

A

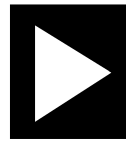
B

C

D

EV-SC594-SOM

ADSP-SC594 System On Module

		ANALOG DEVICES		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title		ADSP-SC594 System on Module TITLE BLOCK			
Size C	Board No.	EV-SC594-SOM			Rev B
Date	09/30/2020	Sheet		1	of 15

A

B

C

D

1

1

2

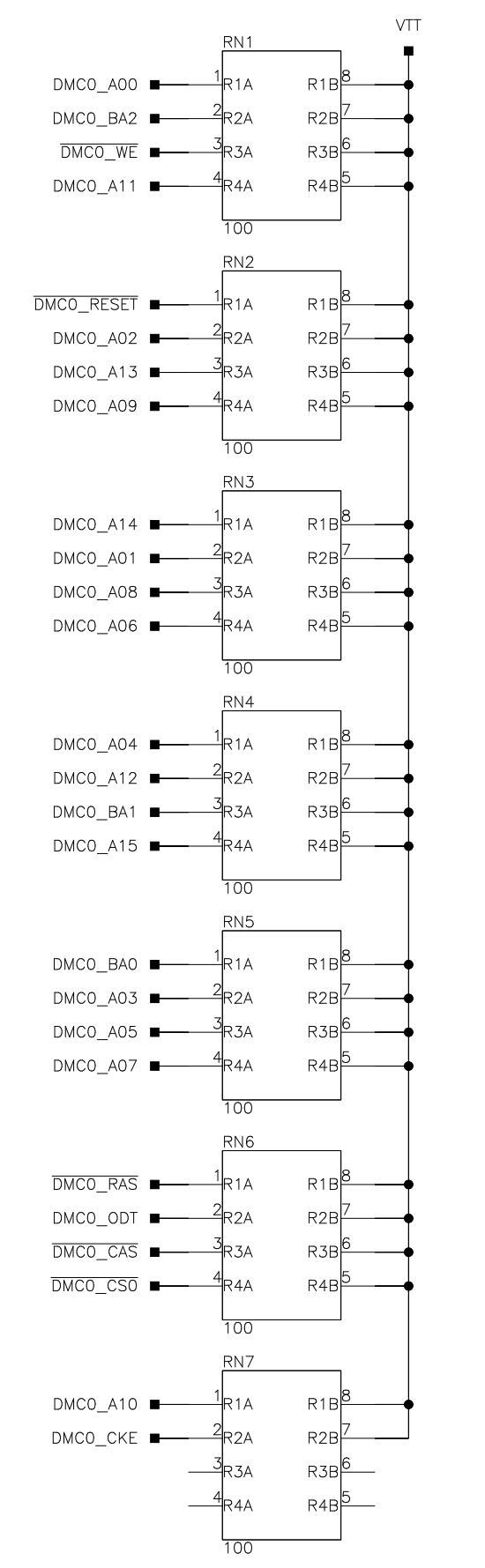
2

3

3

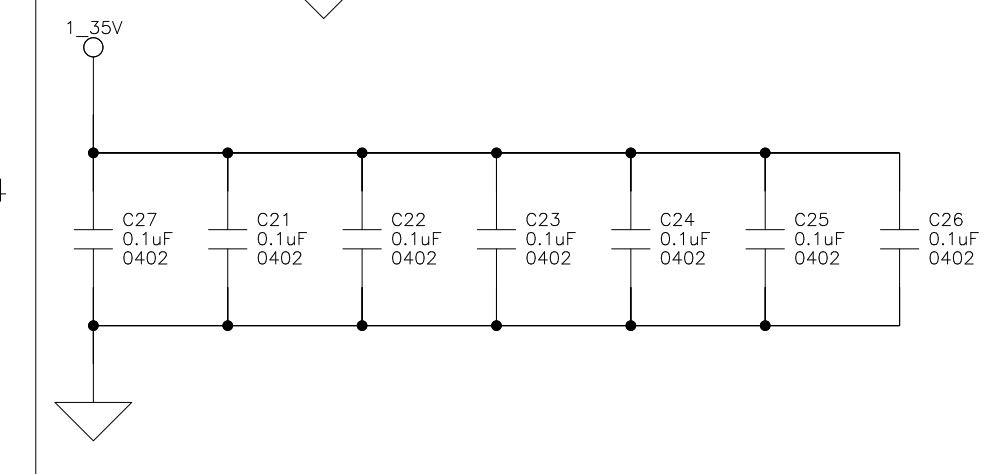
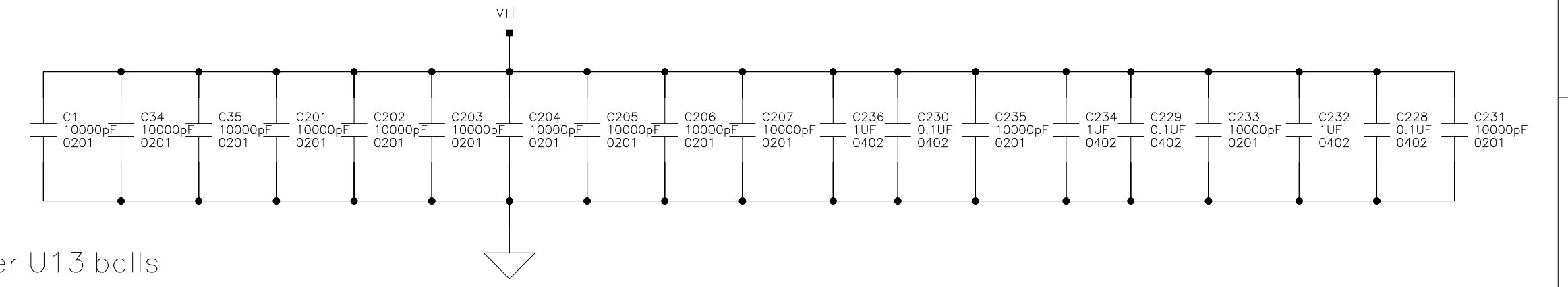
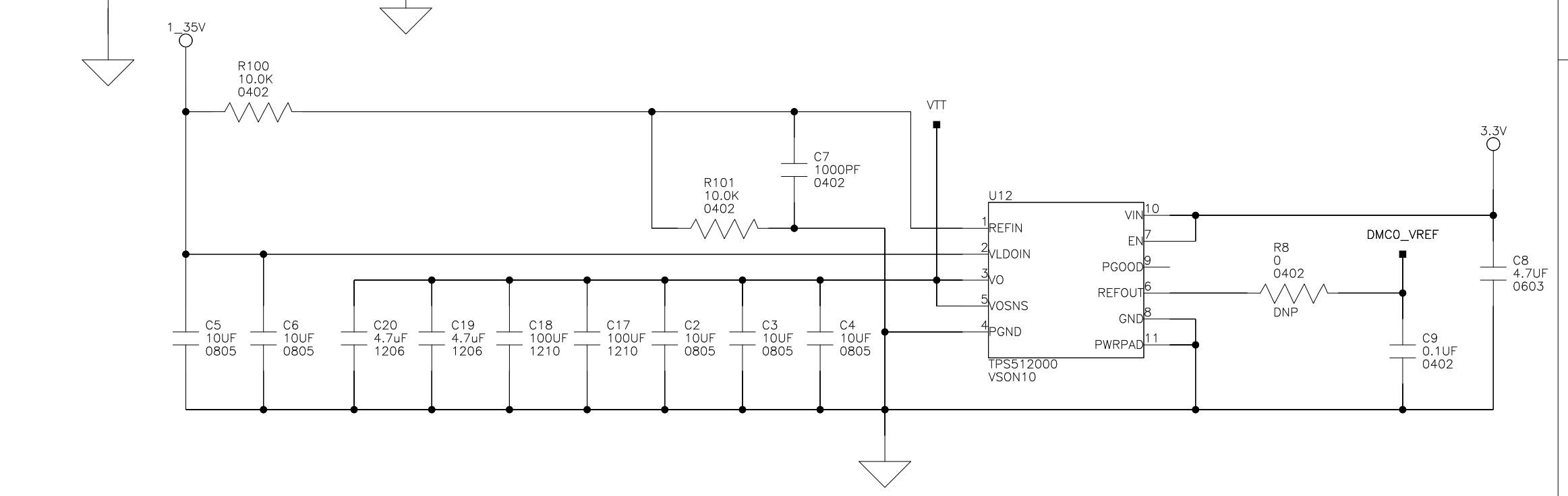
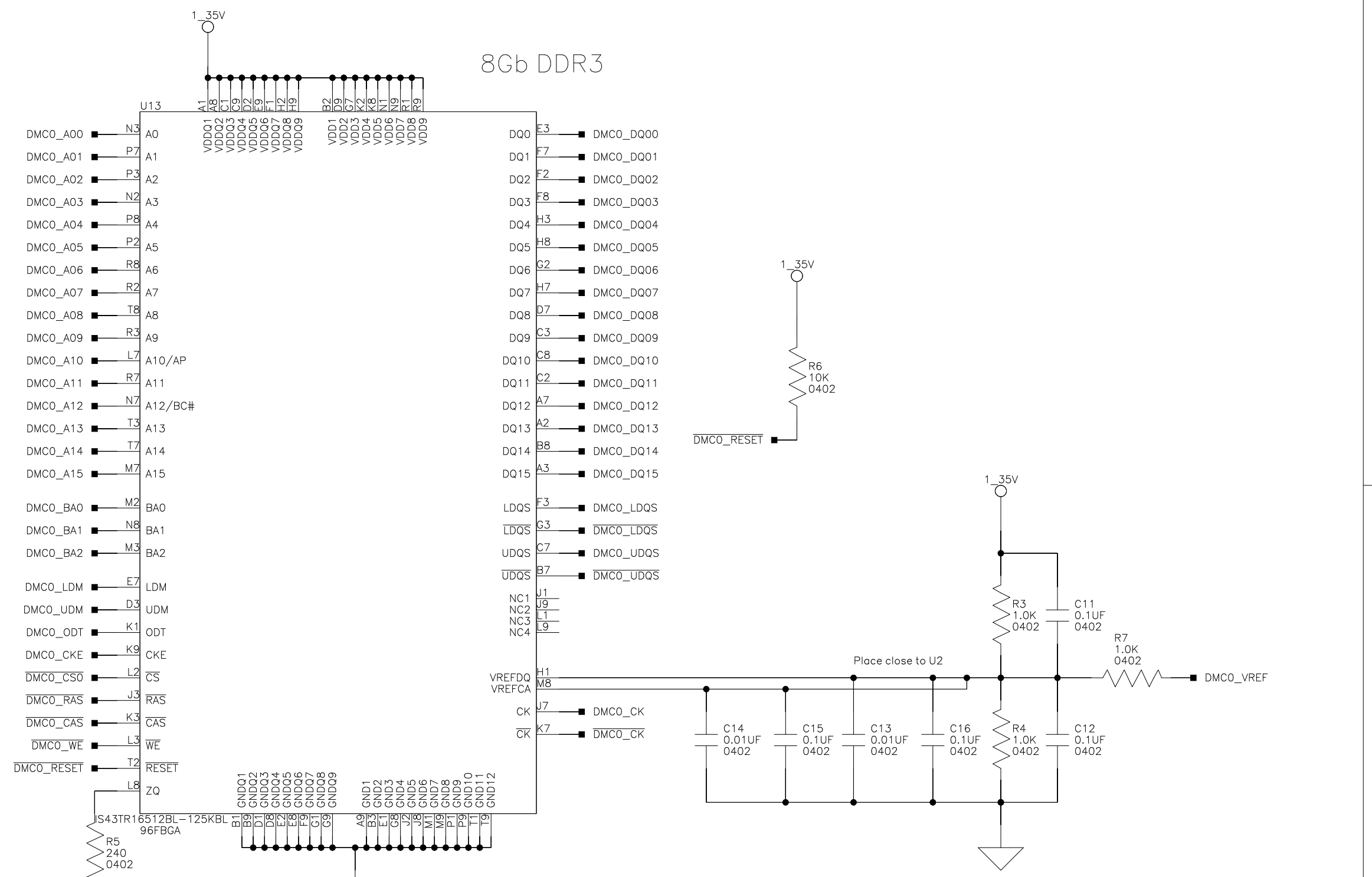
4

4



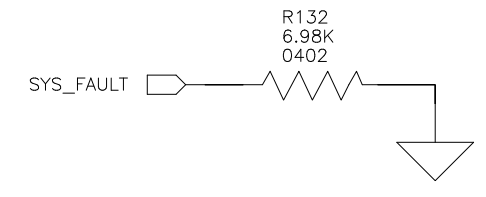
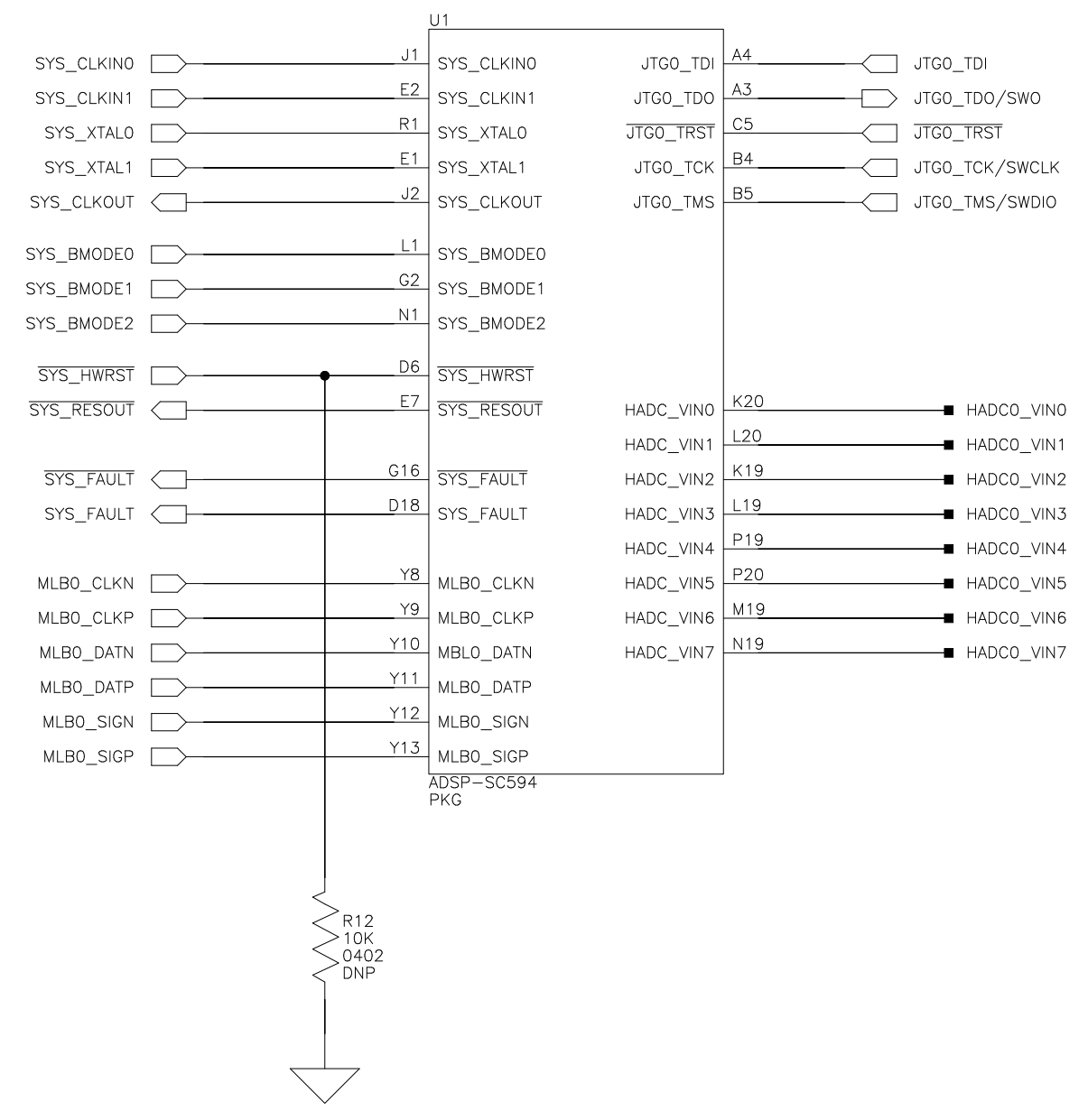
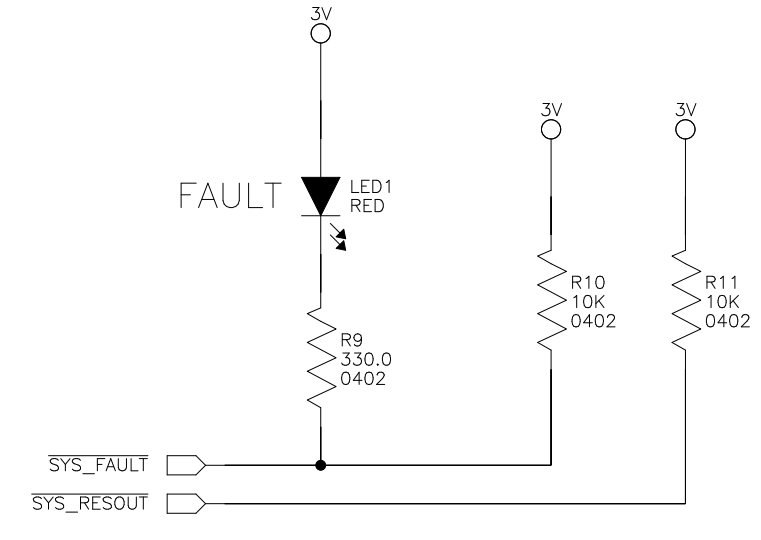
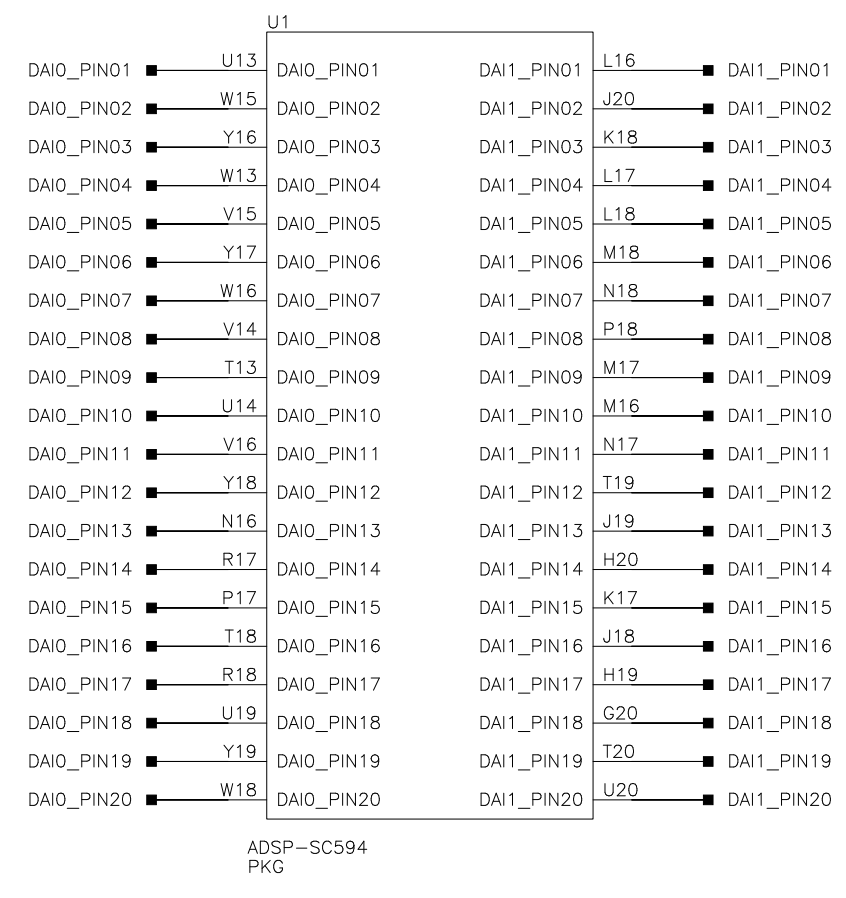
Place at end of line

Place inbetween U13 and U1 or under U13 balls



2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGD

Title: ADSP-SC594 System on Module DDR3 Interface		
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		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD
Title ADSP-SC594 System on Module Non-Mux Ports		
Size C	Board No. EV-SC594-SOM	Rev B
Date	09/30/2020	Sheet 3 of 15



1

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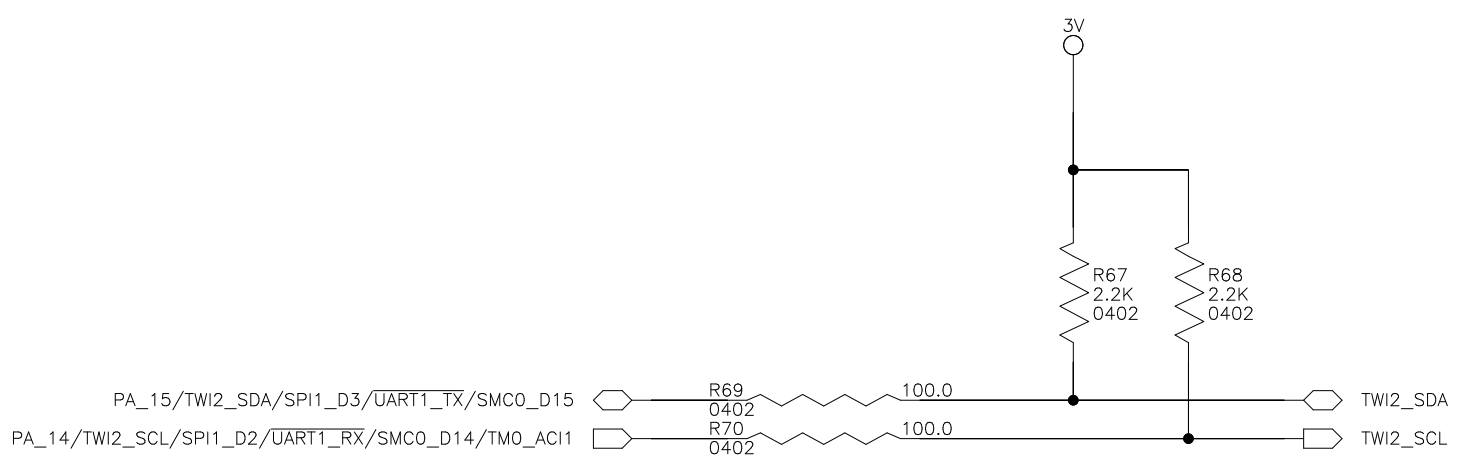
2


3

3

4

4



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC594 System on Module Mux Ports PA - PF			
Size C	Board No. EV-SC594-SOM	Rev B	
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1

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2


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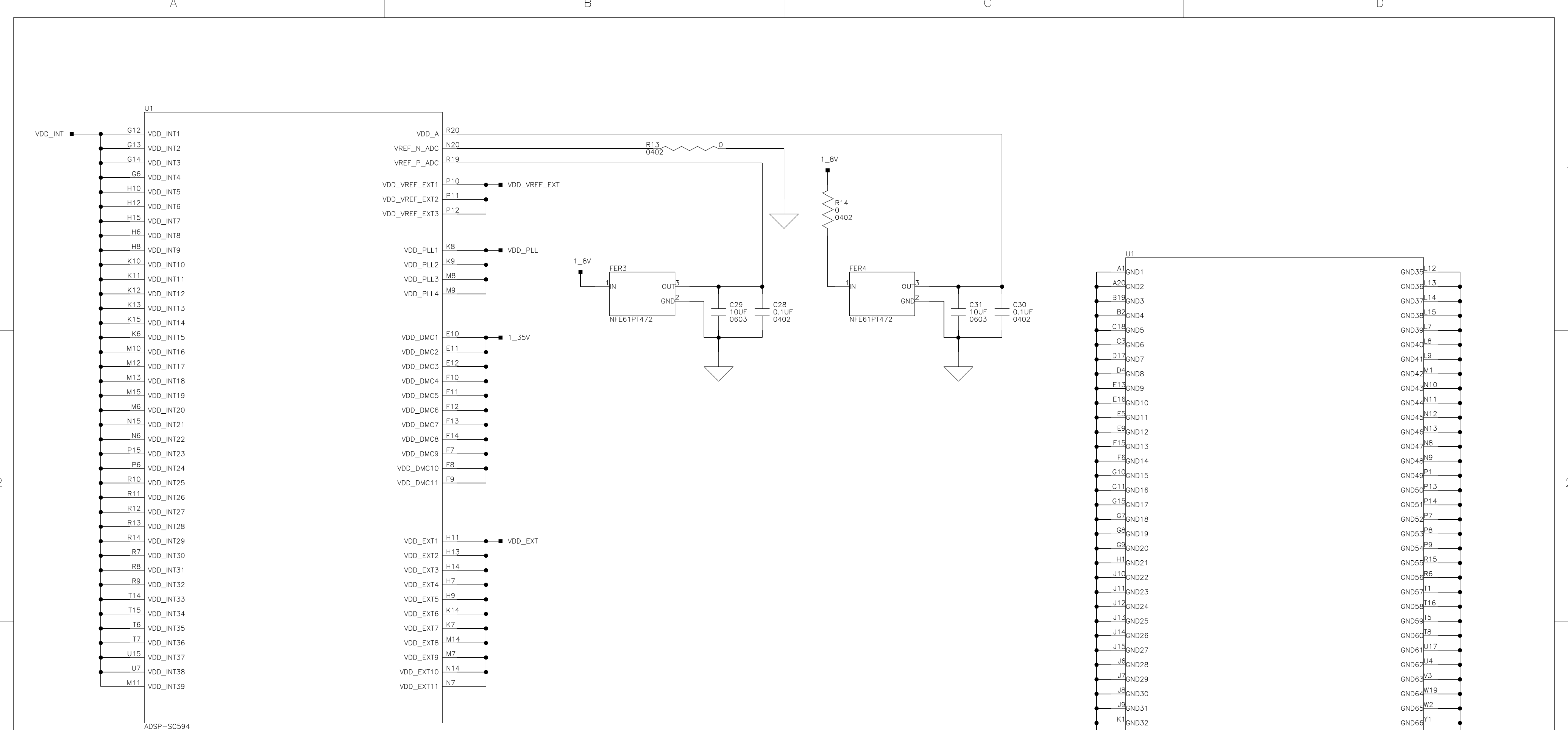
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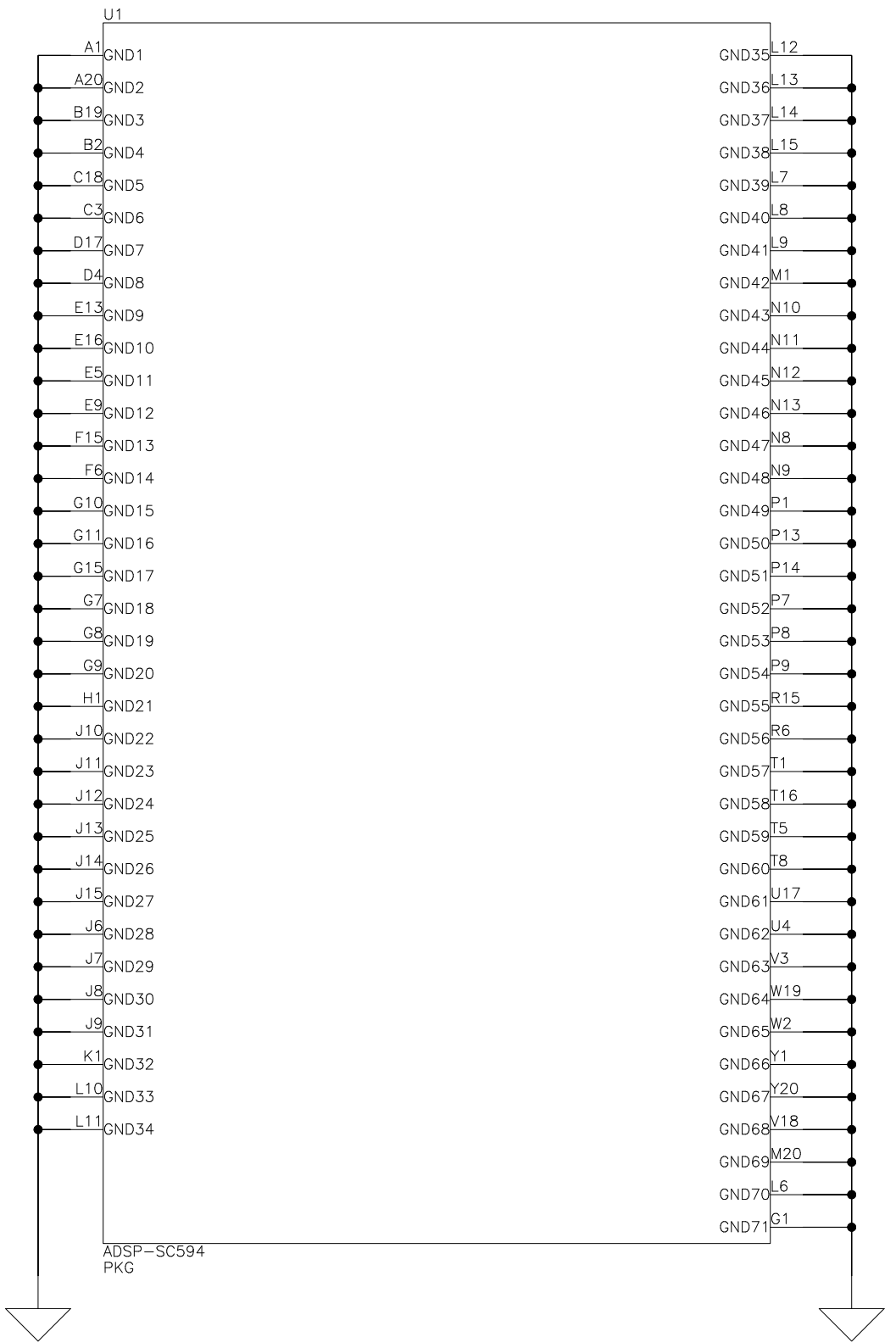
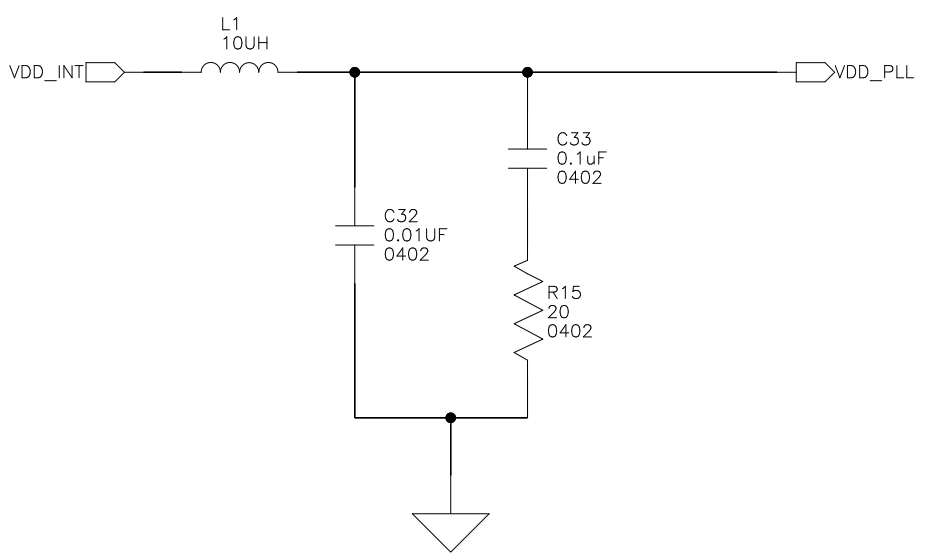
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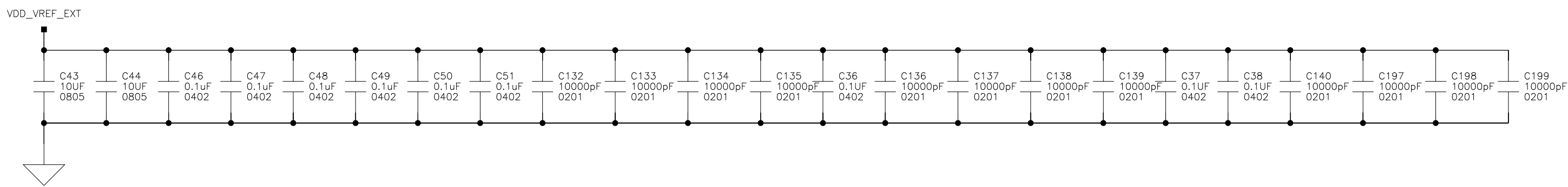
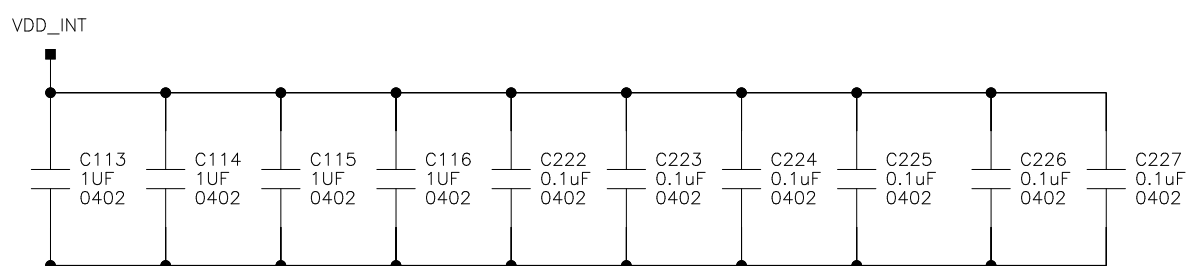
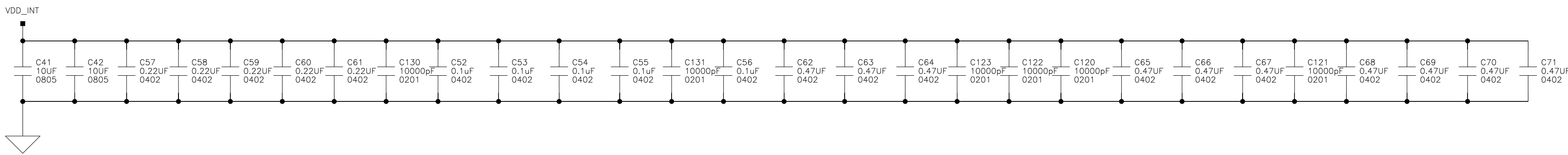
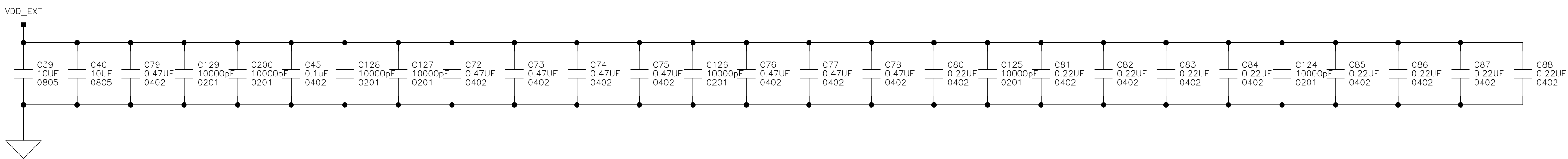
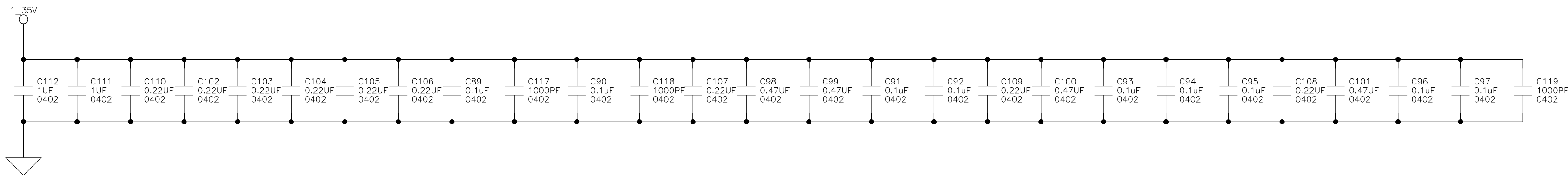
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module Mux Ports PG - PI	
Size C	Board No. EV-SC594-SOM	Rev B	
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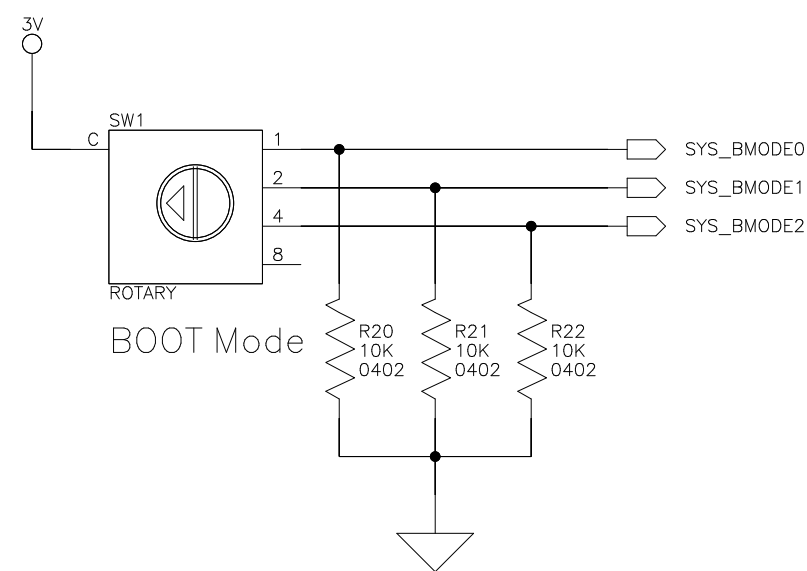
Place close to BGA balls K8 and K9



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module Processor Power/Ground	
Size C	Board No.	EV-SC594-SOM	Rev B
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		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOG	
Title ADSP-SC594 System on Module Proc Bypass Caps			
Size C	Board No.	EV-SC594-SOM	Rev B
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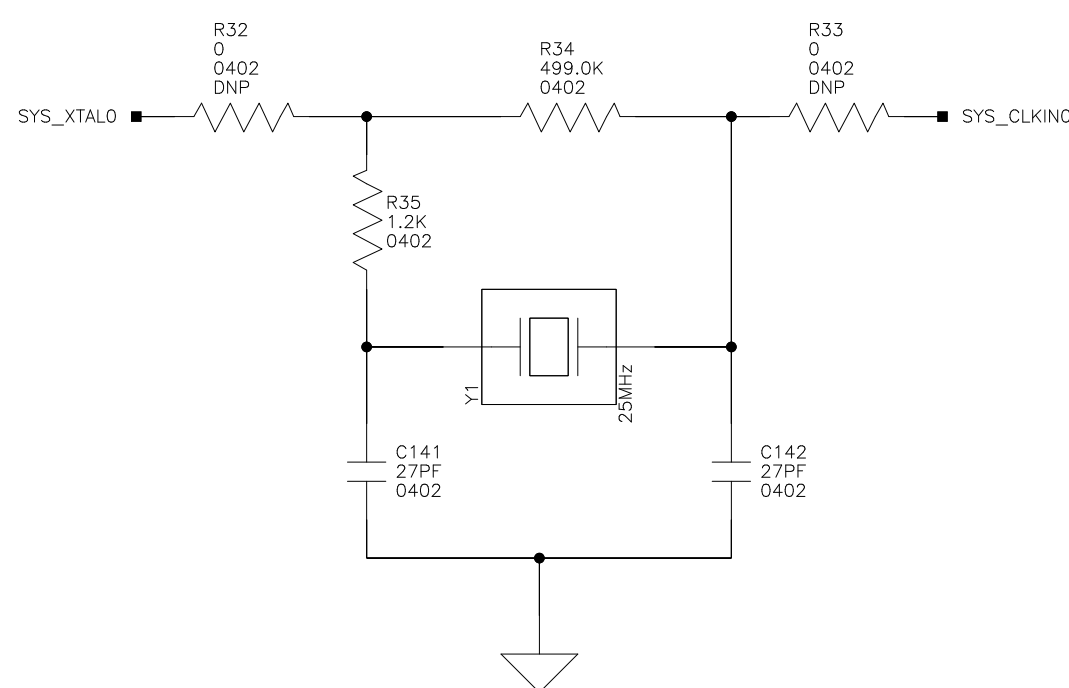


SW1: Boot mode selection switch

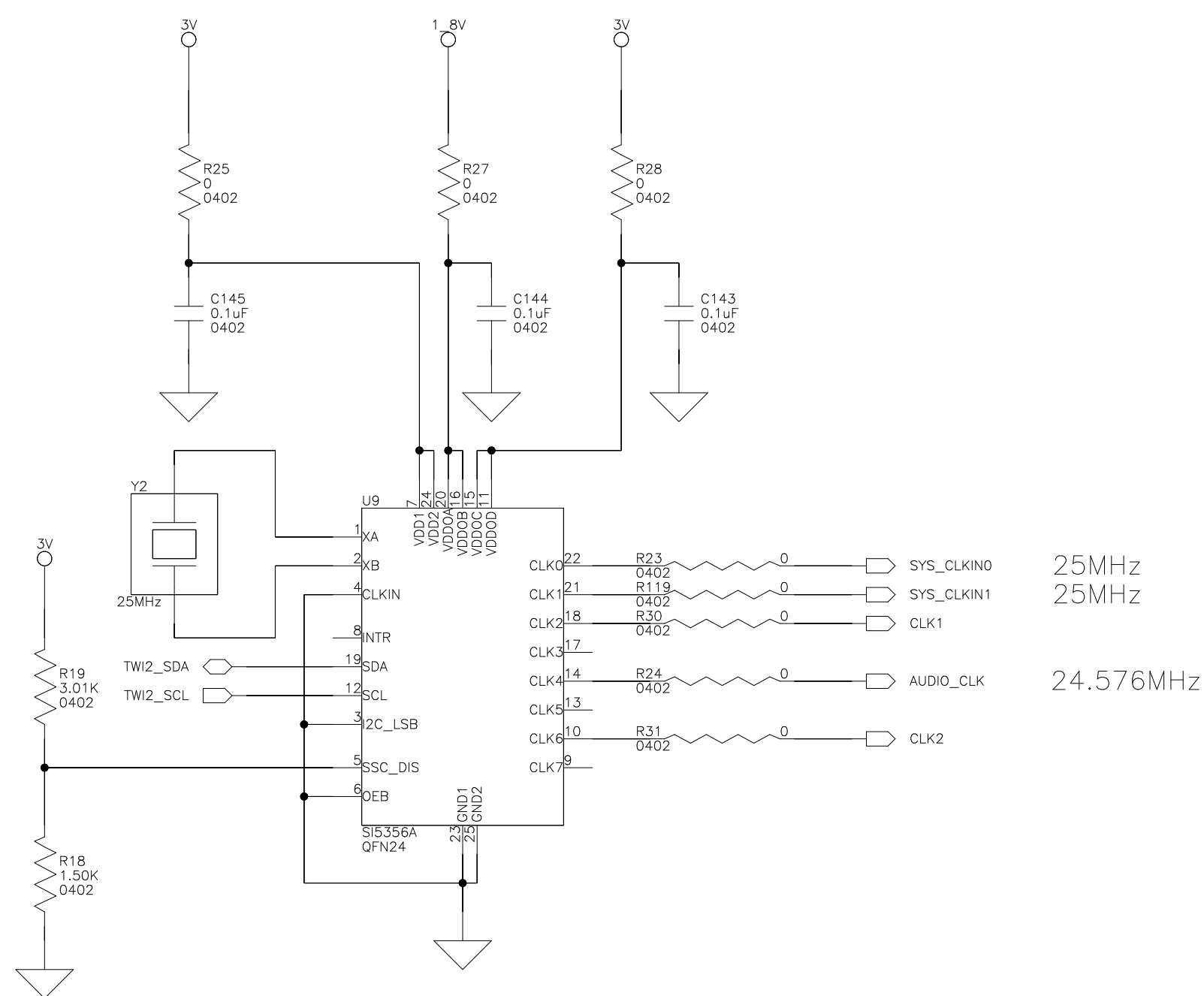
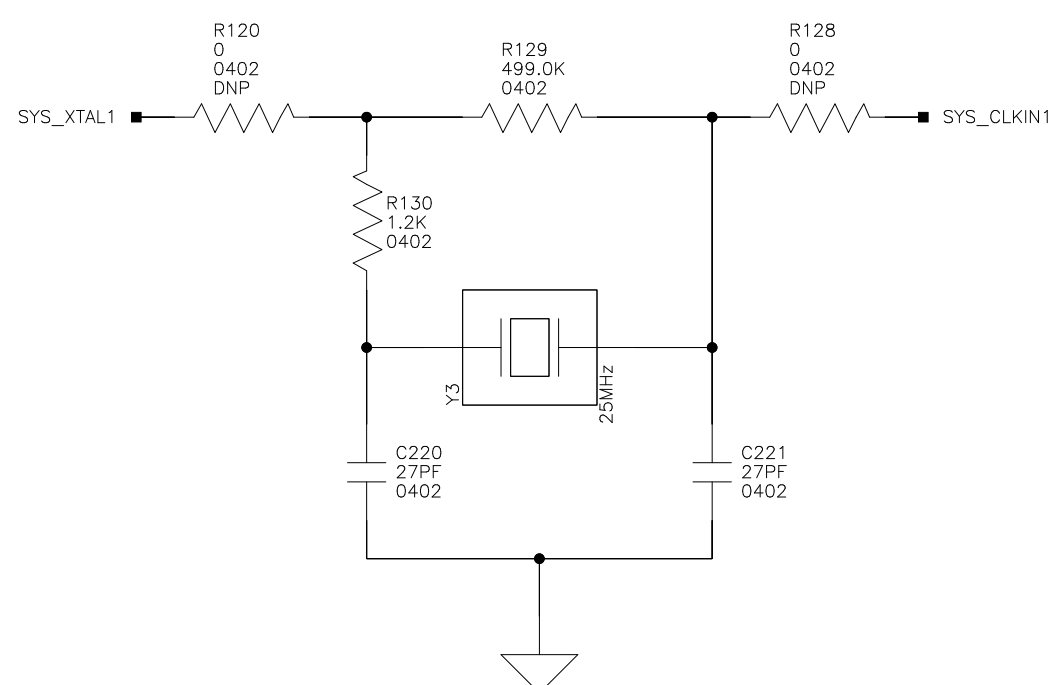
BMODE[2:0]	Boot Source	
000	No boot/Custom ROM	DEFAULT
001	SPI2 master boot	
010	SPI2 slave boot	
011	UART0 slave boot	
100	LP0 slave boot	
101	OSPI Boot	
110	Reserved	
111	Reserved	

OPTIONAL DSP CRYSTALS

R23 should be depopulated when using the optional circuit



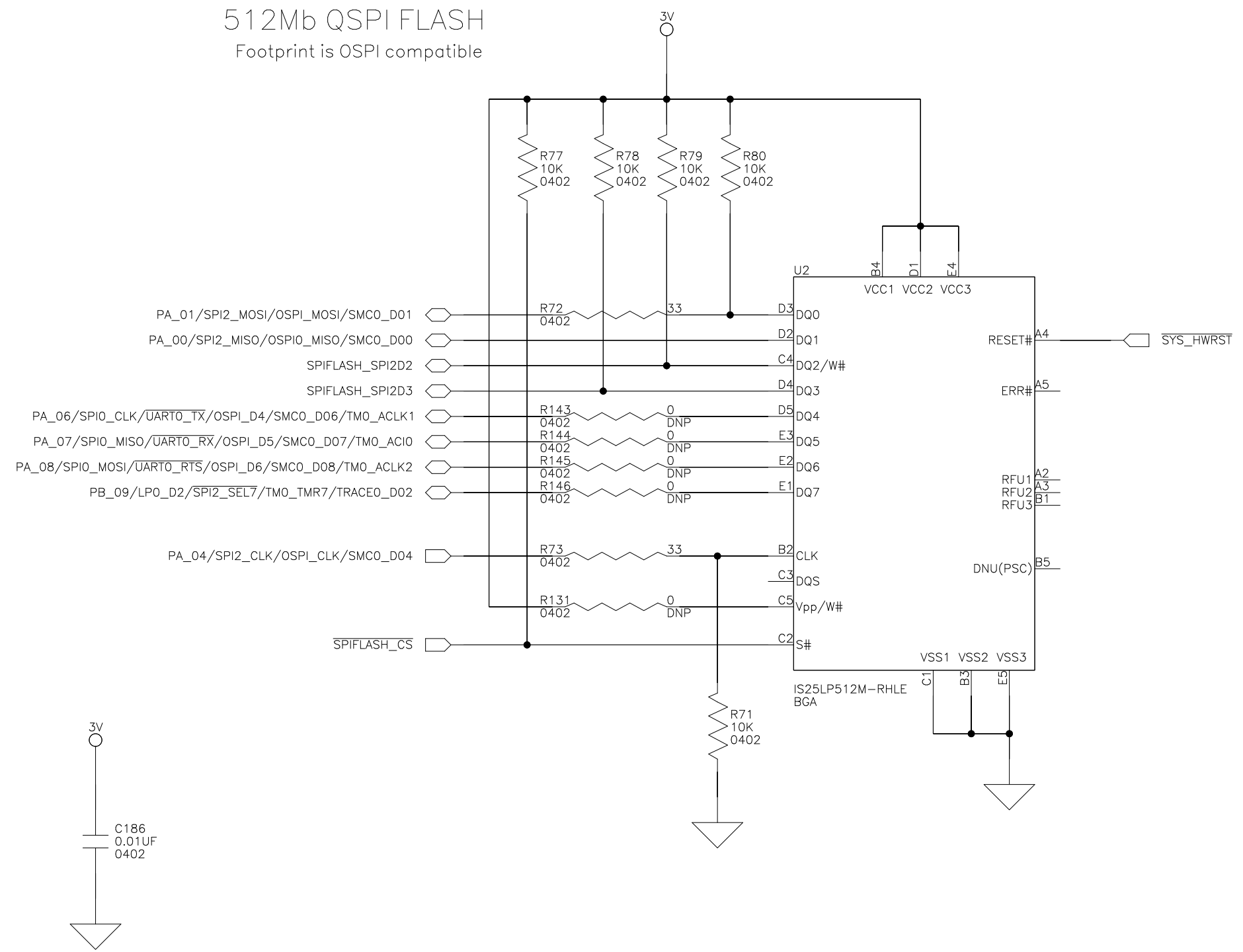
R119 should be depopulated when using the optional circuit



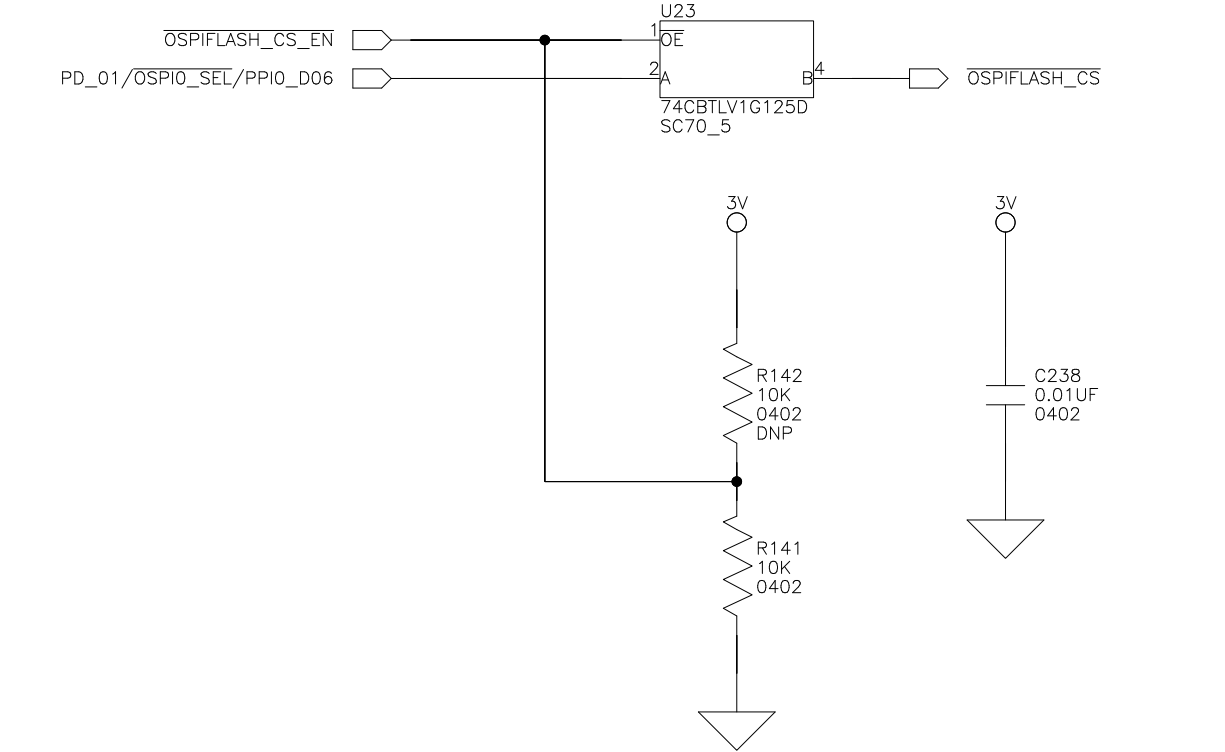
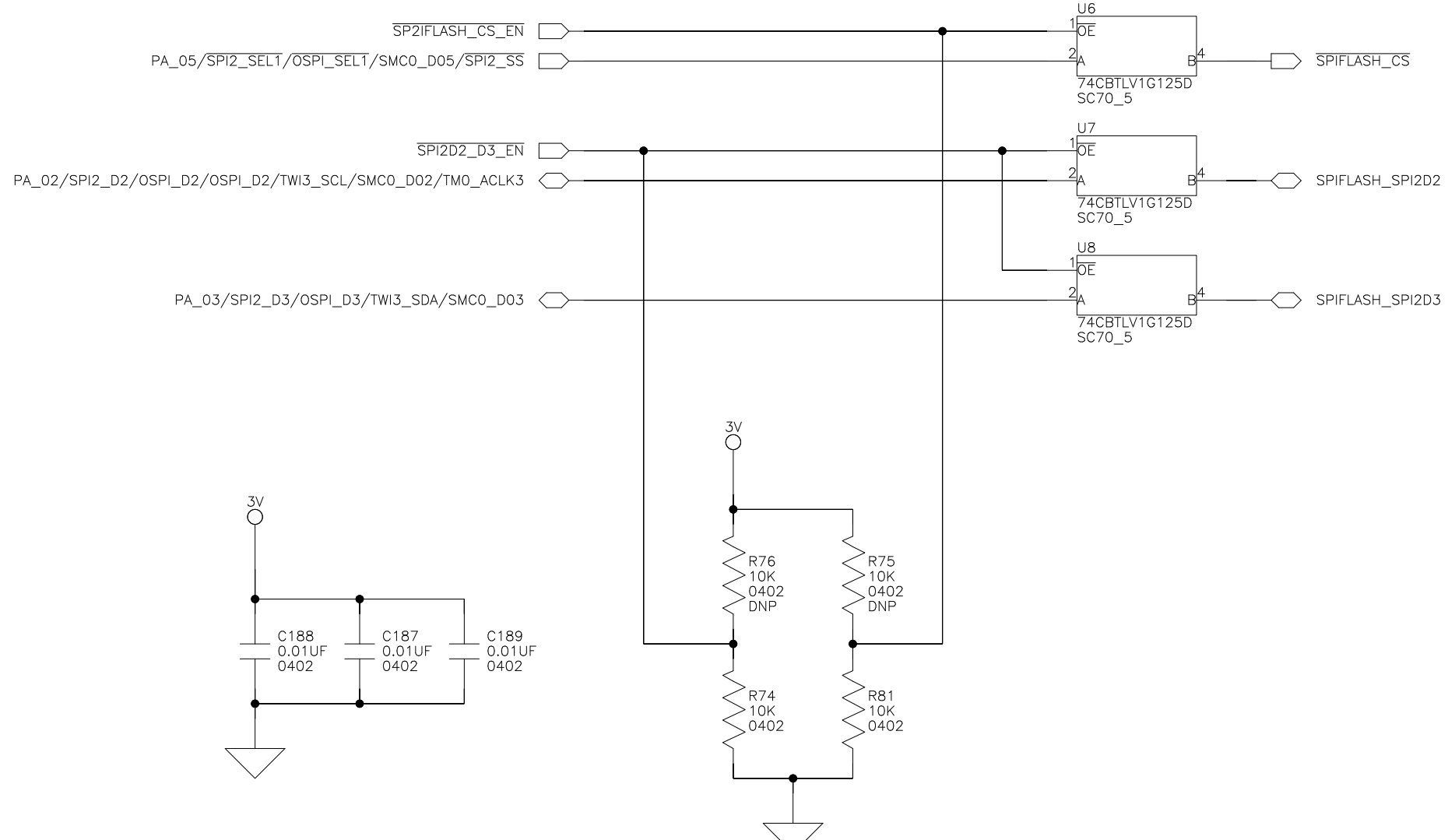
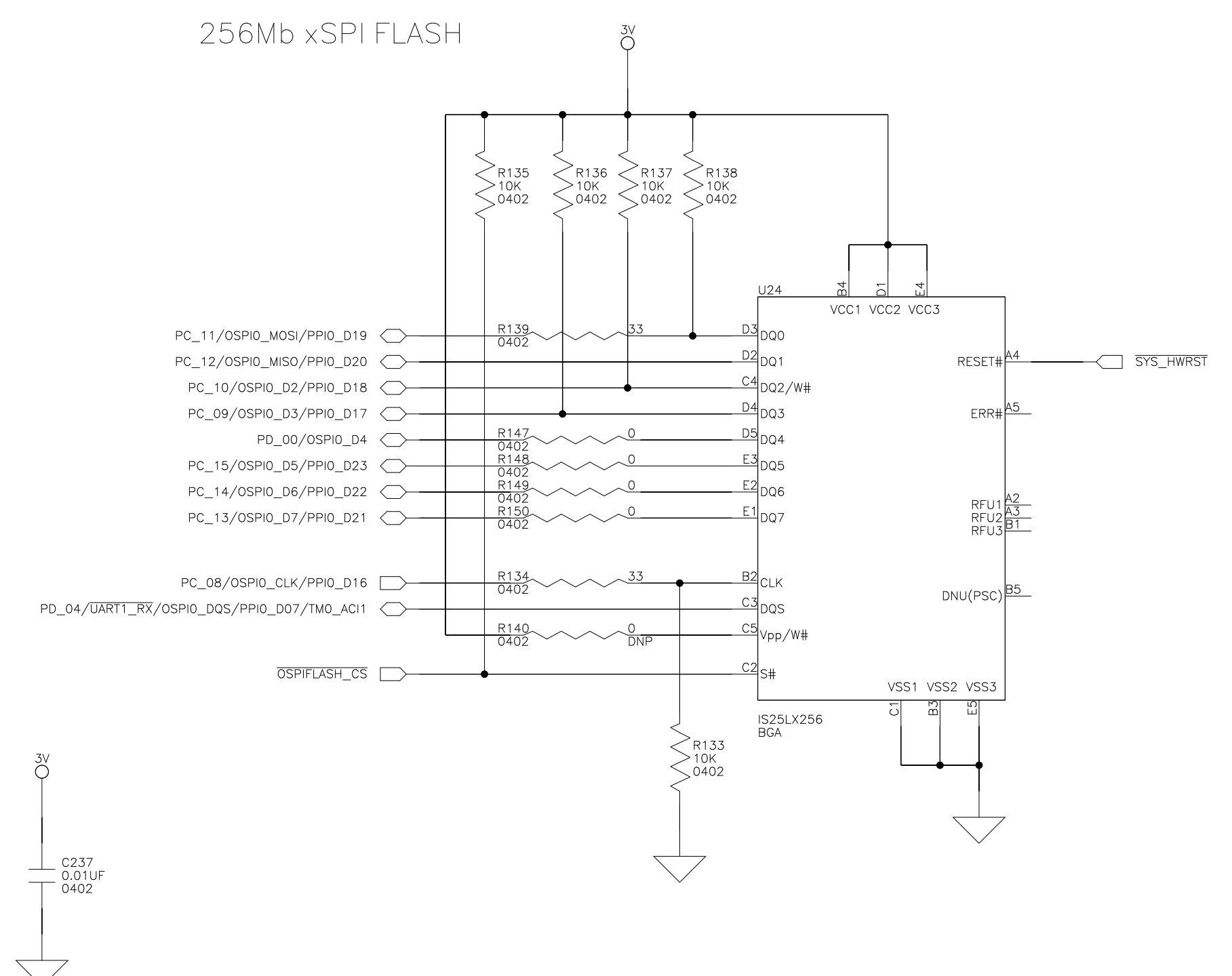
TWI Address 1110000x
x is the R/W bit. Read - 1, Write - 0


		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module Clocks/Boot Mode	
Size C	Board No.	EV-SC594-SOM	Rev B
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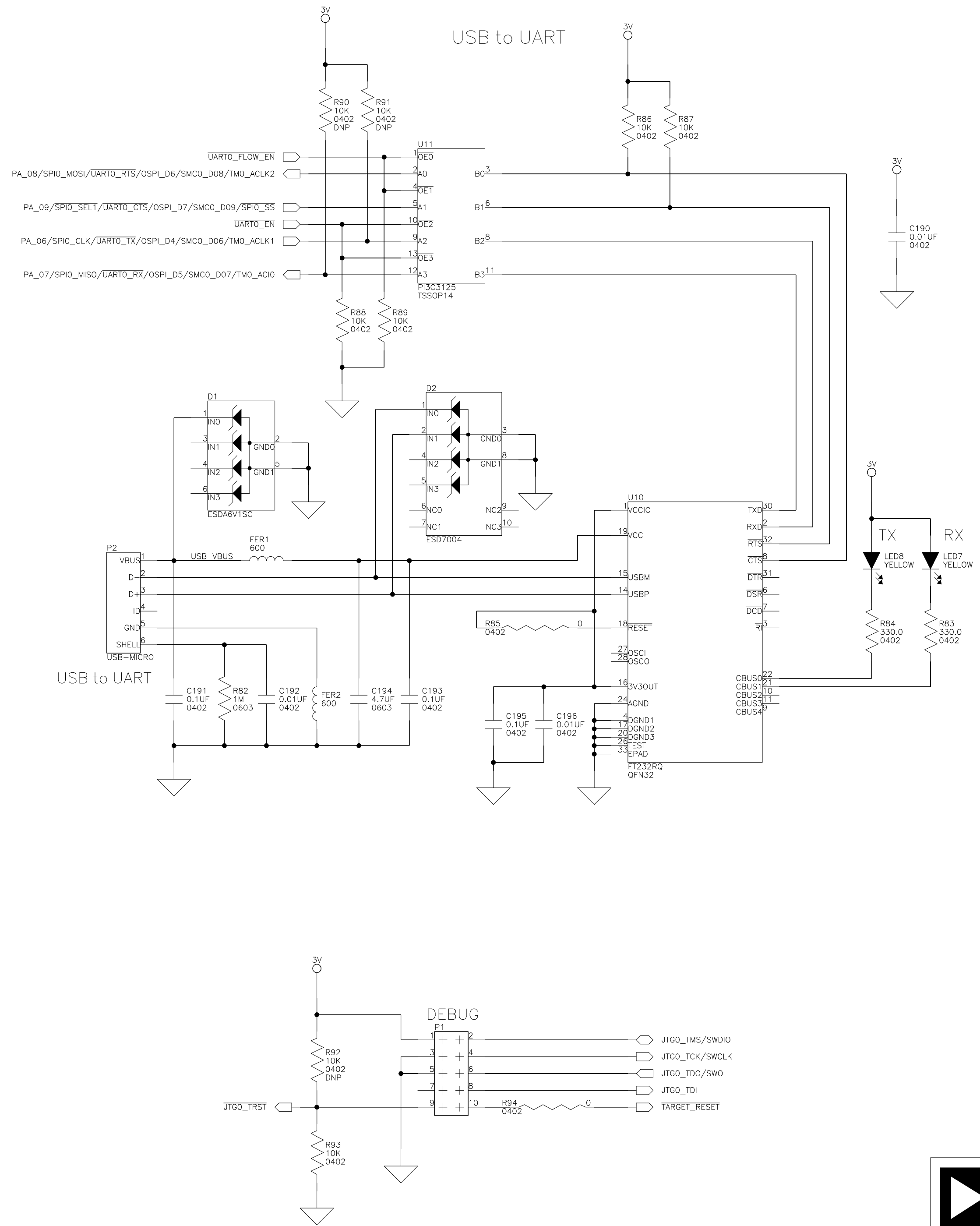
512Mb QSPI FLASH
Footprint is OSPI compatible




256Mb xSPI FLASH

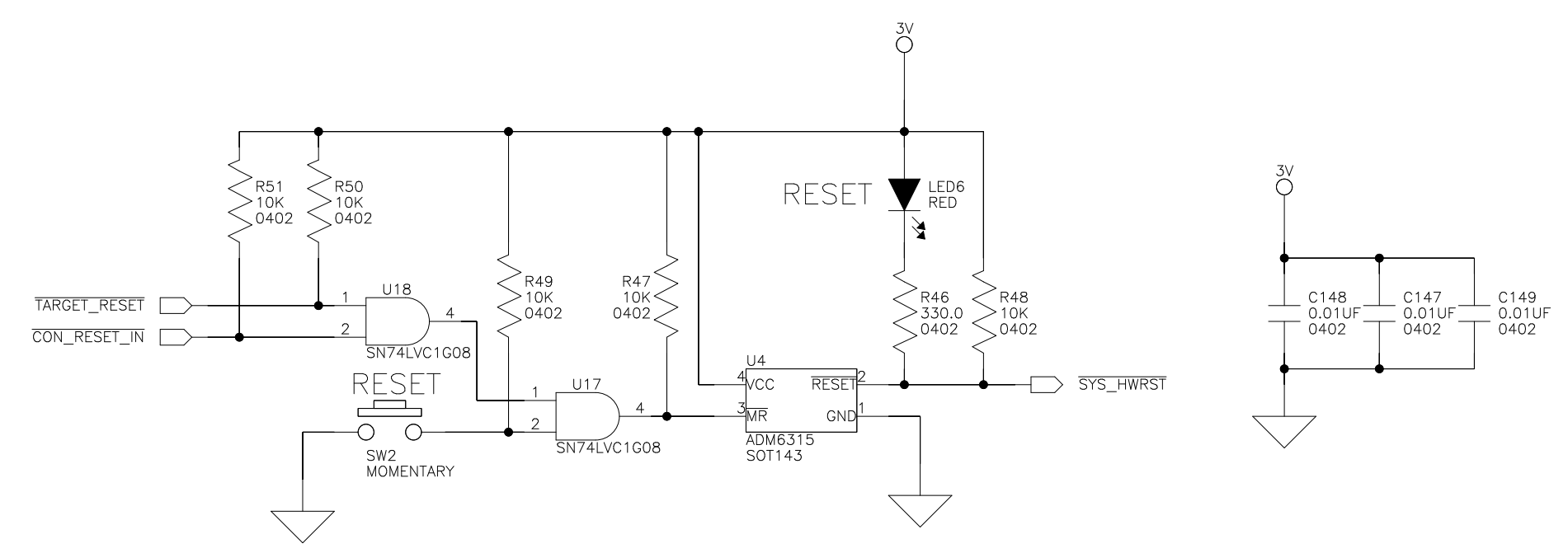
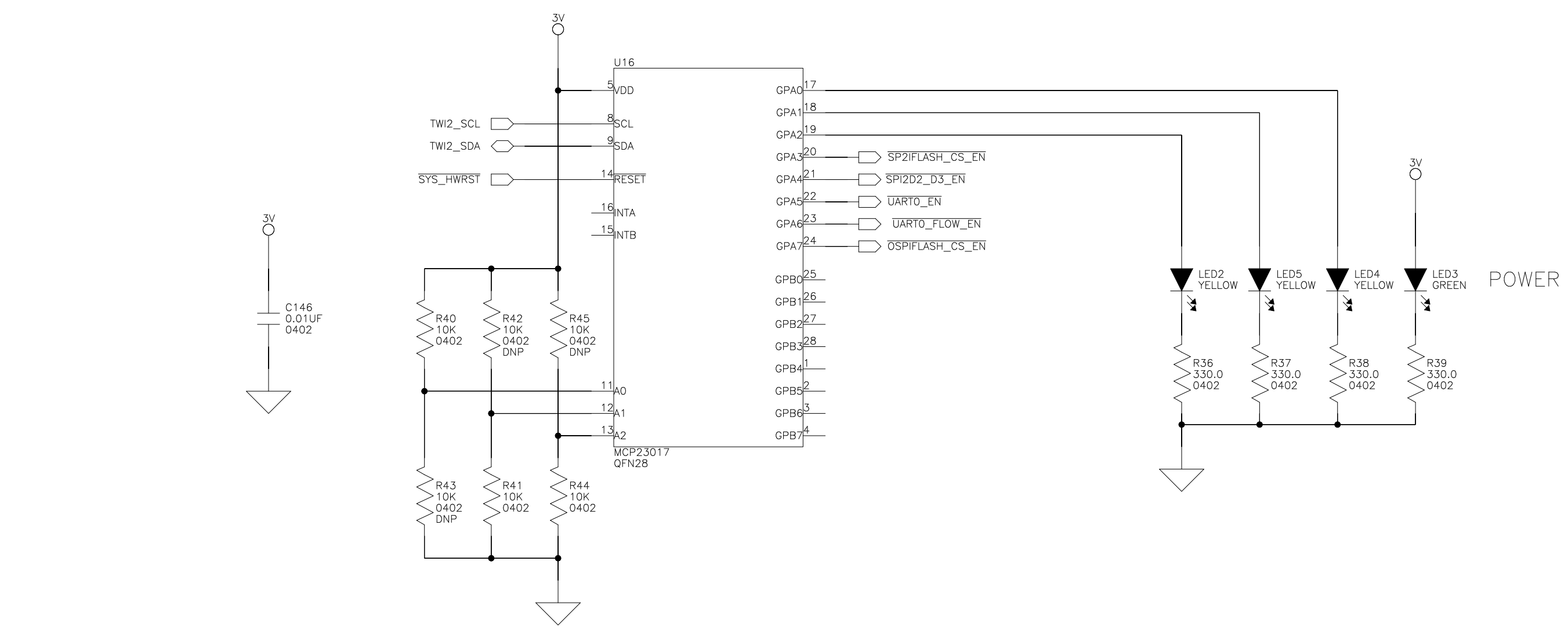



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module SPI Flash	
Size C	Board No. EV-SC594-SOM	Rev B	
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		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module UART/JTAG	
Size C	Board No. EV-SC594-SOM	Rev B	
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TWI Address 0100001x
 x is the R/W bit. Read - 1, Write - 0



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module LEDs/Reset/SoftConfig	
Size C	Board No. EV-SC594-SOM	Rev B	
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A

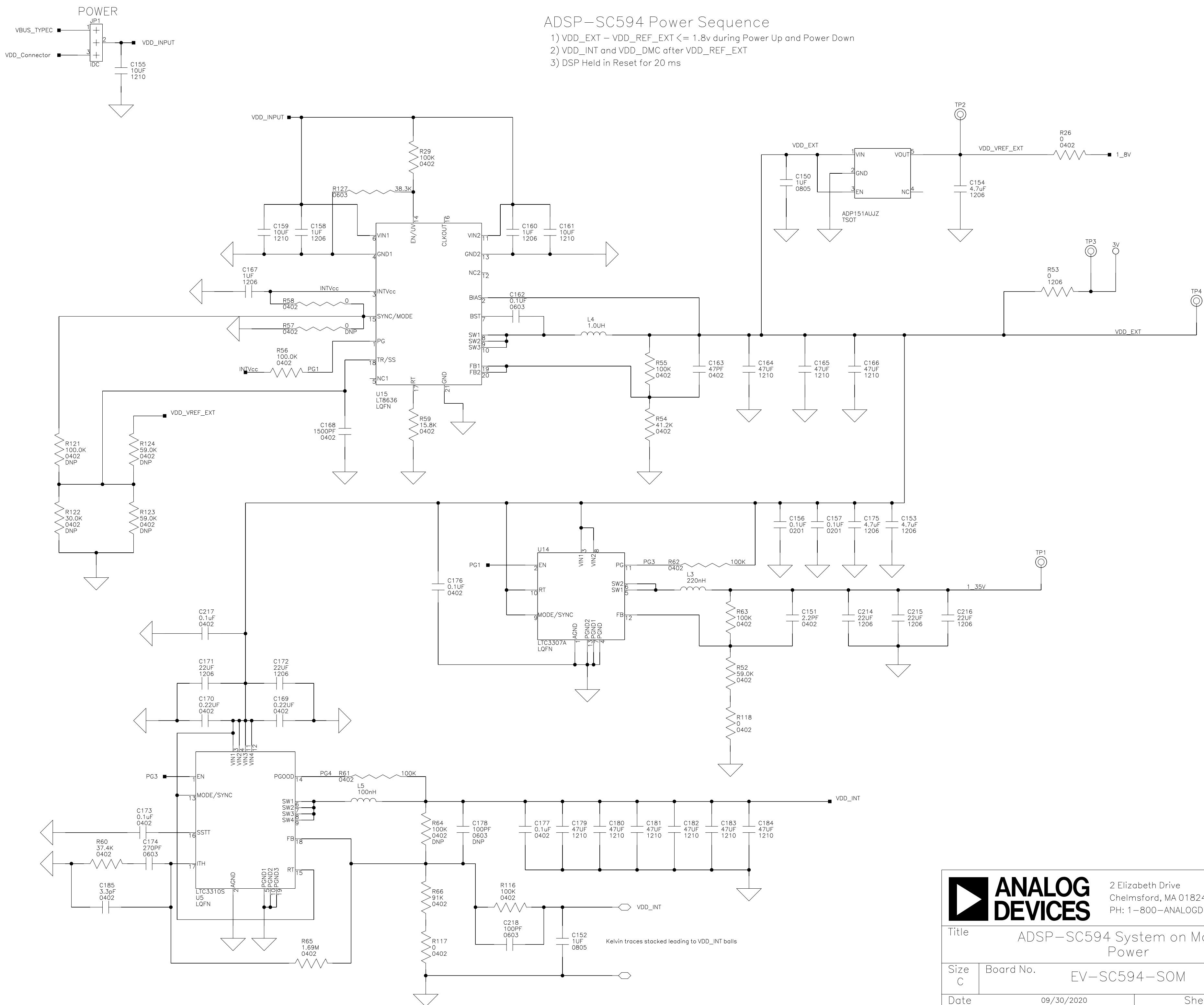
B


C

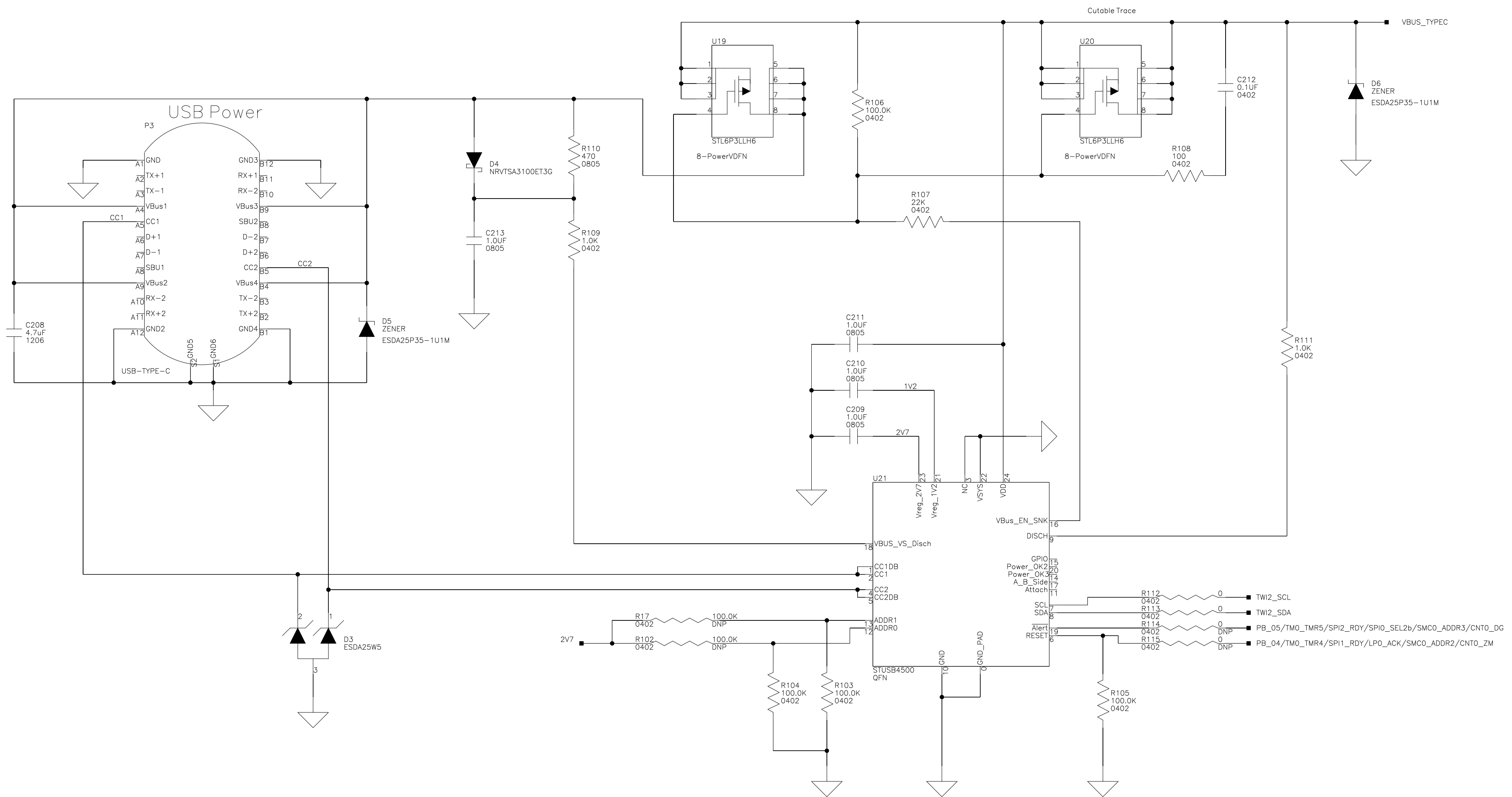
D


ADSP-SC594 Power Sequence

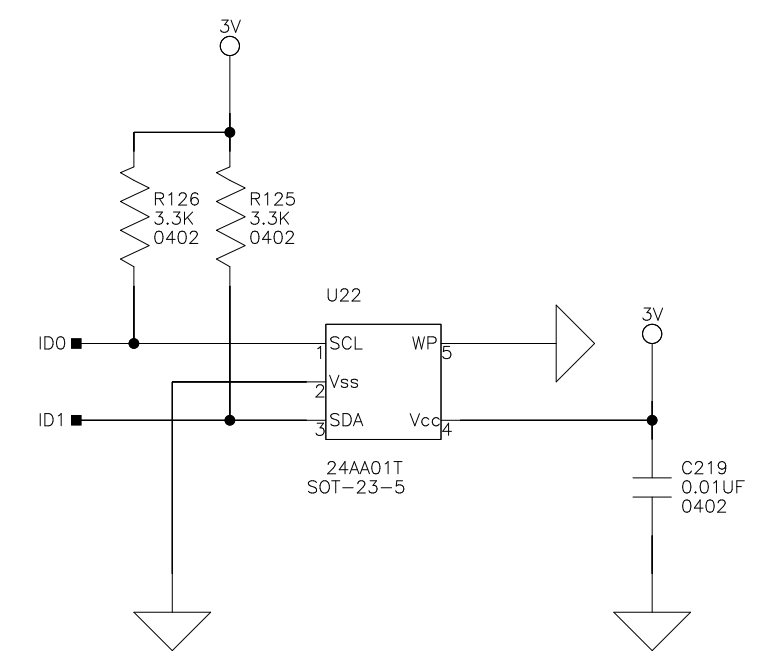
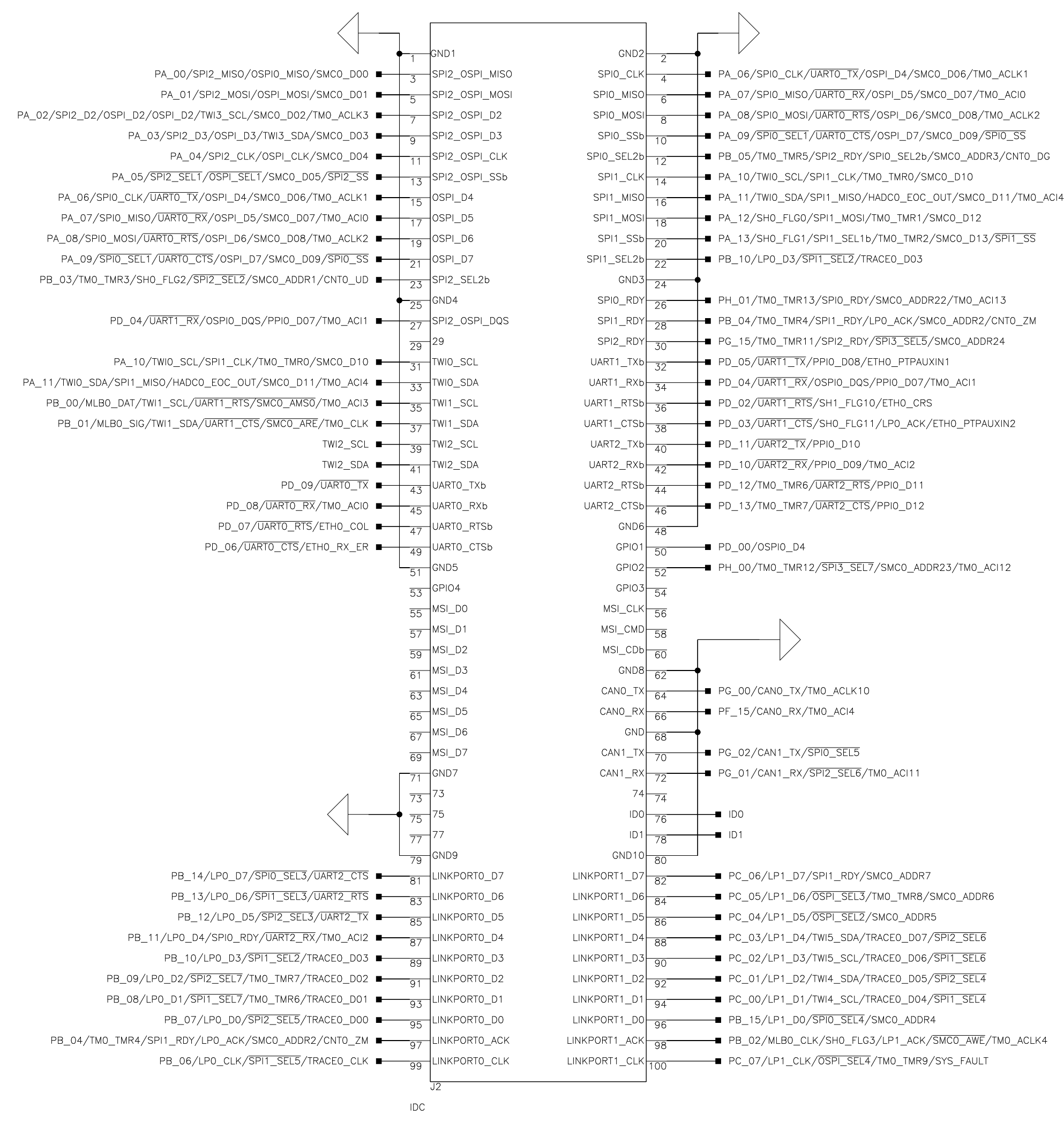
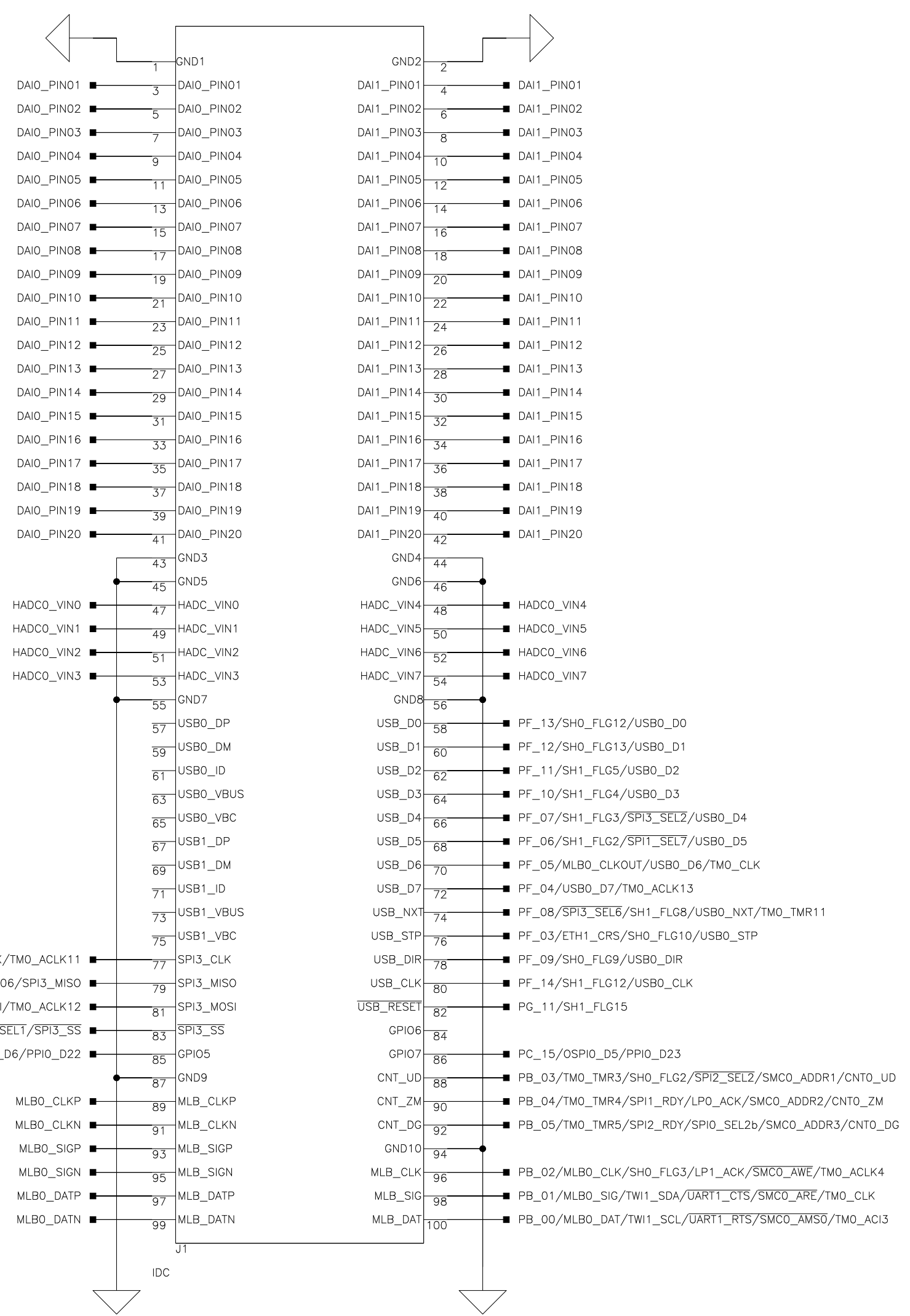
- 1) VDD_EXT - VDD_REF_EXT <= 1.8v during Power Up and Power Down
- 2) VDD_INT and VDD_DMC after VDD_REF_EXT
- 3) DSP Held in Reset for 20 ms



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module Power	
Size C	Board No.	EV-SC594-SOM	Rev B
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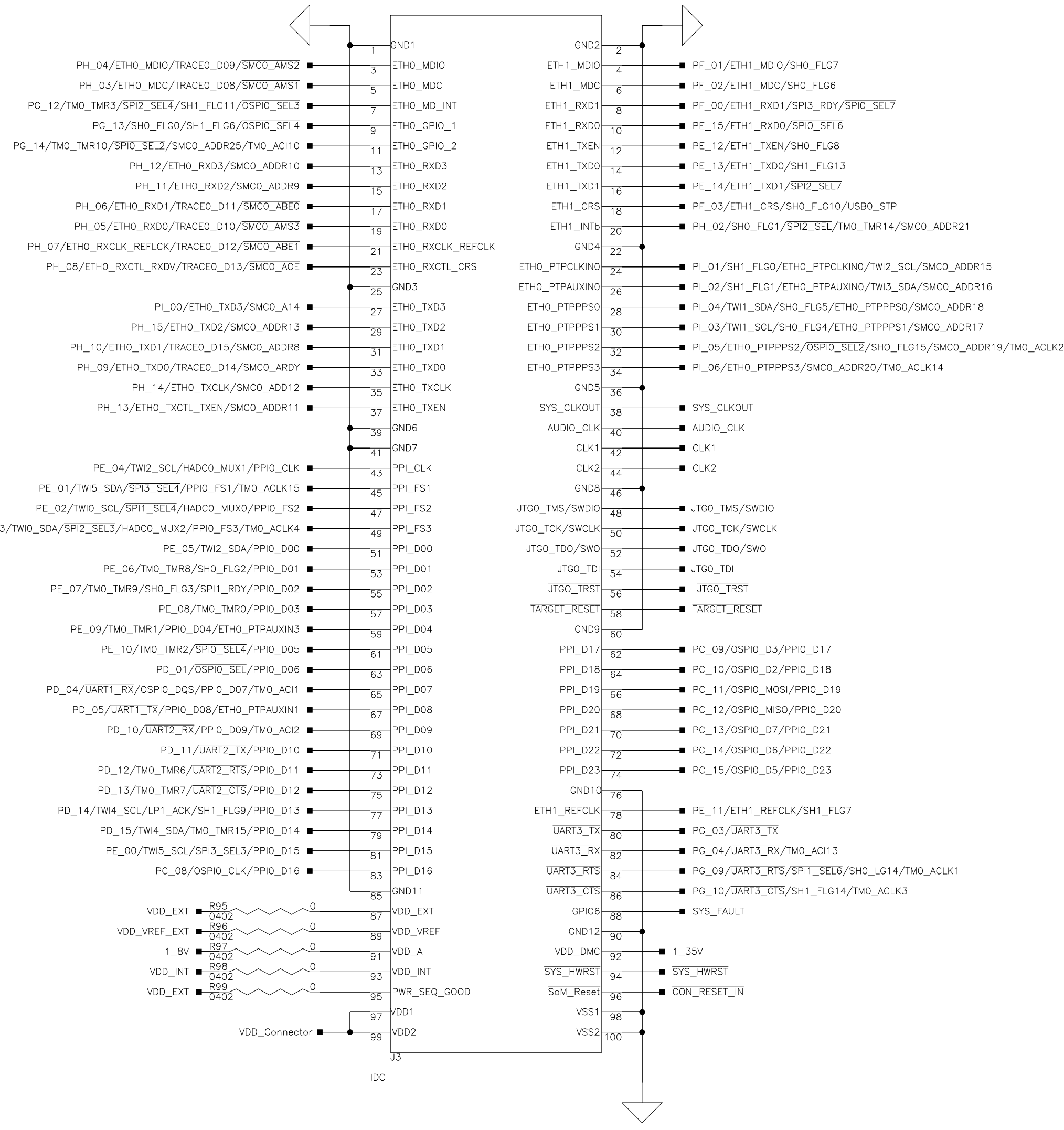



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC594 System on Module USB Type C PD	
Size C	Board No.	EV-SC594-SOM	Rev B
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2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGD

Title			ADSP-SC594 System on Module High Speed Connectors A B		
Size	Board No.	EV-SC594-SOM		Rev	B
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		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC594 System on Module High Speed Connectors C			
Size C	Board No. EV-SC594-SOM		Rev B
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