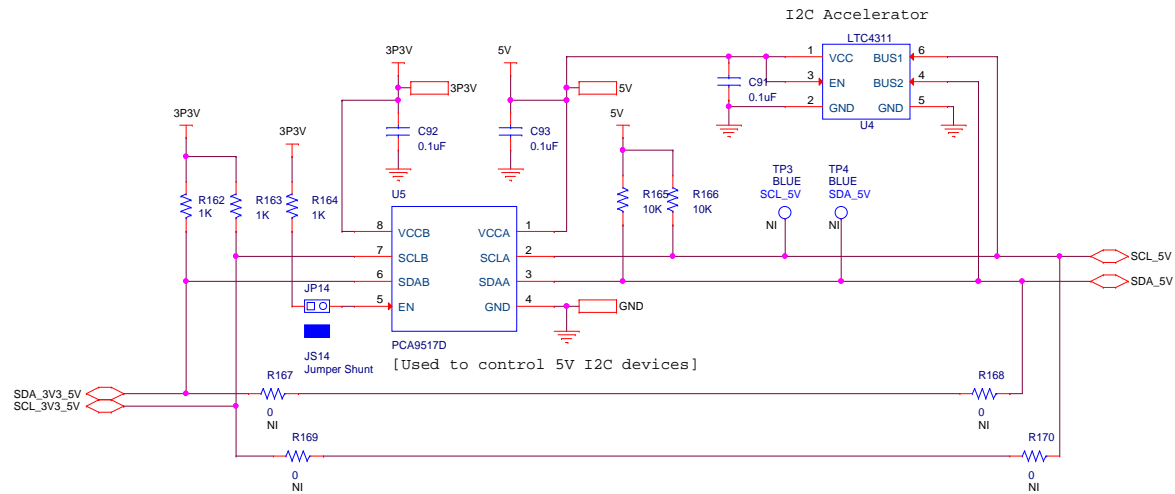
Fixed 3.3V 100 mA Voltage Regulator (Enabled, no current measurement supported.)



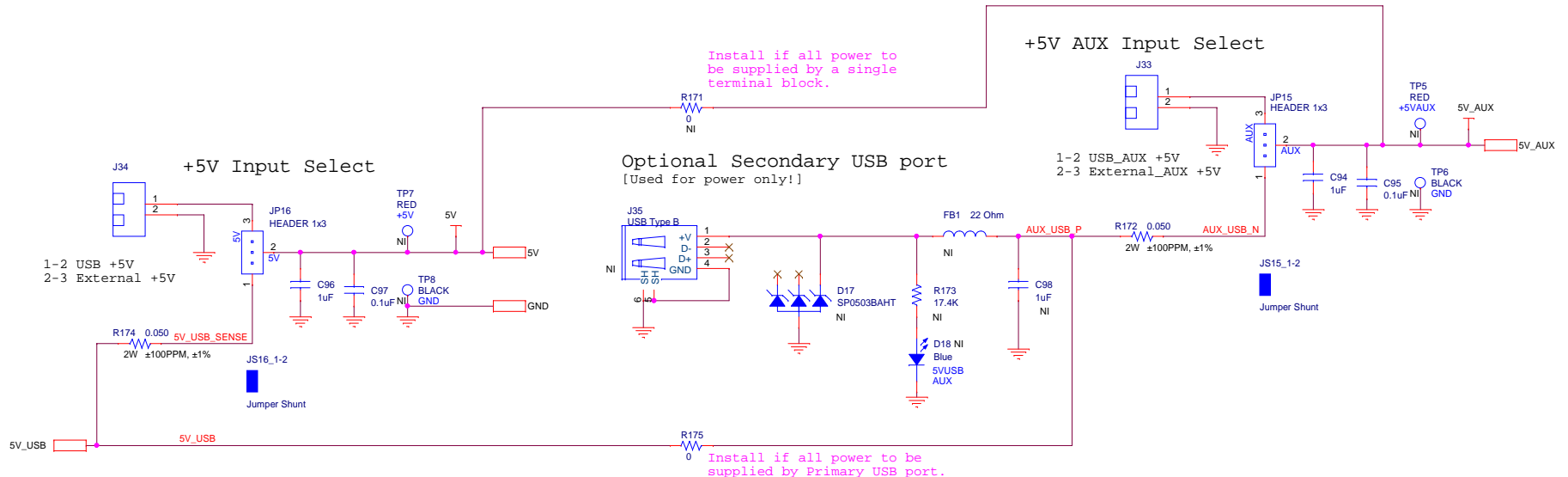
3P3V (In Schematic)
3P3V (Board Silkscreen)


 SILICON LABS		400 W Cesar Chavez Austin, TX 78701	
Title			
FIXED_3V3_REG_TPS76201_EN_NO_IM			
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I2C LEVEL TRANSLATORS



MAIN POWER INPUT SELECTS EXTERNAL OR USB



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Title MAIN_POWER_CONNECTIONS		
Size B	Document Number SI5386A-E-EB	Rev 1.1
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The image shows a detailed PCB layout for an 8051 MCU. The layout includes various components and their connections:


- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.
- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.
- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.

The layout also includes various other components and connections, such as:

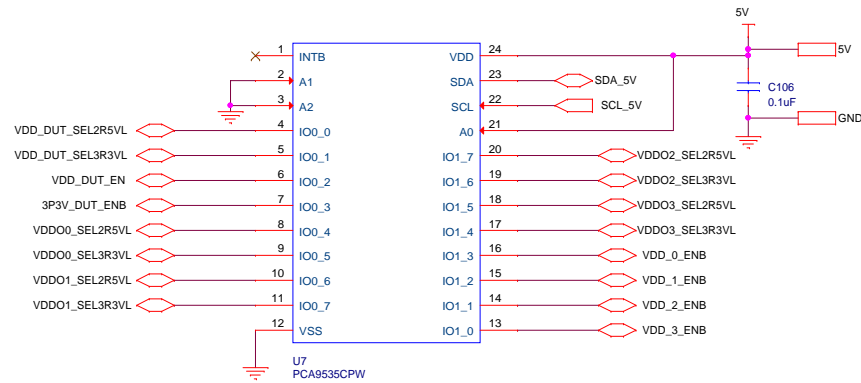
- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.
- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.

The layout also includes various other components and connections, such as:

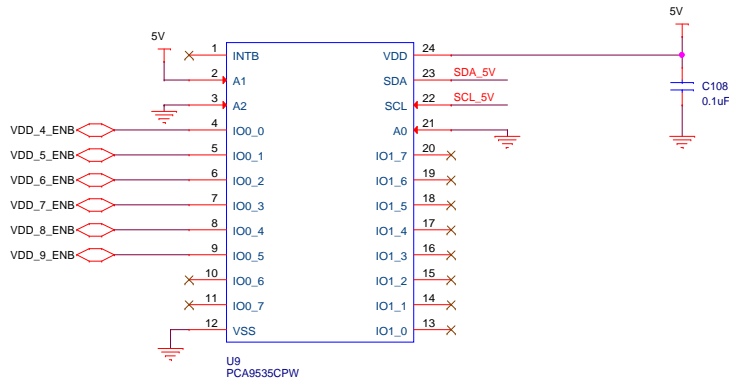
- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.
- MCU Reset:** A reset circuit using a pushbutton (S1) and a 1K resistor (R178) connected to the MCU's reset pin.
- MCU Programming:** A programming header (J38) with a 5x2 shrouded header (J36) and a 5V USB connection.

 <div> 400 W Cesar Chavez Austin, TX 78701 </div>	
Title MCU	
Size B	Document Number SI5386A-E-EB
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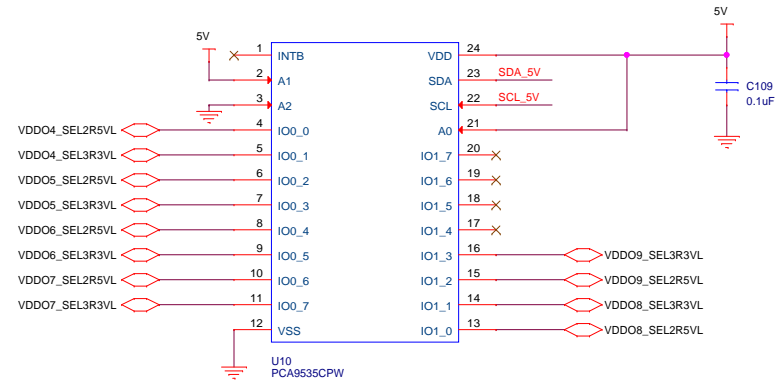
PERIPHERALS



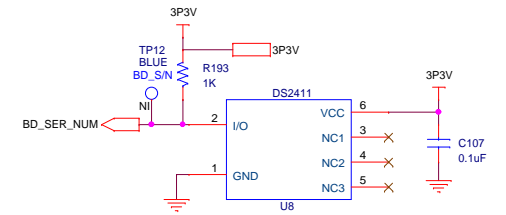
I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100001




I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100010

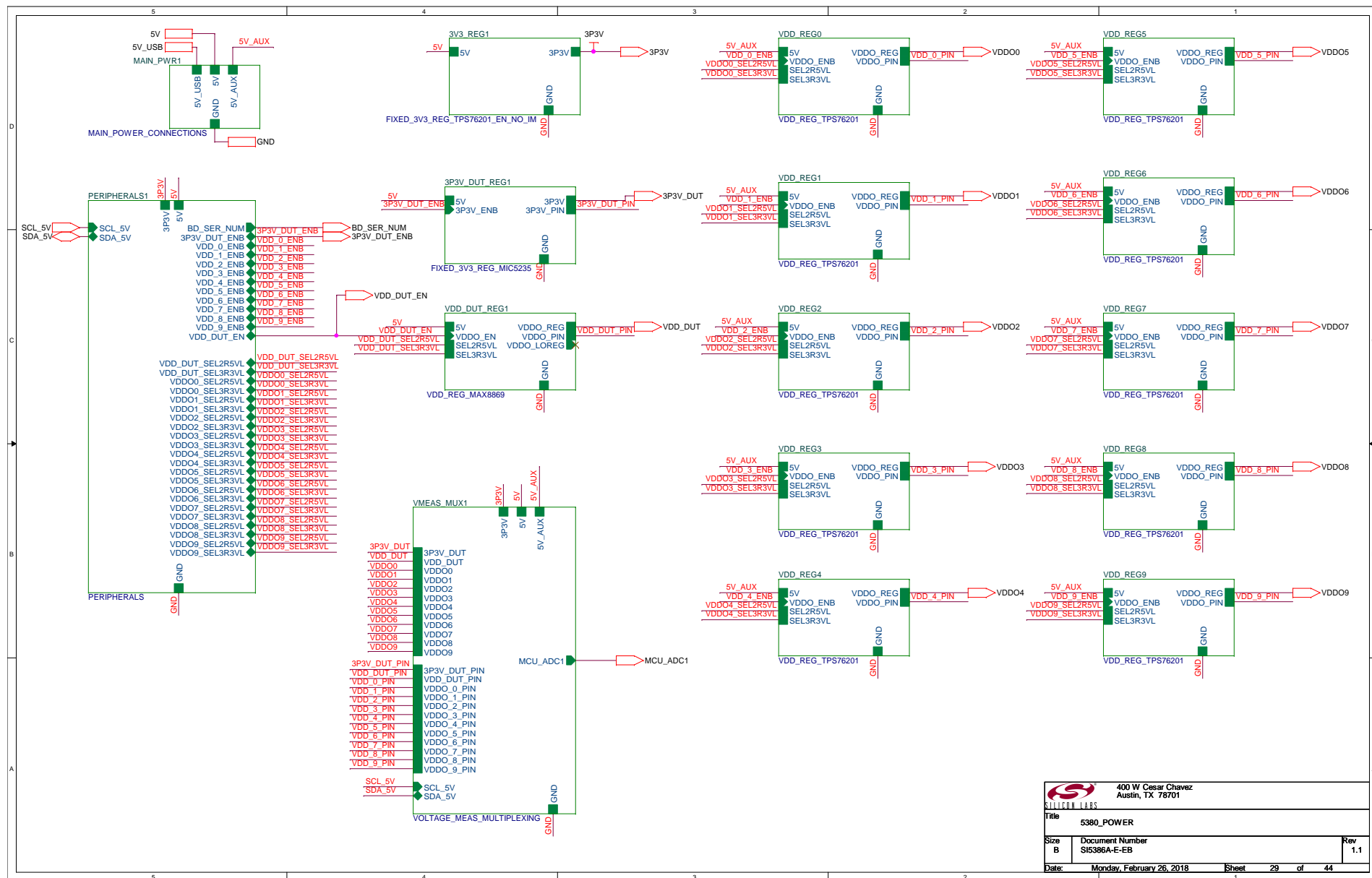


I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100011

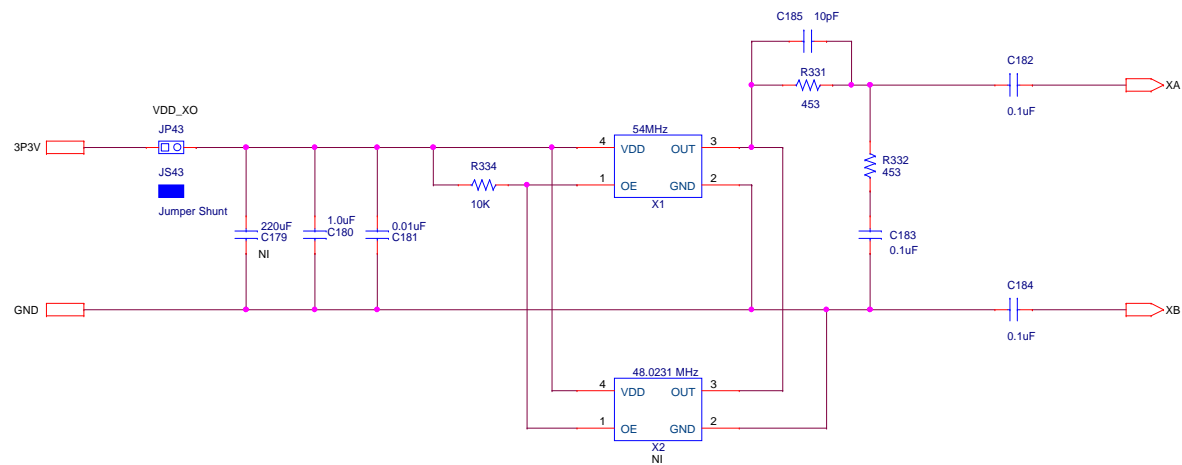



Board Serial Number

		400 W Cesar Chavez Austin, TX 78701	
Title PERIPHERALS			
Size B	Document Number SI5386A-E-EB		Rev 1.1
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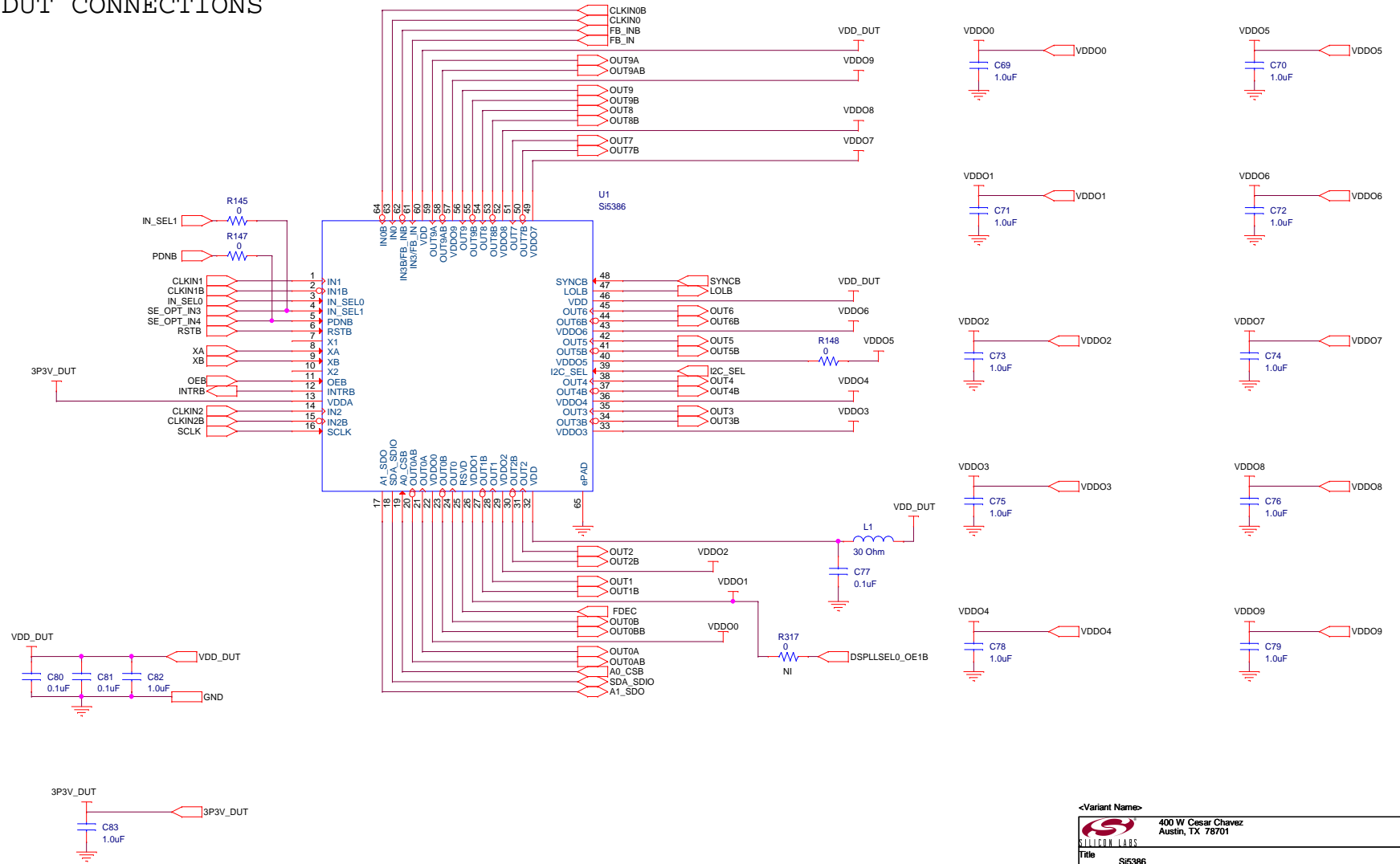



REFERENCE INPUT CONNECTIONS



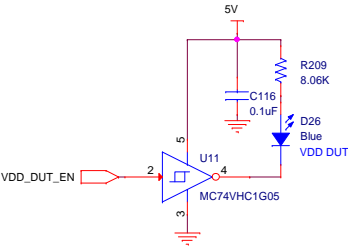
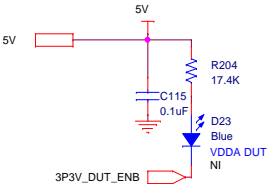
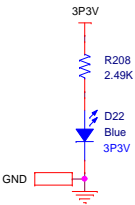
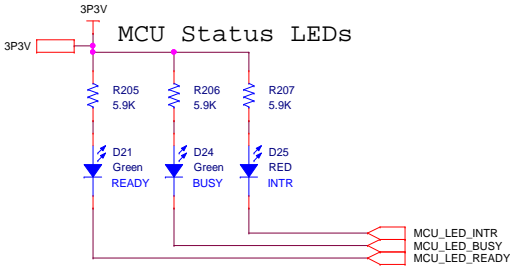
 400 W Cesar Chavez Austin, TX 78701		
Title REFERENCE		
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DUT CONNECTIONS



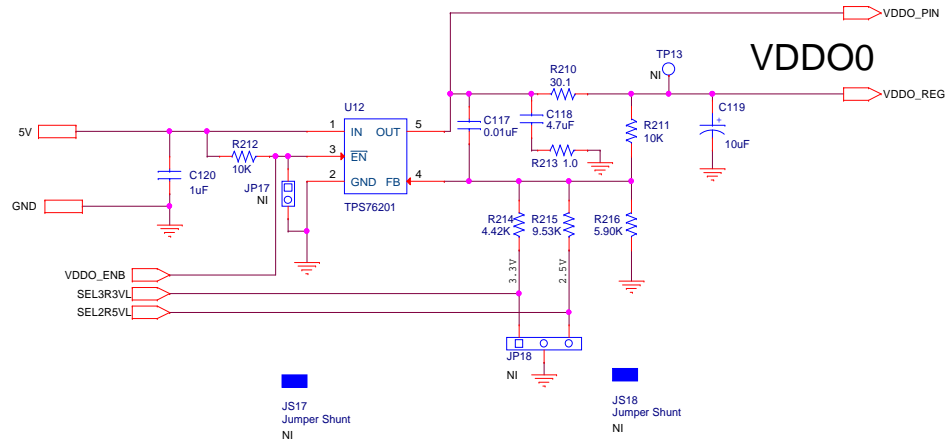
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Title			
SI5386			
Size			
B			
Document Number			
SI5386A-E-EB			
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LEDS - SUPPLIES & STATUS



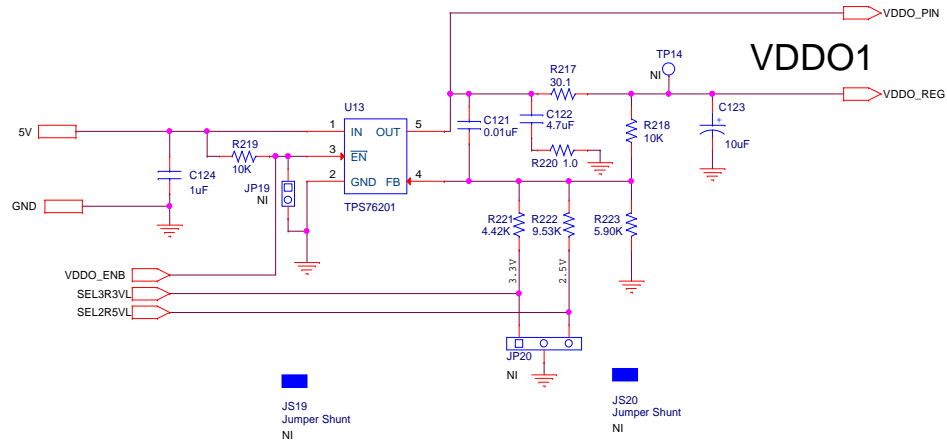
 400 W Cesar Chavez Austin, TX 78701		
Title STATUS_MAIN_SUPPLY_LEDS		
Size B	Document Number SI5386A-E-EB	Rev 1.1
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100 mA Adjustable Voltage Regulator



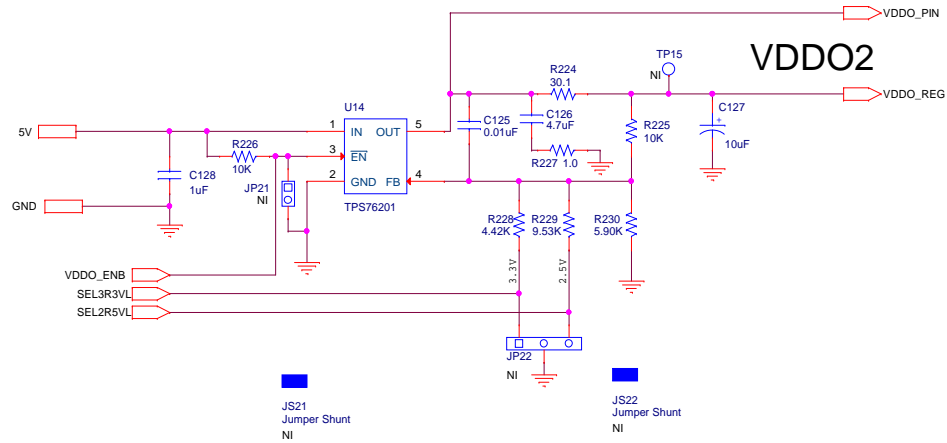
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Title VDD_REG_TPS76201	
Size B	Document Number SI5386A-E-EB
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100 mA Adjustable Voltage Regulator



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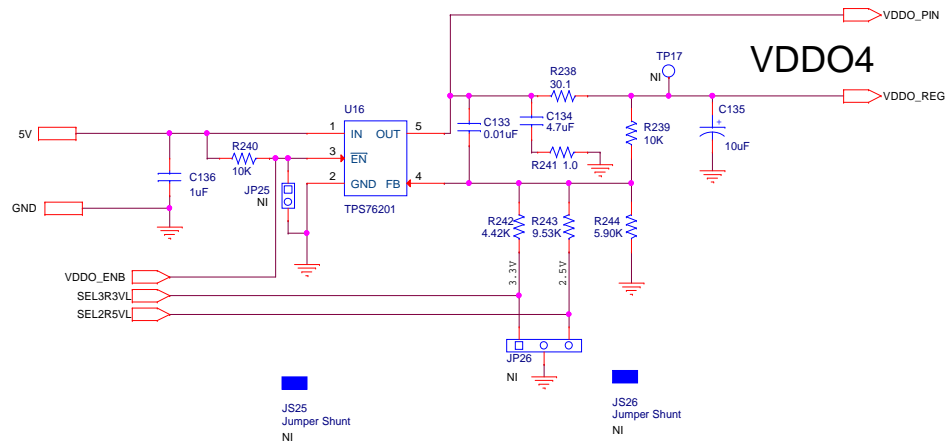
100 mA Adjustable Voltage Regulator




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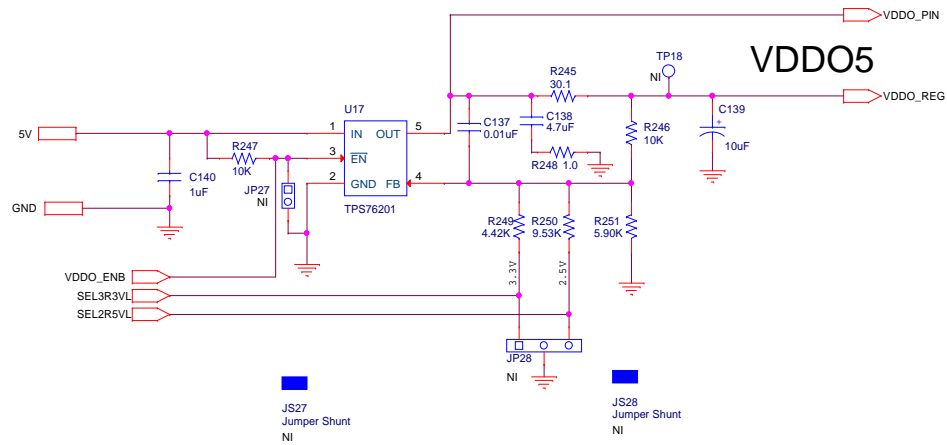
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100 mA Adjustable Voltage Regulator



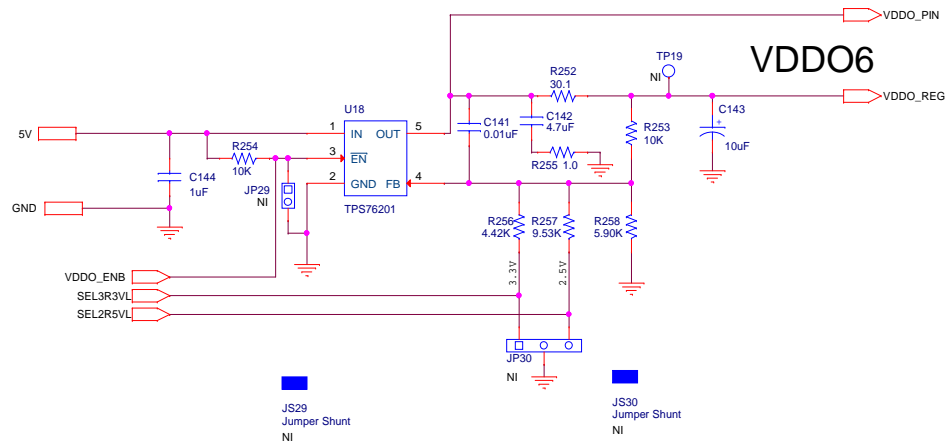
 400 W Cesar Chavez Austin, TX 78701	
Title VDD_REG_TPS76201	
Size B	Document Number SI5386A-E-EB
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100 mA Adjustable Voltage Regulator



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

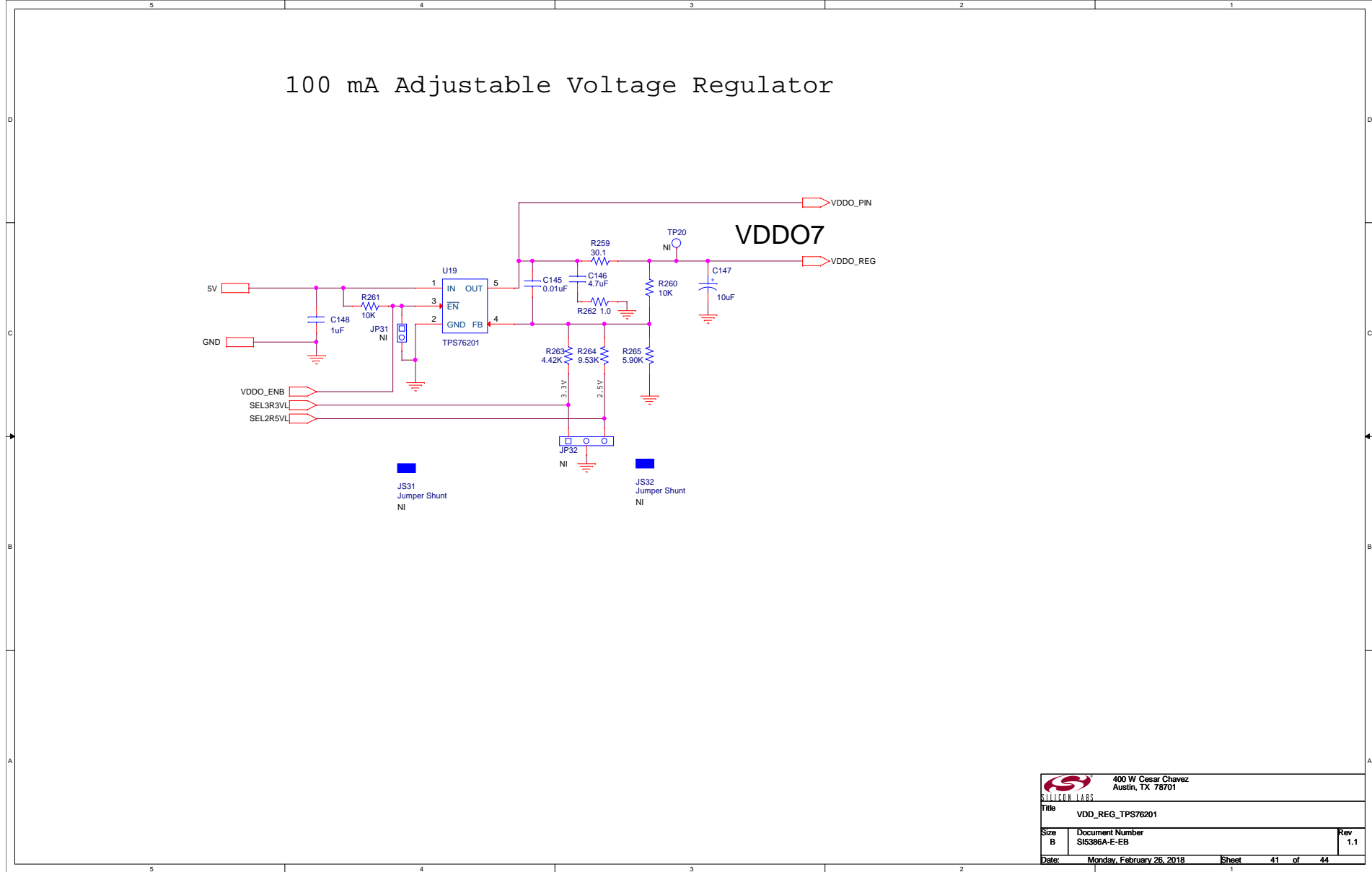


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Title		VDD_REG_TPS76201	
Size	Document Number	Rev	
B	SI5386A-E-EB	1.1	
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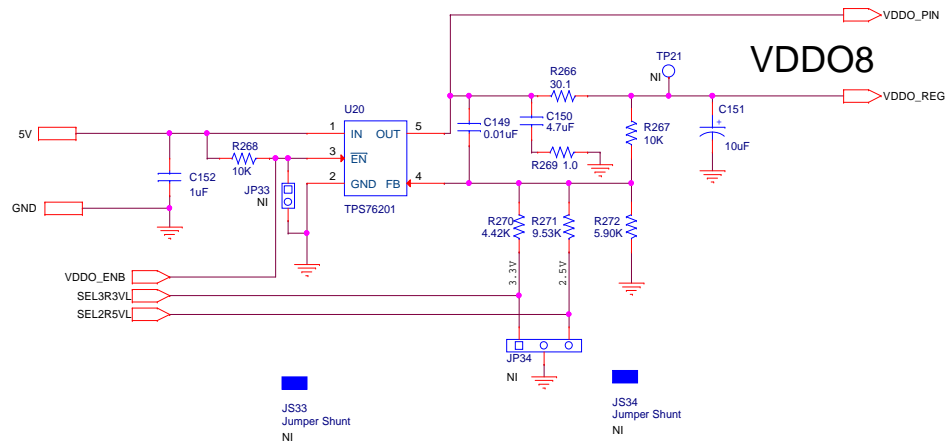
100 mA Adjustable Voltage Regulator


The schematic diagram illustrates a 100 mA adjustable voltage regulator circuit centered around the TPS76201 integrated circuit (U19). The input stage features a 5V supply connected through capacitor C148 (1μF) and resistor R261 (10K) to the IN pin (pin 1). A jumper shunt JS31 connects the EN pin (pin 3) to ground. The feedback network consists of resistors R263 (4.42K), R264 (9.53K), and R265 (5.90K) connected between the FB pin (pin 4) and the output node. The output node also includes resistor R260 (10K) and capacitor C147 (10μF) to ground. The output voltage is labeled VDDO7 and can be configured as either VDDO_PIN or VDDO_REG via a jumper shunt JS32. Additional components include capacitor C145 (0.01μF), capacitor C146 (4.7μF), and resistor R259 (30.1Ω) near the output. Control signals VDDO_ENB, SEL3R3VL, and SEL2R5VL are shown at the bottom left.

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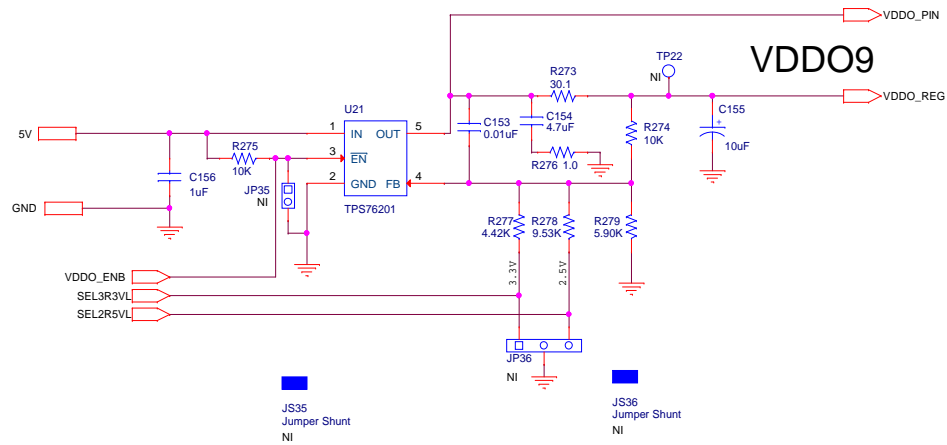



100 mA Adjustable Voltage Regulator



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



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VOLTAGE MEASUREMENT MULTIPLEXING

