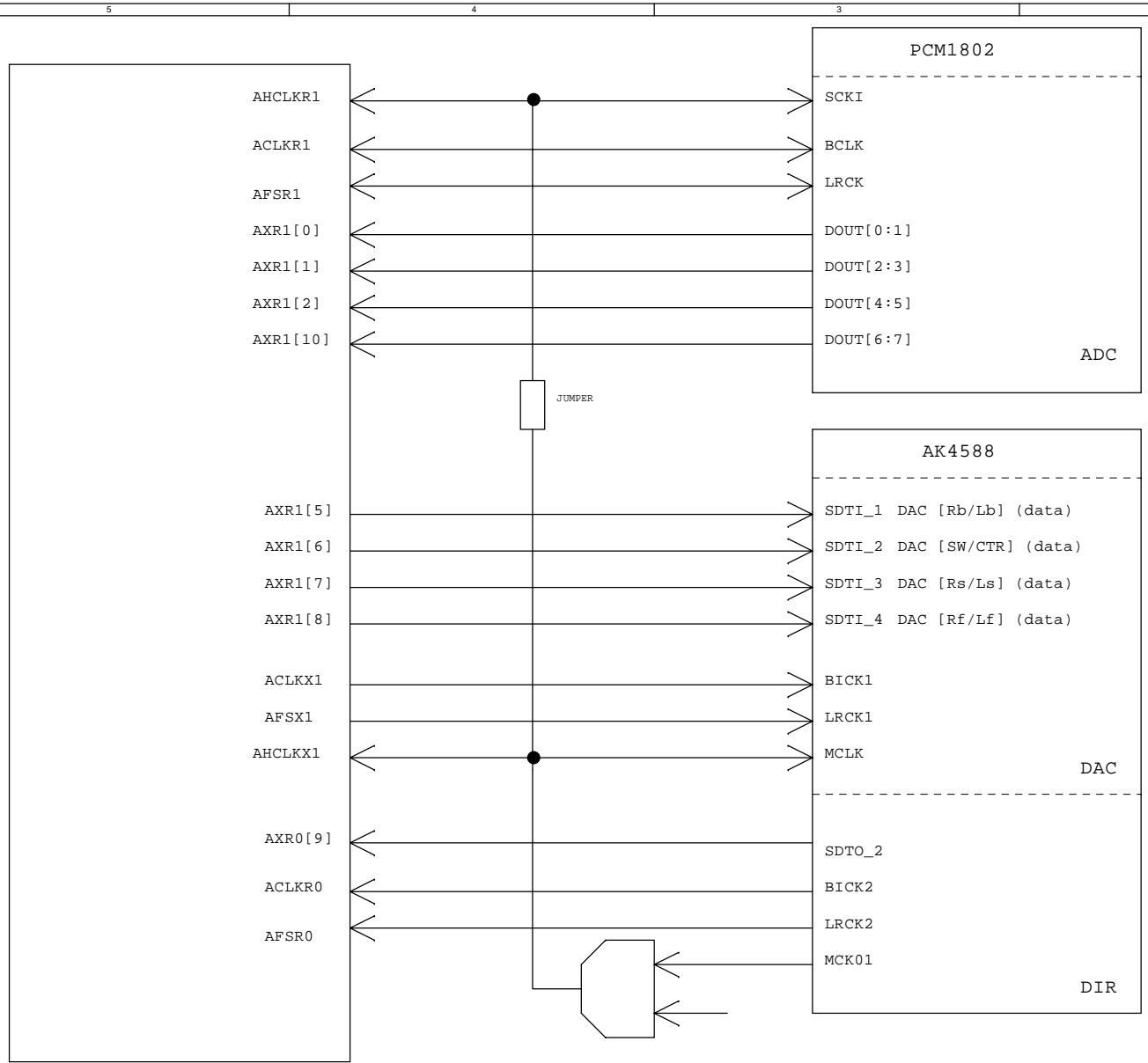


SCHEMATIC CONTENTS

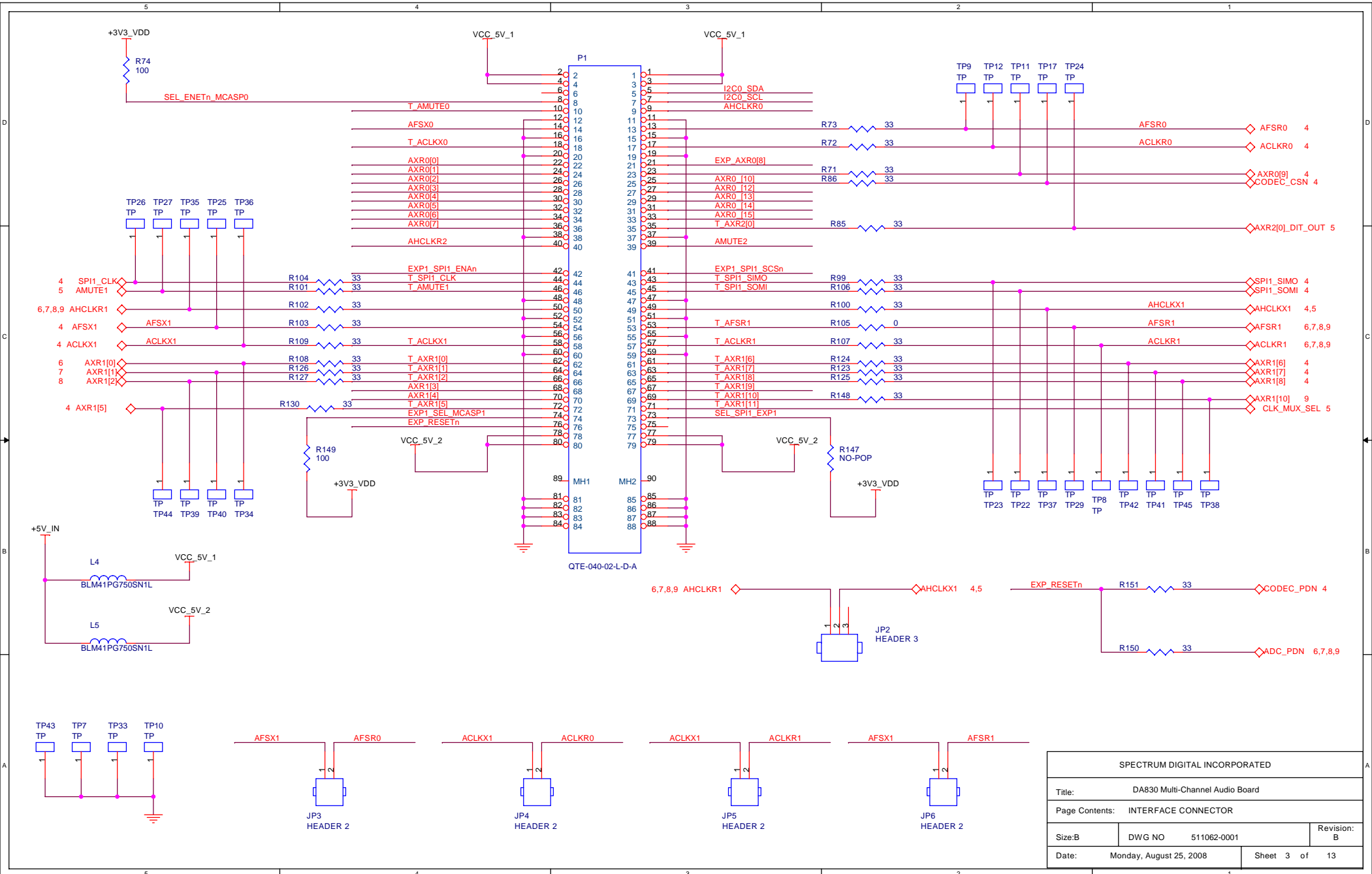
- SHEET01 - TITLE PAGE
- SHEET02 - CONTROL BLOCK DIAGRAM
- SHEET03 - IO EXPANSION CONNECTOR
- SHEET04 - AK4588 DAC/DIR
- SHEET05 - DIGITAL I/O, CLOCKS, MUTE
- SHEET06 - ANALOG IN 0,1
- SHEET07 - ANALOG IN 2,3
- SHEET08 - ANALOG IN 4,5
- SHEET09 - ANALOG IN 6, 7
- SHEET10 - ANALOG OUT 0-3
- SHEET11 - ANALOG OUT 4-7
- SHEET12 - POWER +12/-12V CONVERTOR
- SHEET13 - POWER

REVISION STATUS OF SHEETS											APPLICATION	USED ON	DATE		
													DWN	R.R.P.	06/01/2008
REV													CHK	T.W.K.	06/01/2008
SH													ENGR	R.R.P.	12/01/2006
REV	A	A	A										ENGR-MGR	R.R.P.	06/01/2008
SH	11	12	13										QA	C.M.D.	06/01/2008
REV	B	B	B	B	B	A	A	A	A		NEXT ASSY		MFG	R.R.P.	06/01/2008
SH	1	2	3	4	5	6	7	8	9	10	APPLICATION		RLSE	R.R.P.	06/01/2008

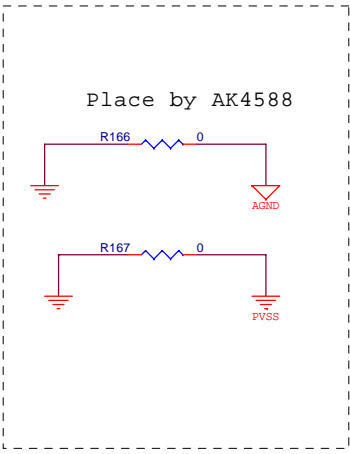
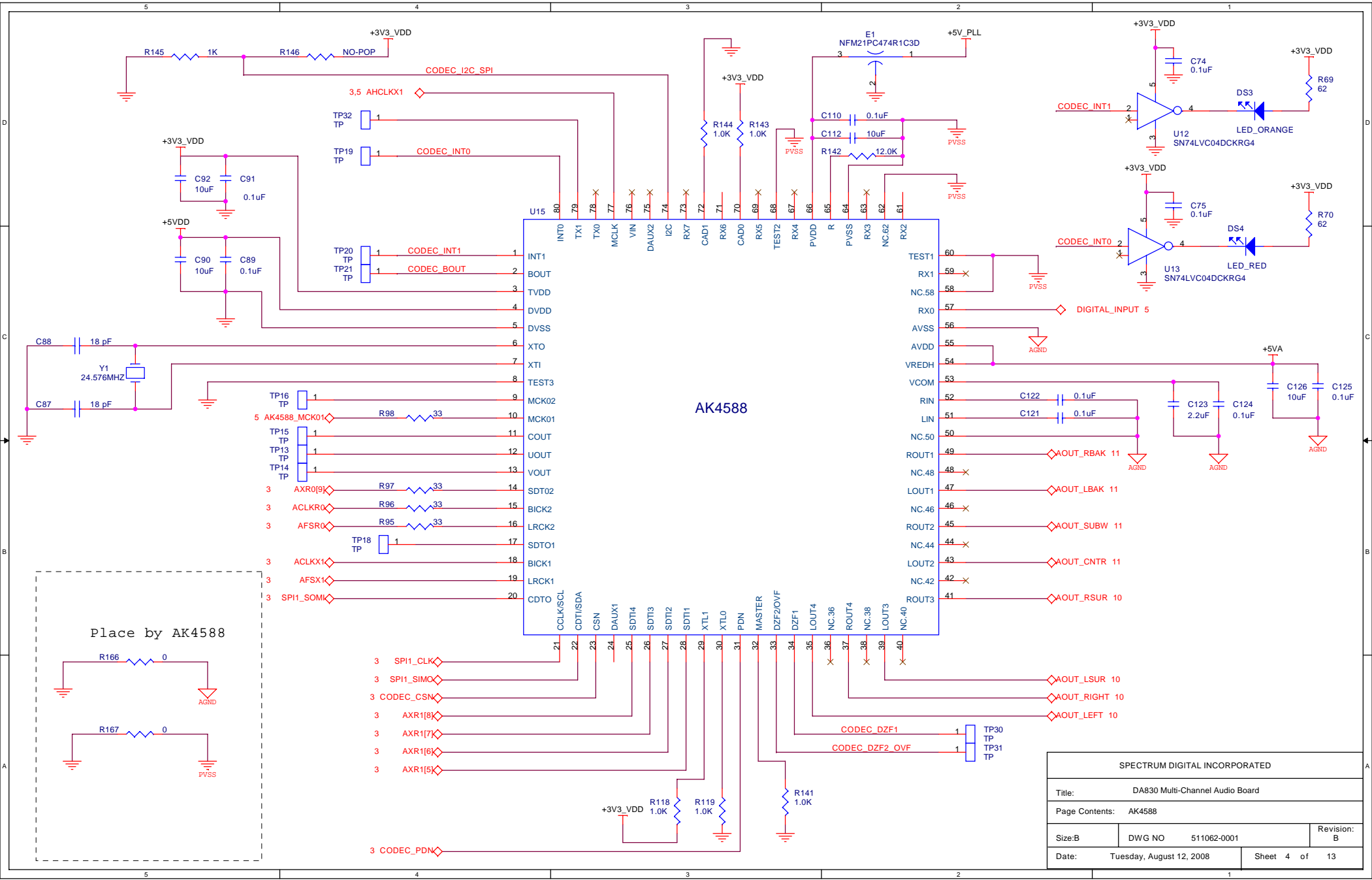
SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: TITLE PAGE			
Size: B	DWG NO	511062-0001	Revision: B
Date: Tuesday, August 12, 2008		Sheet 1 of 13	



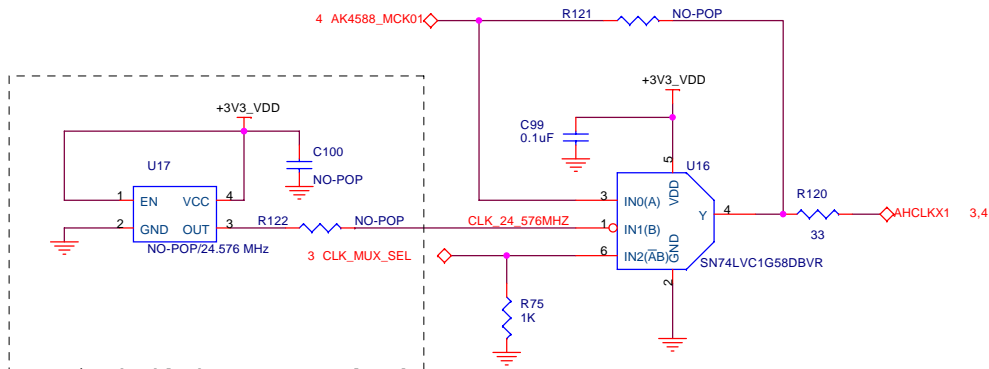
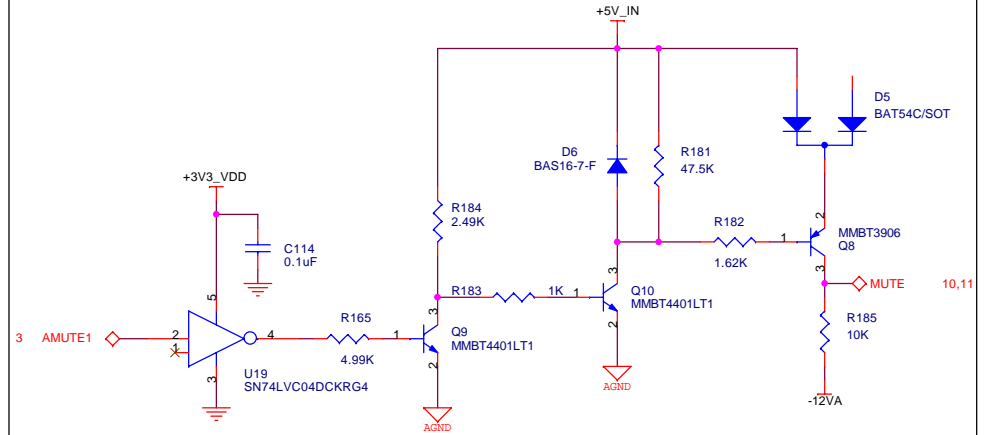
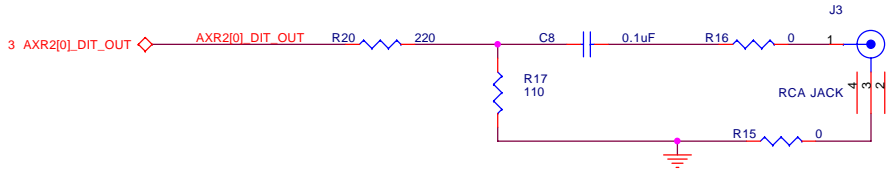
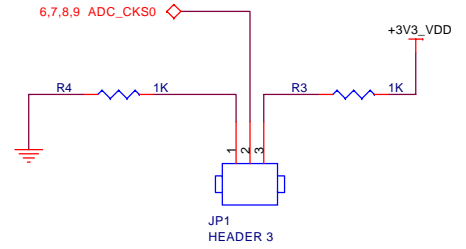
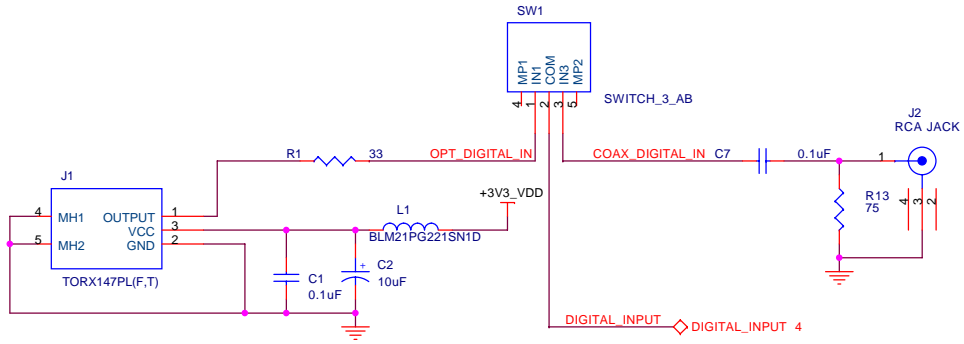
SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: CONTROL DIAGRAM			
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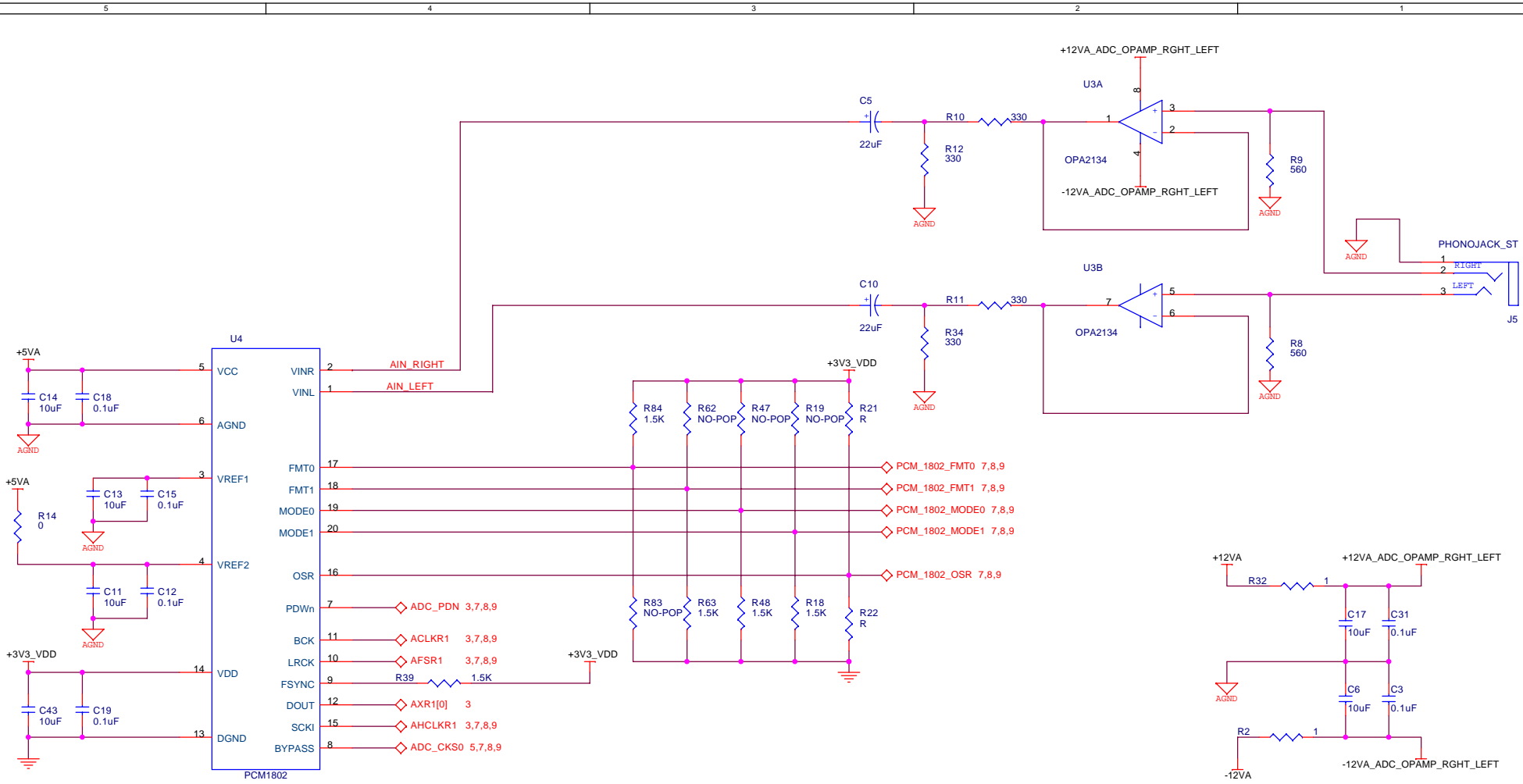
SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: INTERFACE CONNECTOR			
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SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: AK4588			
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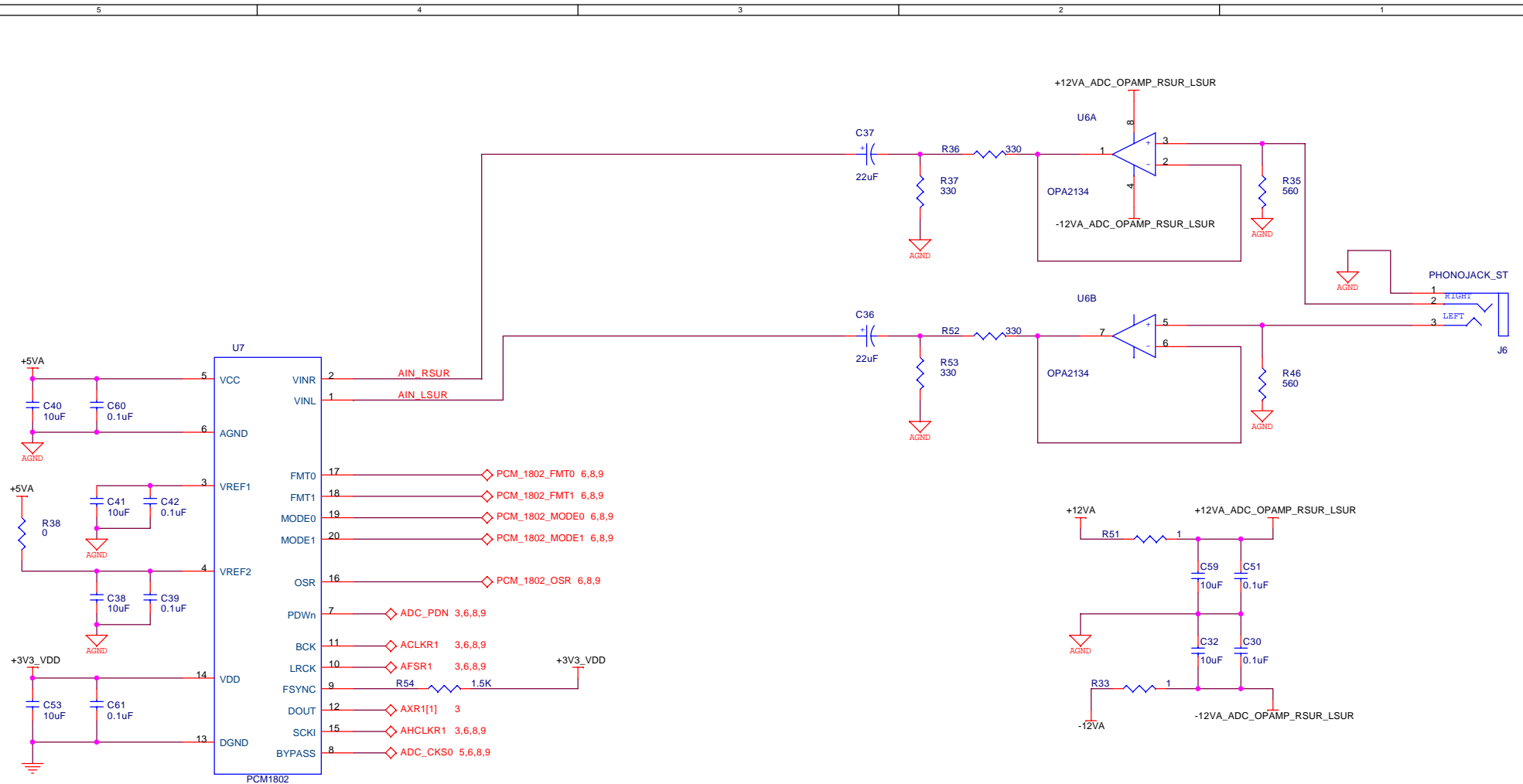
SPECTRUM DIGITAL INCORPORATED			
Title:		DA830 Multi-Channel Audio Board	
Page Contents: DIGITAL IO / MUTE/ CLKS			
Size: B	DWG NO	511062-0001	Revision: B
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24 BIT I2S MODE - FMT 1:0 --> 01

MODE 0:1 --> 0:0 SLAVE 256FS,384FS,512FS,784FS

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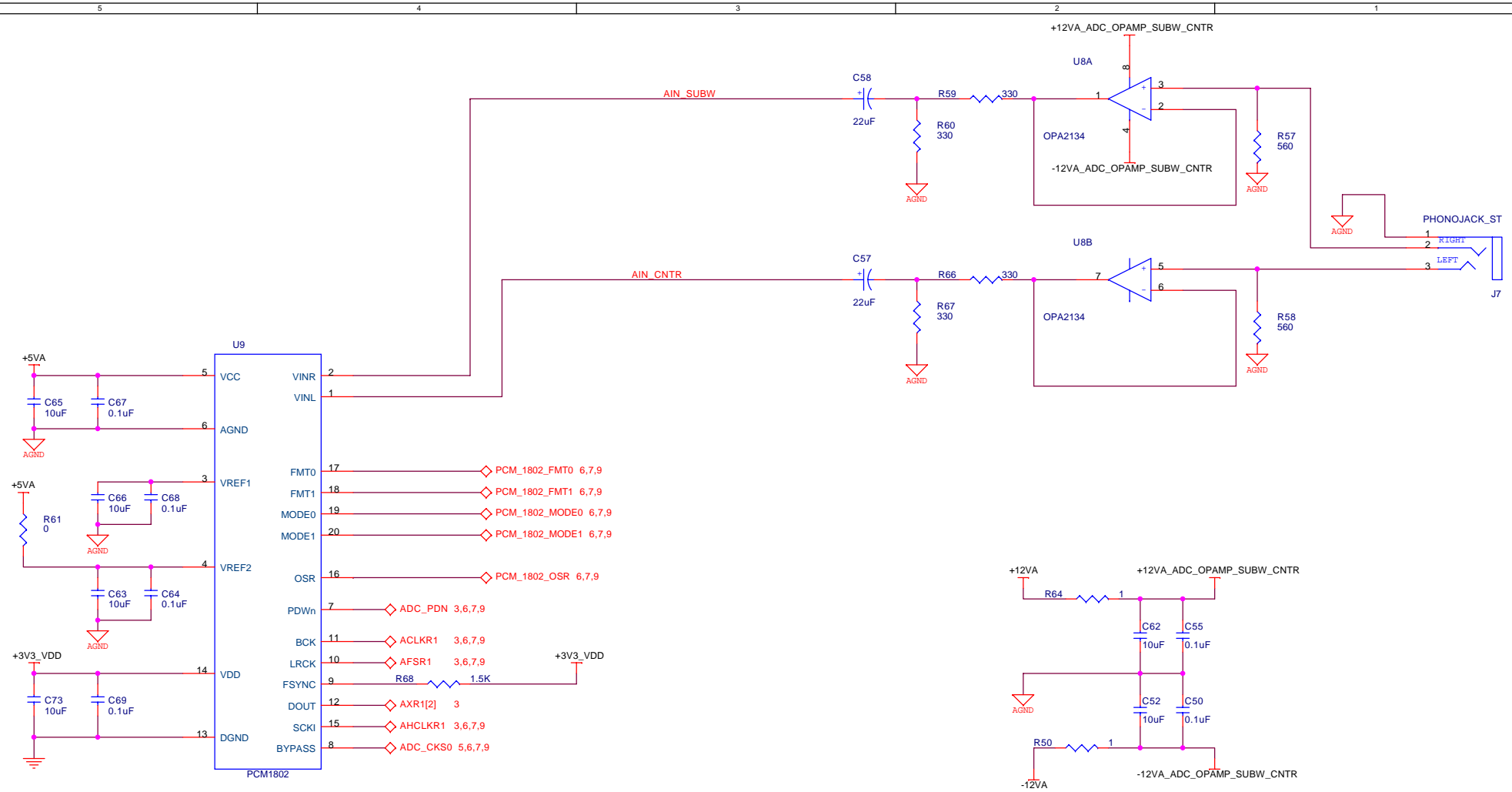


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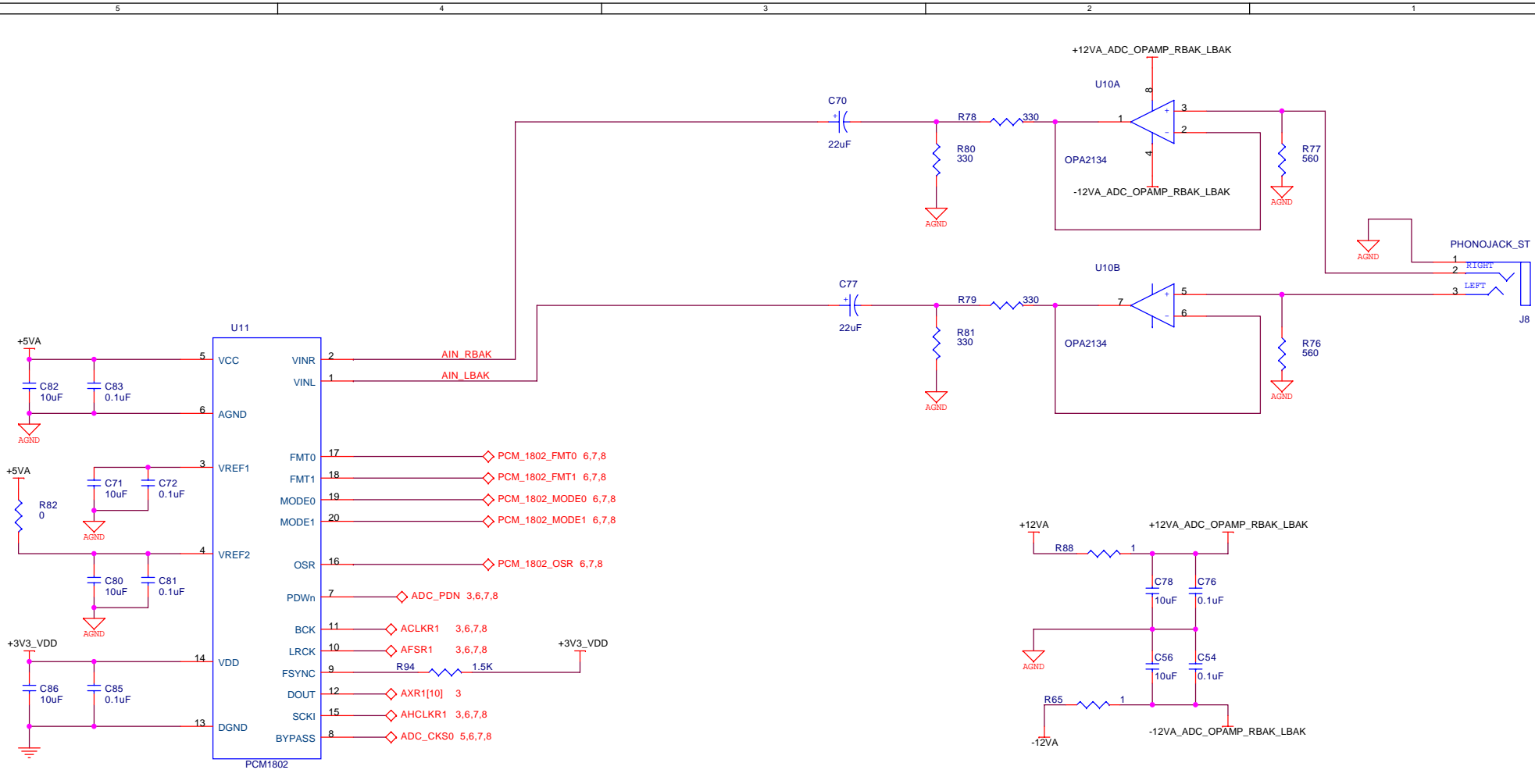
MODE 0:1 --> 0:0 SLAVE 256FS,384FS,512FS,784FS

SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: ANALOG INPUTS 2-3			
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24 BIT I2S MODE - FMT 1:0 --> 01
 MODE 0:1 --> 0:0 SLAVE 256FS,384FS,512FS,784FS

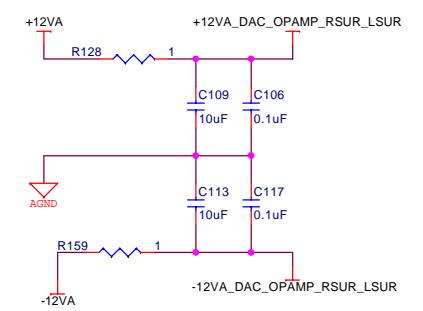
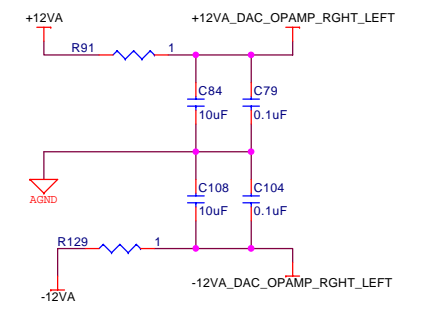
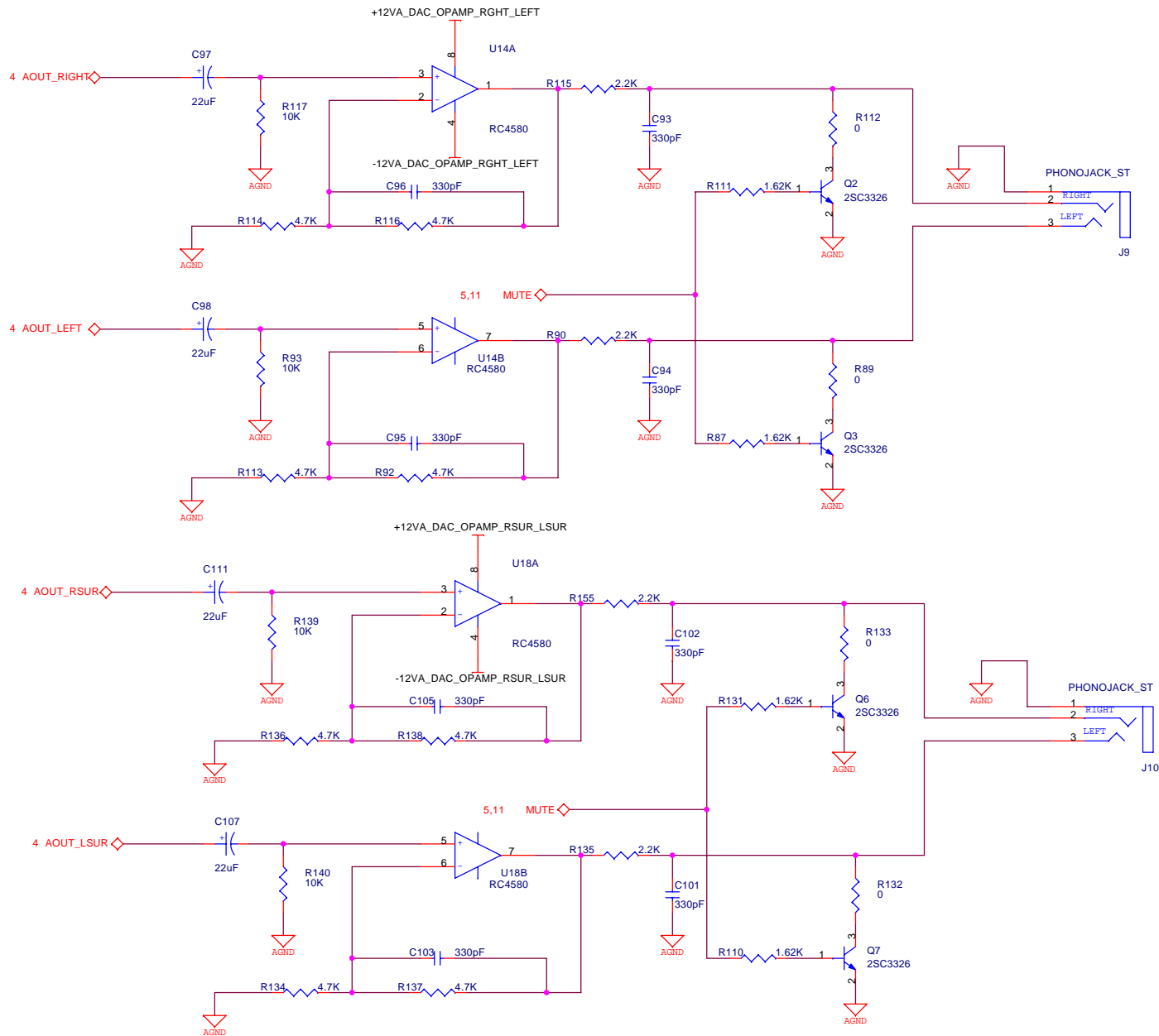


SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: ANALOG INPUTS 4-5			
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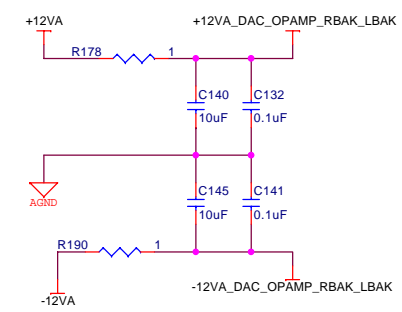
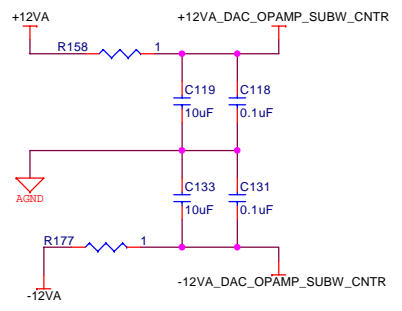
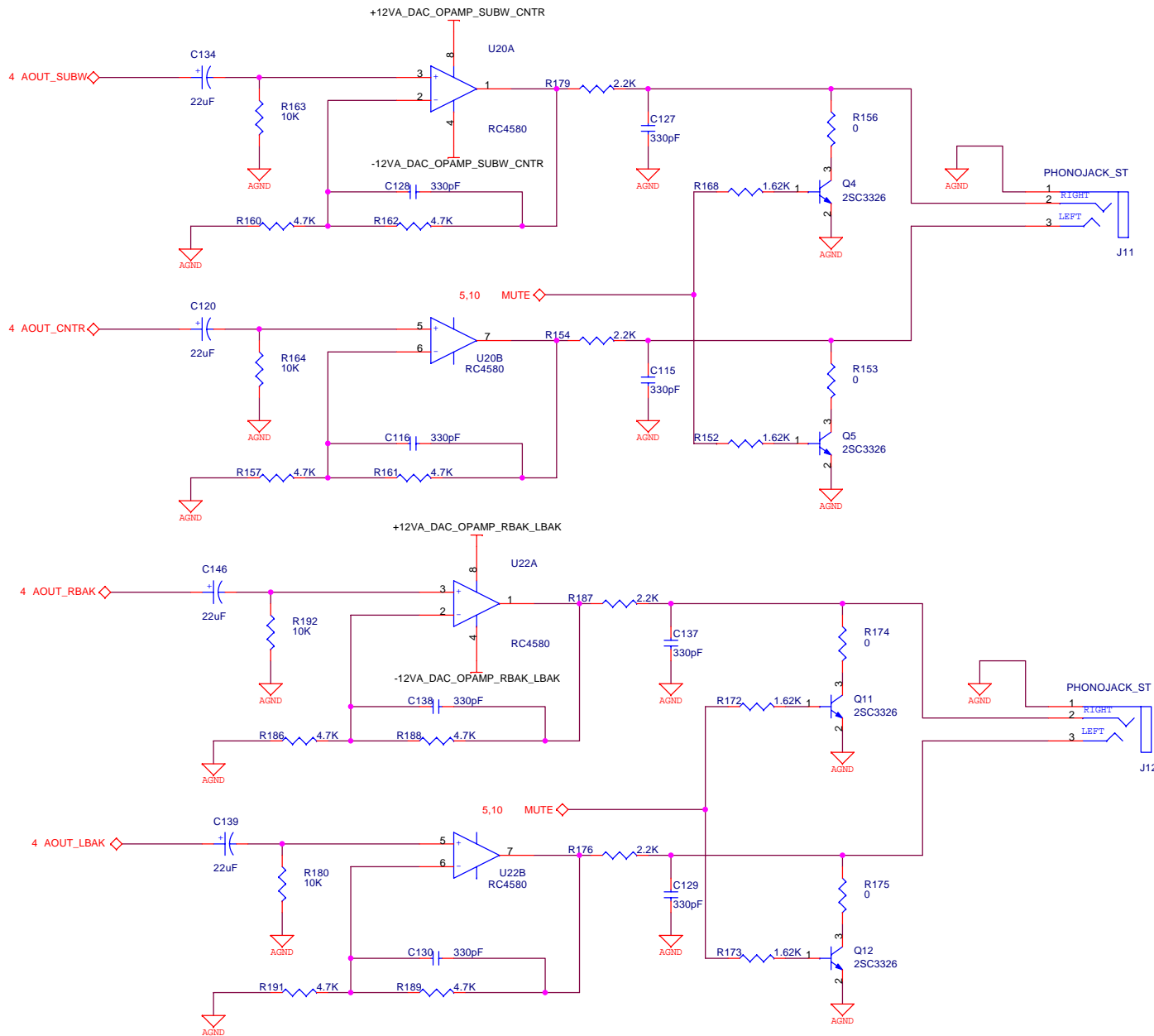


MODE 0:1 --> 0:0 SLAVE 256FS,384FS,512FS,784FS
 24 BIT I2S MODE - FMT 1:0 --> 01

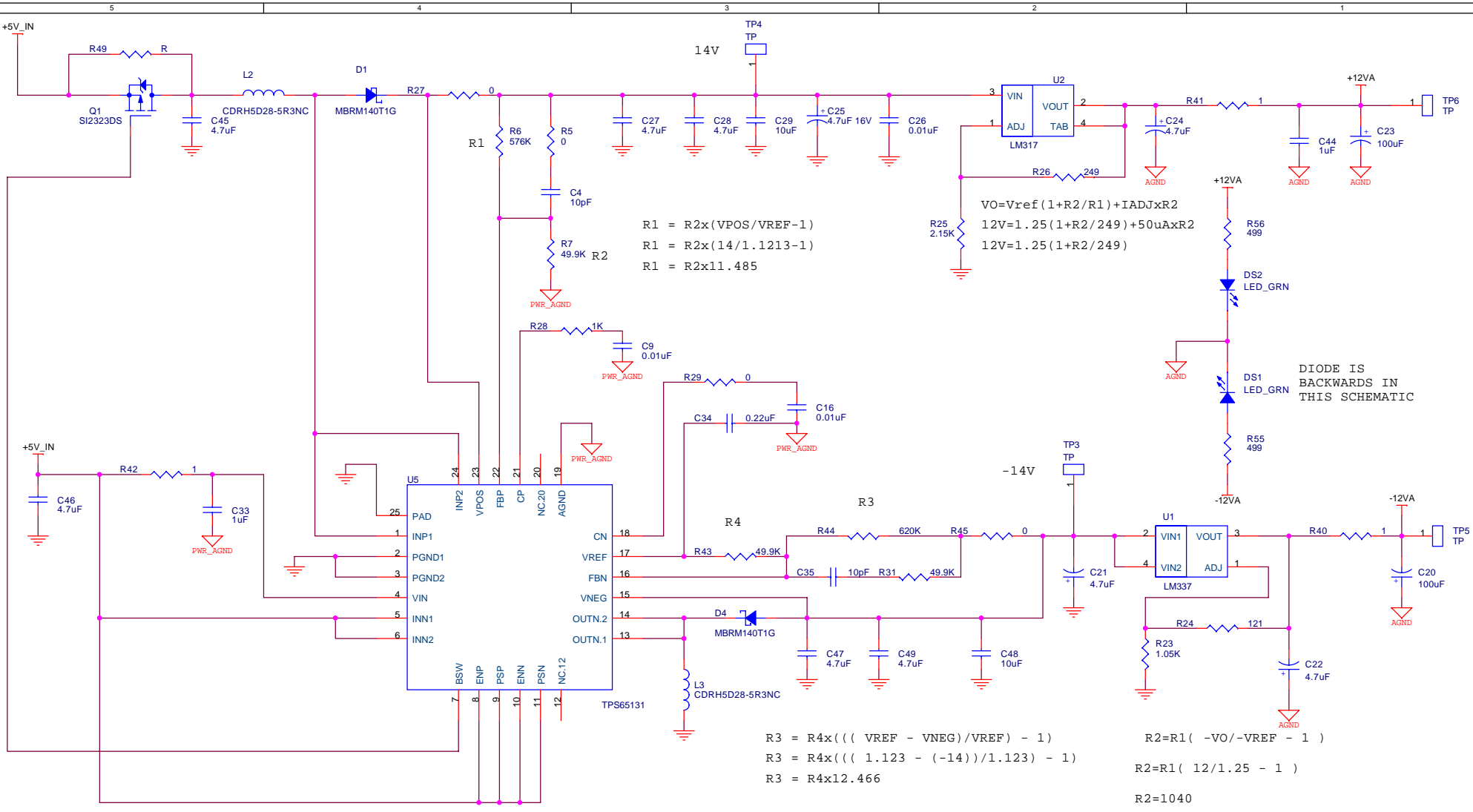
SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
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$$R1 = R2 \times (VPOS / VREF - 1)$$

$$R1 = R2 \times (14 / 1.1213 - 1)$$

$$R1 = R2 \times 11.485$$

$$VO = Vref (1 + R2/R1) + IADJ \times R2$$

$$12V = 1.25 (1 + R2/249) + 50\mu A \times R2$$

$$12V = 1.25 (1 + R2/249)$$

$$R3 = R4 \times (((VREF - VNEG) / VREF) - 1)$$

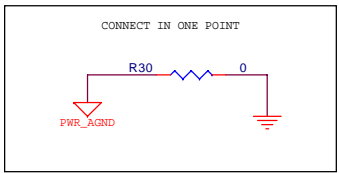
$$R3 = R4 \times (((1.123 - (-14)) / 1.123) - 1)$$

$$R3 = R4 \times 12.466$$

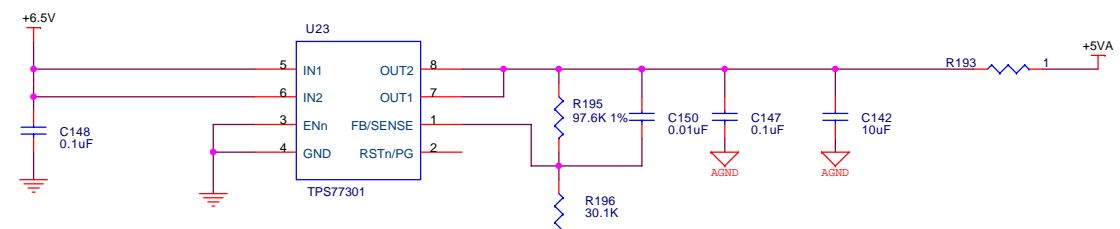
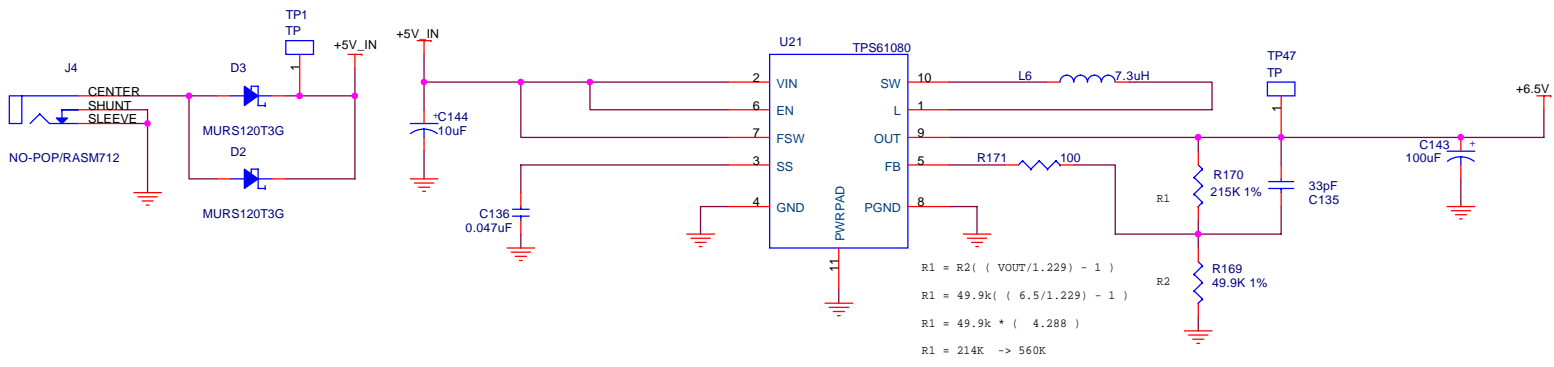
$$R2 = R1 (-VO / -VREF - 1)$$

$$R2 = R1 (12 / 1.25 - 1)$$

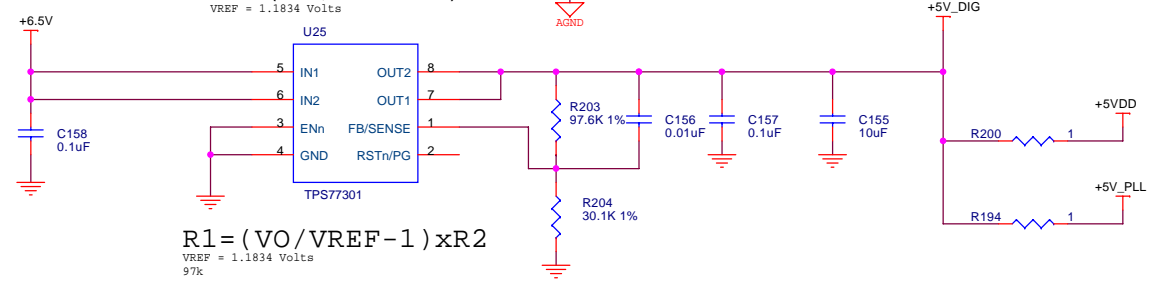
$$R2 = 1040$$



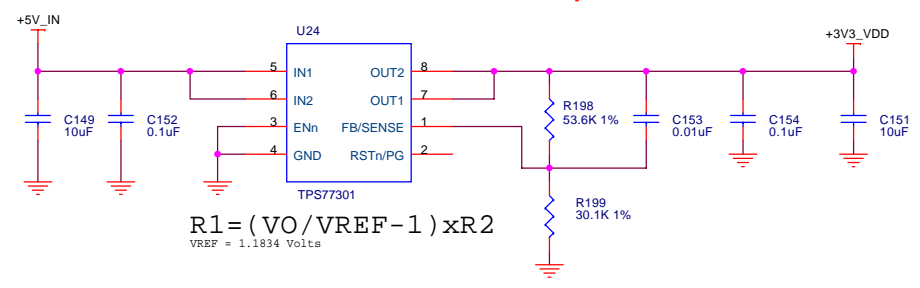
SPECTRUM DIGITAL INCORPORATED			
Title: DA830 Multi-Channel Audio Board			
Page Contents: POWER SUPPLIES			
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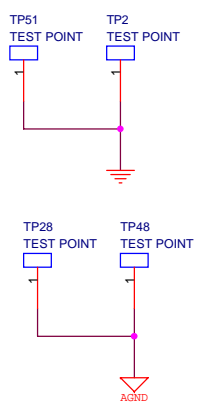
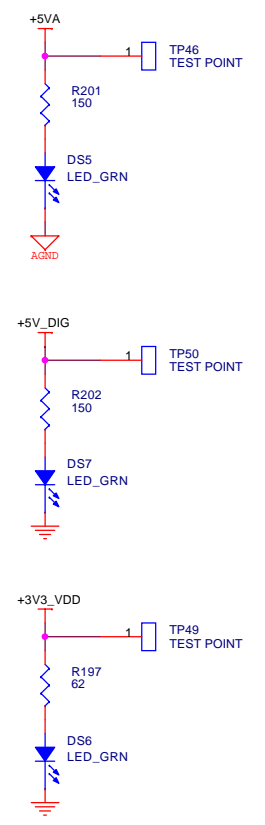
$R1 = (V_O/V_{REF} - 1) \times R2$
 $V_{REF} = 1.1834 \text{ Volts}$



$R1 = (V_O/V_{REF} - 1) \times R2$
 $V_{REF} = 1.1834 \text{ Volts}$
 $97k$



$R1 = (V_O/V_{REF} - 1) \times R2$
 $V_{REF} = 1.1834 \text{ Volts}$



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