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Symbol Attributes

	ECL TRUE IMPEDANCE_RULE ::50:5% MIN_LINE_WIDTH 9.5
	ECL TRUE IMPEDANCE_RULE ::75:5% MATCHED_DELAY xxx:Ux.x:Uy.y:100 MIN_LINE_WIDTH 3.25
	DIFFERENTIAL_PAIR xxx DIFFP_LENGTH_TOL 100 ECL TRUE IMPEDANCE_RULE ::100:5% MATCHED_DELAY xxx:Ux.x:Uy.y:100 MIN_LINE_WIDTH 5.0
	DIFFERENTIAL_PAIR xxx DIFFP_LENGTH_TOL 100 ECL TRUE IMPEDANCE_RULE ::150:5% MATCHED_DELAY xxx:Ux.x:Uy.y:100 MIN_LINE_WIDTH 3.0

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	ORIGINATION		

COMPONENTS
SKT1 - BGA Socket
J1 - J6 Banana Jack J7 SMA Thru Hole J8 - J31 SMA Edge Launch
U1 - U8 AD8134 Sync Encoder U9 - U12 ADA4861 Triple Op-Amp U13 - U15 AD8003 Triple Video Driver A1 - A4 1.2 Volt Bandgap
P1 Ribbon Cable Header P2 - P9 High Density DB15 P10 - P13 CAT5 RJ-45 P14 - P15 UHD P16 - P21 UHD High Density DB15 P22 CAT5 RJ-45 P23 - P25 UHD
Q1 - Q16 2N3906 Transistors
TP1 - TP4 Test Points
JMP1 - JMP40 3 Pin Jumpers
C1 - Cxxx Capacitors
R1 - Rxxx Resistors

8 Layer Stackup

50 / 75 OHM TRACES	Layer 1
0.5 Oz. Plate to 1.5 Oz. FR4 6.2 Mils	
AGND (Ground Plane)	Layer 2
FR4 8 Mils	
NON CONTROLLED TRACES	Layer 3
FR4 24 Mils	
VPOS (Power Plane)	Layer 4
FR4 36 Mils	
VNEG (Power Plane)	Layer 5
FR4 24 Mils	
NON CONTROLLED TRACES	Layer 6
FR4 8 Mils	
AGND (Ground Plane)	Layer 7
FR4 6.2 Mils	
0.5 Oz. Plate to 1.5 Oz. 50 / 75 OHM TRACES	Layer 8

1.5 Oz Copper --> 2.1 Mil Thick
 100 Ohm Diff Pair Line Width = 5.0 Mil, Gap = 6.0 Mil
 150 Ohm Diff Pair Line Width = 3.0 Mil, Gap = 27.0 Mil

!!! NOTE: REVB SCHEMATIC = REVC SCHEMATIC = REVC LAYOUT !!!

Analog Devices Proprietary Information

09-00000A	PCB - AD8175 CHARACTERIZATION	0001	NONE
PART NO	DESCRIPTION	REF DES	NOTES
HIGHEST REF DES USED	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS .XX +/- .010 FRACTIONS +/- 1/32 ANGLES .XXX +/- .005	SCHEMATIC	ANALOG DEVICES 804 WOBURN ST WILMINGTON, MA 01887
REF DES NOT USED	MATERIAL	APPROVAL DATE	AD8175 CUSTOMER SAMPLE
	FINISH	APPROVED BY: *.*.* DATE: */**	SIZE: B FSCM NO: DRAWING NUMBER: 02-010709 REV: B
	DO NOT SCALE	SCALE: NONE	SHEET OF 1 24

Q:\updates\allegro14.cfg

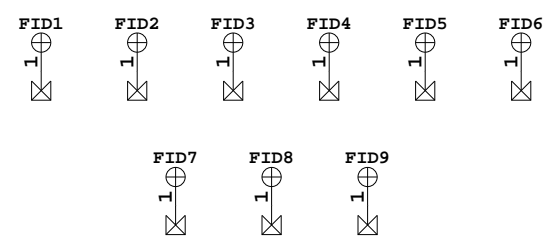
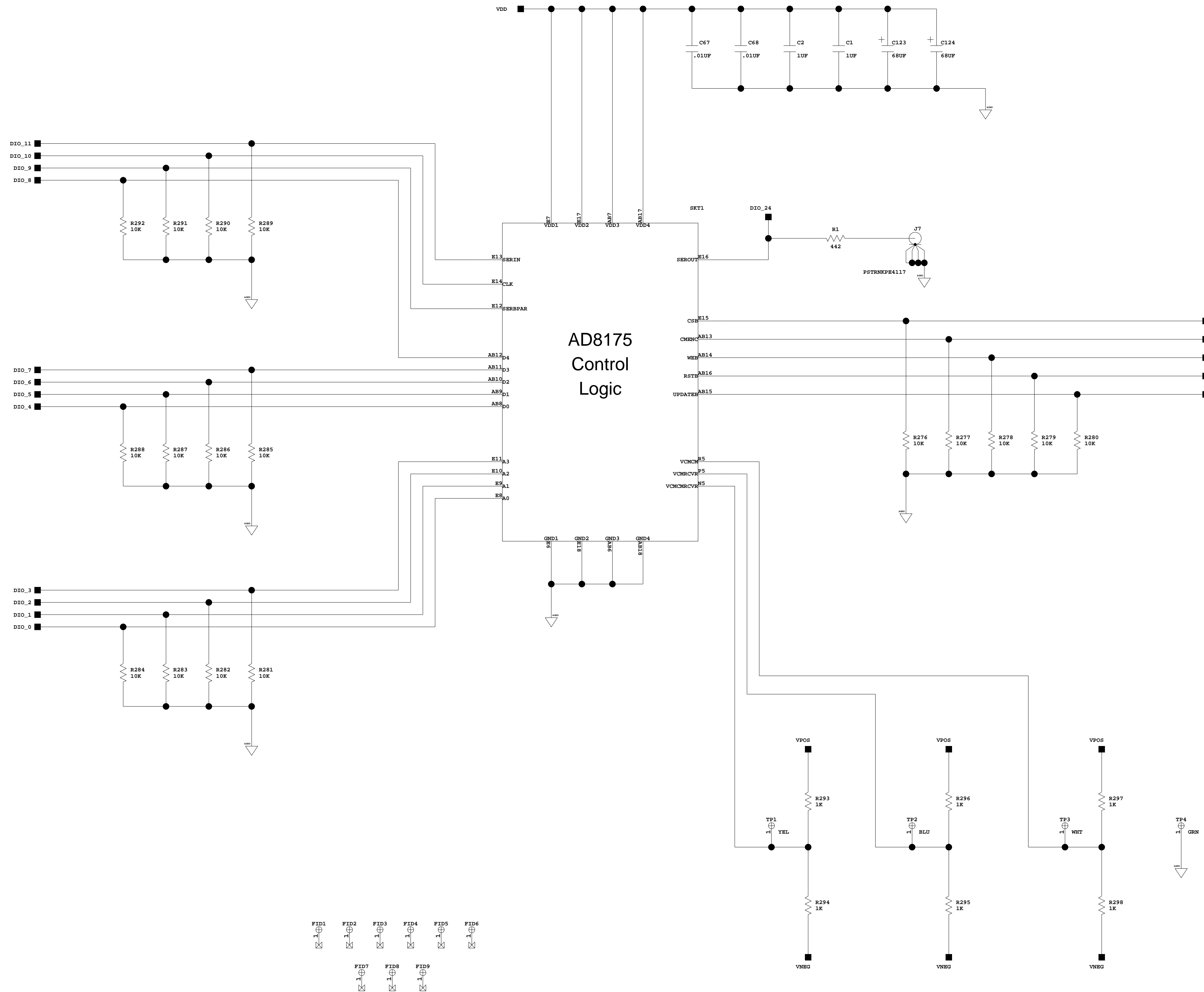
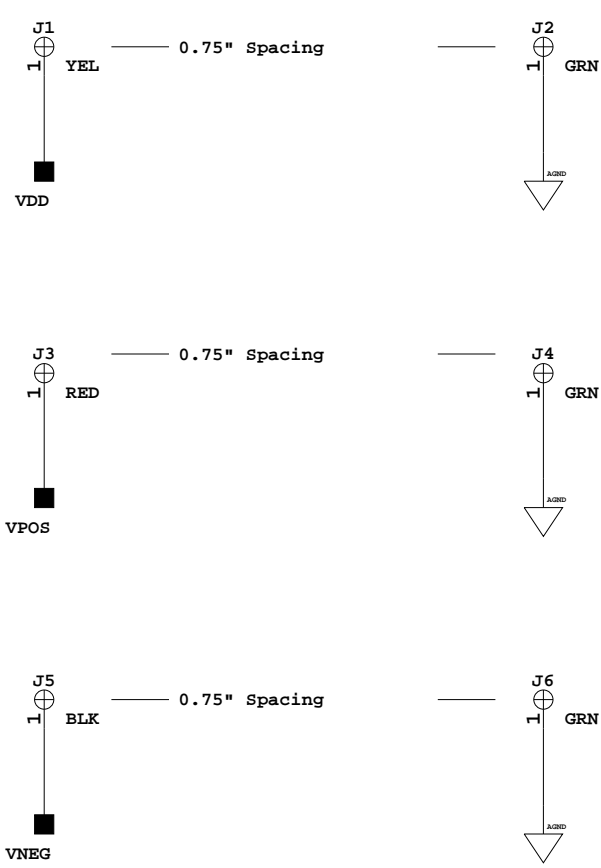
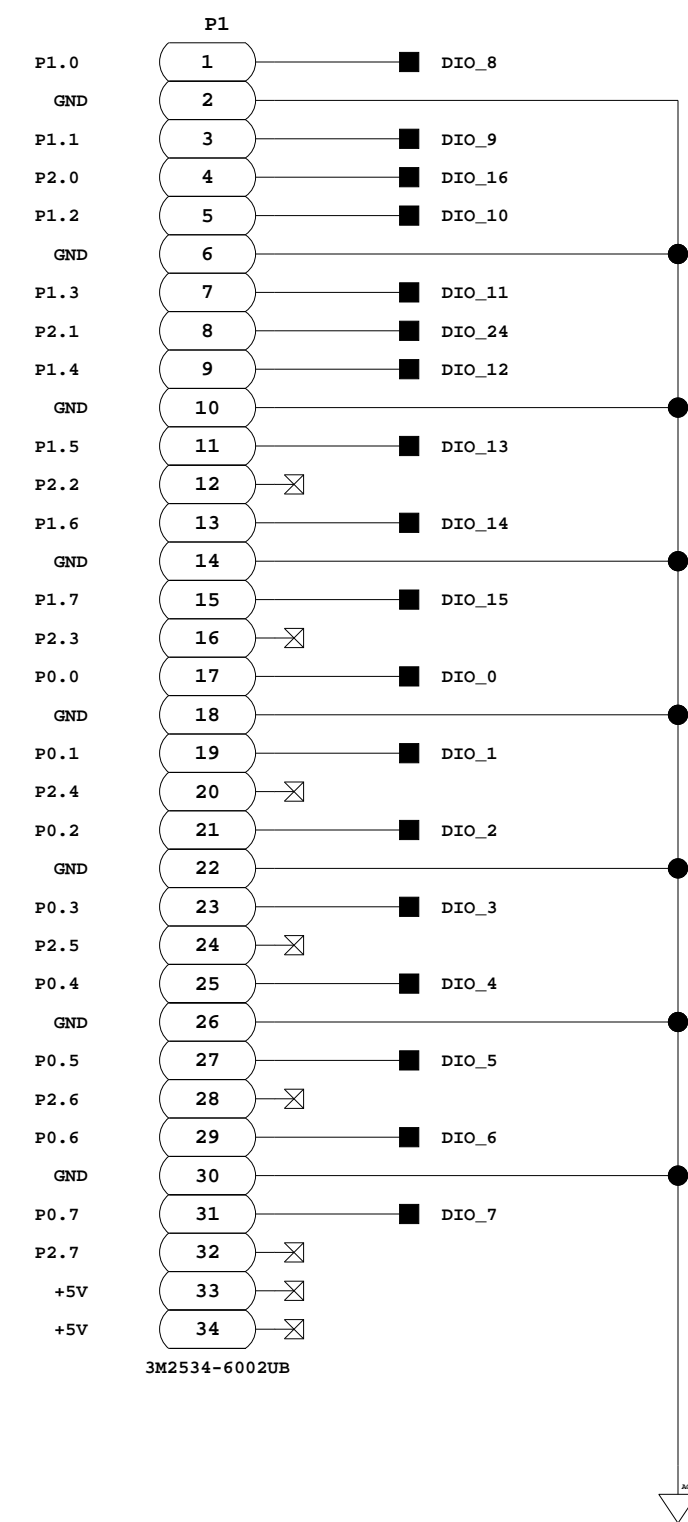
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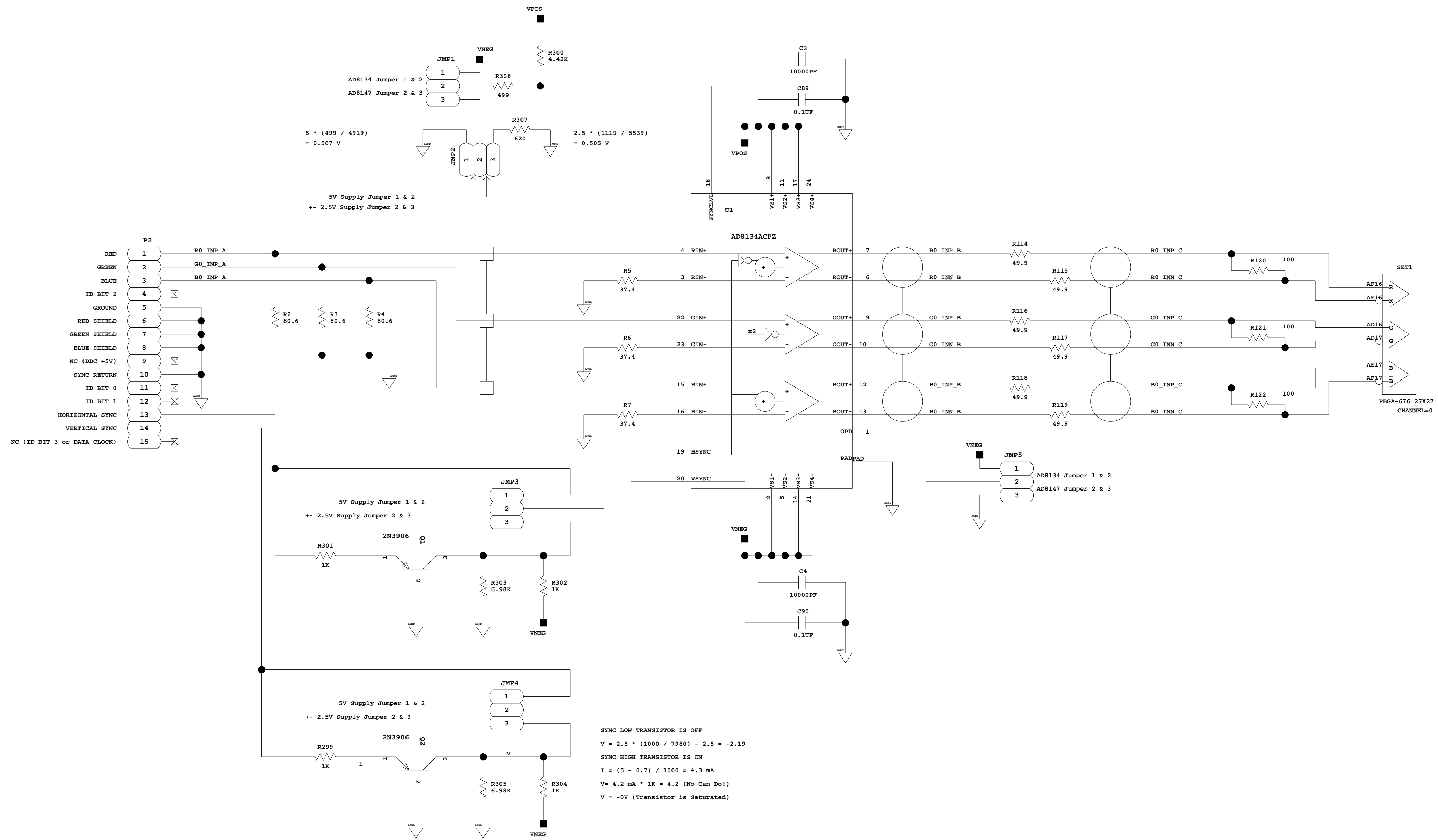
Ribbon Cable Connector for National Instruments USB-6501 USB to Digital IO Converter



LOGIC CONTROL

Analog Devices Proprietary Information

	SIZE	FORM NO	DRAWING NUMBER	REV
	D		02-010709	B
ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET OF 2
			24	



$5 * (499 / 4919) = 0.507 \text{ V}$
 $2.5 * (1119 / 5539) = 0.505 \text{ V}$

SV Supply Jumper 1 & 2
 +- 2.5V Supply Jumper 2 & 3

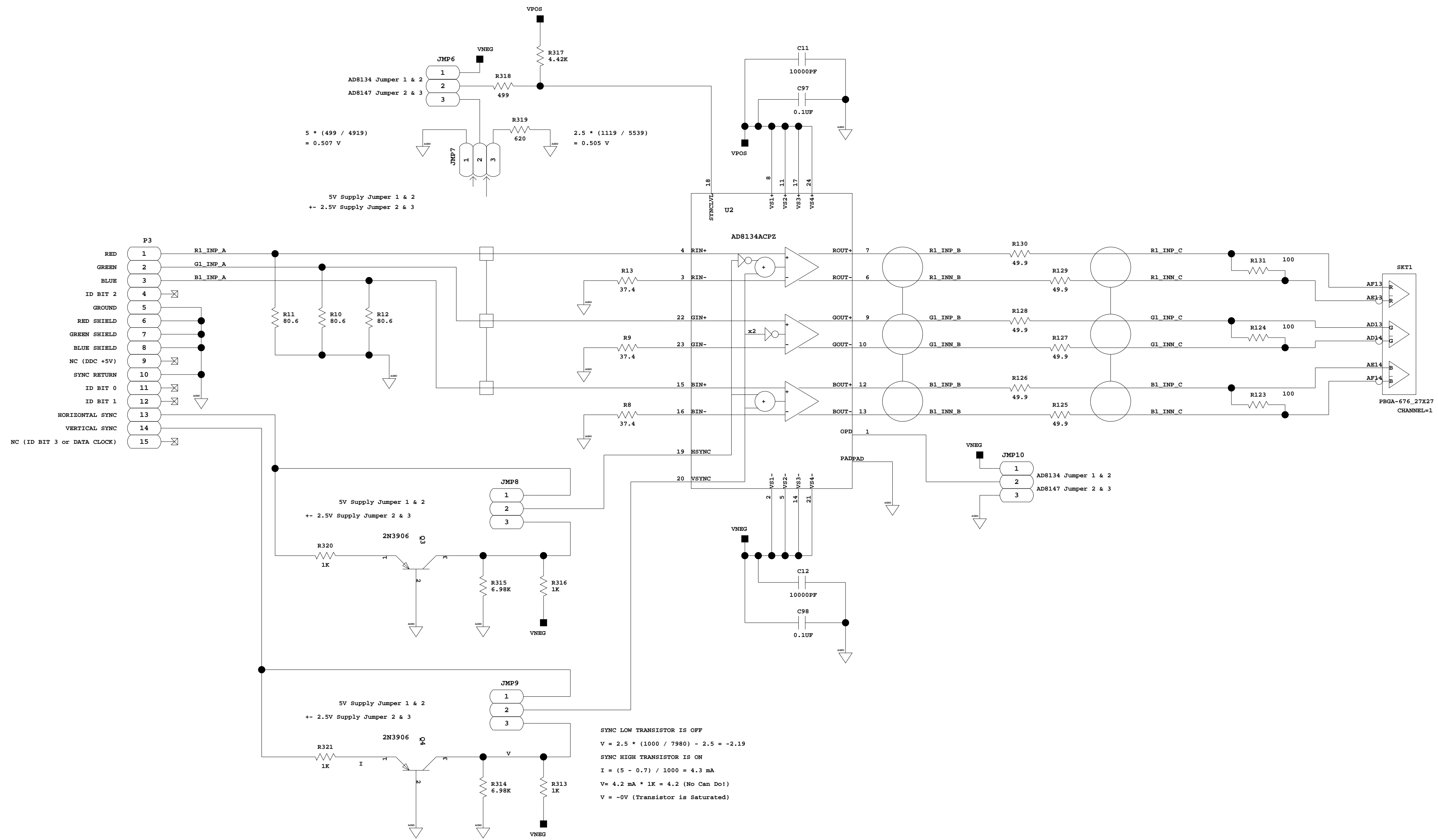
SYNC LOW TRANSISTOR IS OFF
 $V = 2.5 * (1000 / 7980) - 2.5 = -2.19$
 SYNC HIGH TRANSISTOR IS ON
 $I = (5 - 0.7) / 1000 = 4.3 \text{ mA}$
 $V = 4.2 \text{ mA} * 1\text{K} = 4.2 \text{ (No Can Do)}$
 $V = -0\text{V (Transistor is Saturated)}$

- 1 RO_INP_A
- 2 GO_INP_A
- 3 BO_INP_A
- 4 ID_BIT_2
- 5 GROUND
- 6 RED_SHIELD
- 7 GREEN_SHIELD
- 8 BLUE_SHIELD
- 9 NC (DC +5V)
- 10 SYNC_RETURN
- 11 ID_BIT_0
- 12 ID_BIT_1
- 13 HORIZONTAL_SYNC
- 14 VERTICAL_SYNC
- 15 NC (ID_BIT_3 OR DATA_CLOCK)

INPUT 0

Analog Devices Proprietary Information

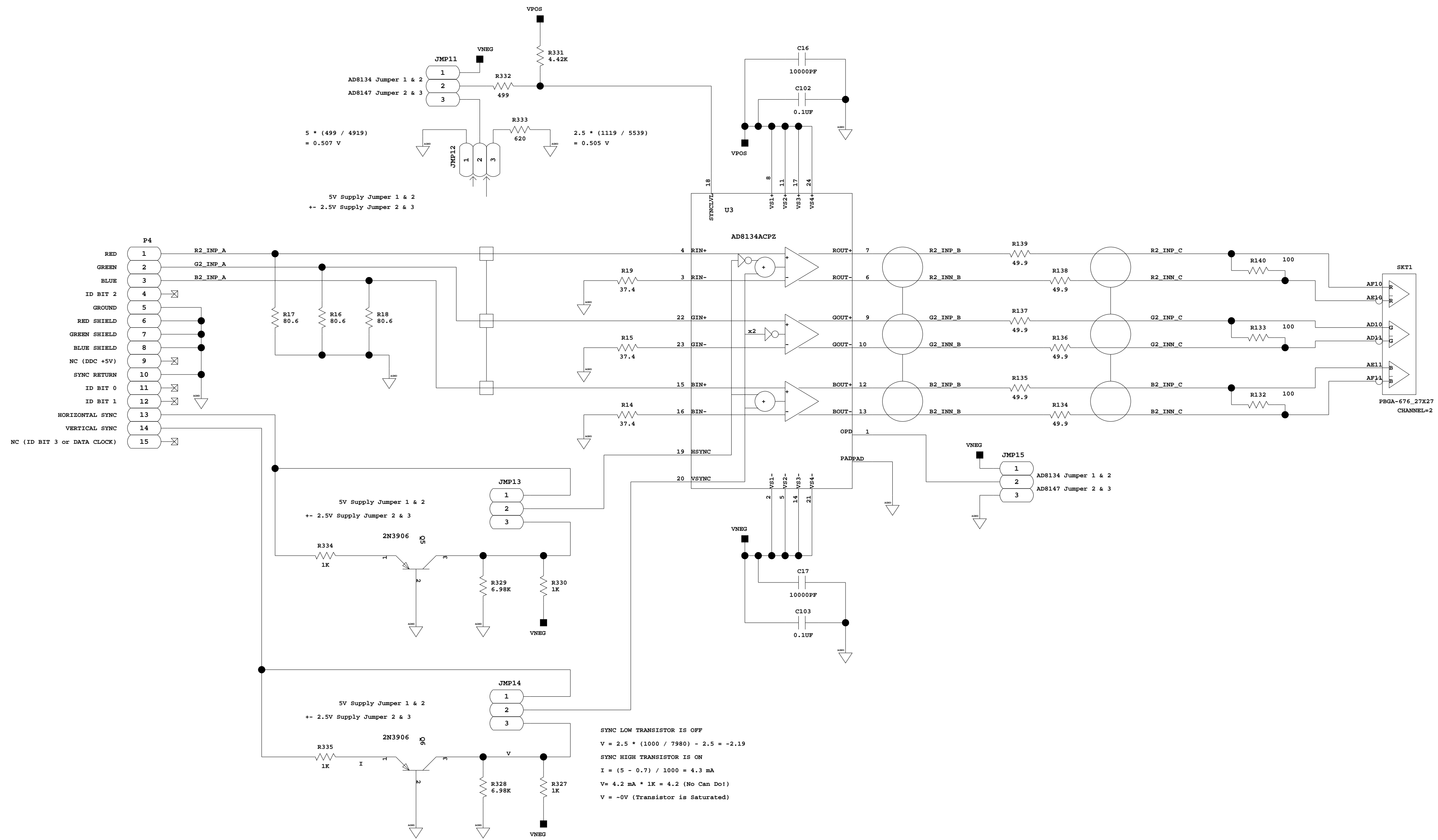
	SIZE	FROM NO	DRAWING NUMBER	REV
	D		02-010709	B
<small>ROBERT BOMBARA</small>	SCALE	NONE	DO NOT SCALE	SHEET OF 3
				24



INPUT 1

Analog Devices Proprietary Information

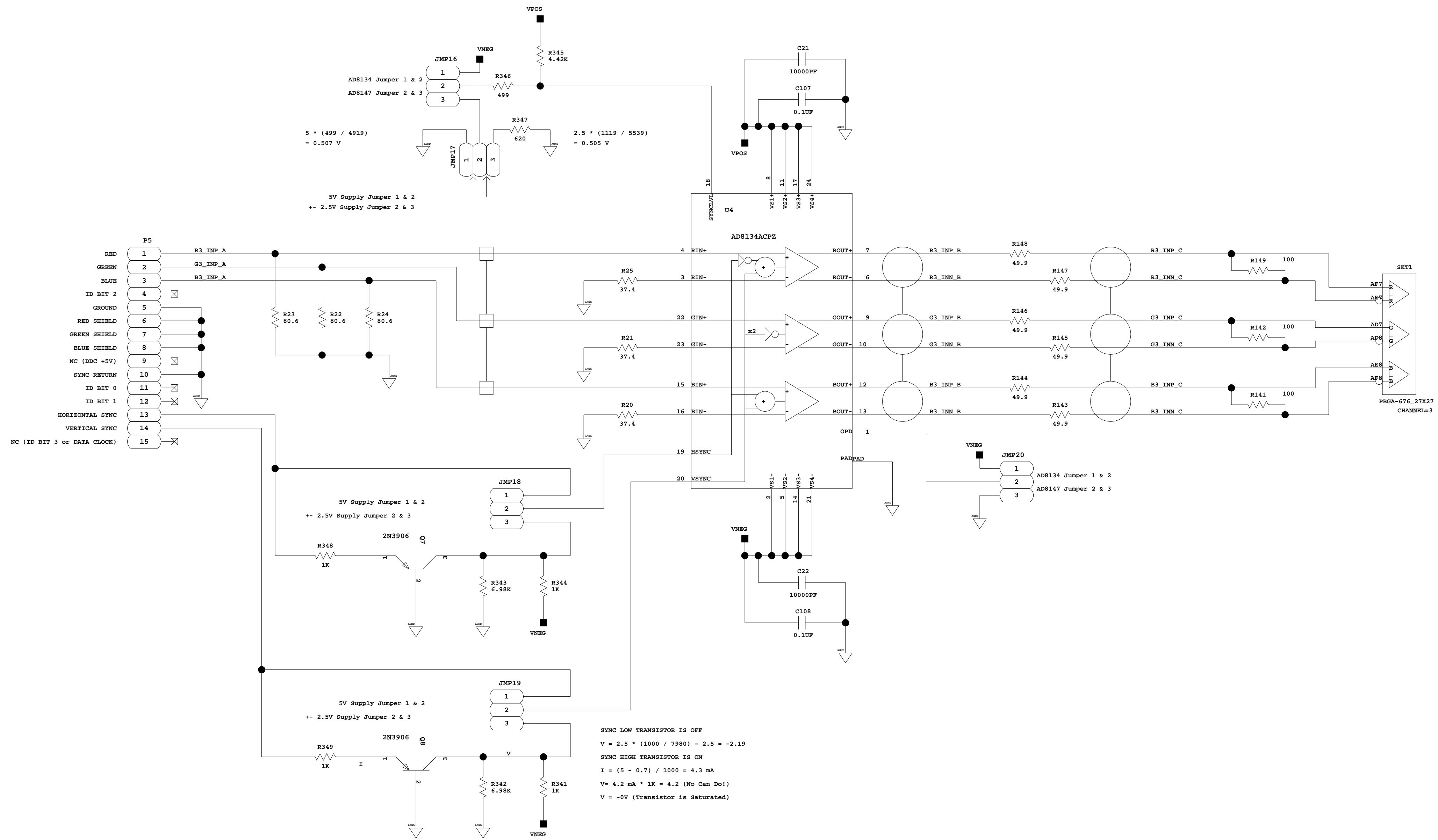
	SIZE	FROM NO	DRAWING NUMBER	REV
	D		02-010709	B
<small>ROBERT BOMBARA</small>	SCALE	NONE	DO NOT SCALE	SHEET OF 4
				24



INPUT 2

Analog Devices Proprietary Information

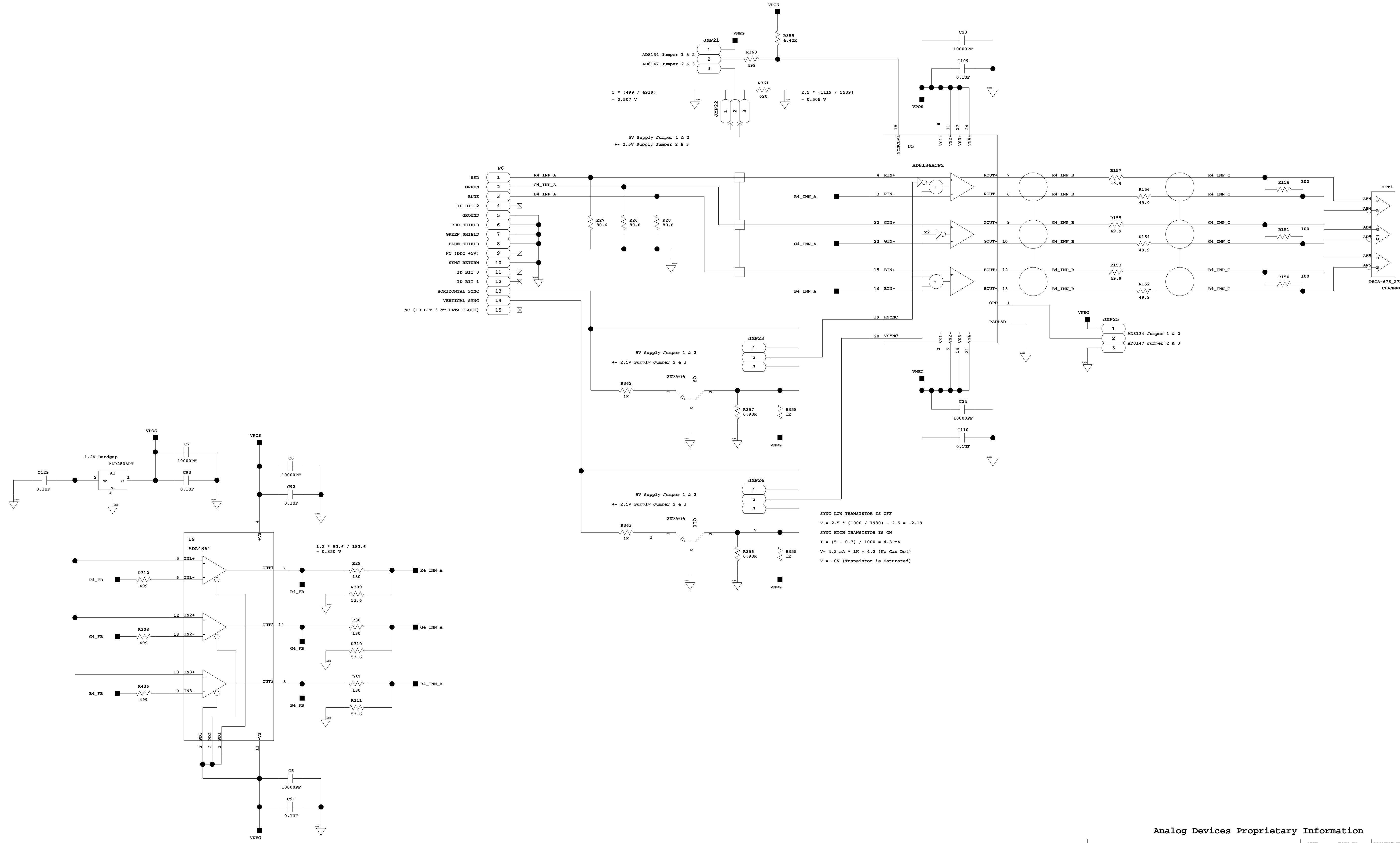
	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 5 24	



INPUT 3

Analog Devices Proprietary Information

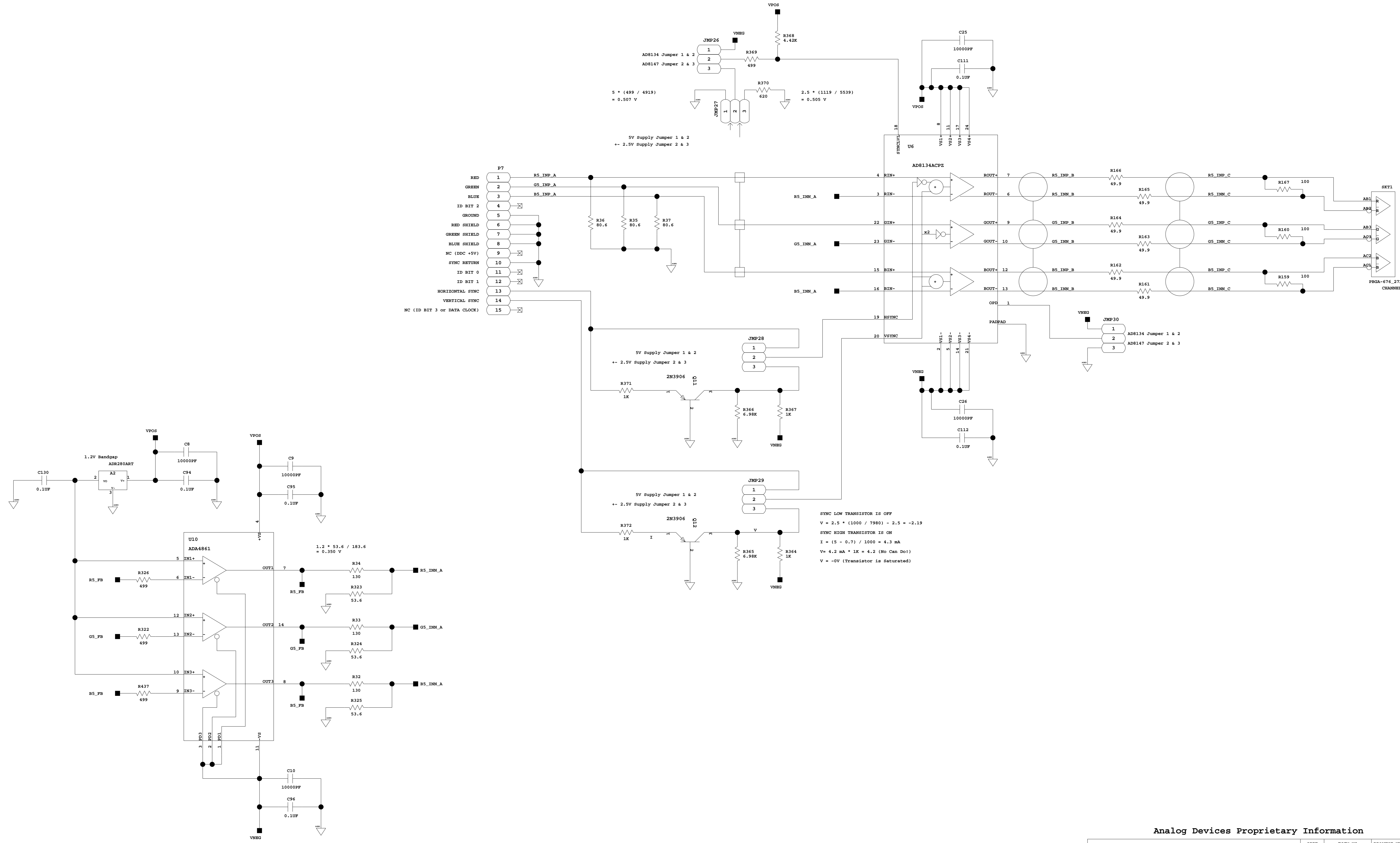
	SIZE	FROM NO	DRAWING NUMBER	REV
	D		02-010709	B
<small>ROBERT BOMBARA</small>	SCALE	NONE	DO NOT SCALE	SHEET OF 6
				24



INPUT 4

Analog Devices Proprietary Information

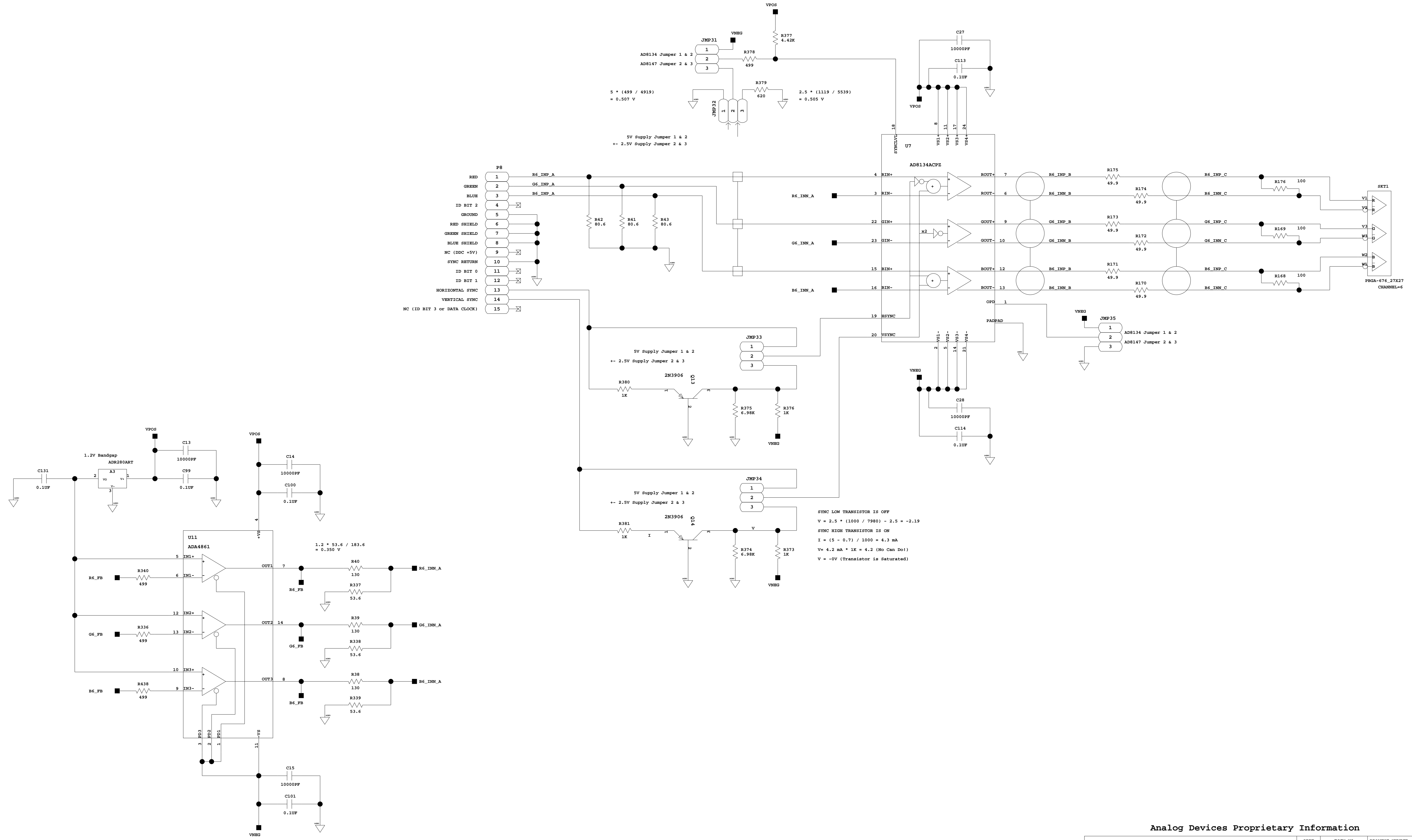
	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 7 24	



INPUT 5

Analog Devices Proprietary Information

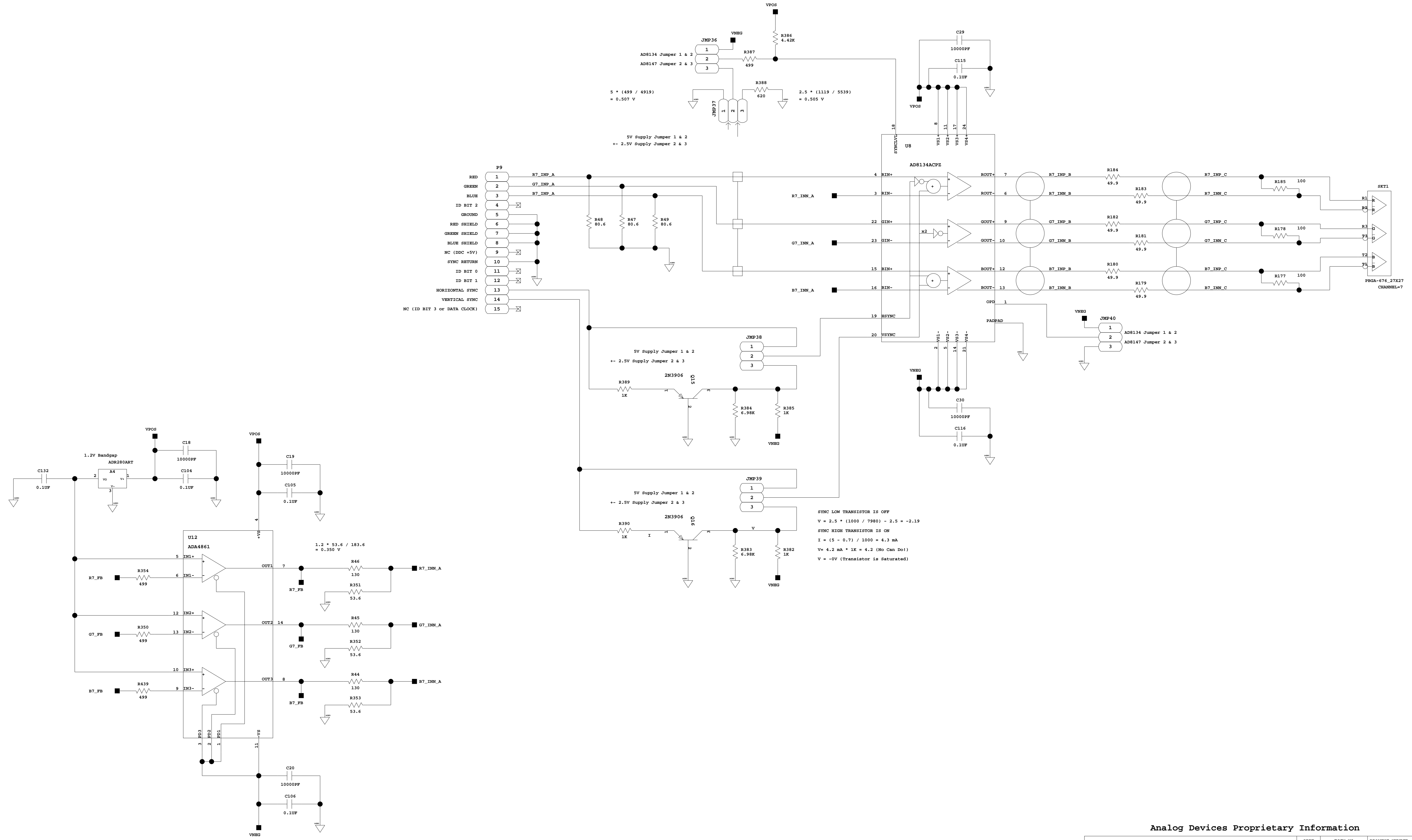
	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 8 24	



INPUT 6

Analog Devices Proprietary Information

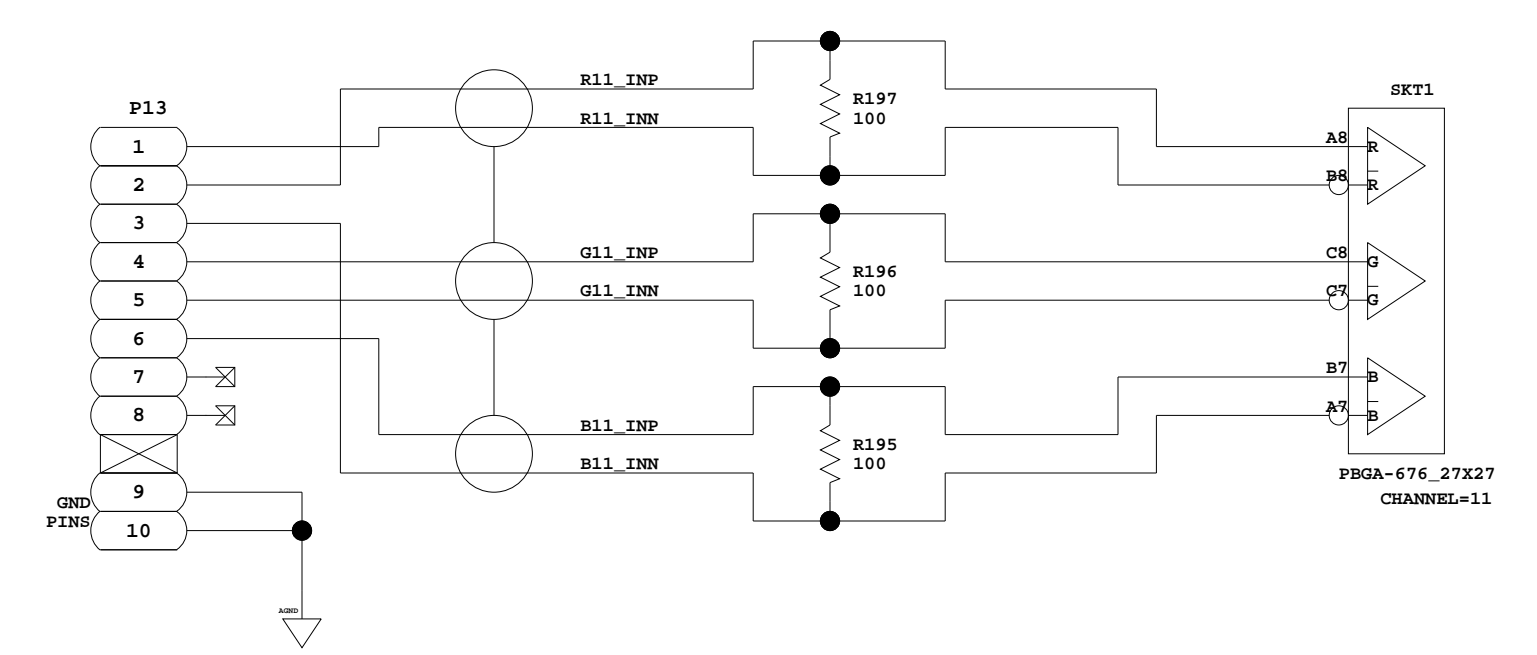
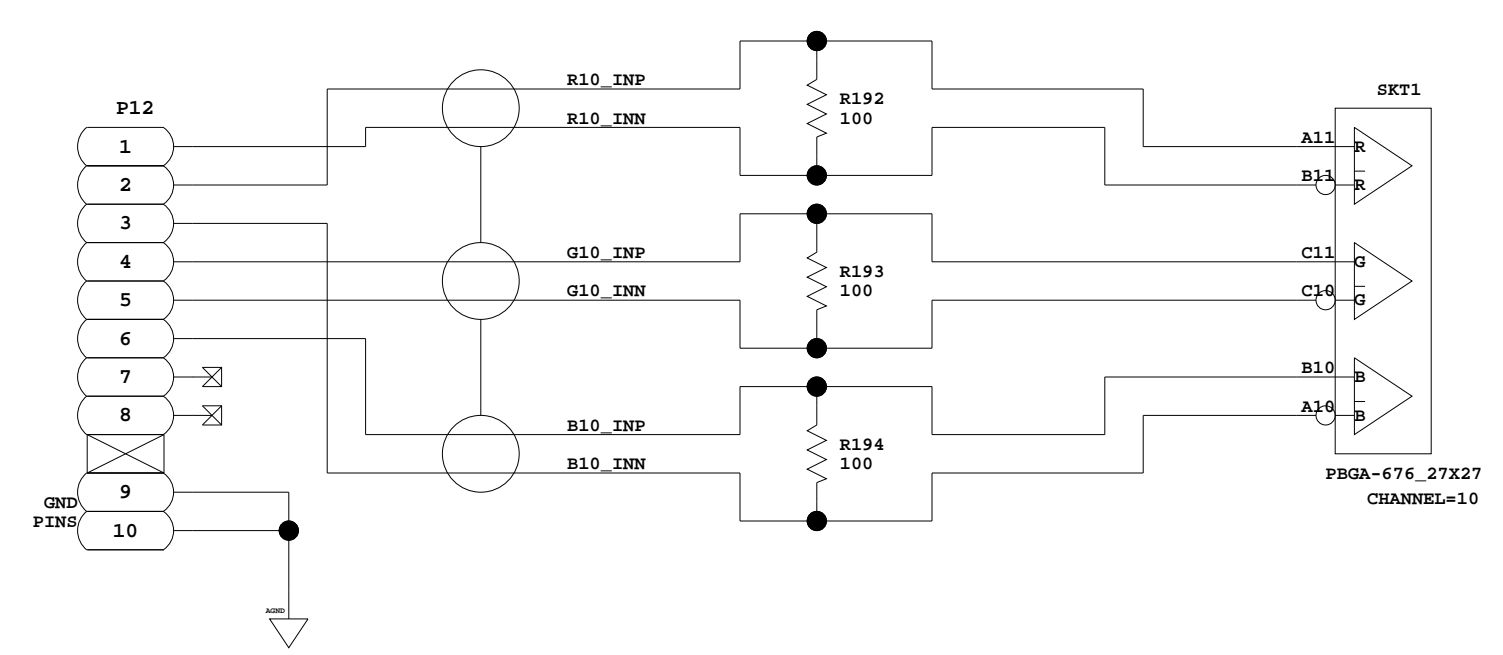
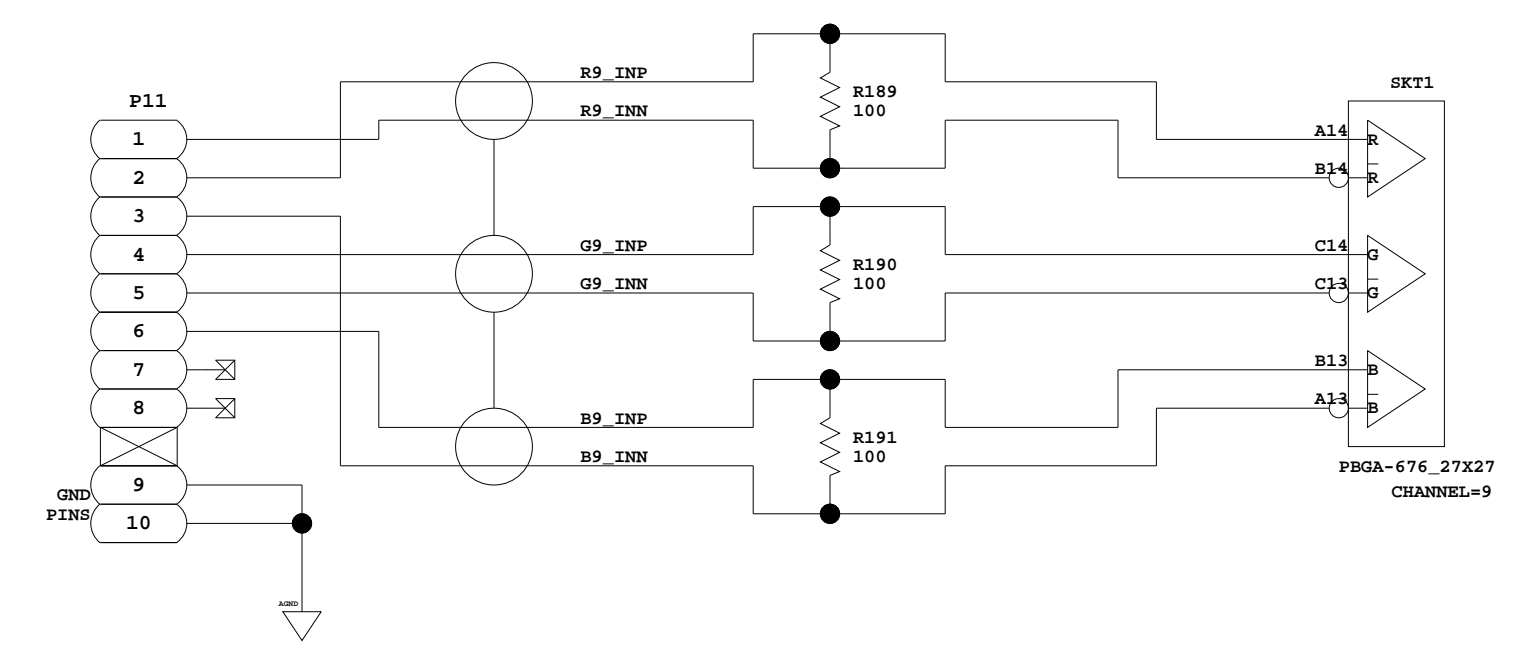
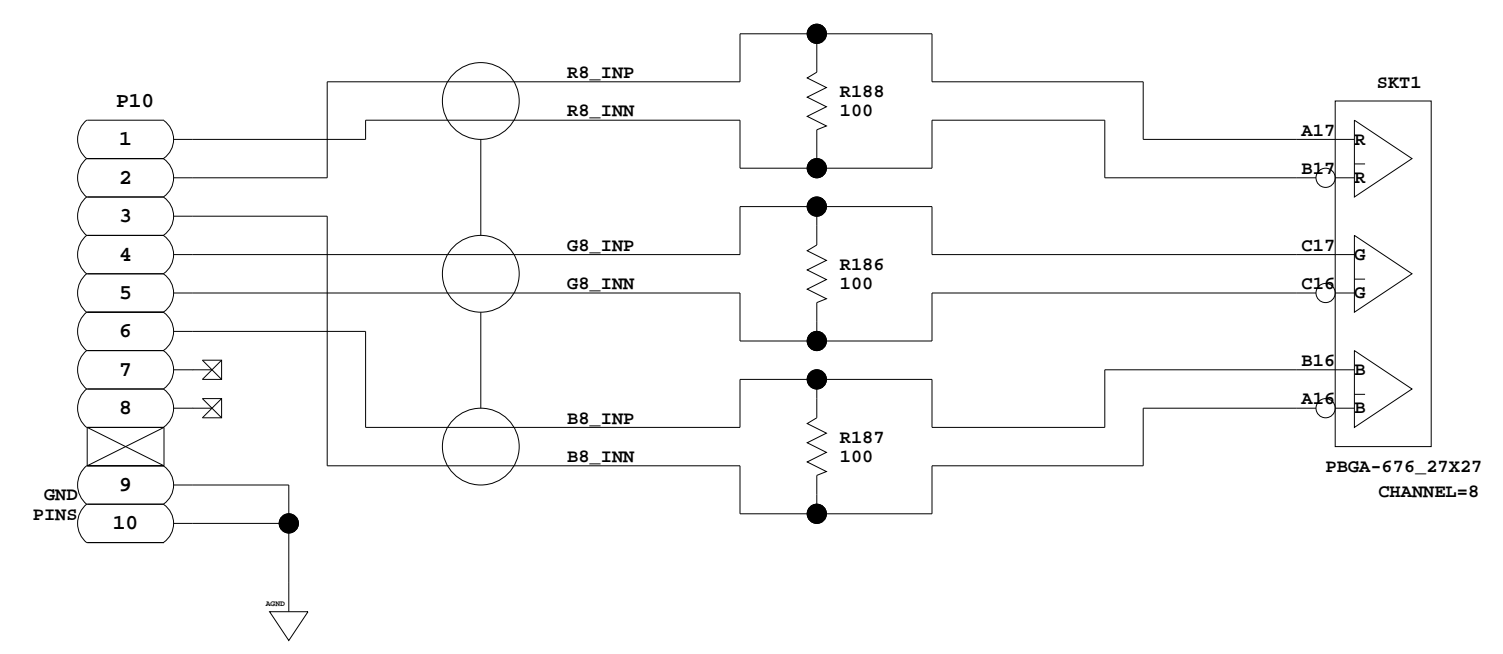
	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 9 24	



INPUT 7

Analog Devices Proprietary Information

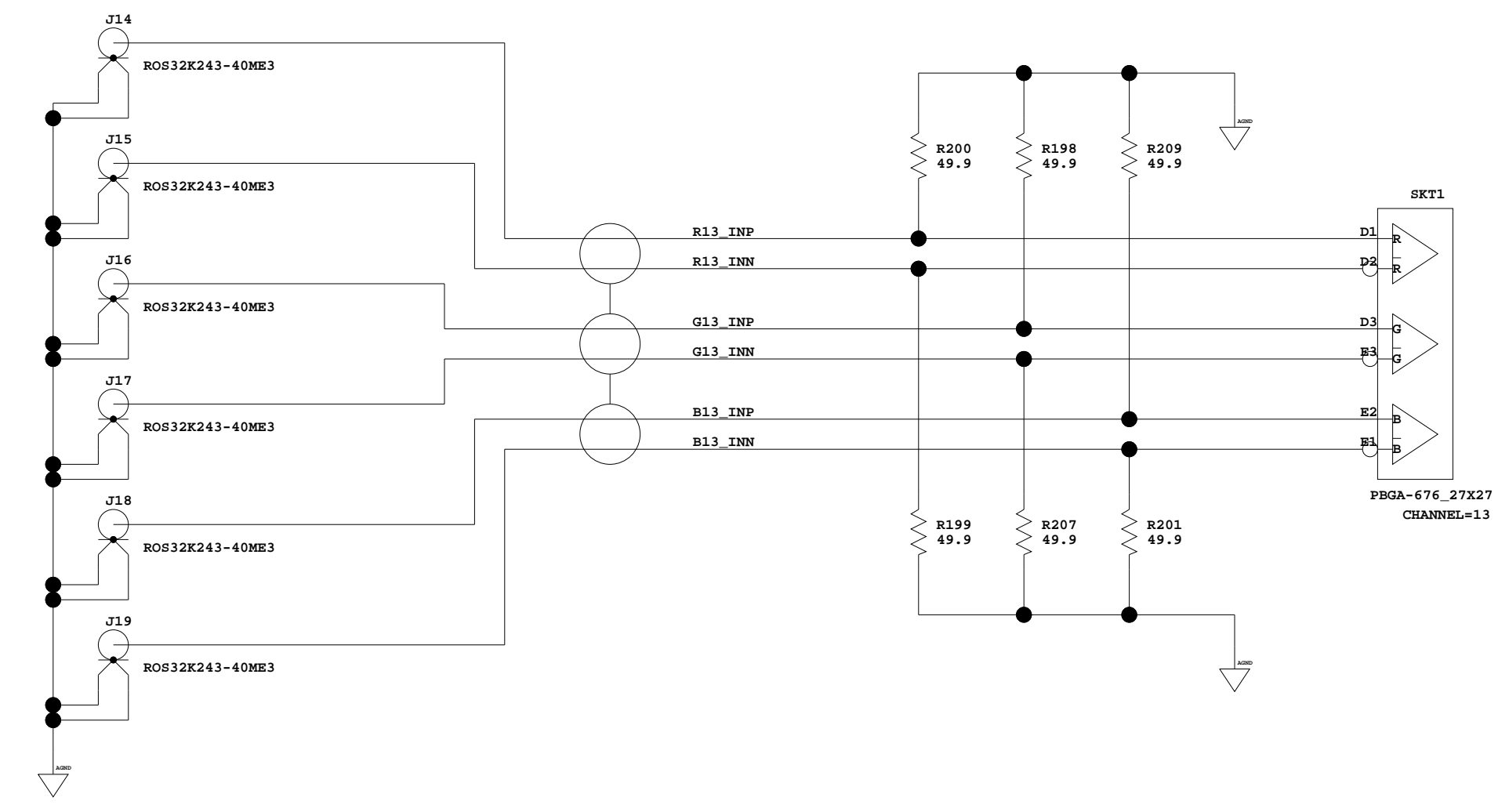
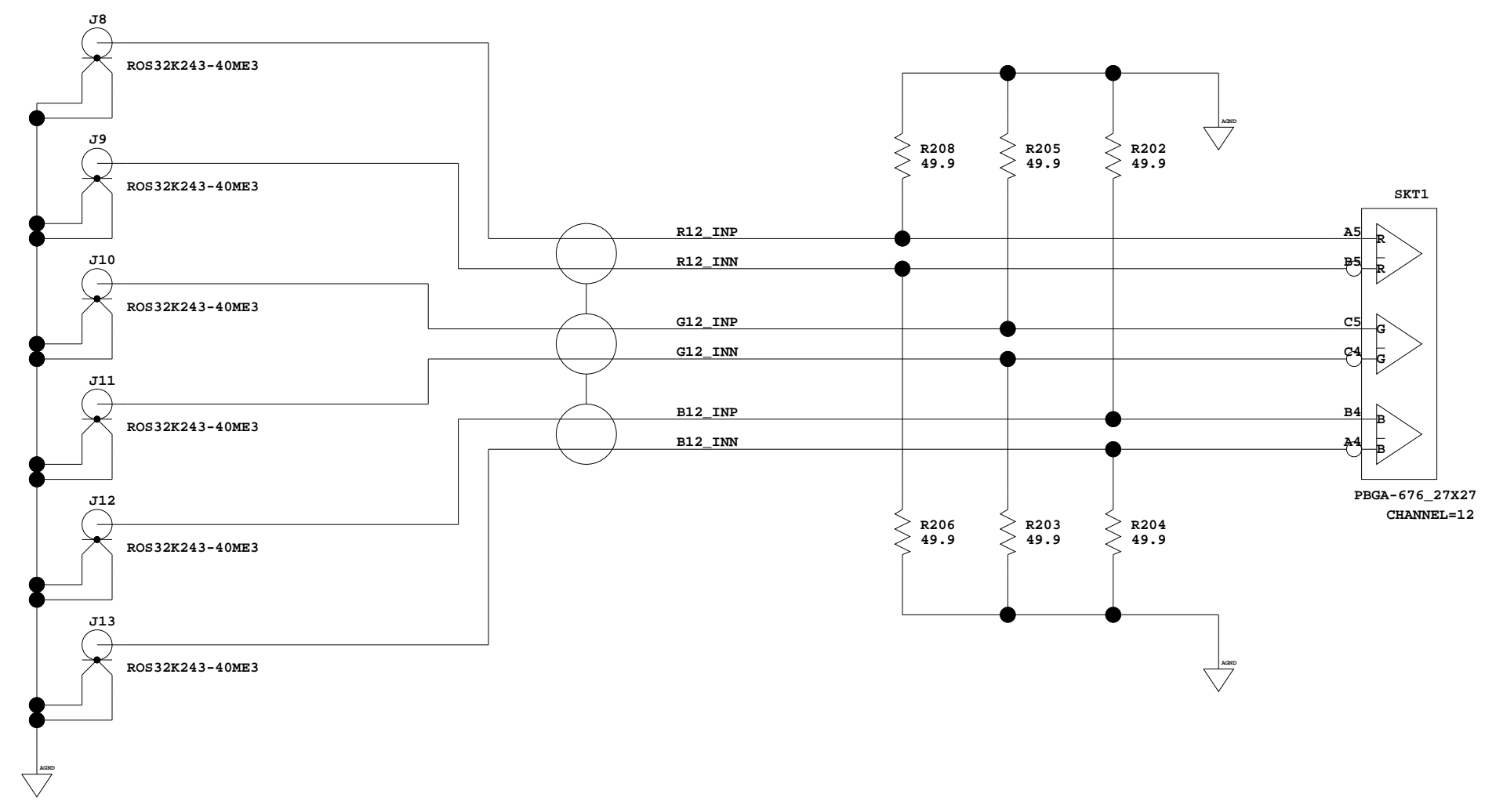
	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET 0P10	24



INPUTS 8 - 11

Analog Devices Proprietary Information

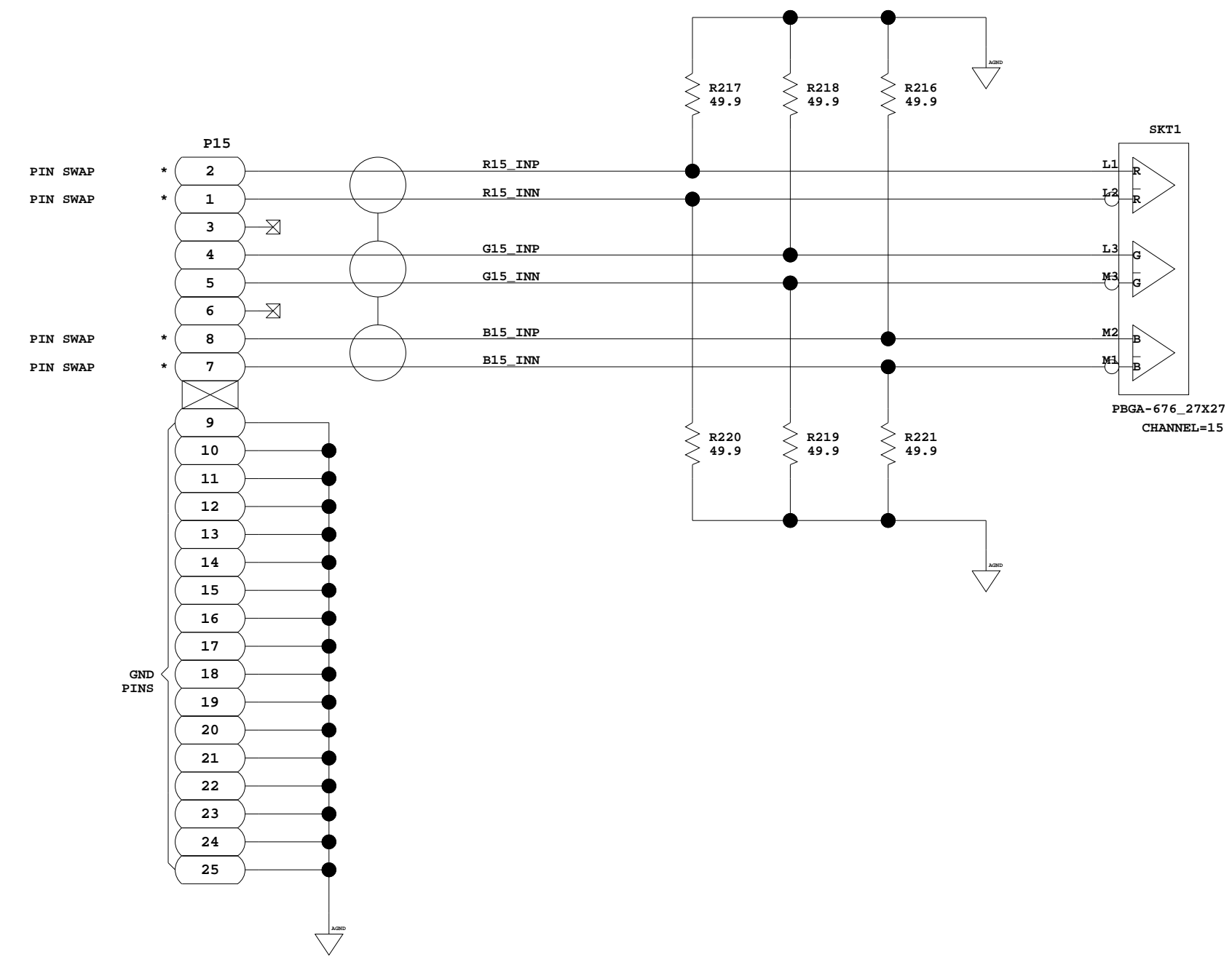
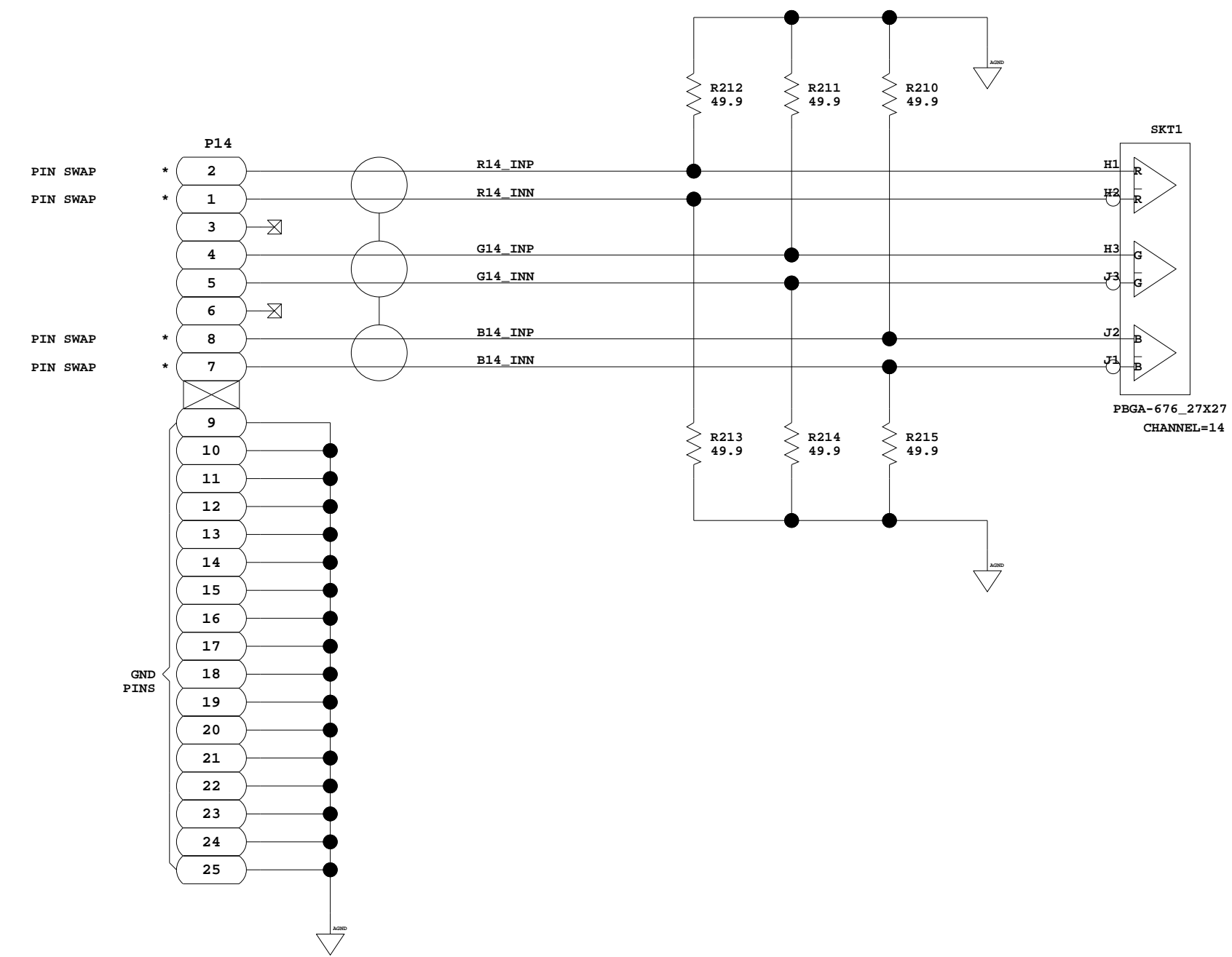
	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET 0F 11 24



INPUTS 12 - 13

Analog Devices Proprietary Information

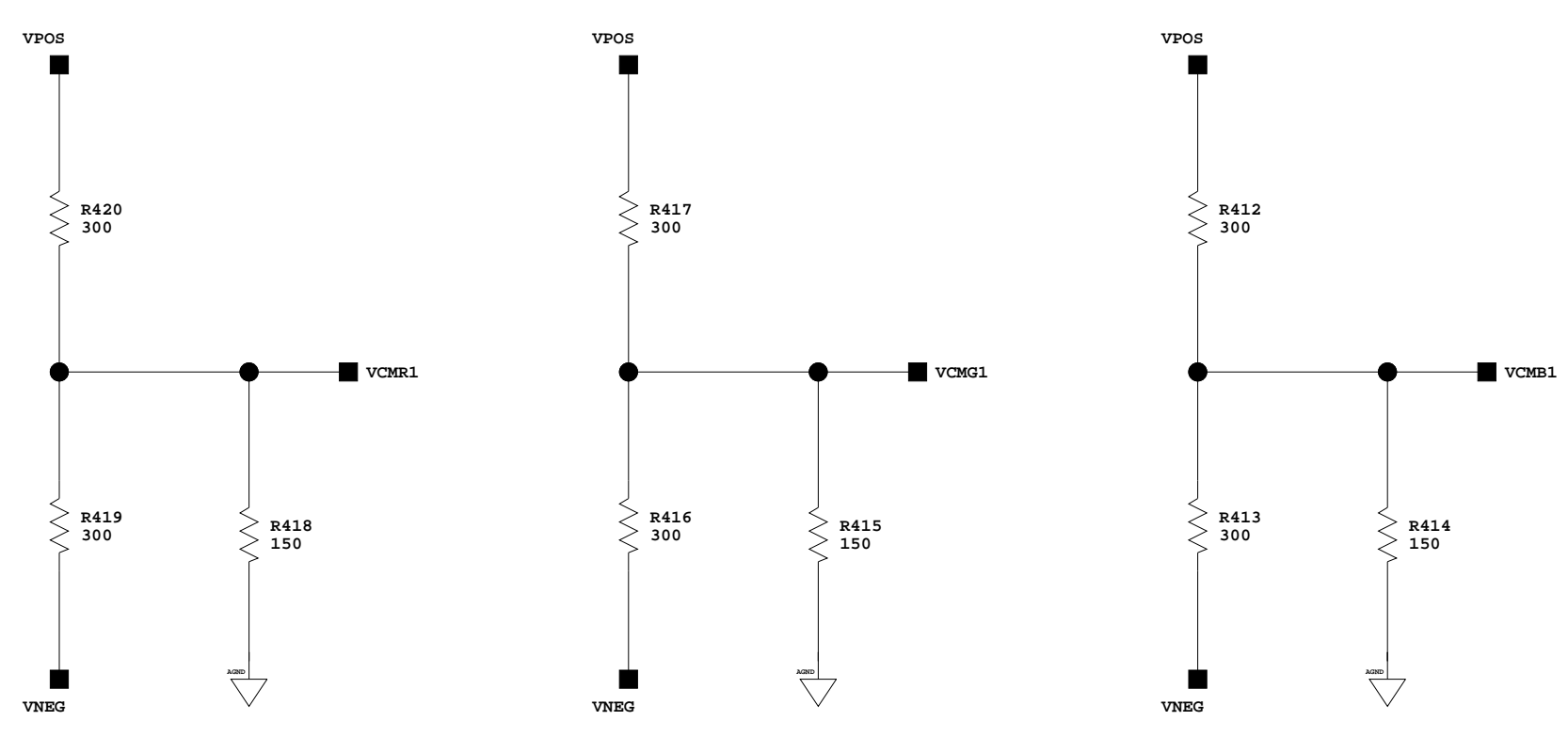
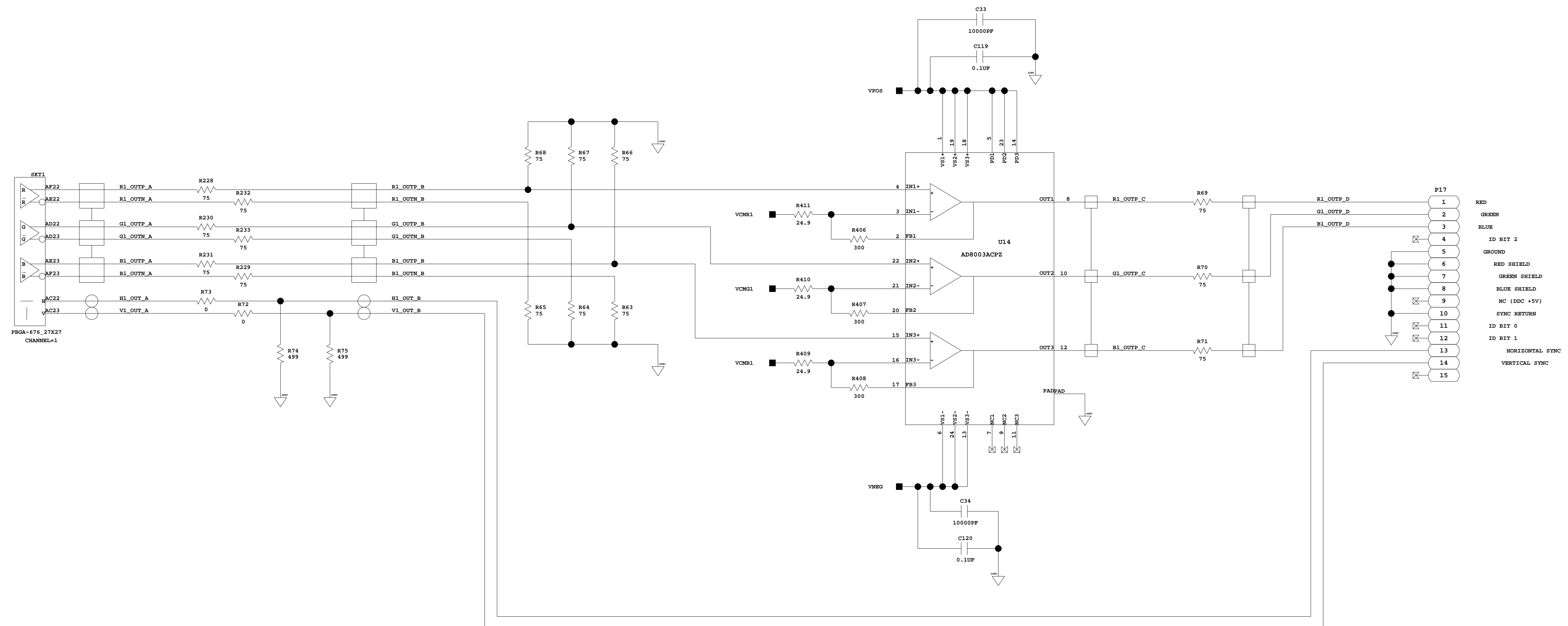
	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	PFCM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET 0F 12 24



INPUTS 14 - 15

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	PFCM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 13	24



1/2 of VCMCM (See Page 2)

OUTPUT 1

Analog Devices Proprietary Information

	SIZE	FORM NO	DRAWING NUMBER	REV
	D		02-010709	B
<small>ROBERT BOMBARA</small>	SCALE	NONE	DO NOT SCALE	SHEET 0F 15 24

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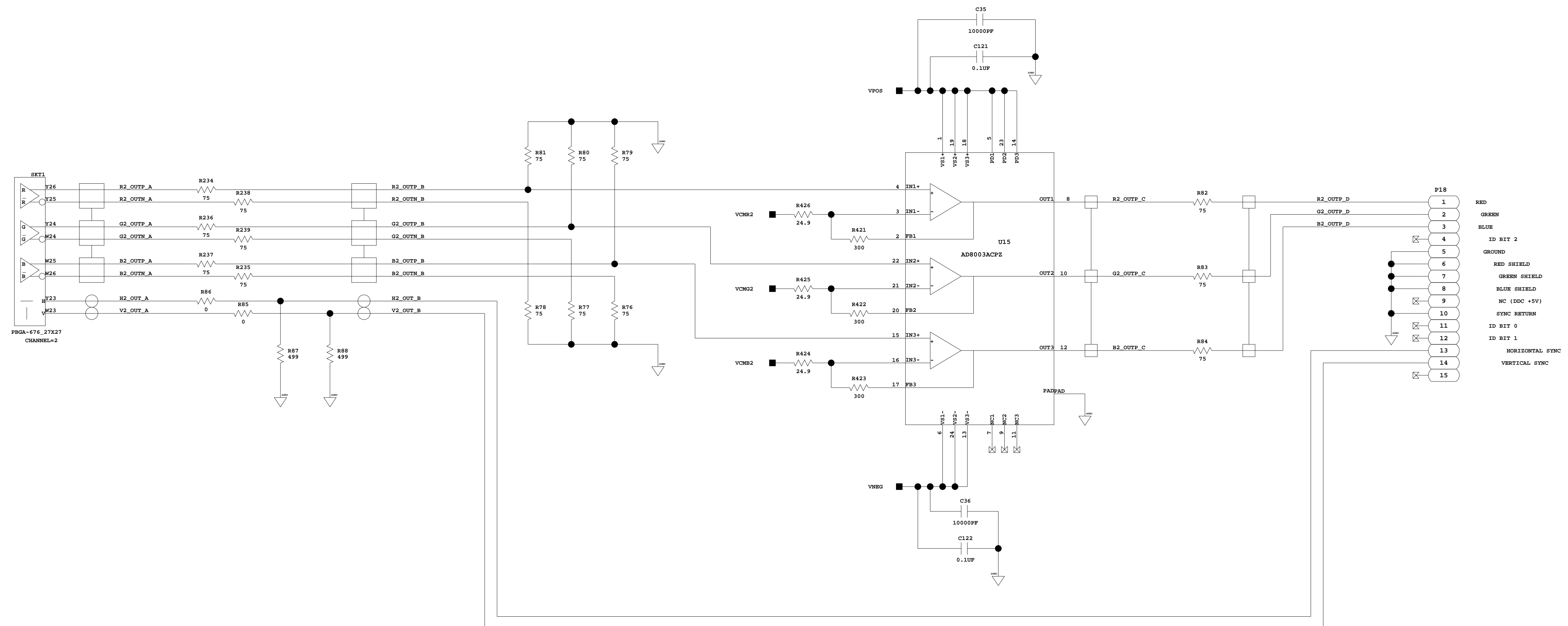
1

4

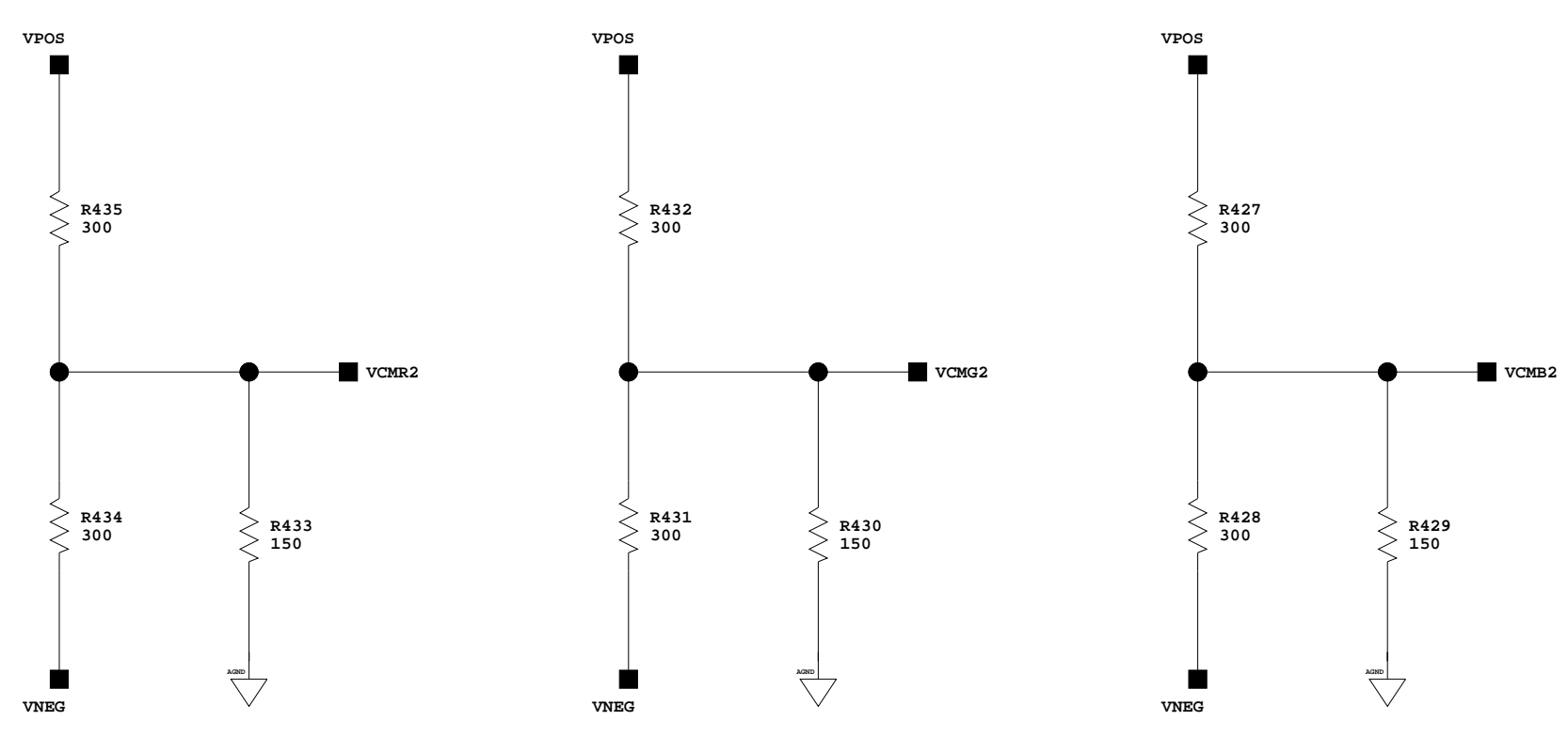
3

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- 1 RED
- 2 GREEN
- 3 BLUE
- 4 ID BIT 2
- 5 GROUND
- 6 RED SHIELD
- 7 GREEN SHIELD
- 8 BLUE SHIELD
- 9 NC (SDC +5V)
- 10 SYNC RETURN
- 11 ID BIT 0
- 12 ID BIT 1
- 13 HORIZONTAL SYNC
- 14 VERTICAL SYNC
- 15



1/2 of VCMCM (See Page 2)

OUTPUT 2

Analog Devices Proprietary Information

	SIZE	FORM NO	DRAWING NUMBER	REV
	D		02-010709	B
<small>ROBERT BOMBARA</small>	SCALE	NONE	DO NOT SCALE	SHEET 0F 16 24

4 3 2 1

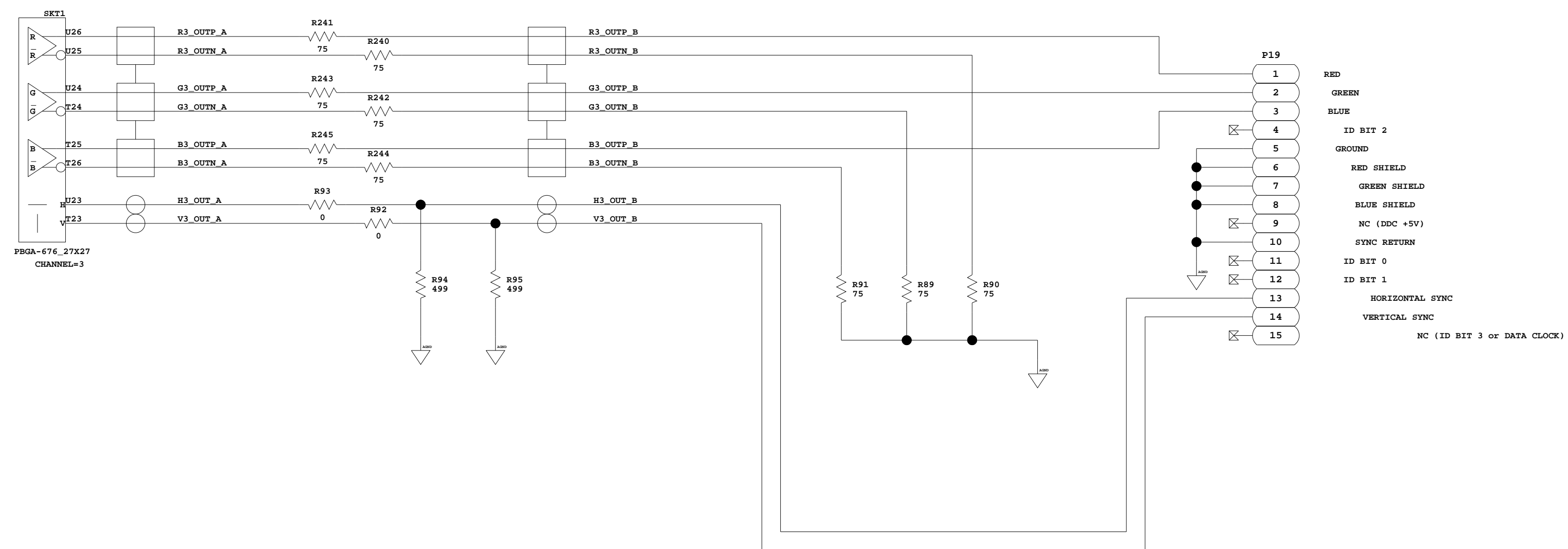
D

C

B

A

4 3 2 1



OUTPUT 3

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	PCOM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET 0F 17 24

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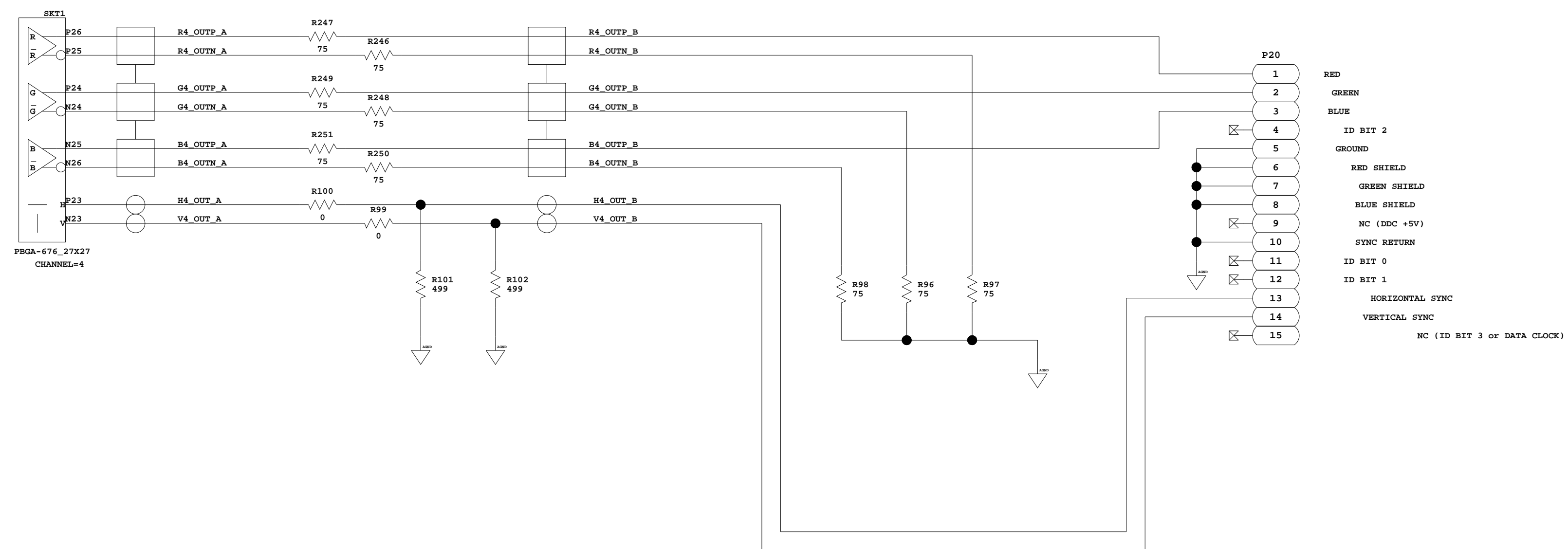
1

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1



OUTPUT 4

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FROM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET 0F 18 24

4

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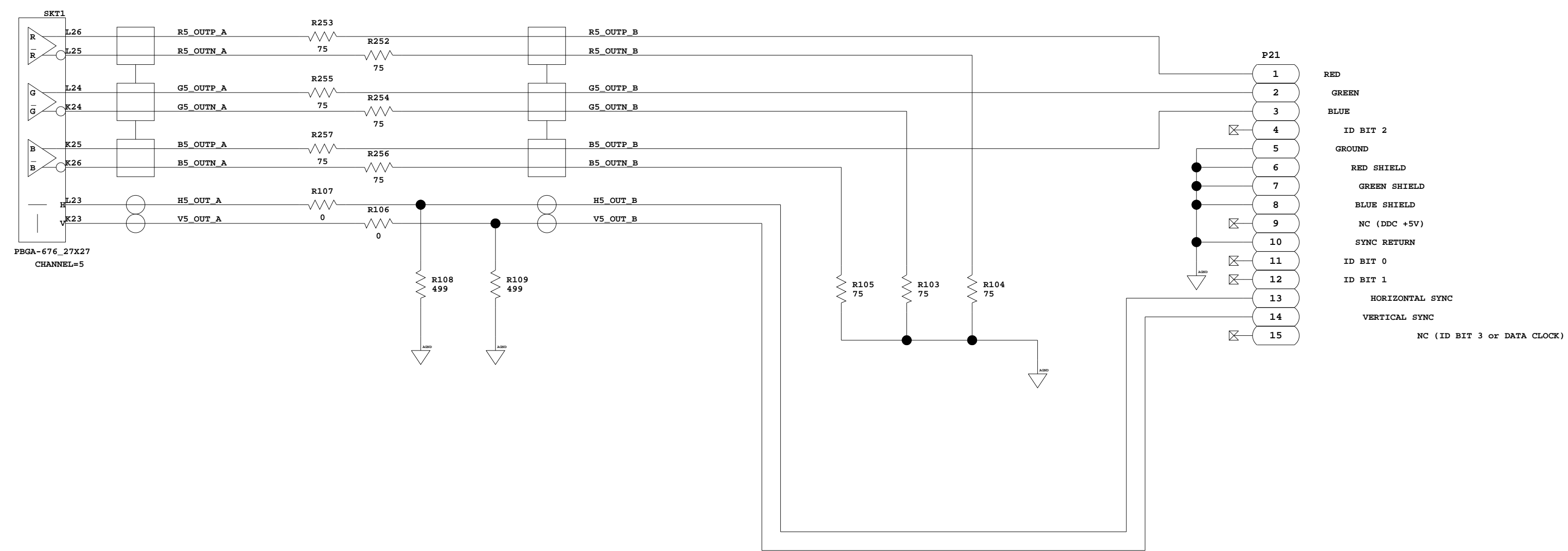
1

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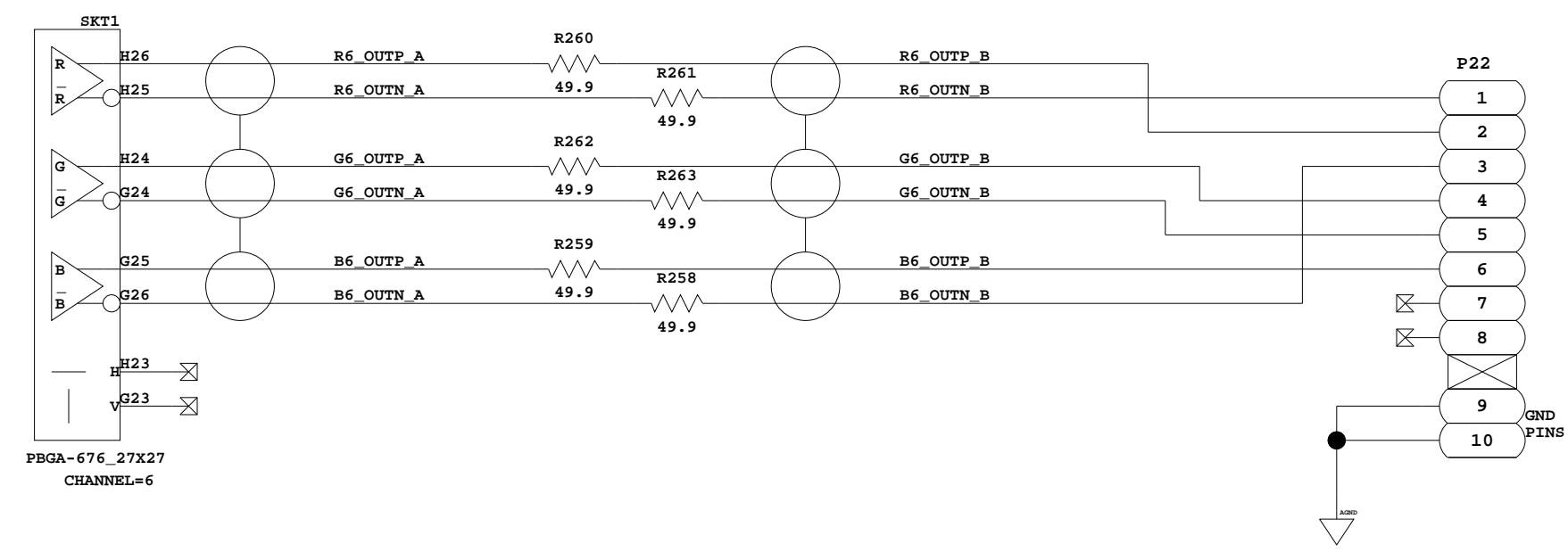
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OUTPUT 5

Analog Devices Proprietary Information

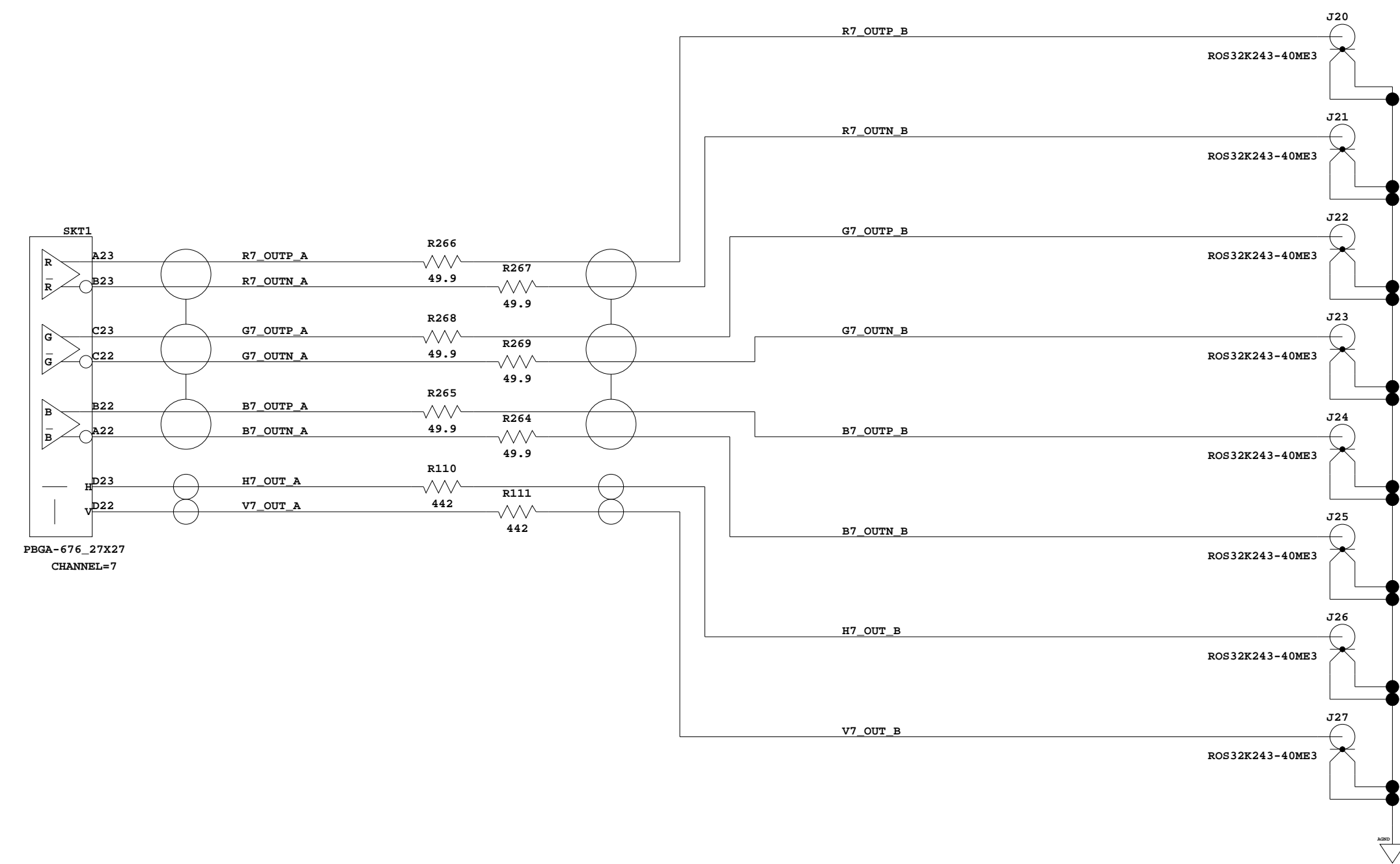
	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	PCOM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET 0F 19	24



OUTPUT 6

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FORM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET OF 20 24

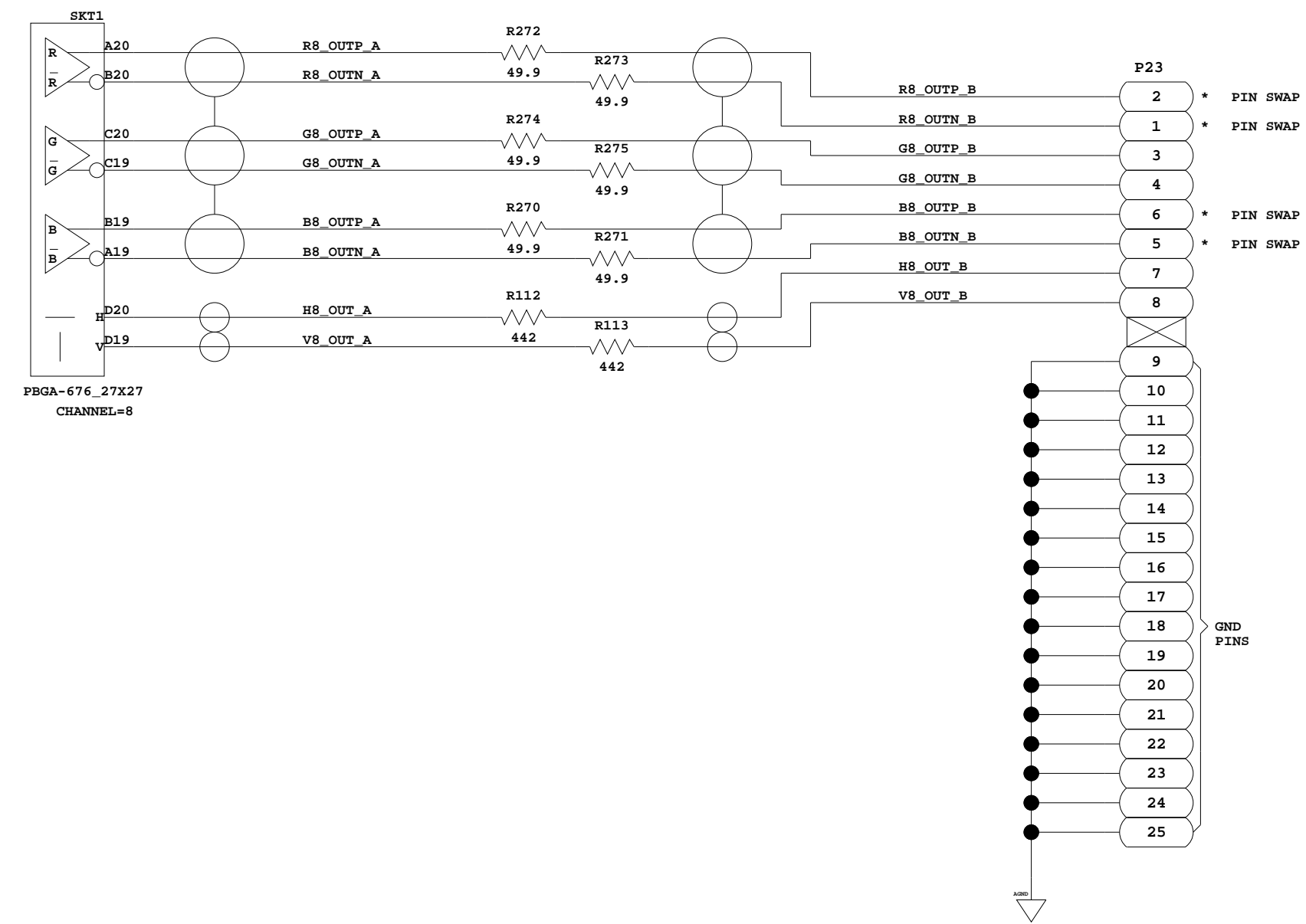


FPGA-676_27X27
CHANNEL=7

OUTPUT 7

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	PFCM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 21	24



OUTPUT 8

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	FORM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET OF 22 24

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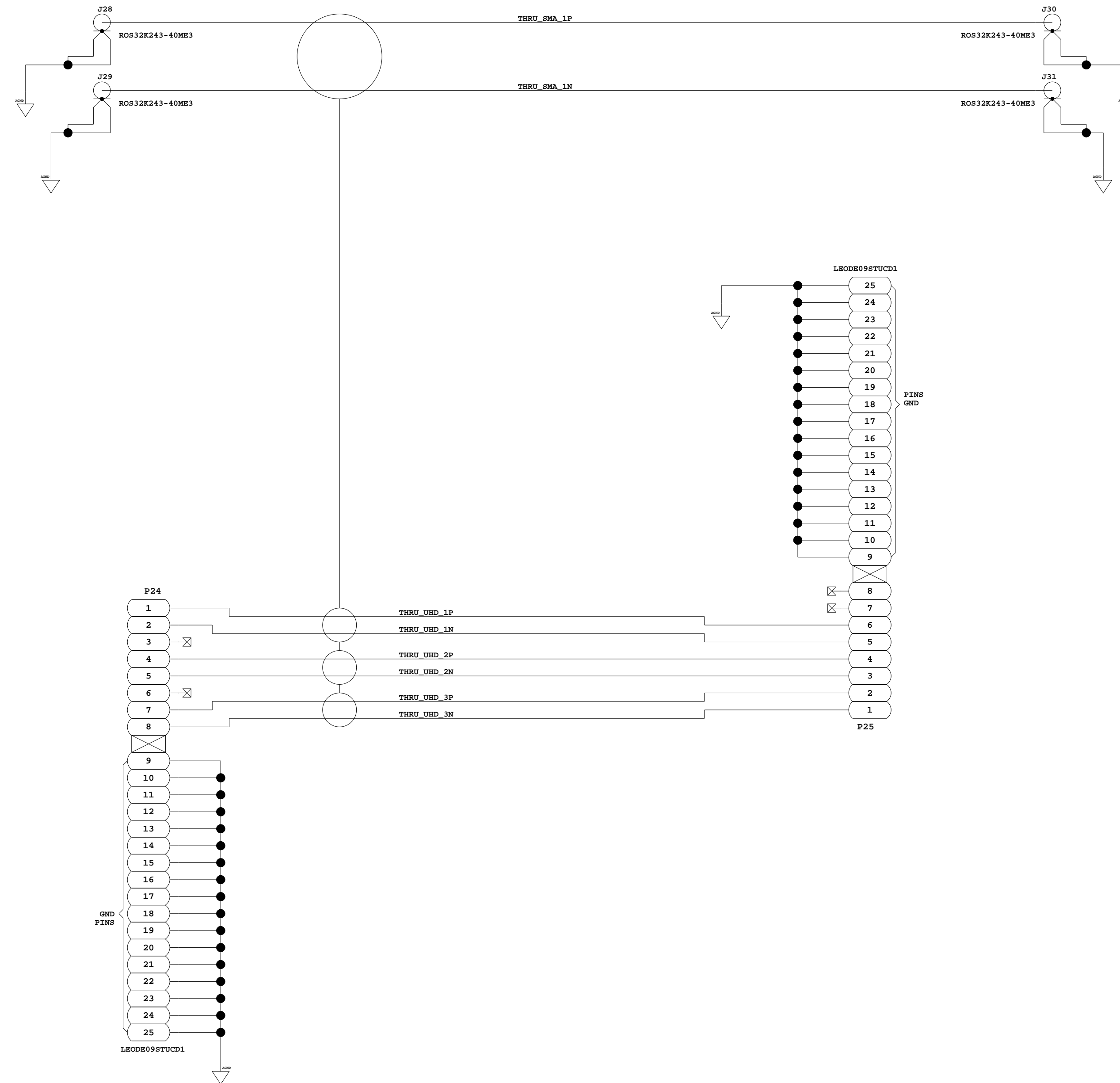
1

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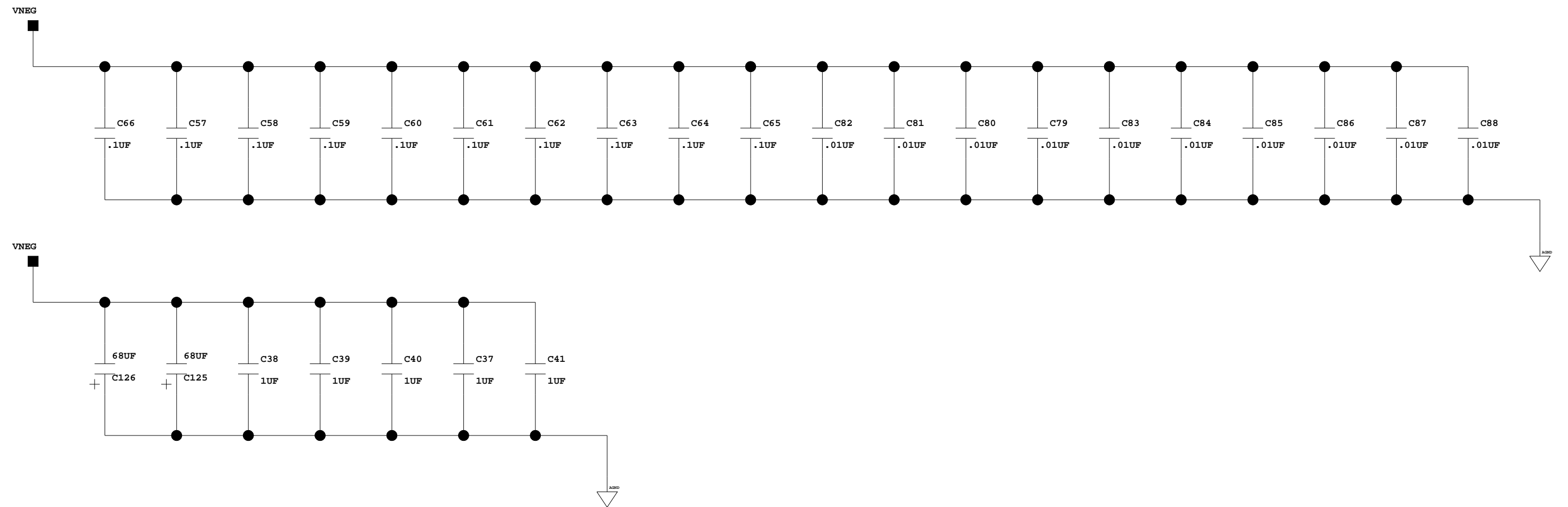
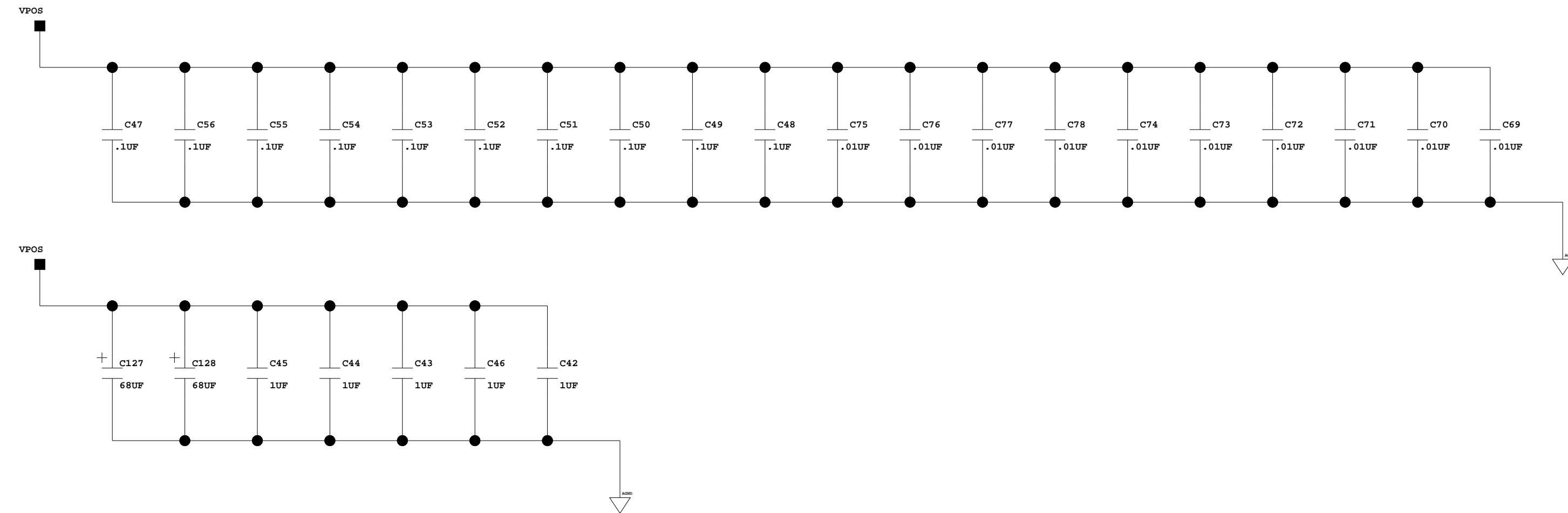
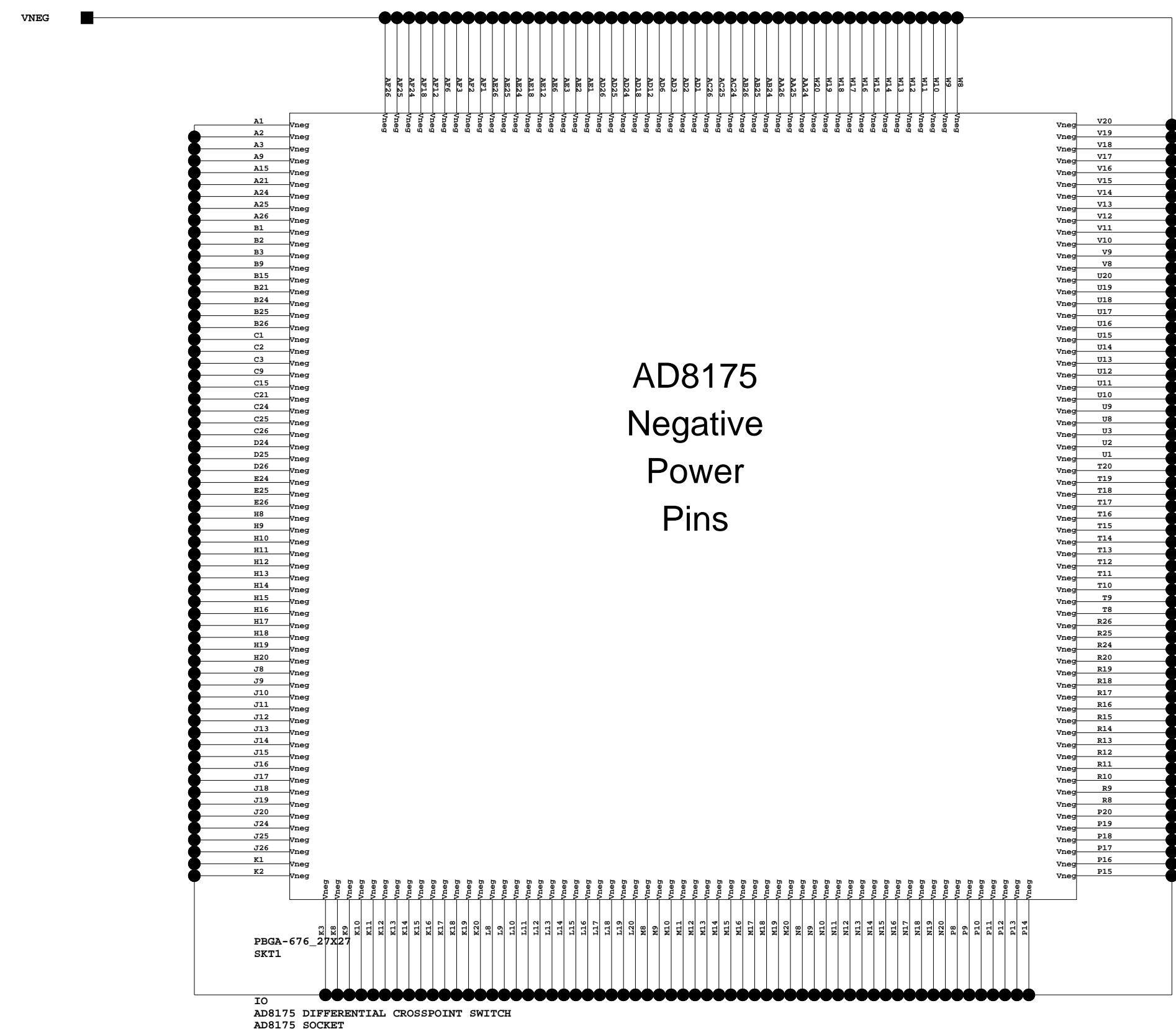
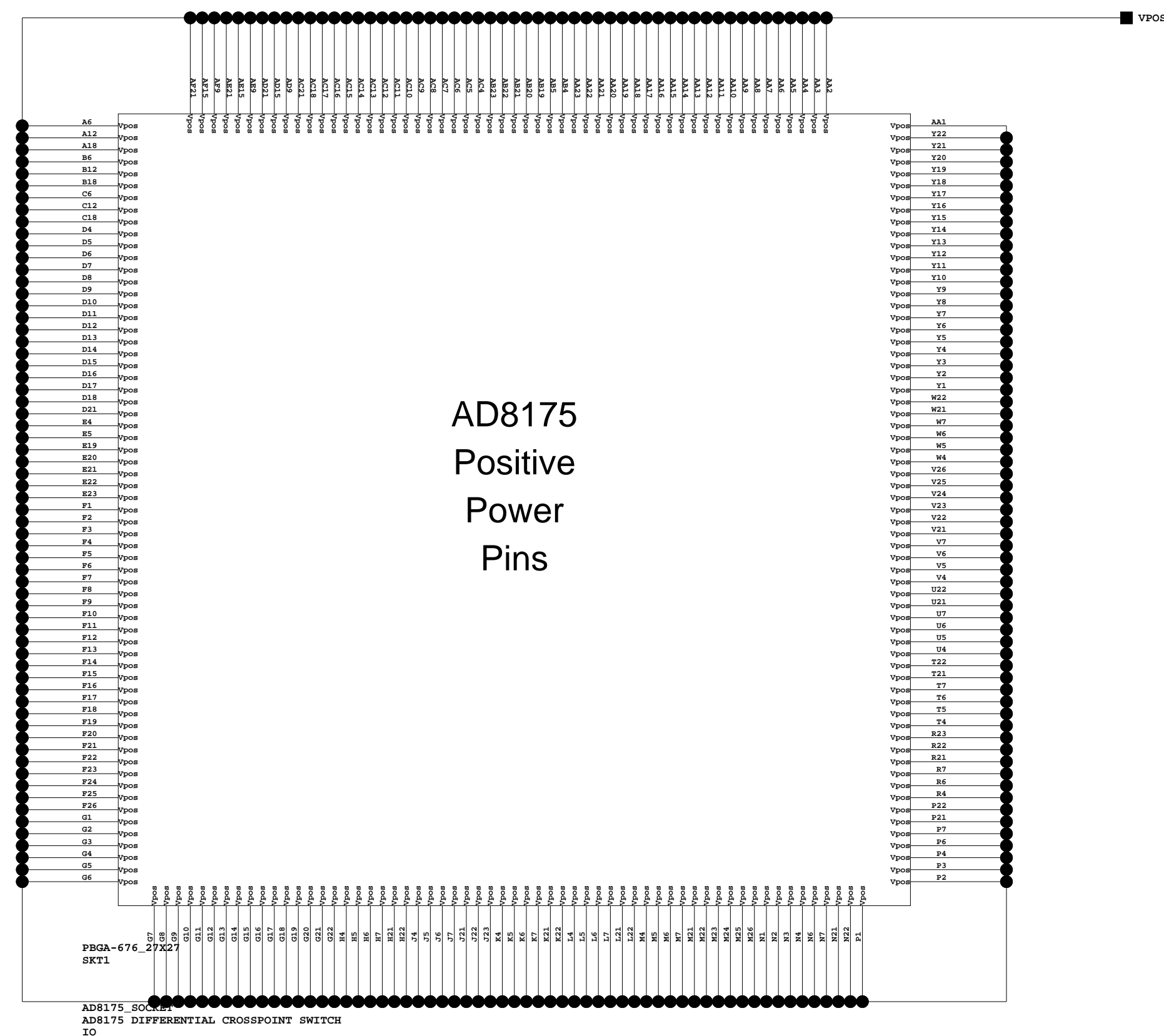
2

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NETWORK ANALYZER CAL PATHS
 Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01897	SIZE D	FORM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE NONE	DO NOT SCALE	SHEET OF 23 24	



VPOS & VNEG

Analog Devices Proprietary Information

	804 WOBURN STREET WILMINGTON, MA 01887	SIZE D	FORM NO	DRAWING NUMBER 02-010709	REV B
	ROBERT BOMBARA	SCALE	NONE	DO NOT SCALE	SHEET 0F 24 24