

A

B

C

D

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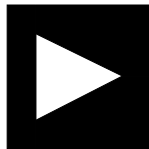
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ADSP-21479 EZ-BOARD

SCHEMATIC



**ANALOG
DEVICES**

20 Cotton Road
Nashua, NH 03063
PH: 1-800-ANALOGD

Title		ADSP-21479 EZ-BOARD TITLE		
Size C	Board No.		A0229-2009	Rev 0.1B
Date	3-15-2010_15:12		Sheet	1 of 17

A

B

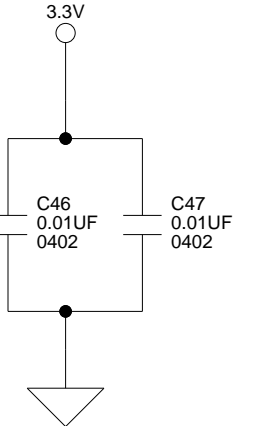
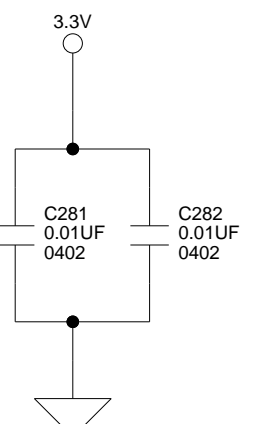
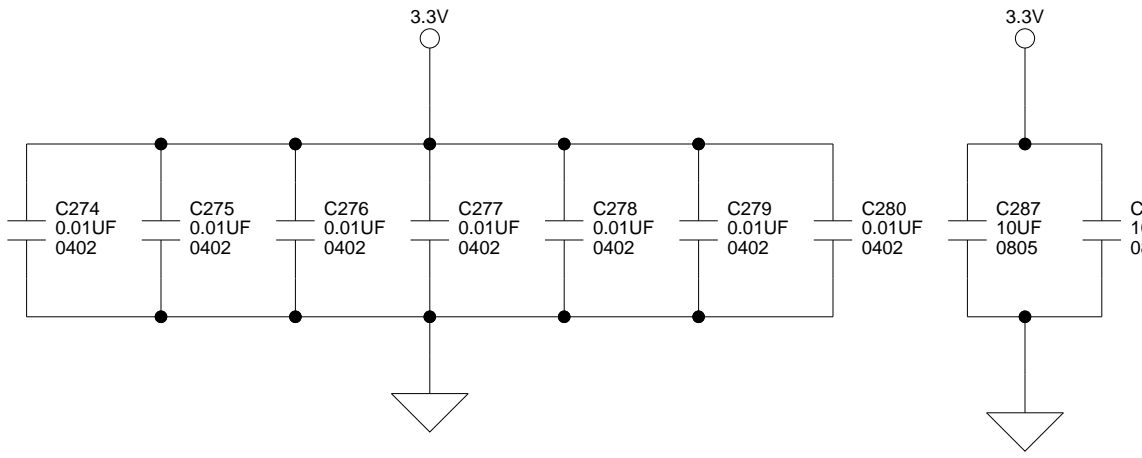
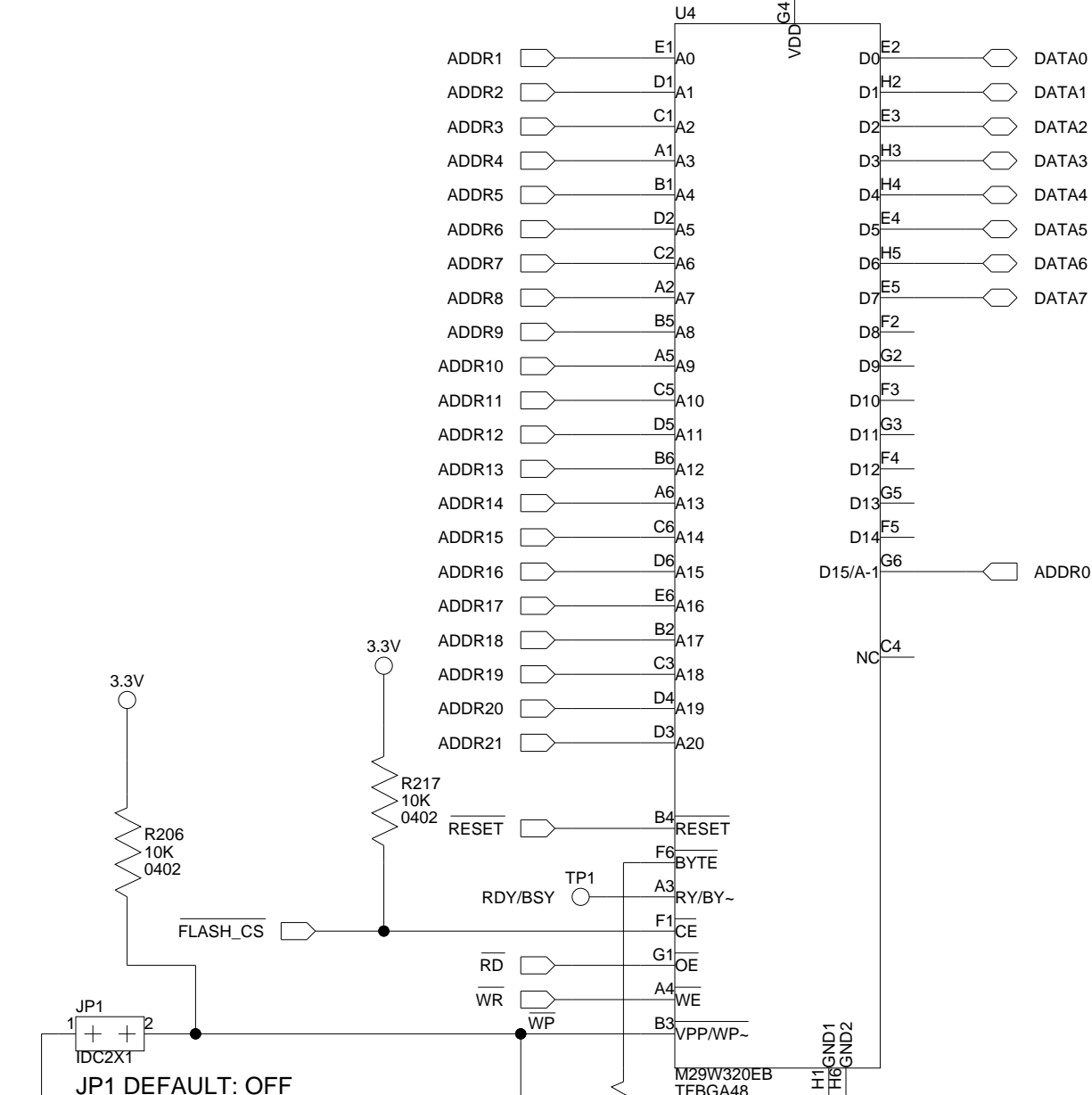
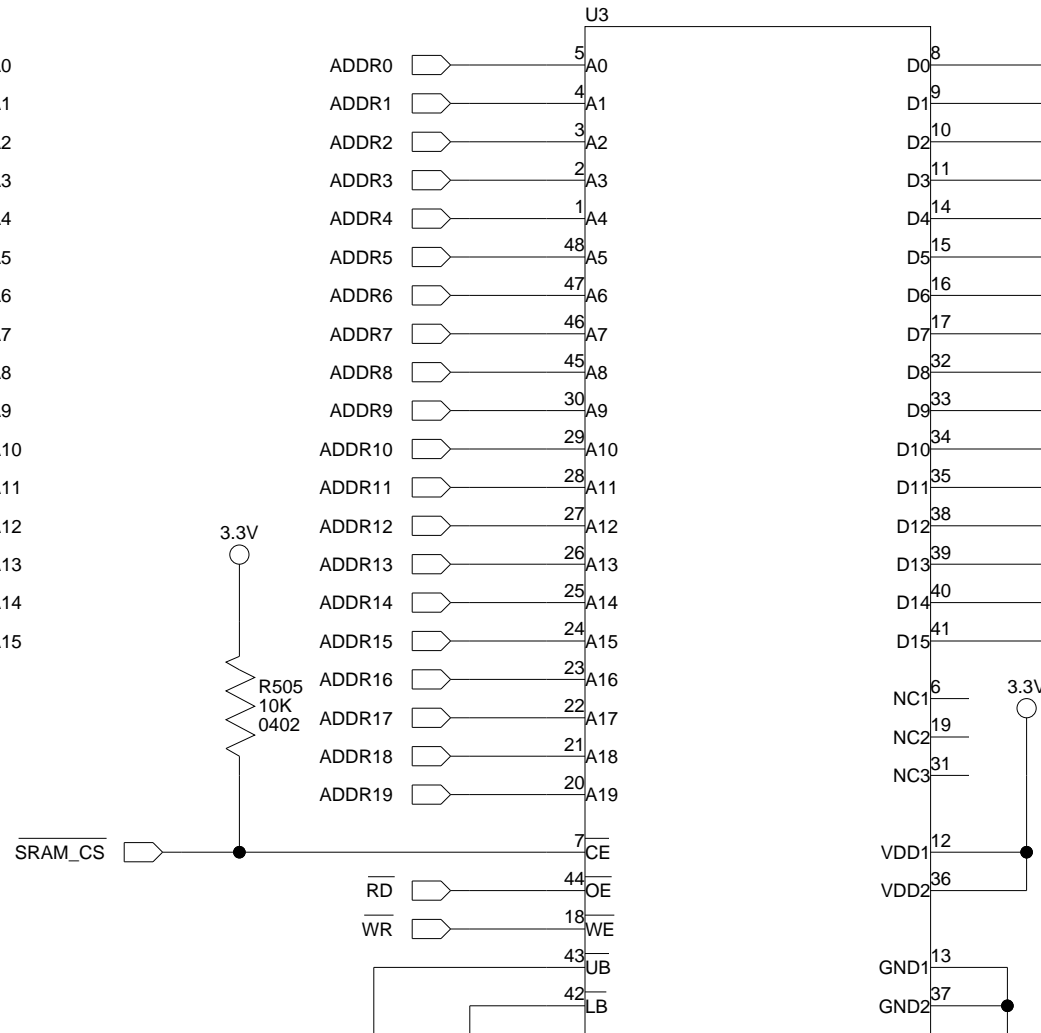
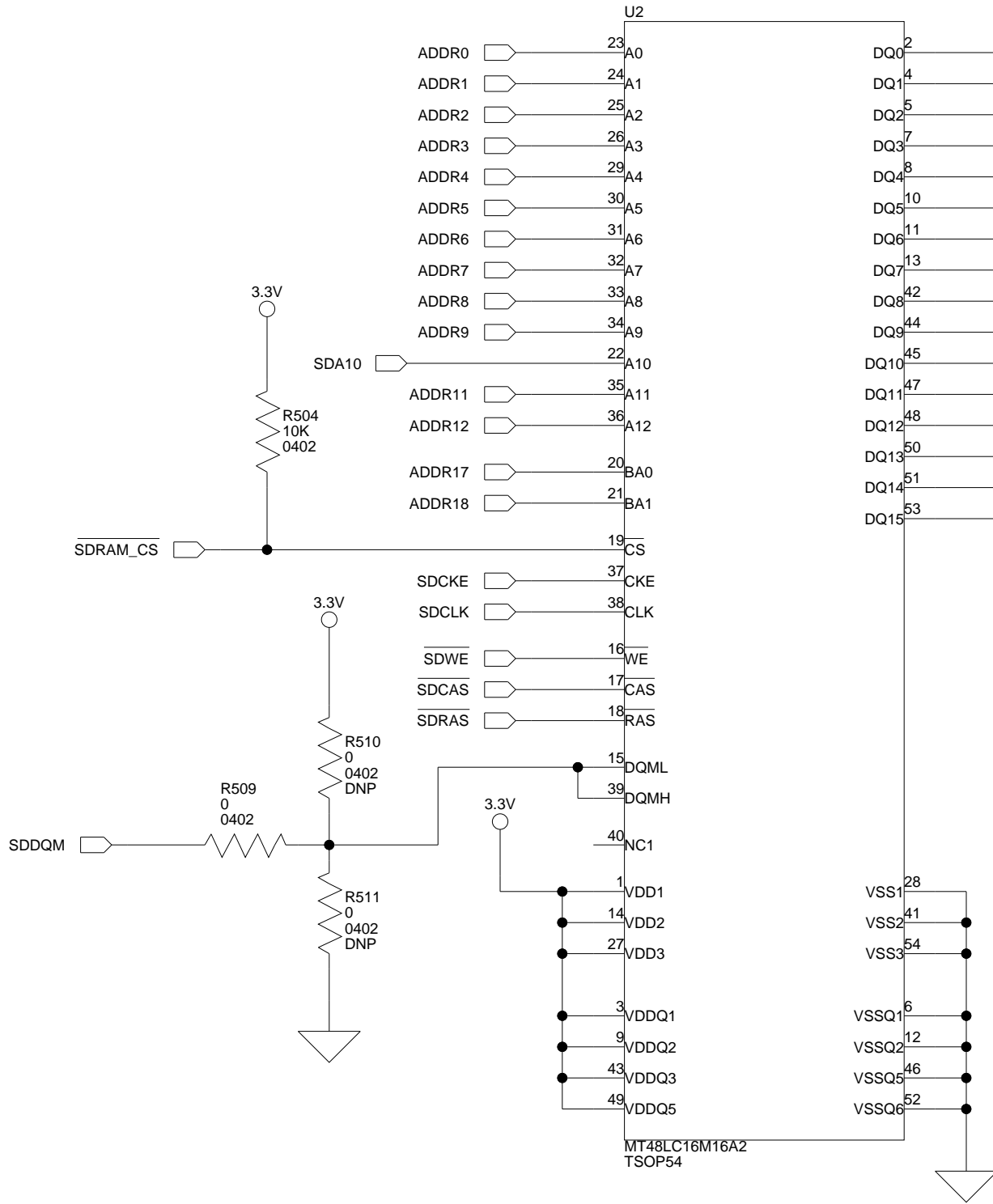
C

D

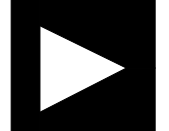
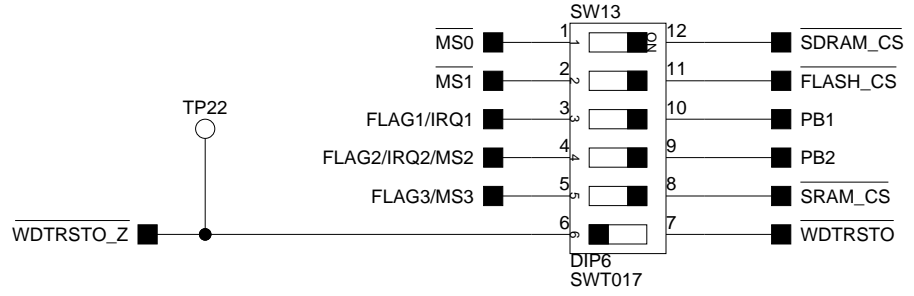
32MB SDRAM
(4 Mbit X 16 X 4 banks)

2MB SRAM
(1 Mbit X 16)

4MB FLASH
(4 Mbit X 8)



SW13: EXTERNAL PORT ENABLE
DEFAULT: ON ON OFF ON ON OFF ON OFF



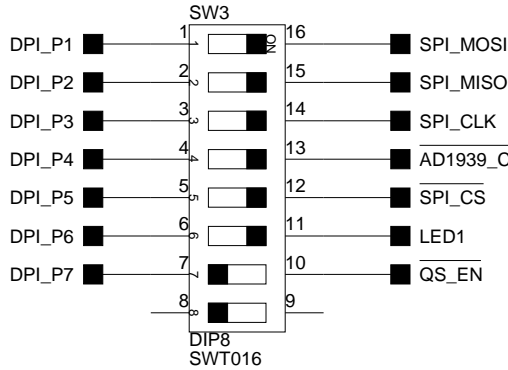
**ANALOG
DEVICES**

20 Cotton Road
Nashua, NH 03063
PH: 1-800-ANALOGD

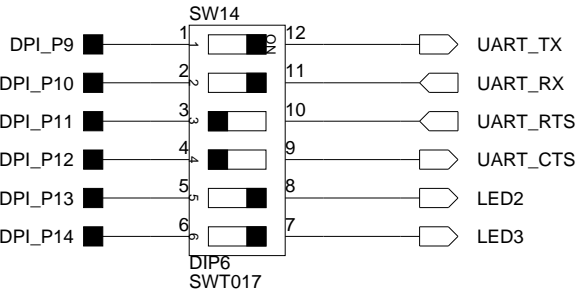
Title			ADSP-21479 EZ-BOARD MEMORY - PARALLEL		
Size C	Board No.		A0229-2009		Rev 0.1B
Date	3-15-2010_15:12		Sheet	3 of	17

NOTE: SHUTTING OFF DIP SWITCHES SW1, SW2, SW3 SW7, OR SW14 ALLOWS A USER TO USE THESE DAI OR DPI PINS VIA THE EXPANSION II INTERFACE.

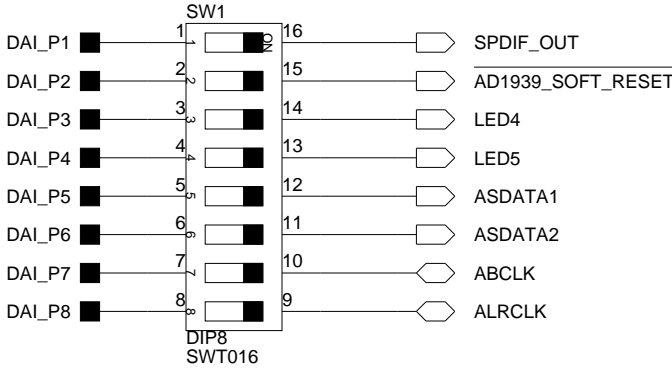
SW3: DPI [1-8] ENABLE
DEFAULT: ALL ON



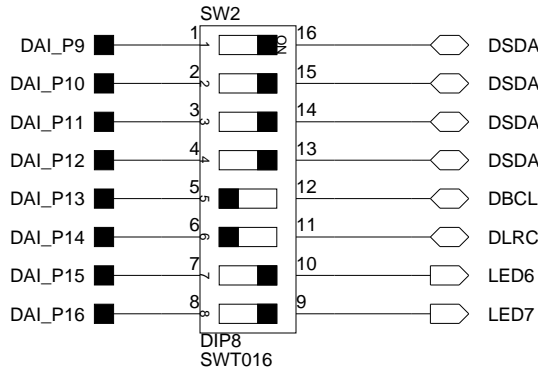
SW14: DPI [9-14] ENABLE
DEFAULT: ALL ON EXCEPT POS 3 & 4 OFF



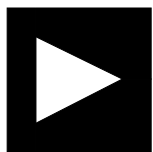
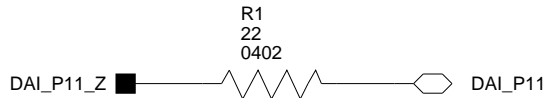
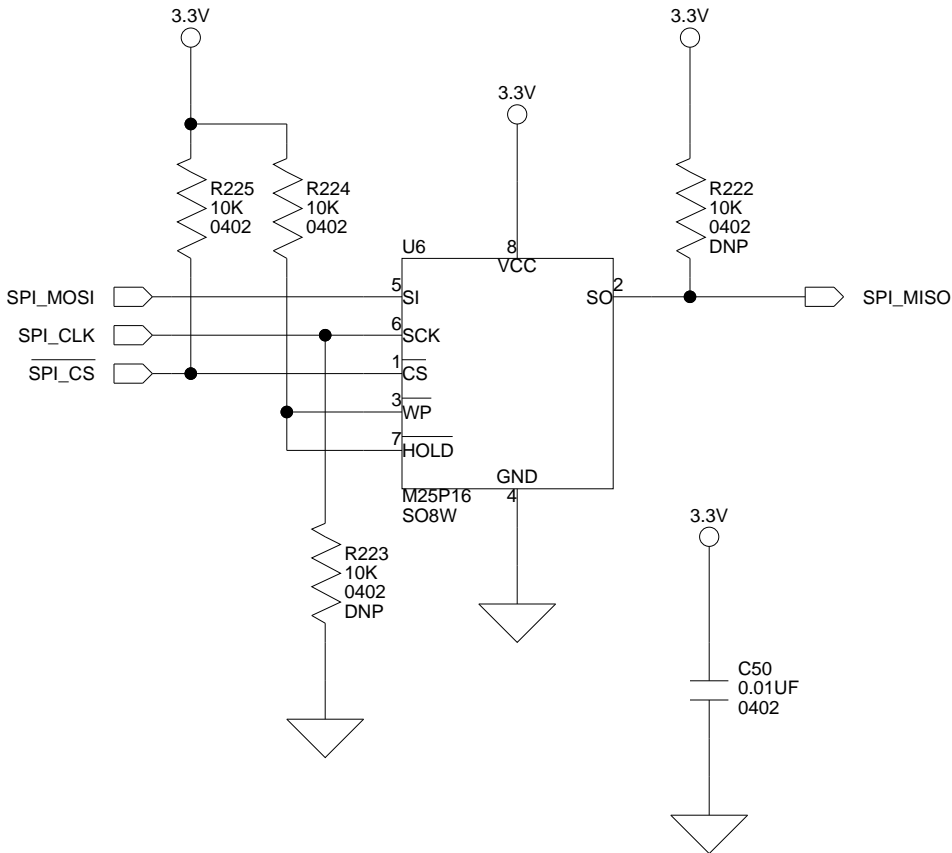
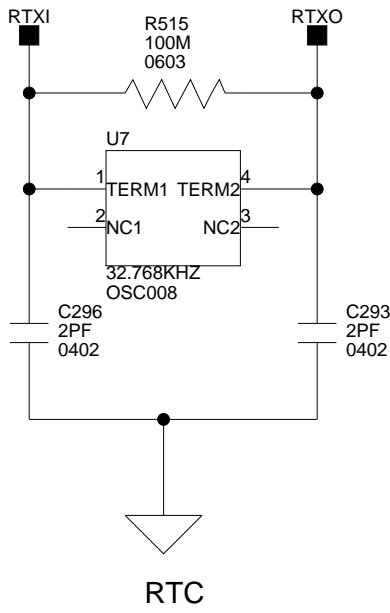
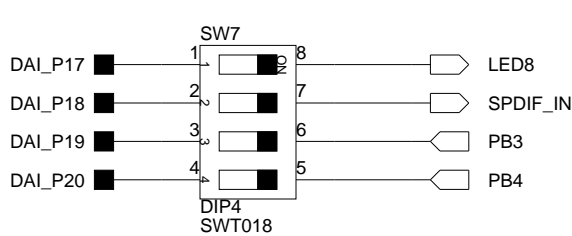
SW1: DAI [1-8] ENABLE
DEFAULT: ALL ON



SW2: DPI [9-16] ENABLE
DEFAULT: ALL ON EXCEPT POS. 5 & 6 OFF



SW7: DPI [17-20] ENABLE
DEFAULT: ALL ON



**ANALOG
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20 Cotton Road
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Title **ADSP-21479 EZ-BOARD
DSP - DAI, DPI, MLB INTERFACES**

Size C Board No. **A0229-2009** Rev **0.1B**

Date 3-18-2010_14:14 Sheet 4 of 17

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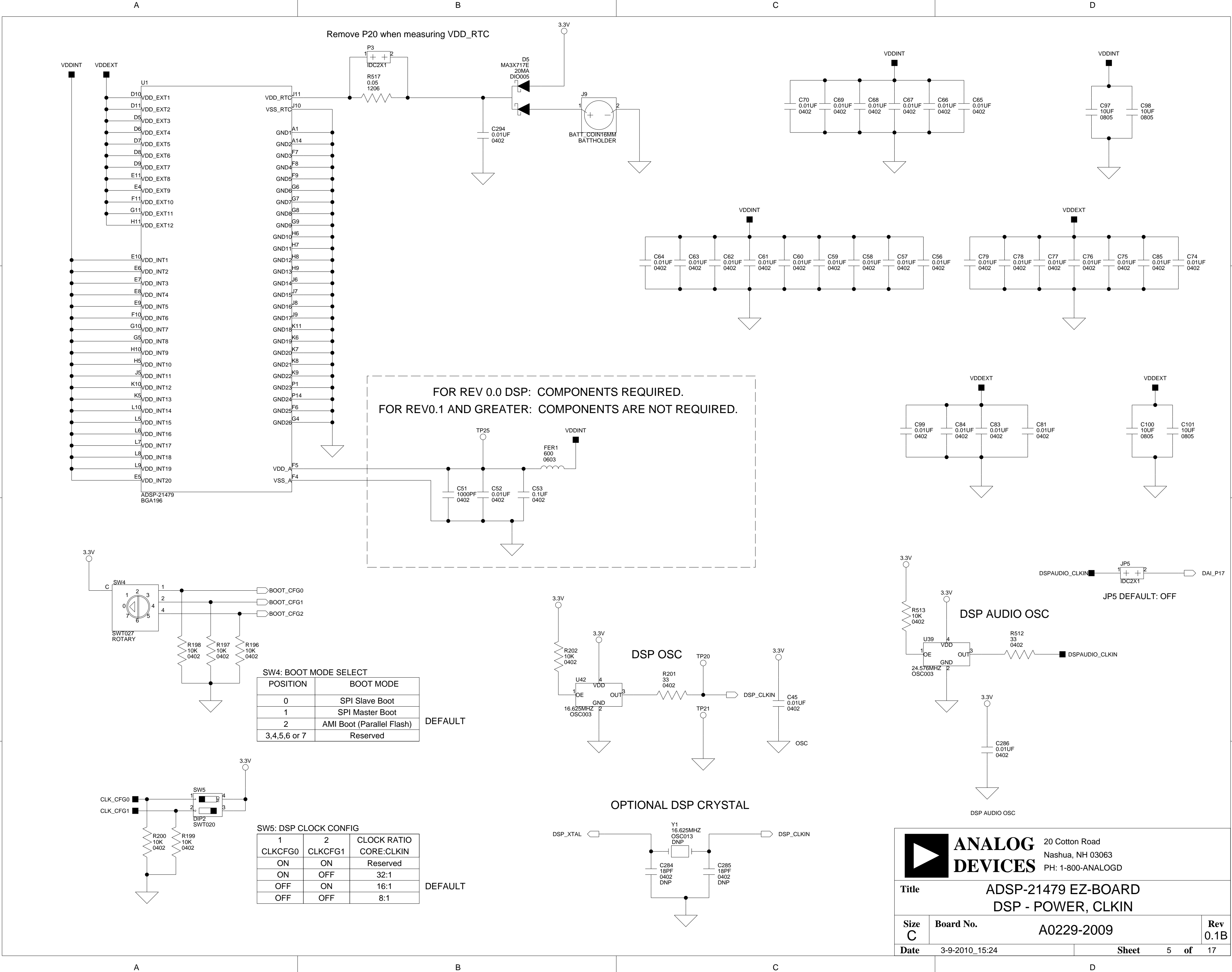
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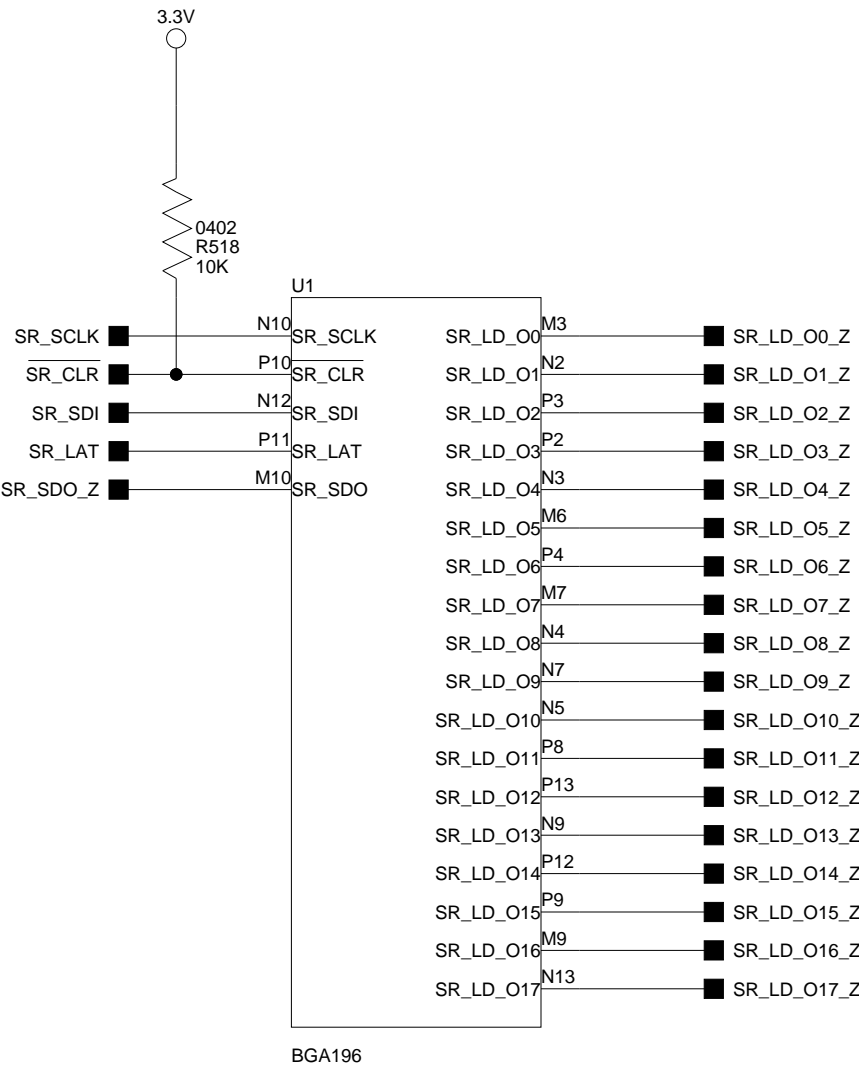
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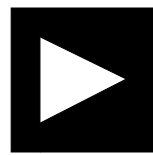
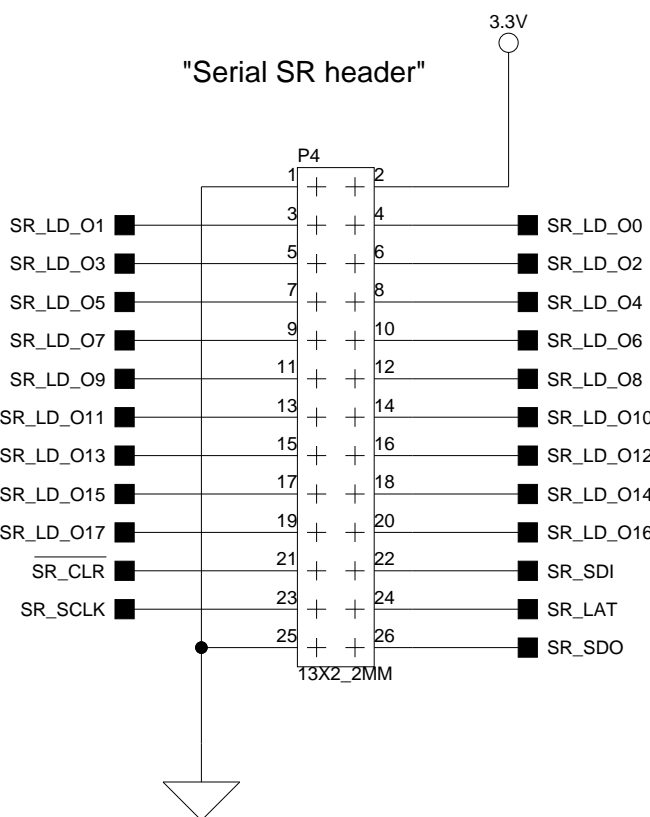
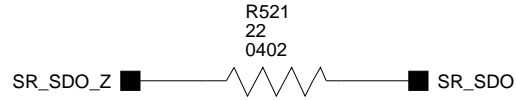
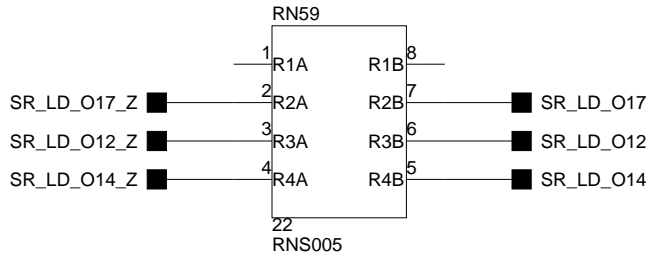
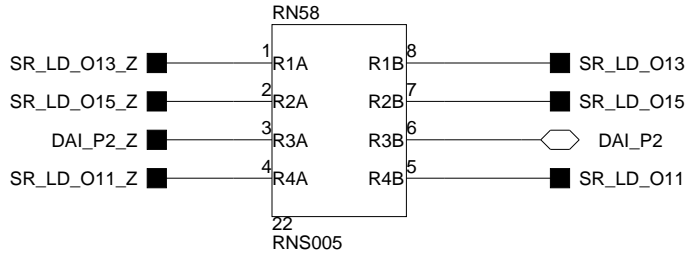
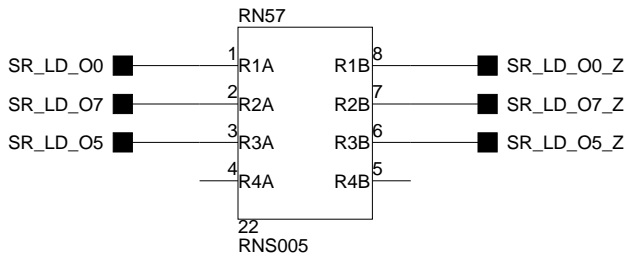
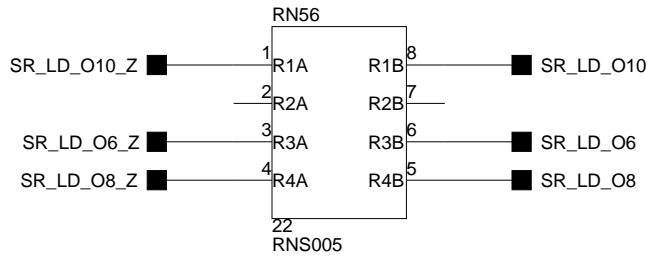
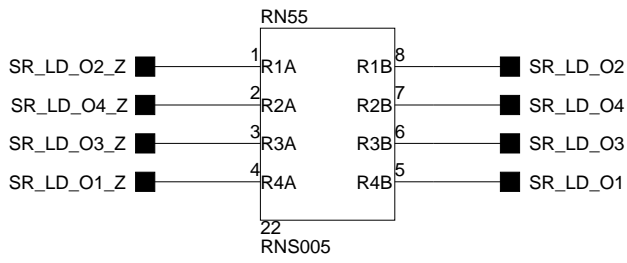
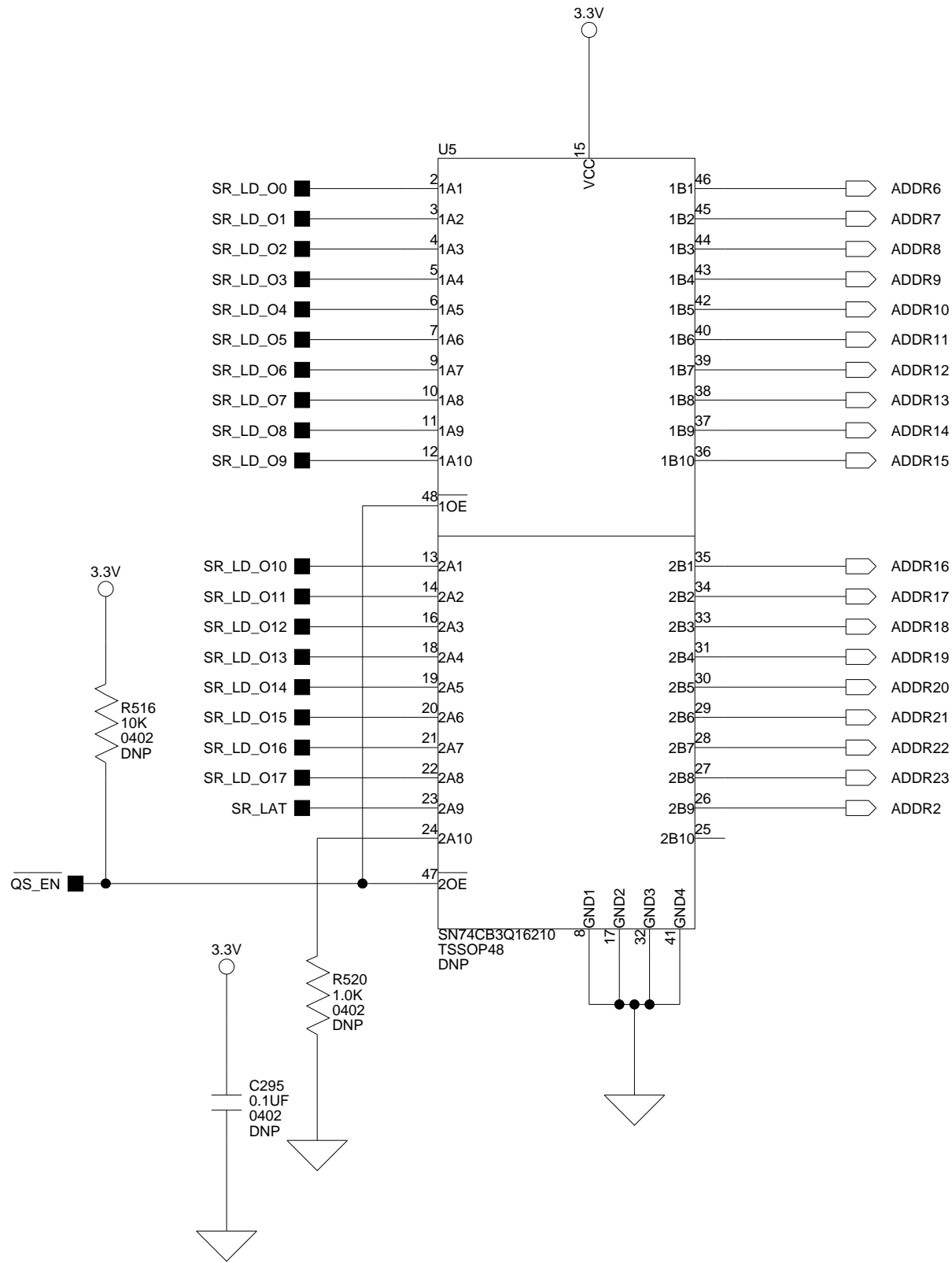
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NOTE: USED FOR INTERNAL TESTING ONLY
NOT POPULATED BY DEFAULT



**ANALOG
DEVICES**

20 Cotton Road
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Title **ADSP-21479 EZ-BOARD
DSP SHIFT REGISTER INTERFACE**

Size C	Board No. A0229-2009	Rev 0.1B
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Date 3-9-2010_15:24	Sheet 6 of 17
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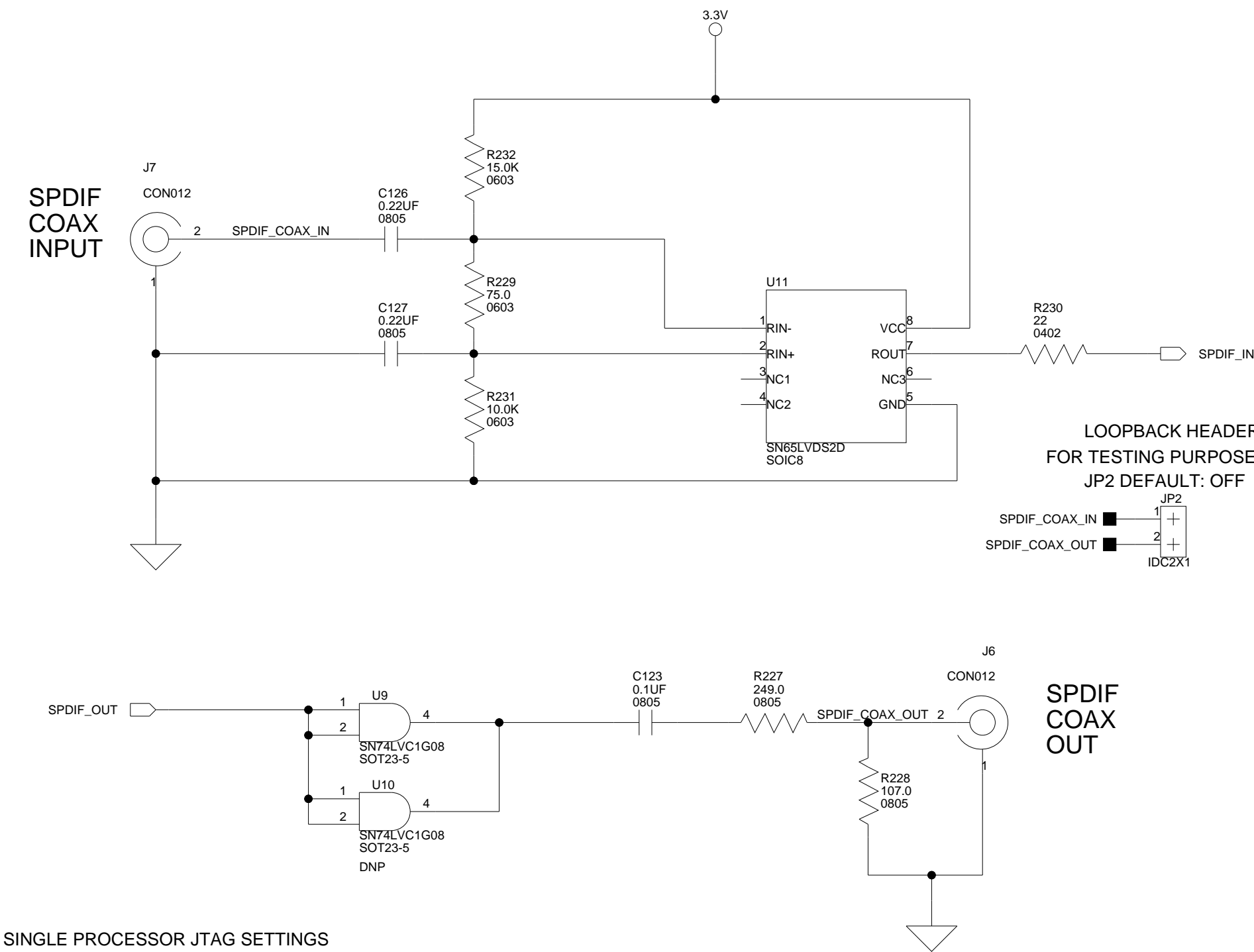
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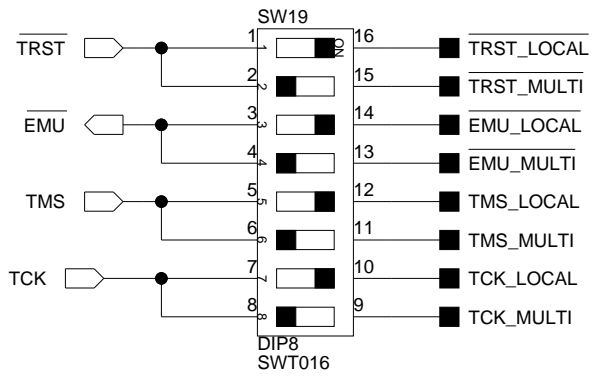
4



SINGLE PROCESSOR JTAG SETTINGS
VIA HP-USB EMUALTOR OR DEBUG AGENT (DEFAULT)

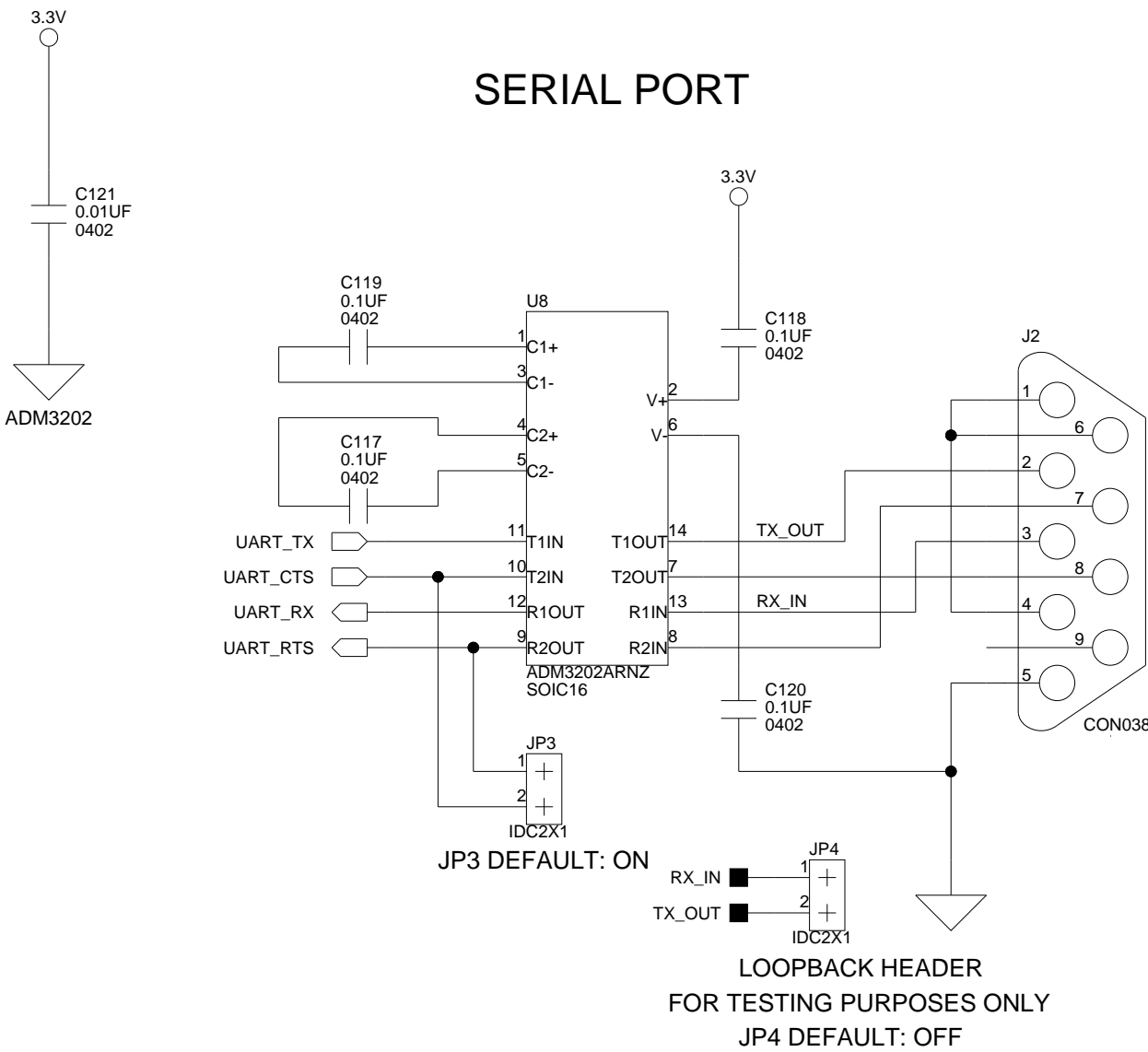
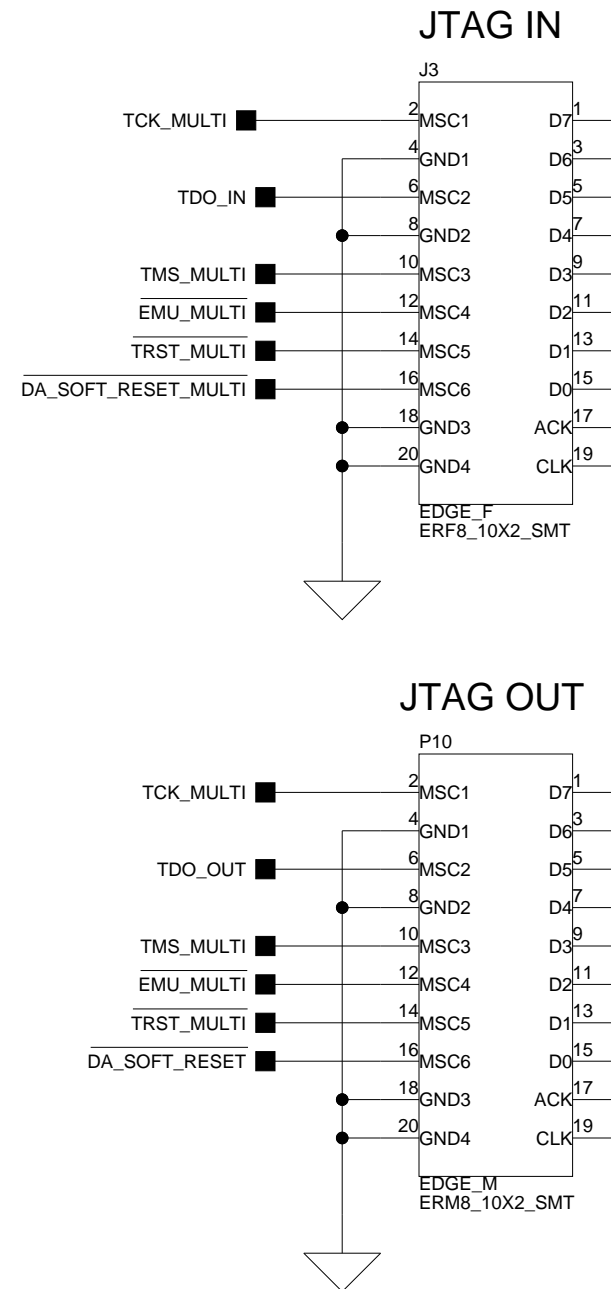
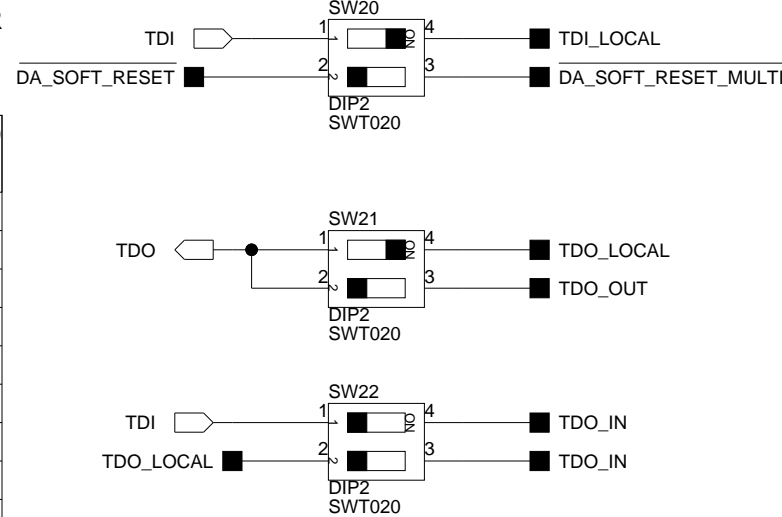
SWITCH	BOARD ATTACHED TO EMULATOR
SW19.1	ON
SW19.2	OFF
SW19.3	ON
SW19.4	OFF
SW19.5	ON
SW19.6	OFF
SW19.7	ON
SW19.8	OFF
SW20.1	ON
SW20.2	OFF
SW21.1	ON
SW21.2	OFF
SW22.1	OFF
SW22.2	OFF

JTAG SWITCHES

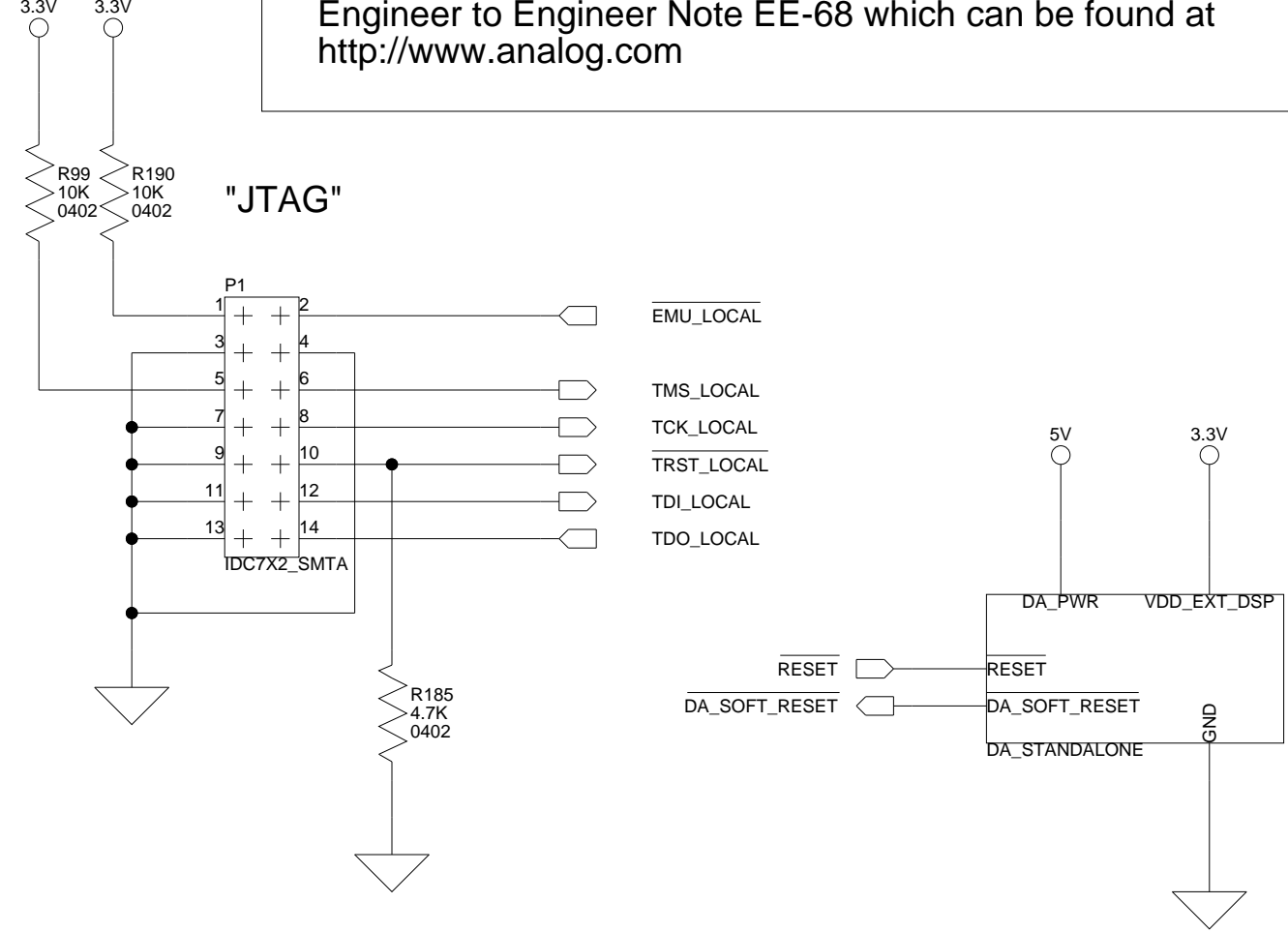


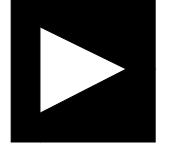
MULTI PROCESSOR JTAG SETTINGS VIA HP-USB EMUALTOR
USING TWO OR MORE EZ-BOARDS (LINK PORT CABLES
REQUIRED FOR MORE THAN TWO BOARDS)

SWITCH	BOARD ATTACHED TO EMULATOR	BOARD(S) NOT ATTACHED TO EMULATOR
SW19.1	ON	OFF
SW19.2	ON	ON
SW19.3	ON	OFF
SW19.4	ON	ON
SW19.5	ON	OFF
SW19.6	ON	ON
SW19.7	ON	OFF
SW19.8	ON	ON
SW20.1	ON	OFF
SW20.2	OFF	OFF
SW21.1	OFF	OFF
SW21.2	ON	ON
SW22.1	OFF	ON
SW22.2	ON	OFF



All debug agent interface circuitry is considered proprietary and has been omitted from this schematic. When designing your JTAG interface please refer to the Engineer to Engineer Note EE-68 which can be found at <http://www.analog.com>





20 Cotton Road
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Title

ADSP-21479 EZ-BOARD
SPDIF, RS-232, JTAG INTERFACES

Size
C

Board No.
A0229-2009

Rev
0.1B

Date

3-15-2010_15:12

Sheet

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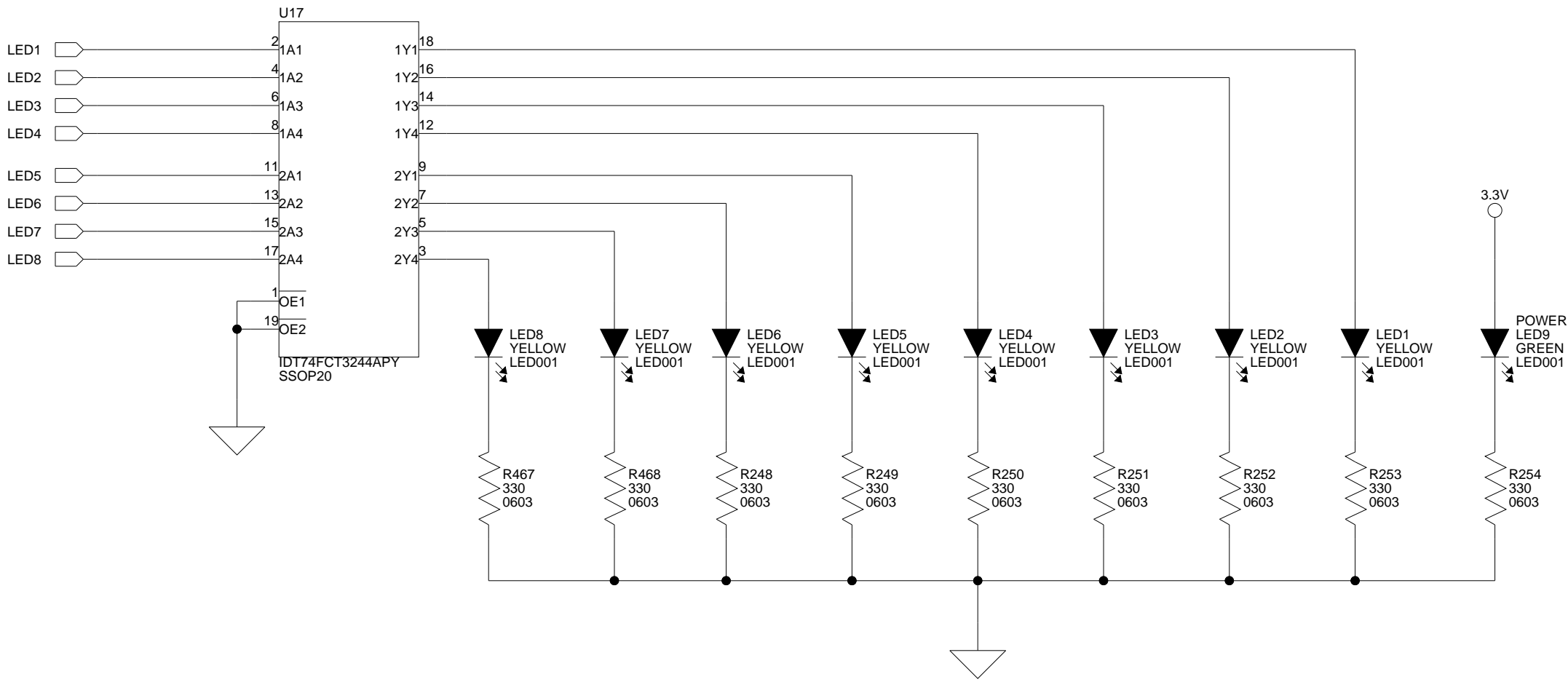
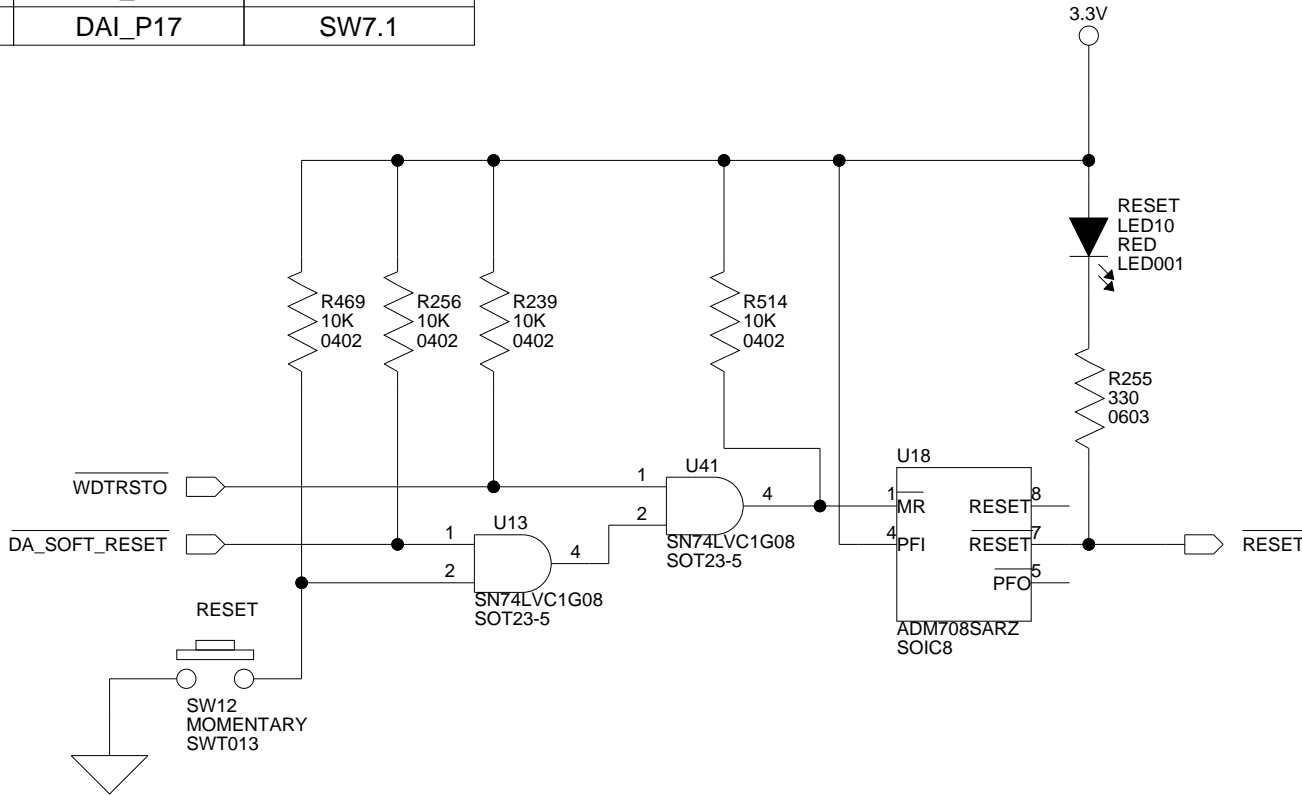
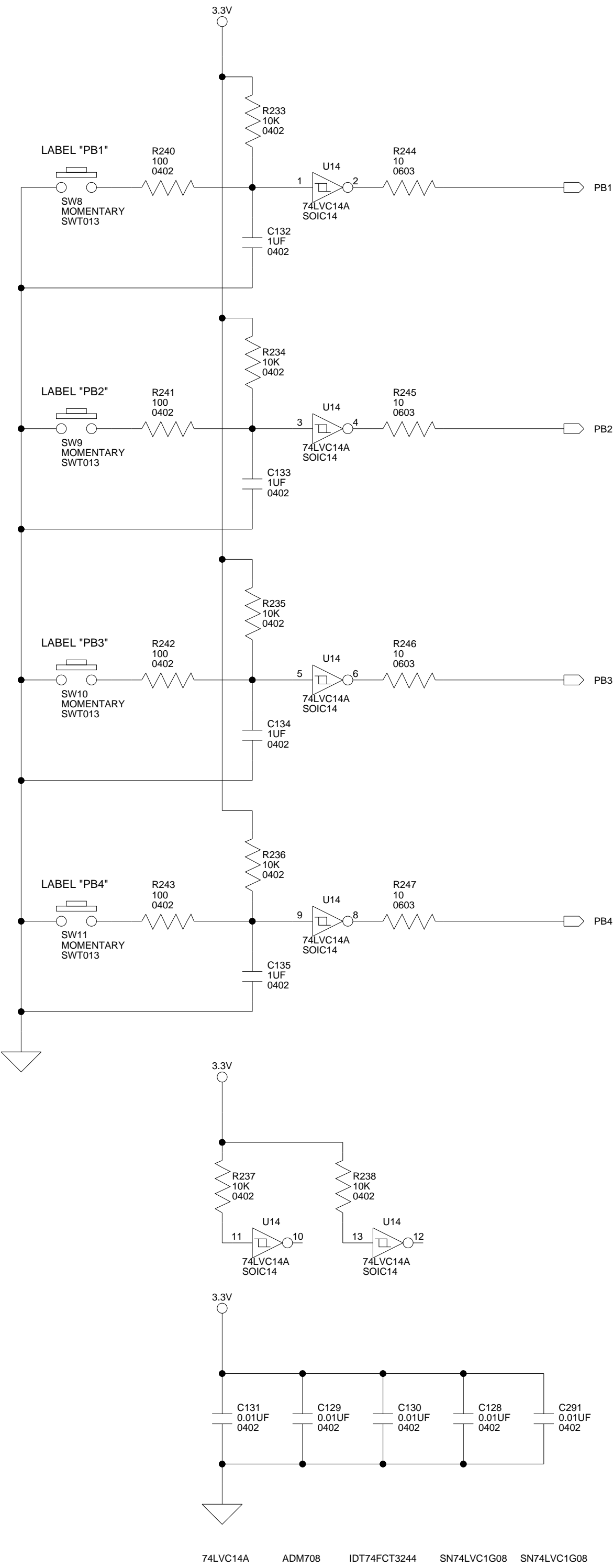
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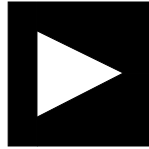
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COMPONENT	DSP PIN	CONNECTED VIA SWITCH
PB1	FLAG1/IRQ1	SW13.4
PB2	FLAG2/IRQ2/MS2	SW13.5
PB3	DAI_P19	SW7.3
PB4	DAI_P20	SW7.4
LED1	DPI_P6	SW3.6
LED2	DPI_P13	SW14.5
LED3	DPI_P14	SW14.6
LED4	DAI_P3	SW1.3
LED5	DAI_P4	SW1.4
LED6	DAI_P15	SW2.7
LED7	DAI_P16	SW2.8
LED8	DAI_P17	SW7.1

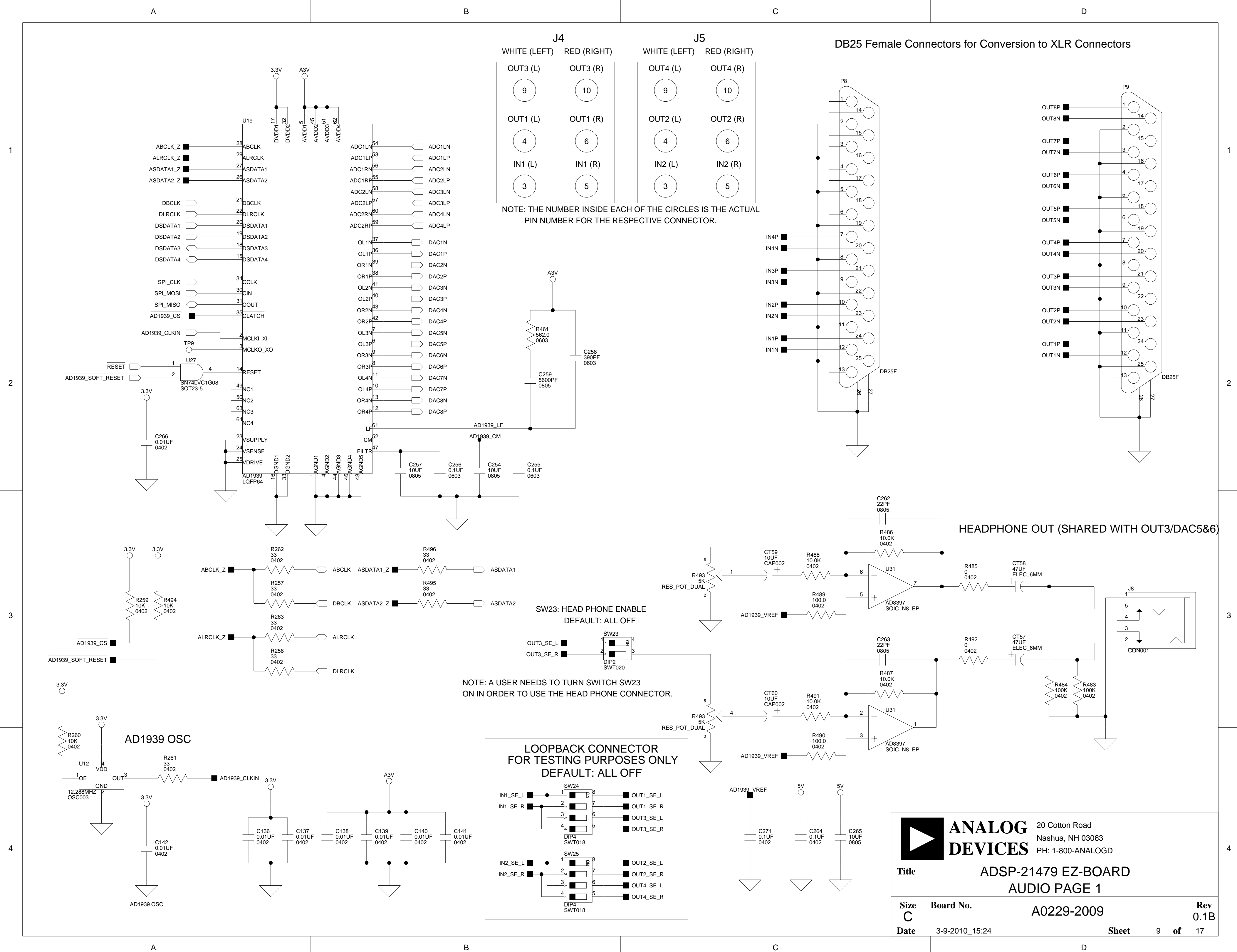


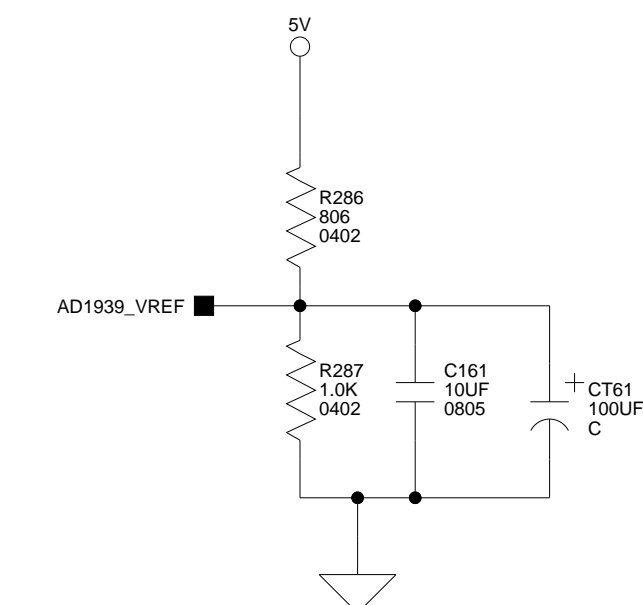
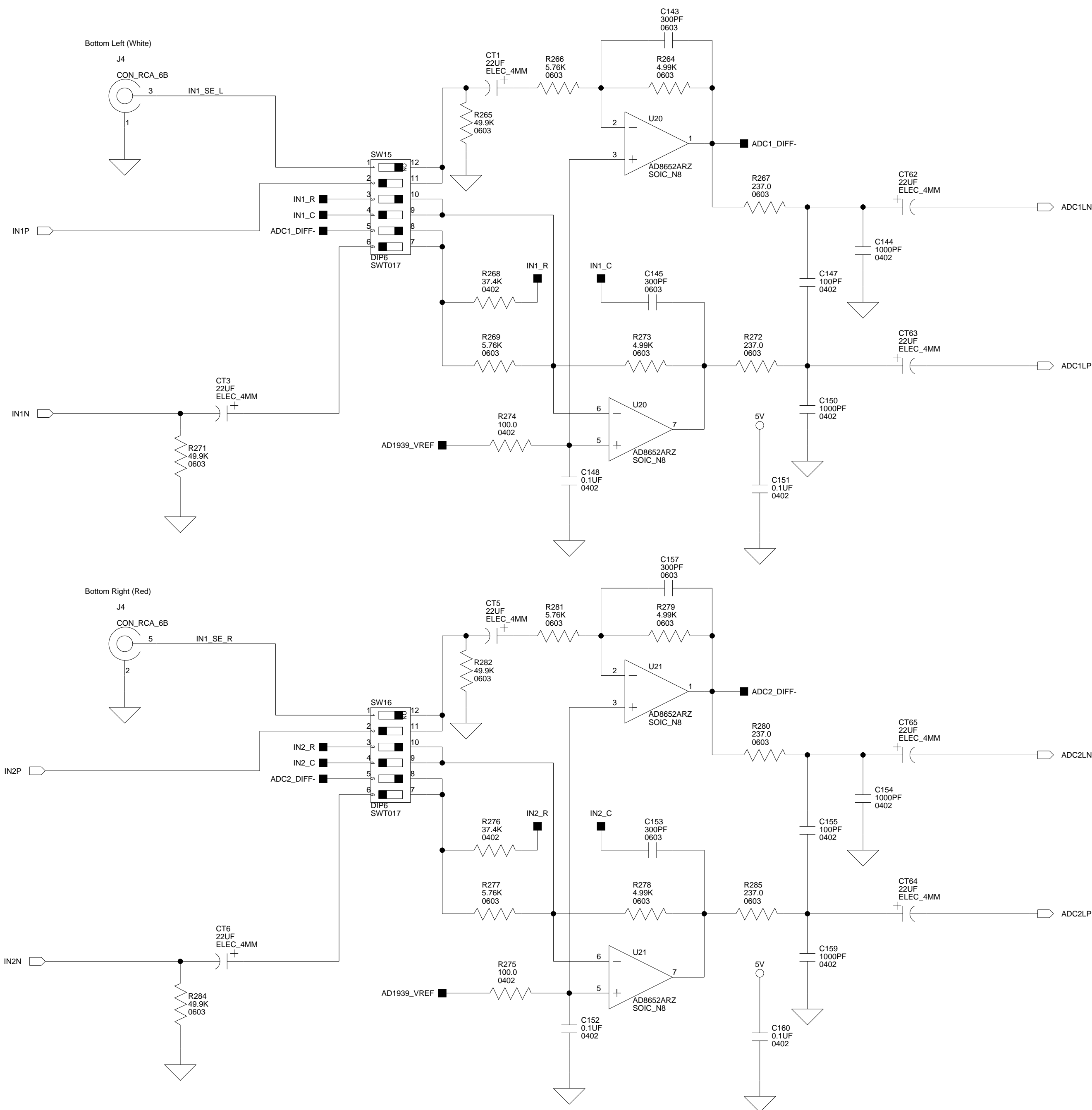


**ANALOG
DEVICES**

20 Cotton Road
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Title ADSP-21479 EZ-BOARD RESET CIRCUIT, PUSHBUTTONS, LEDS		
Size C	Board No. A0229-2009	Rev 0.1B
Date 3-9-2010_15:24	Sheet 8 of 17	





IN1 (LEFT) SETTINGS

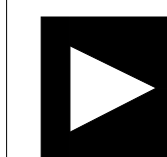
SWITCH	SINGLE ENDED USE RCA IN (DEFAULT)	DIFFERENTIAL USE DB25 IN (P8)
SW15.1	ON	OFF
SW15.2	OFF	ON
SW15.3	ON	OFF
SW15.4	OFF	ON
SW15.5	ON	OFF
SW15.6	OFF	ON

NOTE: DIFFERENTIAL USE REQUIRES A DB25 TO XLR CABLE.

IN1 (RIGHT) SETTINGS

	SINGLE ENDED USE	DIFFERENTIAL USE
SWITCH	RCA IN (DEFAULT)	DB25 IN (P8)
SW16.1	ON	OFF
SW16.2	OFF	ON
SW16.3	ON	OFF
SW16.4	OFF	ON
SW16.5	ON	OFF
SW16.6	OFF	ON

NOTE: DIFFERENTIAL USE REQUIRES A DB25 TO XLR CABLE.



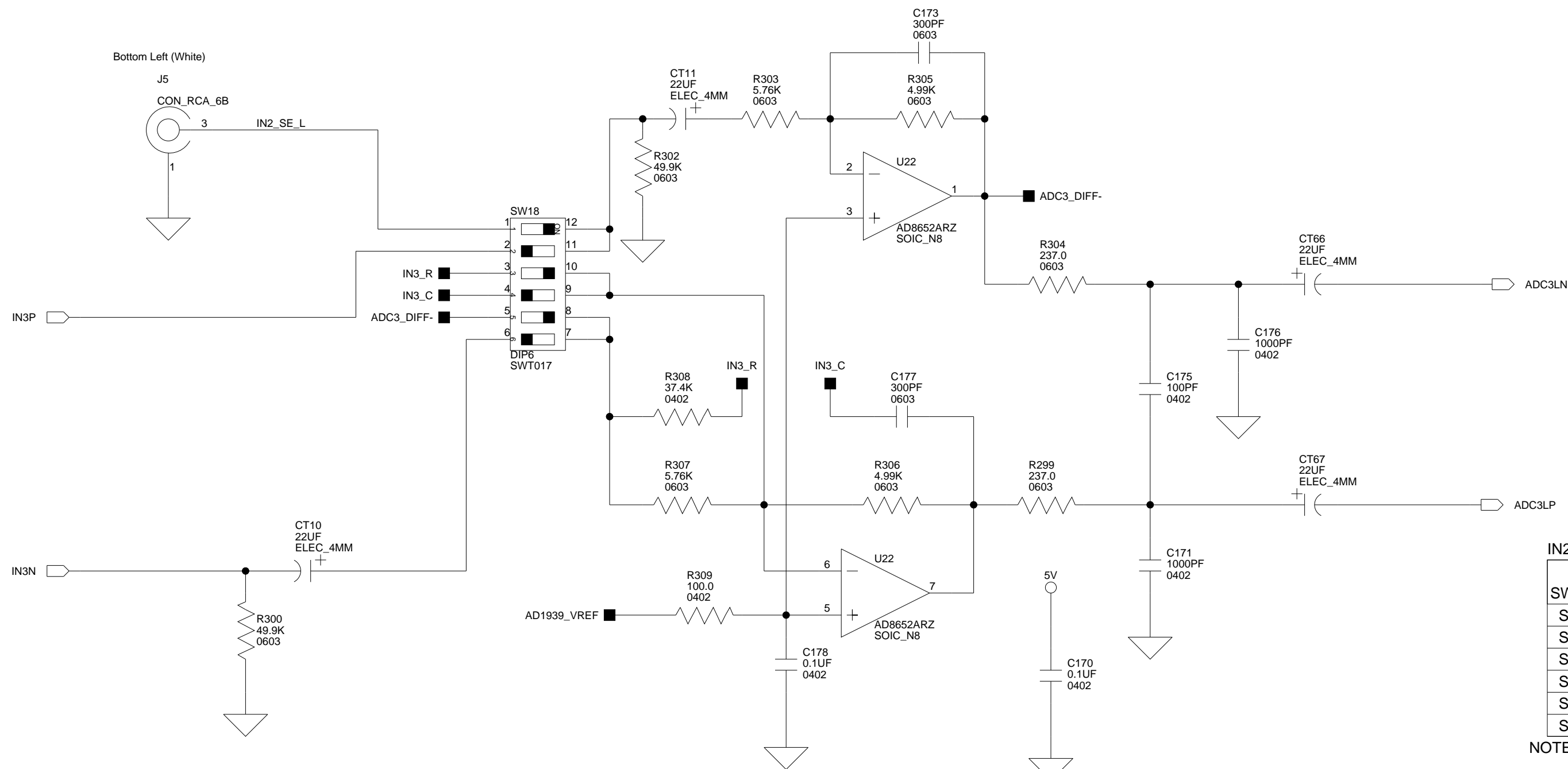
ANALOG DEVICES

20 Cotton Road
Nashua, NH 03063
PH: 1-800-ANALOGD

Title	ADSP-21479 EZ-BOARD AUDIO PAGE 2
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Size C	Board No. A0229-2009	Rev 0.1B
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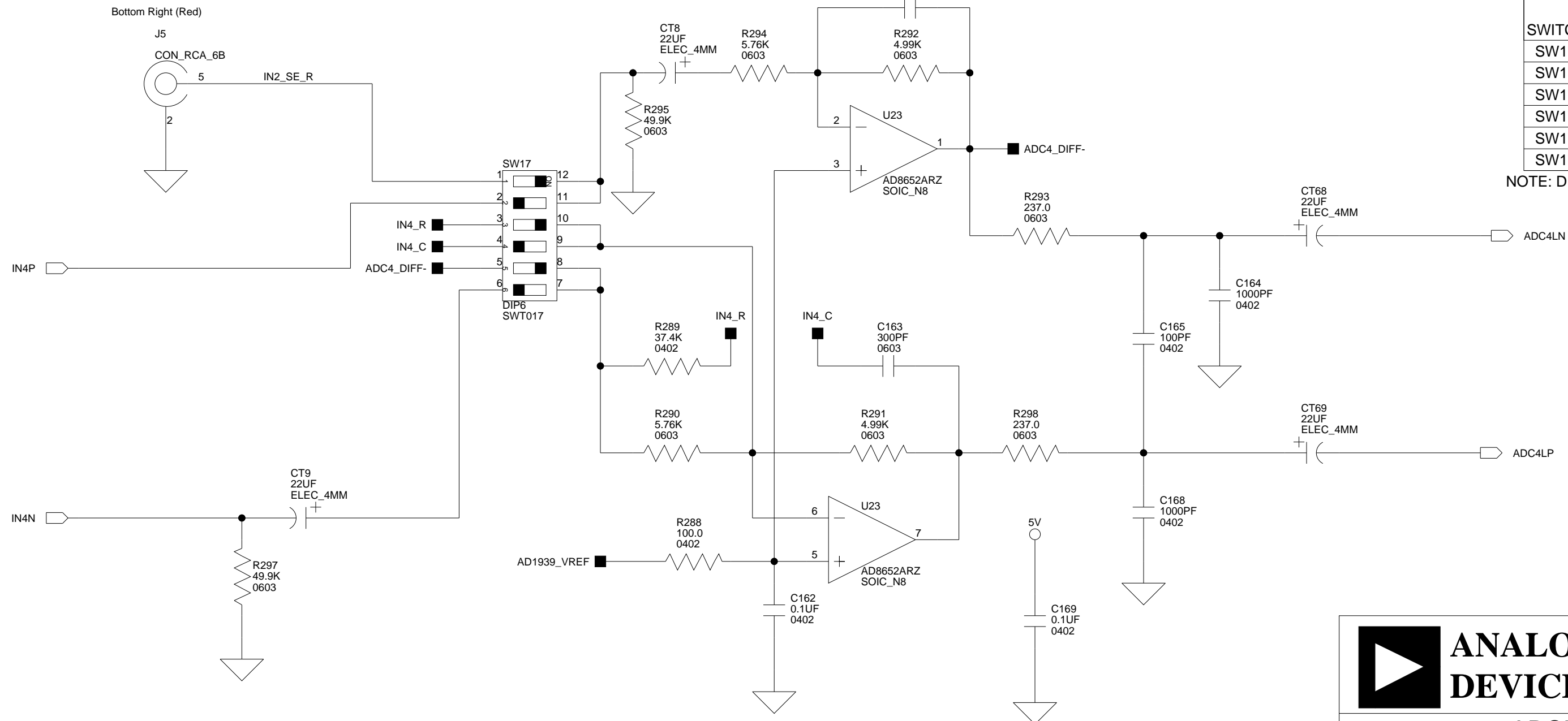
IN2



IN2 (LEFT) SETTINGS

SWITCH	SINGLE ENDED USE RCA IN (DEFAULT)	DIFFERENTIAL USE DB25 IN (P8)
SW18.1	ON	OFF
SW18.2	OFF	ON
SW18.3	ON	OFF
SW18.4	OFF	ON
SW18.5	ON	OFF
SW18.6	OFF	ON

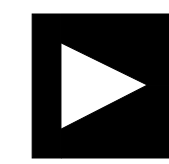
NOTE: DIFFERENTIAL USE REQUIRES A DB25 TO XLR CABLE.



IN2 (RIGHT) SETTINGS

SWITCH	SINGLE ENDED USE RCA IN (DEFAULT)	DIFFERENTIAL USE DB25 IN (P8)
SW17.1	ON	OFF
SW17.2	OFF	ON
SW17.3	ON	OFF
SW17.4	OFF	ON
SW17.5	ON	OFF
SW17.6	OFF	ON

NOTE: DIFFERENTIAL USE REQUIRES A DB25 TO XLR CABLE.

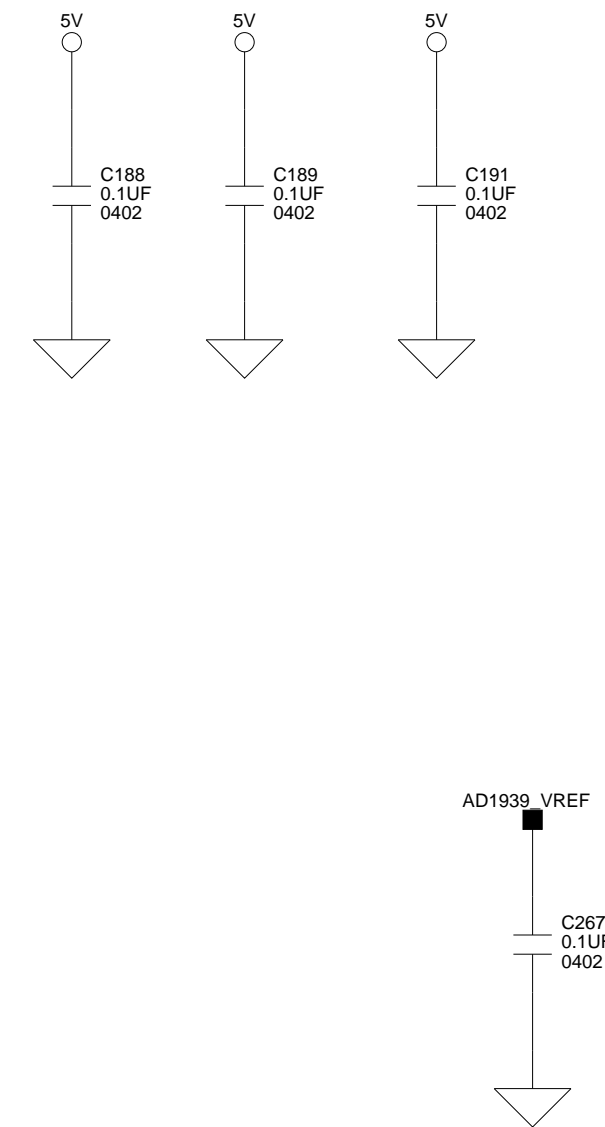
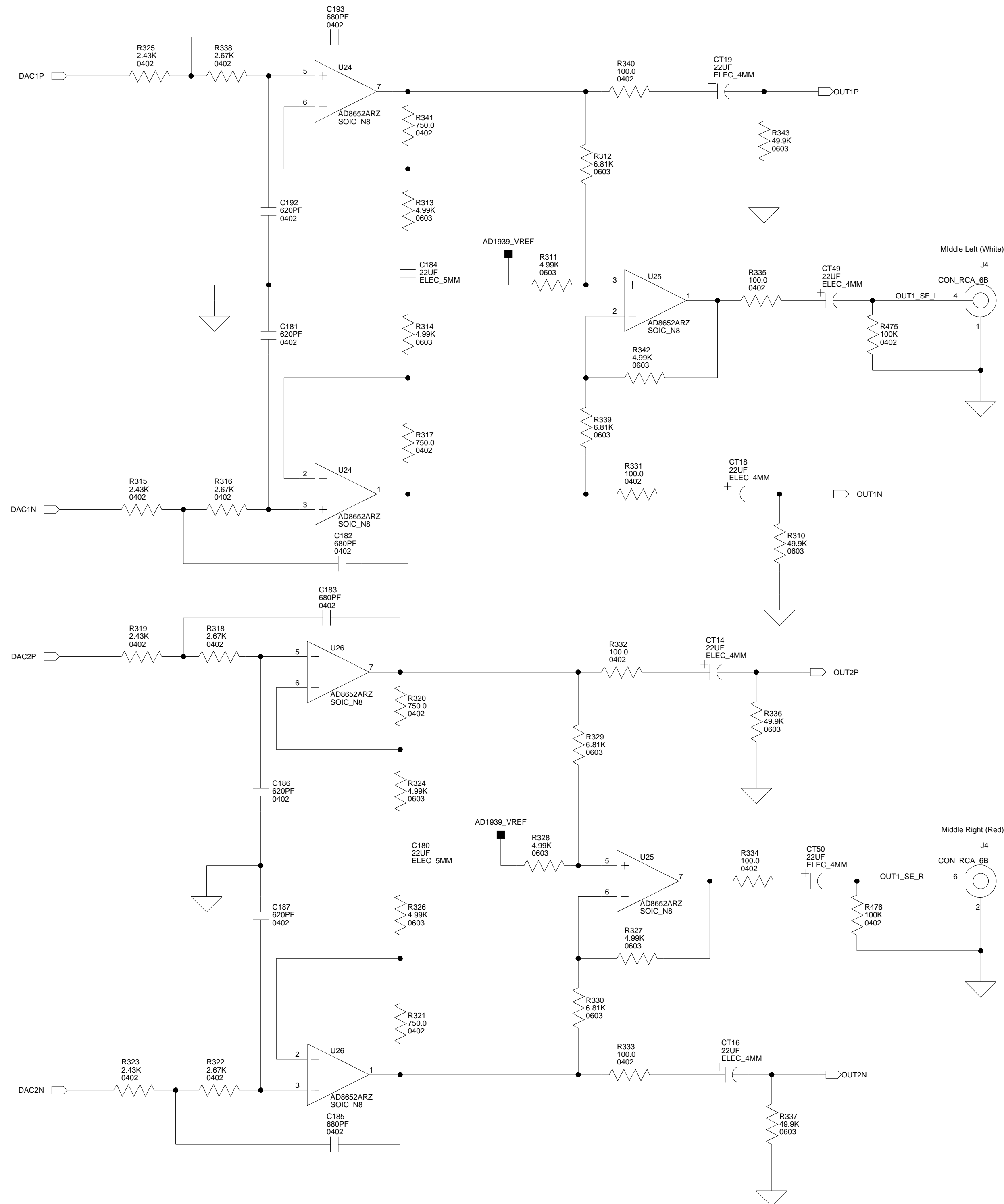


**ANALOG
DEVICES**

20 Cotton Road
Nashua, NH 03063
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Title			ADSP-21479 EZ-BOARD AUDIO PAGE 3		
Size C	Board No.		A0229-2009		Rev 0.1B
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OUT1

**ANALOG
DEVICES**

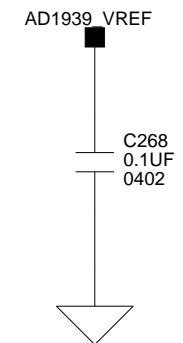
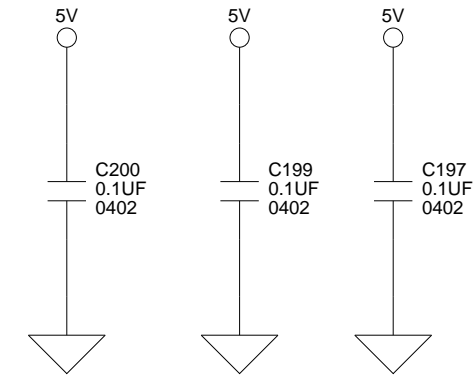
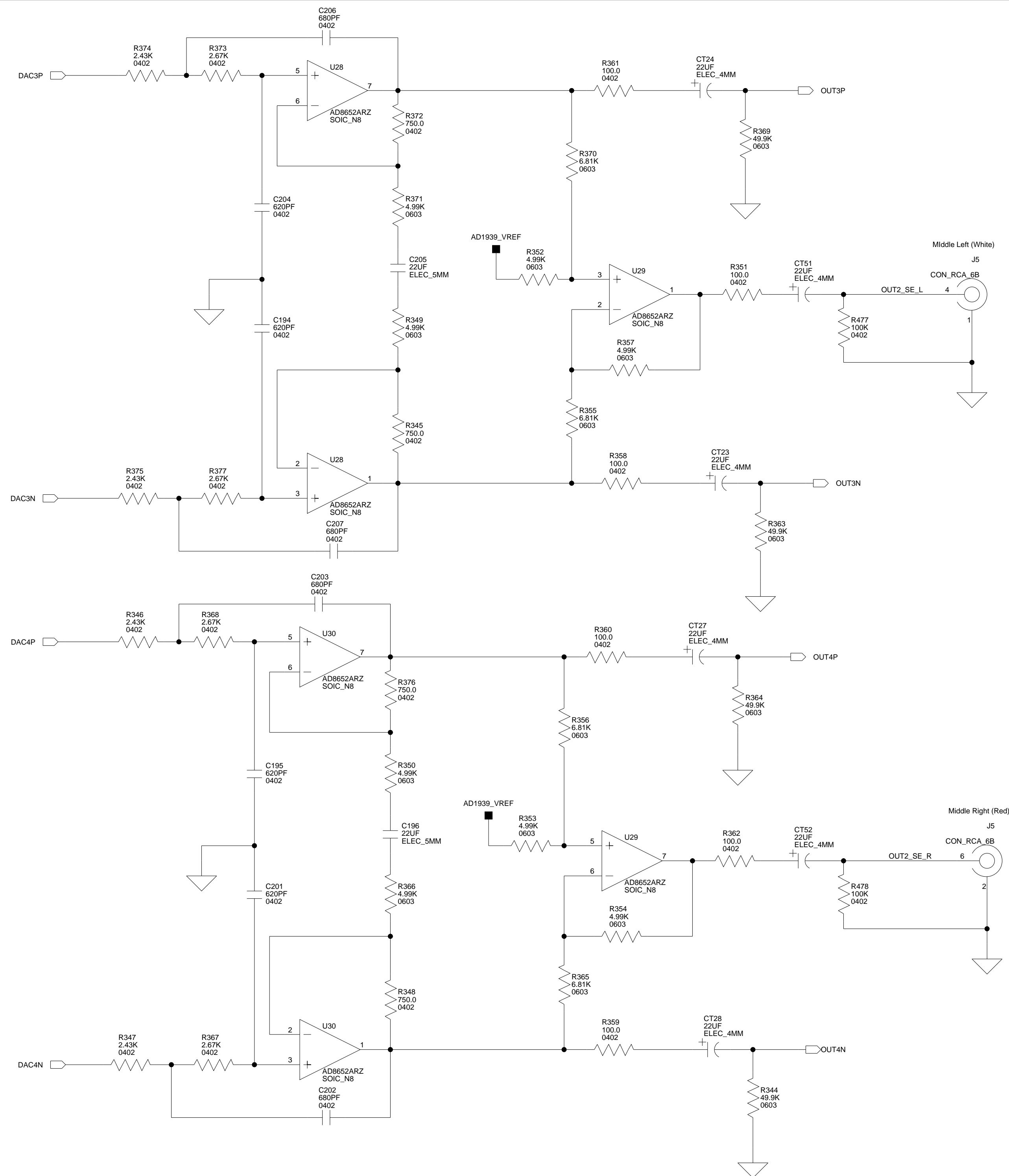
20 Cotton Road
Nashua, NH 03063
PH: 1-800-ANALOGD


Title	ADSP-21479 EZ-BOARD AUDIO PAGE 4
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Size C	Board No. A0229-2009	Rev 0.1B
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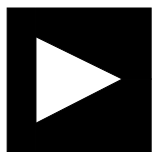
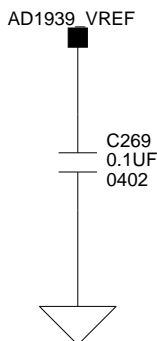
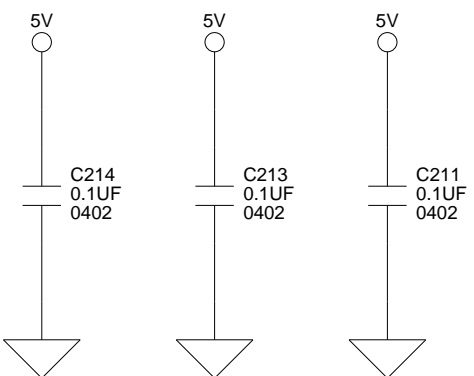
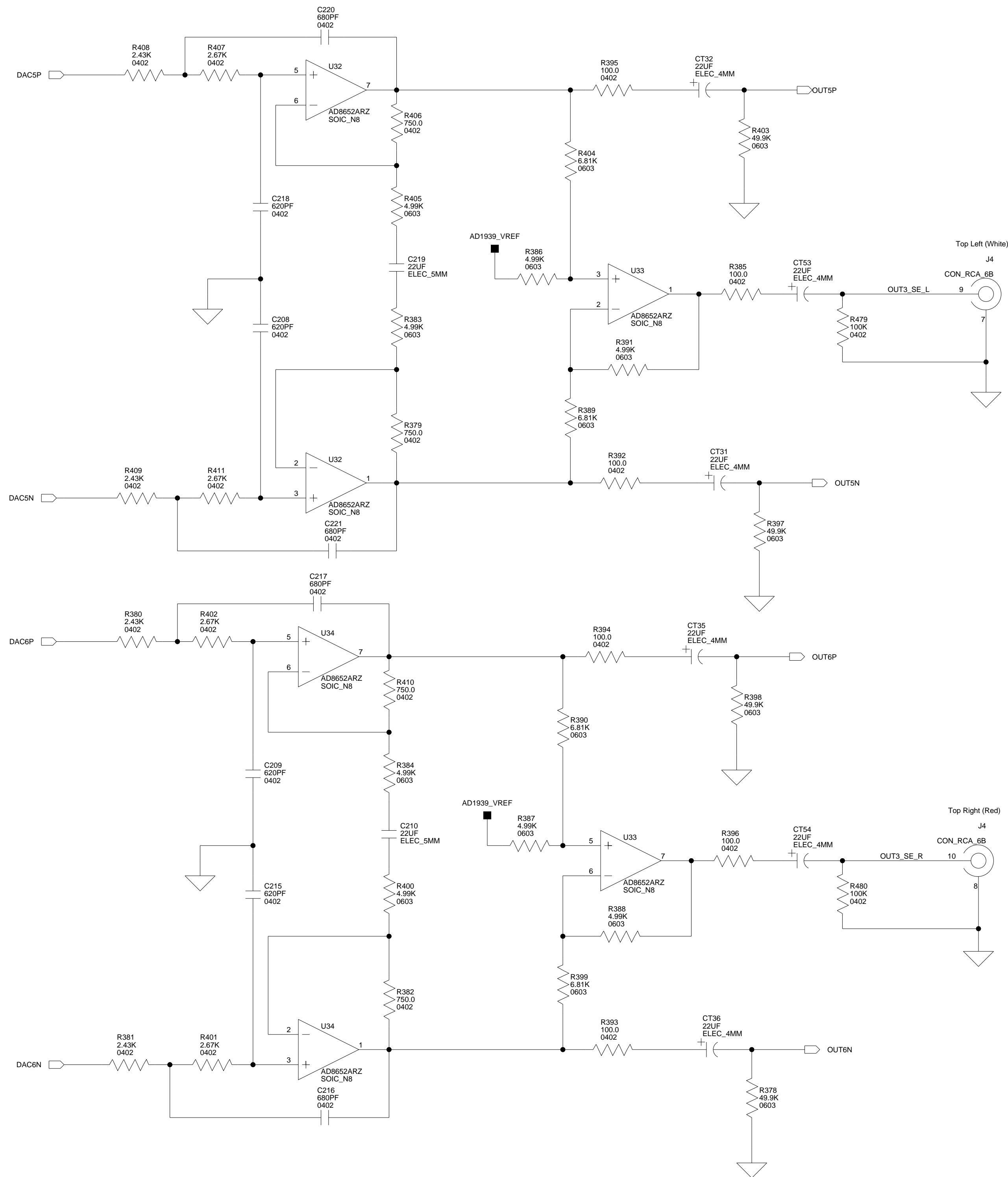
Date	3-15-2010_15:12	Sheet	12 of 17
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OUT2



		20 Cotton Road Nashua, NH 03063 PH: 1-800-ANALOGD	
Title		ADSP-21479 EZ-BOARD AUDIO PAGE 5	
Size C	Board No. A0229-2009		Rev 0.1B
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OUT3



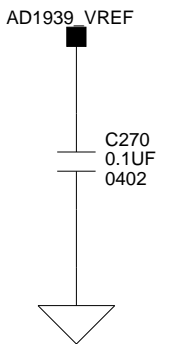
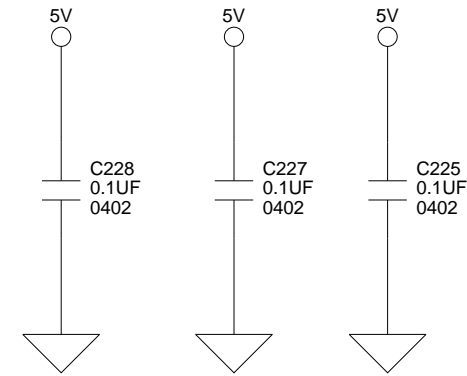
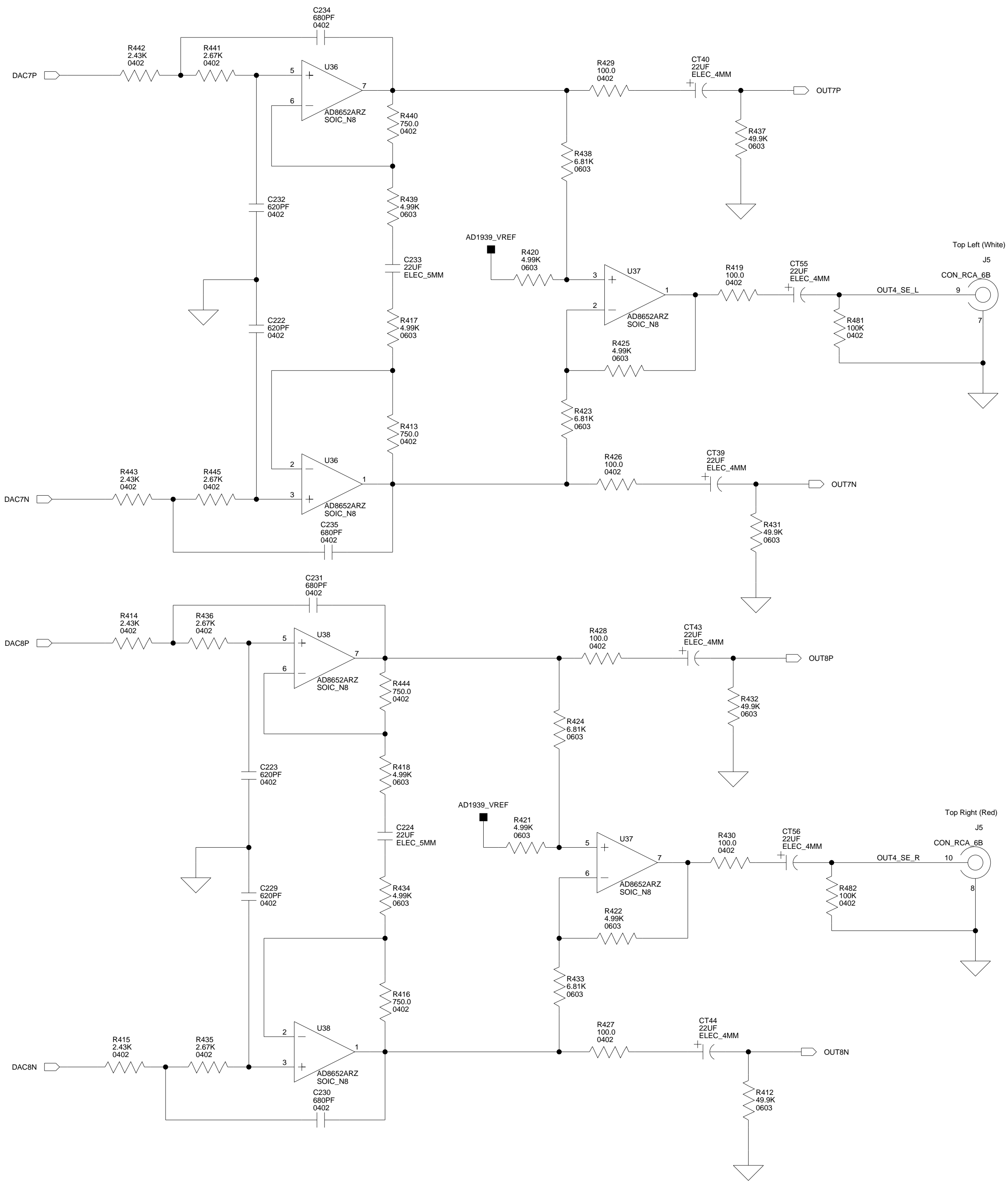
**ANALOG
DEVICES**


20 Cotton Road
Nashua, NH 03063
PH: 1-800-ANALOGD

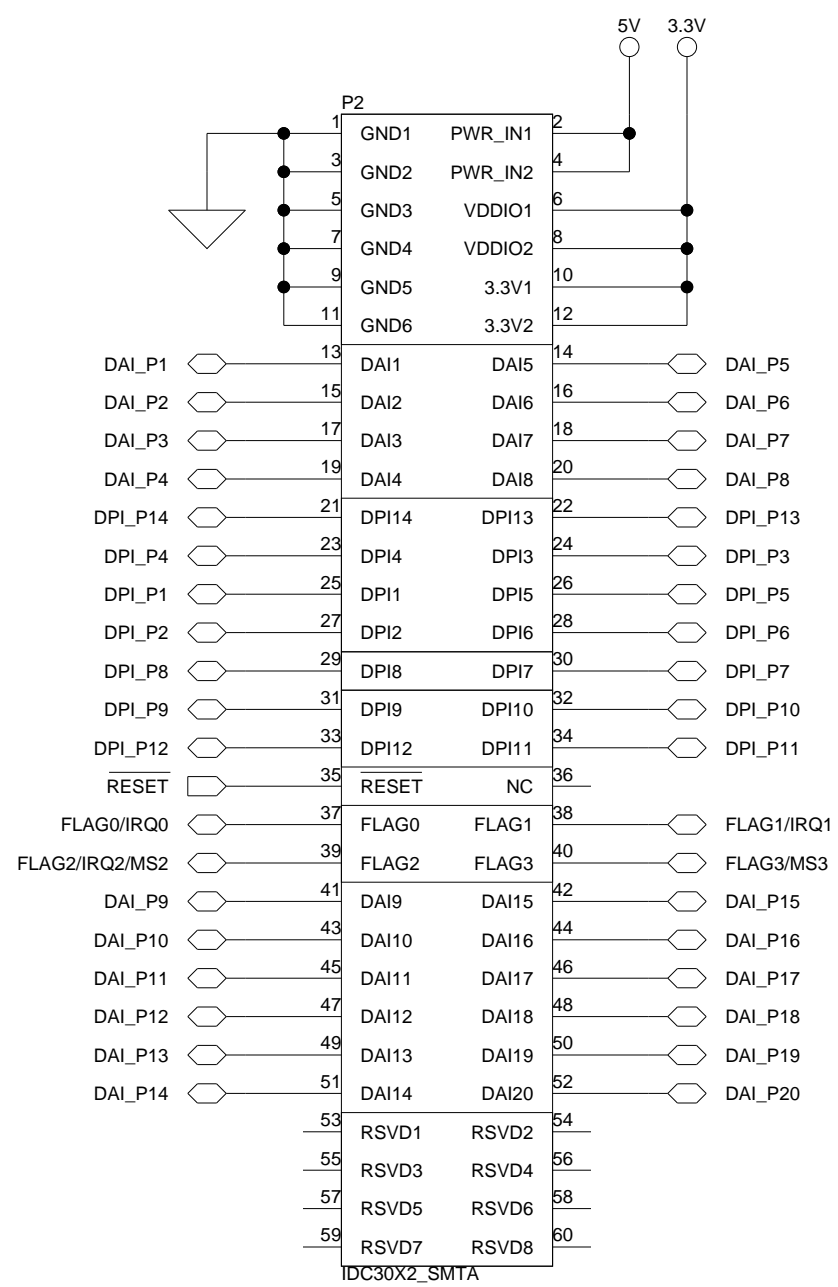
Title ADSP-21479 EZ-BOARD
AUDIO PAGE 6

Size C	Board No.	Rev
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OUT4



		ANALOG DEVICES		20 Cotton Road Nashua, NH 03063 PH: 1-800-ANALOGD	
Title		ADSP-21479 EZ-BOARD AUDIO PAGE 7			
Size C	Board No.			A0229-2009	Rev 0.1B
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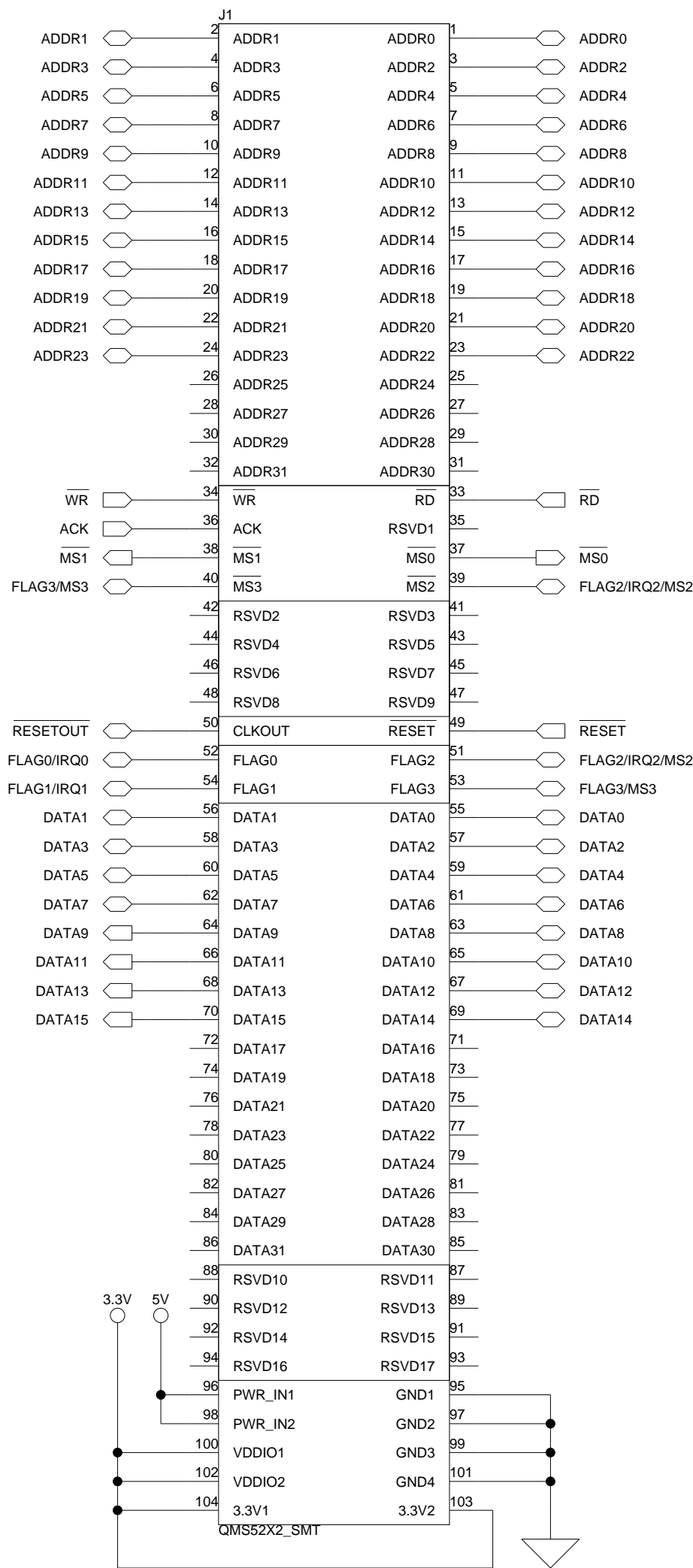


DSP PIN NAME	PERIPHERAL NET CONNECTED TO	CONNECTED VIA SWITCH	SWITCH DEFAULT
DAI_P1	SPDIF_OUT	SW1.1	ON
DAI_P2	AD1939_SOFT_RESET	SW1.2	ON
DAI_P3	LED4	SW1.3	ON
DAI_P4	LED5	SW1.4	ON
DAI_P5	ASDATA1	SW1.5	ON
DAI_P6	ASDATA2	SW1.6	ON
DAI_P7	ABCLK	SW1.7	ON
DAI_P8	ALRCLK	SW1.8	ON
DAI_P9	DSDATA4	SW2.1	ON
DAI_P10	DSDATA3	SW2.2	ON
DAI_P11	DSDATA2	SW2.3	ON
DAI_P12	DSDATA1	SW2.4	ON
DAI_P13	DBCLK	SW2.5	OFF
DAI_P14	DLRCLK	SW2.6	OFF
DAI_P15	LED6	SW2.7	ON
DAI_P16	LED7	SW2.8	ON
DAI_P17	LED8	SW7.1	ON
DAI_P18	SPDIF_IN	SW7.2	ON
DAI_P19	PB3	SW7.3	ON
DAI_P20	PB4	SW7.4	ON

NOTE: SHUTTING OFF ANY OF THE SWITCHES FOR EXPANSION USE WILL CAUSE LOSS OF FUNCTIONALITY TO THE RESPECTIVE PERIPHERAL ON THE EZ-BOARD.

DSP PIN NAME	PERIPHERAL NET CONNECTED TO	CONNECTED VIA SWITCH	SWITCH DEFAULT
DPI_P1	SPI_MOSI	SW3.1	ON
DPI_P2	SPI_MISO	SW3.2	ON
DPI_P3	SPI_CLK	SW3.3	ON
DPI_P4	AD1939_CS	SW3.4	ON
DPI_P5	SPI_CS	SW3.5	ON
DPI_P6	LED1	SW3.6	ON
DPI_P9	UART_TX	SW14.1	ON
DPI_P10	UART_RX	SW14.2	ON
DPI_P11	UART_RTS	SW14.3	OFF
DPI_P12	UART_CTS	SW14.4	OFF
DPI_P13	LED2	SW14.5	ON
DPI_P14	LED3	SW14.6	ON

NOTE: SHUTTING OFF ANY OF THE SWITCHES FOR EXPANSION USE WILL CAUSE LOSS OF FUNCTIONALITY TO THE RESPECTIVE PERIPHERAL ON THE EZ-BOARD.

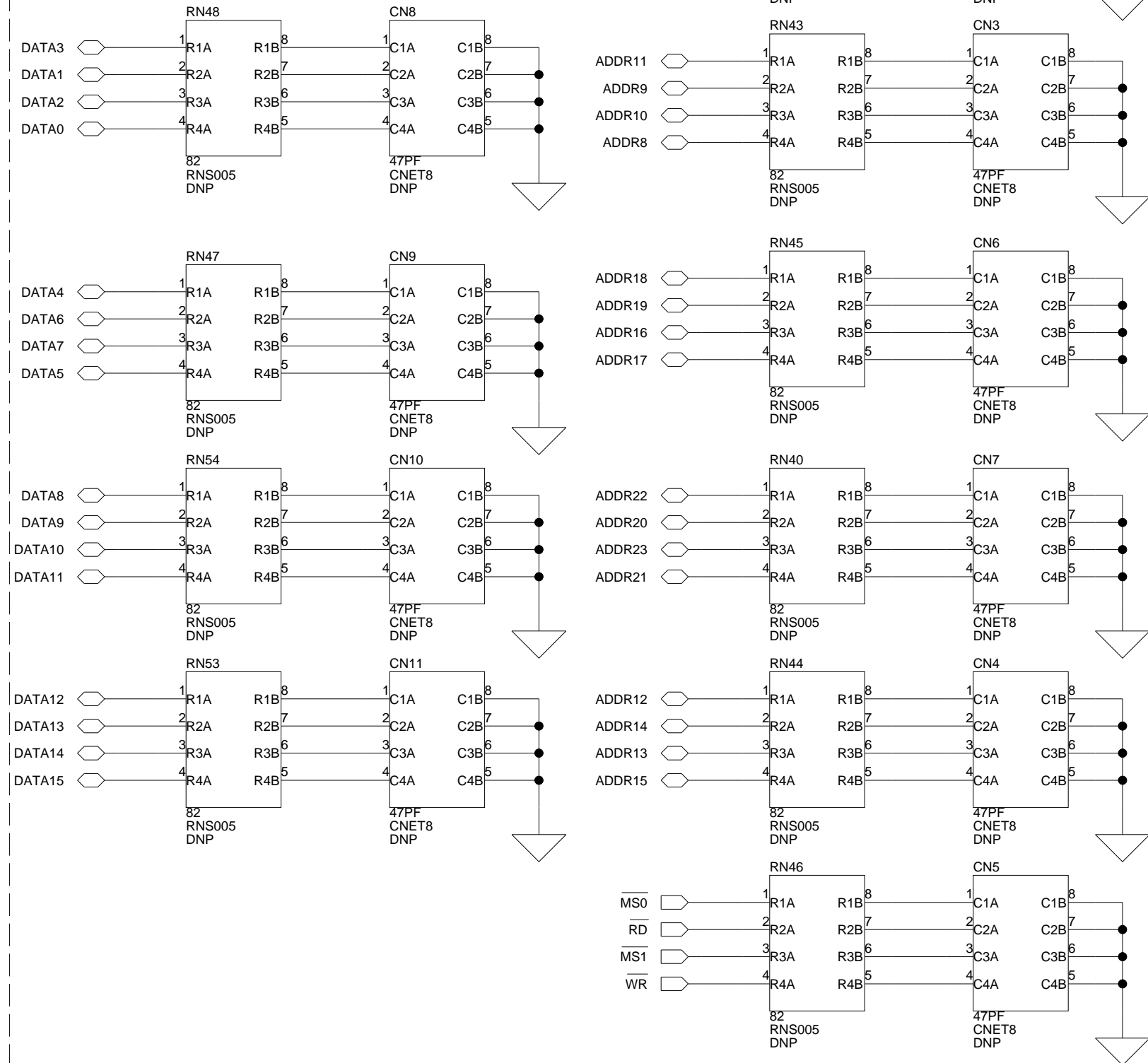


DSP PIN NAME	PERIPHERAL NET CONNECTED TO	CONNECTED VIA SWITCH	SWITCH DEFAULT
MS0	SDRAM_CS	SW13.1	OFF
MS1	FLASH_CS	SW13.2	ON
FLAG1/IRQ1	PB1	SW13.3	ON
FLAG2/IRQ2/MS2	PB2	SW13.4	ON
FLAG3/MS3	SRAM_CS	SW13.5	ON
WDTRSTO	RESET	SW13.6	OFF

NOTE: SHUTTING OFF ANY OF THE SWITCHES FOR EXPANSION USE WILL CAUSE LOSS OF FUNCTIONALITY TO THE RESPECTIVE PERIPHERAL ON THE EZ-BOARD.

END OF LINE RC NETWORKS ARE DO NOT POPULATED BY DEFAULT.

THESE ARE HERE IN CASE THEY ARE NEEDED IN THE FUTURE.



**ANALOG
DEVICES**

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Nashua, NH 03063
PH: 1-800-ANALOGD

Title **ADSP-21479 EZ-BOARD
EXPANSION II INTERFACE**

Size C	Board No. A0229-2009	Rev 0.1B
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