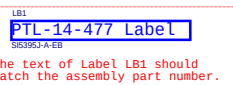




To ascend from a block schematic, right click and select "Previous View".

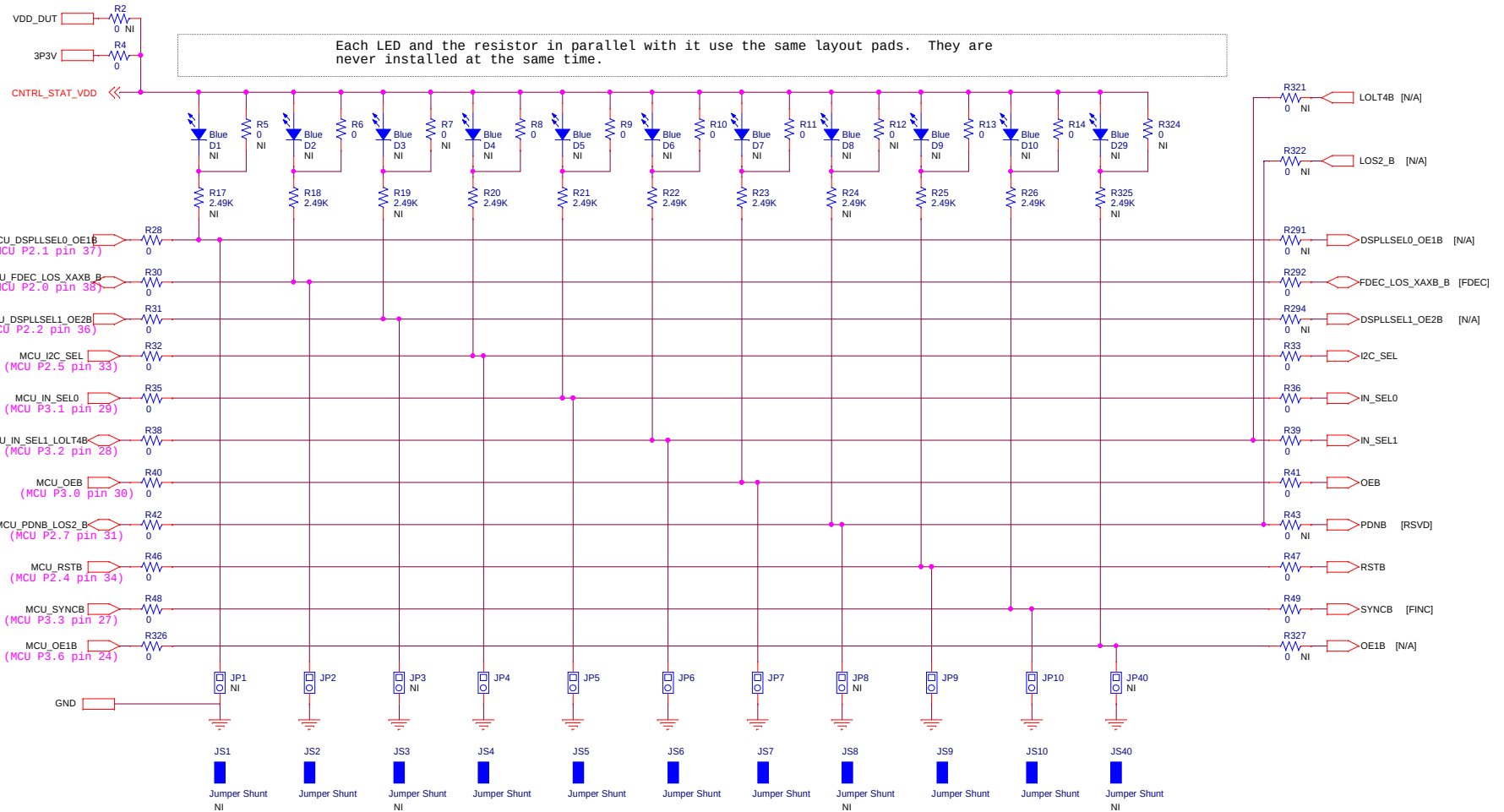


REVISION CONTROL

- Rev 1.0 - Nov 15, 2017, Initial Board Release
Started with a copy of the Si5345-E-EB
schematic. Replaced DUT, PCB, label and Board ID
resistors. Set all parts in the Reference block
to not installed. tturner
- Rev 1.1 - May 29, 2018, Changed U5 from PCA9517D to
PCA9517AD,118 (this was needed to make sure the NXP
part is ordered instead of the TI version)

		400 W Cesar Chavez Austin, TX 78701	
SILICON LABS			
Title SI5345-EB_TOP_REVISION			
Size B	Document Number SI5395J-A-EB		Rev 1.1
Date: Tuesday, May 29, 2018		Sheet	2 of 44

CONTROL PINS CONNECTIONS



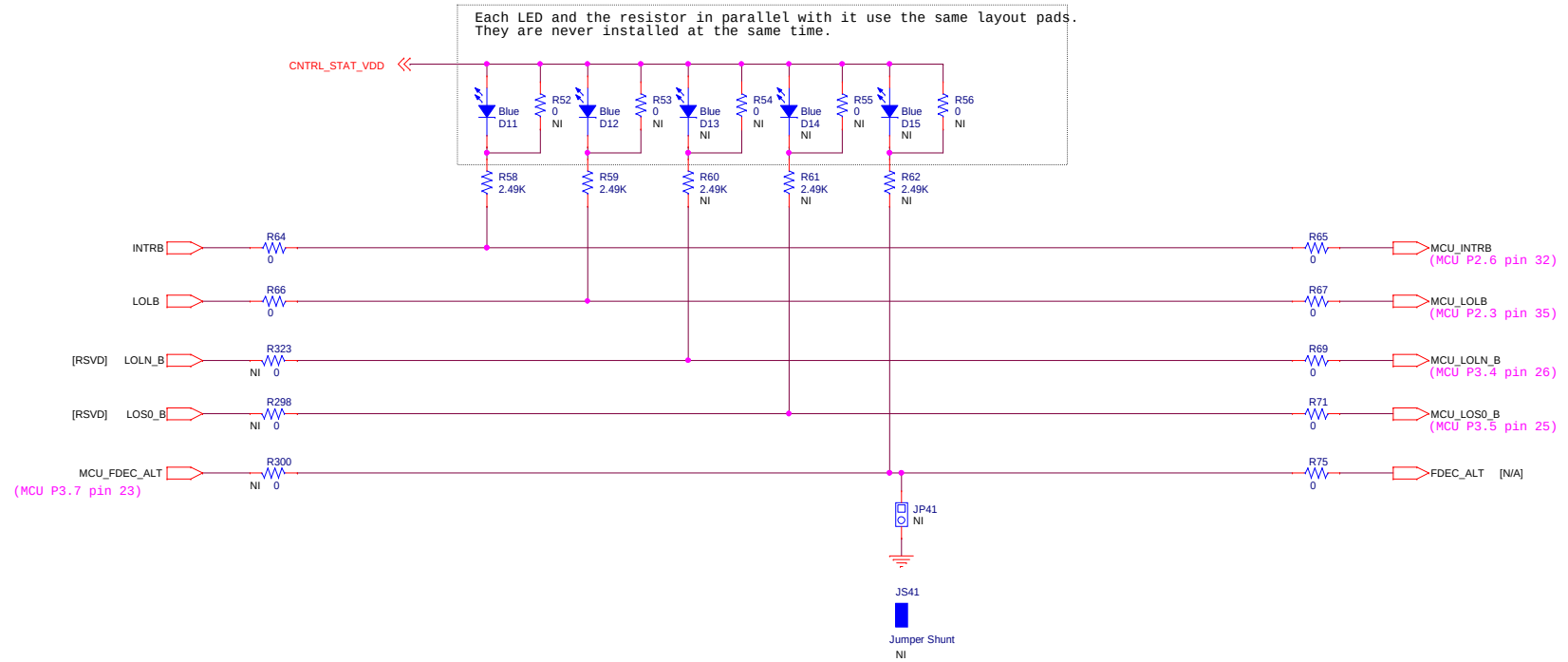
Note:

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]

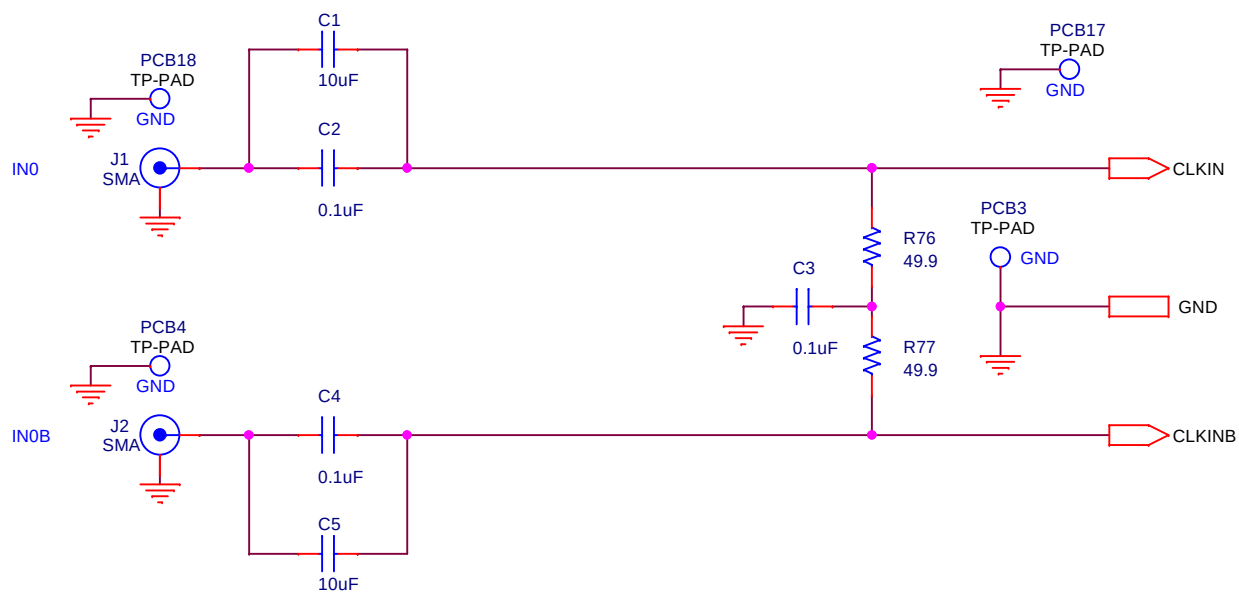
400 W Cesar Chavez Austin, TX 78701		
Title CONTROL PINS_P1		
Size B	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018		
Sheet 3 of 44		

CONTROL PINS CONNECTIONS

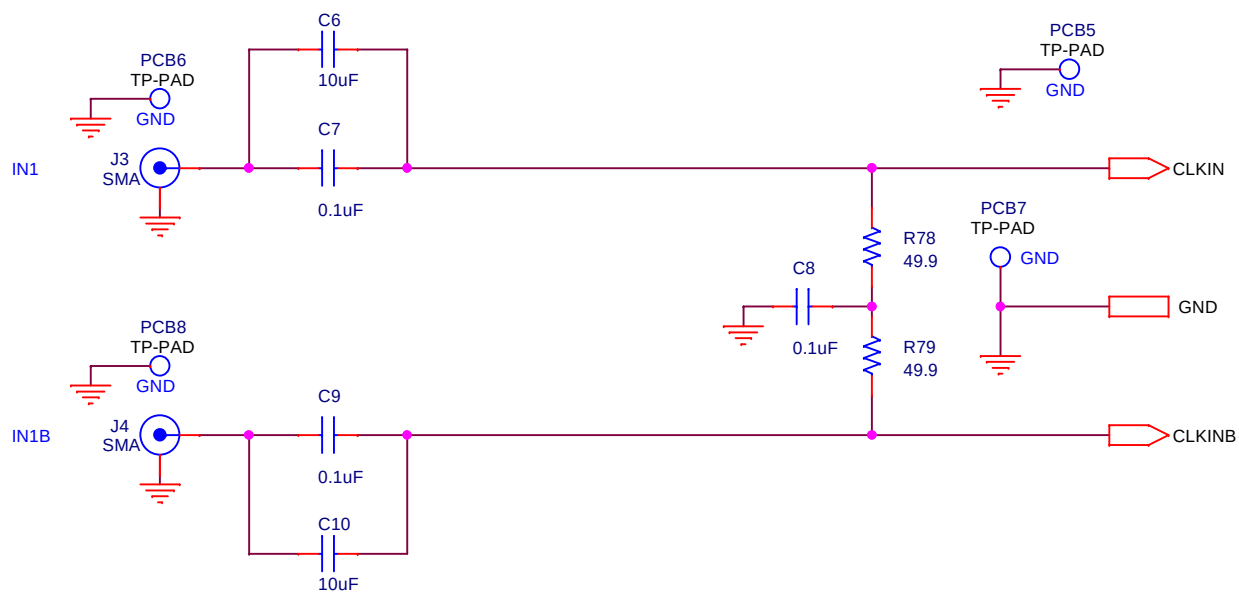


Note:
1. "N/A" in brackets indicates that the function is not used for the DUT. [N/A]

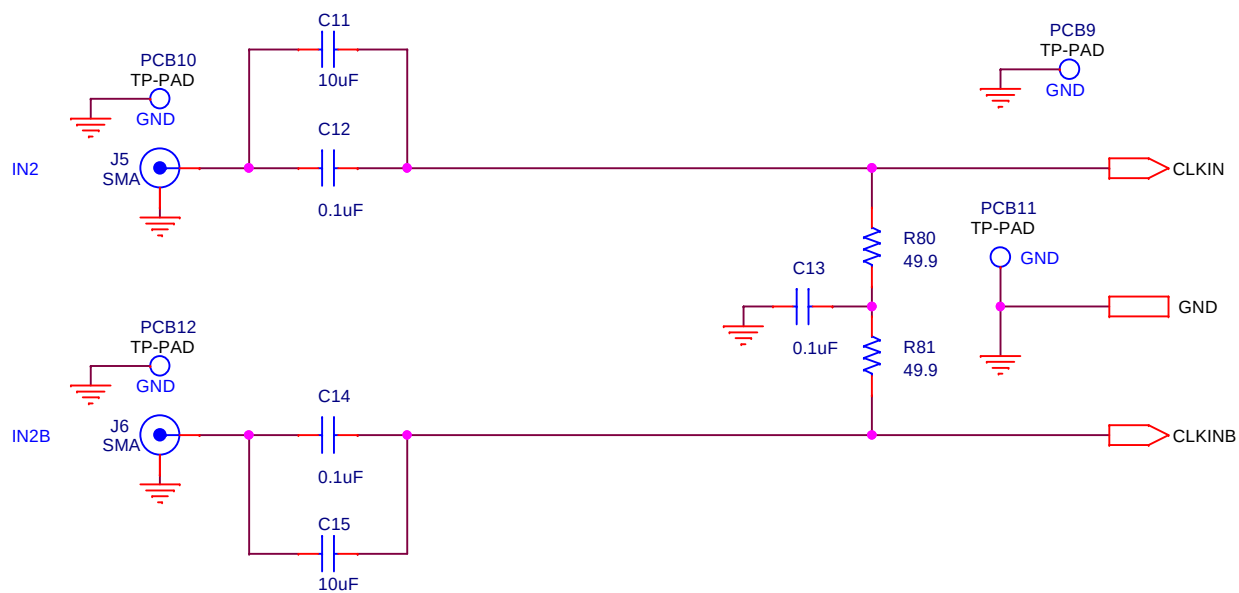
400 W Cesar Chavez Austin, TX 78701		
Title CONTROL_PINS_P2		
Size B	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 4	of 44



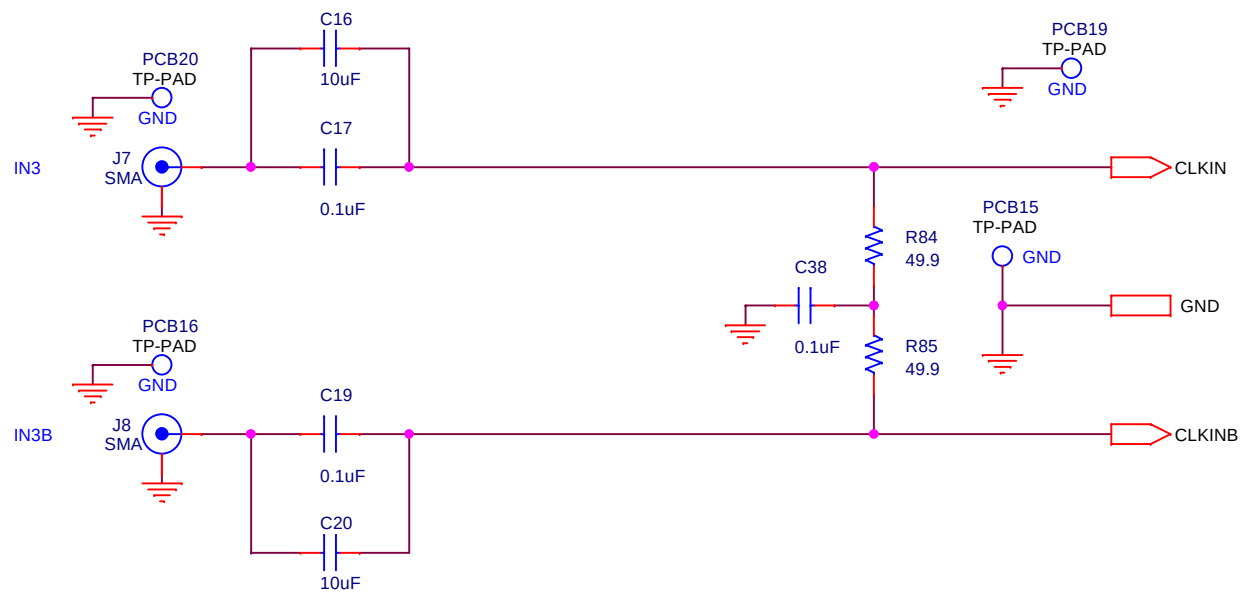
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 5 of 44



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 6 of 44

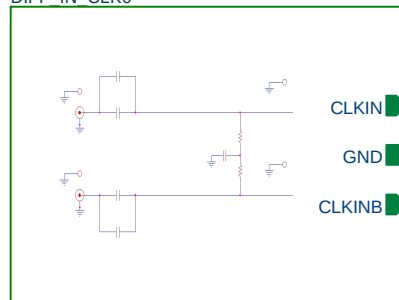


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 7 of 44



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_INPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 8 of 44

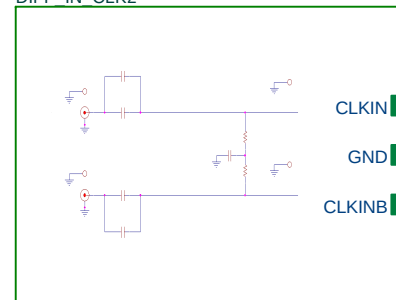
DIFF IN CLK0



CLKIN → CLKIN0
GND → GND
CLKINB → CLKIN0B

DIFF_INPUT_CLK

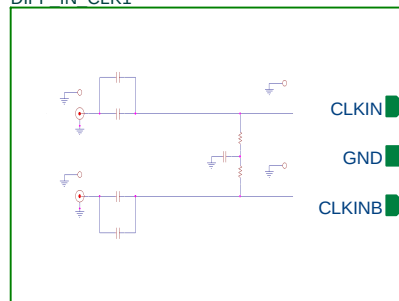
DIFF IN CLK2



CLKIN → CLKIN2
GND → GND
CLKINB → CLKIN2B

DIFF_INPUT_CLK

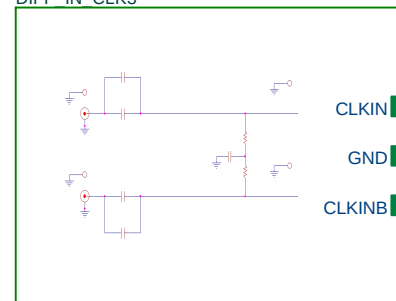
DIFF IN CLK1



CLKIN → CLKIN1
GND → GND
CLKINB → CLKIN1B

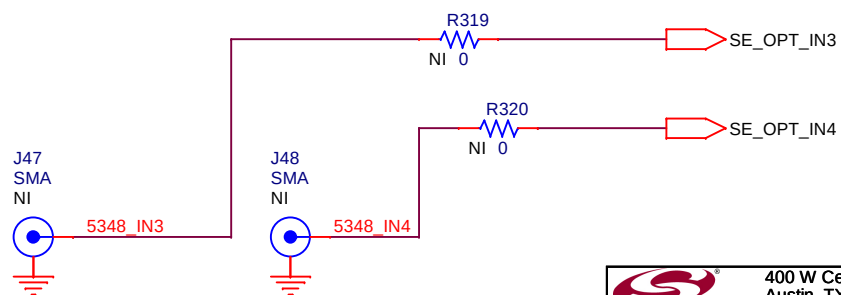
DIFF_INPUT_CLK

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

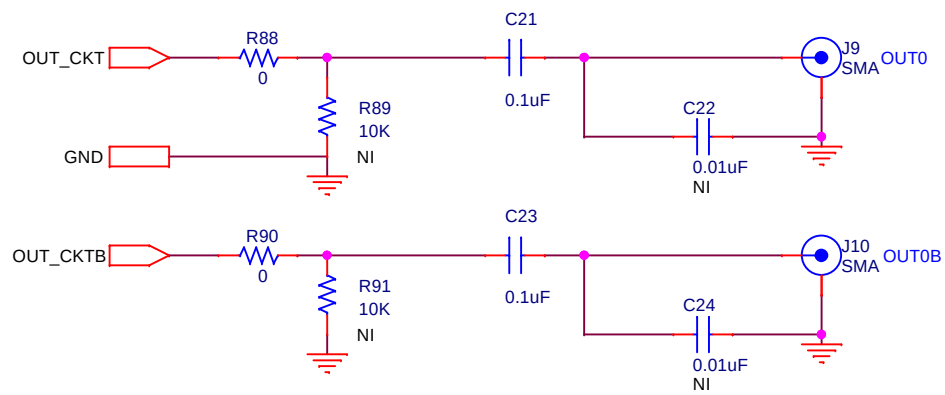
Size
A

Document Number
SI5395J-A-EB

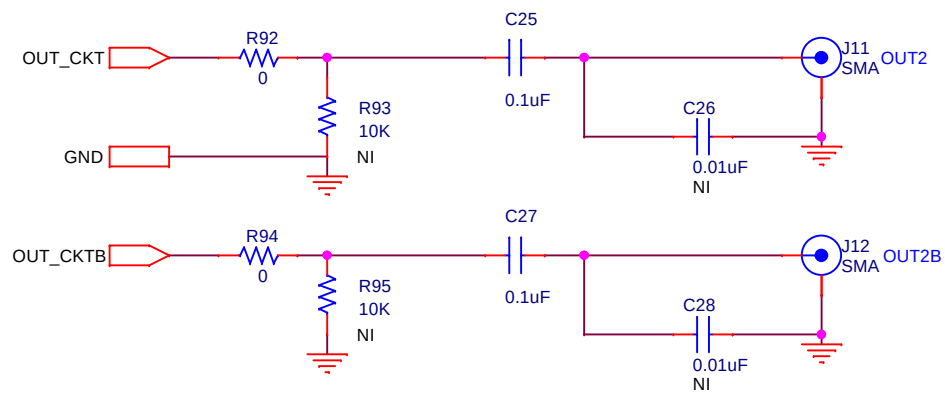
Rev
1.1

Date: Tuesday, May 29, 2018

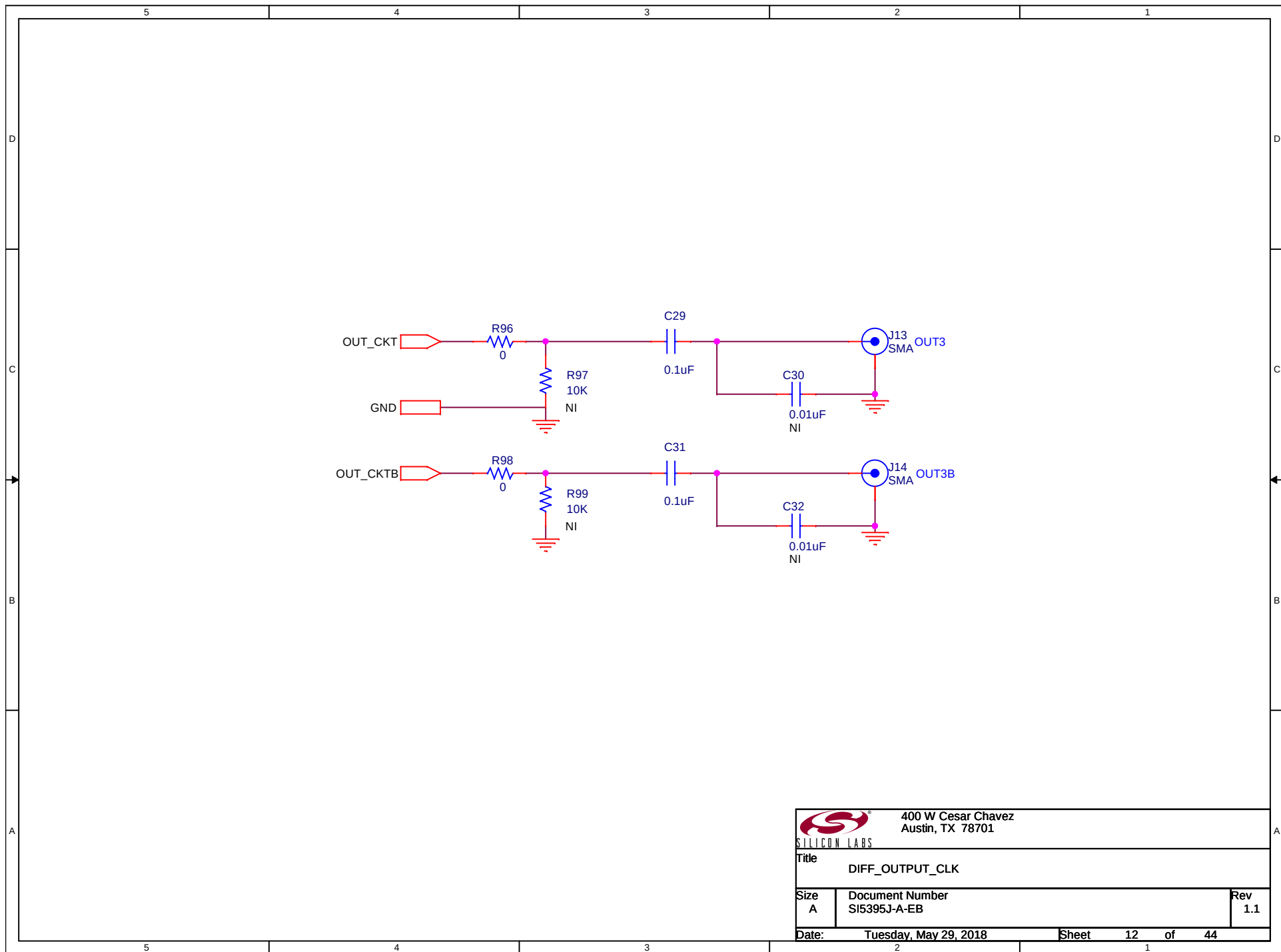
Sheet 9 of 44



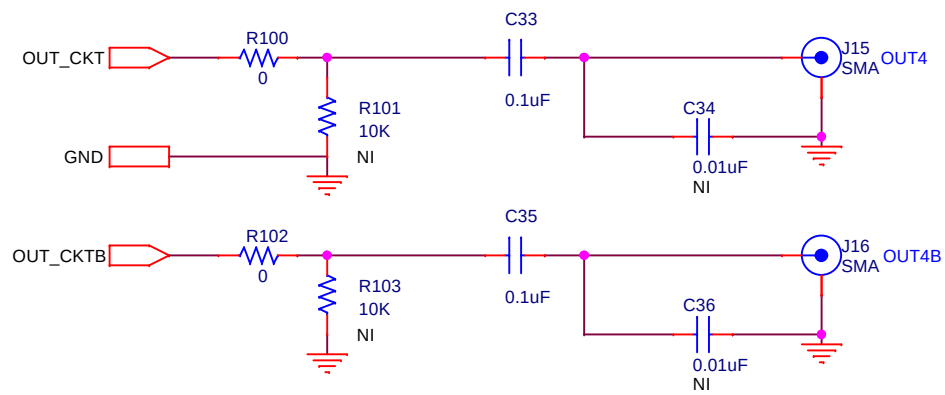
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 10 of 44



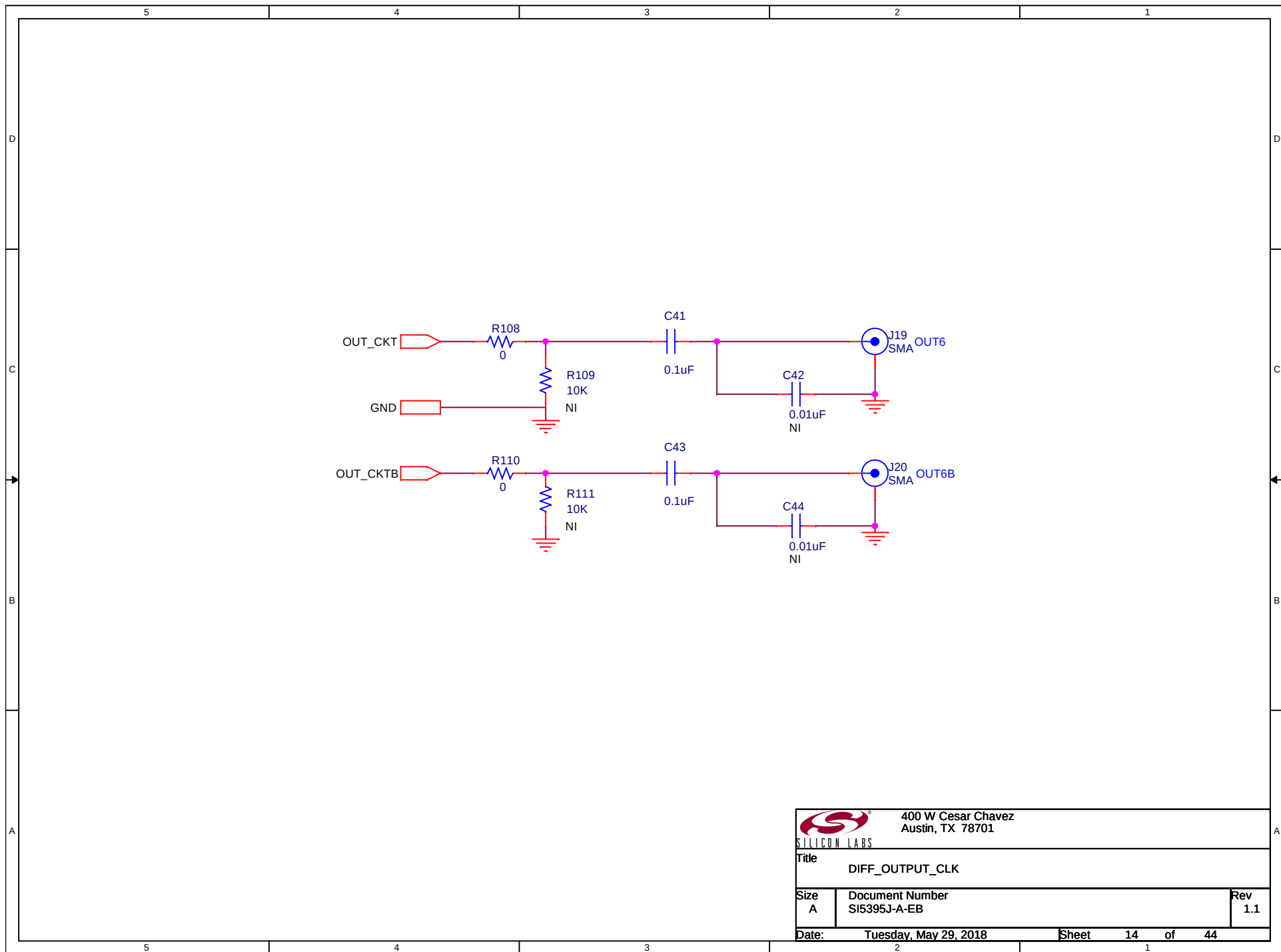
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 11 of 44



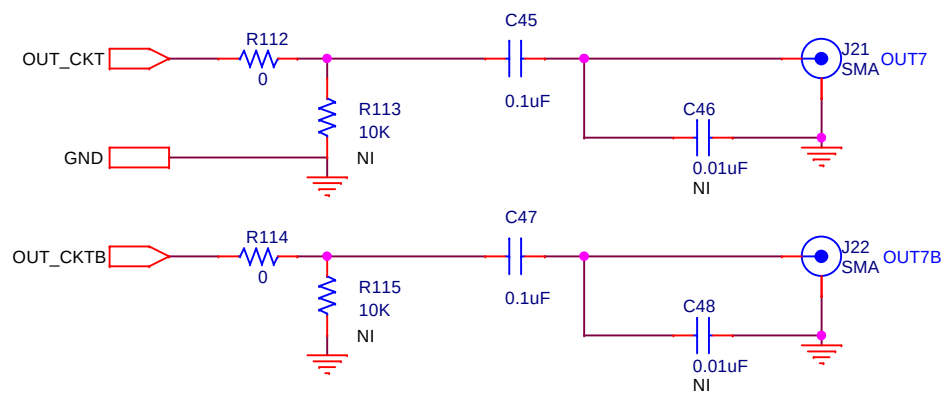
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 12	of 44



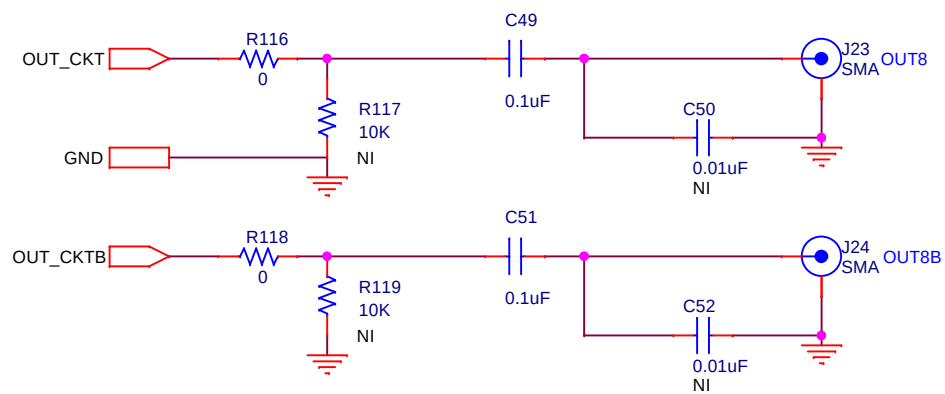
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 13 of 44



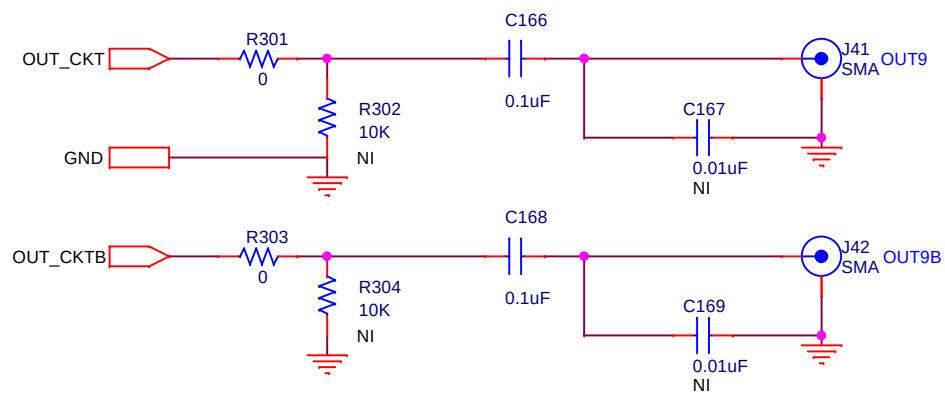
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018		
Sheet 14 of 44		



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 15 of 44

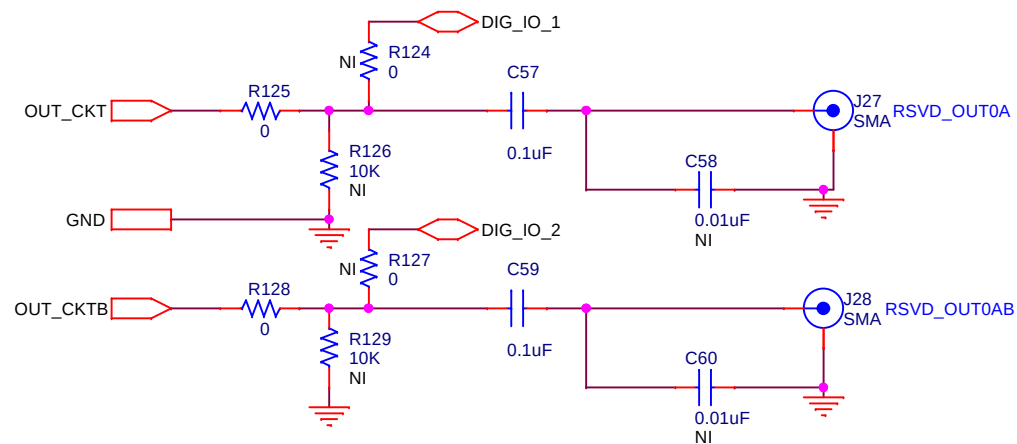


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 16 of 44



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 17 of 44

DIFF_OUTPUT_CLK_DIG_IO



400 W Cesar Chavez
Austin, TX 78701

Title

DIFF_OUTPUT_CLK_DIG_IO

Size
A

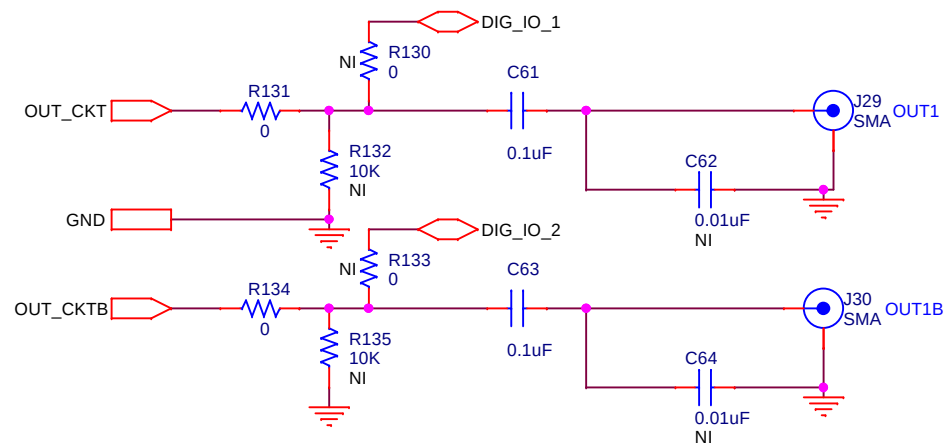
Document Number
SI5395J-A-EB

Rev
1.1

Date: Tuesday, May 29, 2018

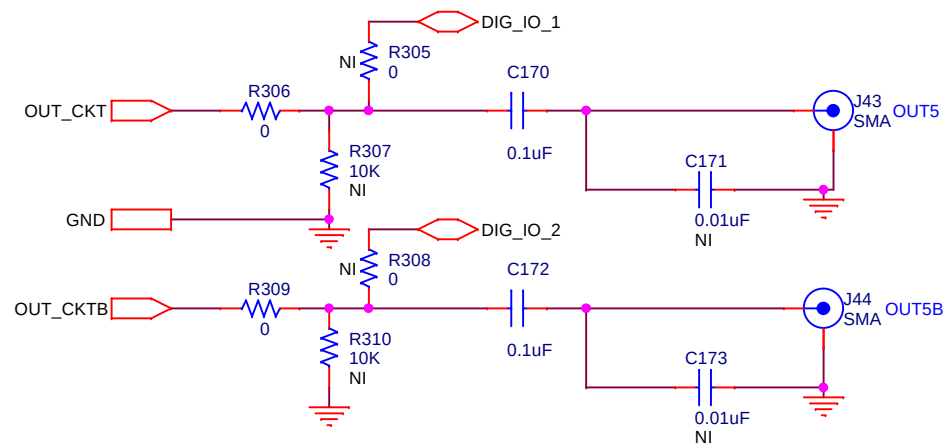
Sheet 18 of 44

DIFF_OUTPUT_CLK_DIG_IO



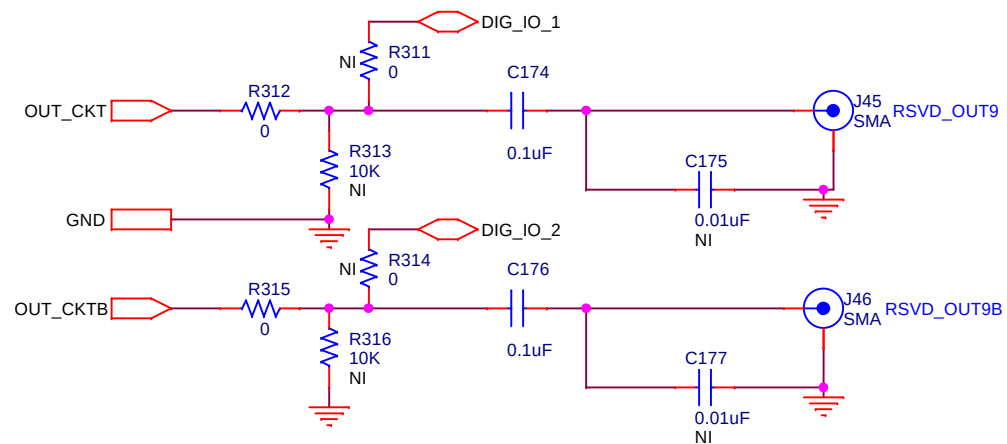
 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018		
Sheet 19 of 44		

DIFF_OUTPUT_CLK_DIG_IO

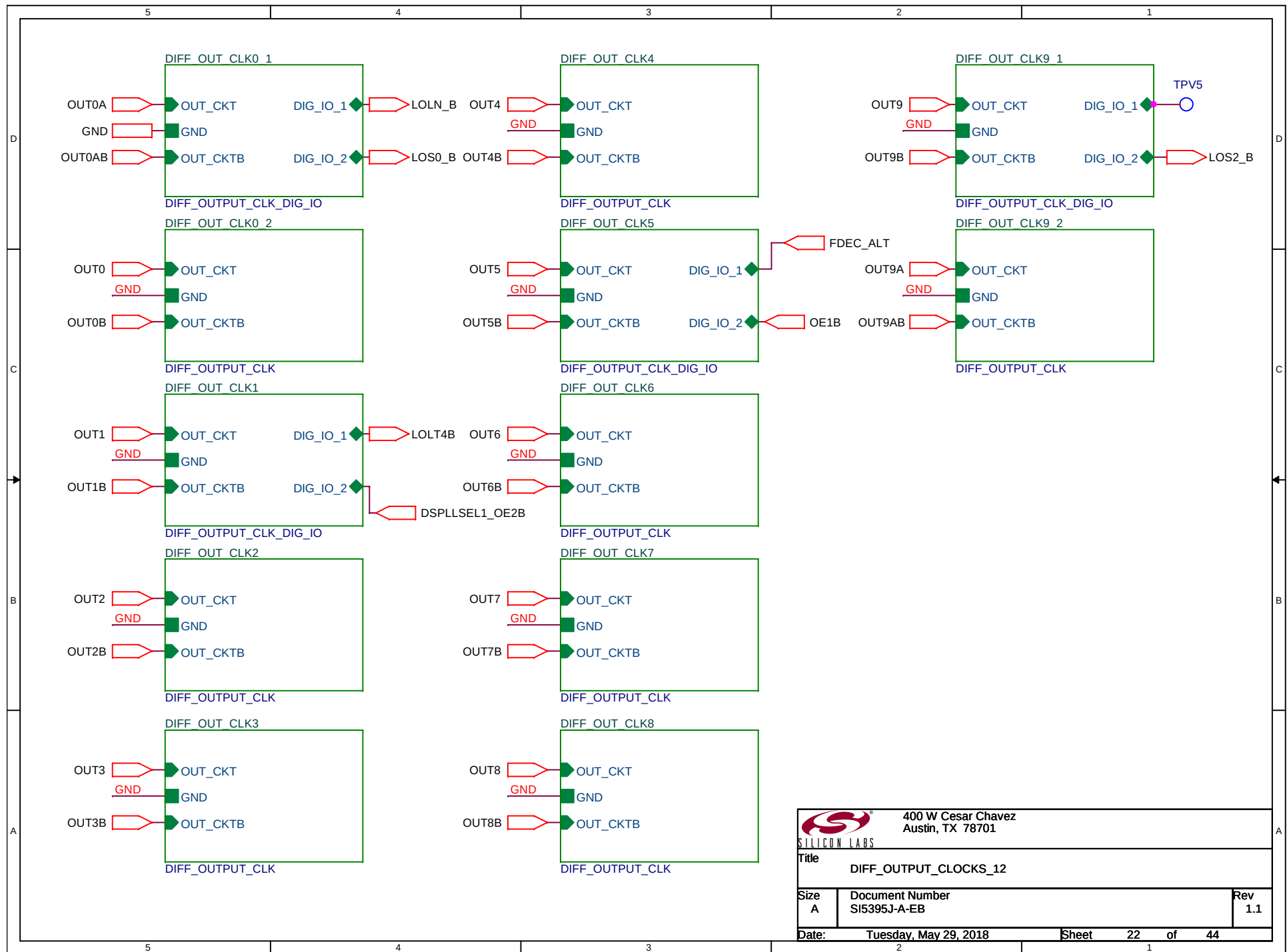


 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018 Sheet 20 of 44		

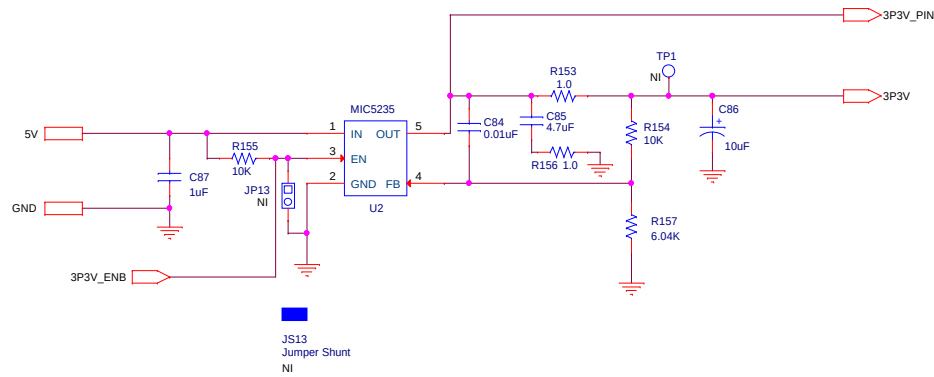
DIFF_OUTPUT_CLK_DIG_IO



 400 W Cesar Chavez Austin, TX 78701		
Title DIFF_OUTPUT_CLK_DIG_IO		
Size A	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 21	of 44



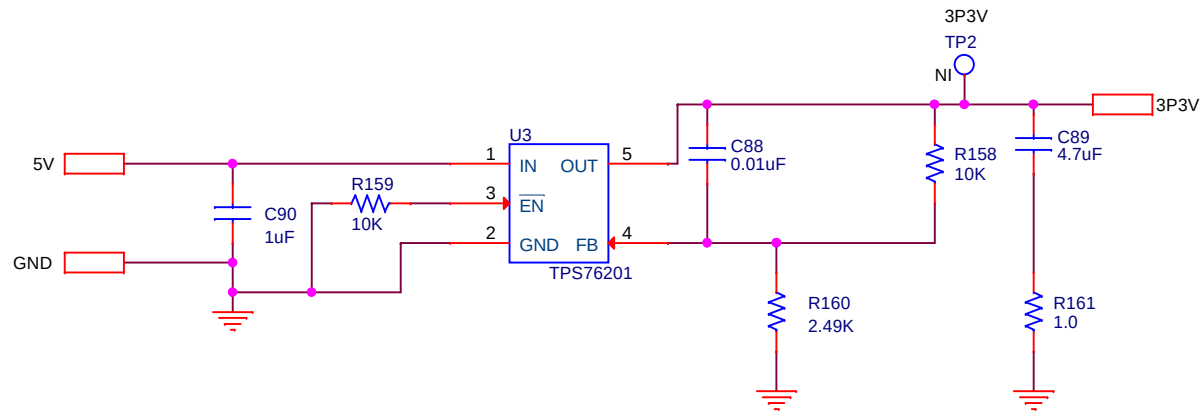
Fixed 3.3V 150 mA Voltage Regulator



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

 400 W Cesar Chavez Austin, TX 78701	
Title VDD_REG_MIC5235	
Size B	Document Number SI5395J-A-EB
Date: Tuesday, May 29, 2018	Sheet 23 of 44

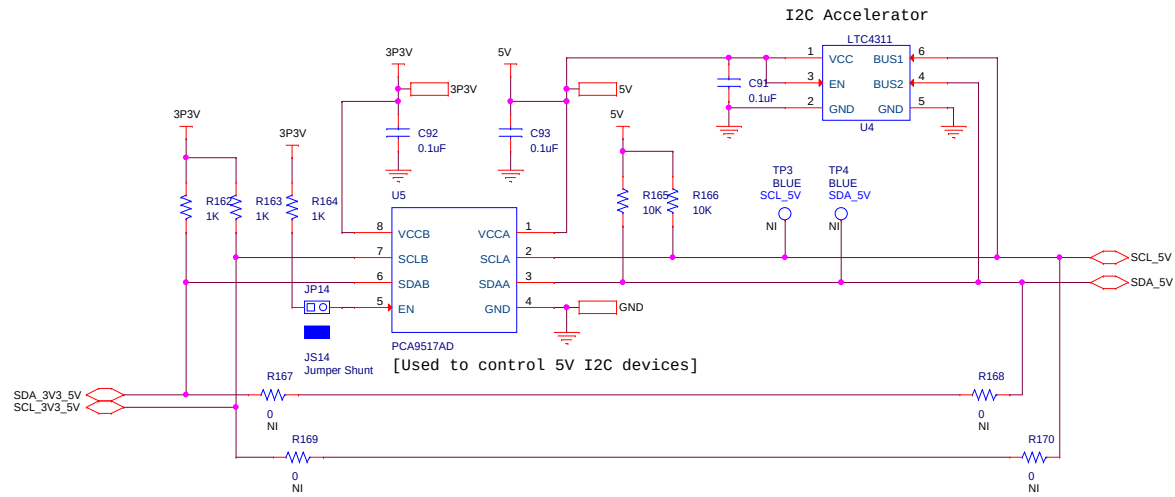
Fixed 3.3V 100 mA Voltage Regulator (Enabled, no current measurement supported.)



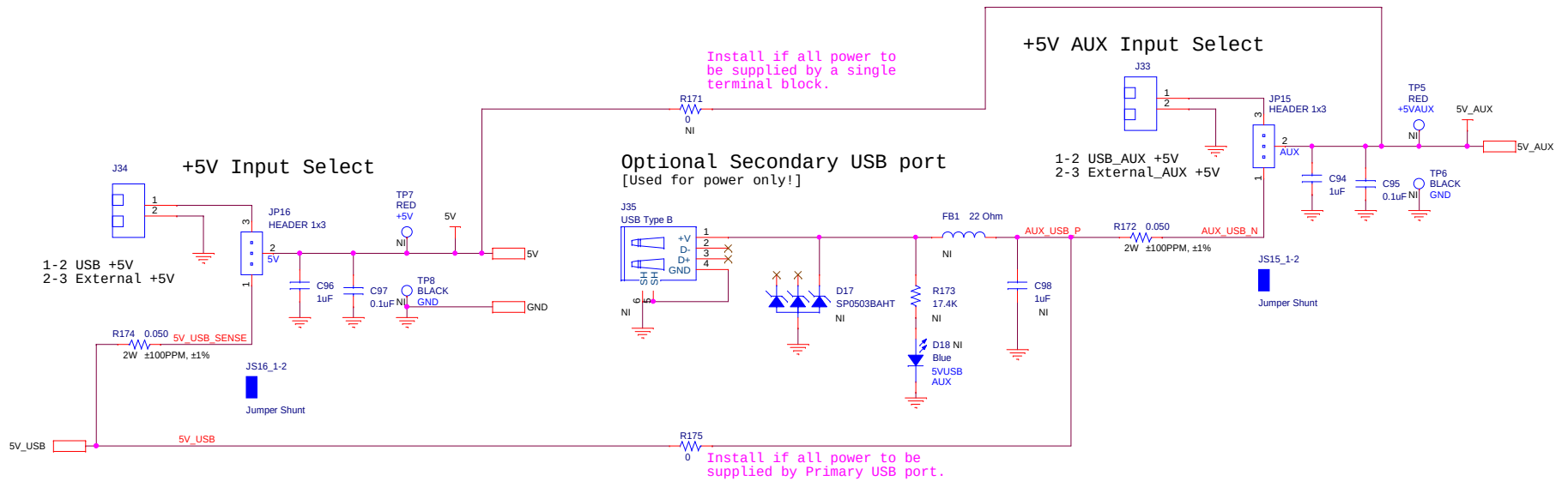
3P3V (In Schematic)
3P3V (Board Silkscreen)

		400 W Cesar Chavez Austin, TX 78701	
Title			
FIXED_3V3_REG_TPS76201_EN_NO_IM			
Size A	Document Number SI5395J-A-EB <Variant Name>		Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet	24 of 44

I2C LEVEL TRANSLATORS



MAIN POWER INPUT SELECTS EXTERNAL OR USB

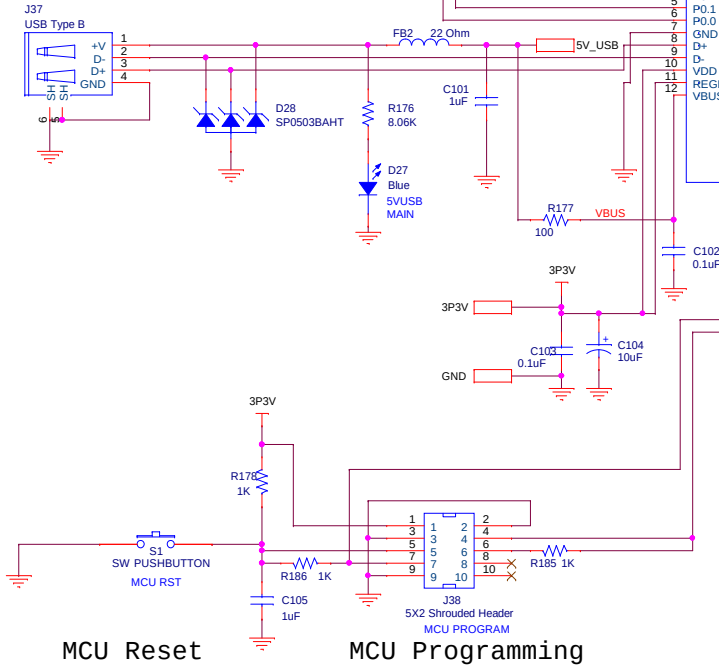
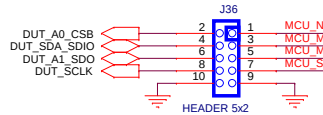


 400 W Cesar Chavez Austin, TX 78701	
Title	
MAIN_POWER_CONNECTIONS	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	26 of 44
Rev	1.1

8051 MCU

Jumper Shunts

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



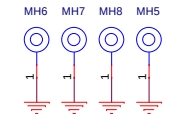
MCU Reset

MCU Programming

Mounting Holes, Screws, and Standoffs

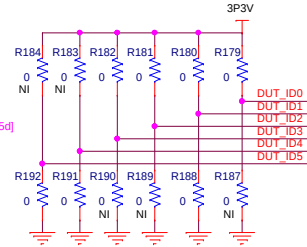


Mounting Holes



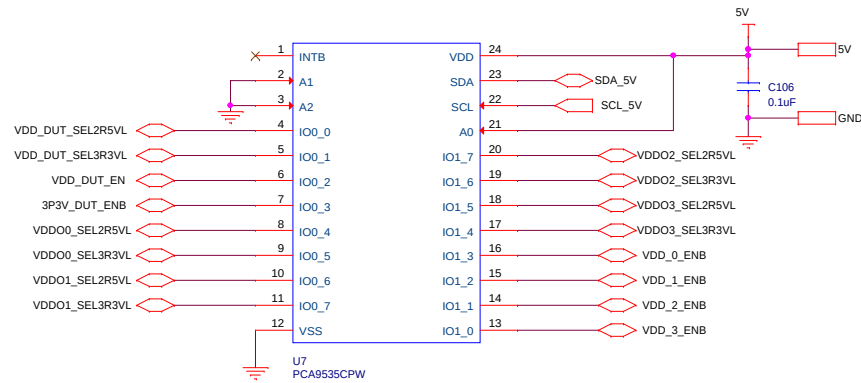
Removed "toe tag" MH9.

DUT_ID[5:0] = 001111 [15d]

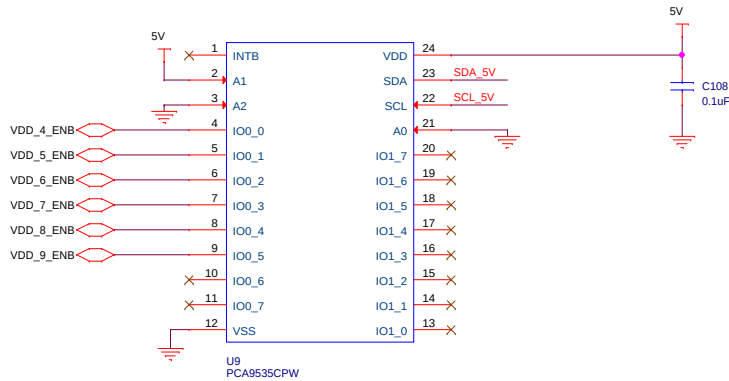


400 W Cesar Chavez Austin, TX 78701			
Title MCU			
Size B	Document Number SI5395J-A-EB		Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet	27 of 44

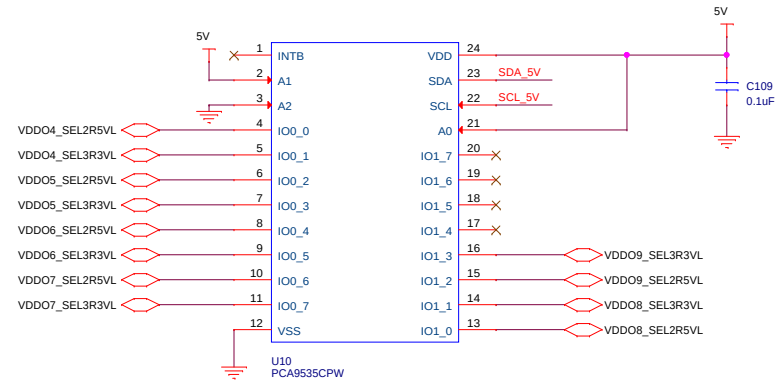
PERIPHERALS



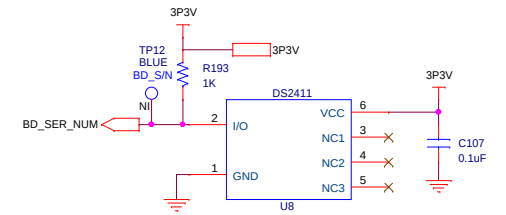
I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100001



I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100010

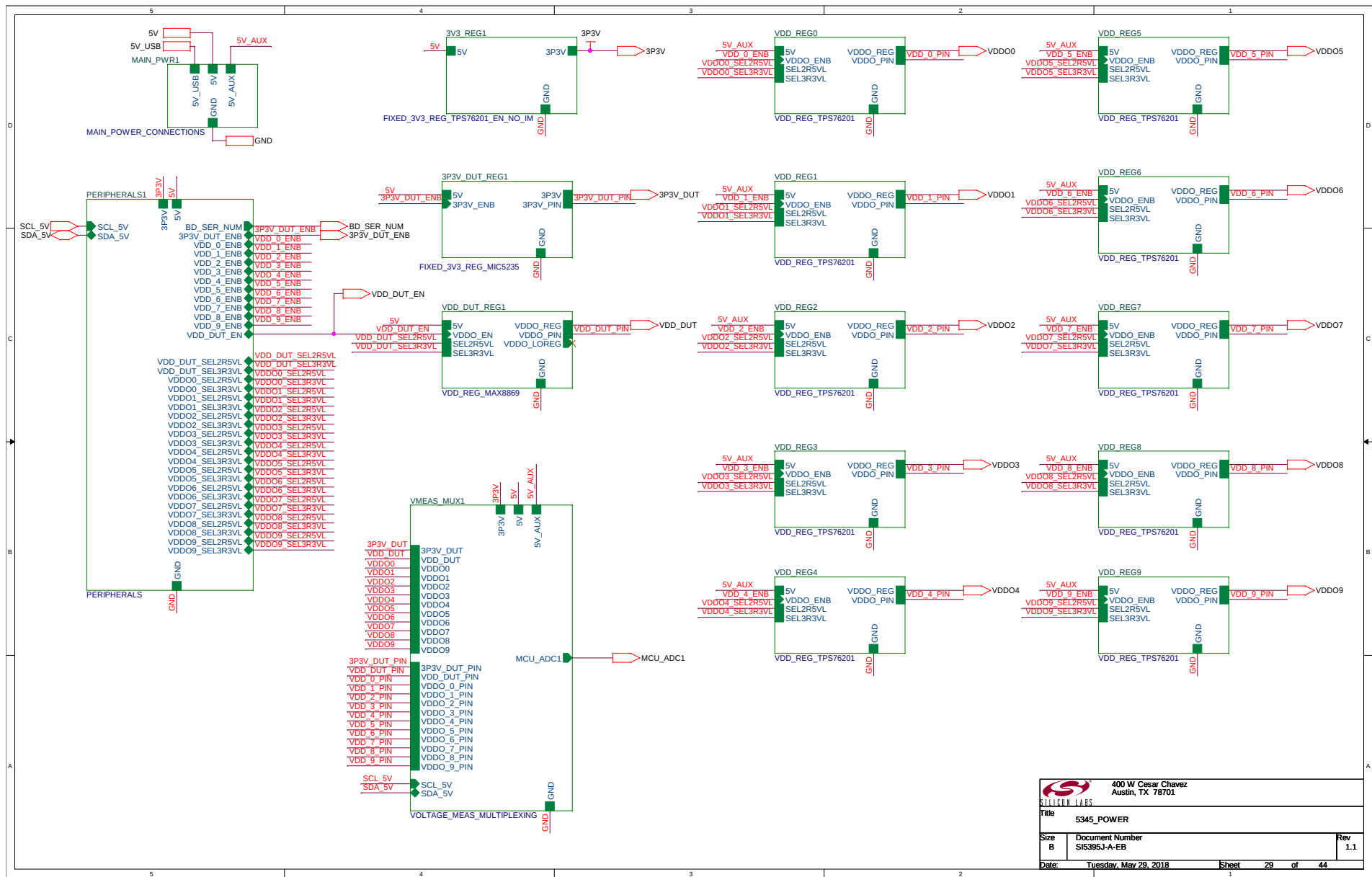


I2C VDD ENABLES/SELECTS FOR REGULATORS
I2C address: 0100011

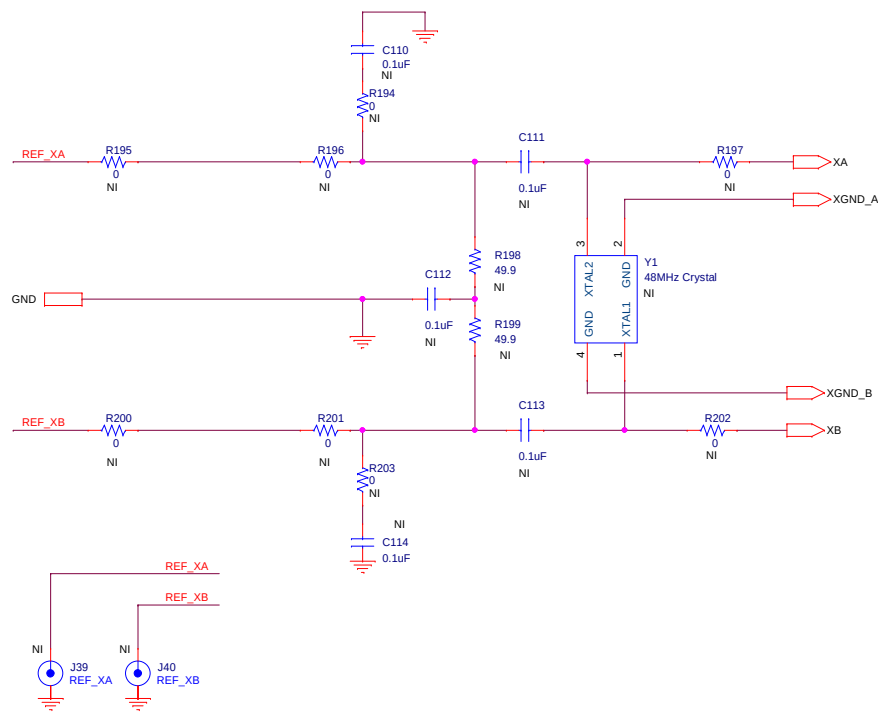


Board Serial Number

		400 W Cesar Chavez Austin, TX 78701	
Title PERIPHERALS			
Size B	Document Number SI5395J-A-EB		Rev 1.1
Date:	Tuesday, May 29, 2018	Sheet 28 of 44	

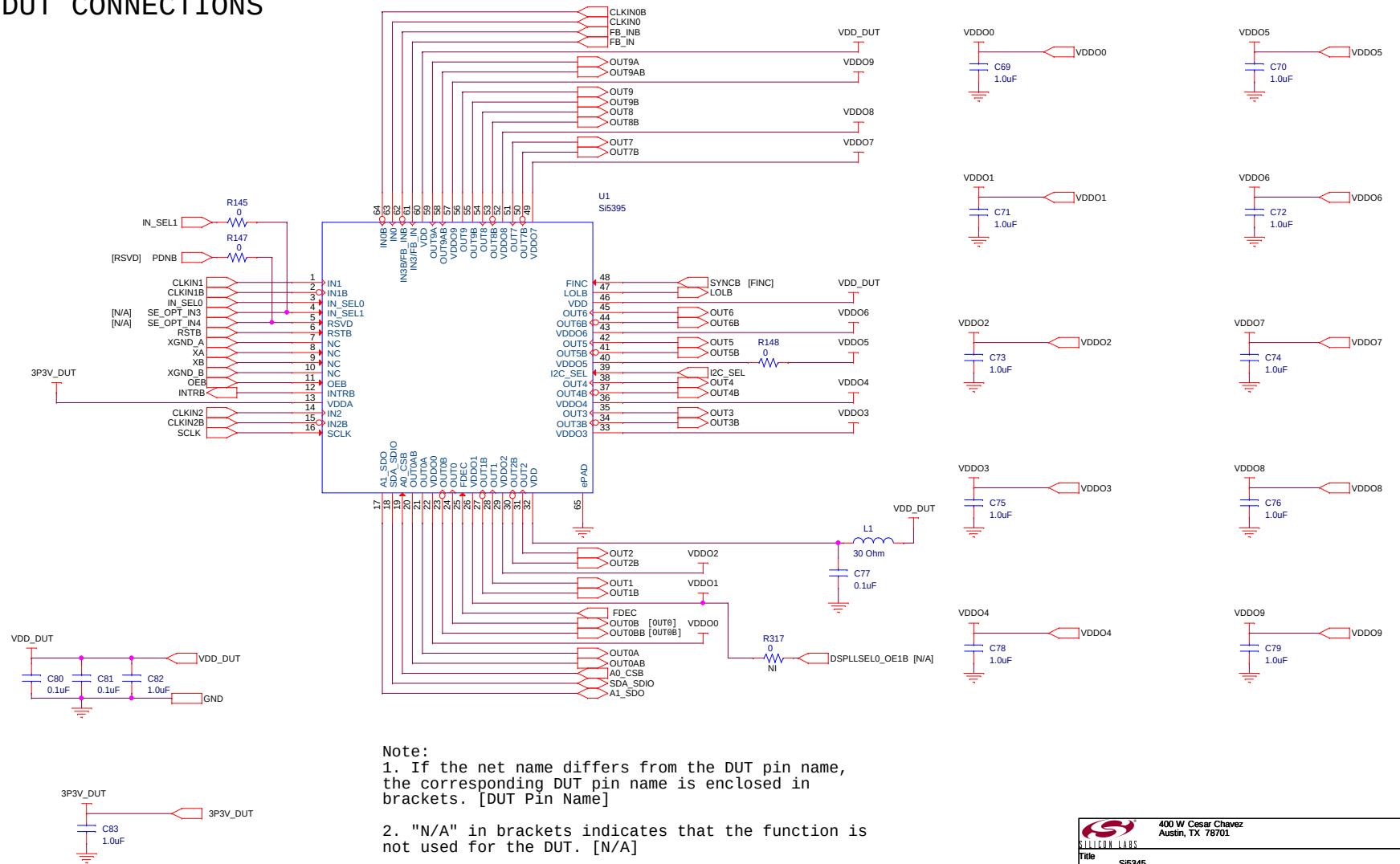


REFERENCE INPUT CONNECTIONS

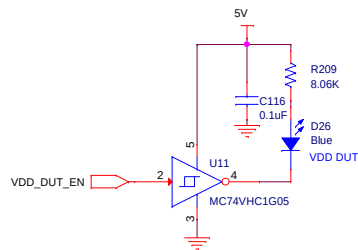
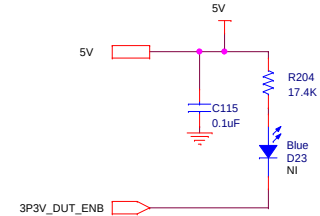
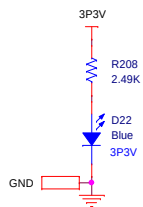
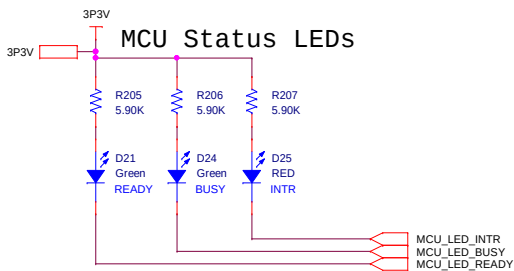


 400 W Cesar Chavez Austin, TX 78701		
Title REFERENCE		
Size B	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 30 of 44	

DUT CONNECTIONS

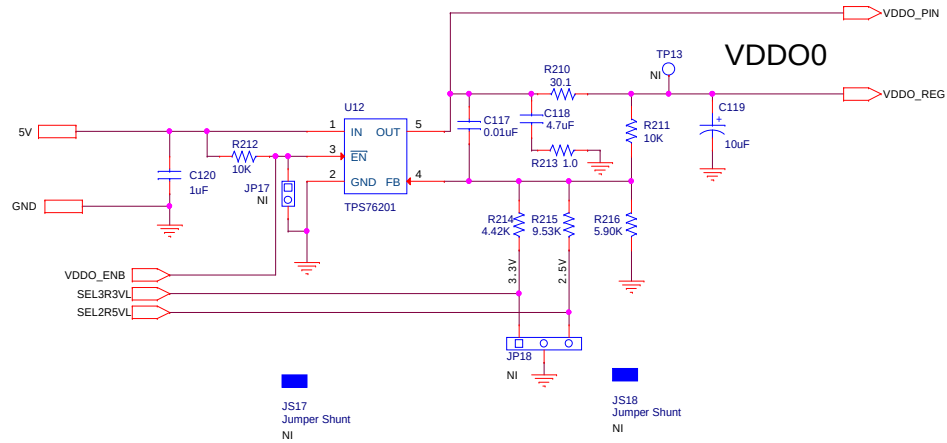


LEDS - SUPPLIES & STATUS



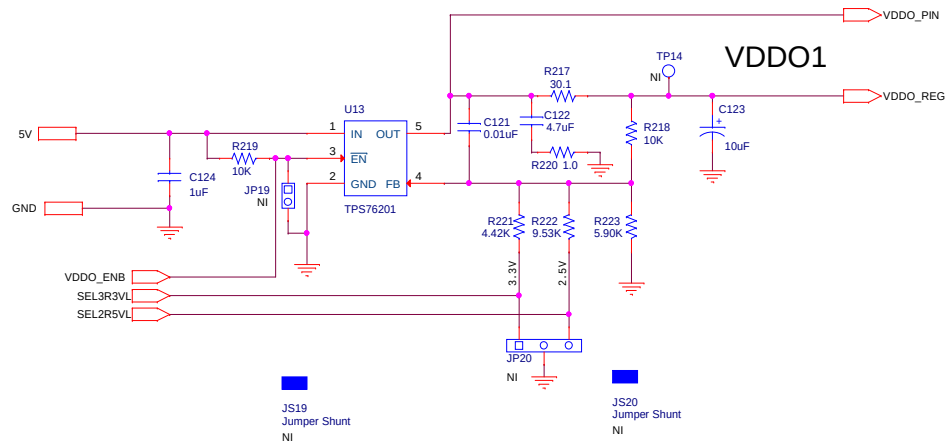
		400 W Cesar Chavez Austin, TX 78701	
Title		STATUS_MAIN_SUPPLY_LEDS	
Size	Document Number	Rev	
B	SI5395J-A-EB	1.1	
Date:	Tuesday, May 29, 2018	Sheet	32 of 44

100 mA Adjustable Voltage Regulator



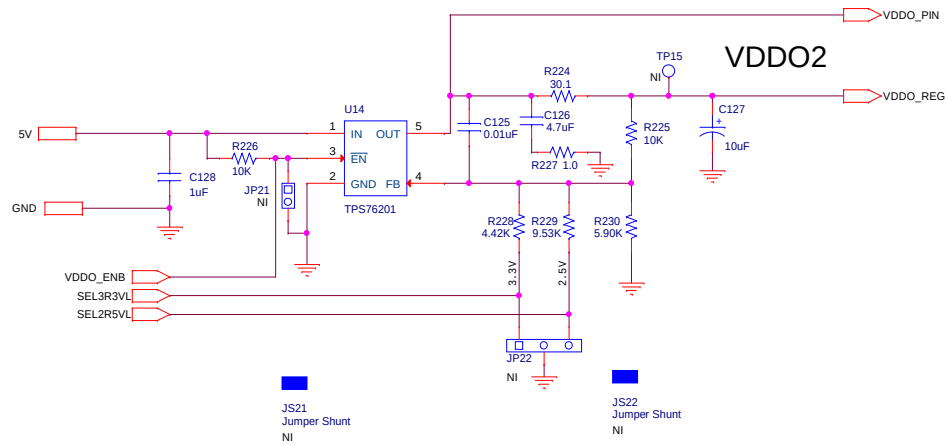
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	33 of 44

100 mA Adjustable Voltage Regulator



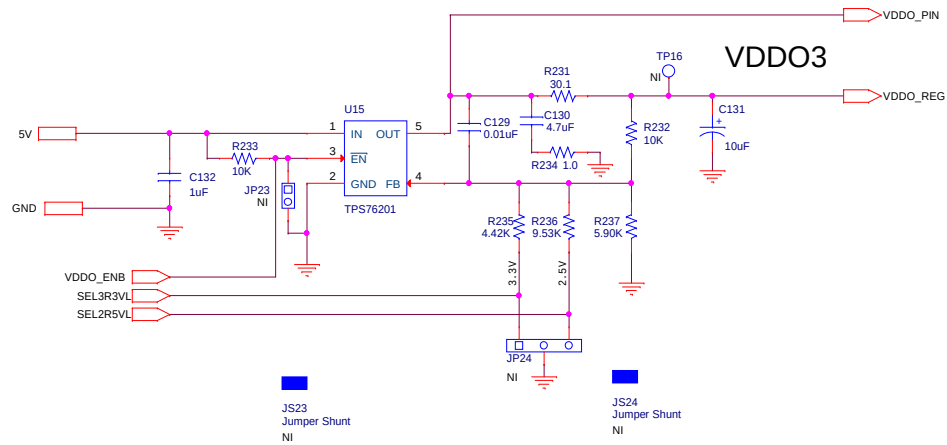
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	34 of 44
Rev	1.1

100 mA Adjustable Voltage Regulator



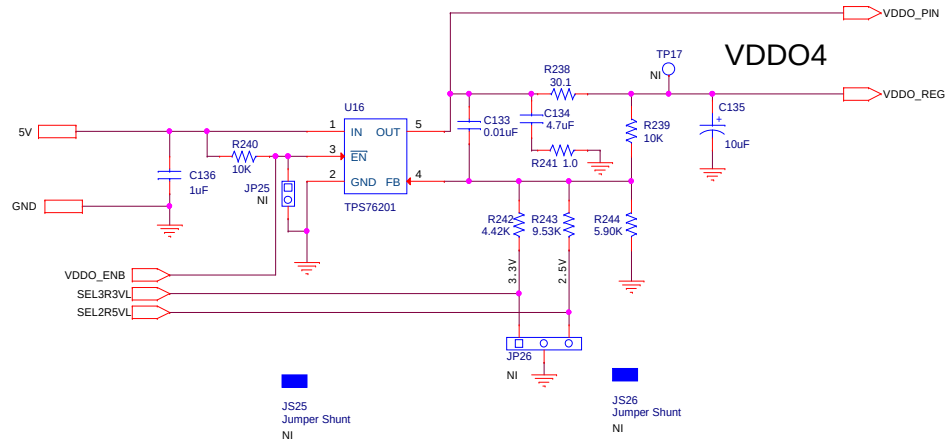
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	35 of 44
Rev	1.1

100 mA Adjustable Voltage Regulator



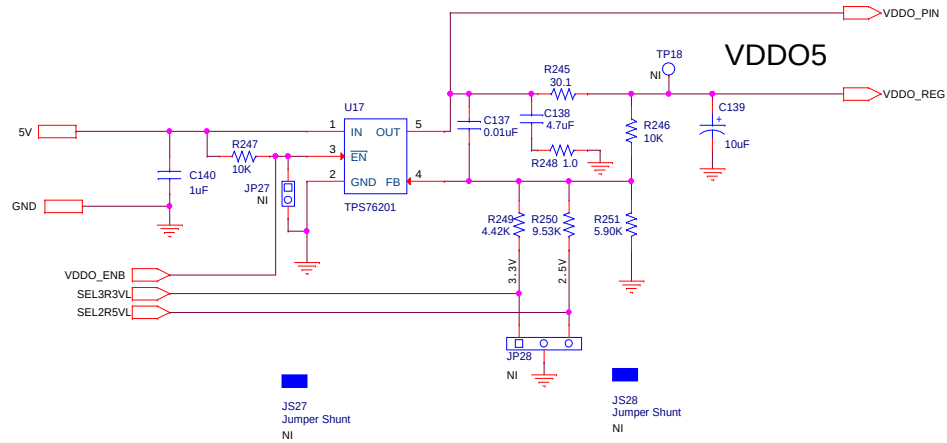
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	36 of 44
Rev	
1.1	

100 mA Adjustable Voltage Regulator



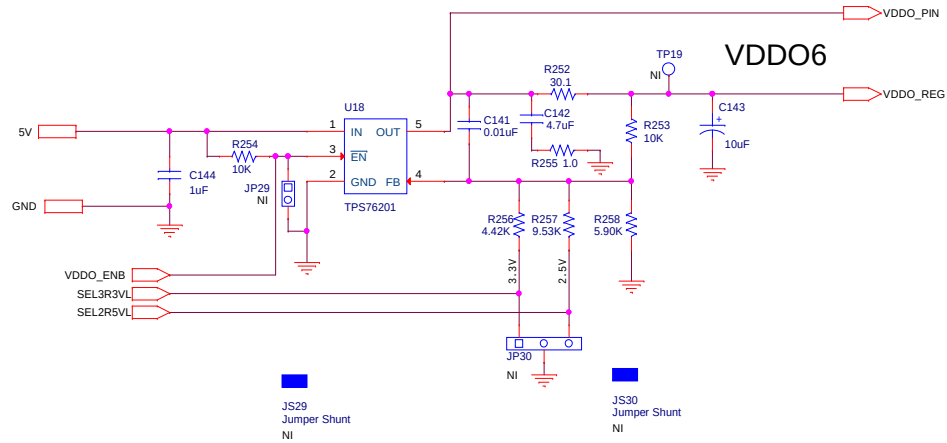
 400 W Cesar Chavez Austin, TX 78701	
Title VDD_REG_TPS76201	
Size B	Document Number SI5395J-A-EB
Date: Tuesday, May 29, 2018	Sheet 37 of 44

100 mA Adjustable Voltage Regulator



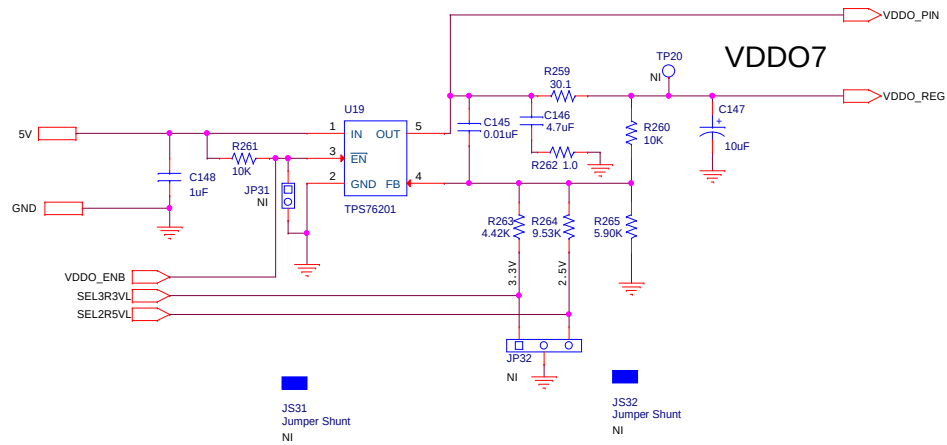
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	38 of 44
Rev	1.1

100 mA Adjustable Voltage Regulator



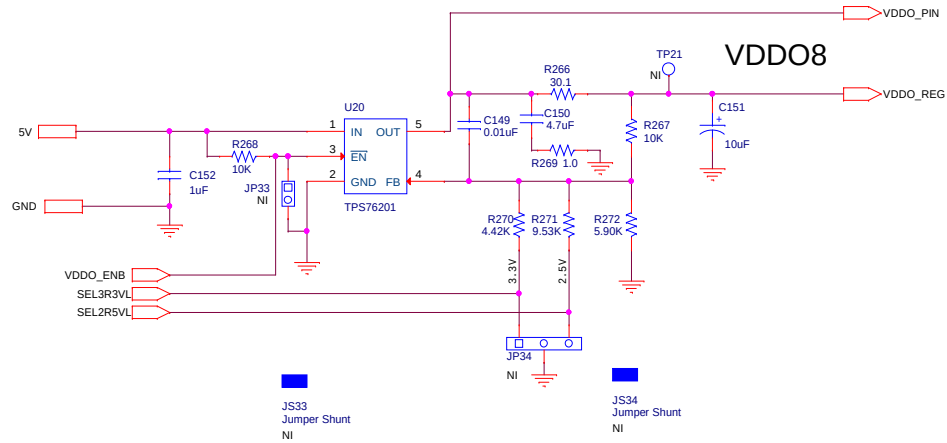
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	39 of 44
Rev	1.1

100 mA Adjustable Voltage Regulator



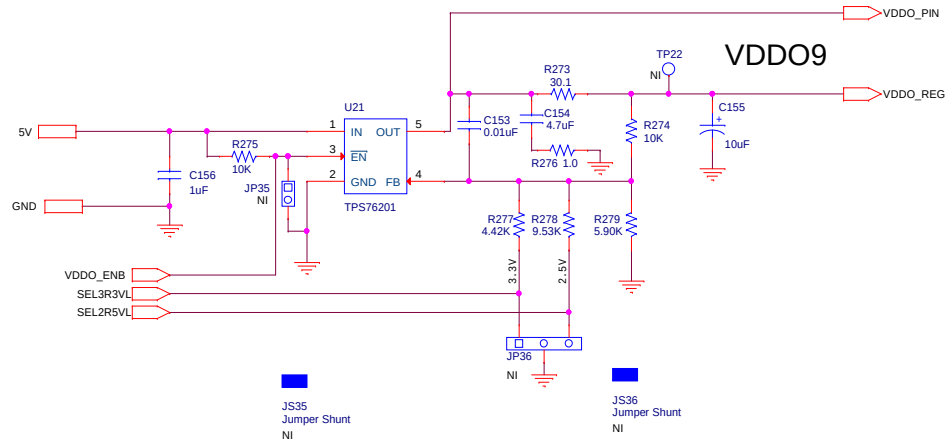
 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	40 of 44

100 mA Adjustable Voltage Regulator

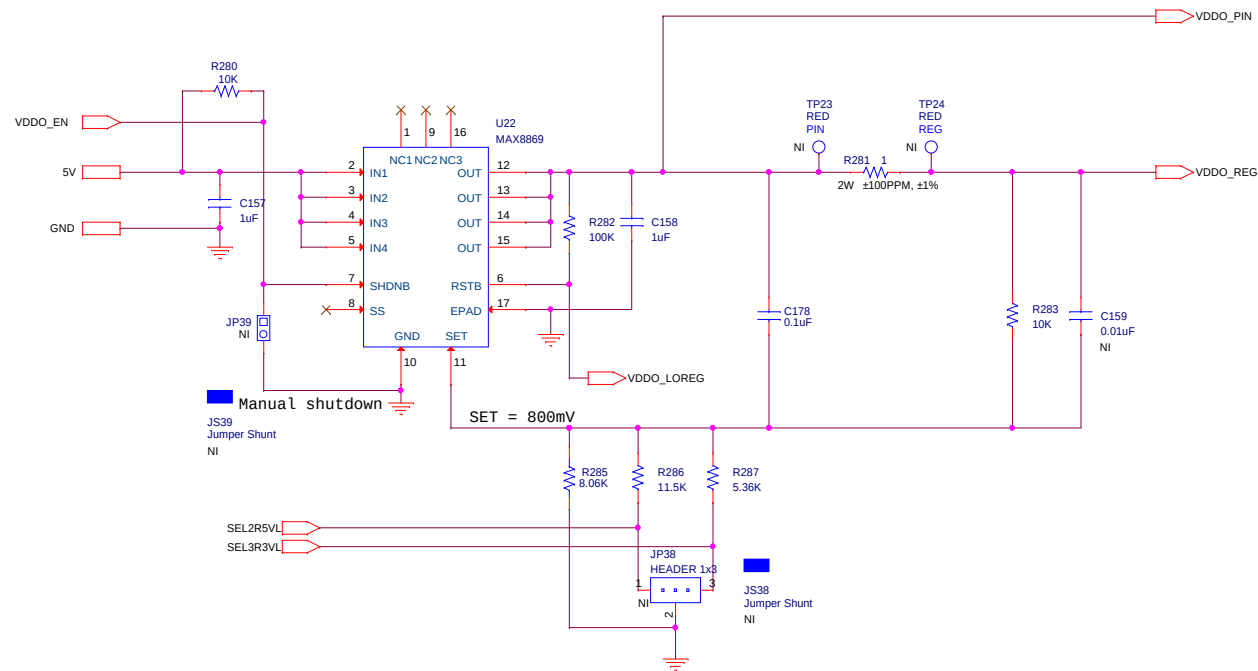


 400 W Cesar Chavez Austin, TX 78701	
Title	
VDD_REG_TPS76201	
Size	Document Number
B	SI5395J-A-EB
Date:	Tuesday, May 29, 2018
Sheet	41 of 44
Rev	1.1

100 mA Adjustable Voltage Regulator



 400 W Cesar Chavez Austin, TX 78701		
Title		
VDD_REG_TPS76201		
Size	Document Number	Rev
B	SI5395J-A-EB	1.1
Date:	Tuesday, May 29, 2018	Sheet 42 of 44



VDD_DUT (In Schematic)
VDD DUT (Board Silkscreen)

 400 W Cesar Chavez Austin, TX 78701		
Title VDD_REG_MAX8869		
Size B	Document Number SI5395J-A-EB	Rev 1.1
Date: Tuesday, May 29, 2018	Sheet 43 of 44	

VOLTAGE MEASUREMENT MULTIPLEXING

