


A

B

C

D

ADSP-SC584 EZ-Board Schematic

		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title		ADSP-SC584 EZ-Board Title Block	
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet	1 of 28

A

B

C

D

1

2

3

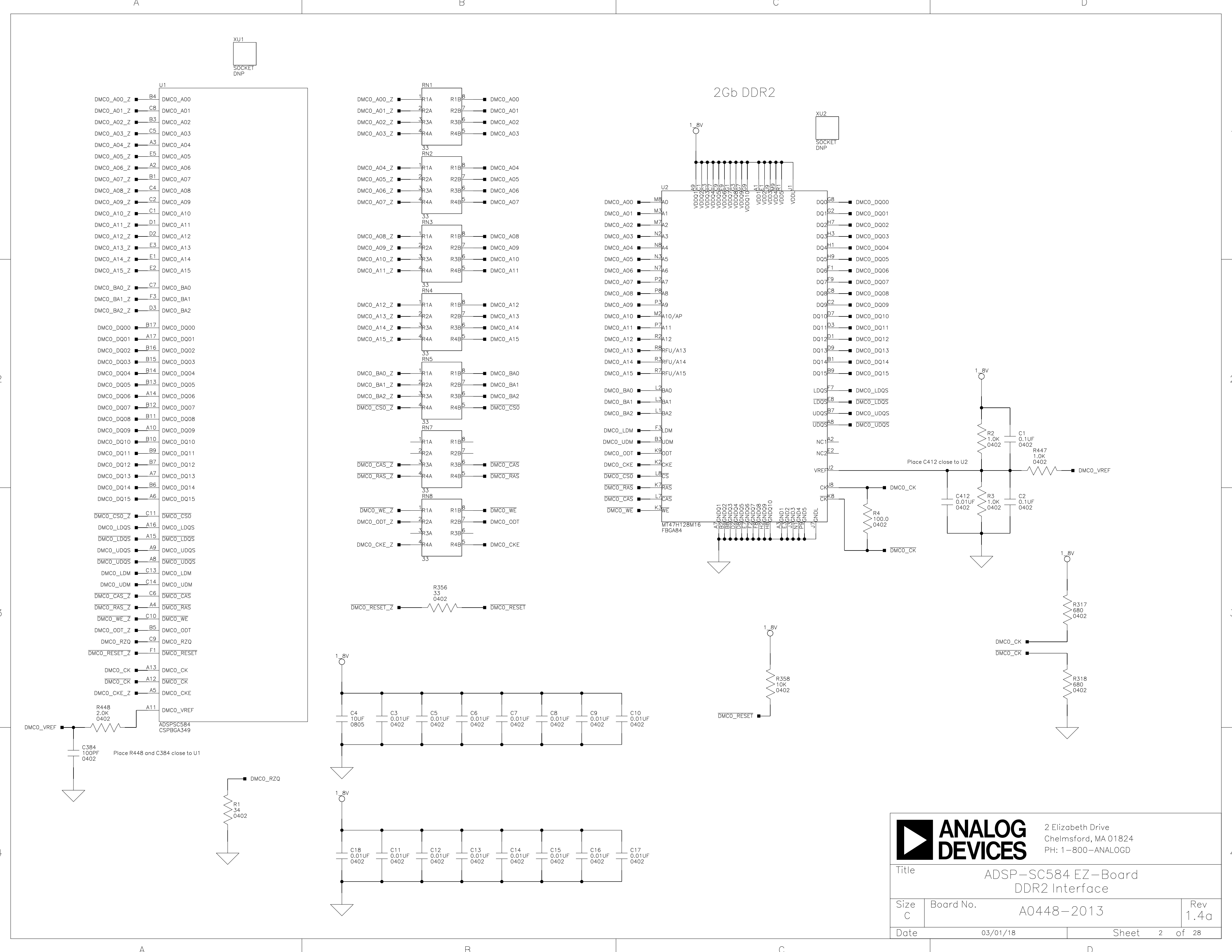
4


1

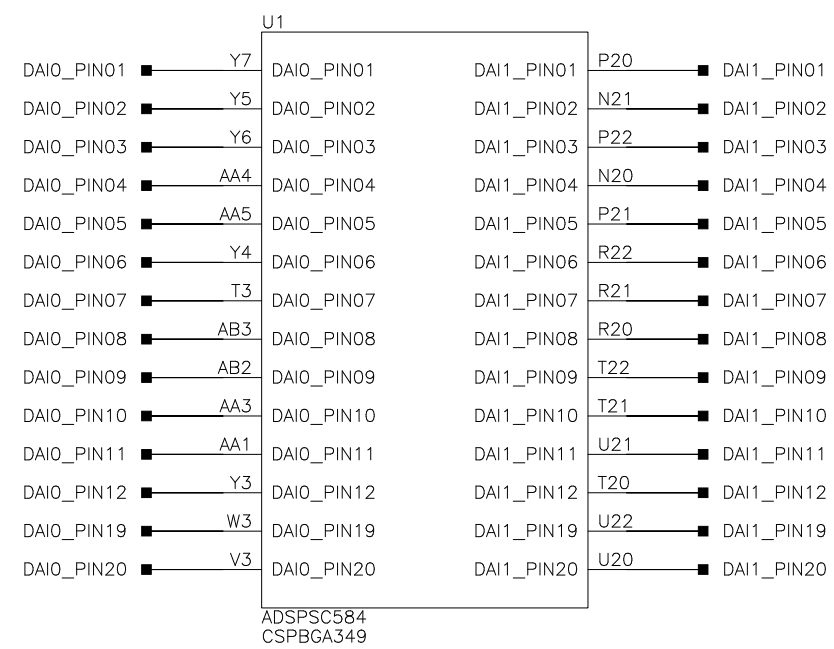
2

3

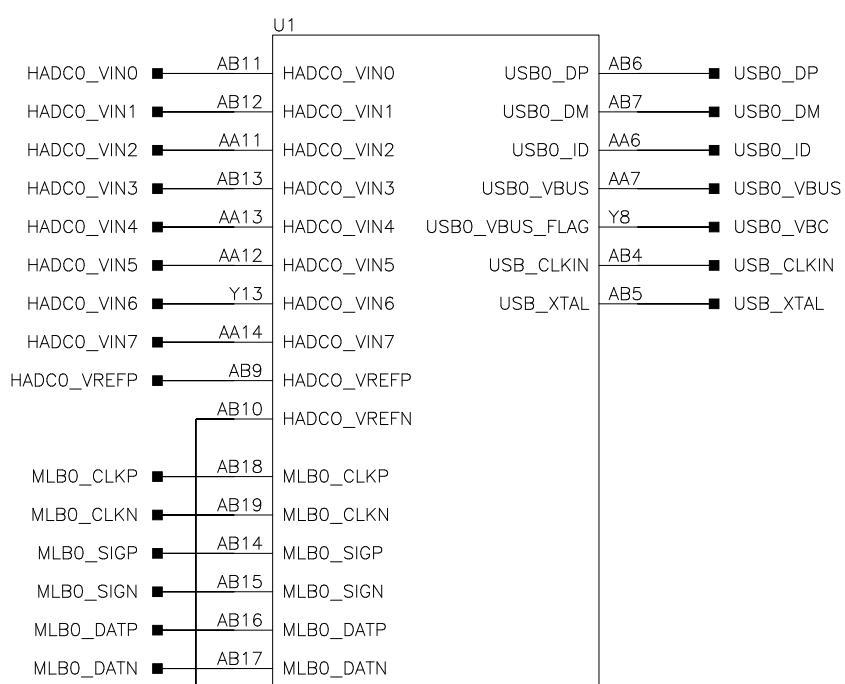
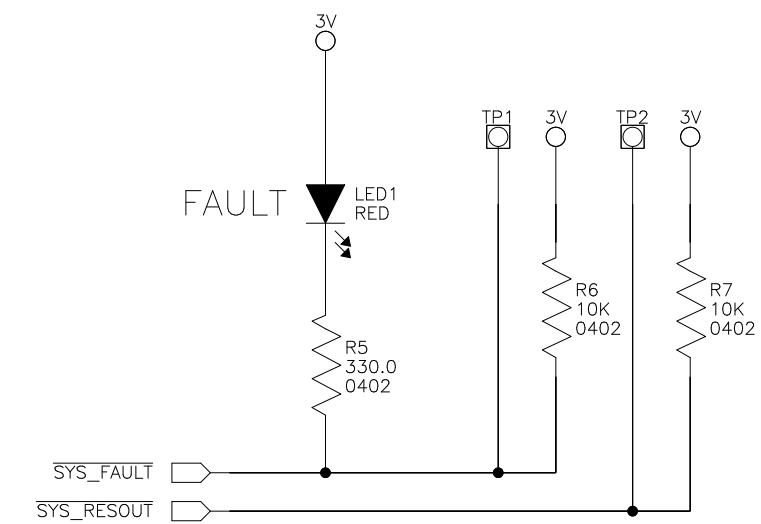
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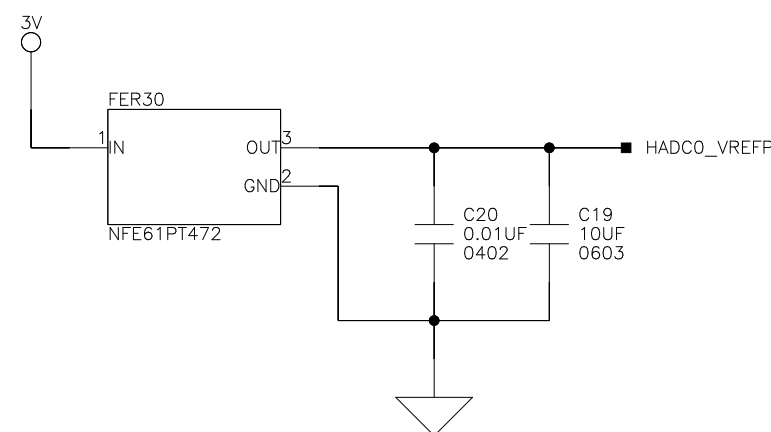
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		Title ADSP-SC584 EZ-Board DDR2 Interface	
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 2 of 28		



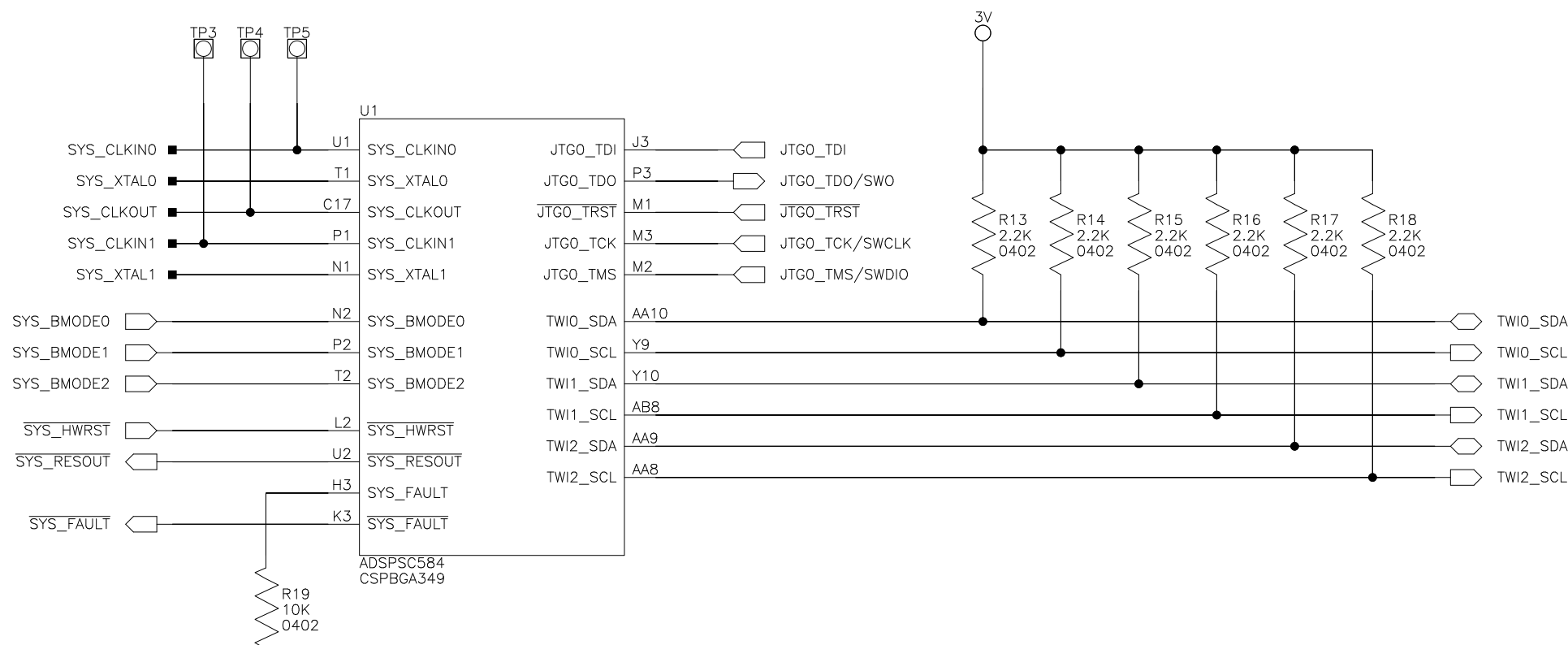
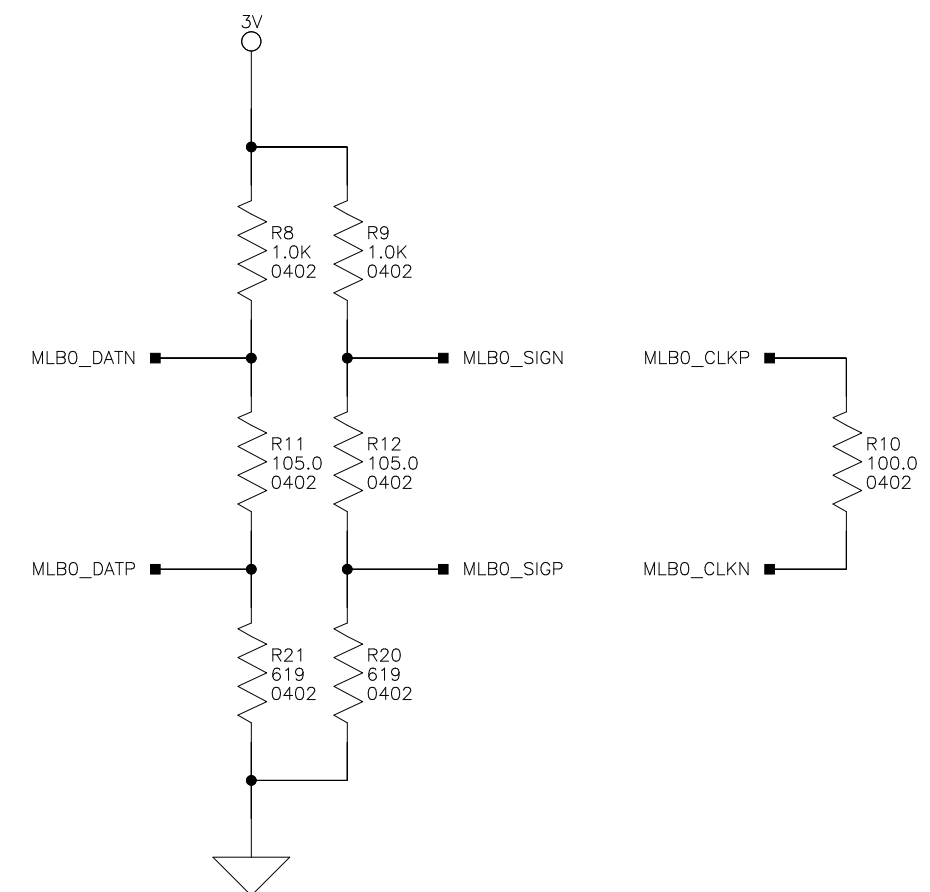
ADSPSC584
CSPBGA349



ADSPSC584
CSPBGA349

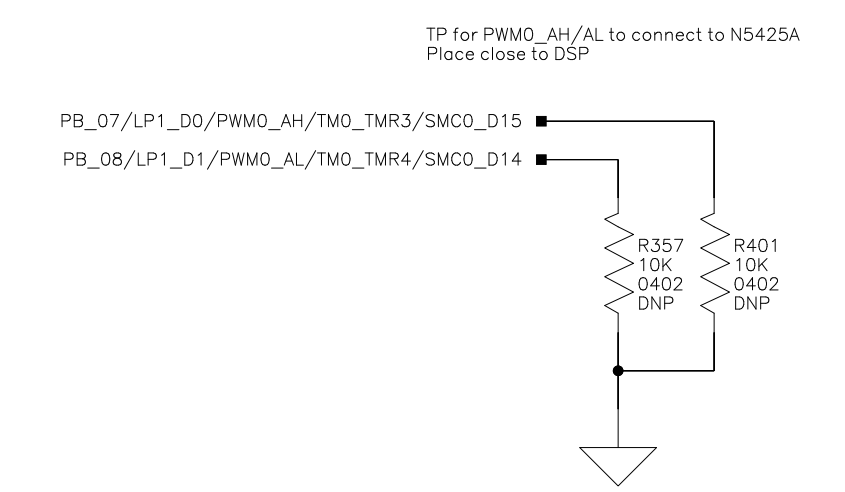
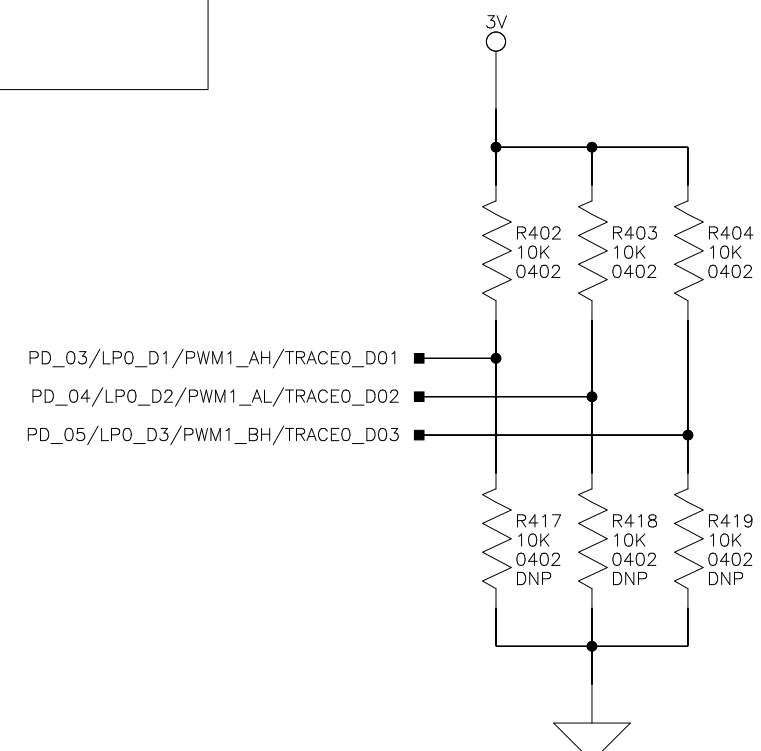
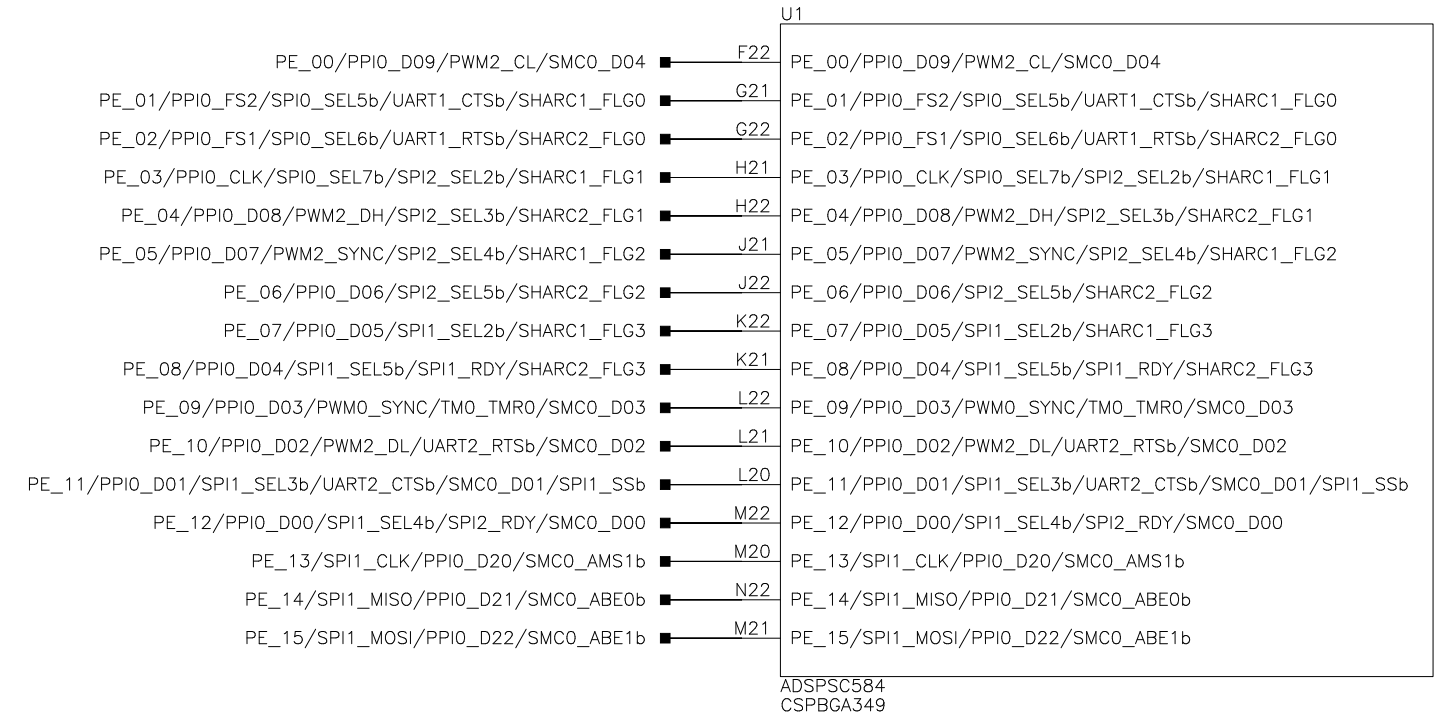
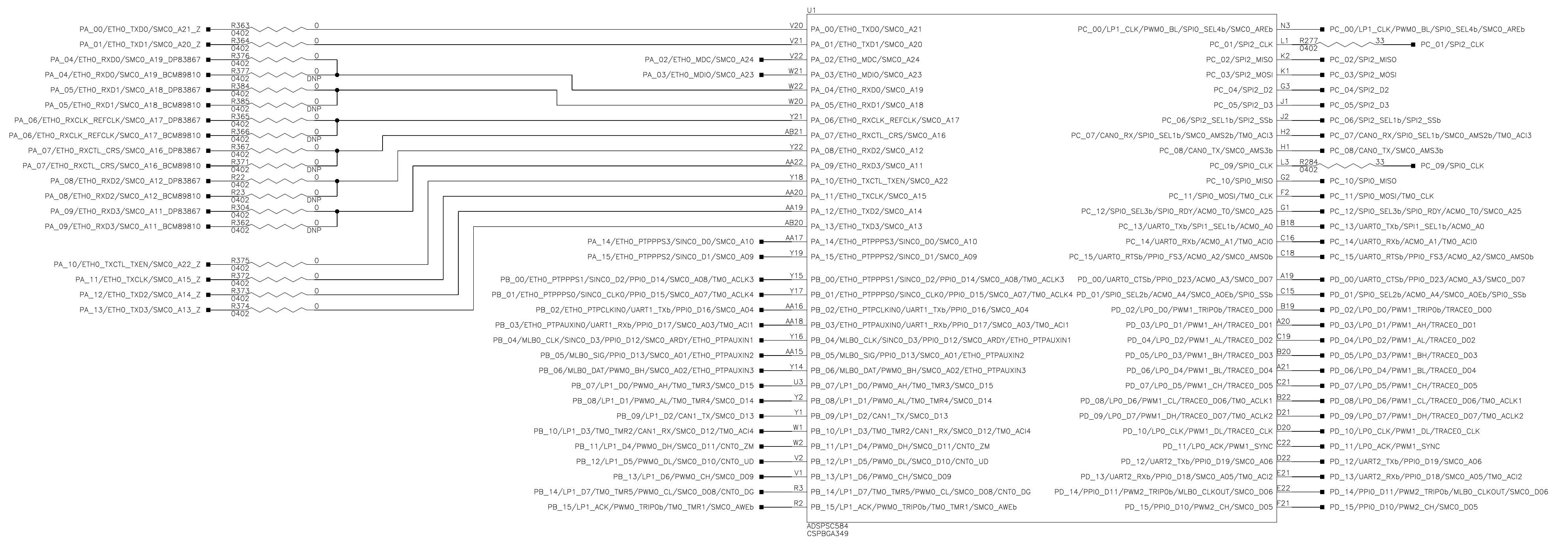


MLB signals need to be short and matched trace length.

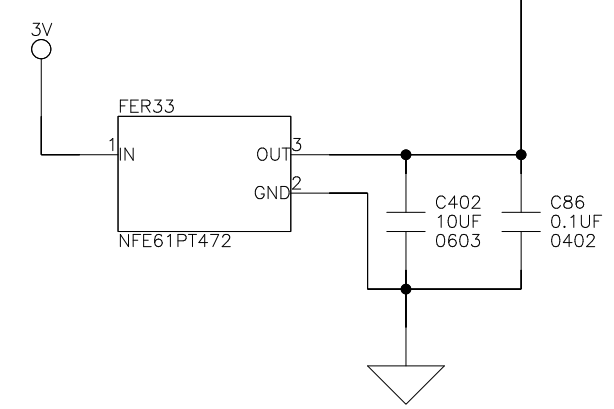



ADSPSC584
CSPBGA349

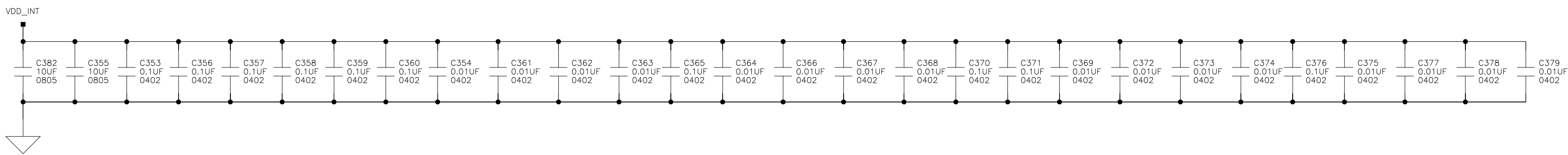
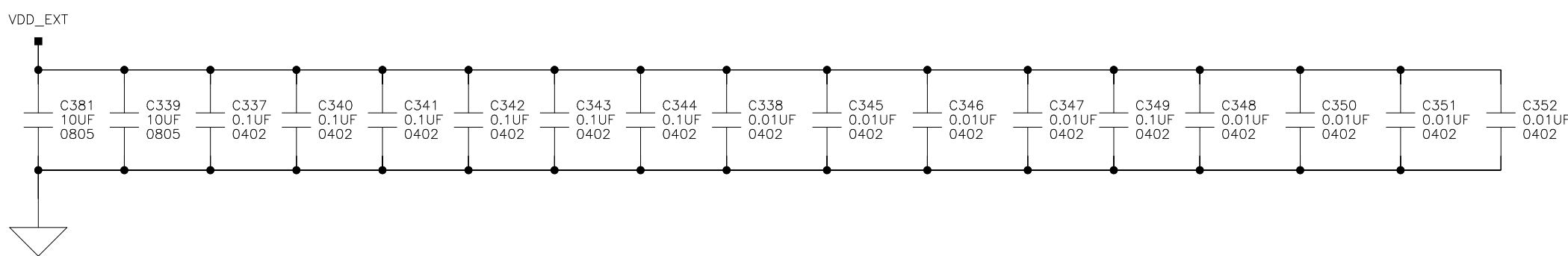
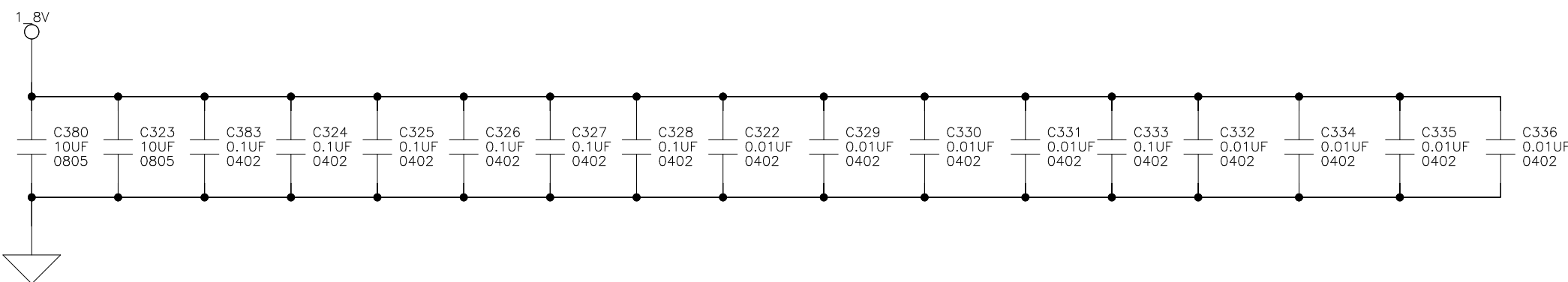
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC584 EZ-Board Non-Mux Ports			
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 3 of 28		




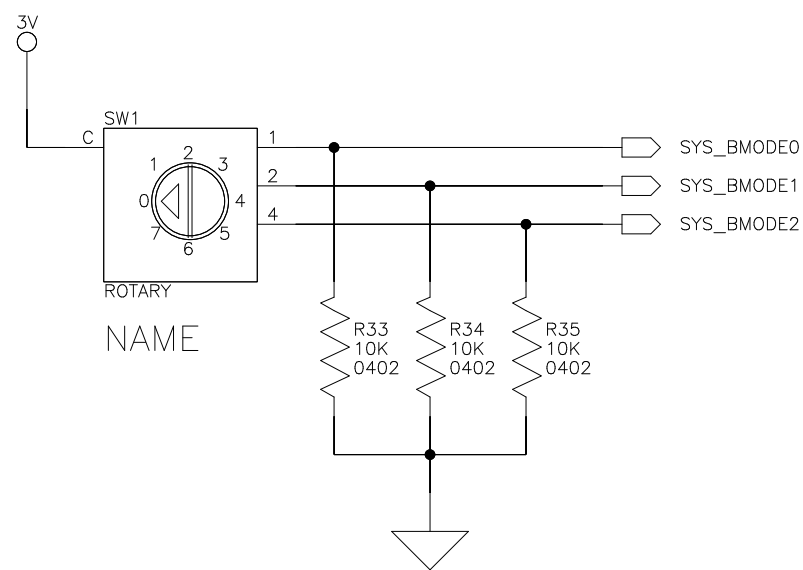
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board Mux Ports	
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 4	of 28	



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC584 EZ-Board Processor Power/Ground			
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet 5	of 28



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title		ADSP-SC584 EZ-Board Proc Bypass Caps	
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet	6 of 28



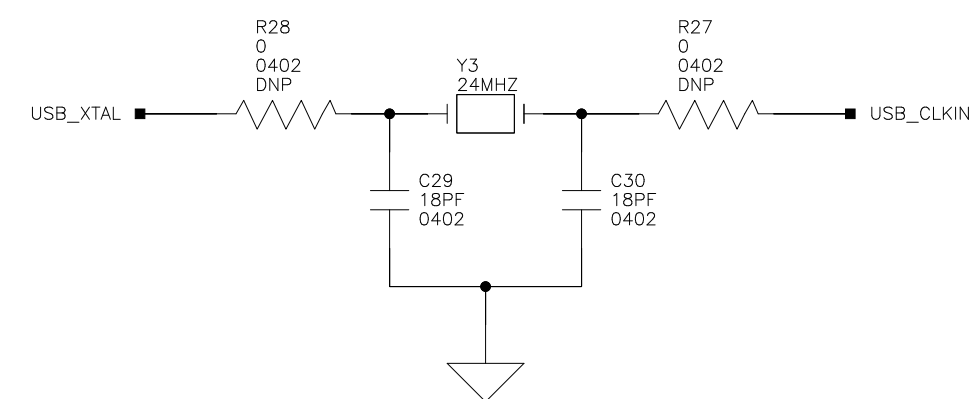
SW1: Boot mode selection switch

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

DEFAULT

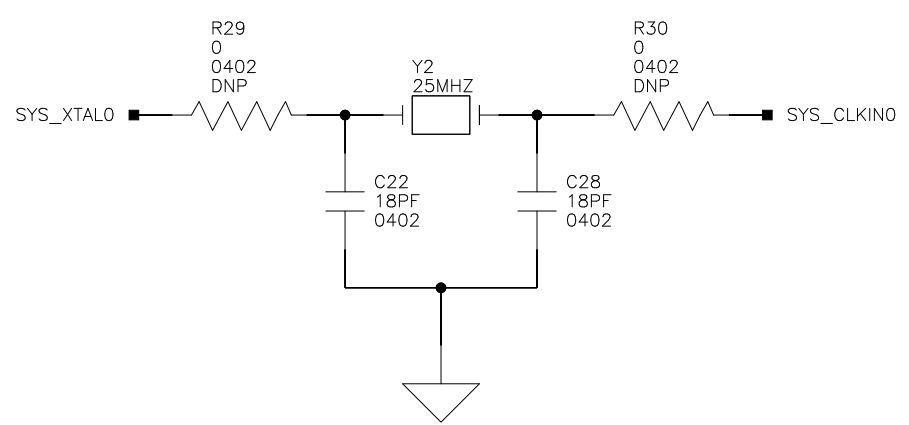
R36 should be depopulated when using the optional circuit

OPTIONAL USB CRYSTAL

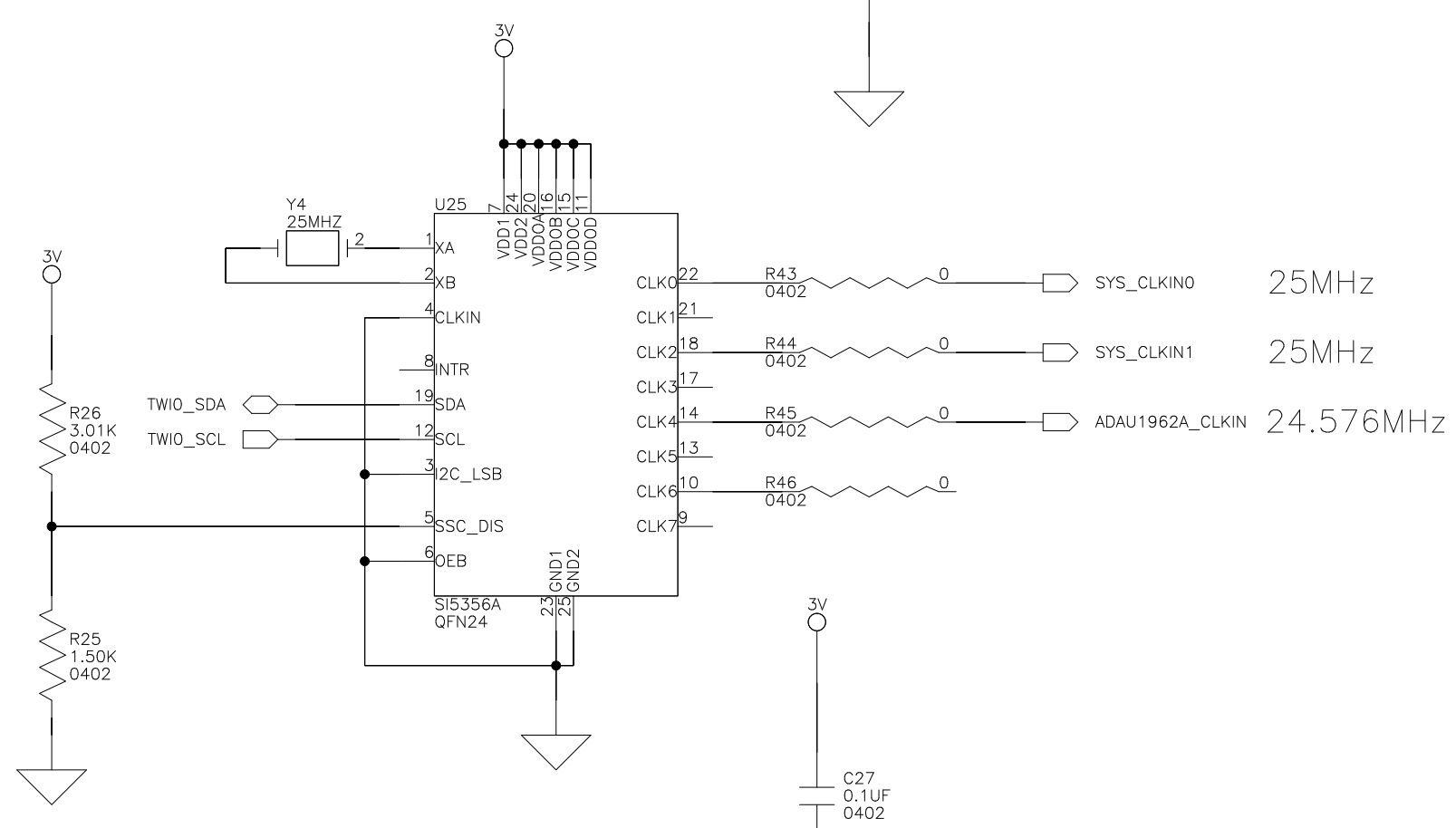
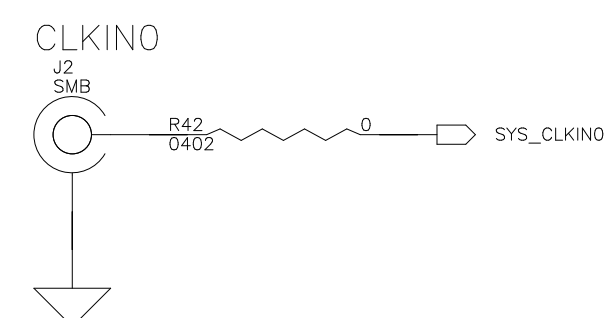
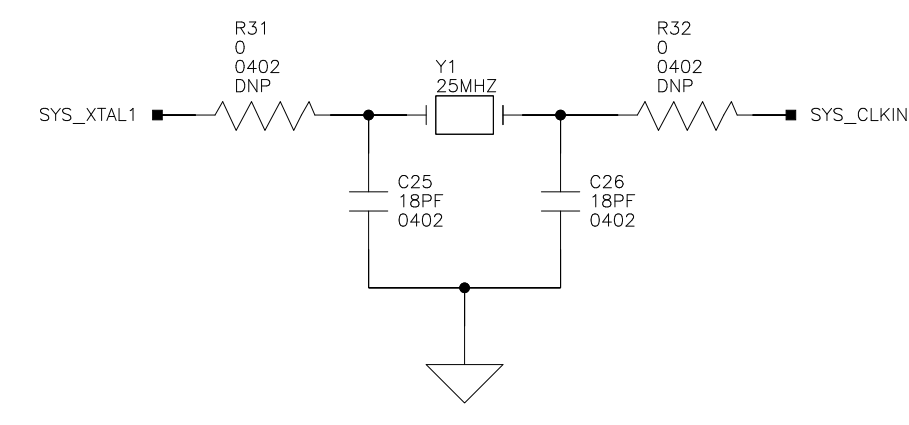


R43 should be depopulated when using the optional circuit

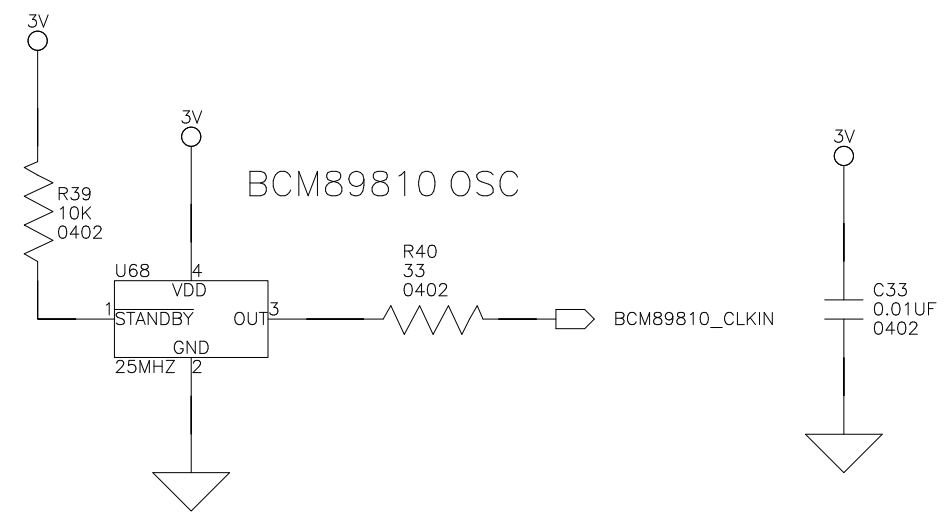
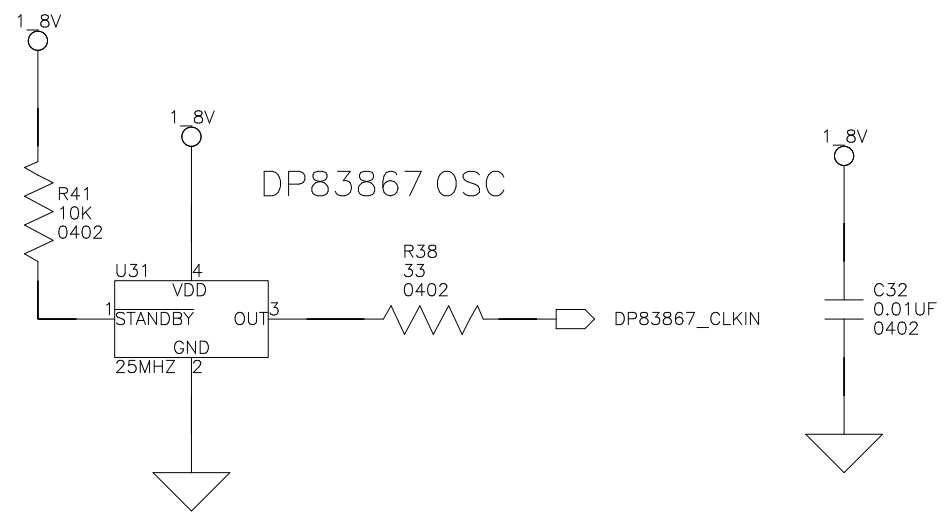
OPTIONAL DSP CRYSTALS



R44 should be depopulated when using the optional circuit

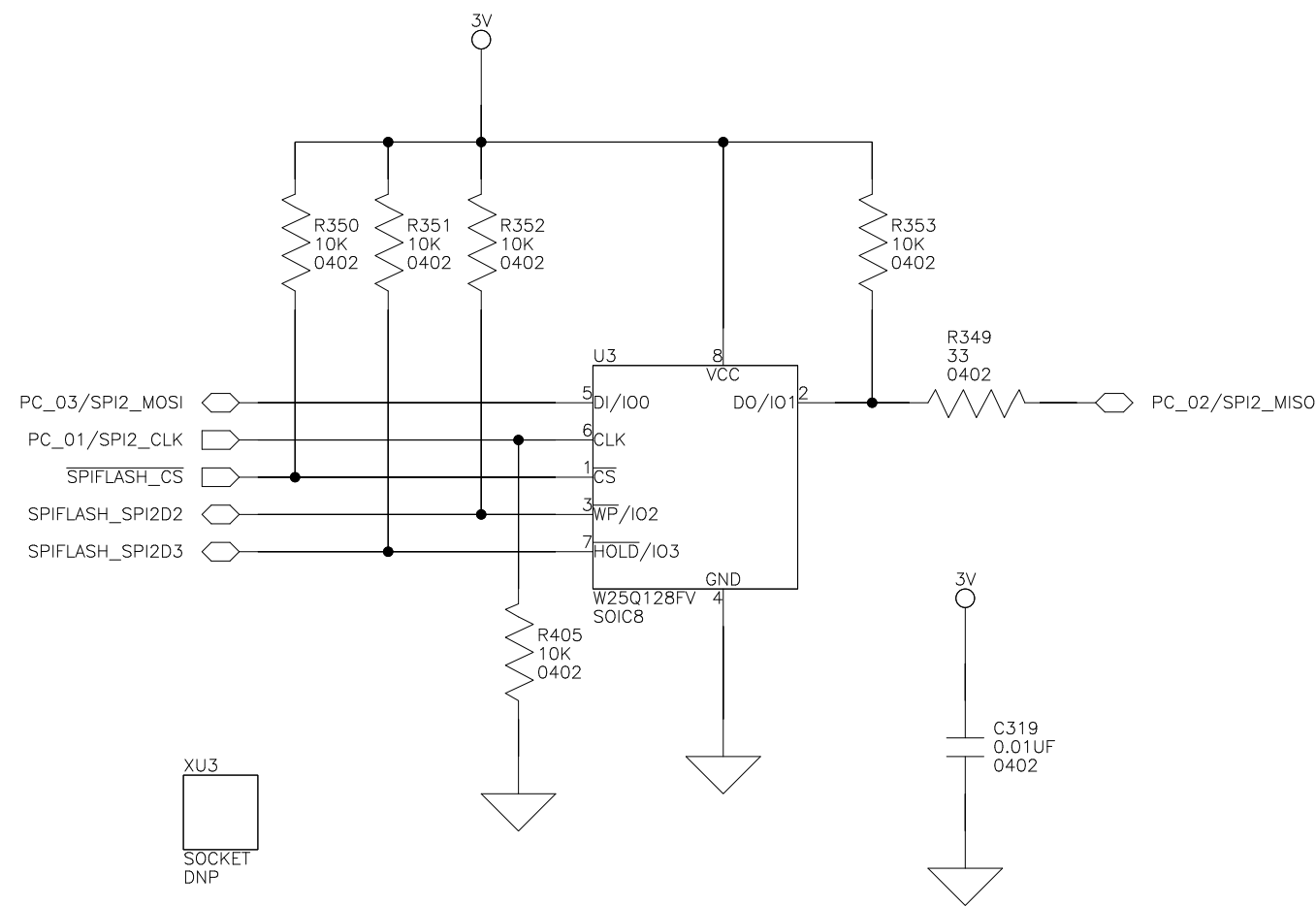


TWI Address 1110000x
x is the R/W bit. Read - 1, Write - 0

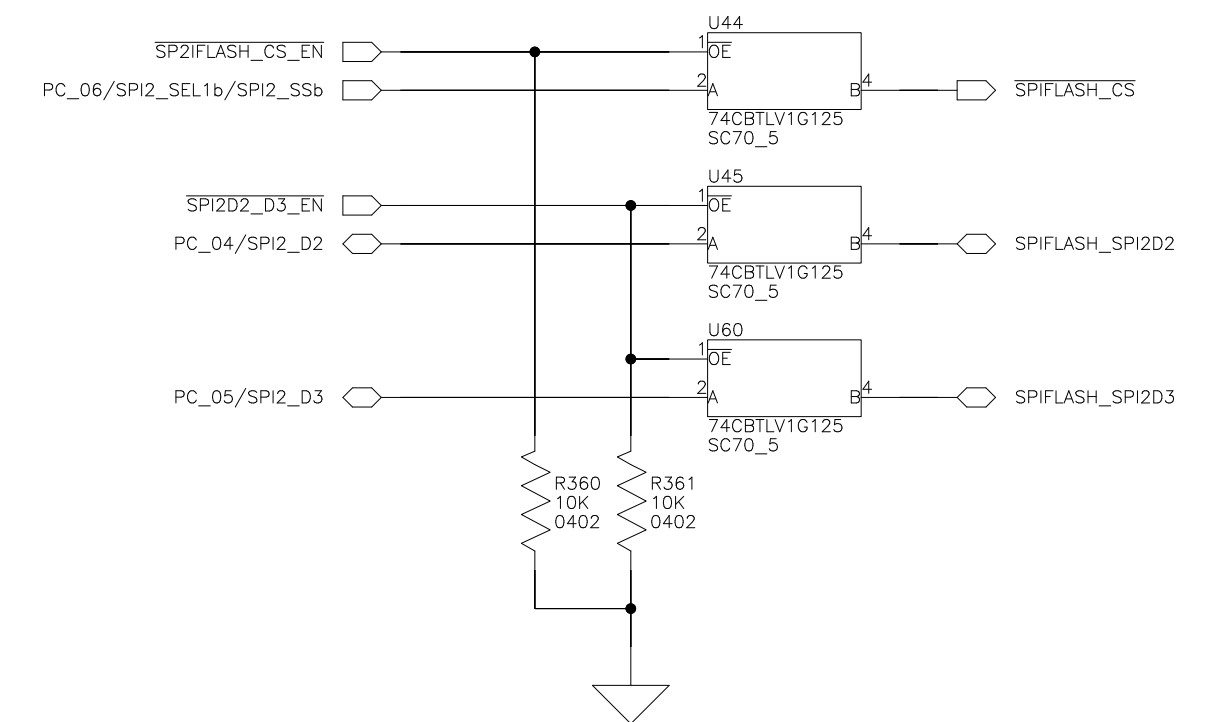
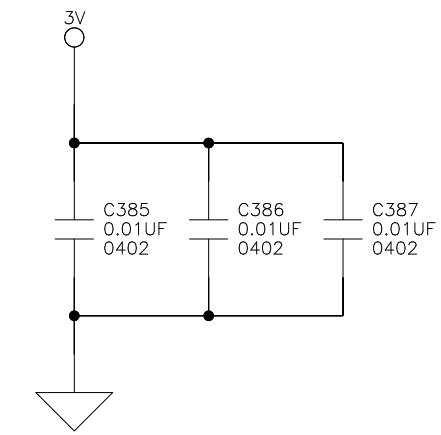
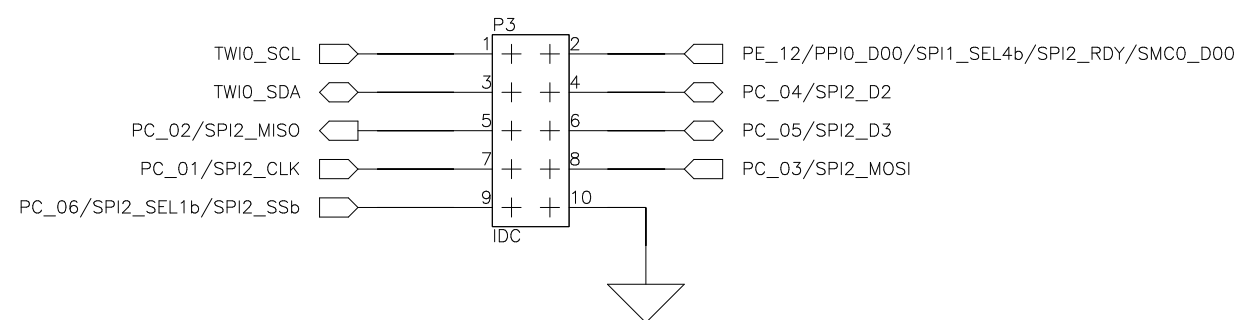
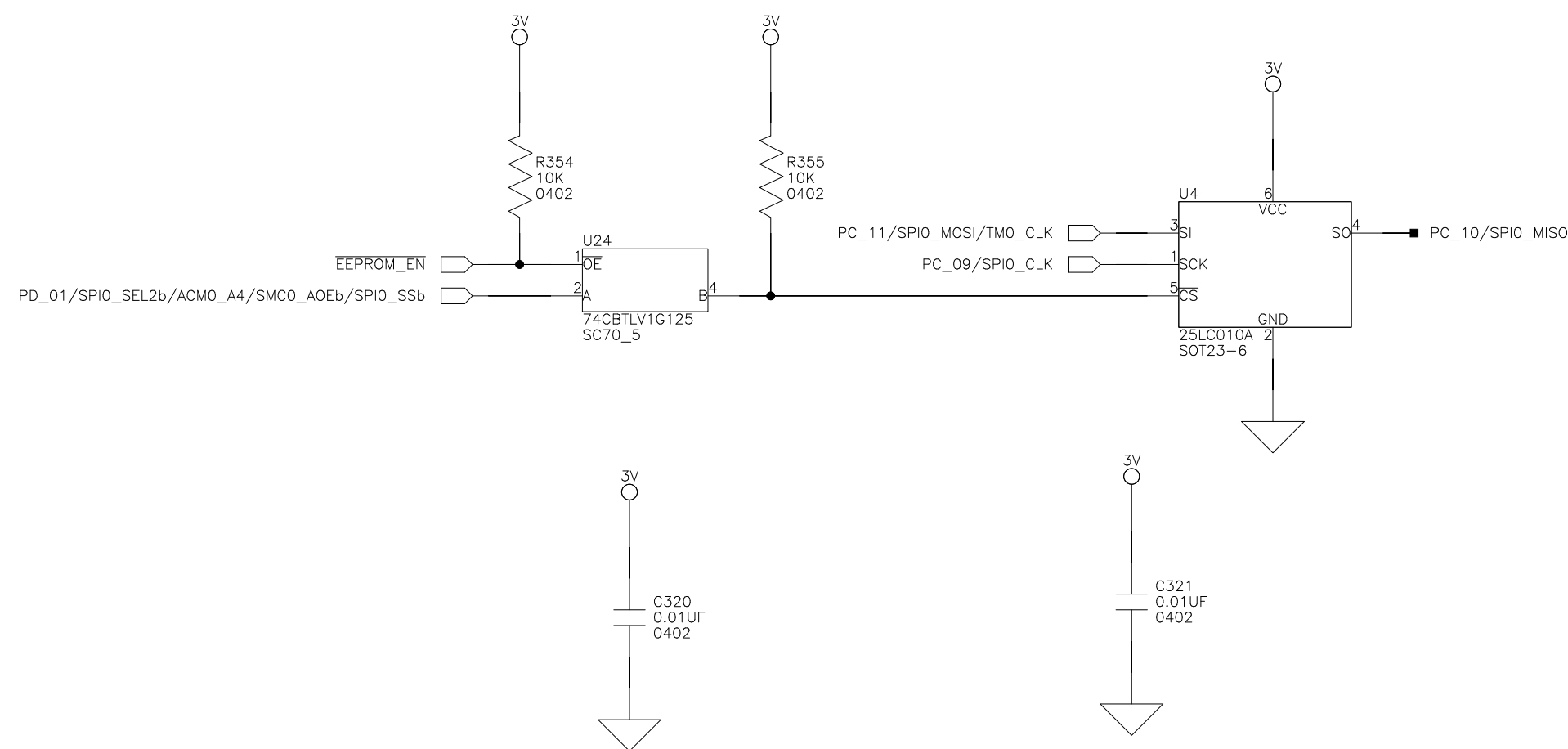



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board Clocks/Boot Mode	
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet 7	of 28

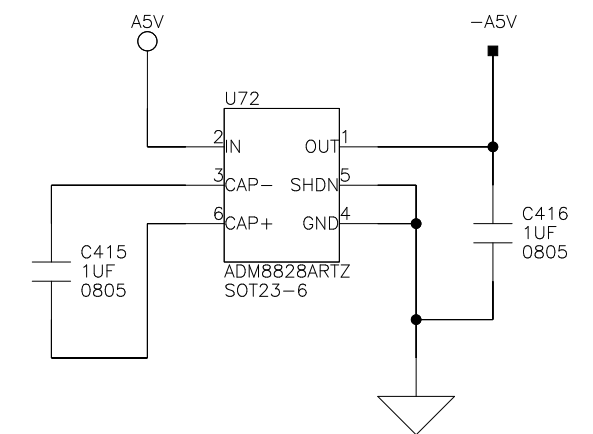
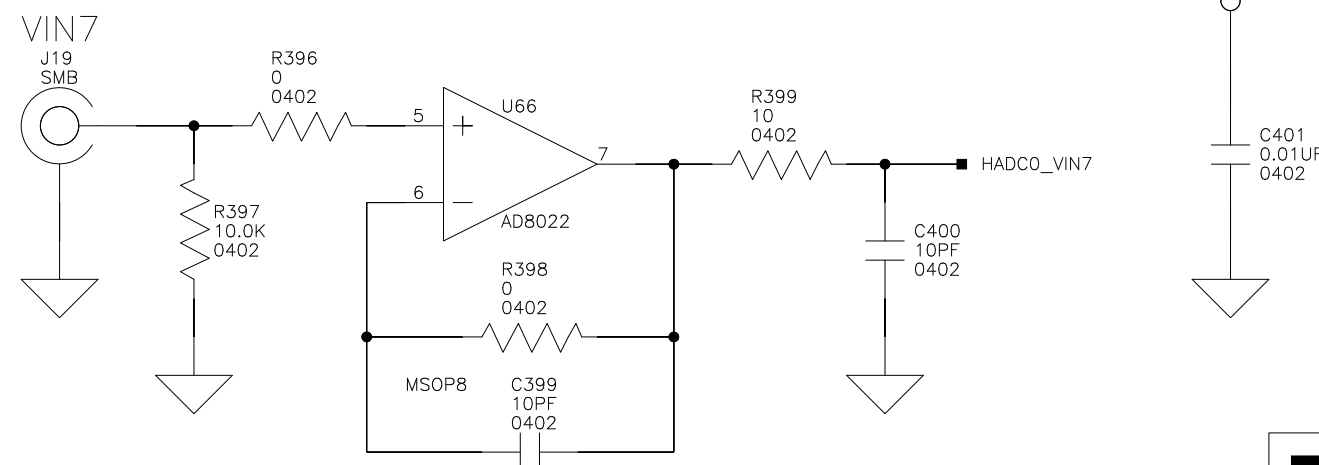
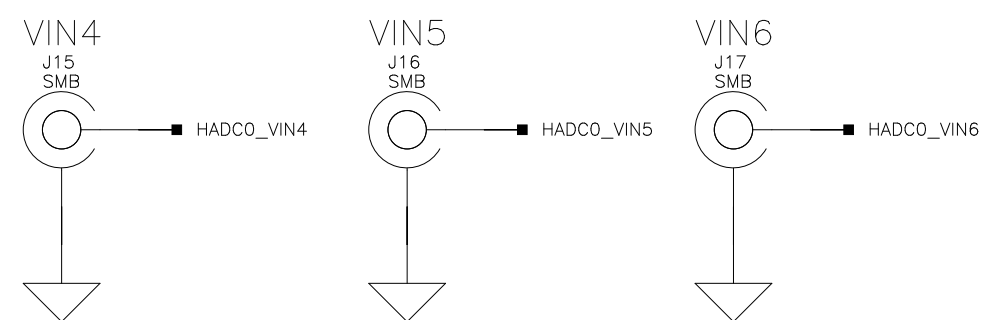
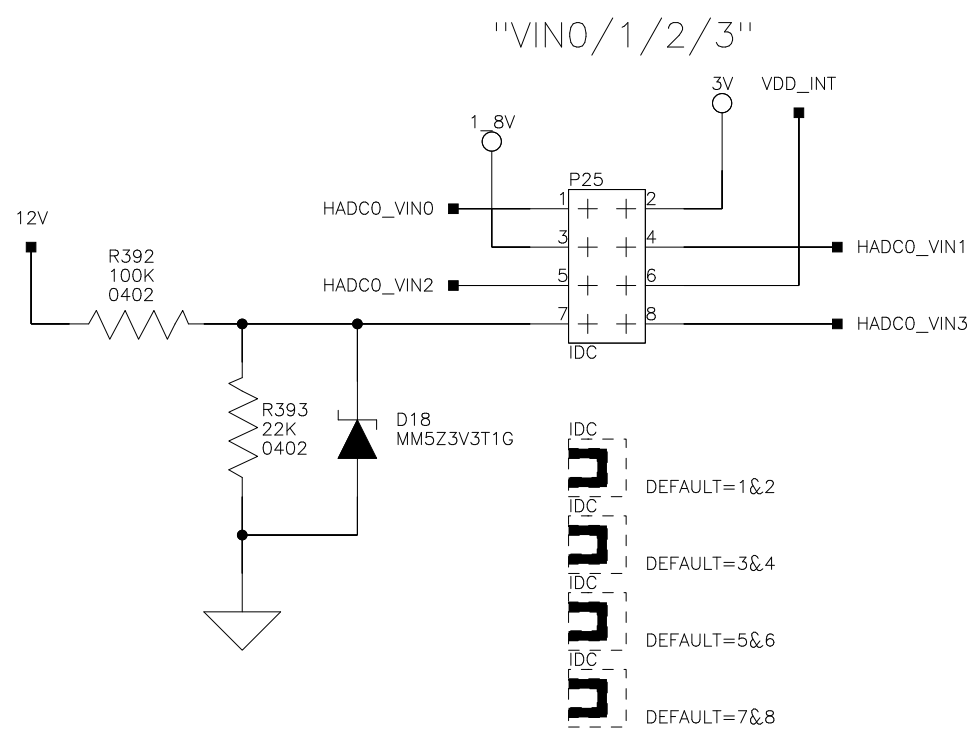
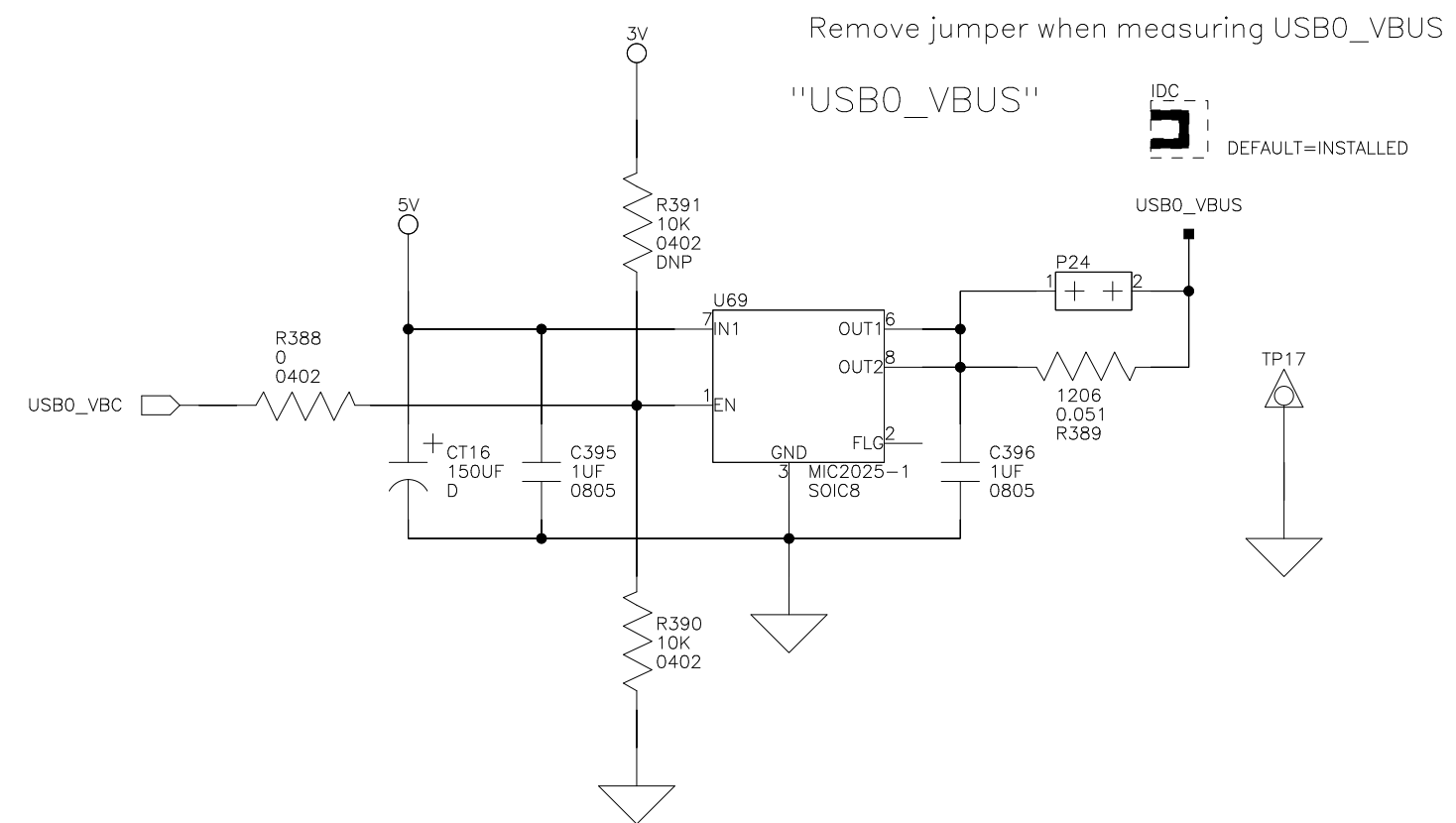
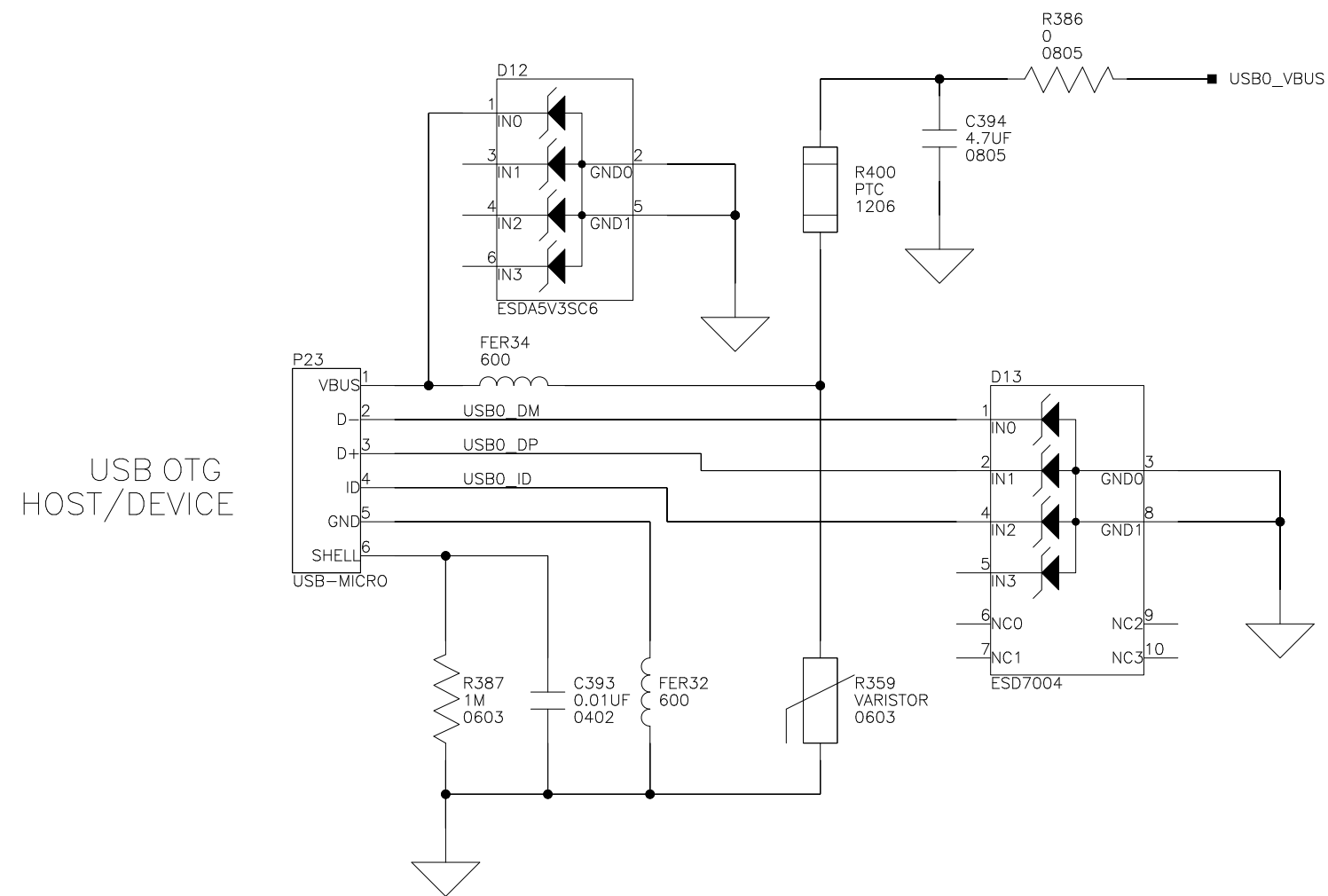
128Mb QUAD SPI FLASH



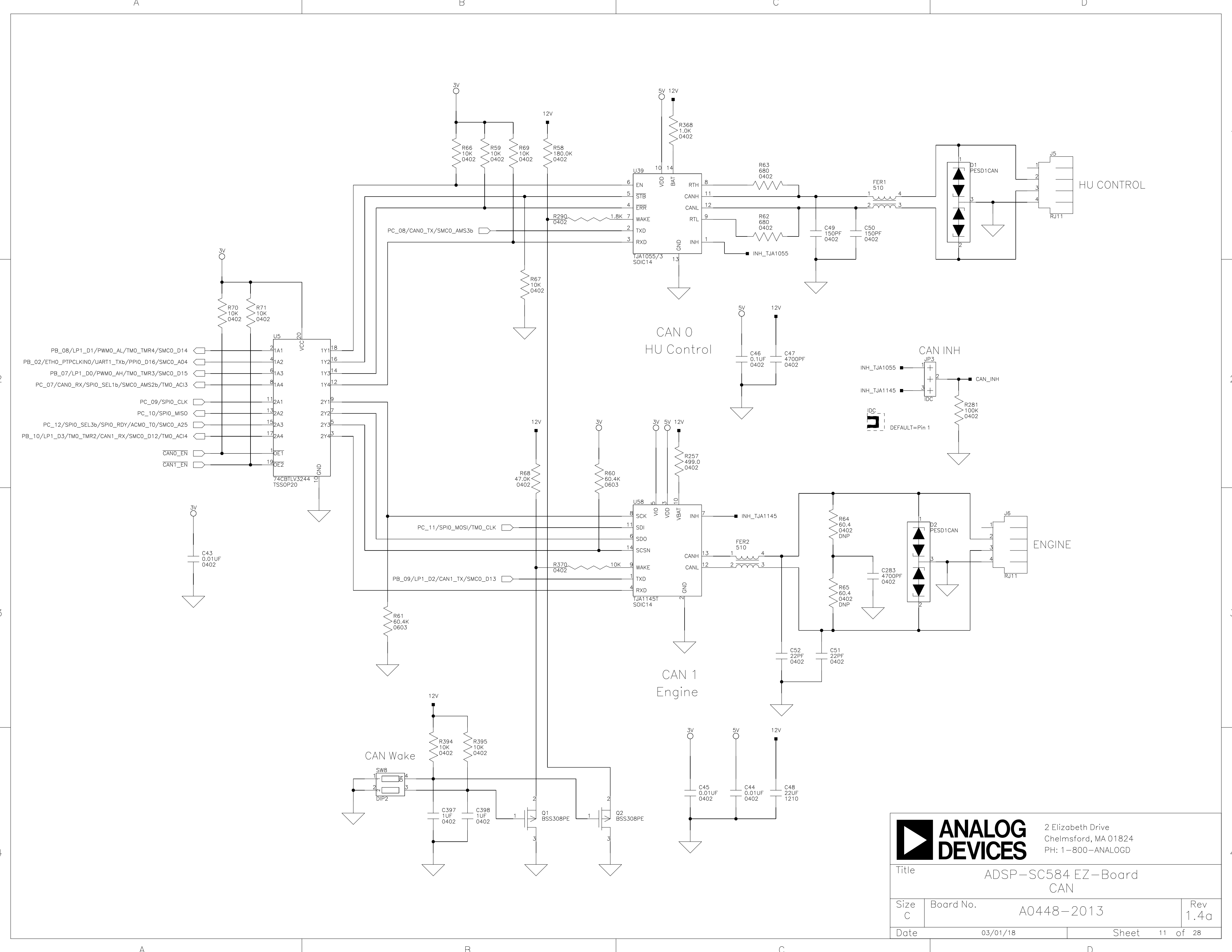
1Kb SPI EEPROM



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board SPI Flash	
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 8 of 28		



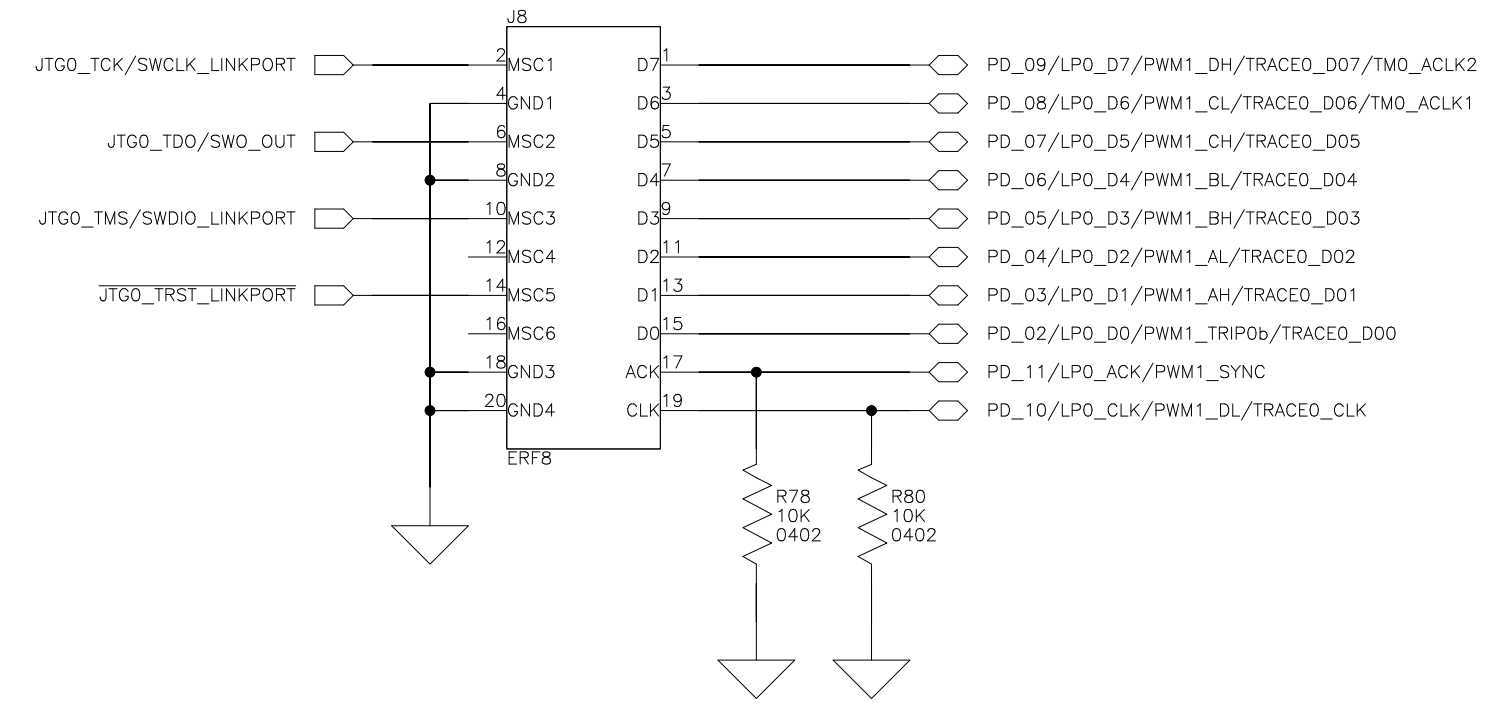
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board USB/ADC	
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 10 of 28		



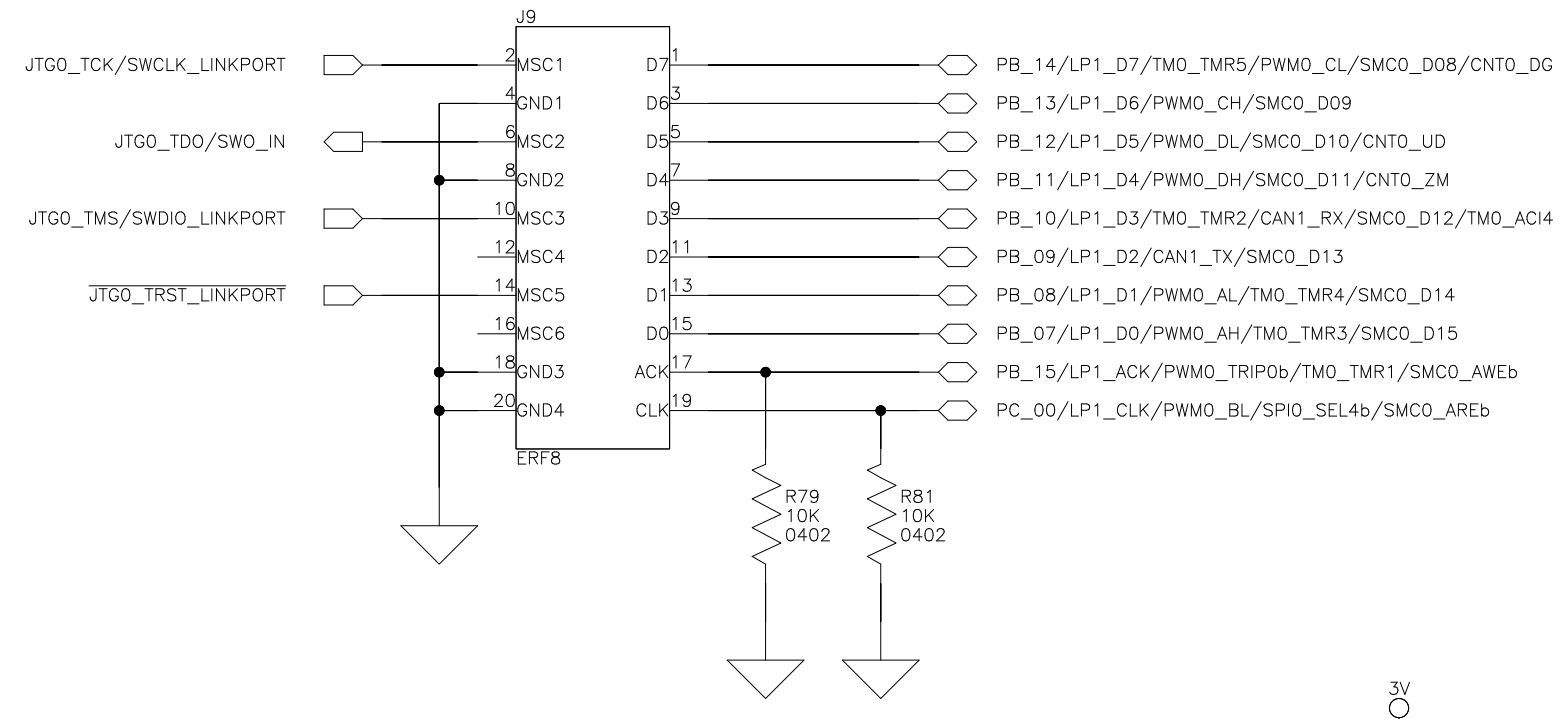
- PB_08/LP1_D1/PWM0_AL/TMO_TMR4/SMCO_D14
- PB_02/ETH0_PTPCLKINO/UART1_Txb/PPIO_D16/SMCO_A04
- PB_07/LP1_D0/PWM0_AH/TMO_TMR3/SMCO_D15
- PC_07/CAN0_RX/SPIO_SEL1b/SMCO_AMS2b/TMO_ACI3
- PC_09/SPIO_CLK
- PC_10/SPIO_MISO
- PC_12/SPIO_SEL3b/SPIO_RDY/ACMO_T0/SMCO_A25
- PB_10/LP1_D3/TMO_TMR2/CAN1_RX/SMCO_D12/TMO_ACI4
- CAN0_EN
- CAN1_EN

		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOG	
Title ADSP-SC584 EZ-Board CAN			
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet 11	of 28

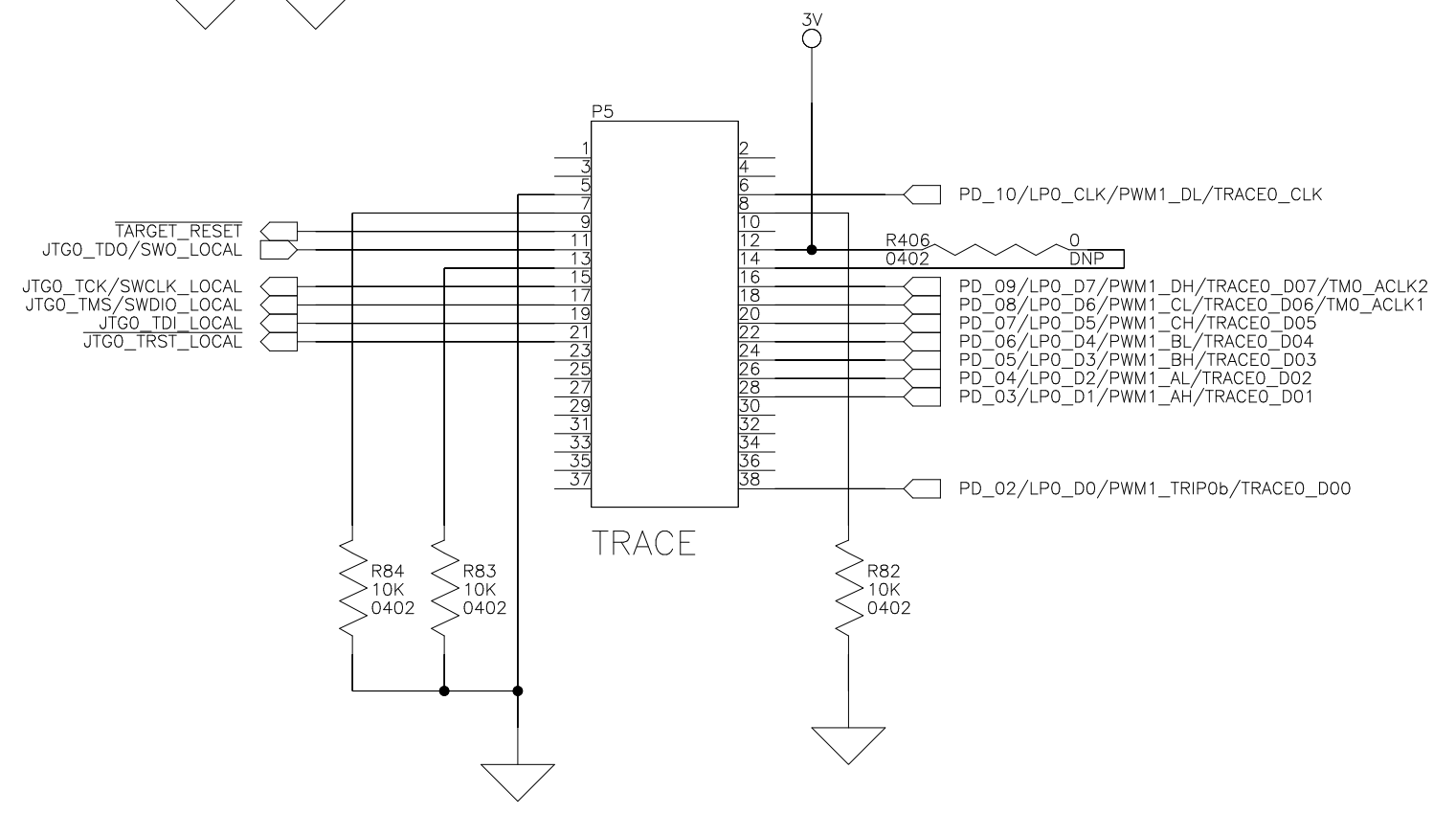
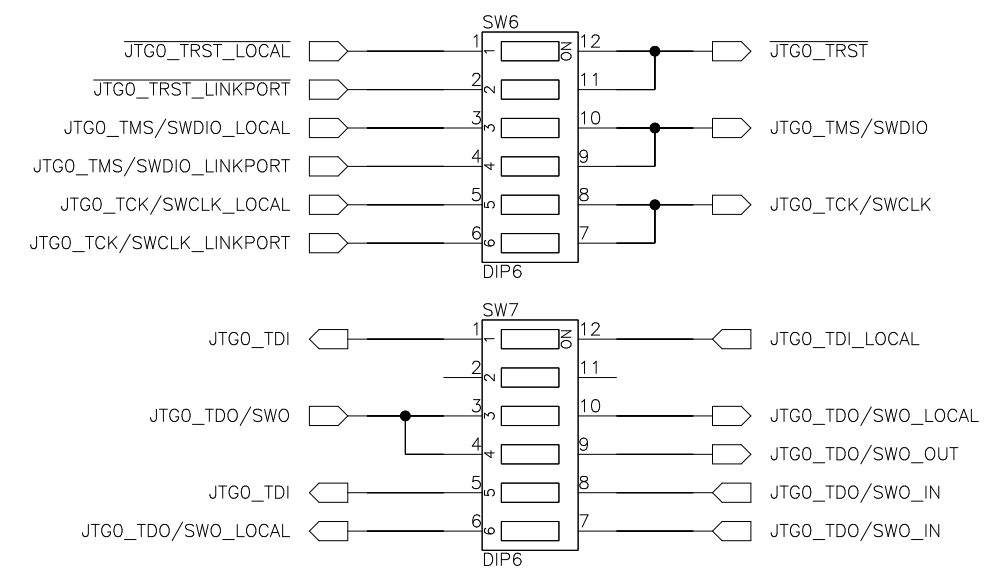
LINK PORT 0 / JTAG OUT



LINK PORT 1 / JTAG IN



JTAG SWITCHES

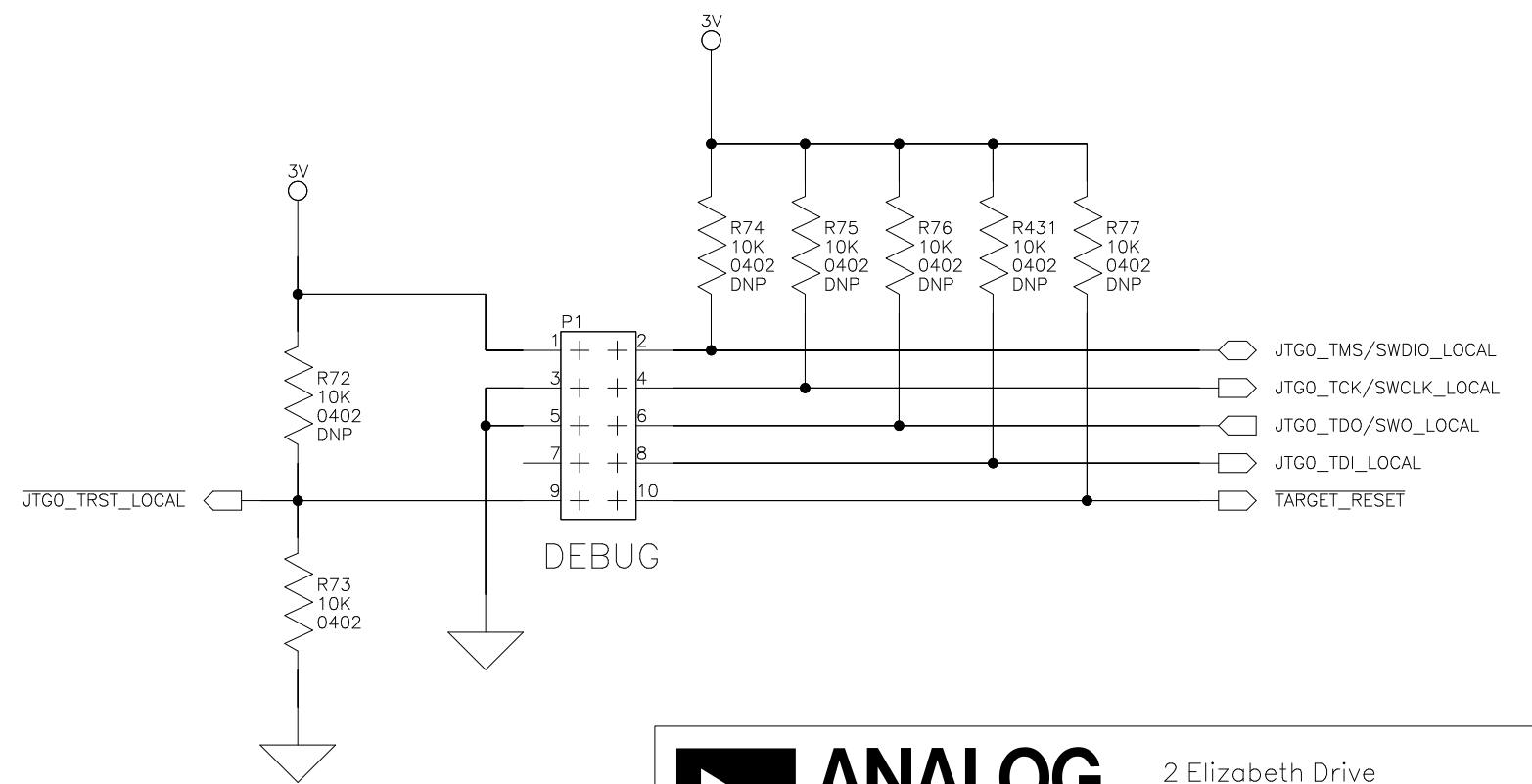


SINGLE PROCESSOR JTAG SETTINGS EMULATOR OR DEBUG AGENT (DEFAULT)

SWITCH	BOARD ATTACHED TO EMULATOR
SW6.1	ON
SW6.2	OFF
SW6.3	ON
SW6.4	OFF
SW6.5	ON
SW6.6	OFF
SW7.1	ON
SW7.2	OFF
SW7.3	ON
SW7.4	OFF
SW7.5	OFF
SW7.6	OFF

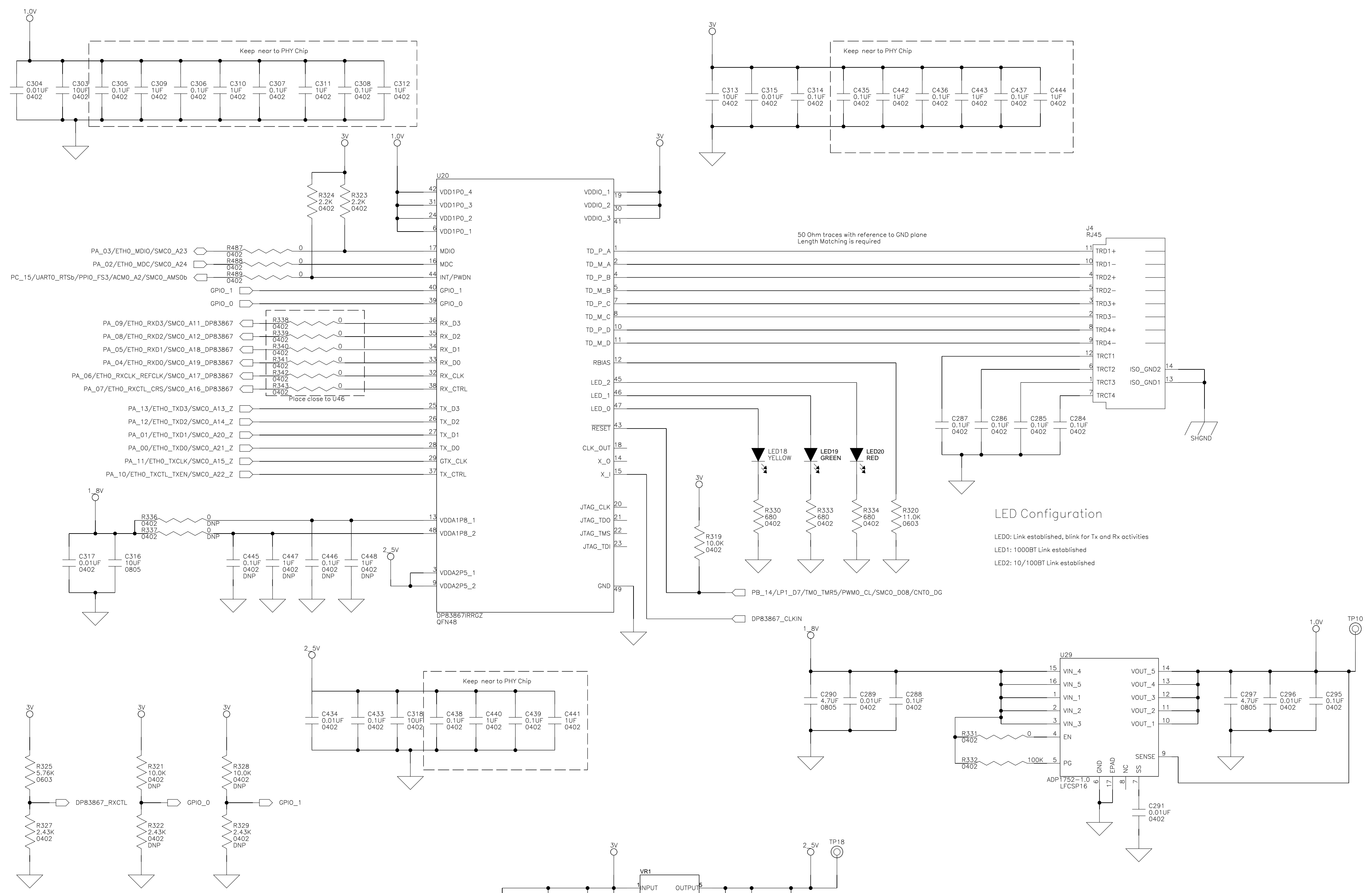
MULTI PROCESSOR JTAG SETTINGS USING TWO OR MORE EZ-BOARDS (LINK PORT CABLES REQUIRED FOR MORE THAN TWO BOARDS)

SWITCH	BOARD ATTACHED TO EMULATOR	BOARD(S) NOT ATTACHED TO EMULATOR
SW6.1	ON	OFF
SW6.2	ON	ON
SW6.3	ON	OFF
SW6.4	ON	ON
SW6.5	ON	OFF
SW6.6	ON	ON
SW7.1	ON	OFF
SW7.2	OFF	OFF
SW7.3	OFF	OFF
SW7.4	ON	ON
SW7.5	OFF	ON
SW7.6	ON	OFF



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

Title		ADSP-SC584 EZ-Board Link Port/Debug	
Size	Board No.	A0448-2013	
Date	03/01/18	Sheet	12 of 28
		Rev 1.4a	



Strap Configuration

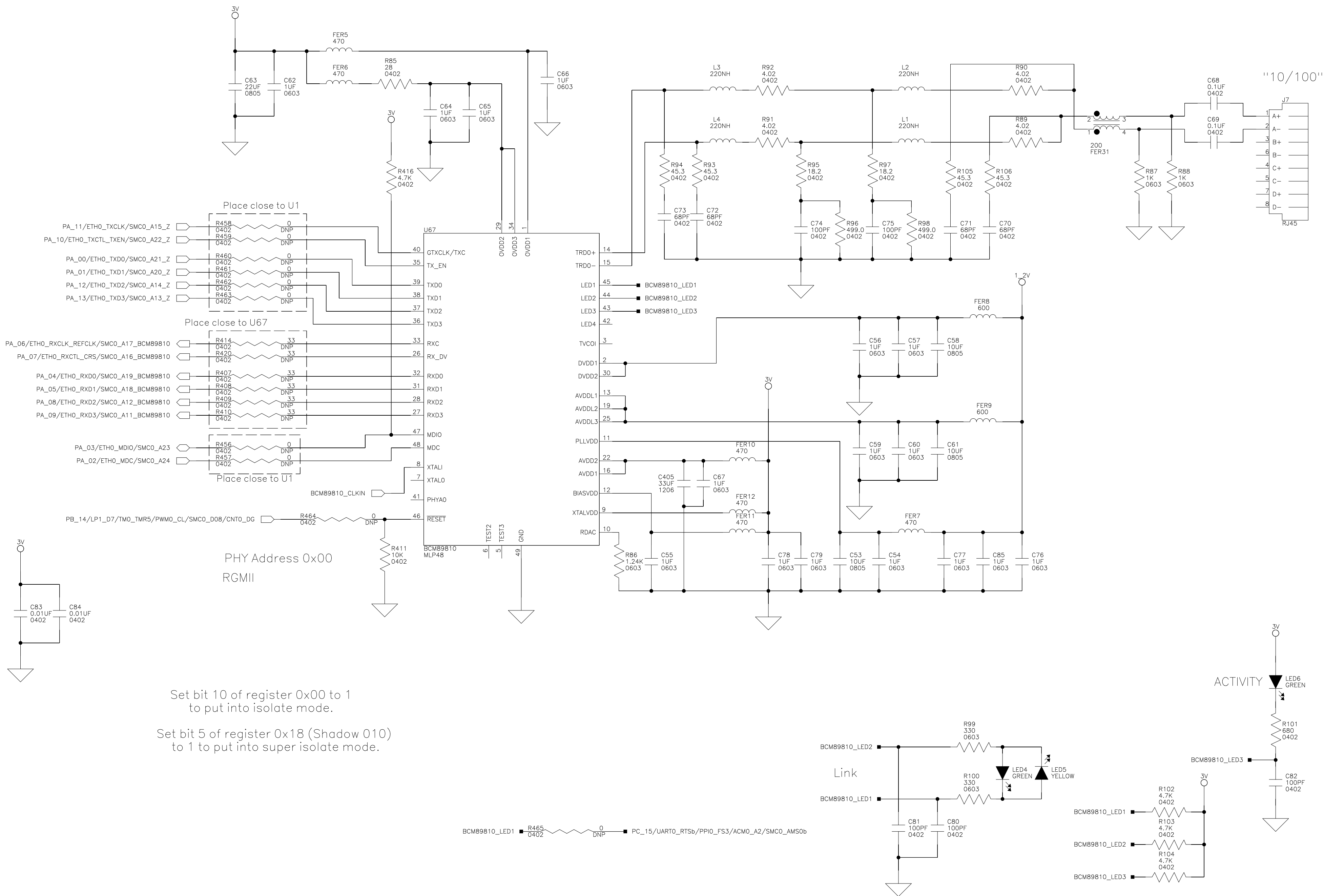
RX_D0: MODE 1 - PHY_ADD1 0 and PHY_ADD0 0
 RX_D2: MODE 1 - PHY_ADD3 0 and PHY_ADD2 0
 RX_DV/RX_CTRL - MODE 3 - Autoneg Disable 0
 GPIO_0: MODE 1 - RGMII Clock Skew RX[0] 0
 GPIO_1: MODE 1 - RGMII Clock Skew RX[2] 0 and RX[1] 0 --> Clock Skew 2.0nS
 LED0: MODE 1 - Mirror Enable 0
 LED1: MODE 1 - ANEG_SEL 0 & RGMII Clock Skew TX[2] 0
 LED2: MODE 1 - RGMII Clock Skew TX[1] 0 and TX[0] 0 --> Clock Skew 2.0nS

LED Configuration

LED0: Link established, blink for Tx and Rx activities
 LED1: 1000BT Link established
 LED2: 10/100BT Link established

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

Title		ADSP-SC584 EZ-Board DP83867	
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet	13 of 28



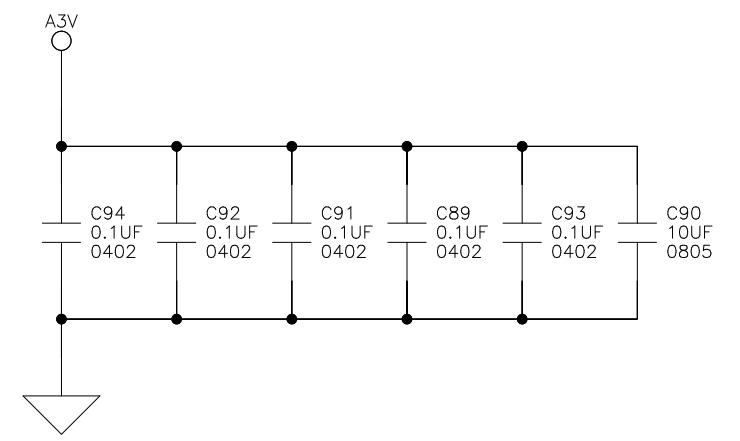
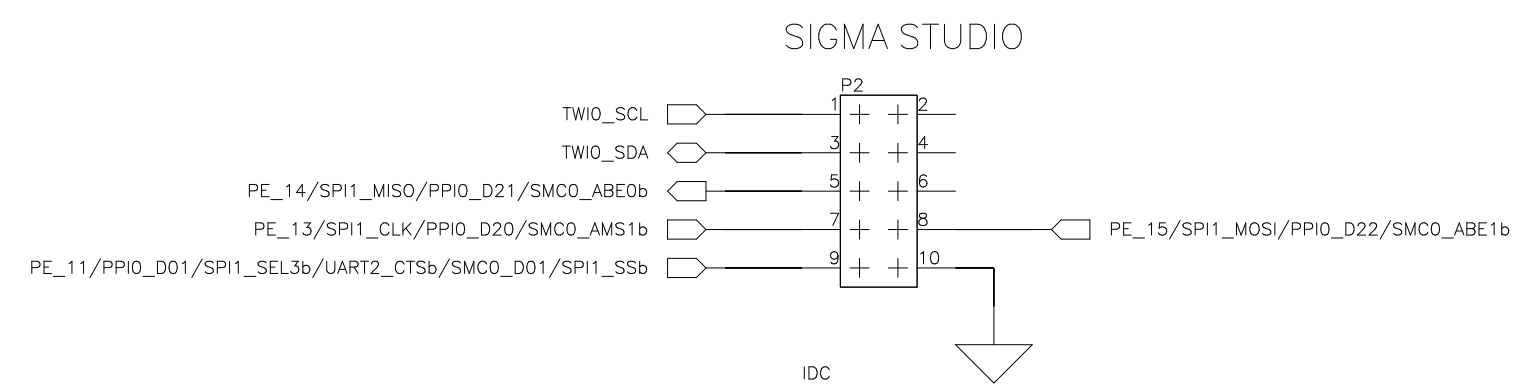
Set bit 10 of register 0x00 to 1 to put into isolate mode.

Set bit 5 of register 0x18 (Shadow 010) to 1 to put into super isolate mode.

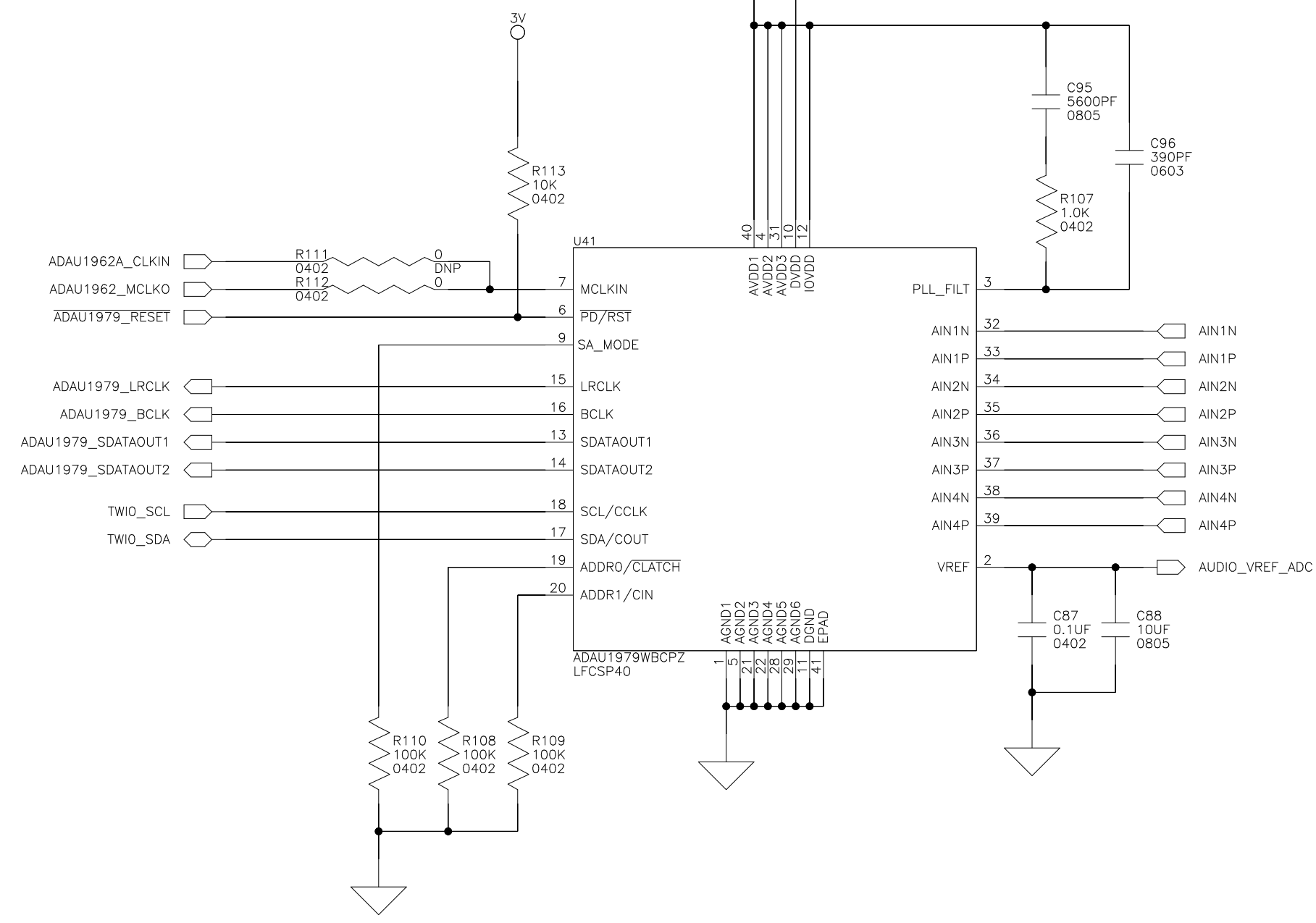
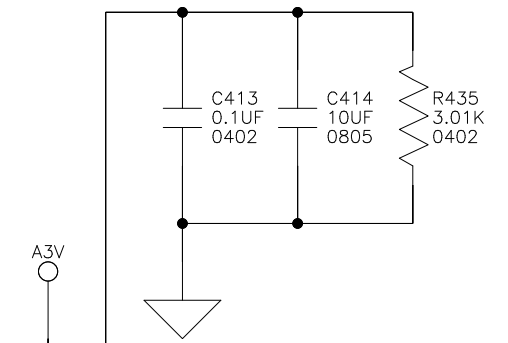
ANALOG DEVICES
 2 Elizabeth Drive
 Chelmsford, MA 01824
 PH: 1-800-ANALOGD

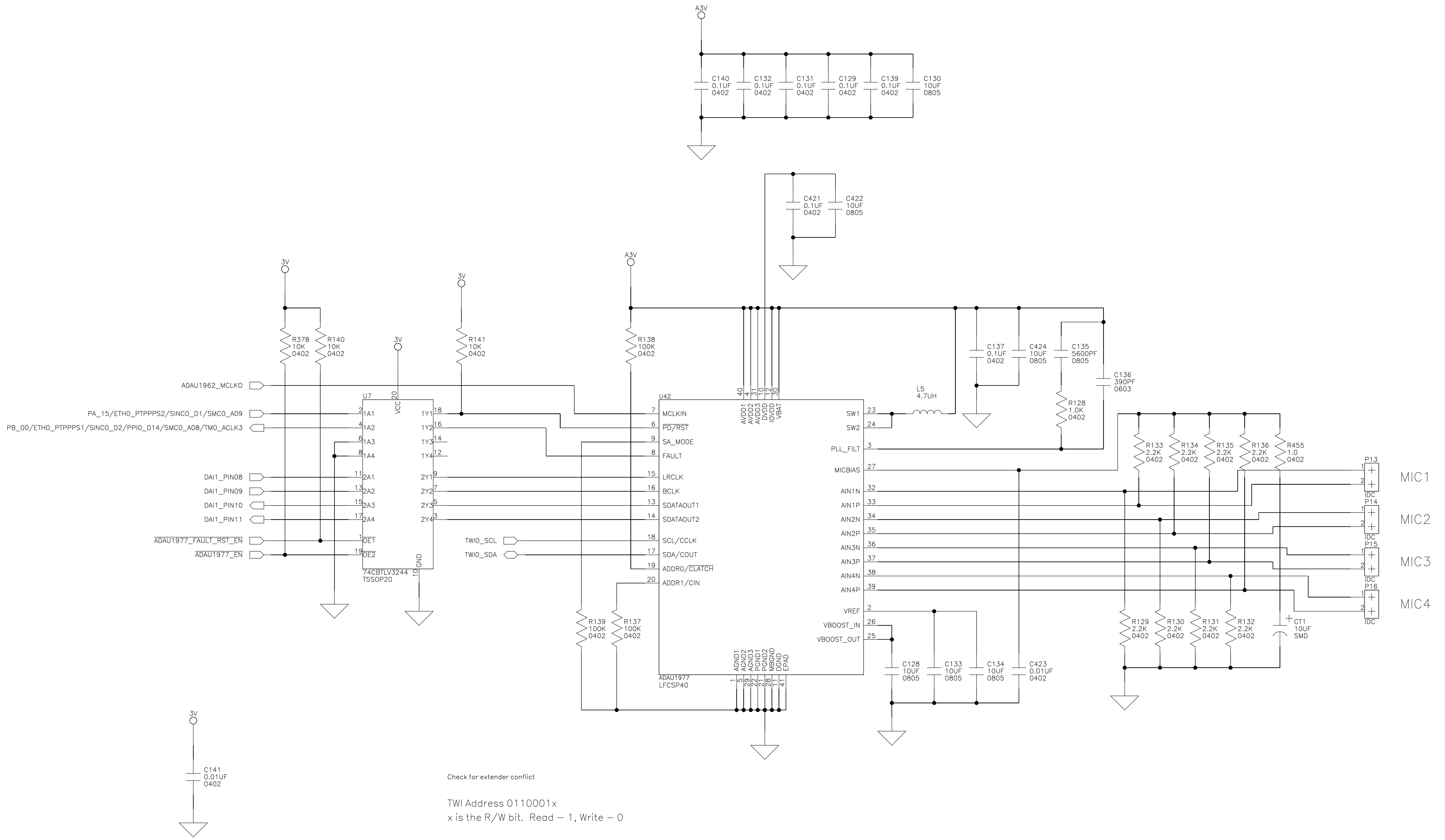
Title: ADSP-SC584 EZ-Board BCM89810

Size C	Board No. A0448-2013	Rev 1.4a
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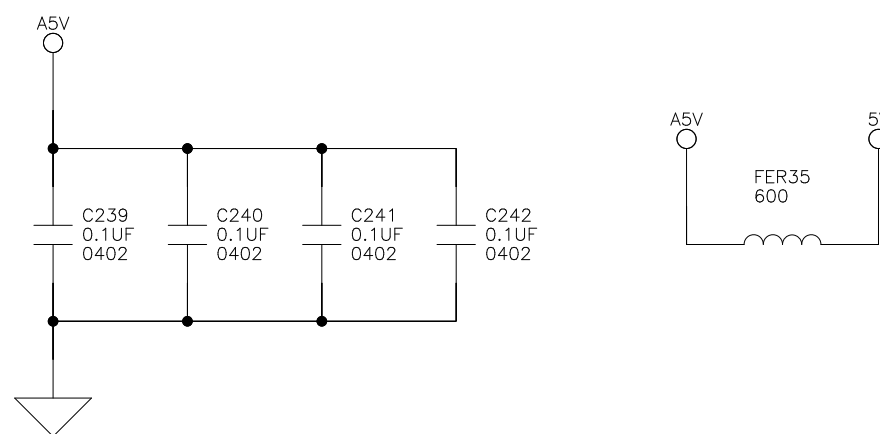
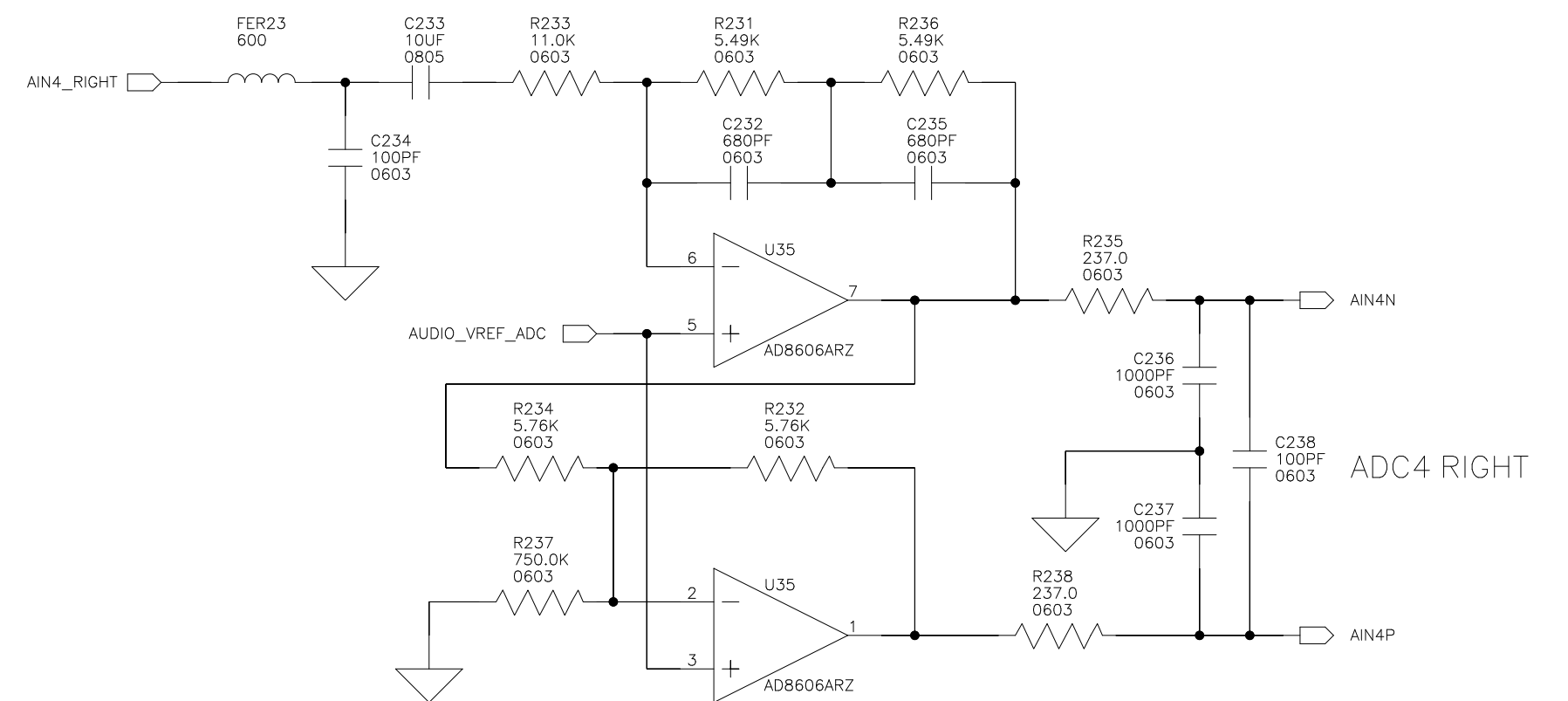
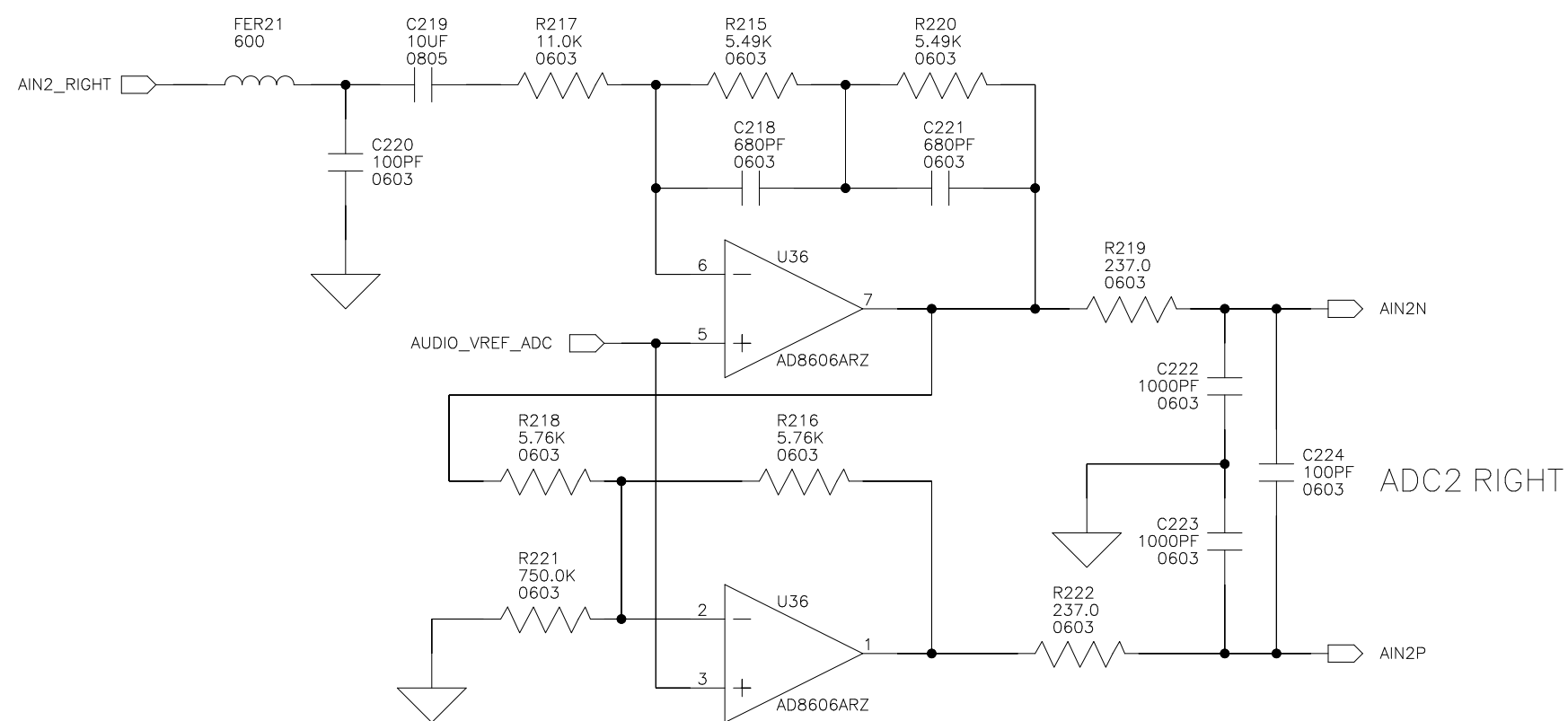
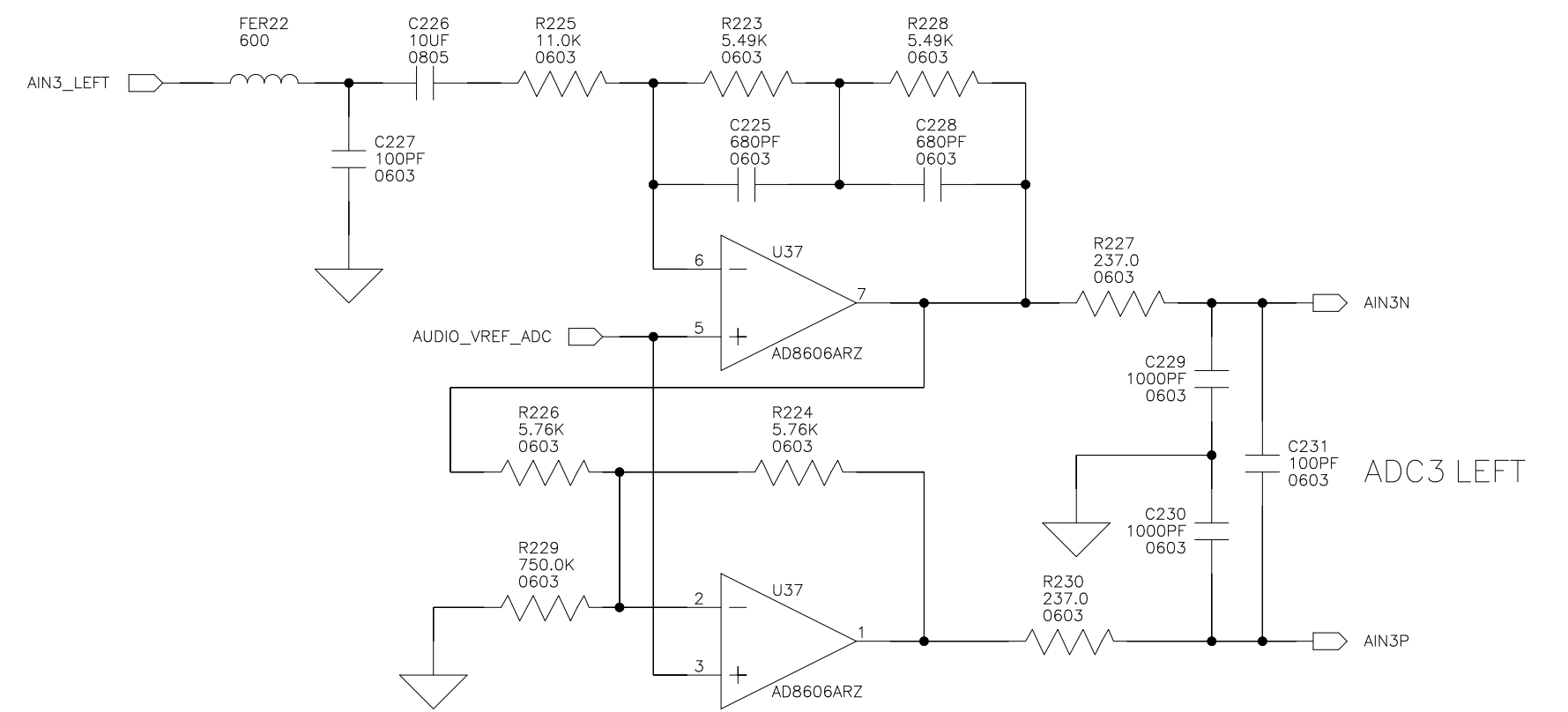
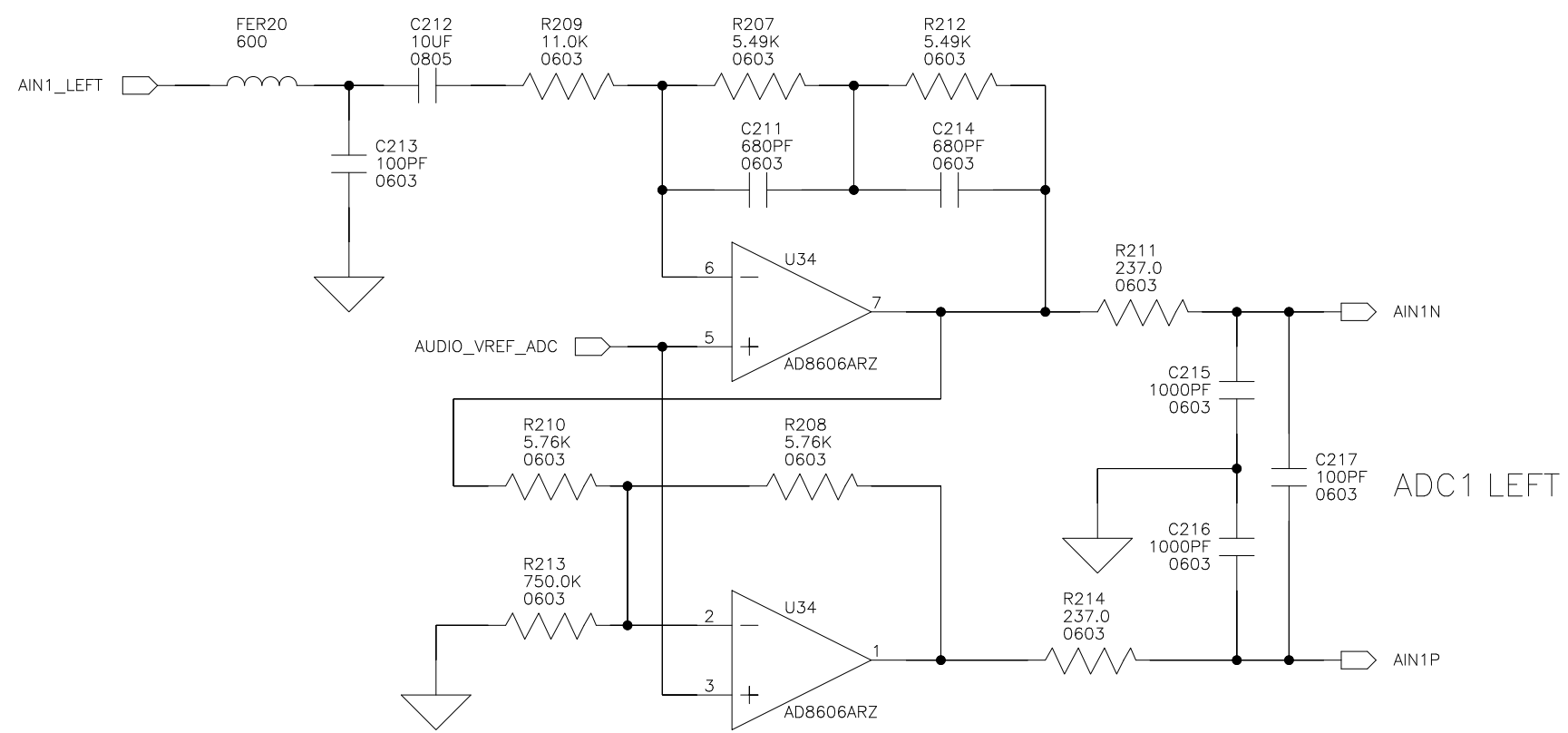
IDC




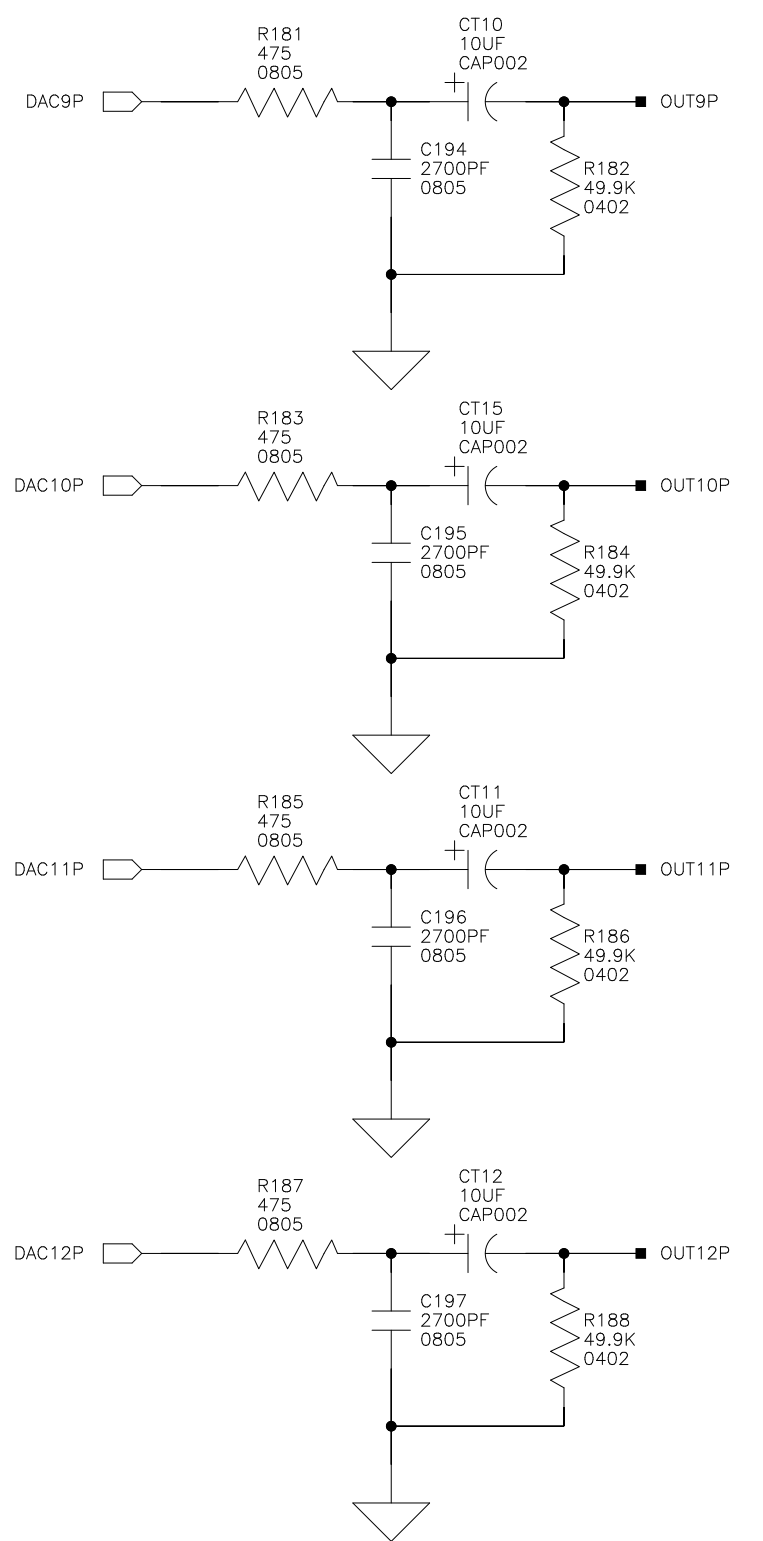
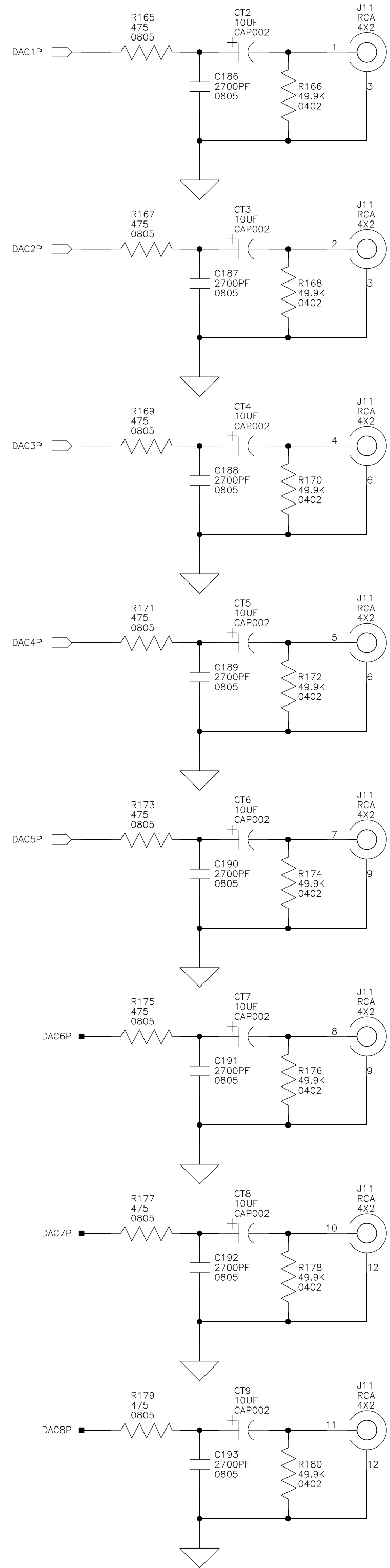


Check for extender conflict
 TWI Address 0110001x
 x is the R/W bit. Read = 1, Write = 0

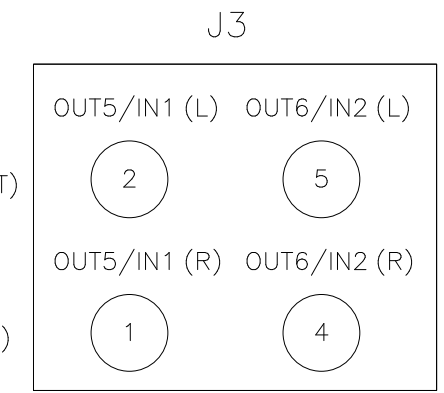
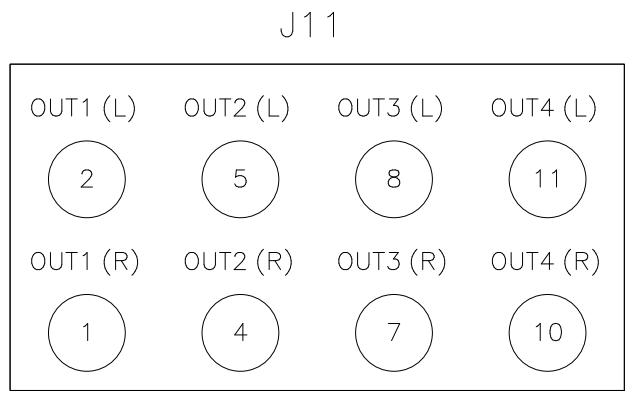
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC584 EZ-Board ADAU1977			
Size C	Board No. A0448-2013	Rev 1.4a	
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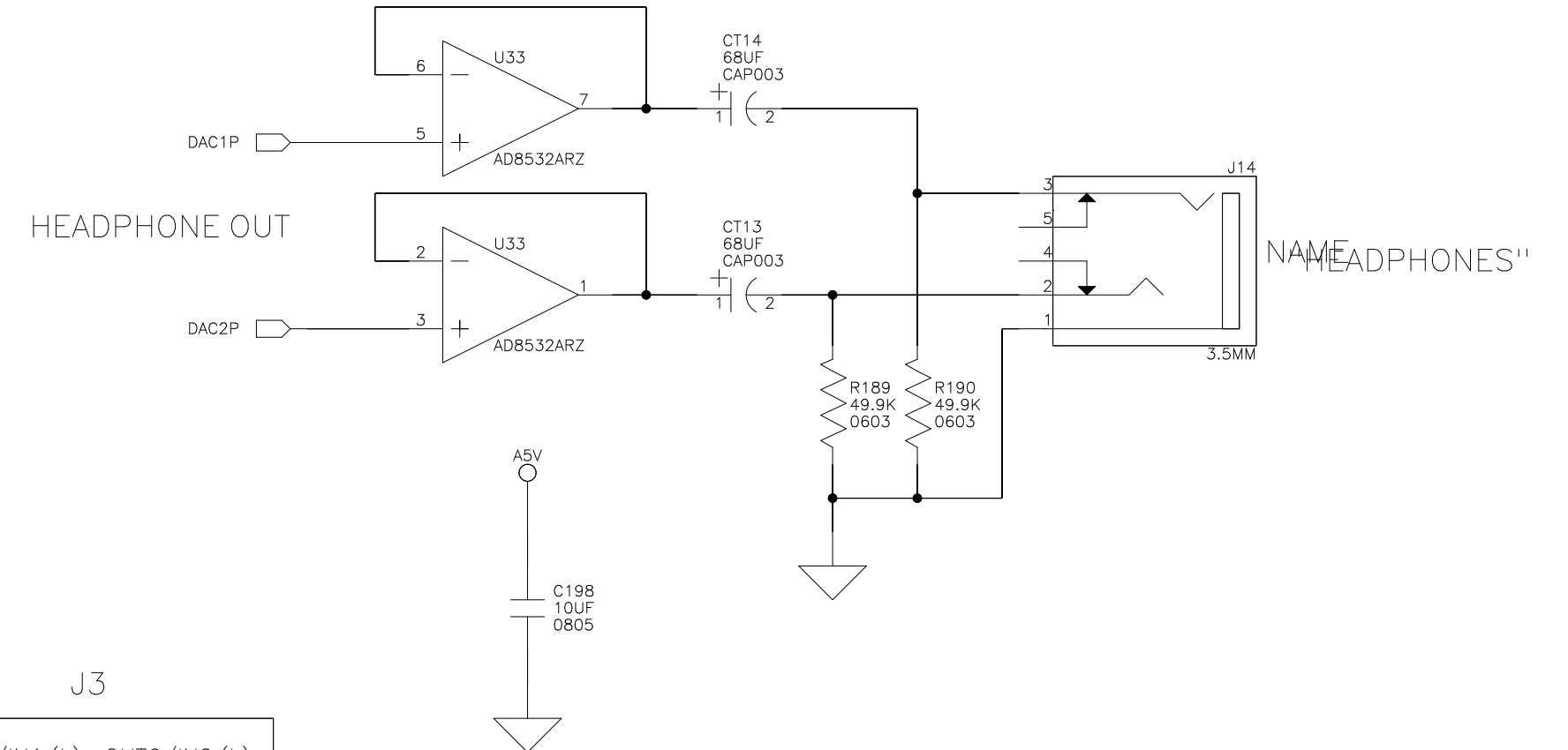
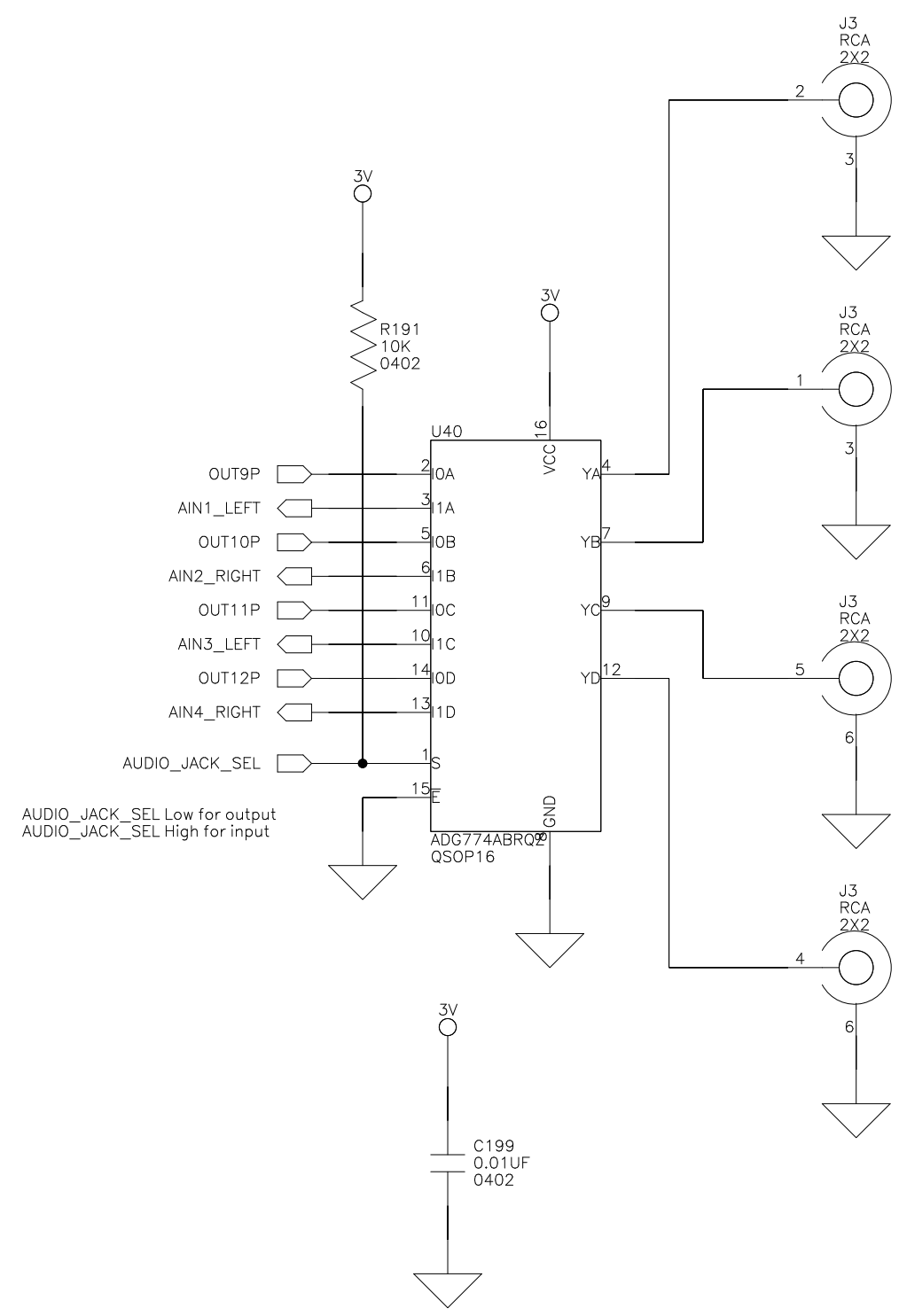
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board Audio Input	
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 18 of 28		



"INPUT"

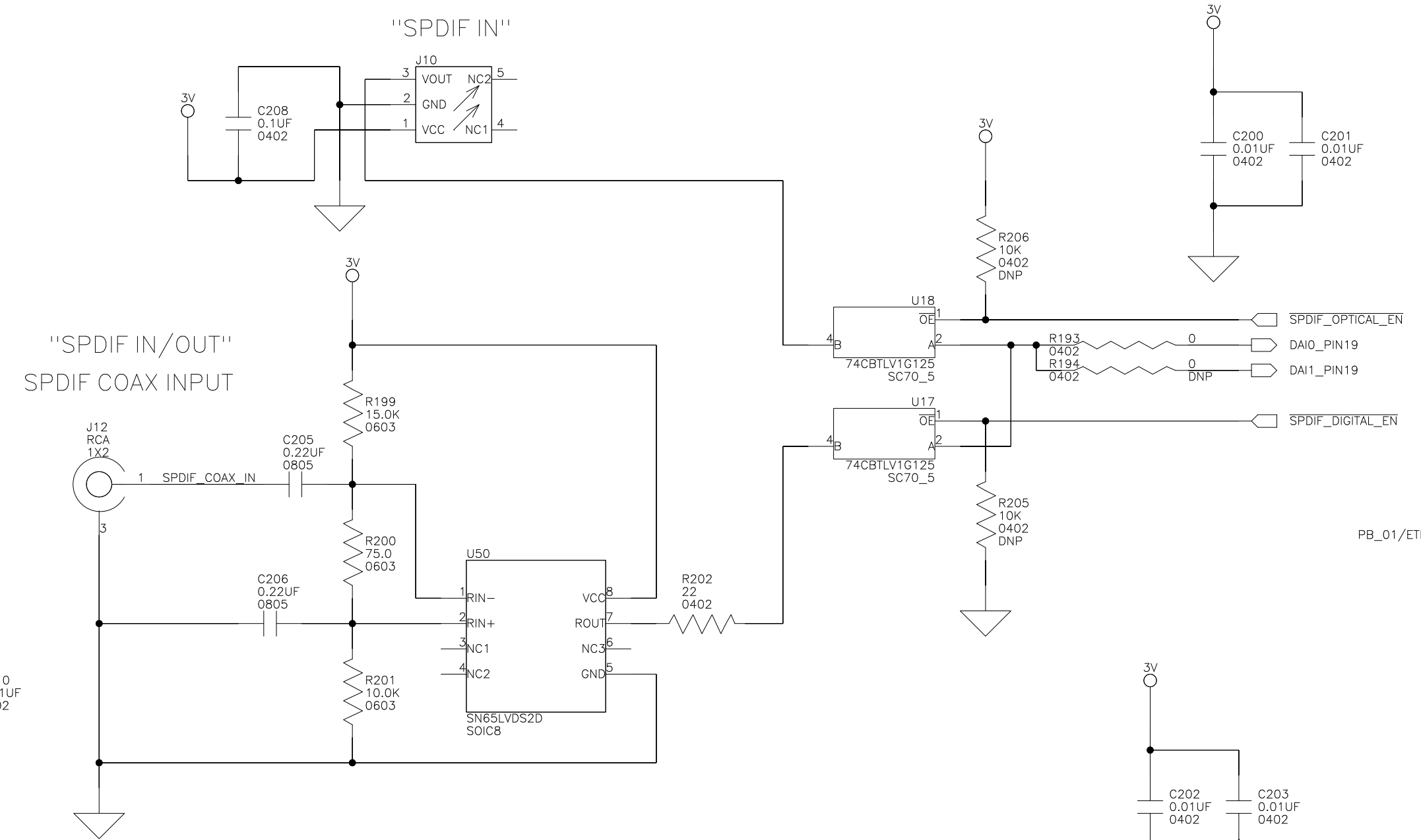


NOTE: THE NUMBER INSIDE EACH OF THE CIRCLES IS THE ACTUAL PIN NUMBER FOR THE RESPECTIVE CONNECTOR.

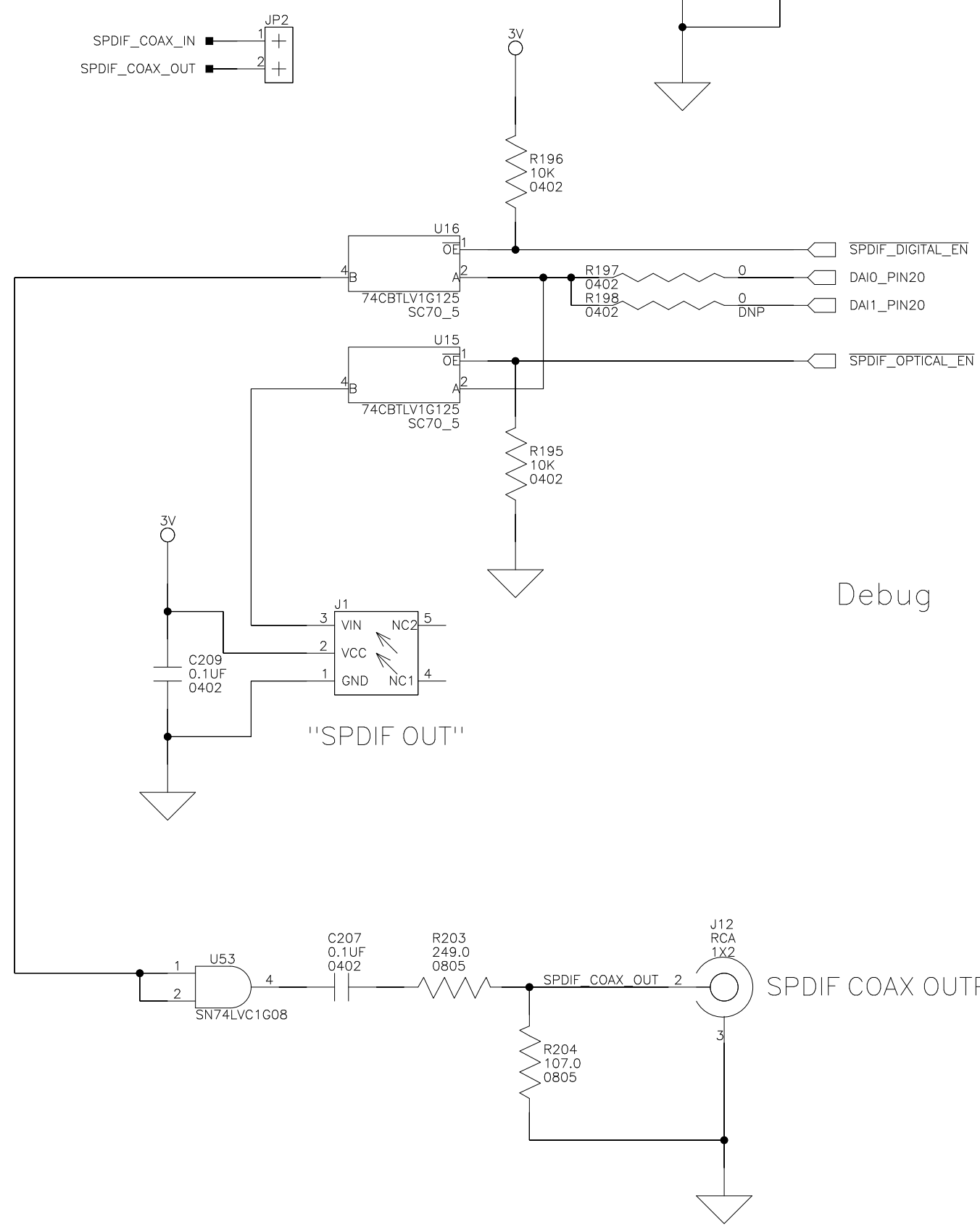
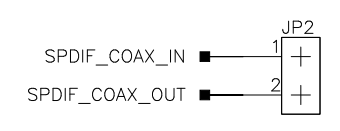
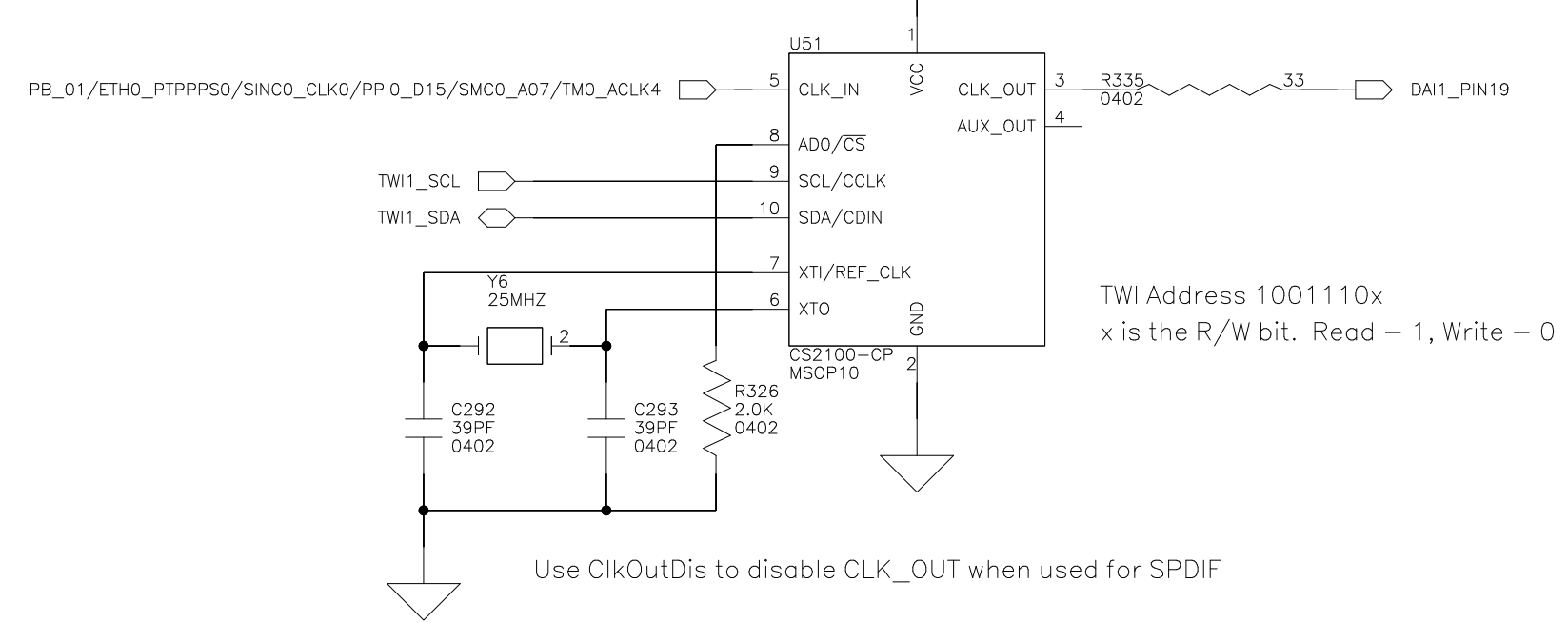


ANALOG DEVICES
 2 Elizabeth Drive
 Chelmsford, MA 01824
 PH: 1-800-ANALOGD


Title: ADSP-SC584 EZ-Board Audio Connectors
 Size C: Board No. A0448-2013 Rev 1.4a
 Date: 03/01/18 Sheet 19 of 28




HU Data




Debug

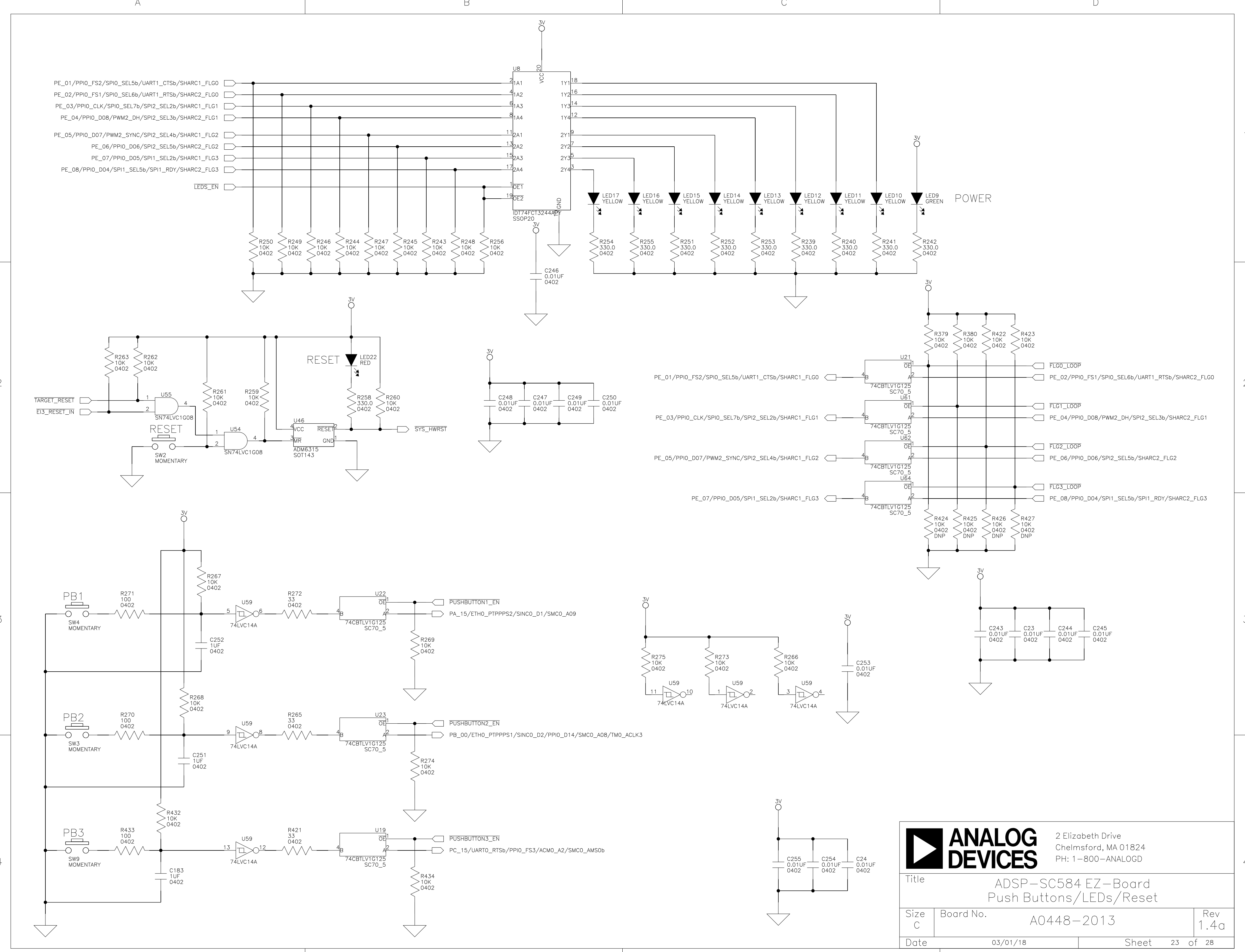
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board SPDIF	
Size C	Board No. A0448-2013	Rev 1.4a	
Date	03/01/18	Sheet	20 of 28


Please contact your nearest ADI sales office to complete the Non-Disclosure Agreement (NDA) required to receive additional A2B technical information.

		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title		ADSP-SC584 EZ-Board A2B Master Node A	
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet	21 of 28

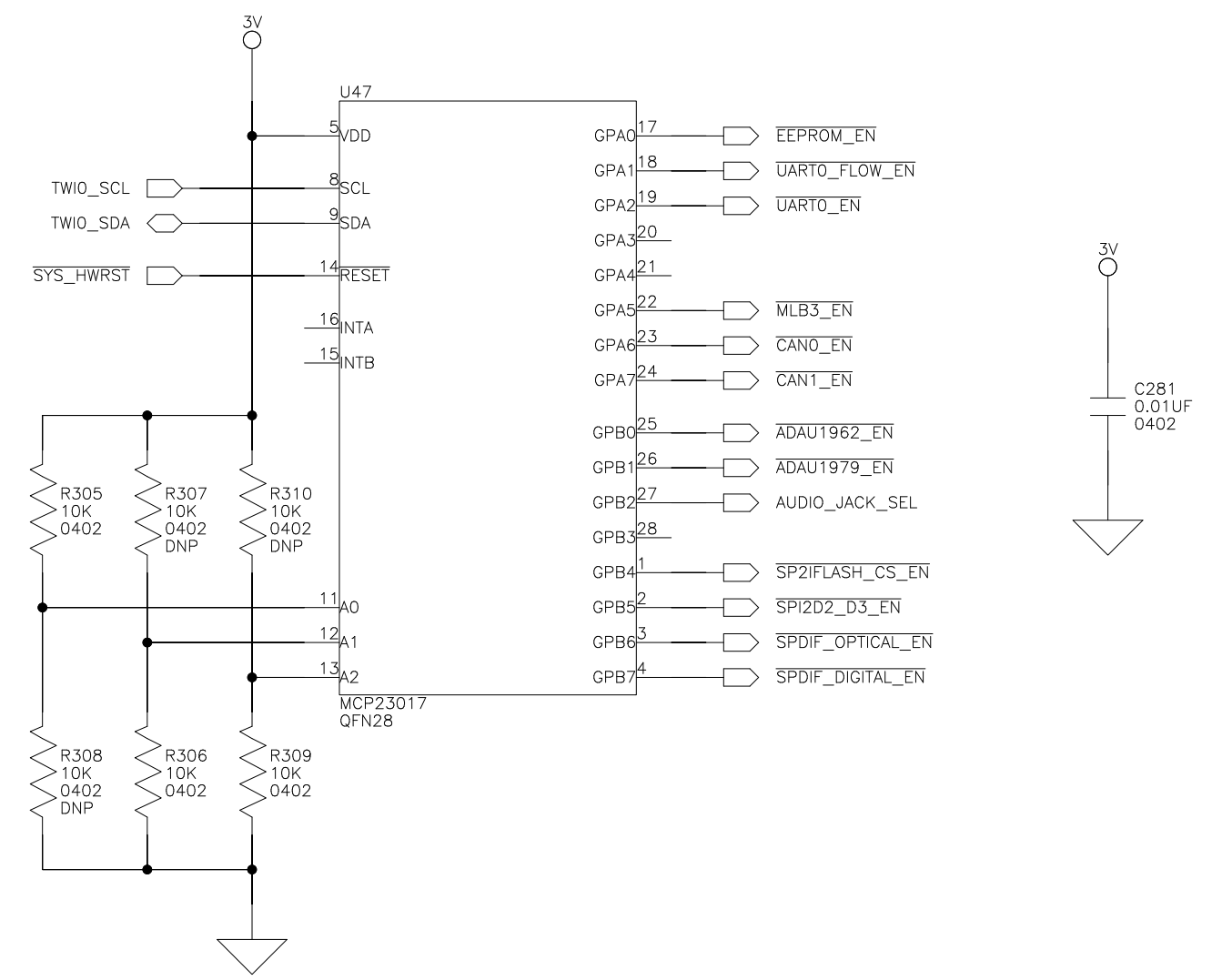
Please contact your nearest ADI sales office to complete the Non-Disclosure Agreement (NDA) required to receive additional A2B technical information.

		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title		ADSP-SC584 EZ-Board A2B Master/Slave Node B	
Size C	Board No.	A0448-2013	Rev 1.4a
Date	03/01/18	Sheet	22 of 28

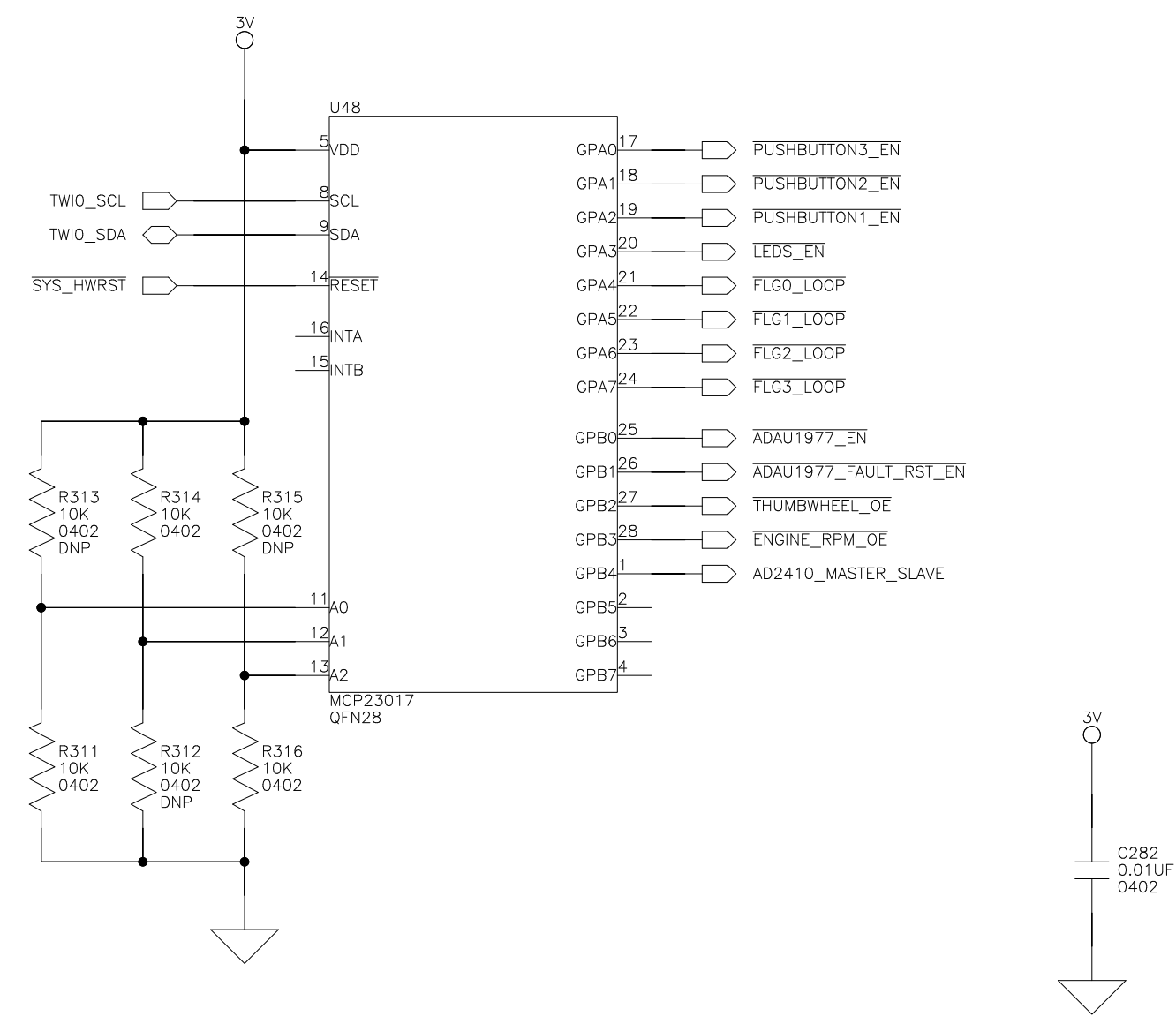



		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board Push Buttons/LEDs/Reset	
Size C	Board No. A0448-2013	Rev 1.4a	
Date 03/01/18	Sheet 23	of 28	

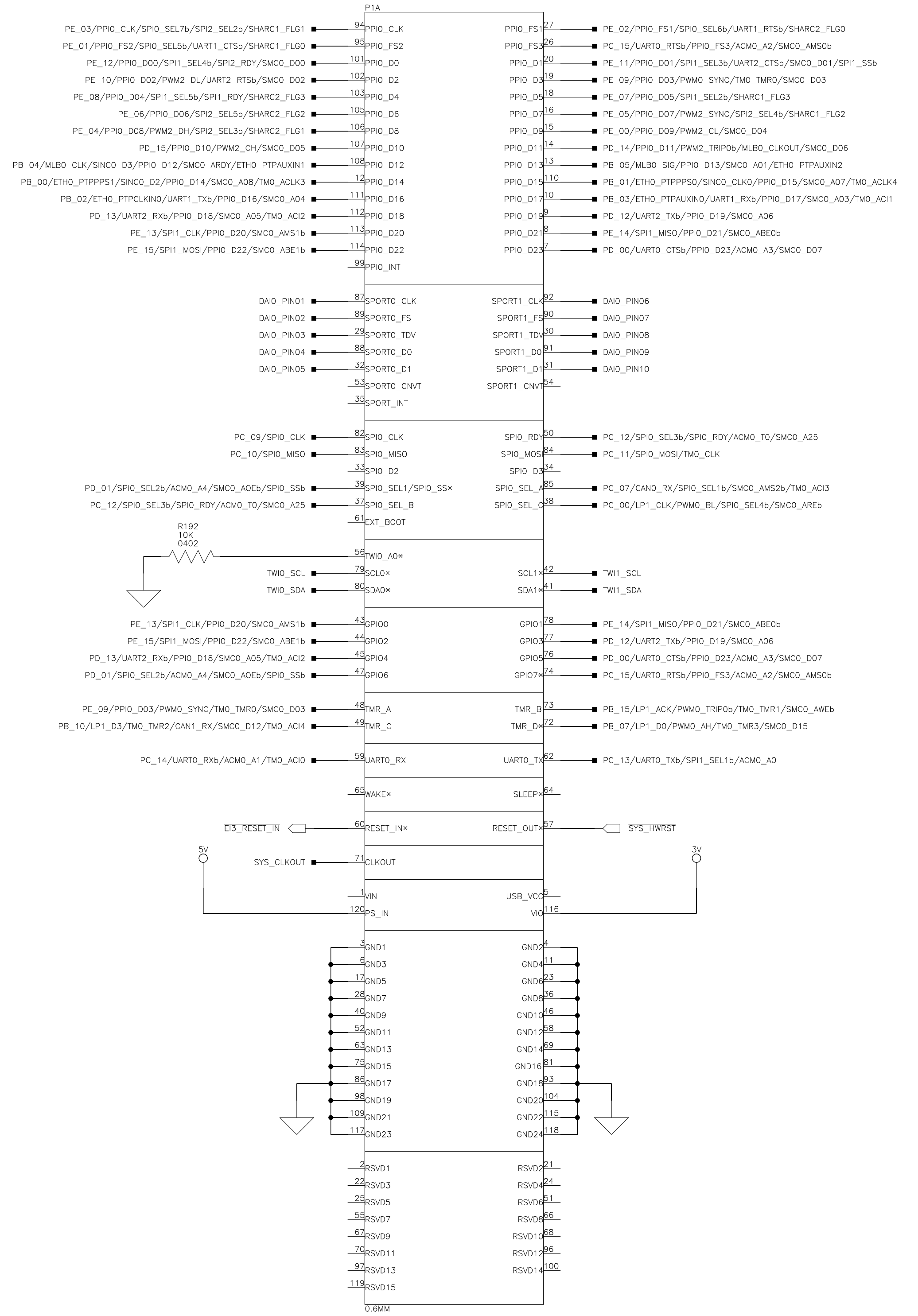
TWI Address 0100001x
 x is the R/W bit. Read - 1, Write - 0



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



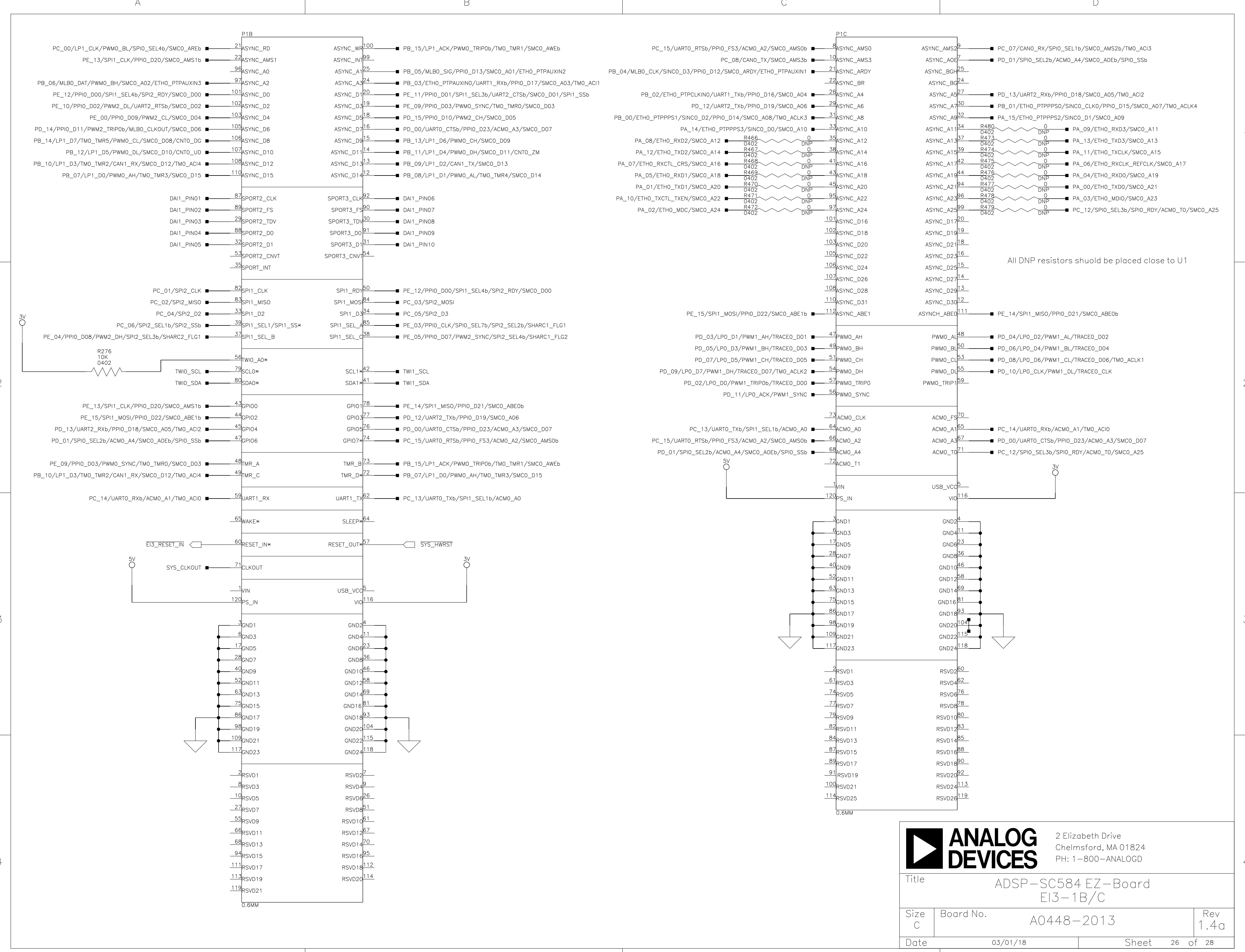
		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD
Title ADSP-SC584 EZ-Board SoftConfig		
Size C	Board No. A0448-2013	Rev 1.4a
Date 03/01/18	Sheet 24 of 28	




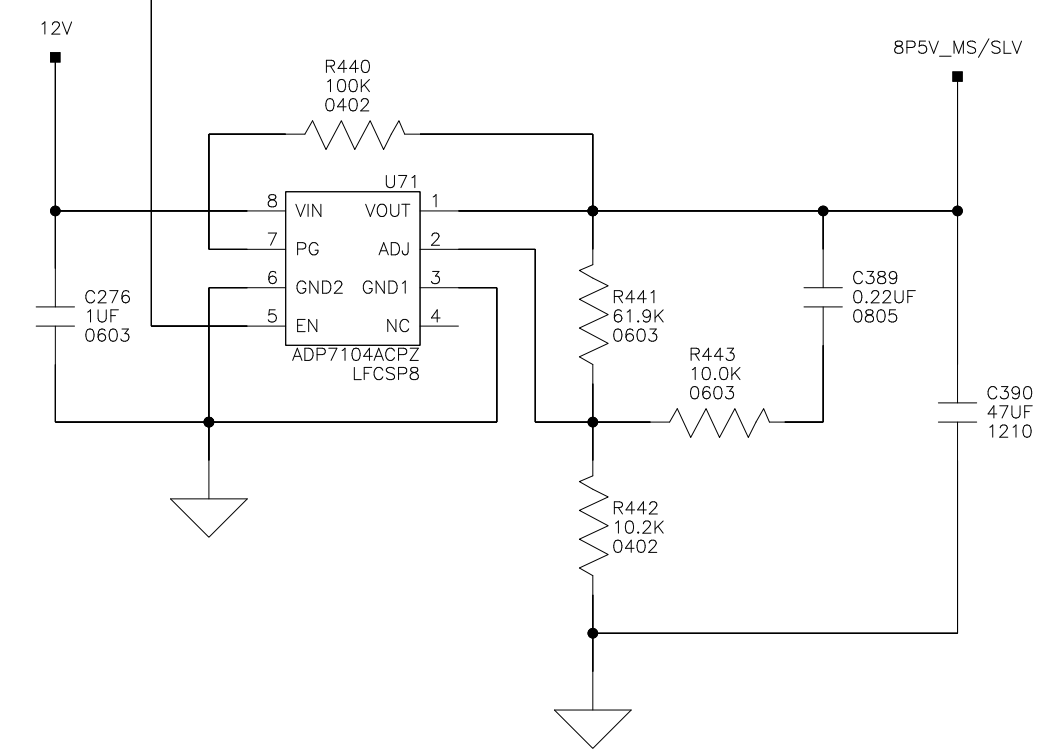
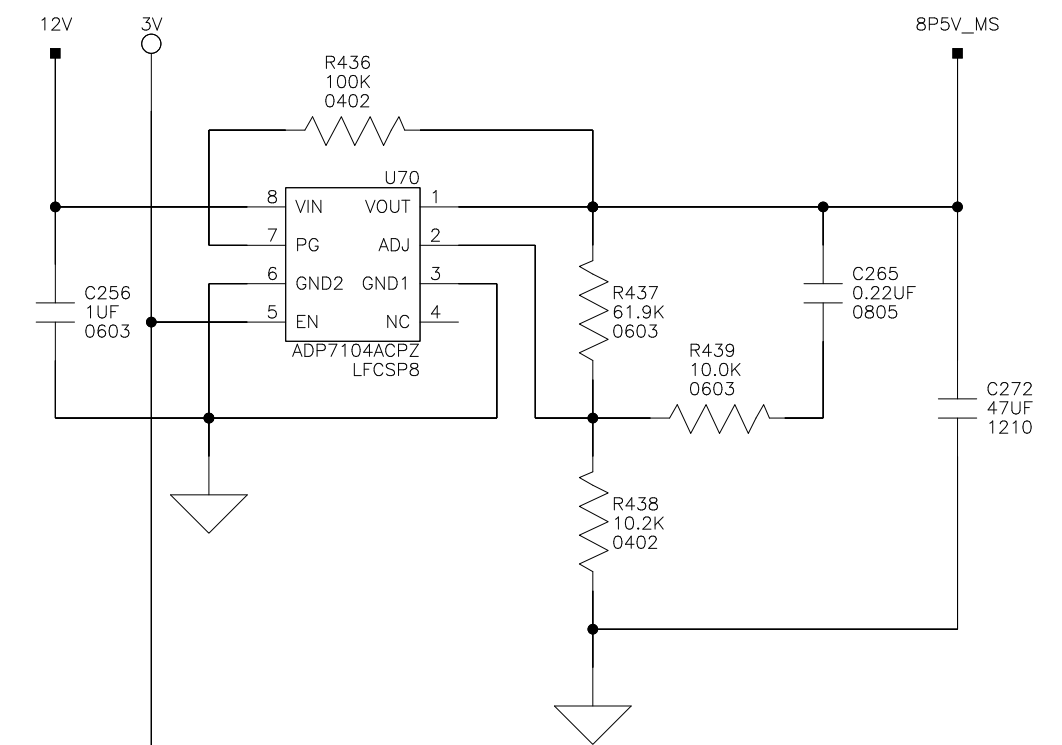
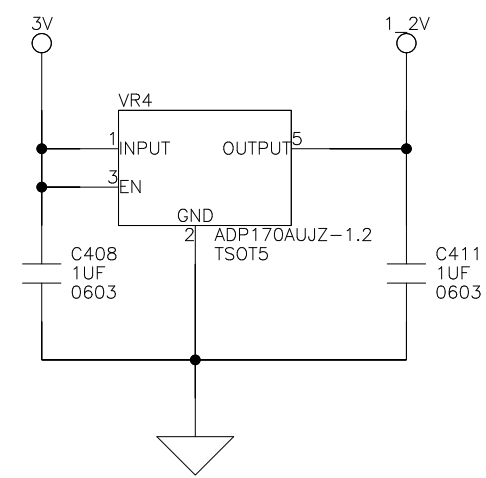
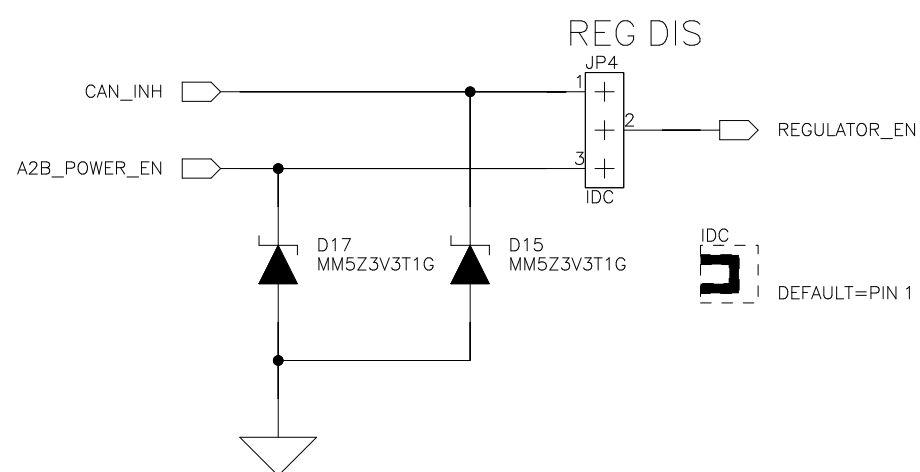
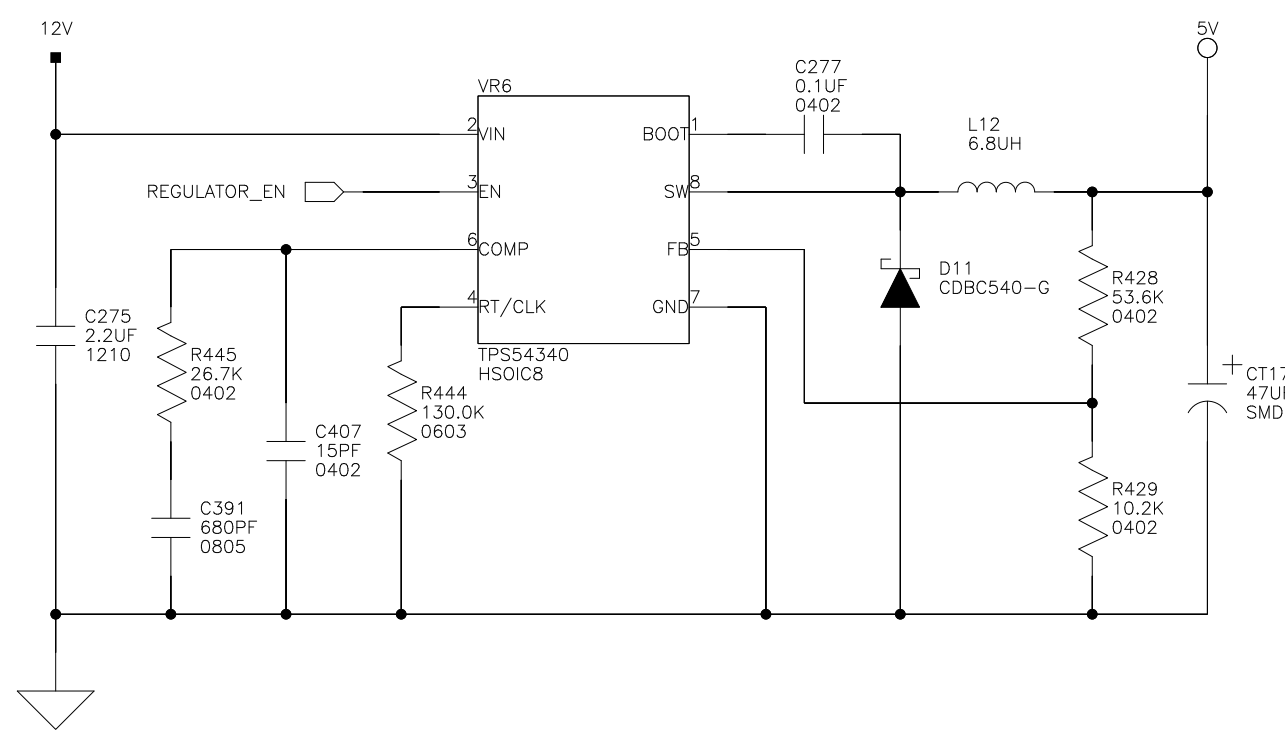
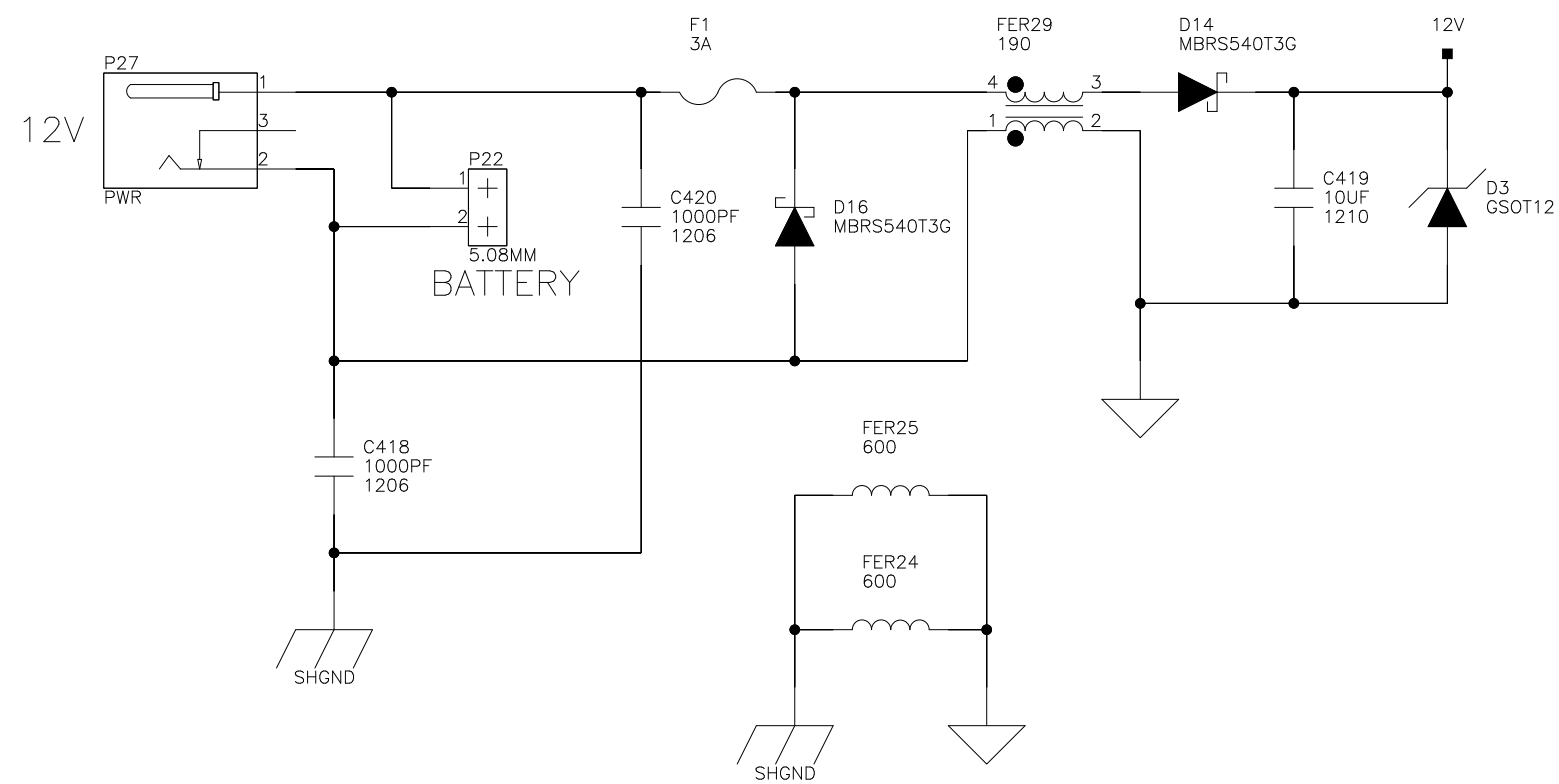
ANALOG DEVICES 2 Elizabeth Drive
Chelmsford, MA 01824
PH: 1-800-ANALOGD


Title ADSP-SC584 EZ-Board
EI3-1A

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		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
Title ADSP-SC584 EZ-Board E13-1B/C			
Size C	Board No. A0448-2013	Rev 1.4a	
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		2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD	
		Title ADSP-SC584 EZ-Board Battery/CAN/A2B Power	
Size C	Board No. A0448-2013	Rev 1.4a	
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