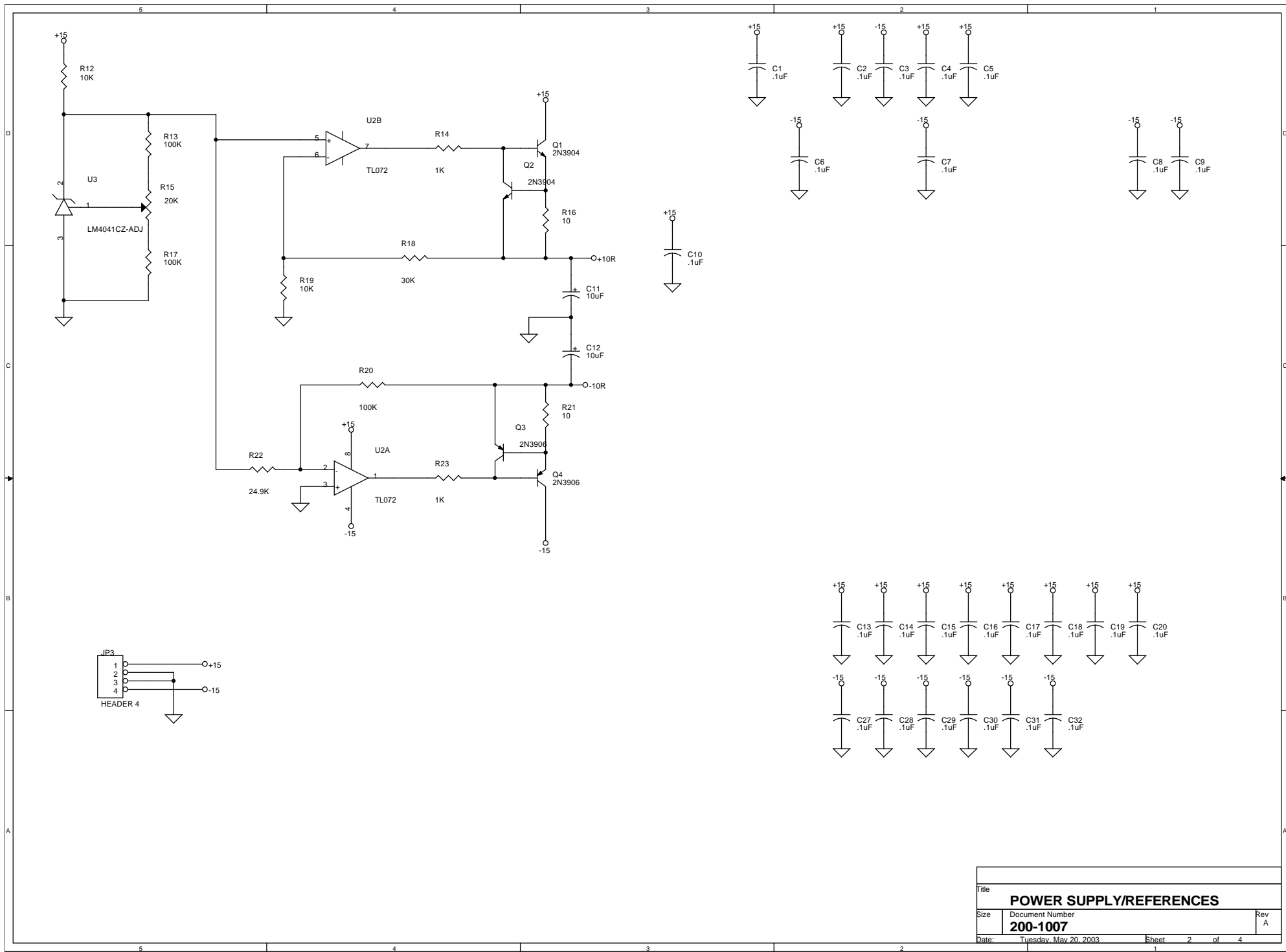
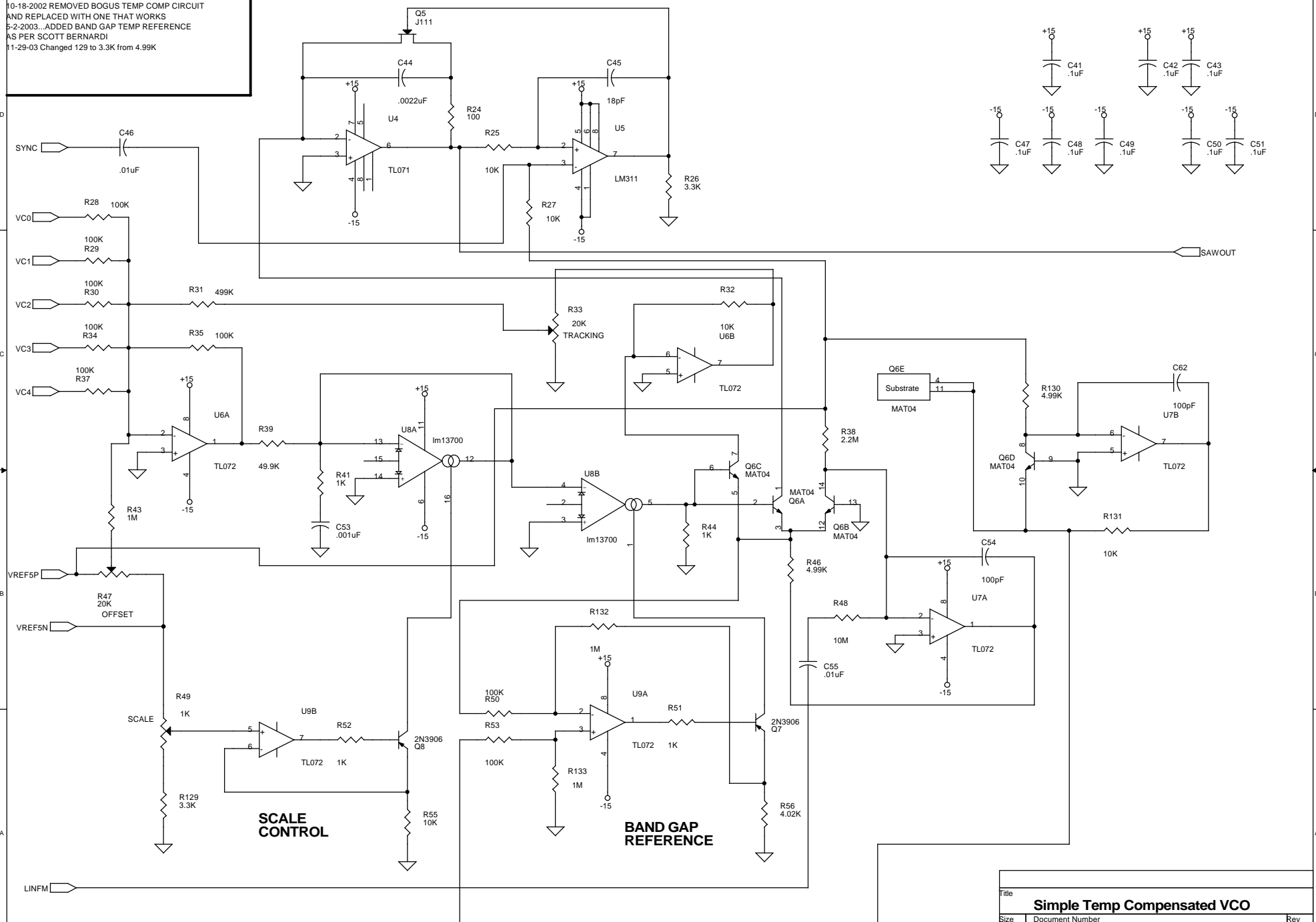


Title			
VOLTAGE CONTROLLED OSCILATOR			
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Date:	Saturday, September 13, 2003	Sheet	1 of 4

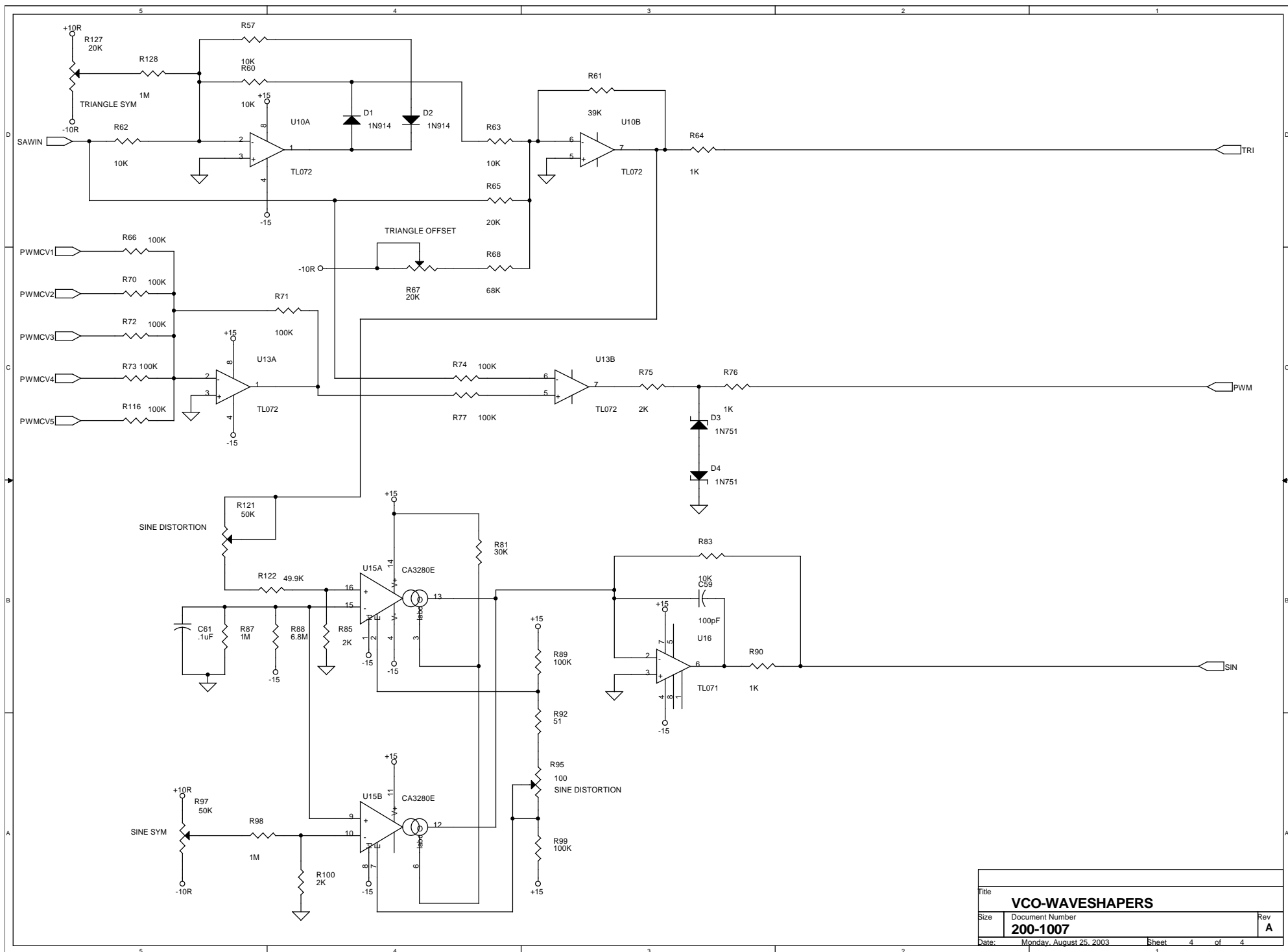


Title		
POWER SUPPLY/REFERENCES		
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REVISION HISTORY  
 10-18-2002 REMOVED BOGUS TEMP COMP CIRCUIT  
 AND REPLACED WITH ONE THAT WORKS  
 5-2-2003...ADDED BAND GAP TEMP REFERENCE  
 AS PER SCOTT BERNARDI  
 11-29-03 Changed 129 to 3.3K from 4.99K



Title			
Simple Temp Compensated VCO			
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Title		
VCO-WAVESHAPERS		
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	200-1007	A
Date:	Monday, August 25, 2003	Sheet 4 of 4

1: VOLTAGE CONTROLLED OSCILATOR Revised: Monday, August 25, 2003  
 2: 200-1007 Revision: A  
 3:  
 4:  
 5:  
 6:  
 7:  
 8:  
 9:

10: Bill Of Materials August 25,2003 20:55:42 Page1

11:

12: Item Quantity Reference Part Mouser Part Number

13:

14:

15: 1 32 C1,C2,C3,C4,C5,C6,C7,C8, .1uF 80-C410C104M5U

16: C9,C10,C13,C14,C15,C16,

17: C17,C18,C19,C20,C27,C28,

18: C29,C30,C31,C32,C41,C42,

19: C43,C47,C48,C49,C50,C51

20: 2 2 C11,C12 10uF 140-XRL35V10

21: 3 1 C44 .0022uF 23PS310

22: 4 1 C45 18pF 140-50N2-180J

23: 5 1 C46 .01uF 140-PF2A103J

24: 6 1 C53 .001uF 140-PF2A102J

25: 7 2 C54,C62 100pF 140-50P2-101K

26: 8 1 C55 .01uF

27: 9 1 C59 100pF

28: 10 1 C61 .1uF

29: 11 2 D2,D1 1N914

30: 12 2 D3,D4 1N751

31: 13 1 JP1 HEADER 5X2

32: 14 2 JP3,JP2 HEADER 4

33: 15 1 J1 PITCH1

34: 16 1 J2 SAW

35: 17 1 J3 PITCH2

36: 18 1 J4 SYNC

37: 19 1 J5 TRI

38: 20 1 J6 LIMFM

39: 21 1 J7 PULSE

40: 22 2 J8,J10 PWM

41: 23 1 J9 SINE

42: 24 2 Q1,Q2 2N3904 512-2N3904

43: 25 4 Q3,Q4,Q7,Q8 2N3906 512-2N3906

44: 26 1 Q5 J111 J111

45: 27 1 Q6 MAT04

46: 28 23 R12,R19,R25,R27,R32,R55, 10K 271-10K

47: R57,R60,R62,R63,R83,R103,

48: R105,R106,R107,R108,R111,

49: R112,R113,R114,R115,R119,

50: R131

51: 29 21 R13,R17,R20,R28,R29,R30, 100K 271-100K

52: R34,R35,R37,R50,R53,R66,

53: R70,R71,R72,R73,R74,R77,

54: R89,R99,R116

55: 30 10 R14,R23,R41,R44,R51,R52, 1K 271-1K

56: R64,R76,R90,R101

57: 31 1 R15 20K 652-3386P-1-203

58: 32 2 R21,R16 10 271-10

59: 33 2 R81,R18 30K 271-30K

60: 34 1 R22 24.9K 271-24.9K

61: 35 1 R24 100 271-100

62: 36 1 R26 3.3K 271-3.3K

63: 37 1 R31 499K 271-499K

64: 38 4 R33,R47,R67,R127 20K 594-74W-20K

65:	39	1	R38	2.2M	271-2.2M	
66:	40	2	R122,R39	49.9K	271-49.9K	
67:	41	10	R43,R87,R98,R123,R124,	1M	271-1M	
68:			R125,R126,R128,R132,R133			
69:	42	4	R46,R120,R129,R130	4.99K	271-4.99K	
70:	43	1	R48	10M		
71:	44	1	R49	1K	594-74W-1K	
72:	45	1	R56	4.02K	271-4.02K	
73:	46	1	R61	39K	271-39K	
74:	47	1	R65	20K	271-20K	
75:	48	1	R68	68K	271-68K	
76:	49	3	R75,R85,R100	2K	271-2K	
77:	50	1	R88	6.8M		
78:	51	1	R92	51		
79:	52	1	R95	100	594-74W-100	
80:	53	2	R121,R97	50K	594-74W-50K	
81:	54	1	R102	100K		
82:	55	1	R104	10K		
83:	56	2	R109,R118	15K	271-15K	
84:	57	2	R117,R110	10K	594-74W-10K	
85:	58	3	U2,U6,U7	TL072	511-TL072	
86:	59	1	U3	LM4041CZ-ADJ	511-LM336Z	
87:	60	1	U4	TL071	511-TL071	
88:	61	1	U5	LM311	511-LM311	
89:	62	10	U6,U7,U9,U10,U13,U17,U18,	TL072		
90:			U19,U20,U21			
91:	63	1	U8	lm13700	LM13700N	
92:	64	1	U15	CA3280E		
93:	65	1	U16	TL071		
94:						

200-1007-05 REV A LEGEND COMPONET SIDE 200-1007-06 REV A DRILL/FAB

200-1007-02 REV A COMPONENT SIDE

