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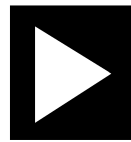
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ADSP-SC589 EZ-Board Schematic



**ANALOG
DEVICES**

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

Title			ADSP-SC589 EZ-Board Title Block		
Size C	Board No. A0447-2013				Rev 1.2
Date		3/17/16		Sheet 1 of 29	

A

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A

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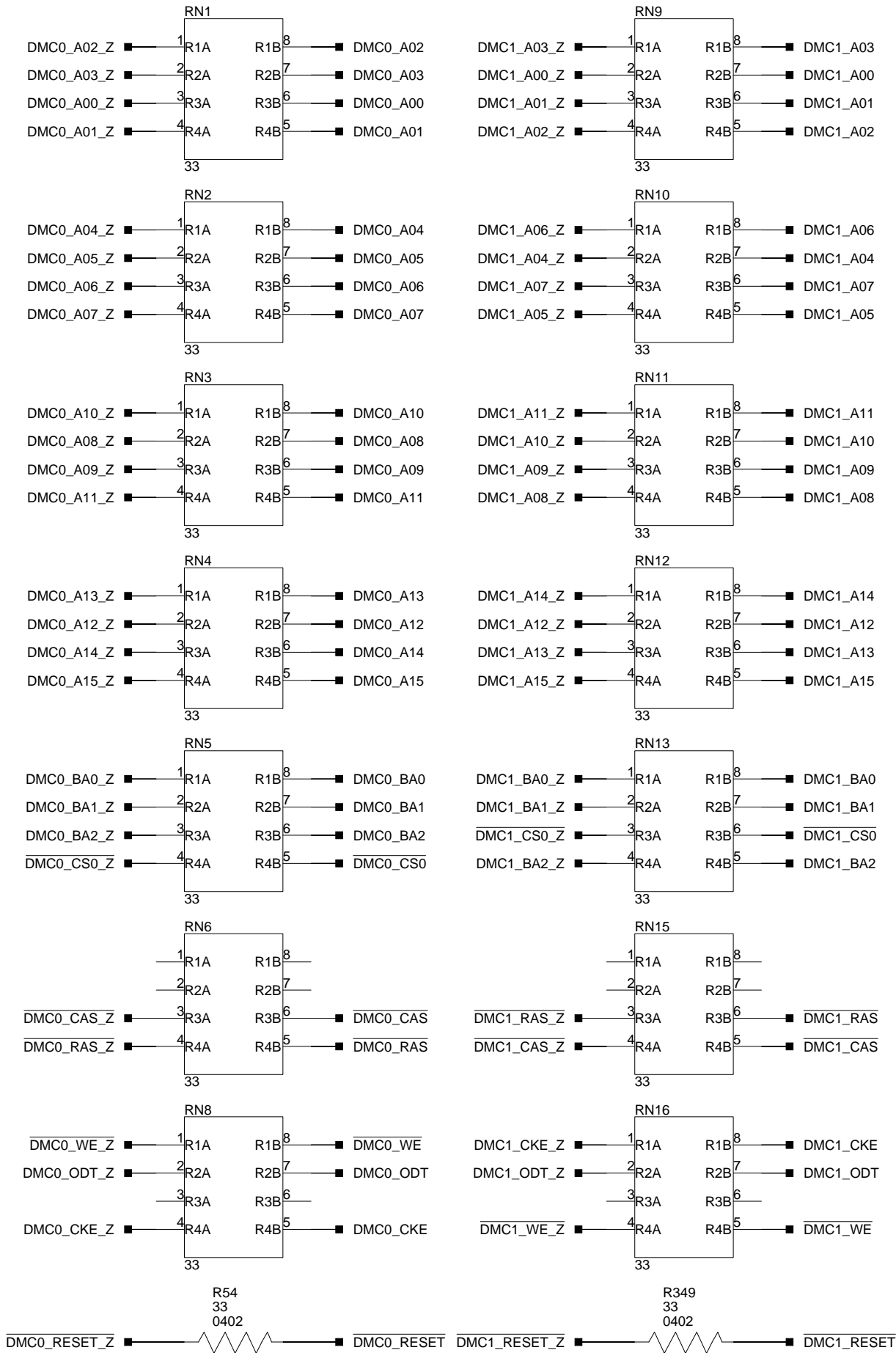
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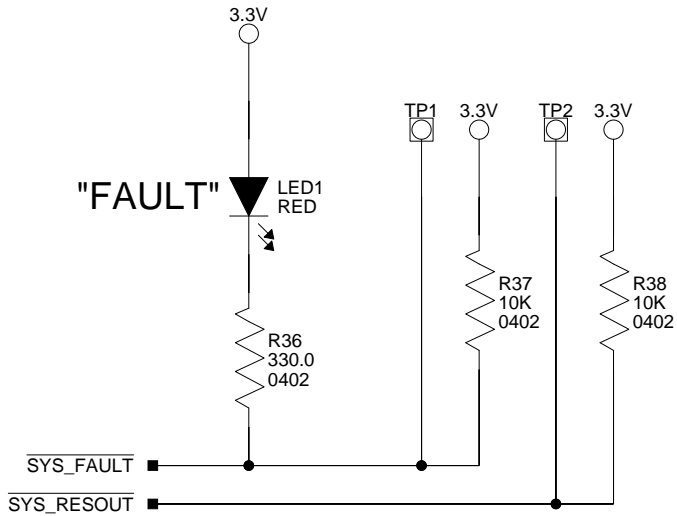
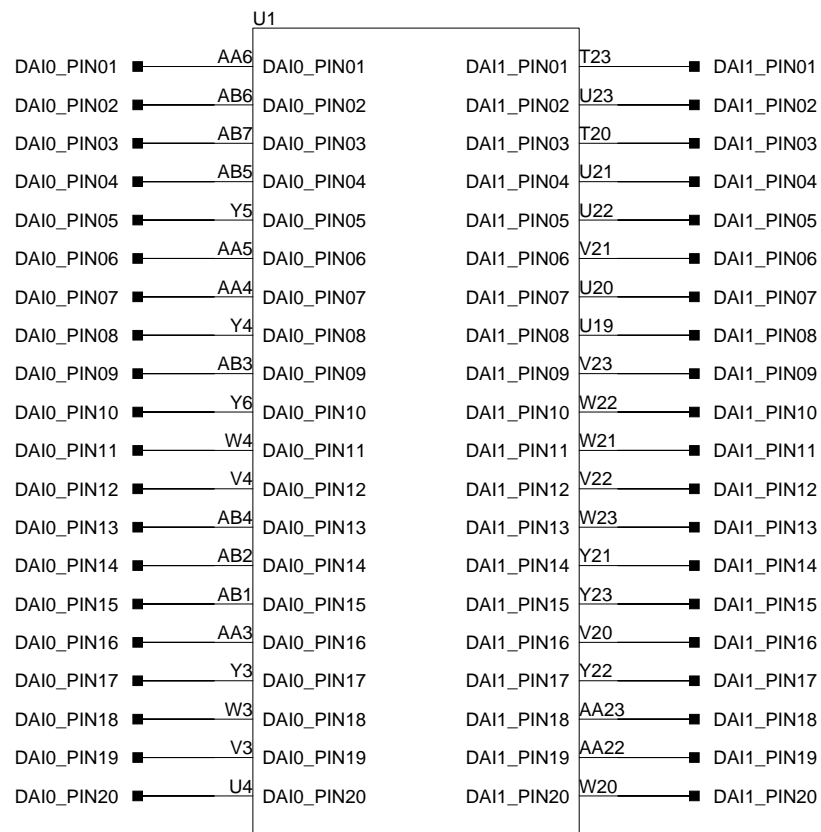
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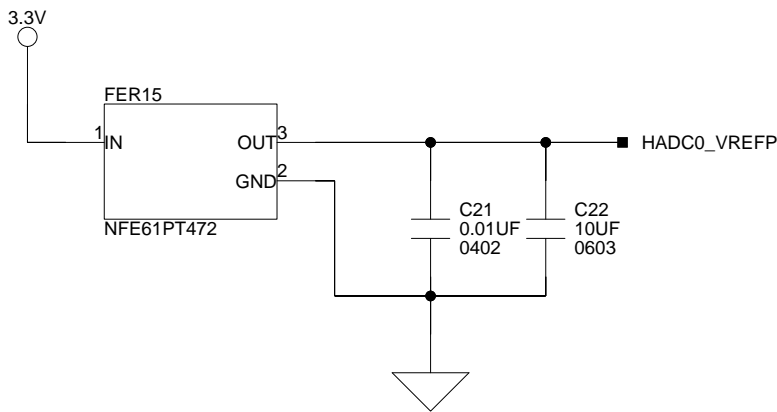
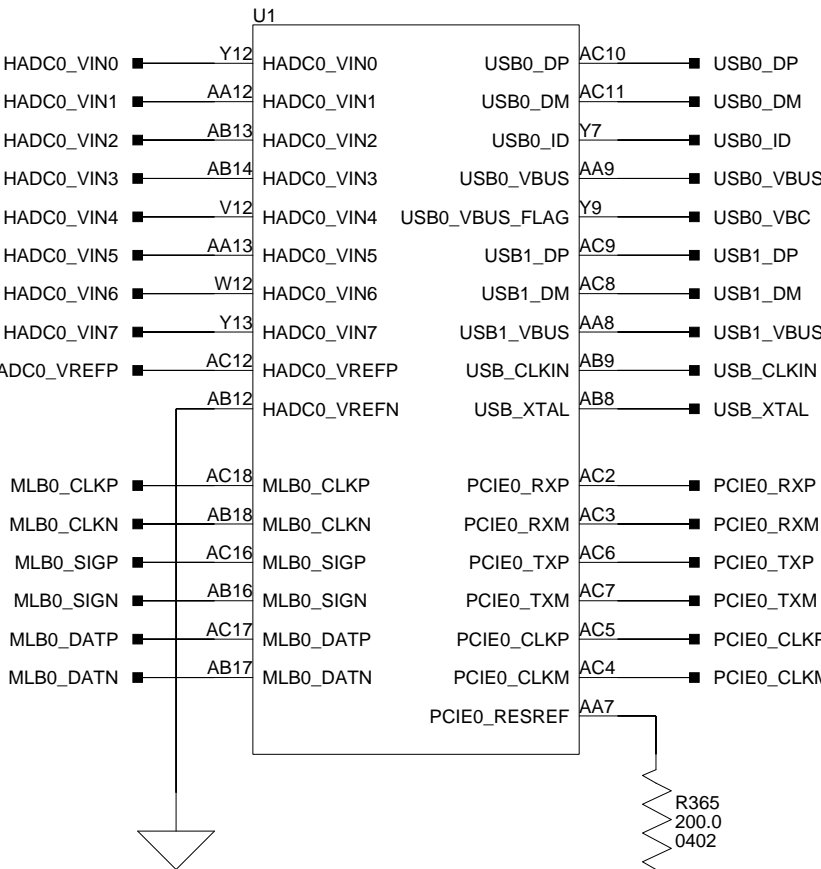


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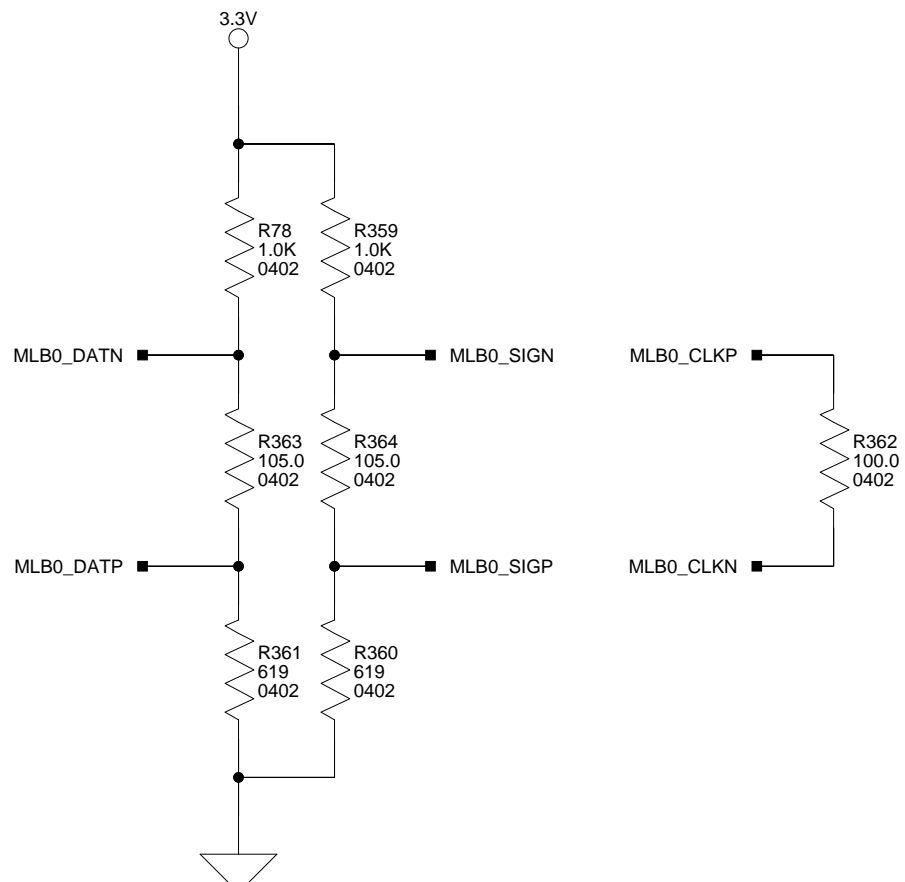


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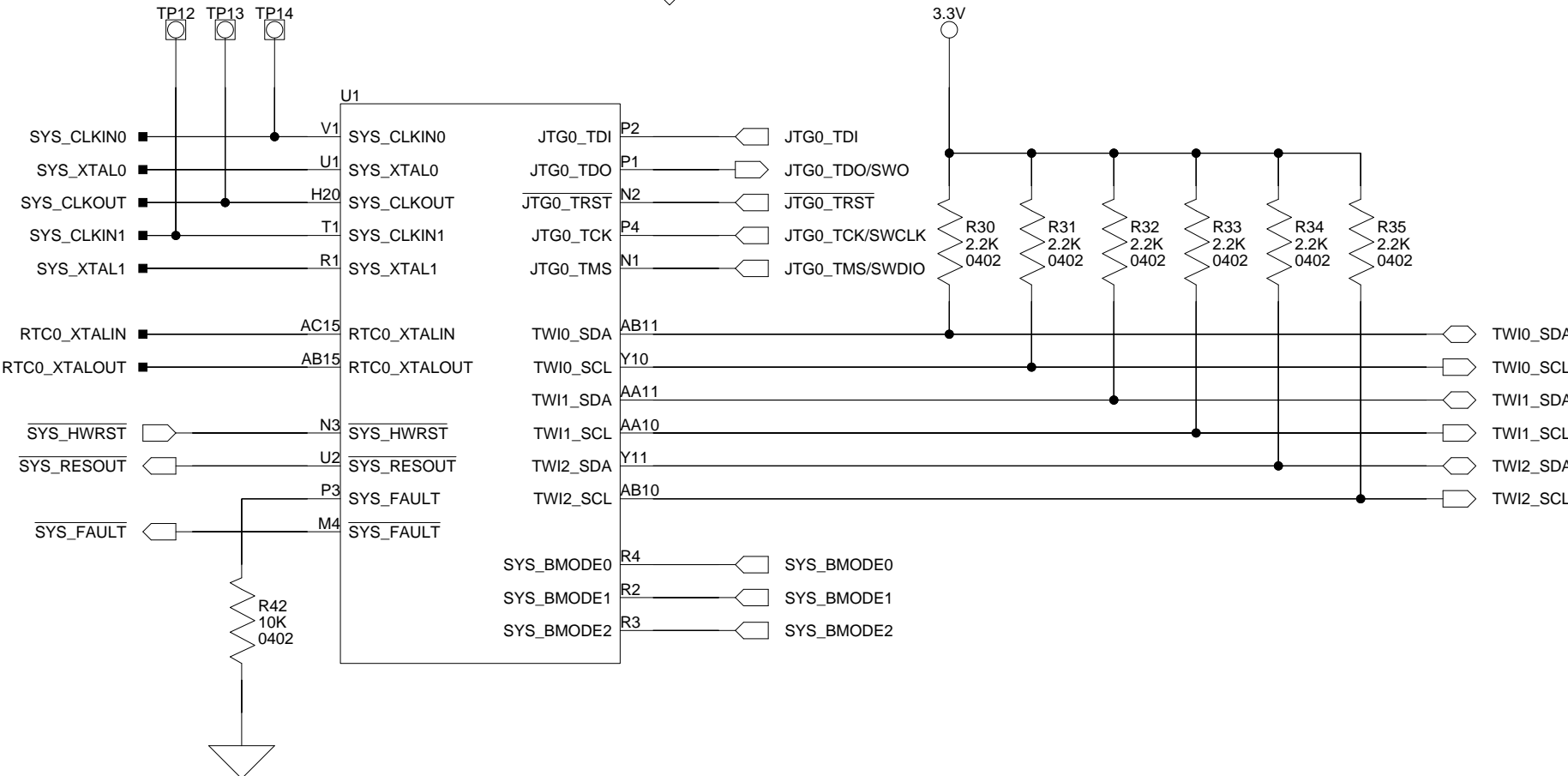



MLB signals need to be short and matched trace length.



2

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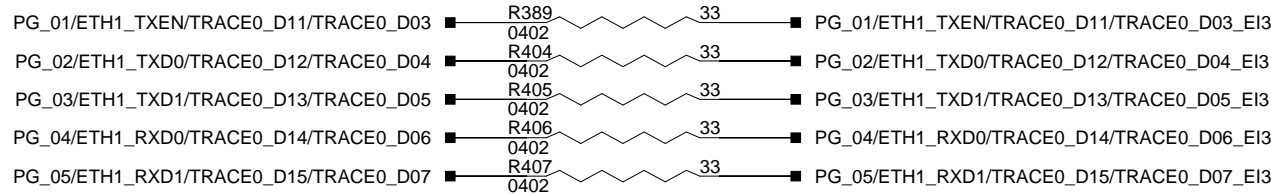
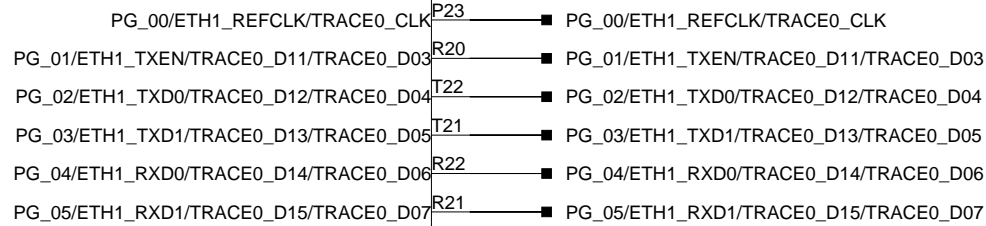
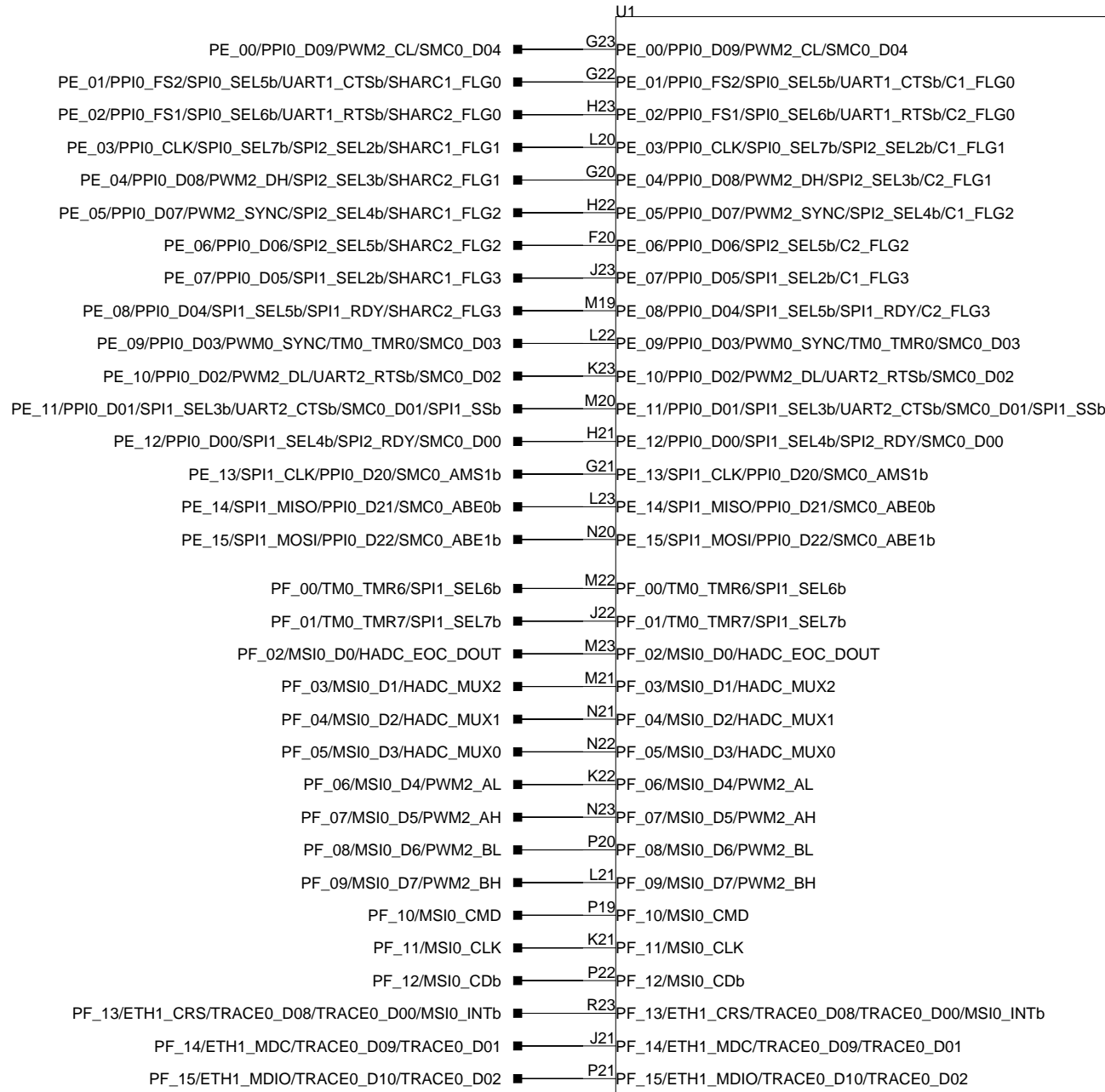
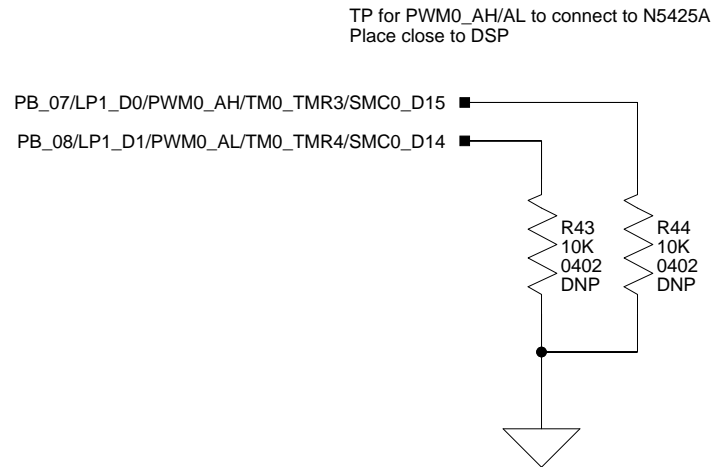
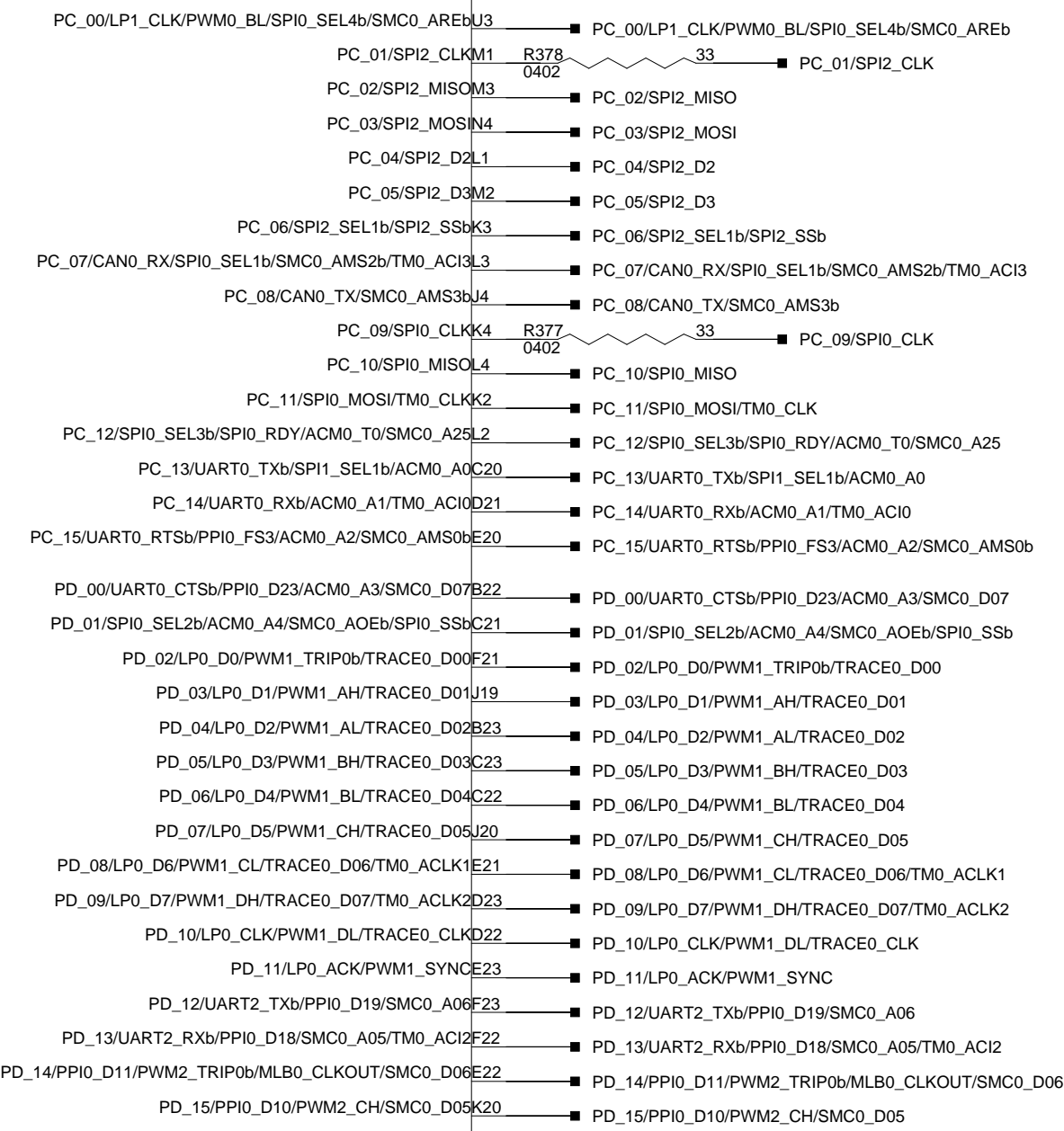
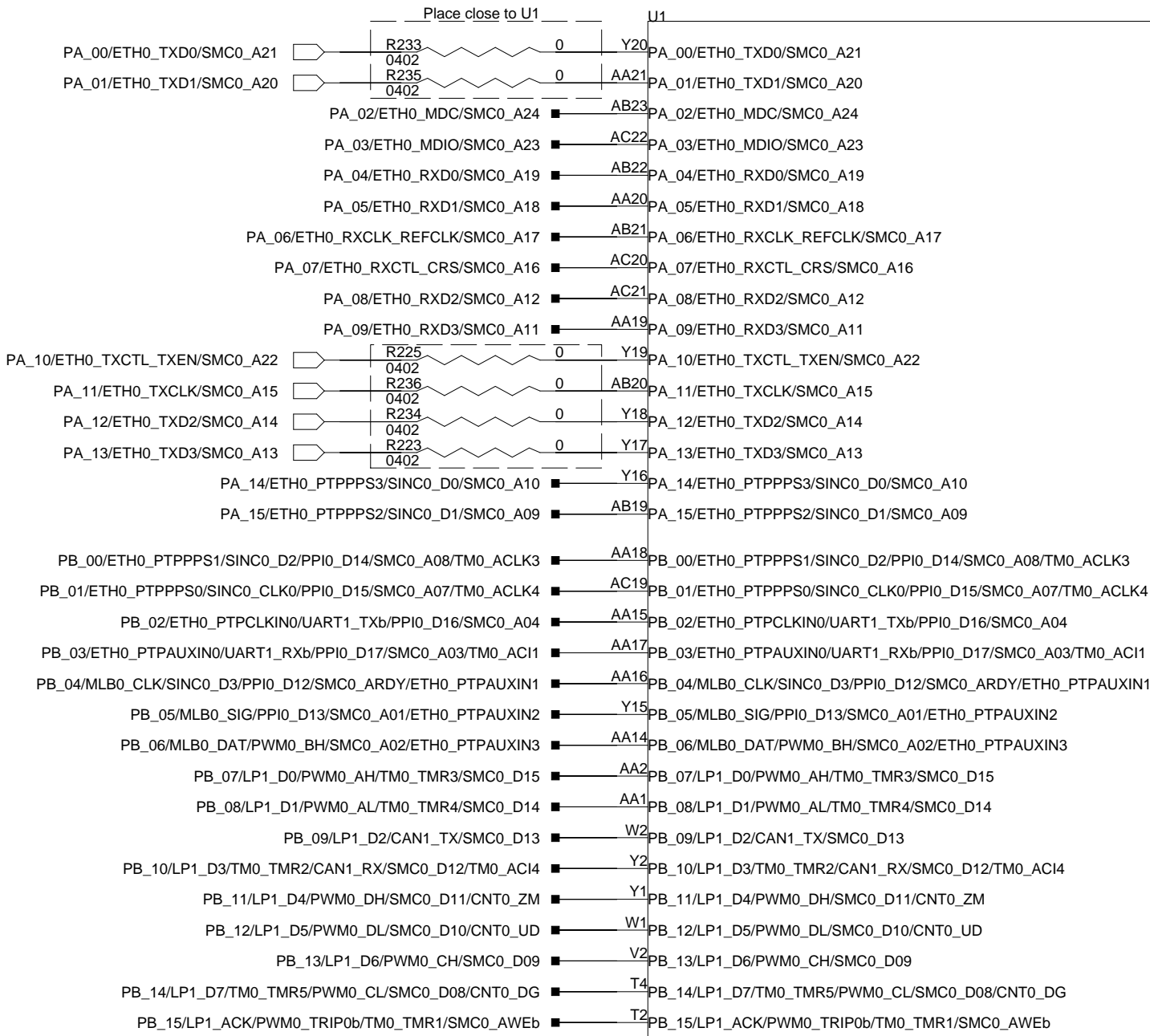



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC589 EZ-Board Non-Mux Ports			
Size C	Board No. A0447-2013		Rev 1.2
Date	3/17/16	Sheet 4	of 29

3

4

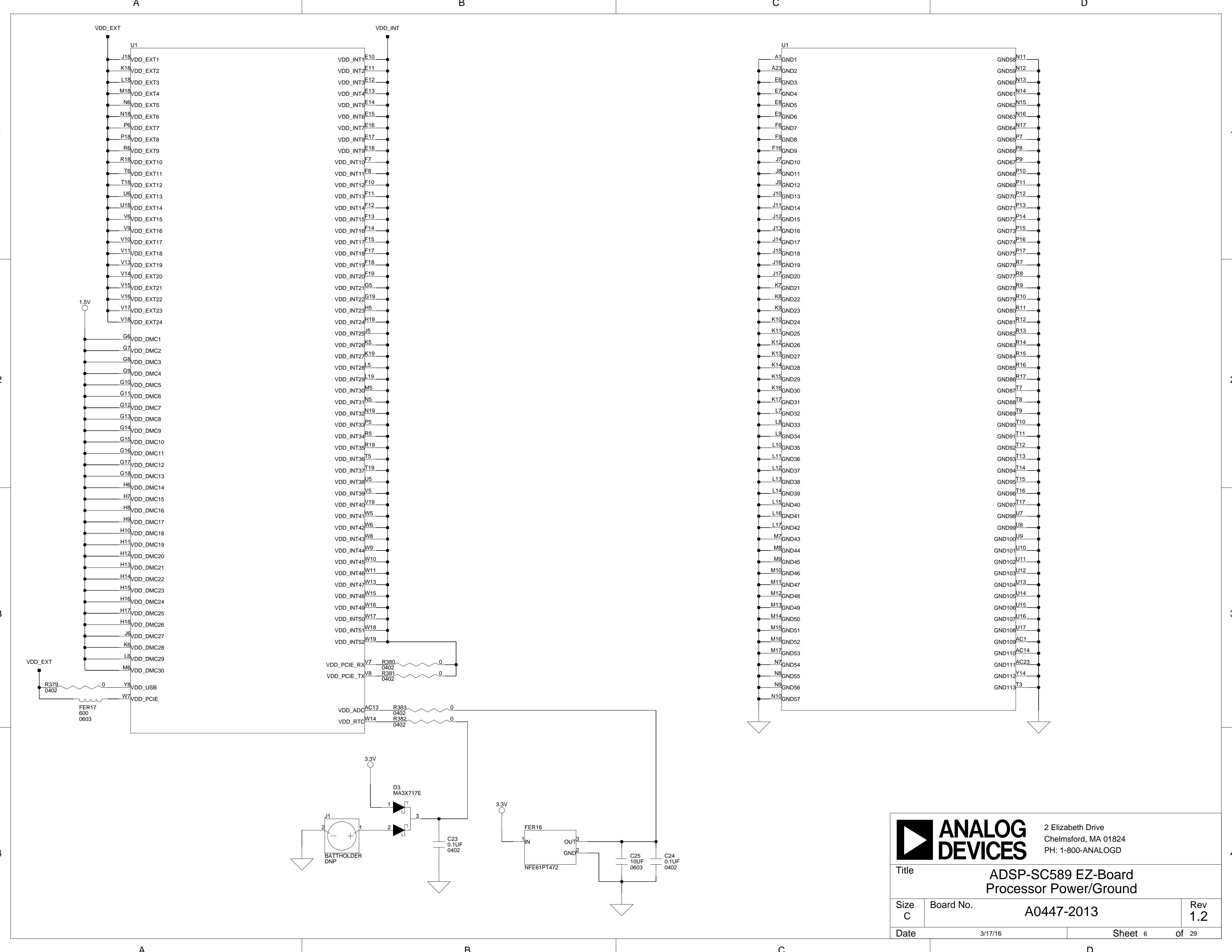
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2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGD

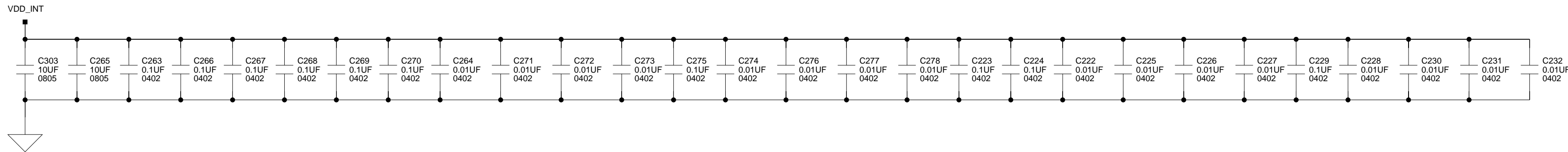
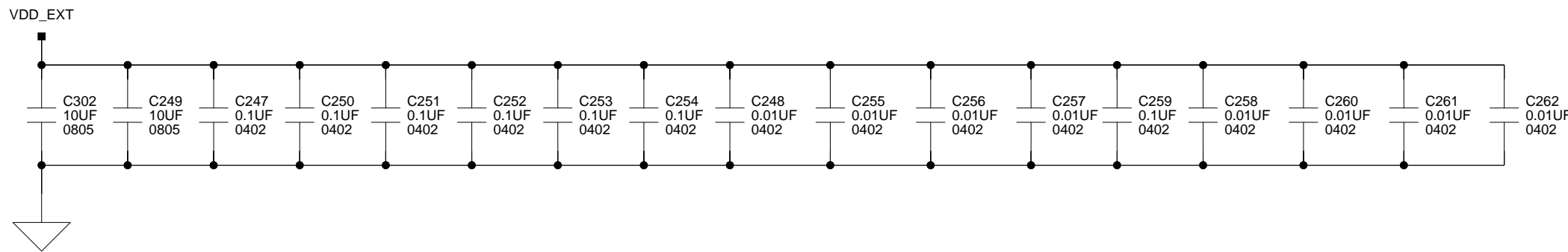
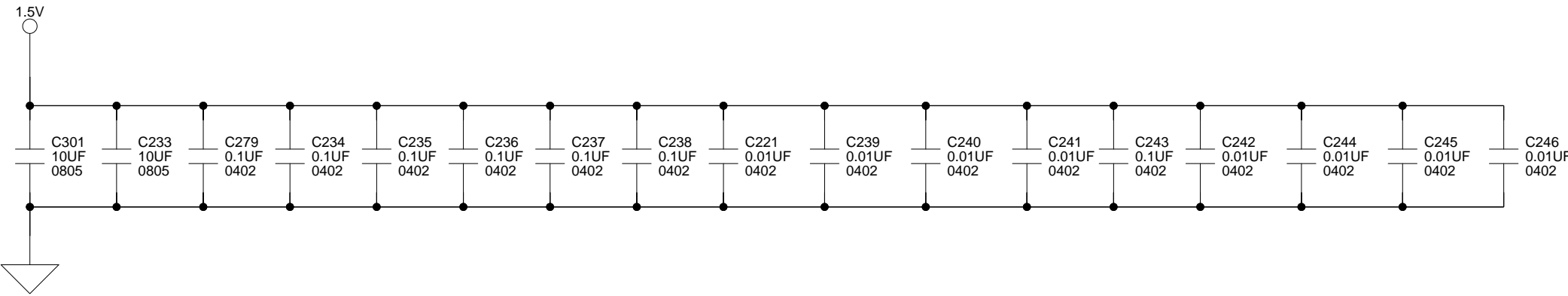
Title ADSP-SC589 EZ-Board Mux Ports		
Size C	Board No. A0447-2013	Rev 1.2
Date	3/17/16	Sheet 5 of 29





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

Title ADSP-SC589 EZ-Board Processor Power/Ground		
Size C	Board No. A0447-2013	Rev 1.2
Date	3/17/16	Sheet 6 of 29



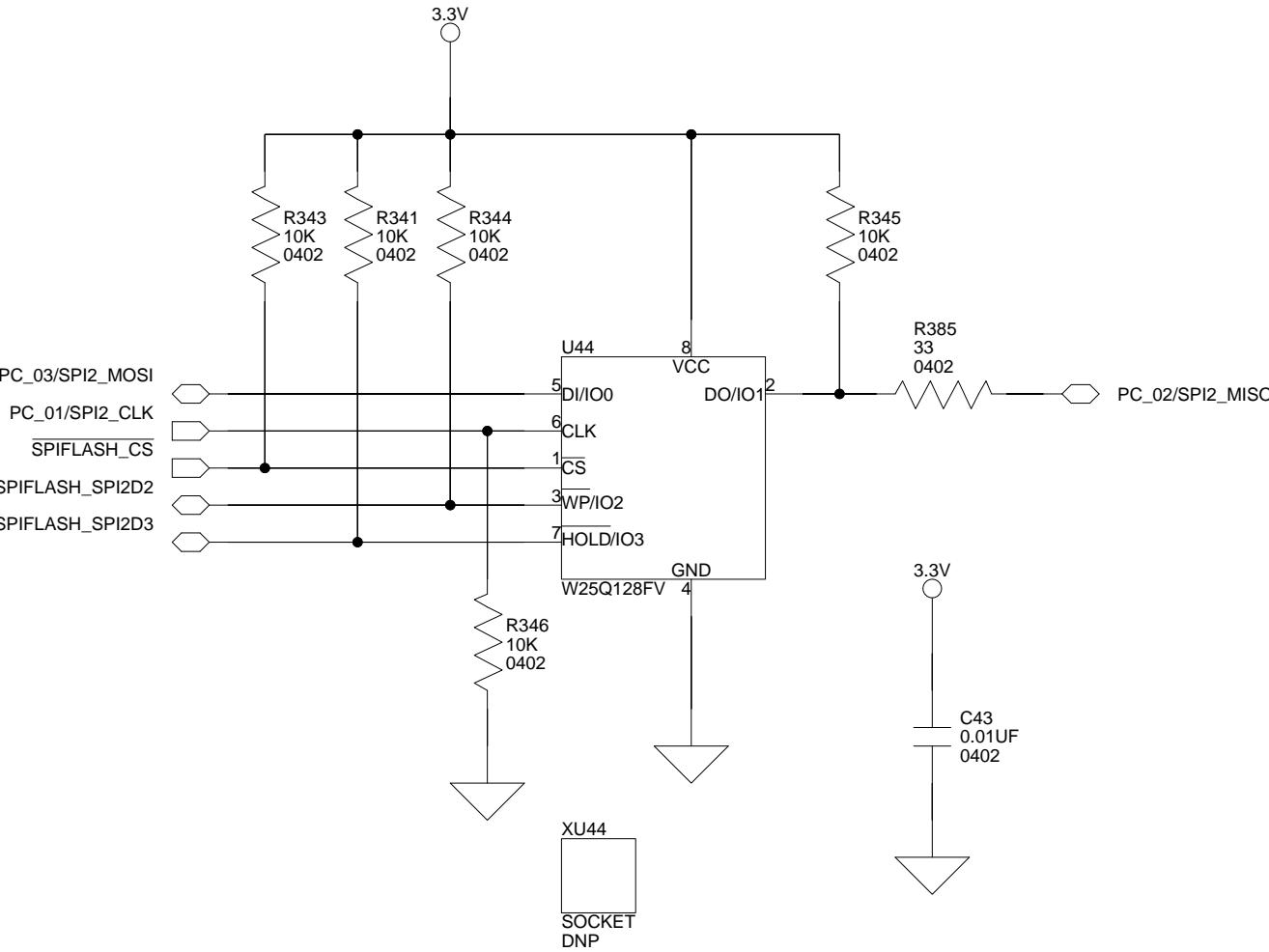
2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGD

Title ADSP-SC589 EZ-Board
Proc Bypass Caps

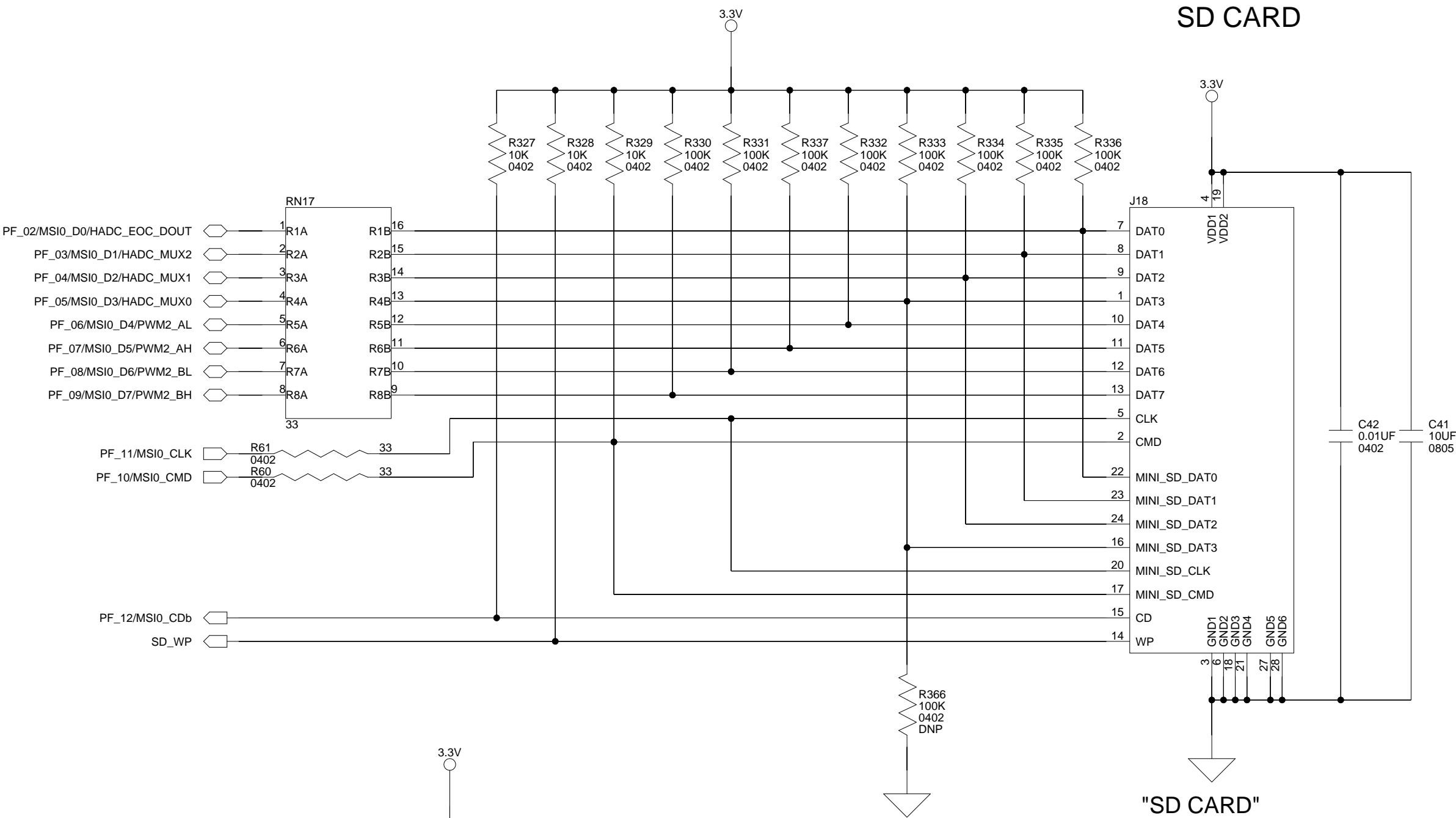
Size C Board No. A0447-2013 Rev 1.2

Date 3/17/16 Sheet 7 of 29

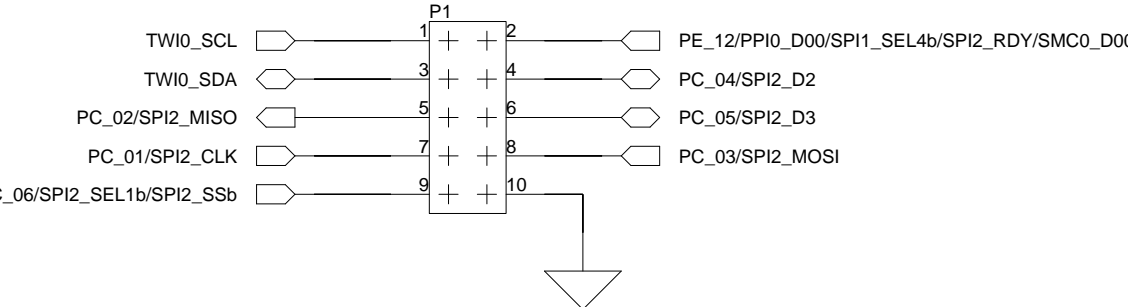
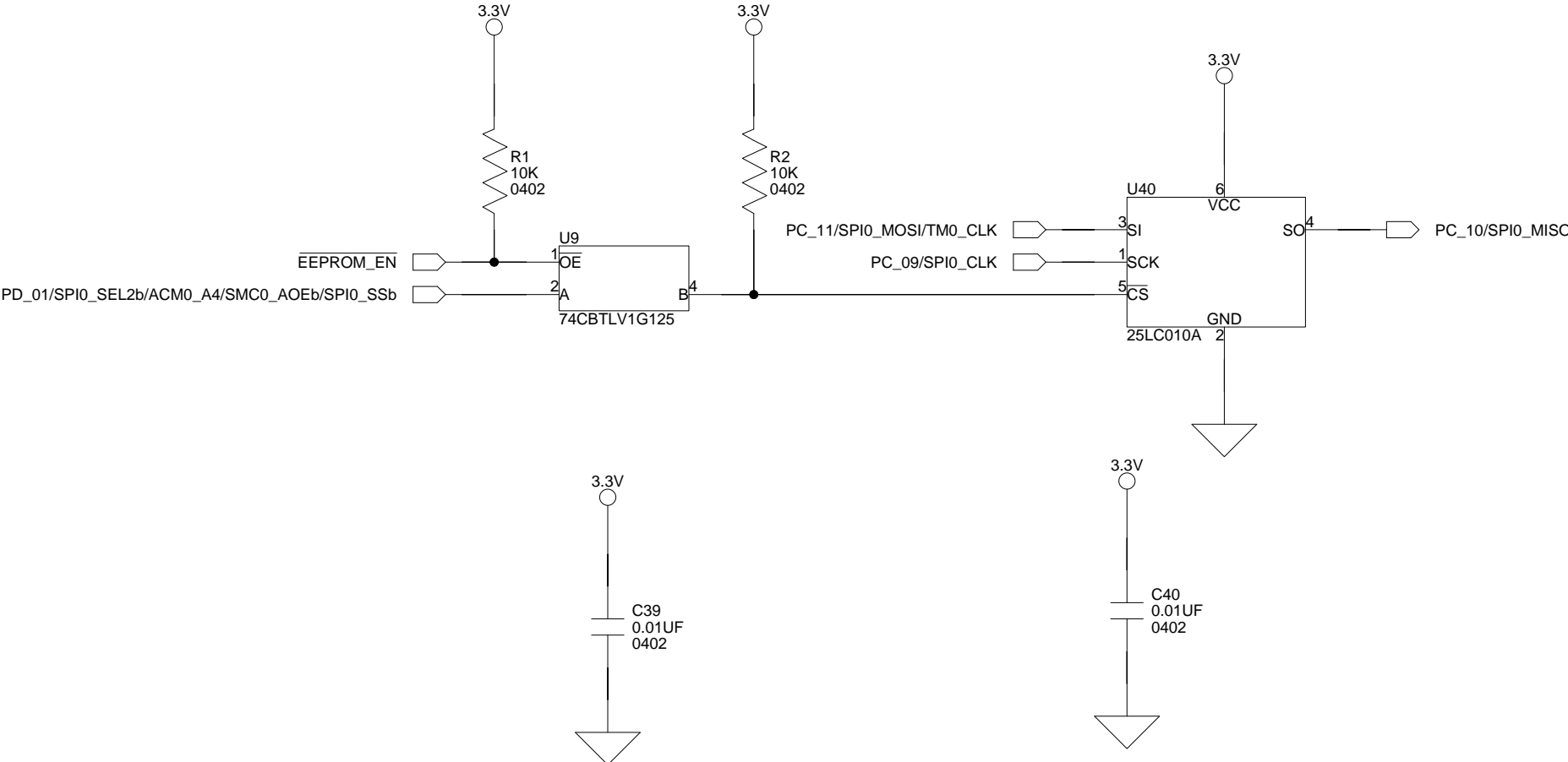
128Mb QUAD SPI FLASH




SD CARD



1Kb SPI EEPROM





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

Title ADSP-SC589 EZ-Board SPI Flash/SD		
Size C	Board No. A0447-2013	Rev 1.2
Date	3/17/16	Sheet 8 of 29

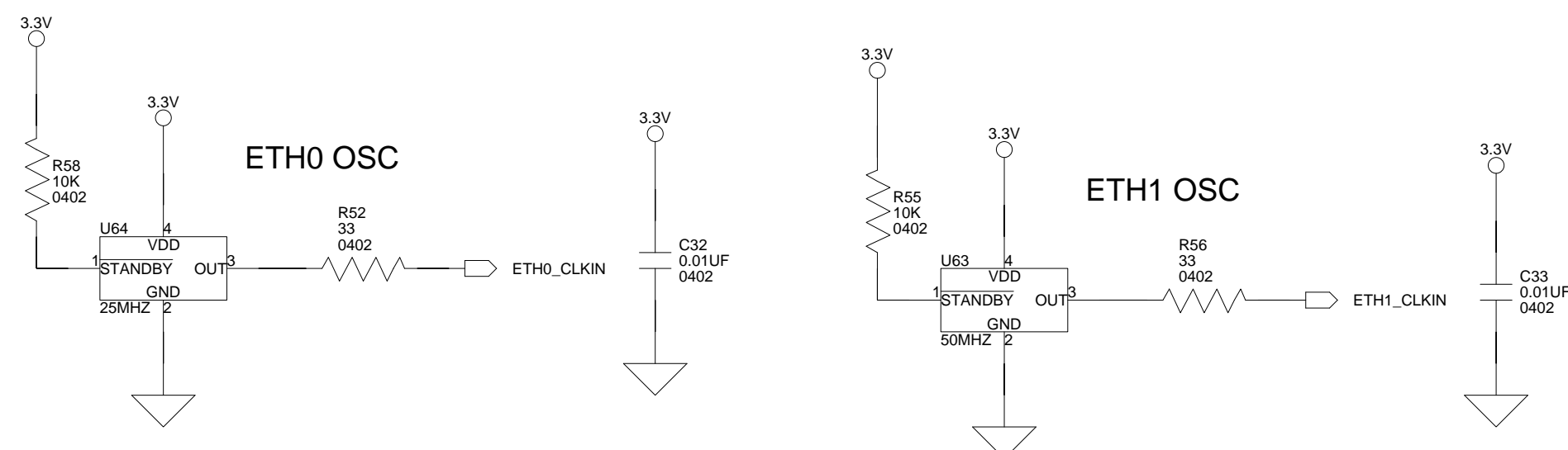
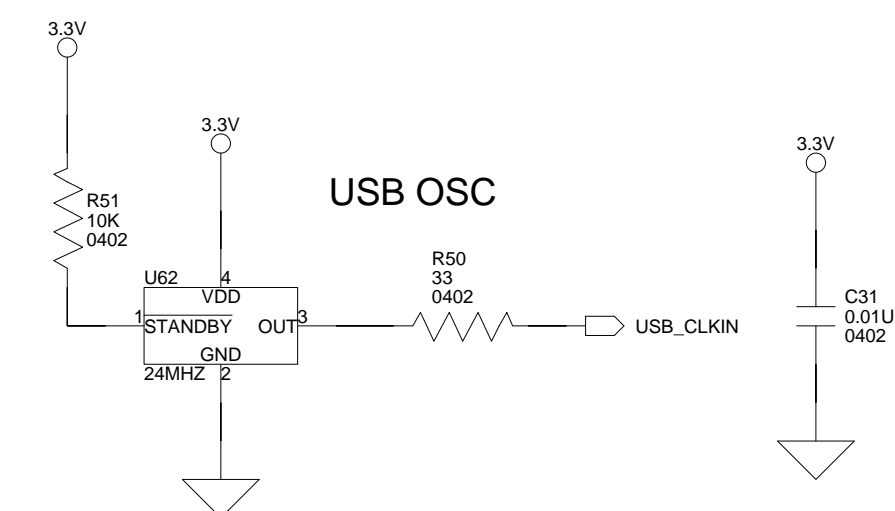
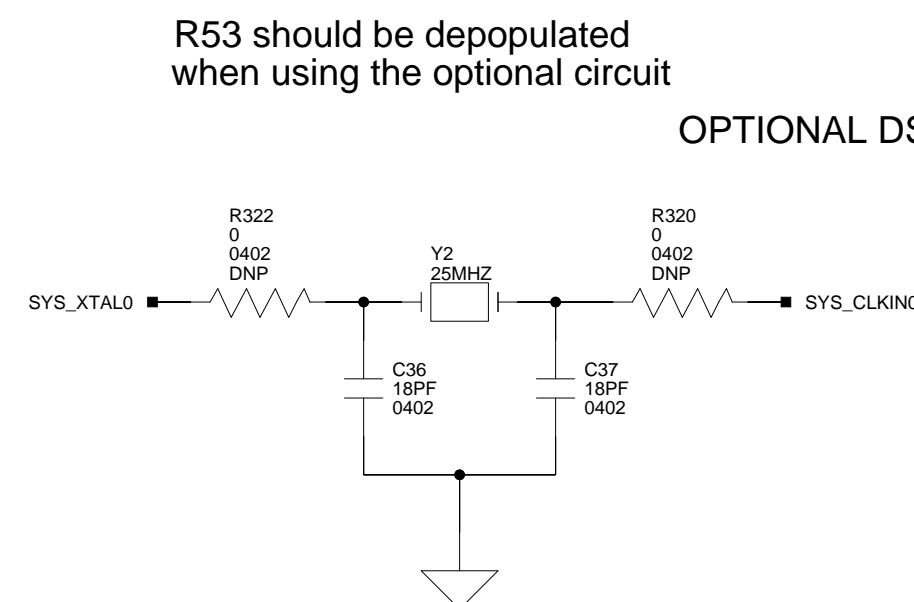
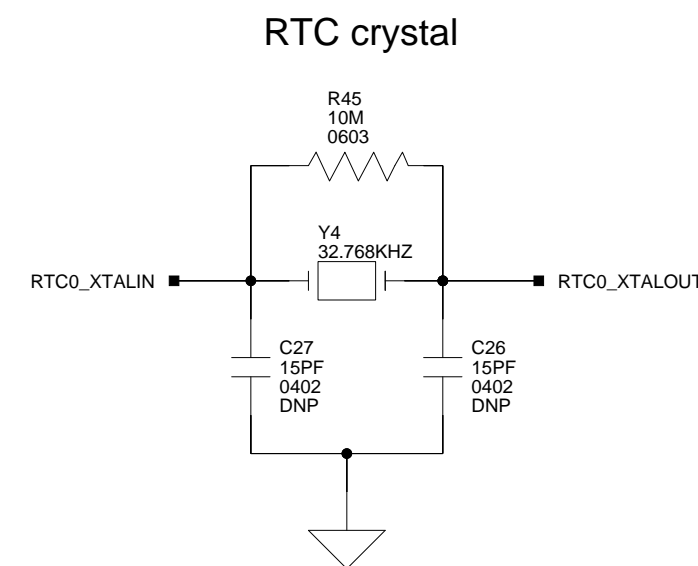
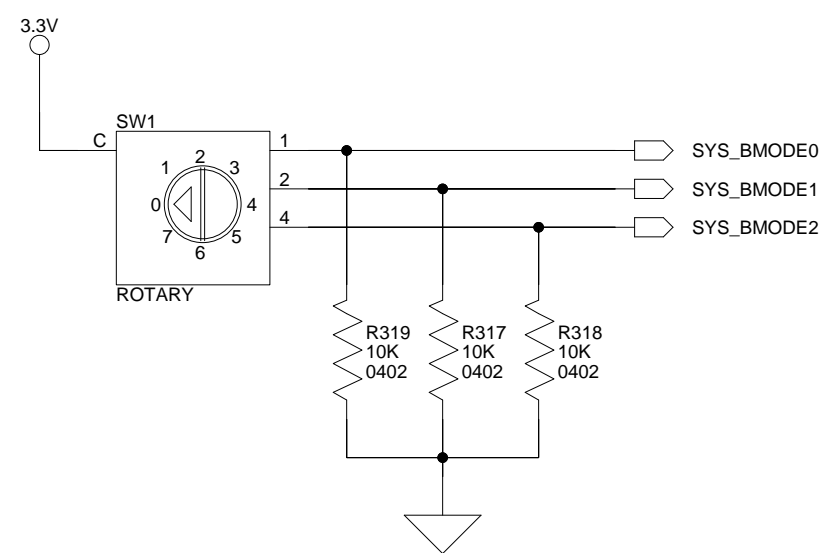


2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGD

Title
ADSP-SC589 EZ-Board
SPI Flash/SD

Size C	Board No. A0447-2013	Rev 1.2
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Date	3/17/16	Sheet 8 of 29
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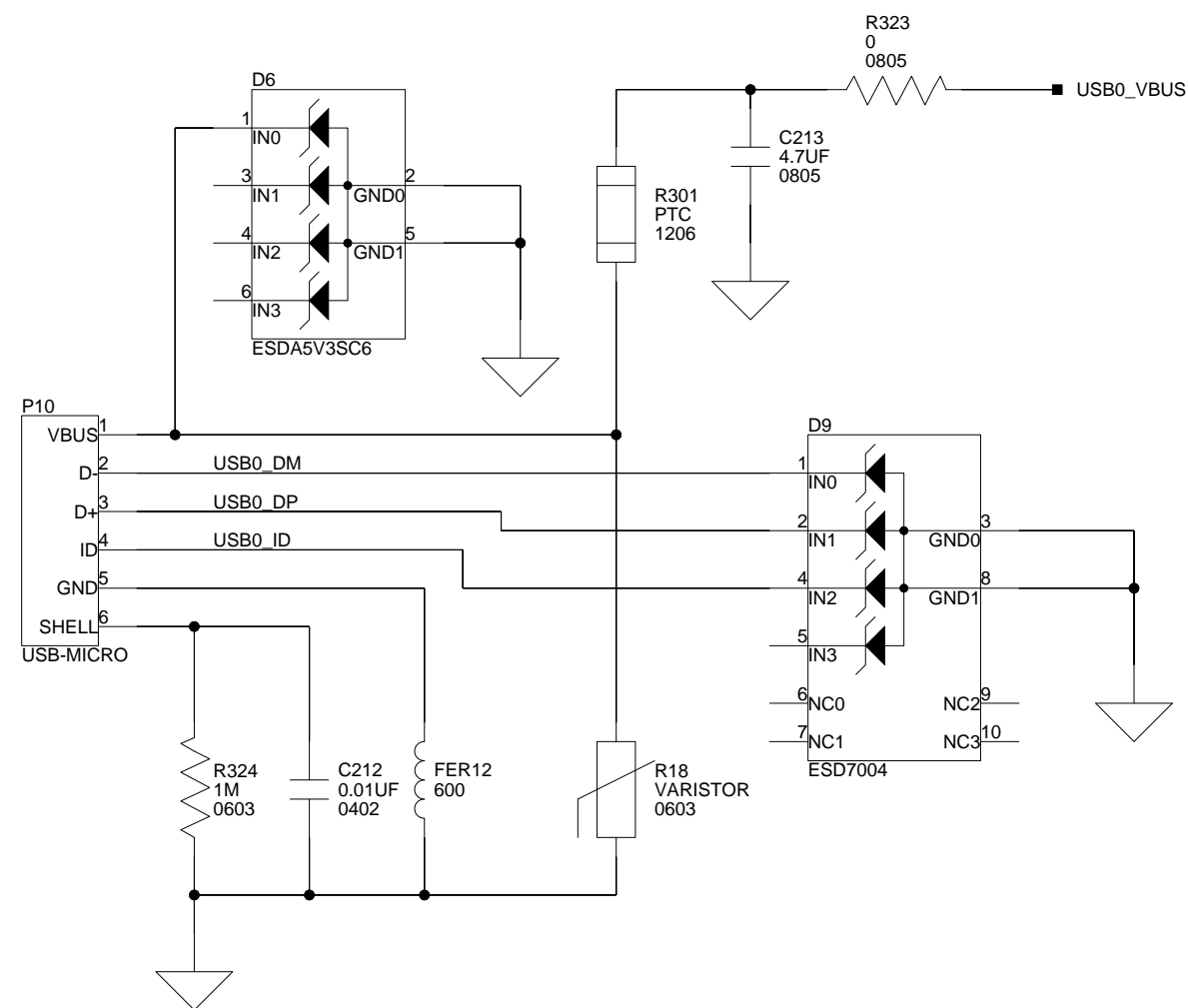
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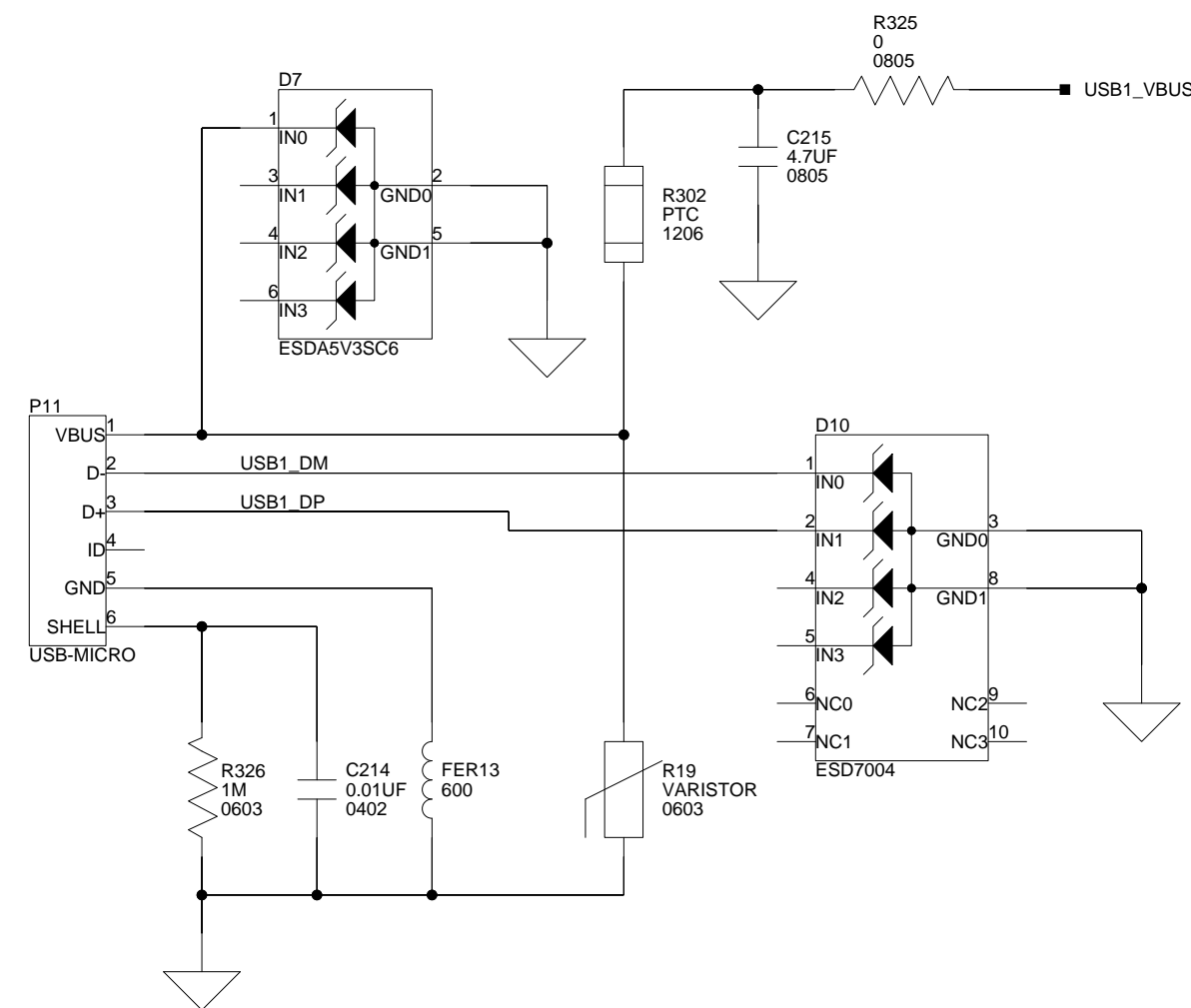
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"USB OTG"
HOST/DEVICE



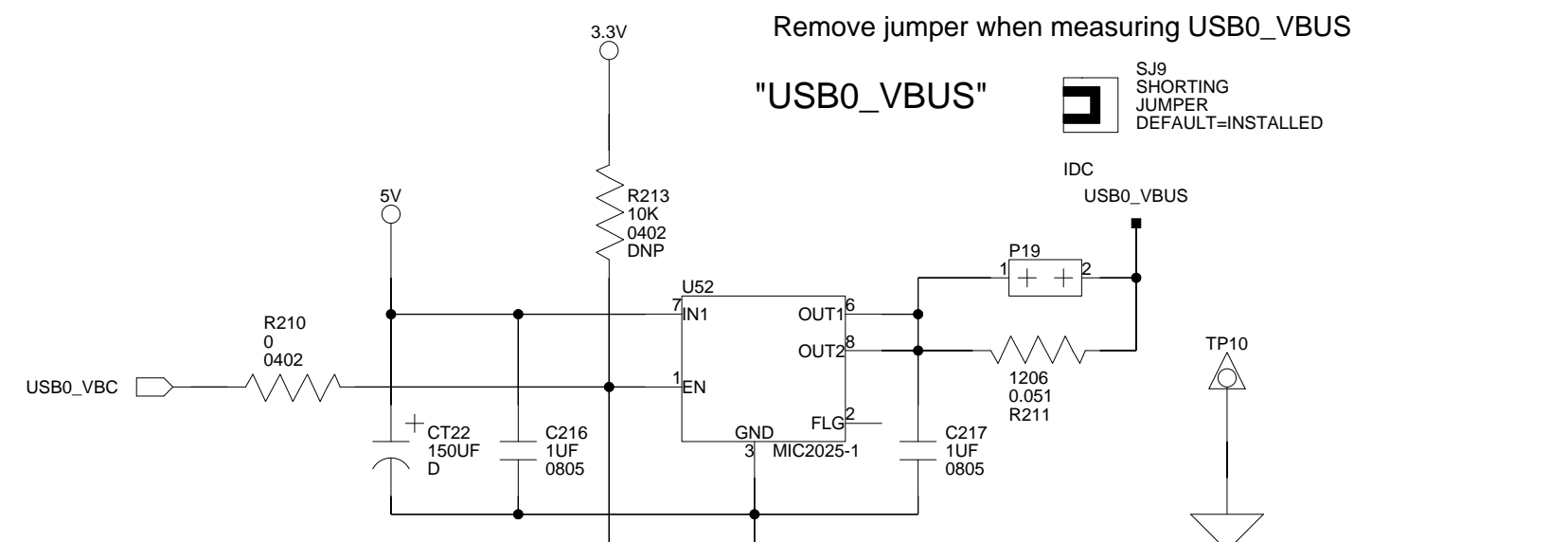
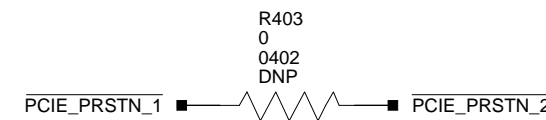
"USB HS"
DEVICE



Remove jumper when measuring USB0_VBUS

"USB0_VBUS"

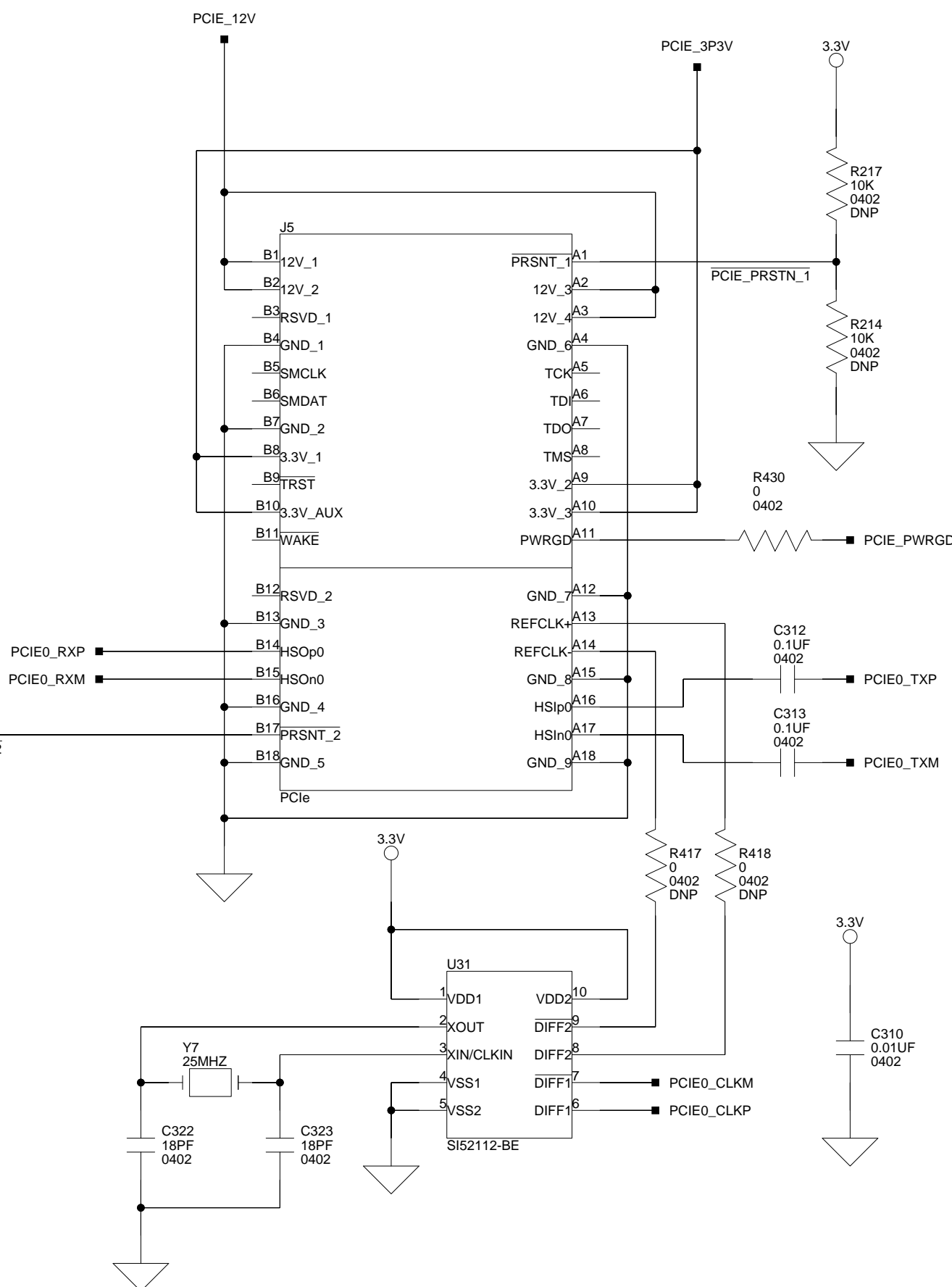
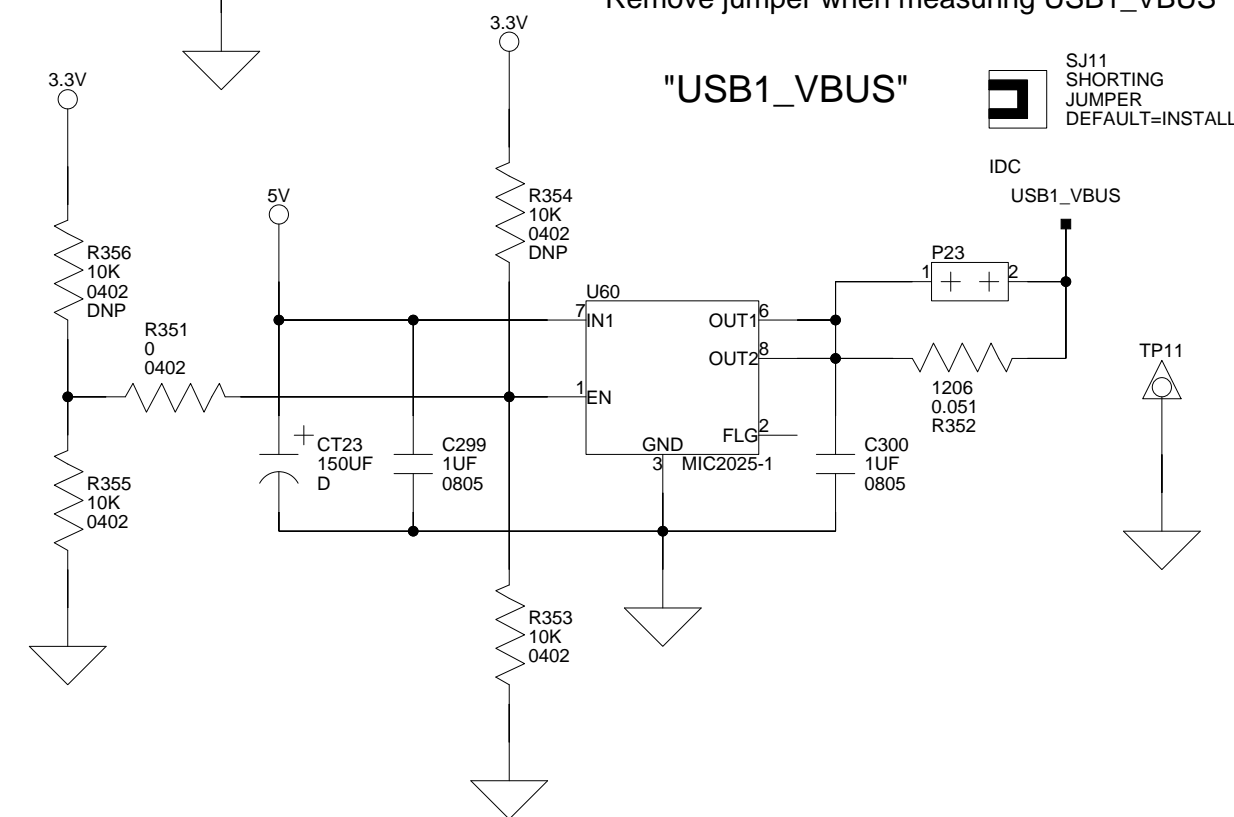
SJ9
SHORTING
JUMPER
DEFAULT=INSTALLED

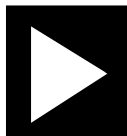


Remove jumper when measuring USB1_VBUS

"USB1_VBUS"

SJ11
SHORTING
JUMPER
DEFAULT=INSTALLED



		ANALOG DEVICES		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC589 EZ-Board USB/PCle					
Size C	Board No. A0447-2013			Rev 1.2	
Date	3/17/16		Sheet 10 of 29		

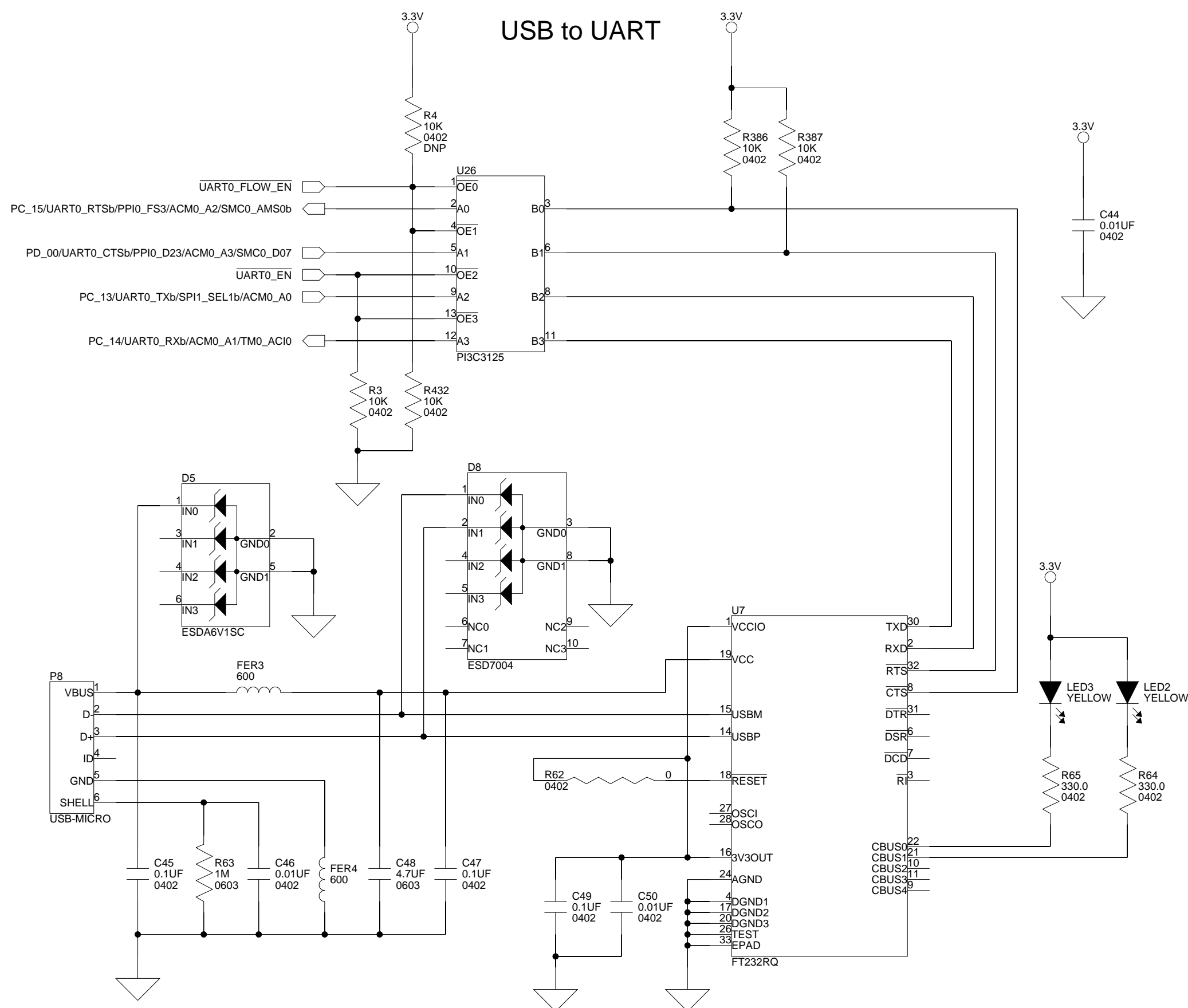
1

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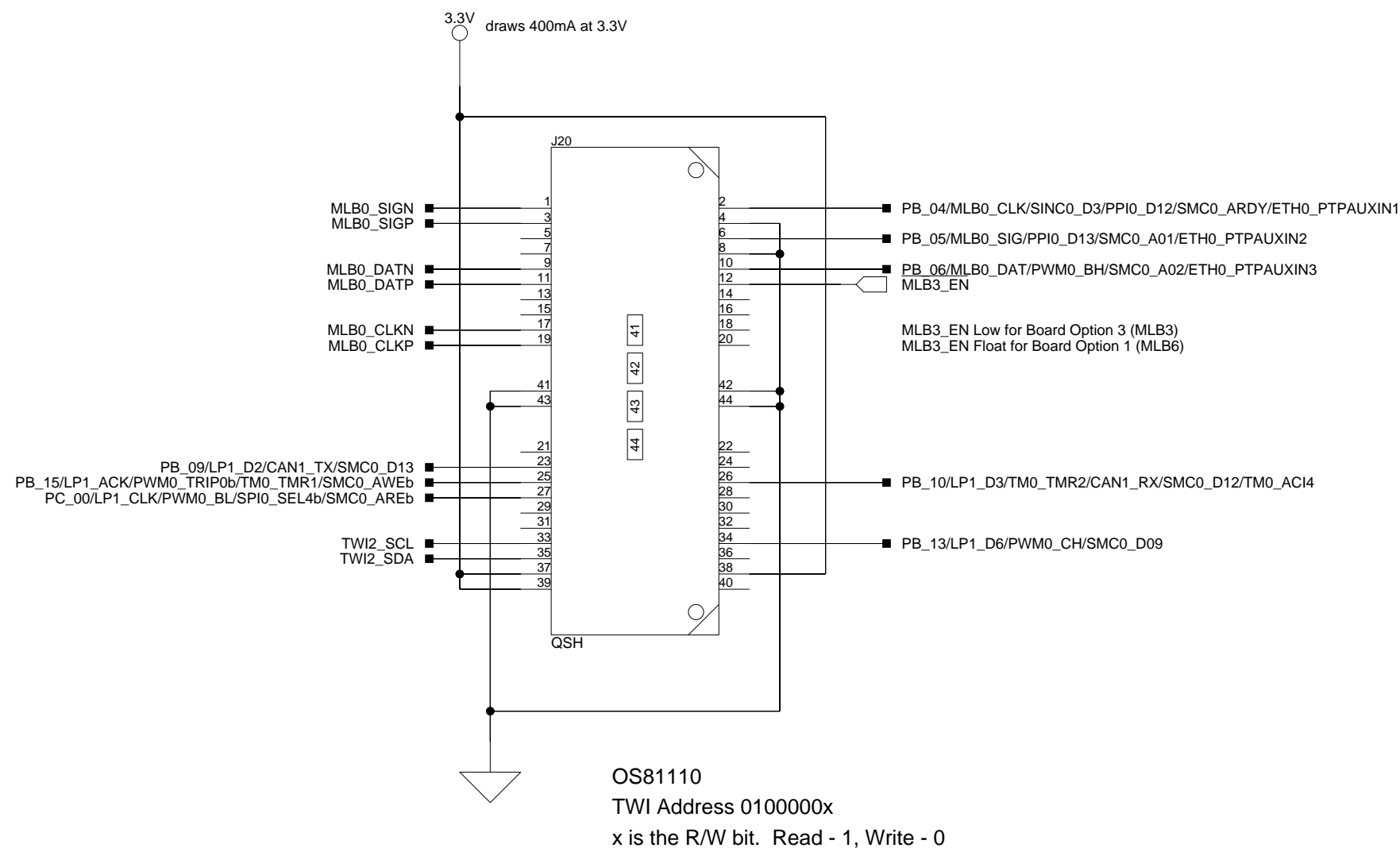
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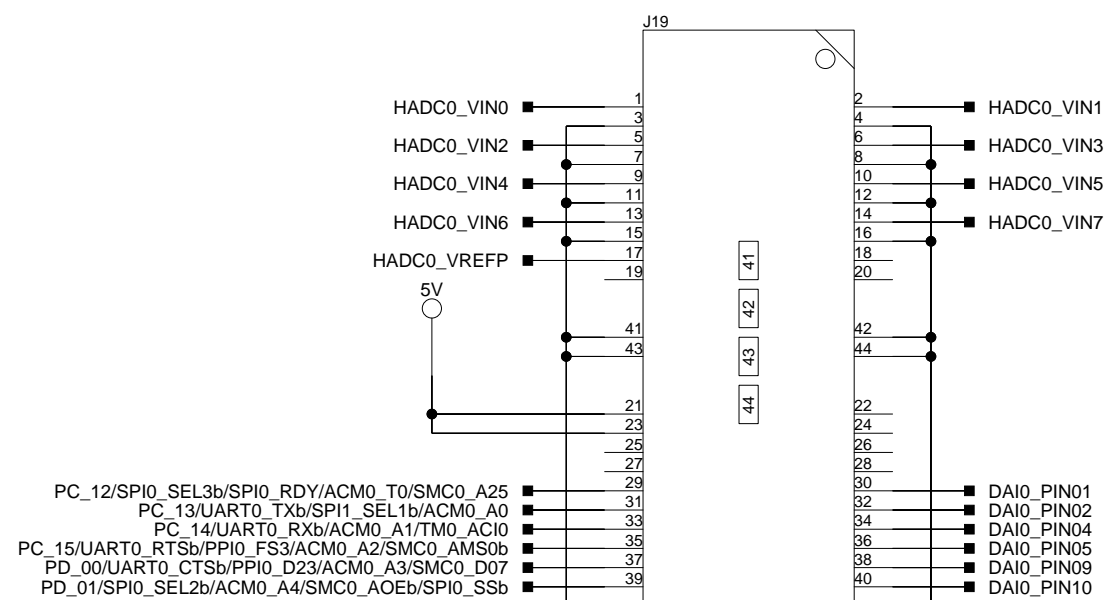
USB to UART



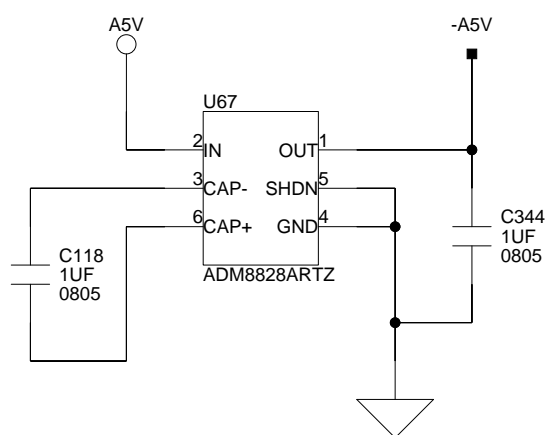
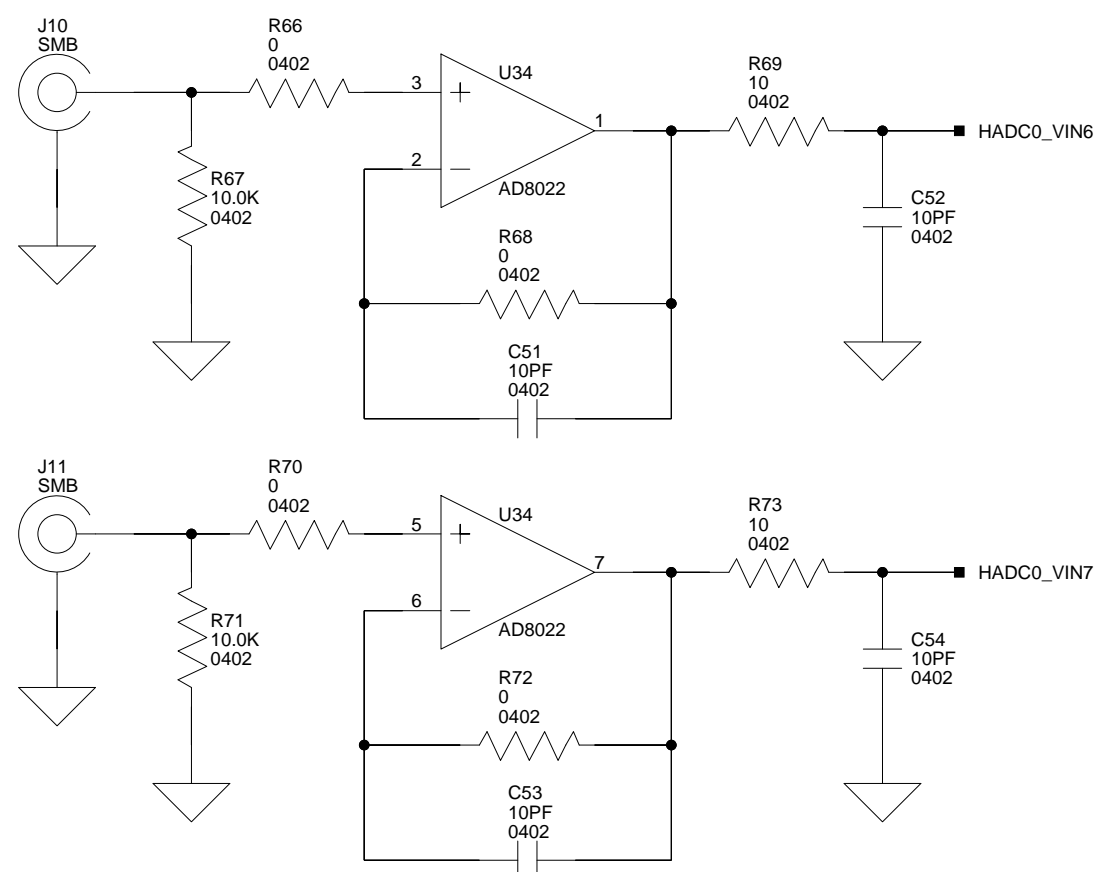
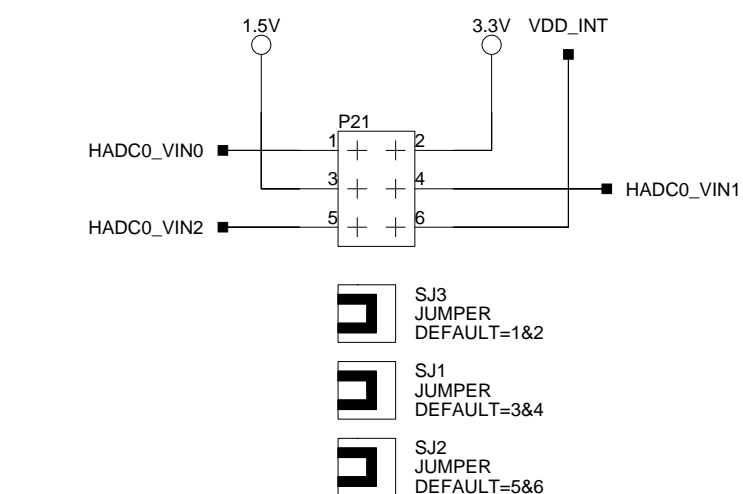
MLB 3/6

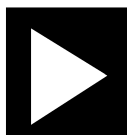


ADC Connector



HADC Connectors





ANALOG
DEVICES

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

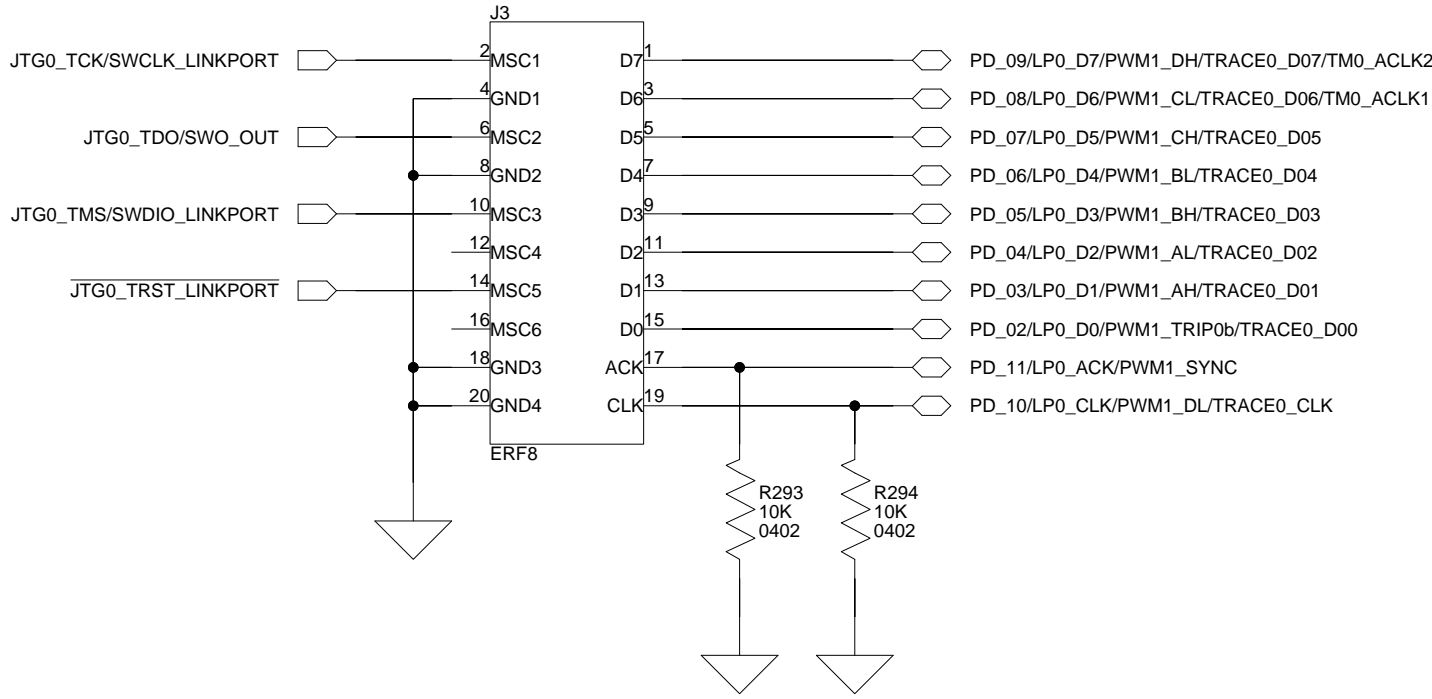
Title

ADSP-SC589 EZ-Board
UART/MOST/HADC

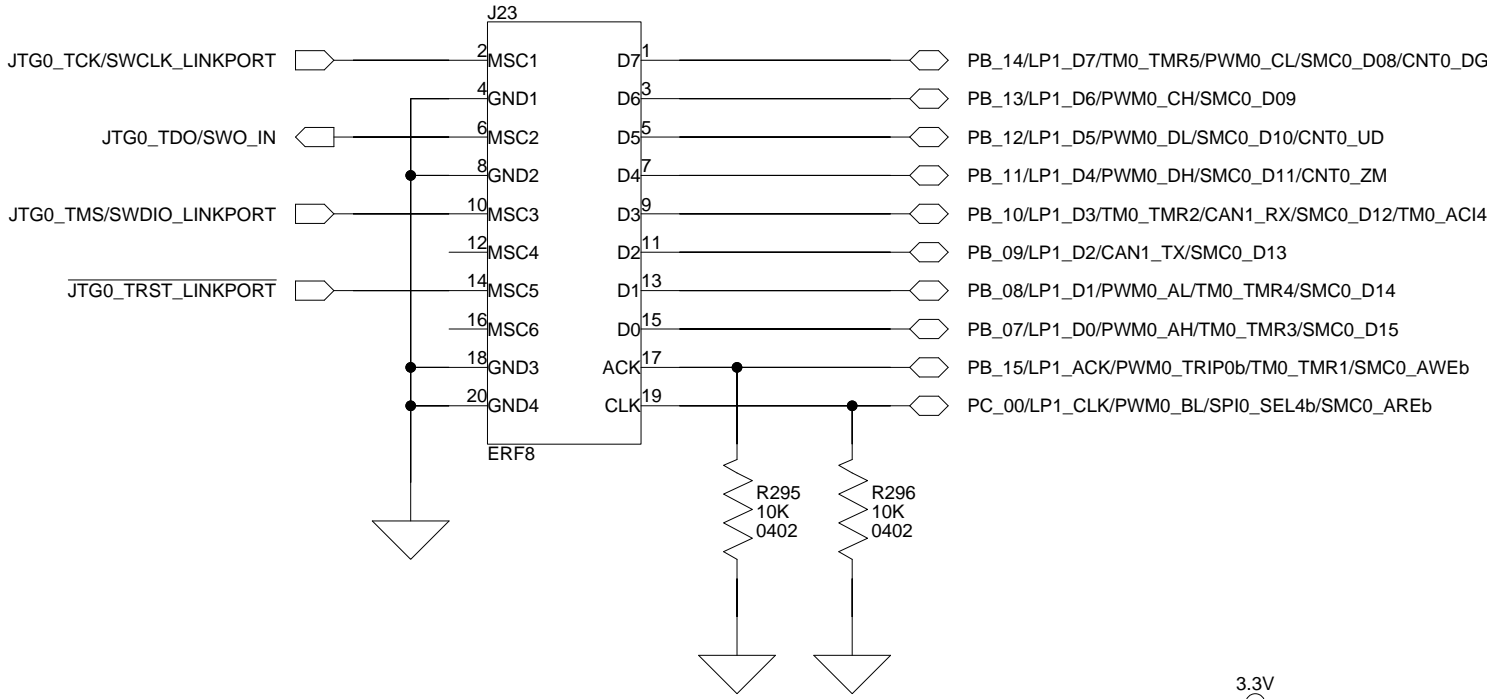
Size C	Board No. A0447-2013	Rev 1.2
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Date	3/17/16	Sheet 11 of 29
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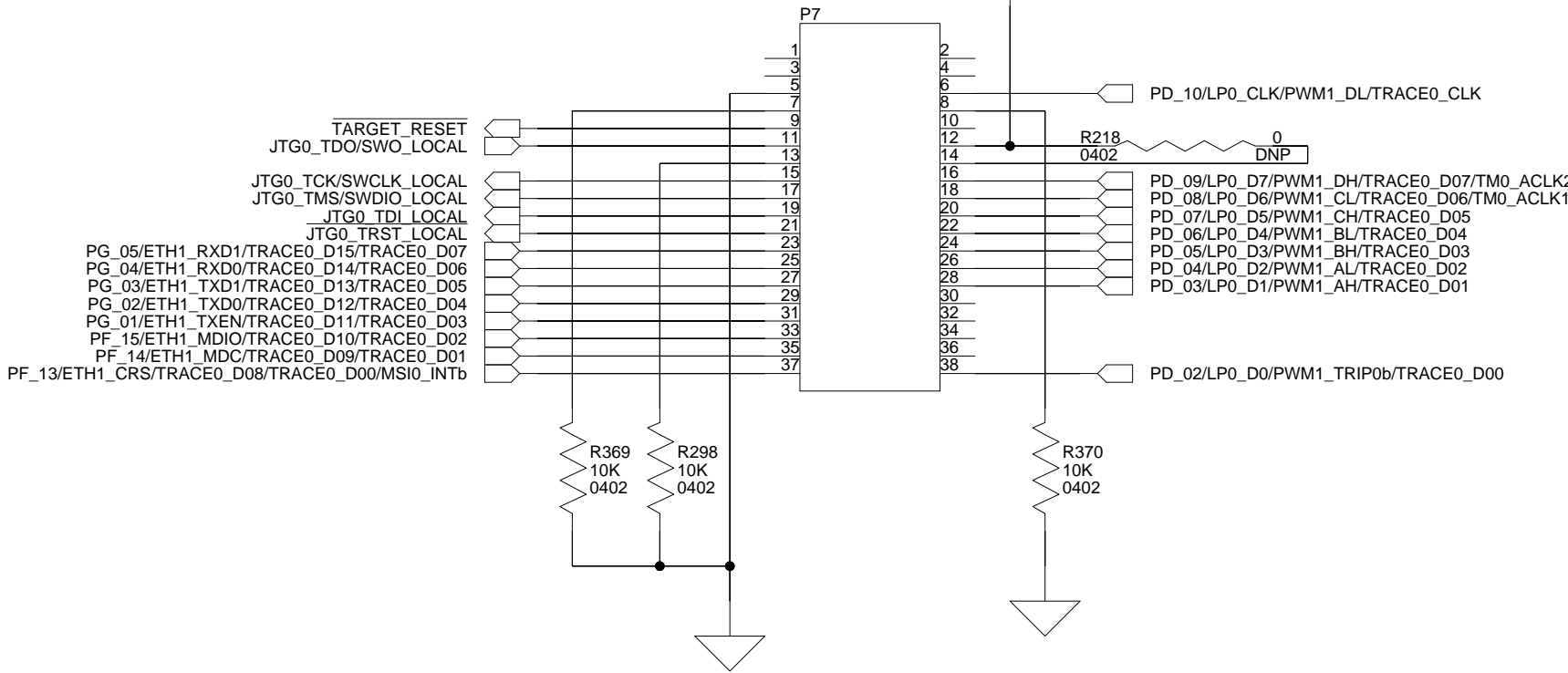
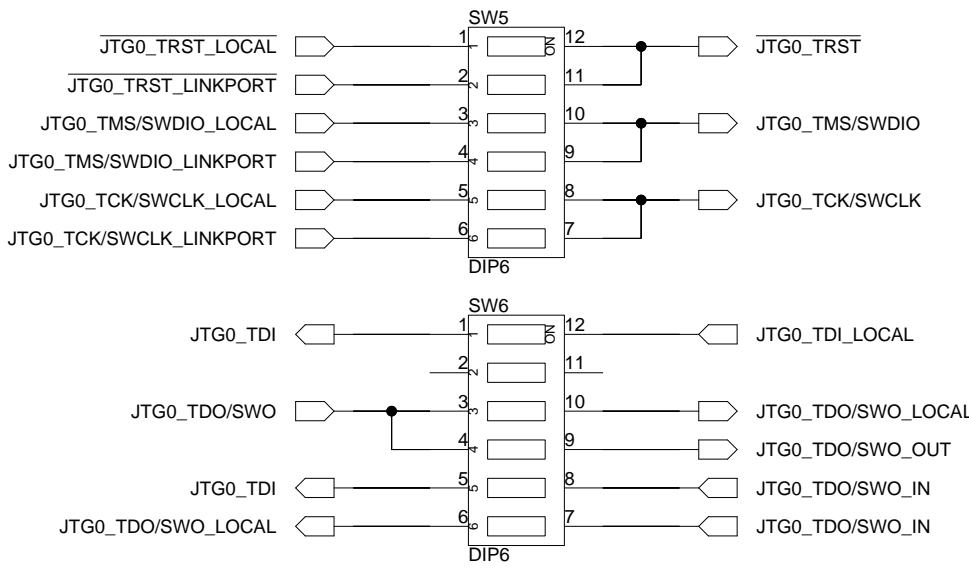
LINK PORT 0 / JTAG OUT



LINK PORT 1 / JTAG IN



JTAG SWITCHES

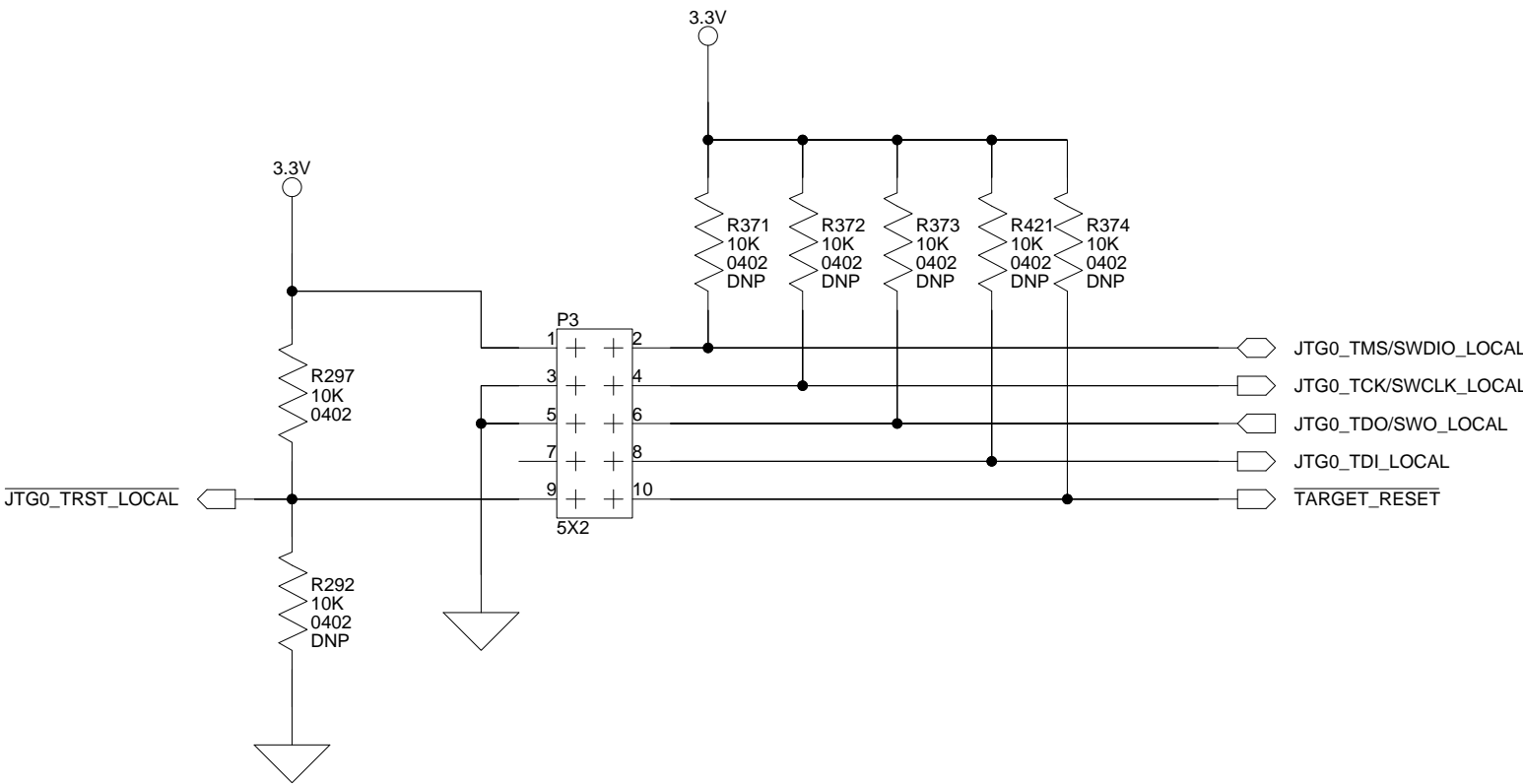


SINGLE PROCESSOR JTAG SETTINGS
EMULATOR OR DEBUG AGENT (DEFAULT)

BOARD ATTACHED	
SWITCH	TO EMULATOR
SW?.1	ON
SW?.2	OFF
SW?.3	ON
SW?.4	OFF
SW?.5	ON
SW?.6	OFF
SW?.1	ON
SW?.2	OFF
SW?.3	ON
SW?.4	OFF
SW?.5	OFF
SW?.6	OFF

MULTI PROCESSOR JTAG SETTINGS
USING TWO OR MORE EZ-BOARDS (LINK PORT CABLES
REQUIRED FOR MORE THAN TWO BOARDS)

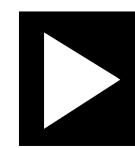
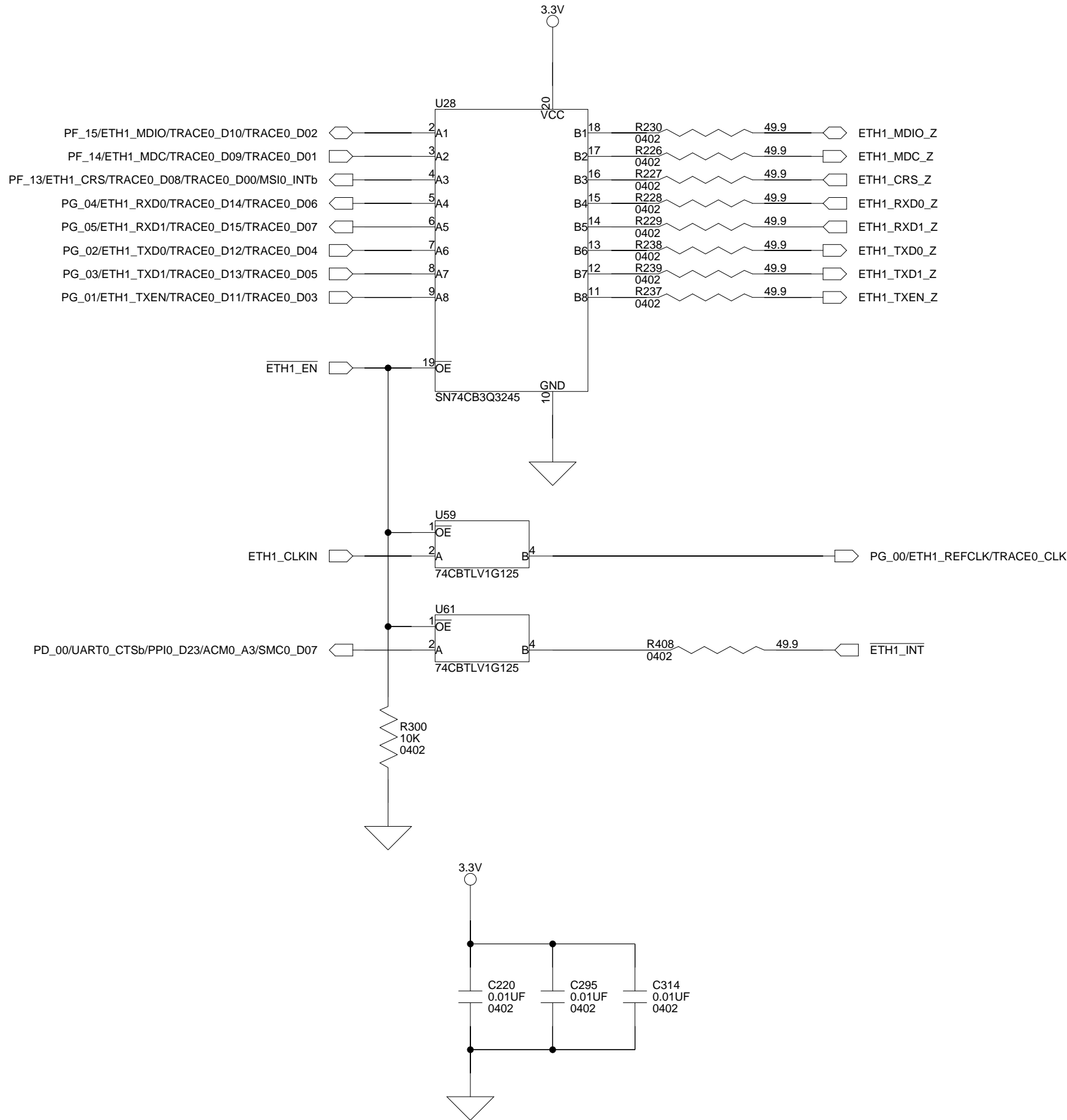
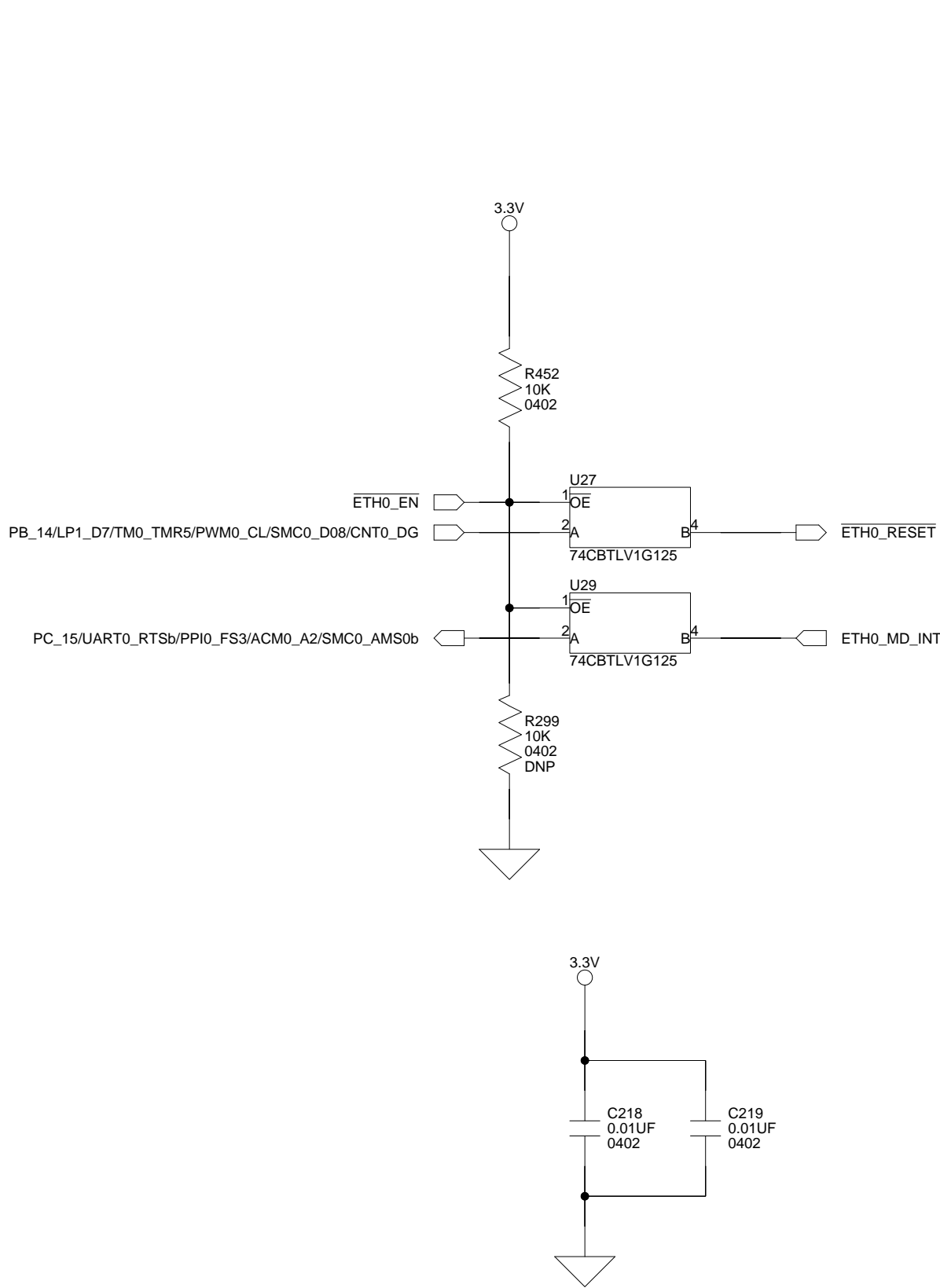
BOARD ATTACHED		BOARD(S) NOT ATTACHED
SWITCH	TO EMULATOR	TO EMULATOR
SW?.1	ON	OFF
SW?.2	ON	ON
SW?.3	ON	OFF
SW?.4	ON	ON
SW?.5	ON	OFF
SW?.6	ON	ON
SW?.1	ON	OFF
SW?.2	OFF	OFF
SW?.3	OFF	OFF
SW?.4	ON	ON
SW?.5	OFF	ON
SW?.6	ON	OFF



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

Title ADSP-SC589 EZ-Board
Link Port/Debug

Size C	Board No. A0447-2013	Rev 1.2
Date 3/17/16	Sheet 13	of 29



**ANALOG
DEVICES**

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

Title **ADSP-SC589 EZ-Board
EMAC Switching**

Size
C

Board No.

A0447-2013

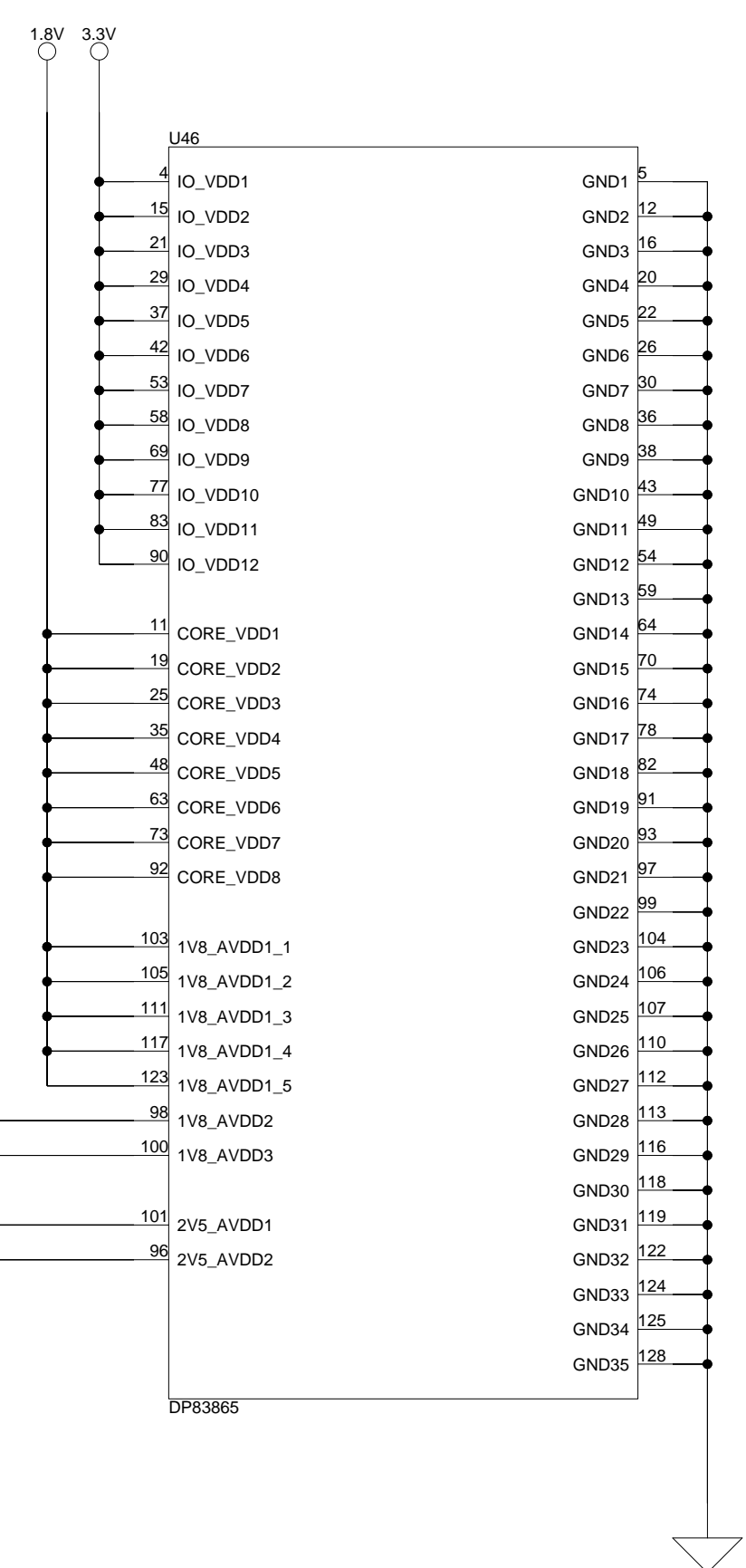
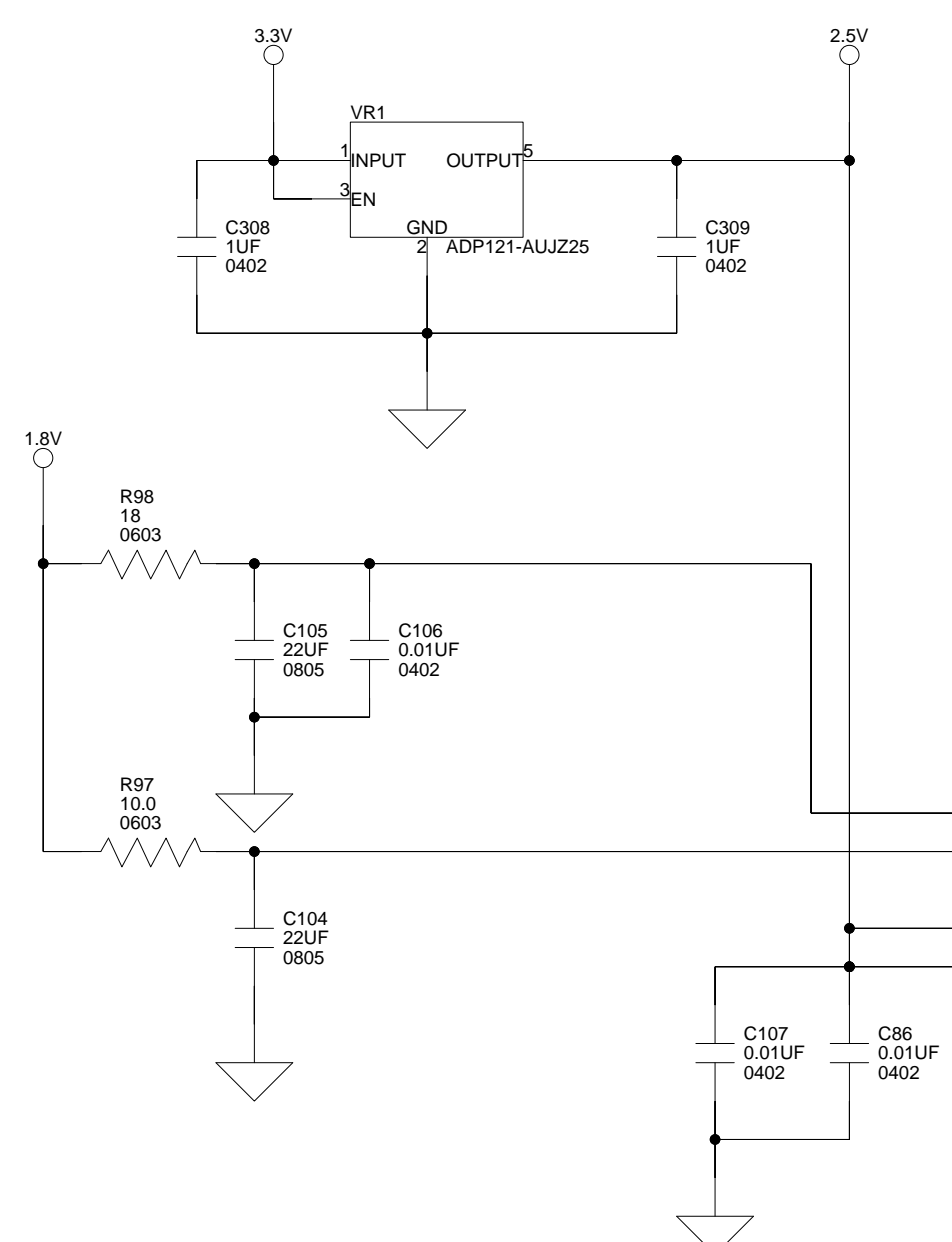
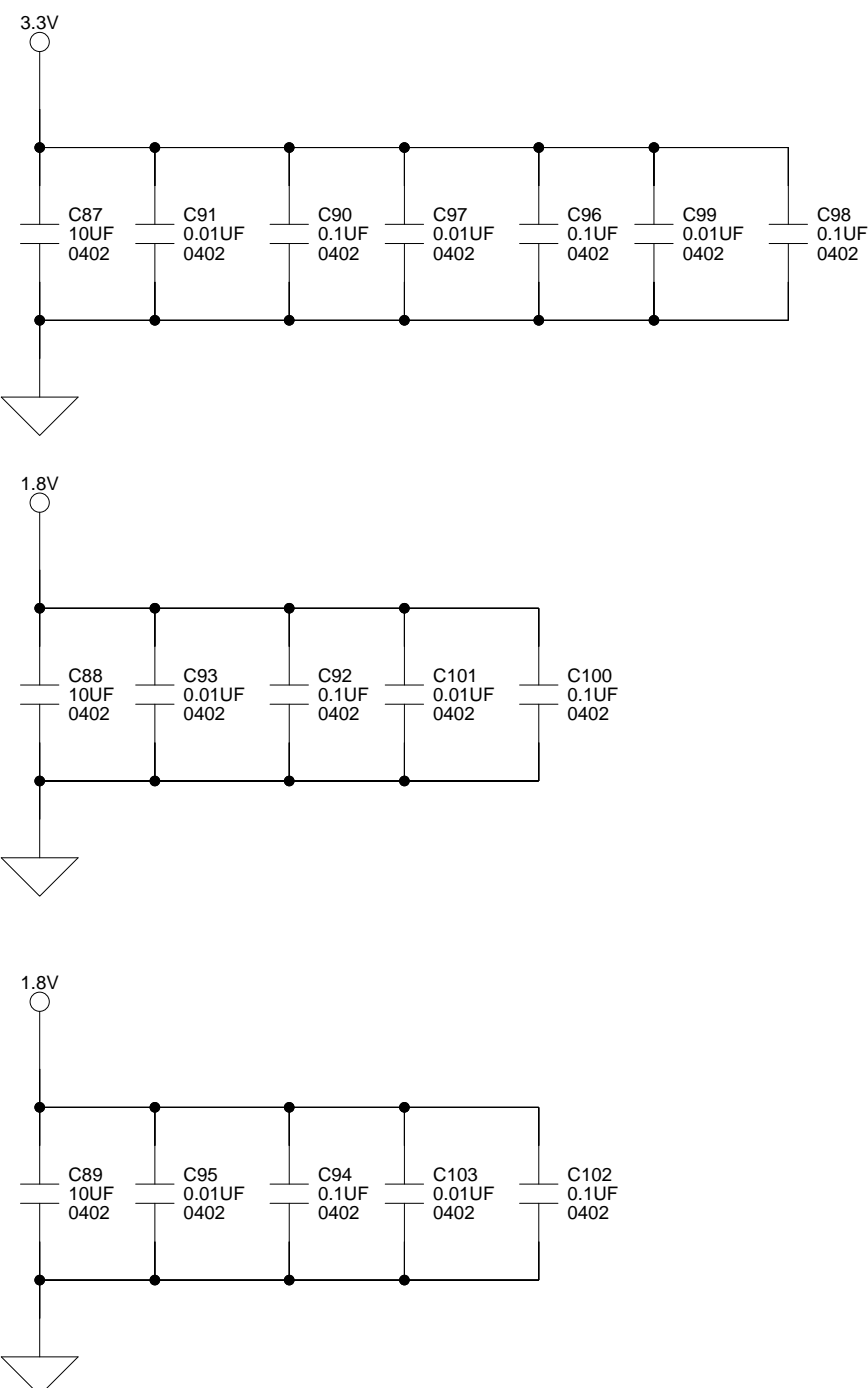
Rev
1.2

Date

3/17/16

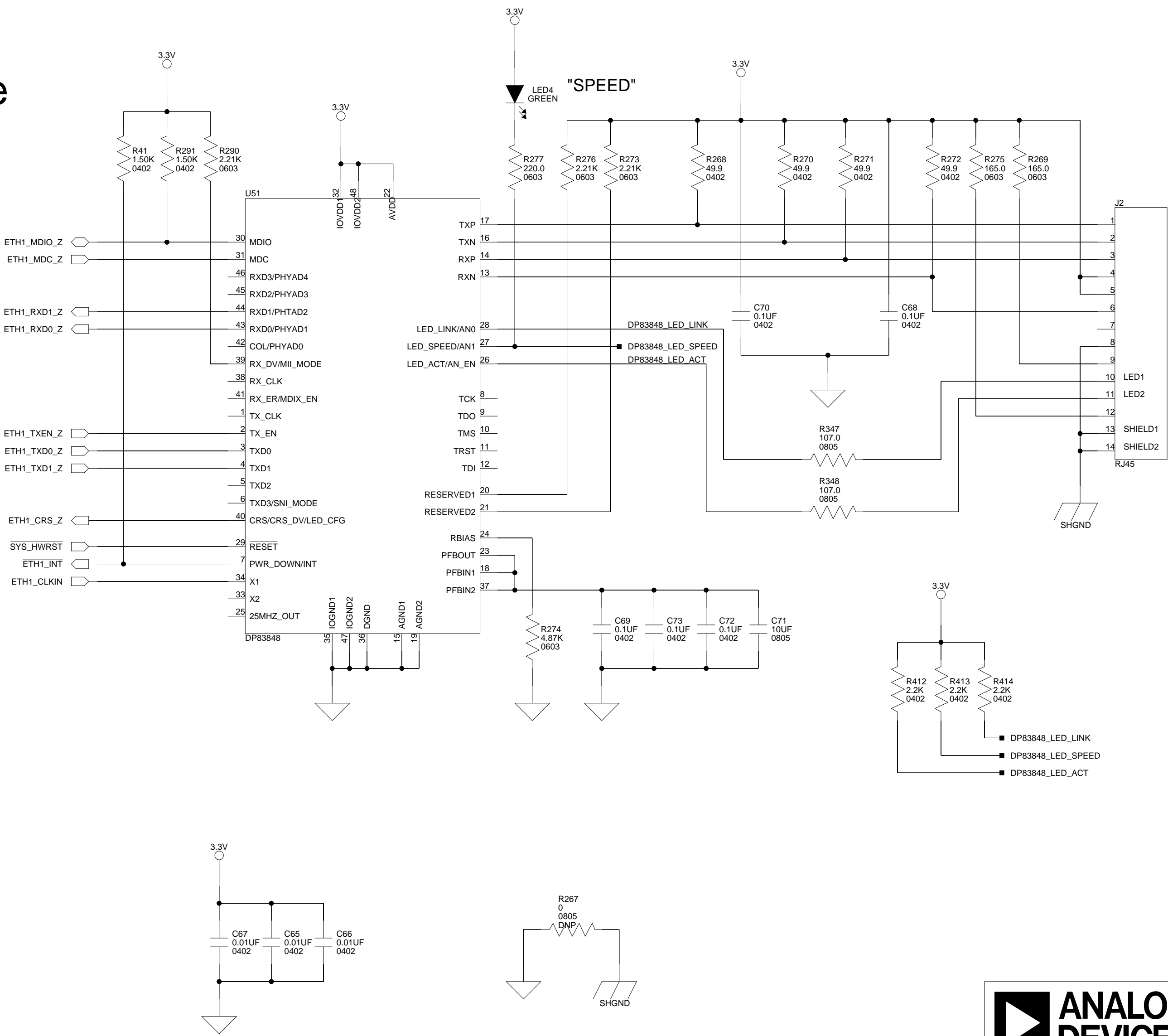
Sheet 14

of 29



RMII Mode

PHY Address 0x01



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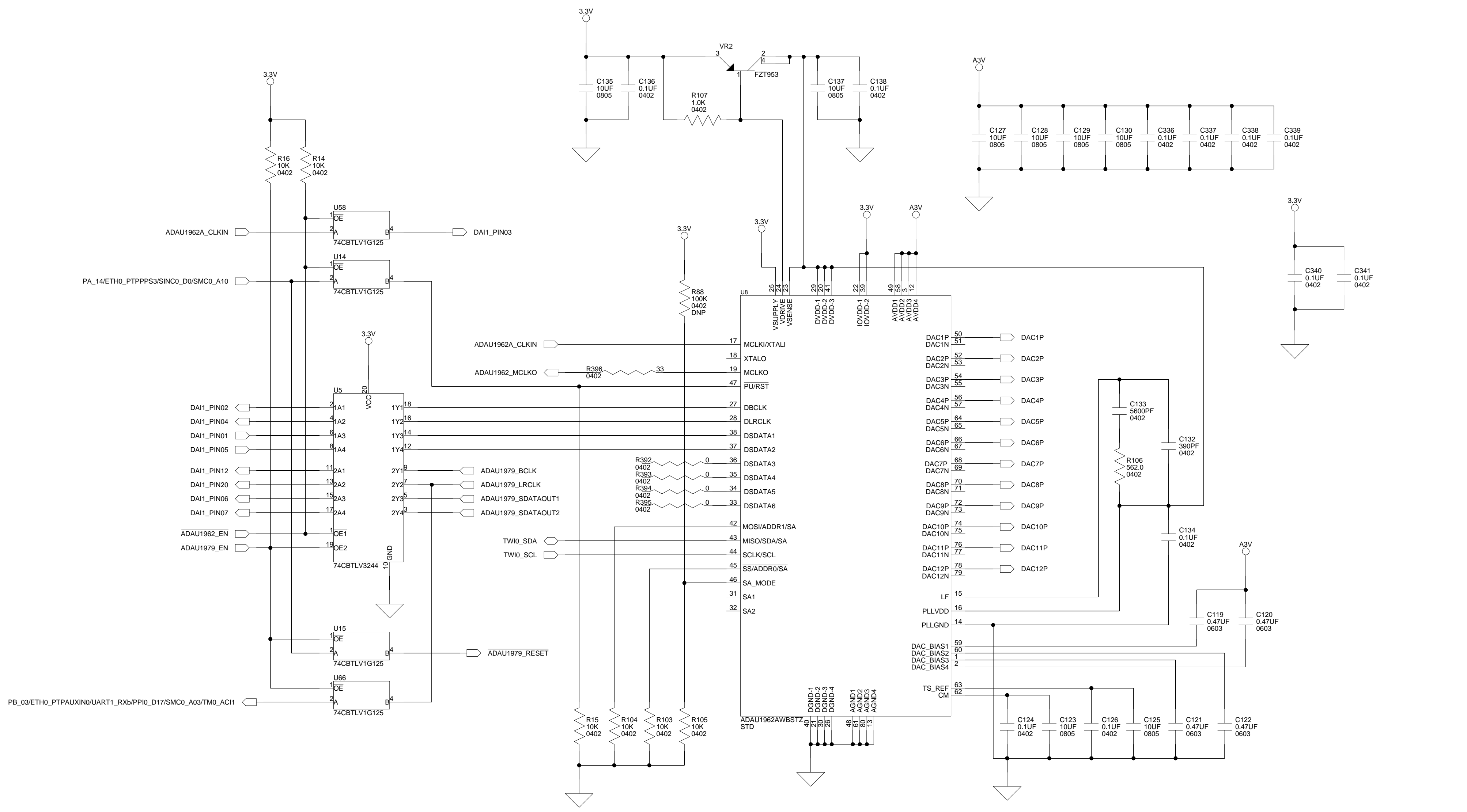
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TWI Address 0000100x
x is the R/W bit. Read - 1, Write - 0



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

Title ADSP-SC589 EZ-Board ADAU1962A		
Size C	Board No. A0447-2013	Rev 1.2
Date	3/17/16	Sheet 18 of 29

1

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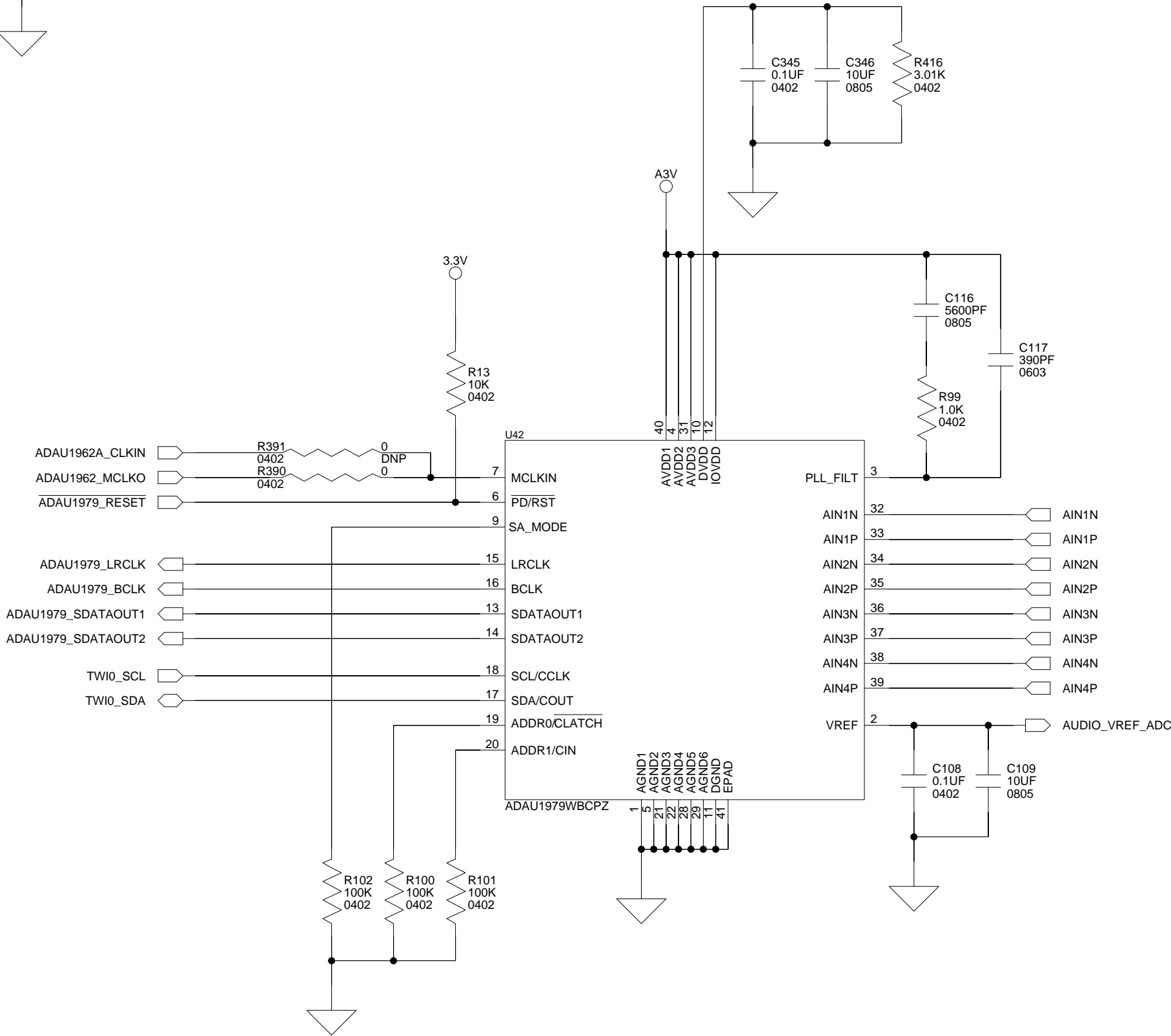
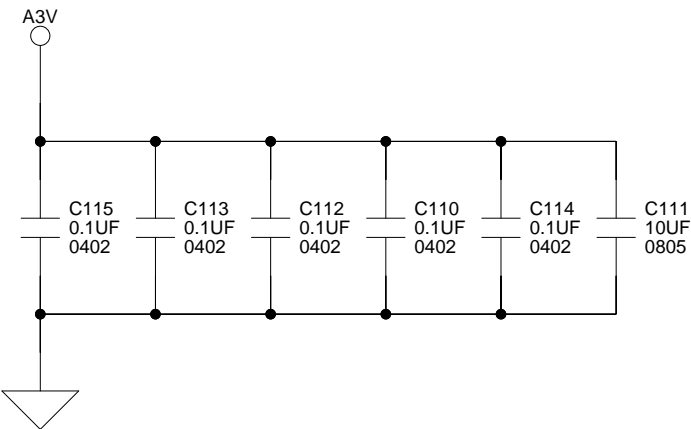
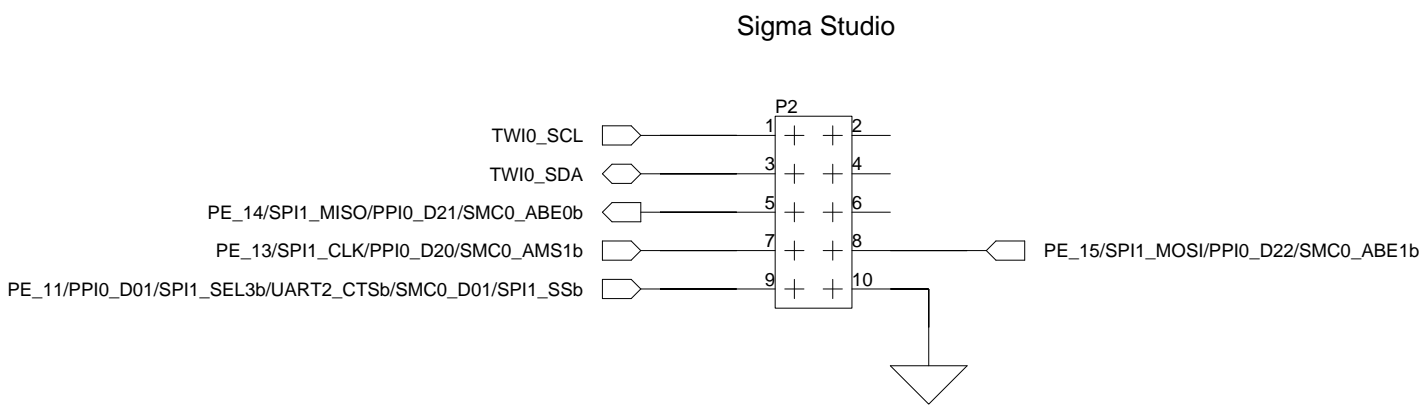
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TWI Address 0010001x
x is the R/W bit. Read - 1, Write - 0

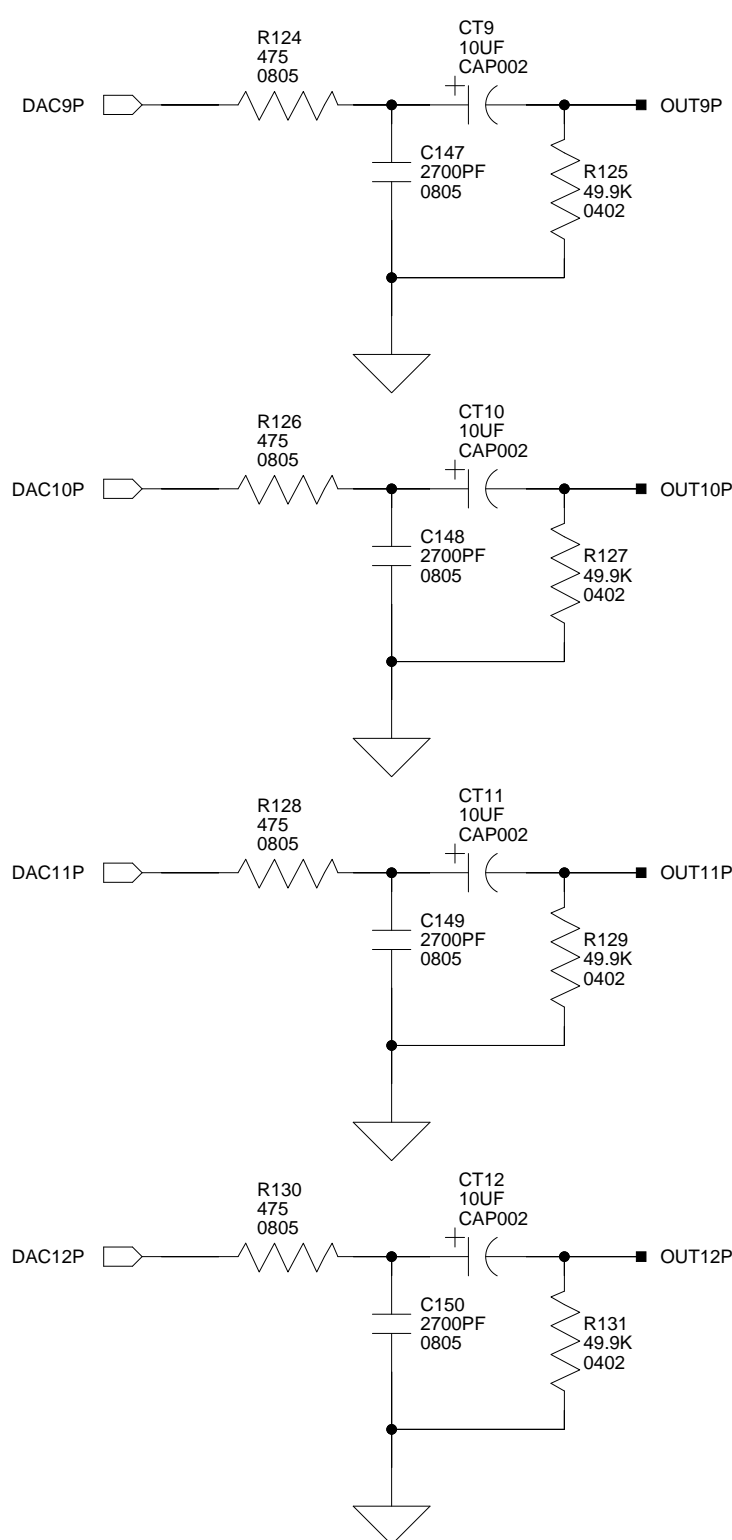
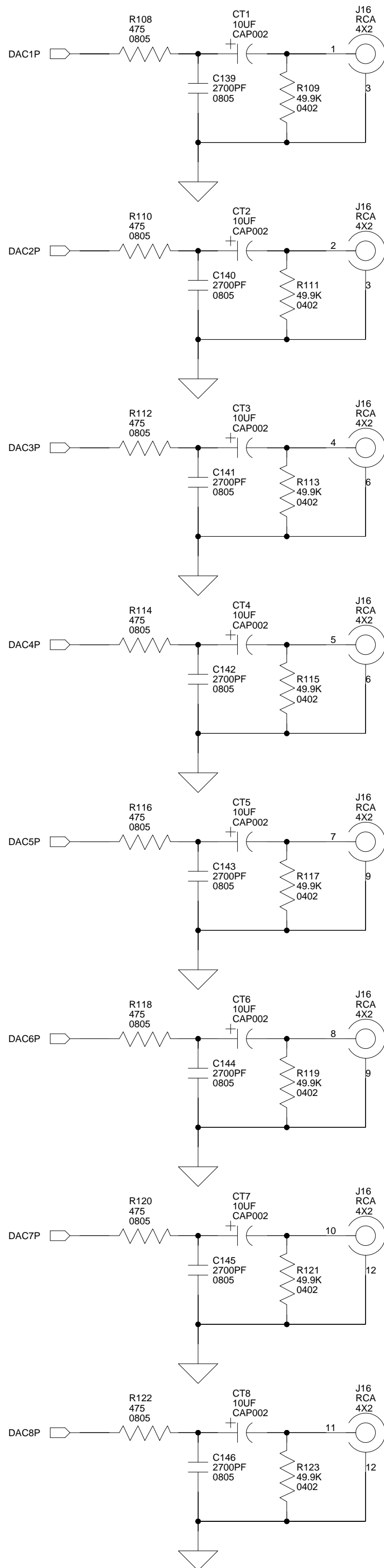
 <div>2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD</div>		
Title ADSP-SC589 EZ-Board ADAU1979		
Size C	Board No. A0447-2013	Rev 1.2
Date	3/17/16	Sheet 19 of 29

A

B

C

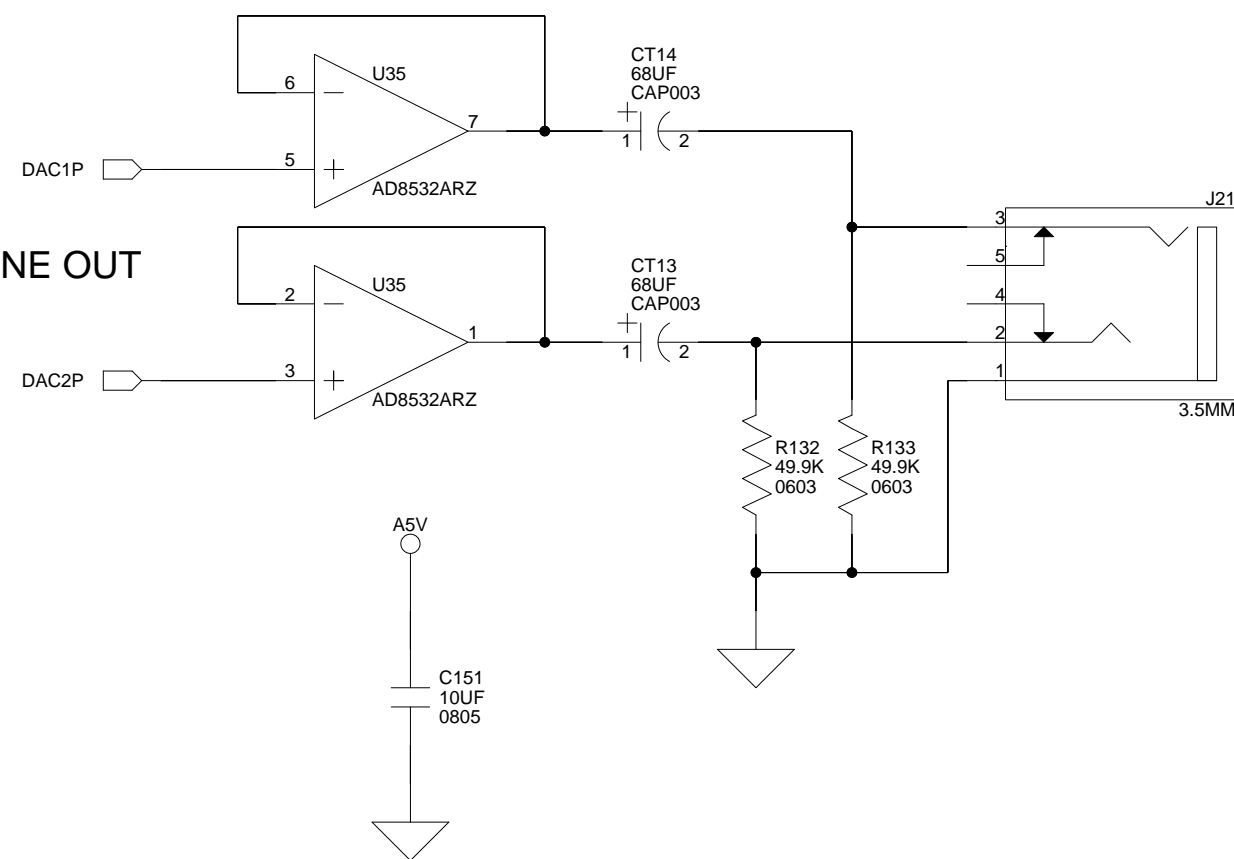
D



"INPUT"

AUDIO_JACK_SEL Low for output
AUDIO_JACK_SEL High for input

HEADPHONE OUT



"INPUT/OUTPUT"

"HEADPHONES"

2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGDTitle
ADSP-SC589 EZ-Board
Audio Connectors

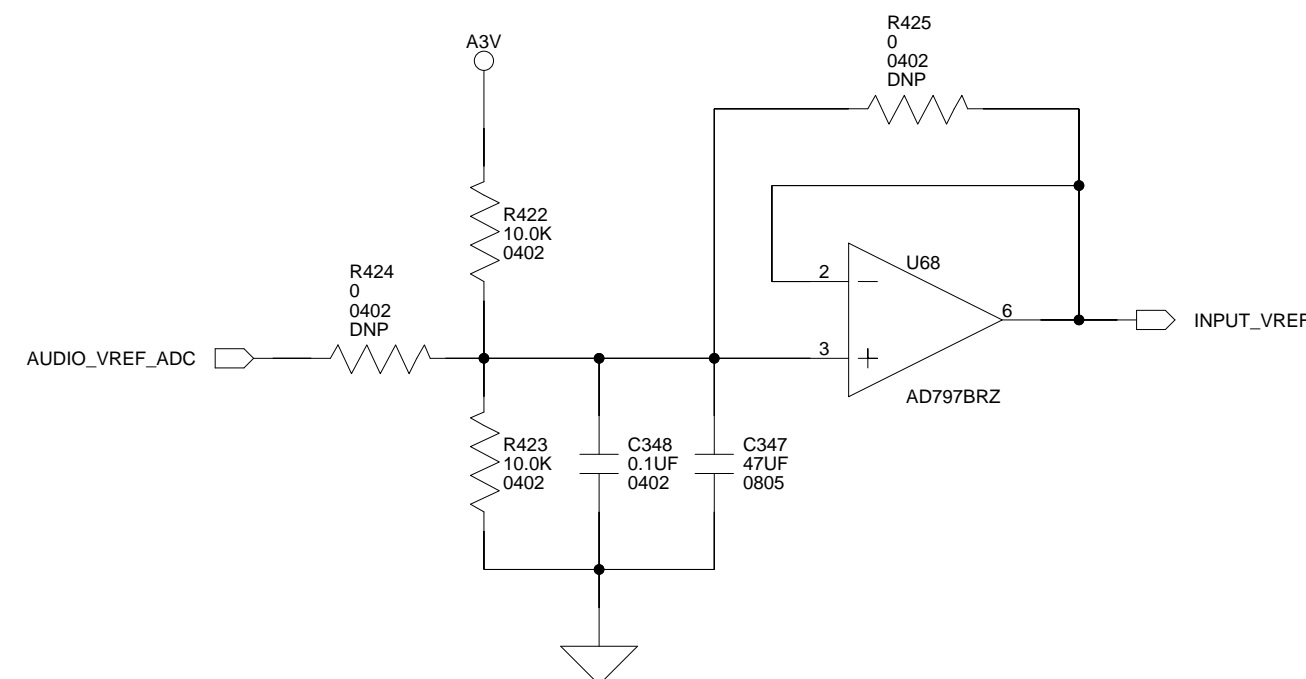
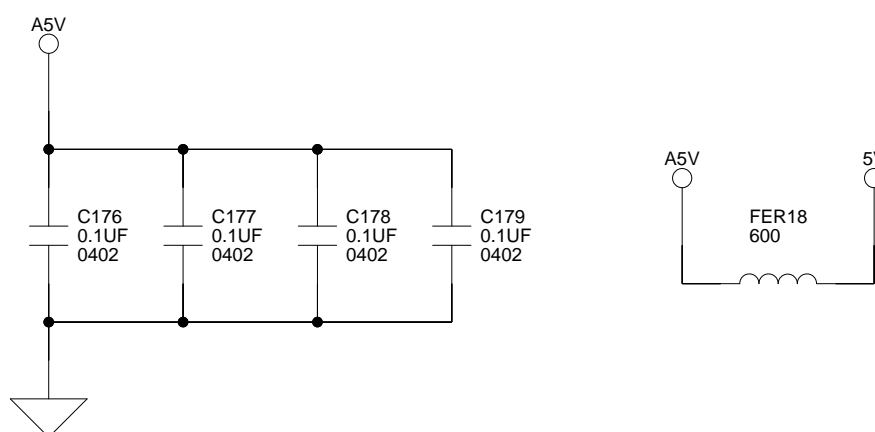
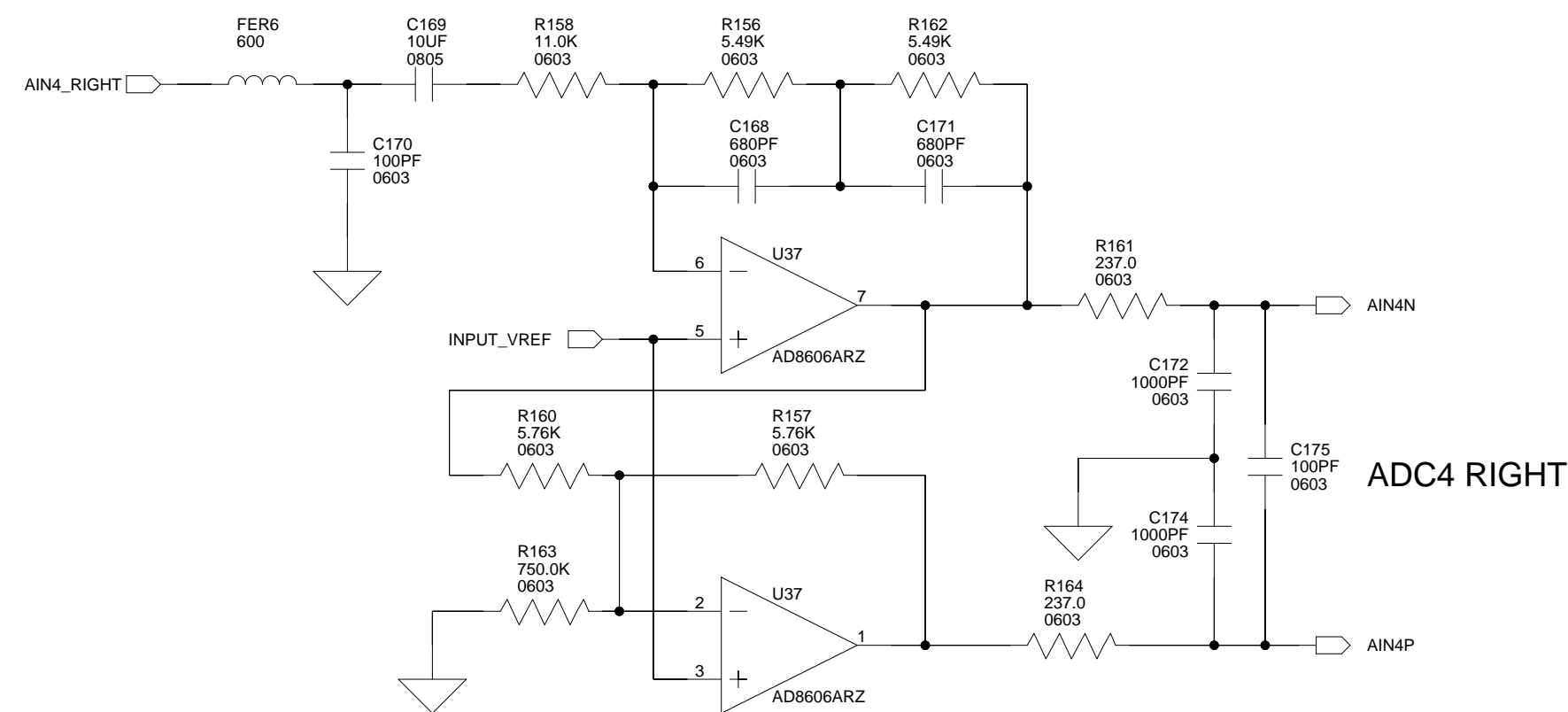
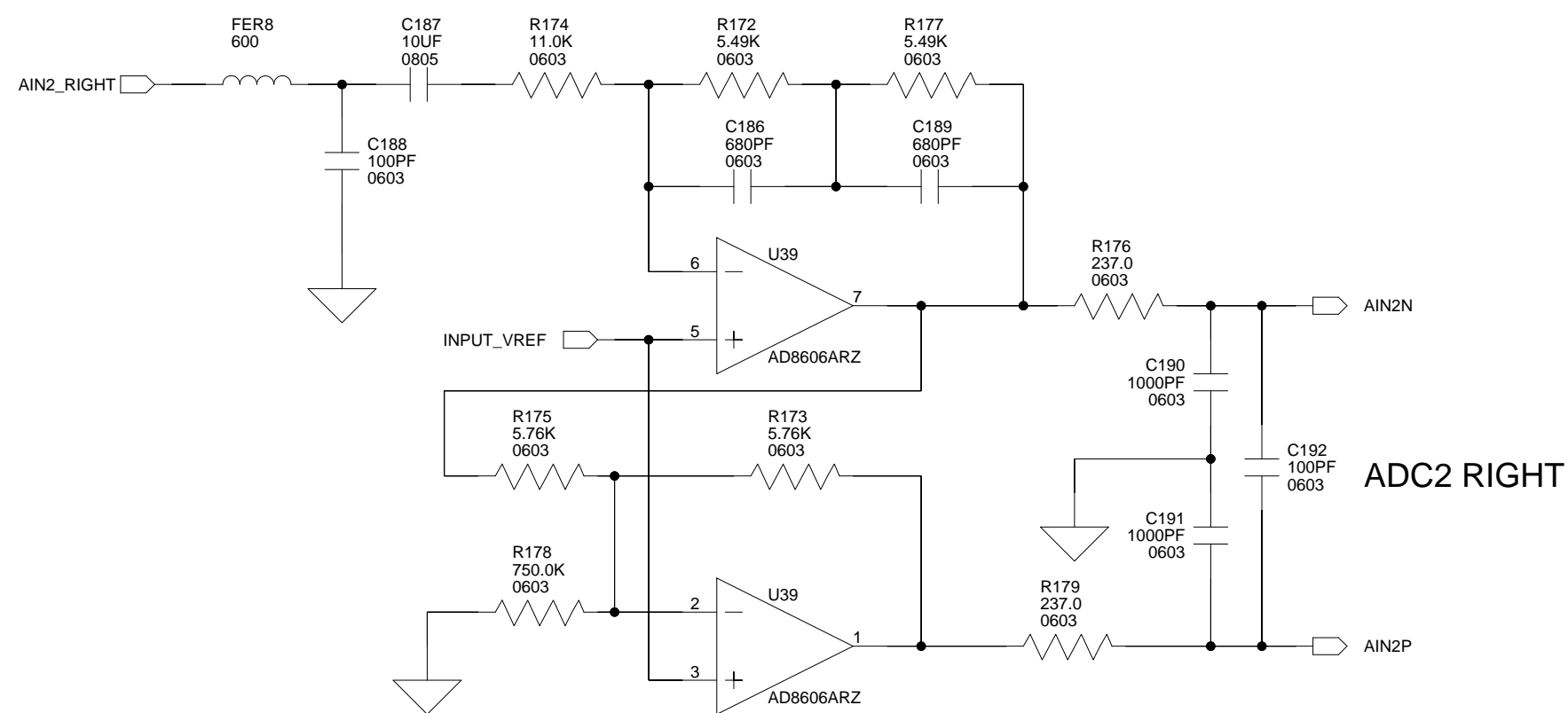
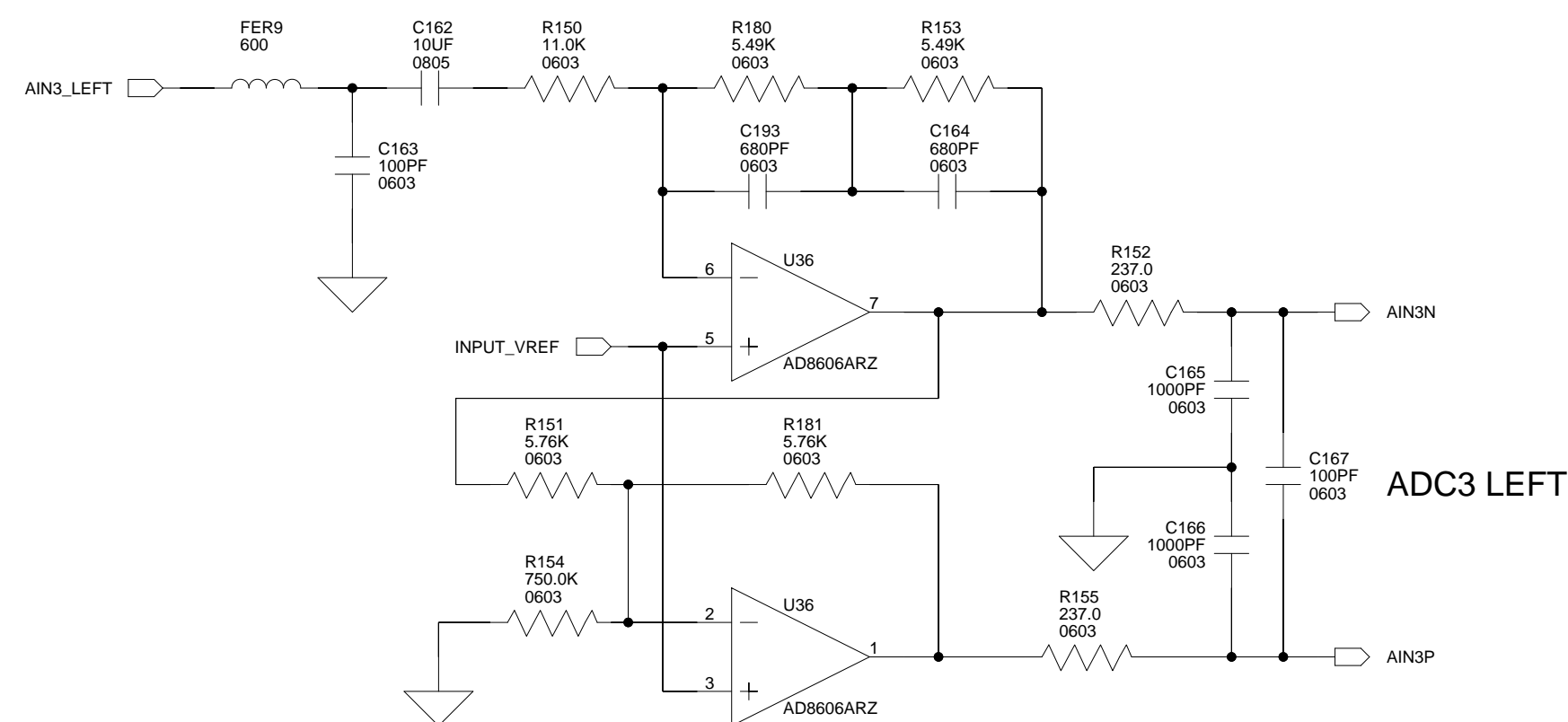
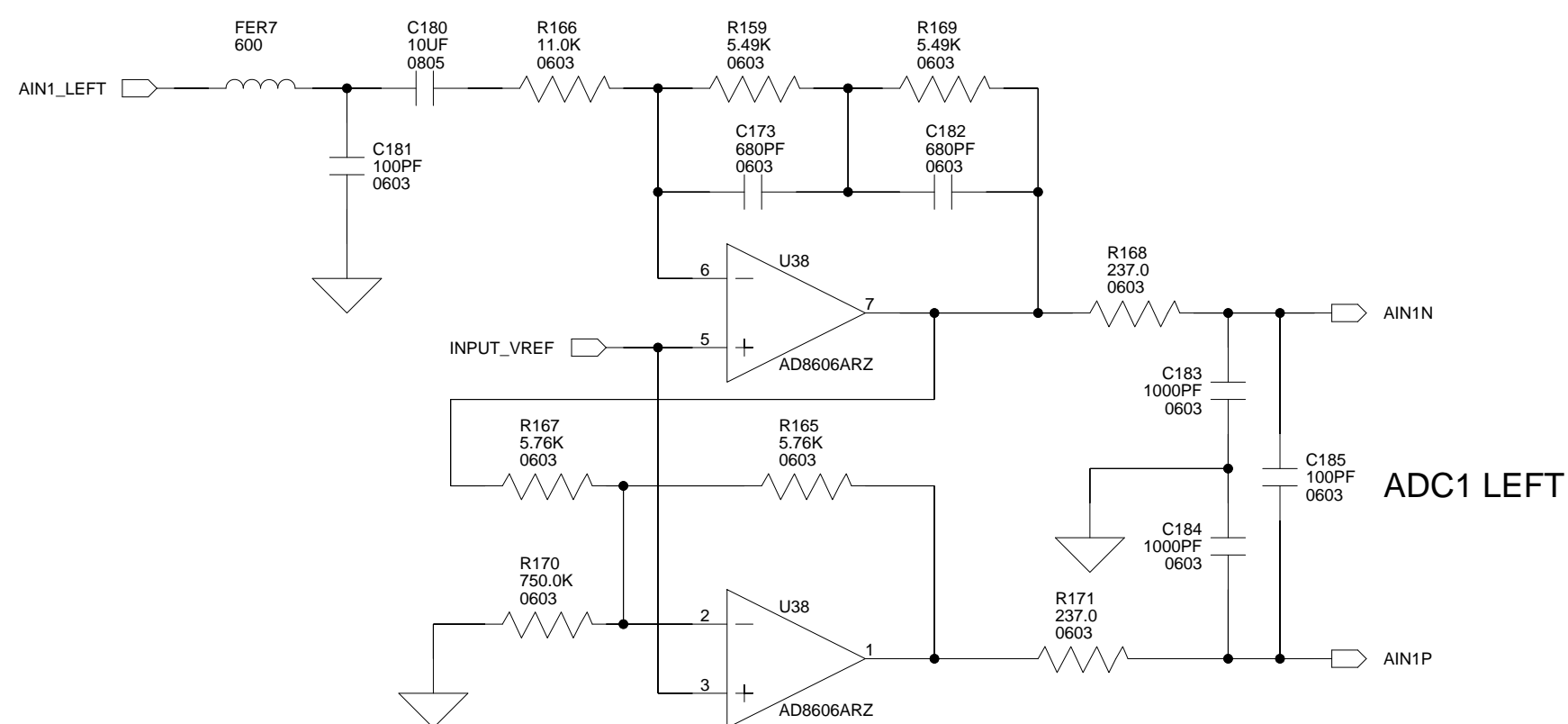
Size C	Board No. A0447-2013	Rev 1.2
Date 3/17/16	Sheet 20	of 29

A

B

C

D



2 Elizabeth Drive
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PH: 1-800-ANALOGD

Title ADSP-SC589 EZ-Board
Audio Input

Size
C

Board No.

A0447-2013

Rev
1.2

Date

3/17/16

Sheet 21

of 29

A

B

C

D

1

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1

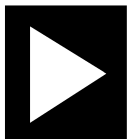
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4

SPDIF COAX INPUT

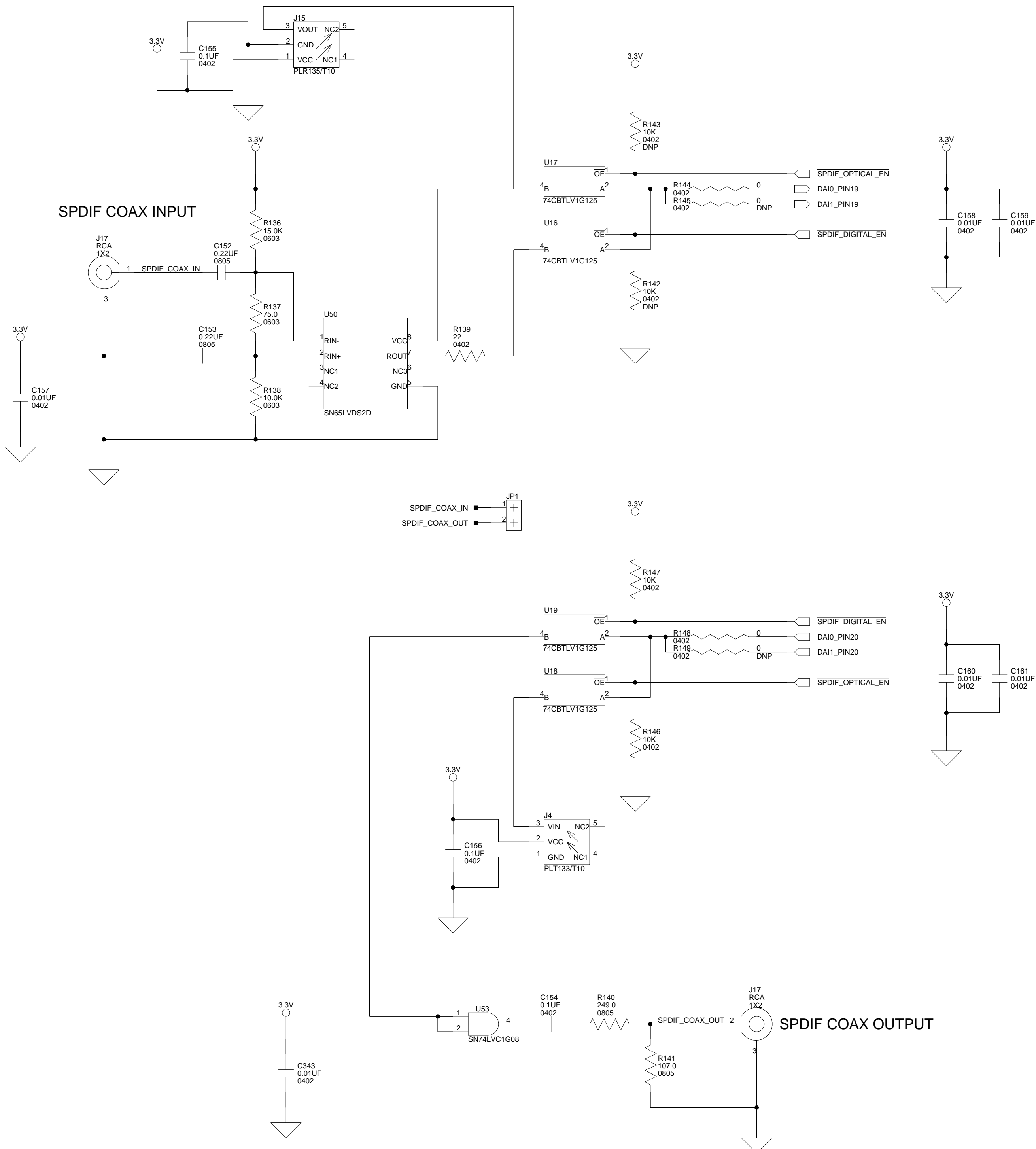
SPDIF COAX OUTPUT



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Title ADSP-SC589 EZ-Board SPDIF		
Size C	Board No. A0447-2013	Rev 1.2
Date	3/17/16	Sheet 22 of 29



1

2

3

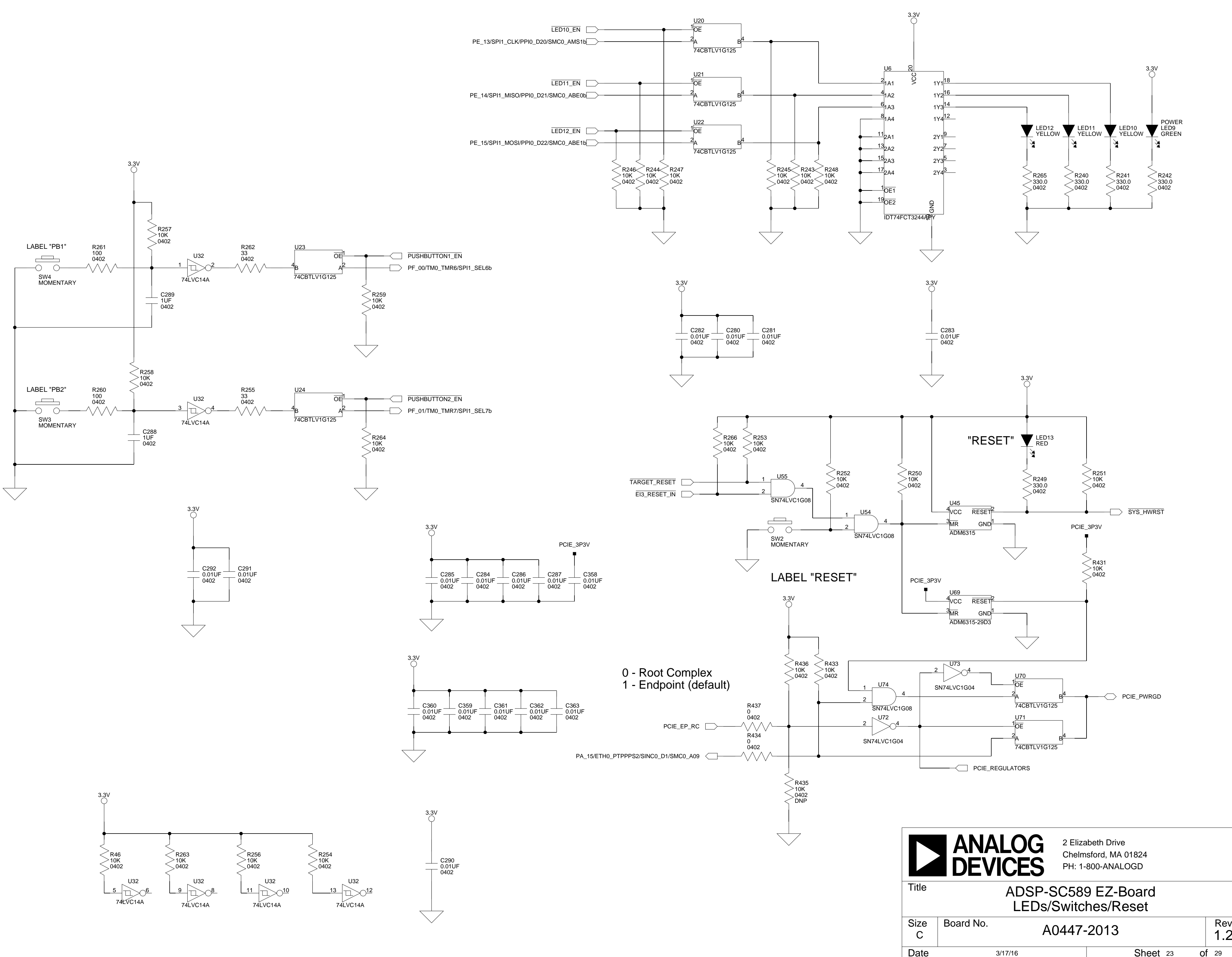
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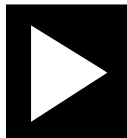
A

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C

D





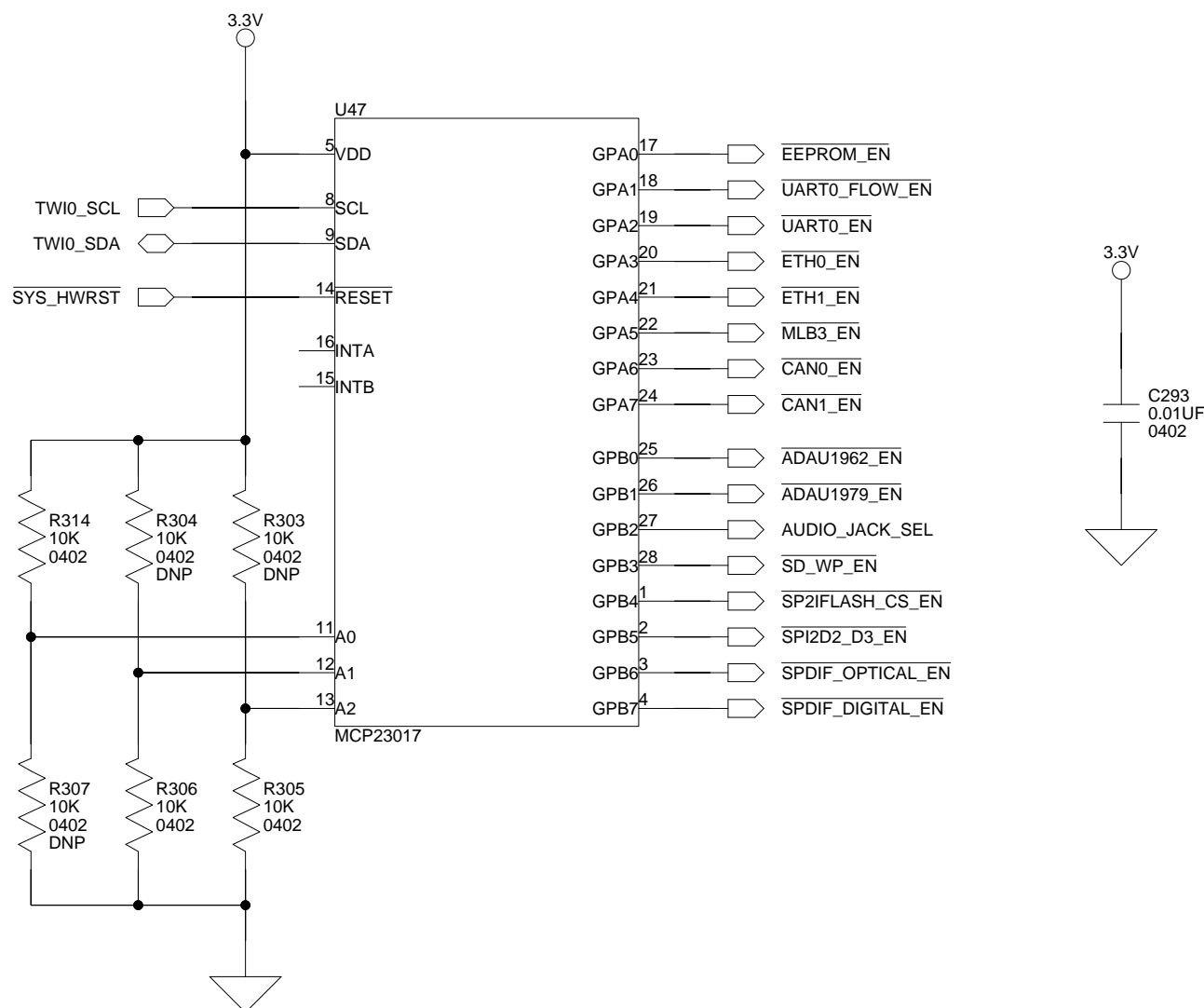
**ANALOG
DEVICES**

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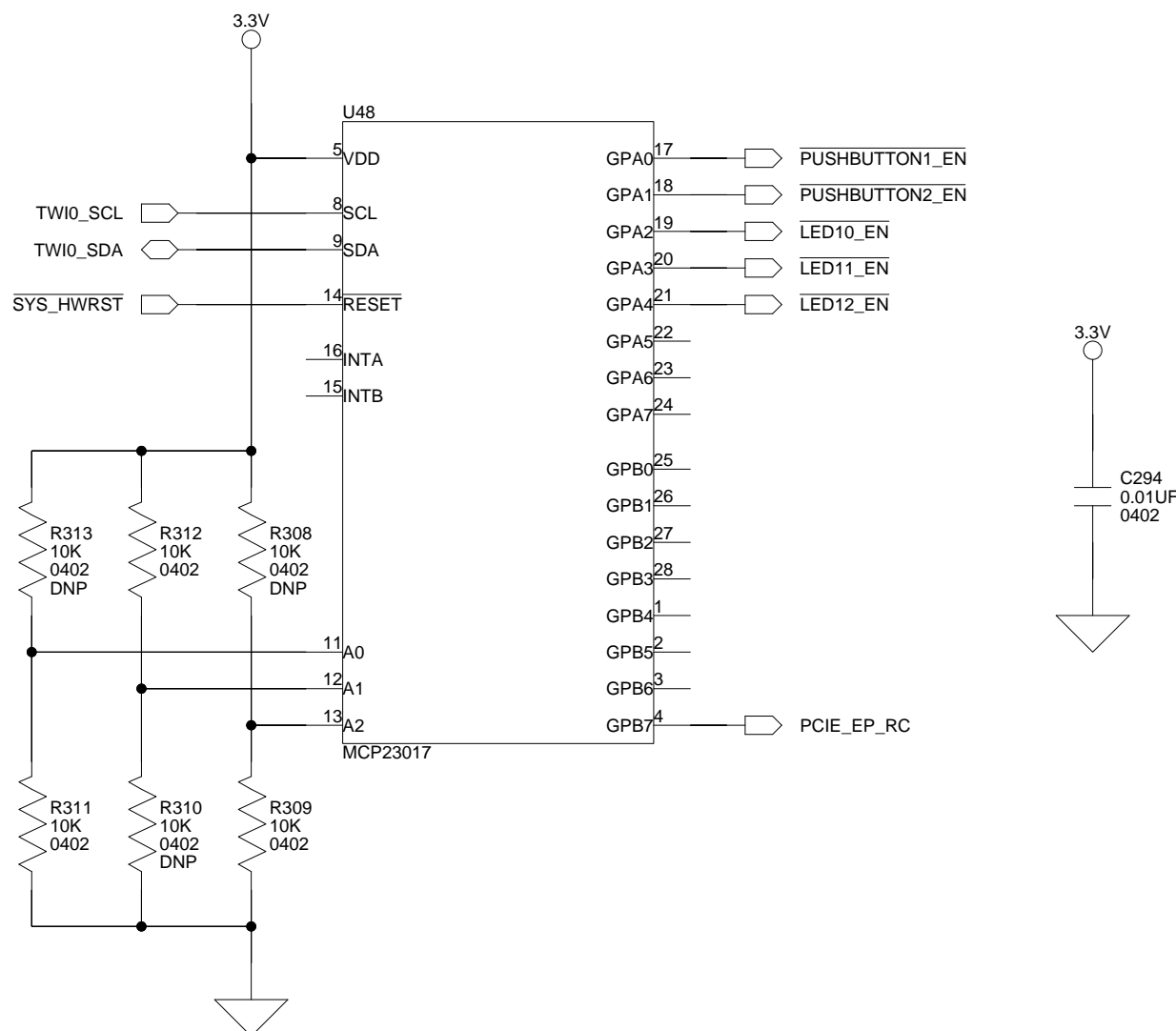
Title			ADSP-SC589 EZ-Board LEDs/Switches/Reset		
Size	C	Board No.	A0447-2013		
Date	3/17/16		Sheet	23	of 29

Rev 1.2

TWI Address 0100001x
x is the R/W bit. Read - 1, Write - 0



TWI Address 0100010x
x is the R/W bit. Read - 1, Write - 0

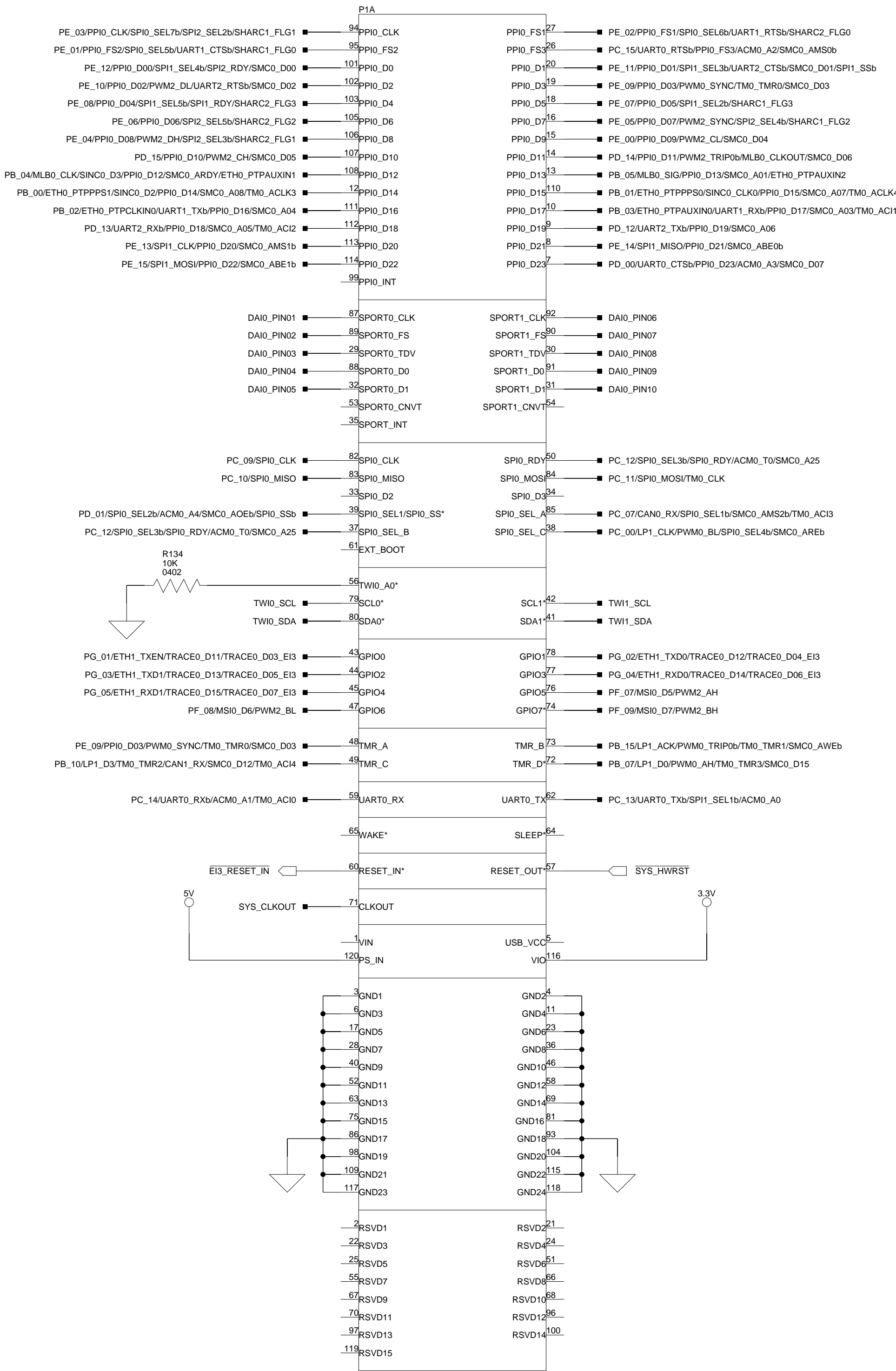



A

B

C

D



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC589 EZ-Board EI3-1A			
Size C	Board No. A0447-2013		Rev 1.2
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A

B

C

D

A

B

C

D

1

2

3

4

A

B

C

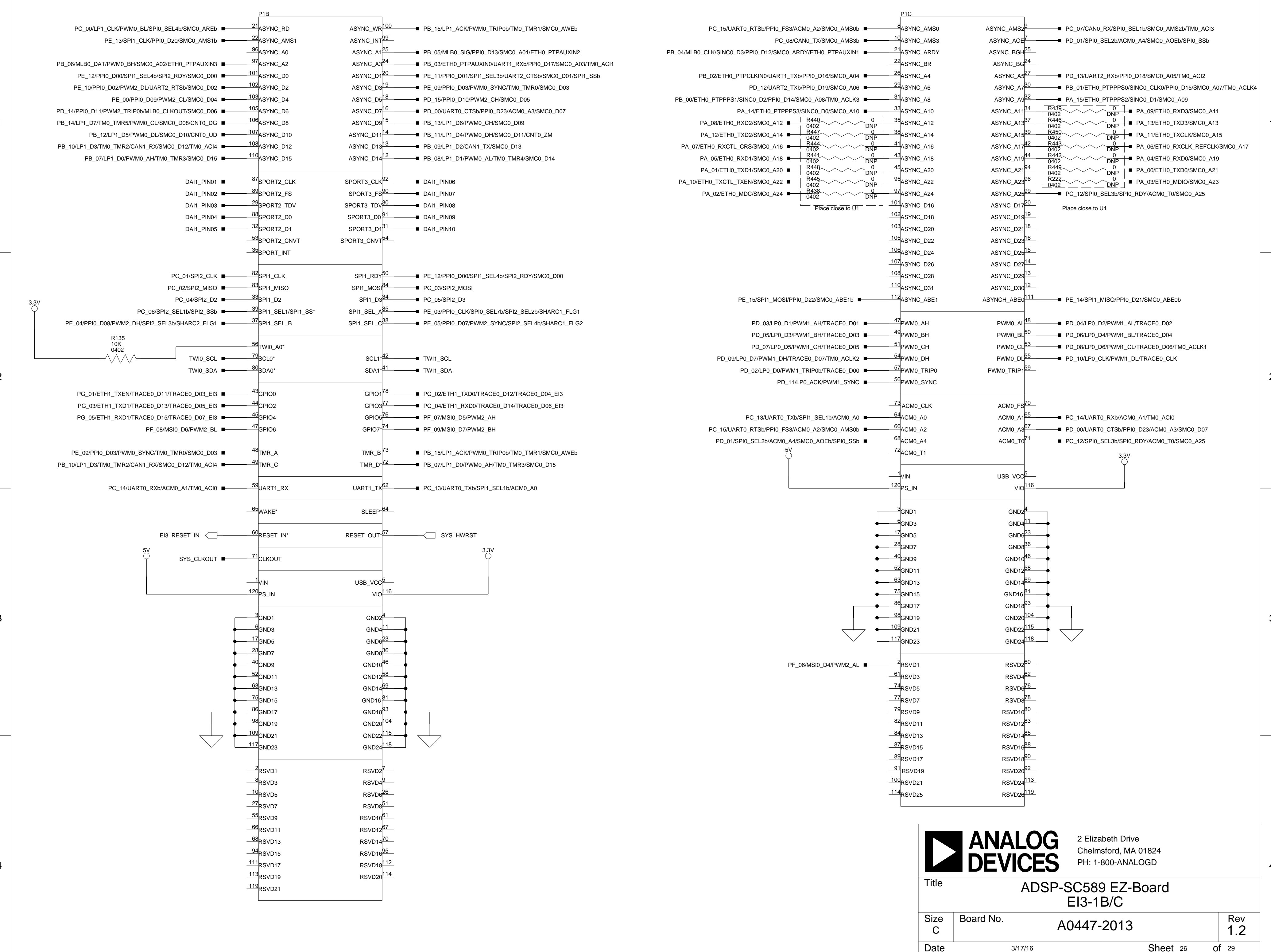
D


1

2

3

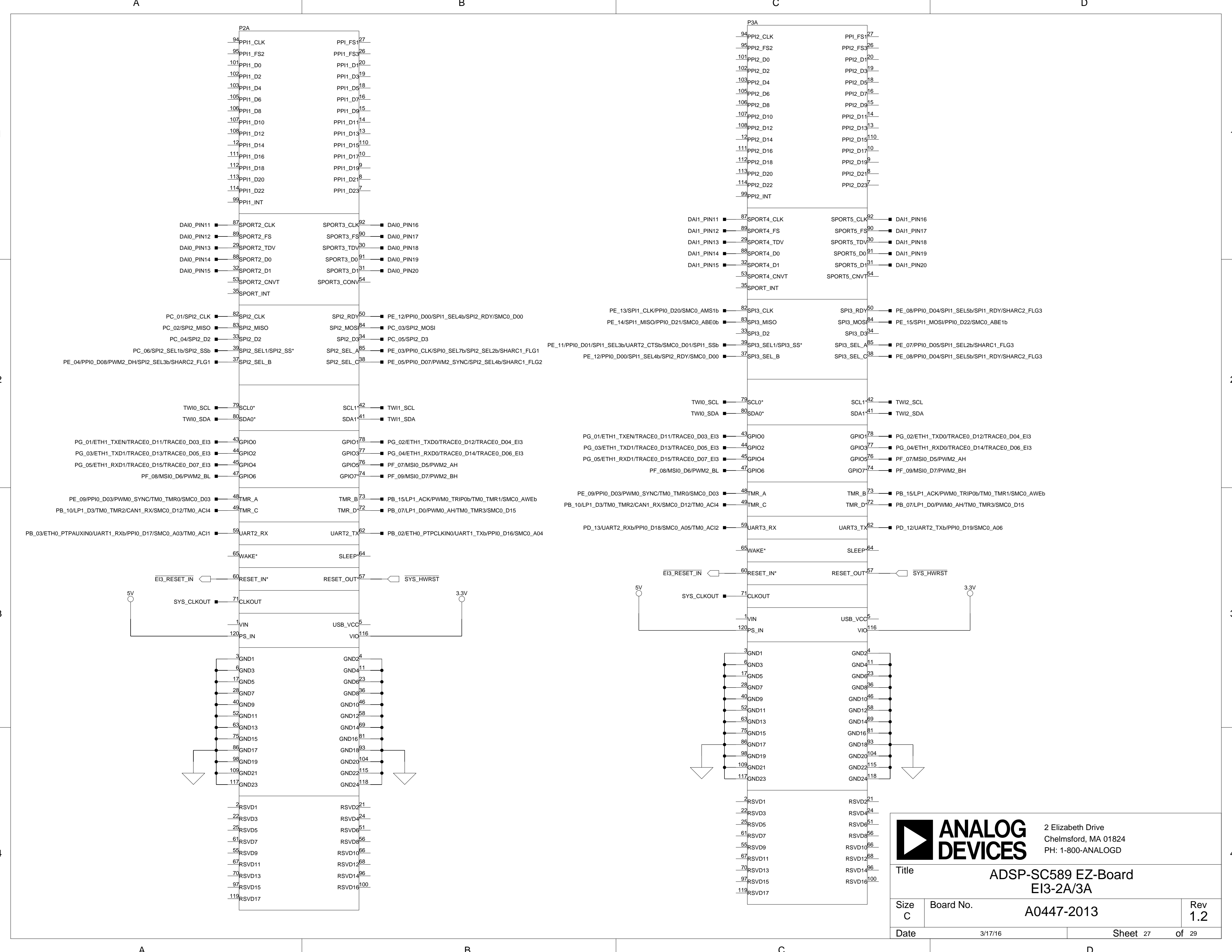
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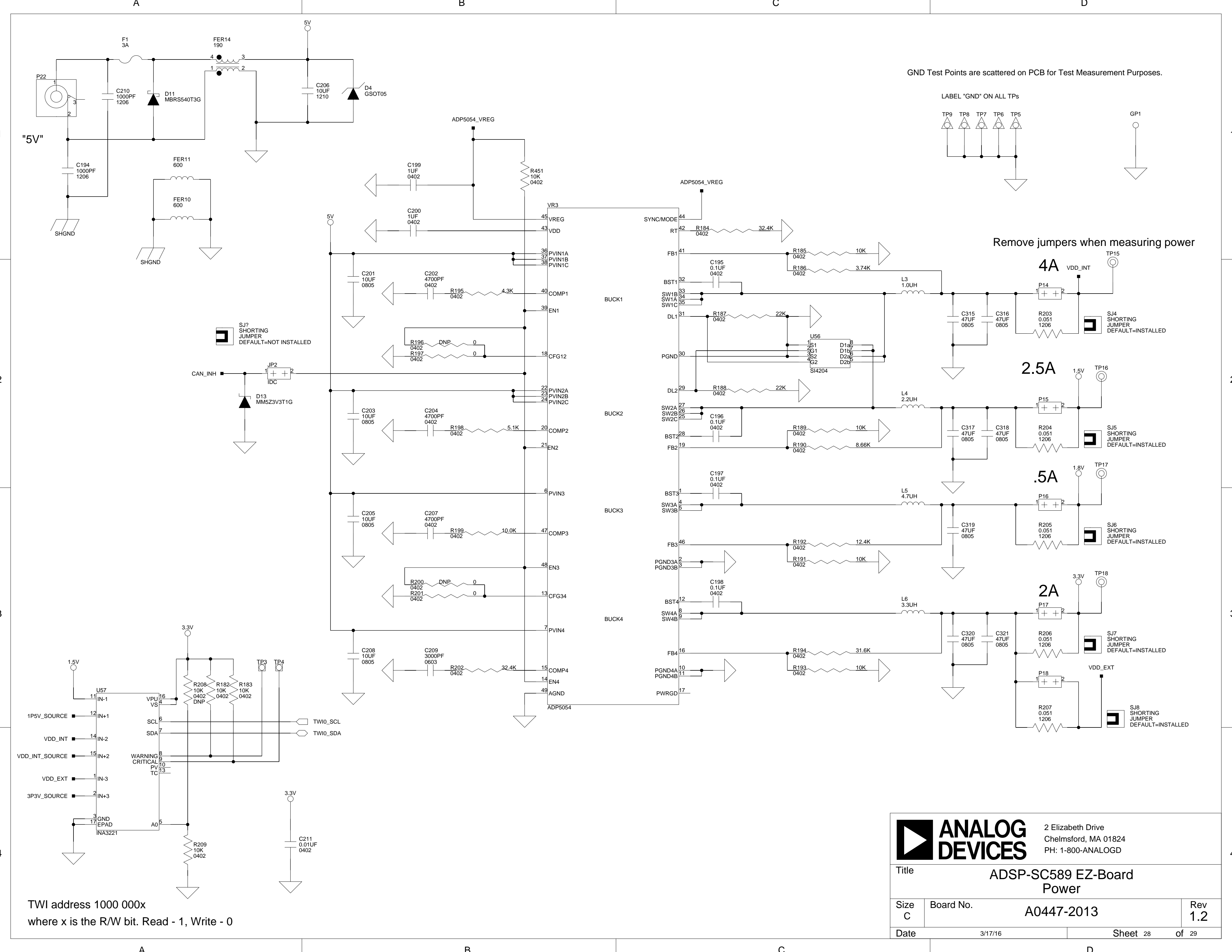


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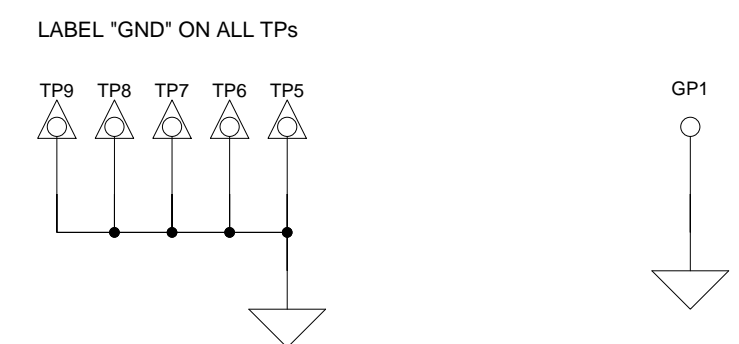
Title ADSP-SC589 EZ-Board EI3-1B/C		
Size C	Board No. A0447-2013	Rev 1.2
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GND Test Points are scattered on PCB for Test Measurement Purposes.



Remove jumpers when measuring power

TWI address 1000 000x
where x is the R/W bit. Read - 1, Write - 0



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Title ADSP-SC589 EZ-Board Power		
Size C	Board No. A0447-2013	Rev 1.2
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