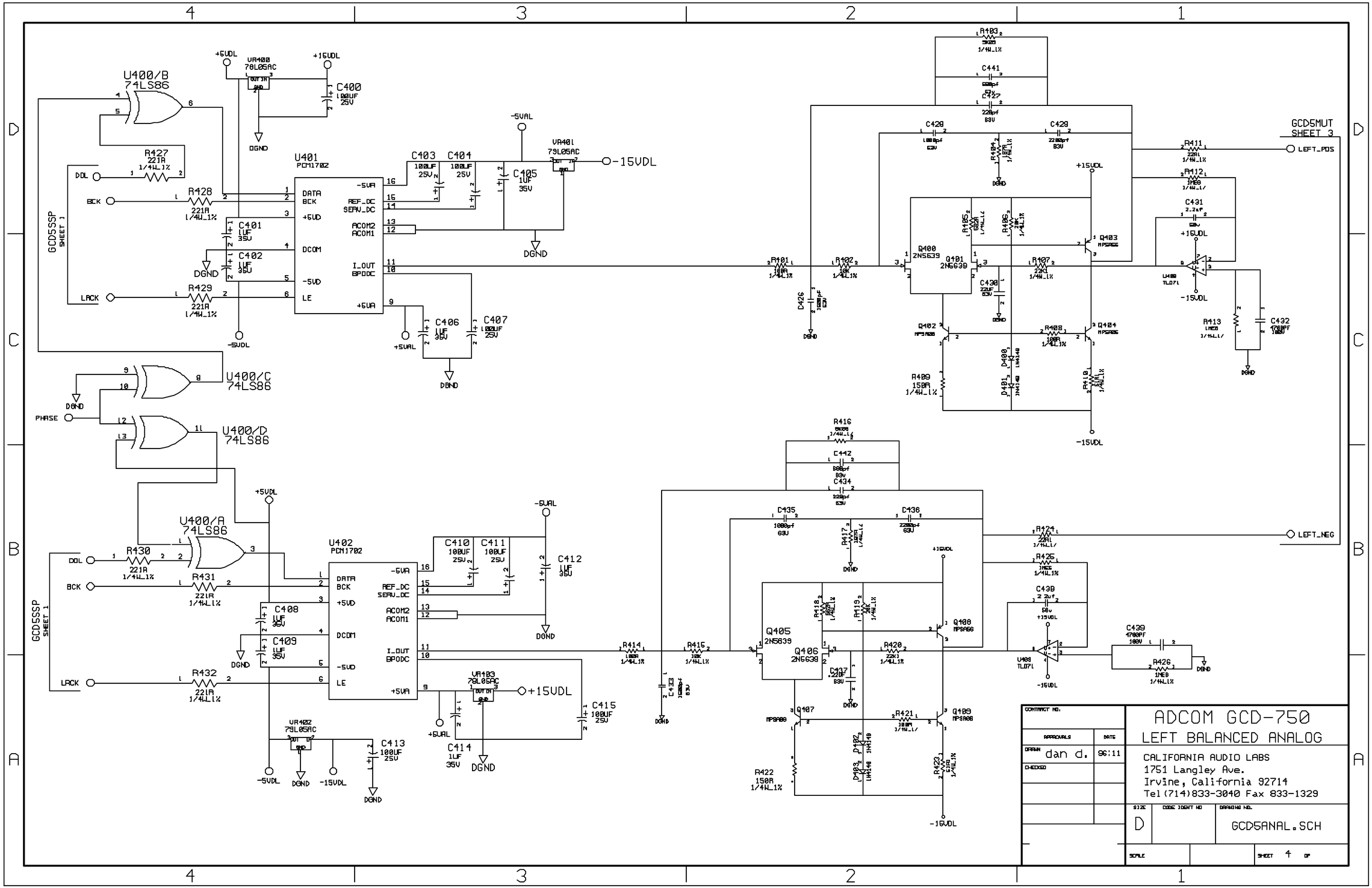


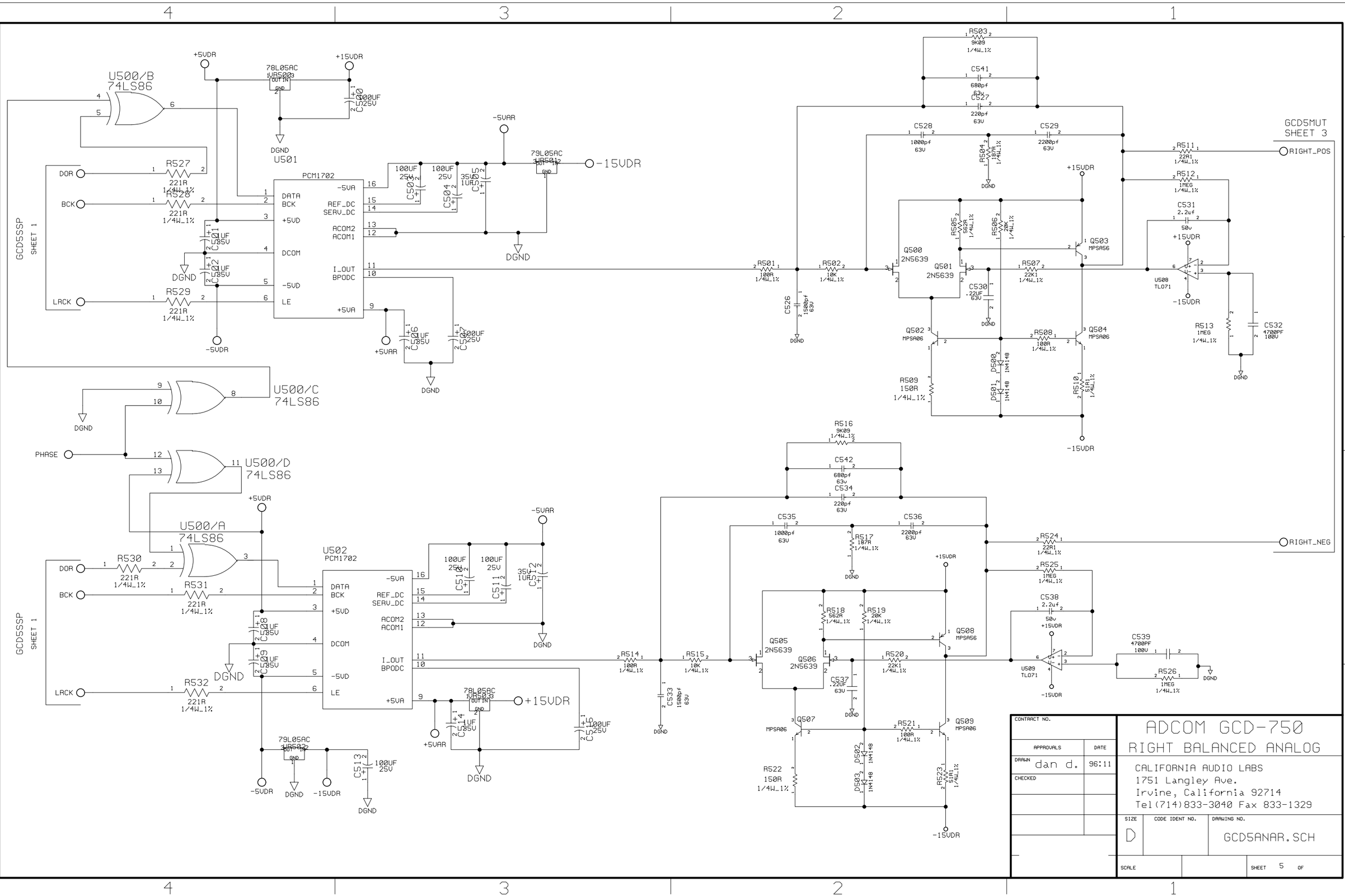
CONTRACT NO.		
APPROVALS	DATE	
DRAWN dan d.	96:11	
CHECKED		

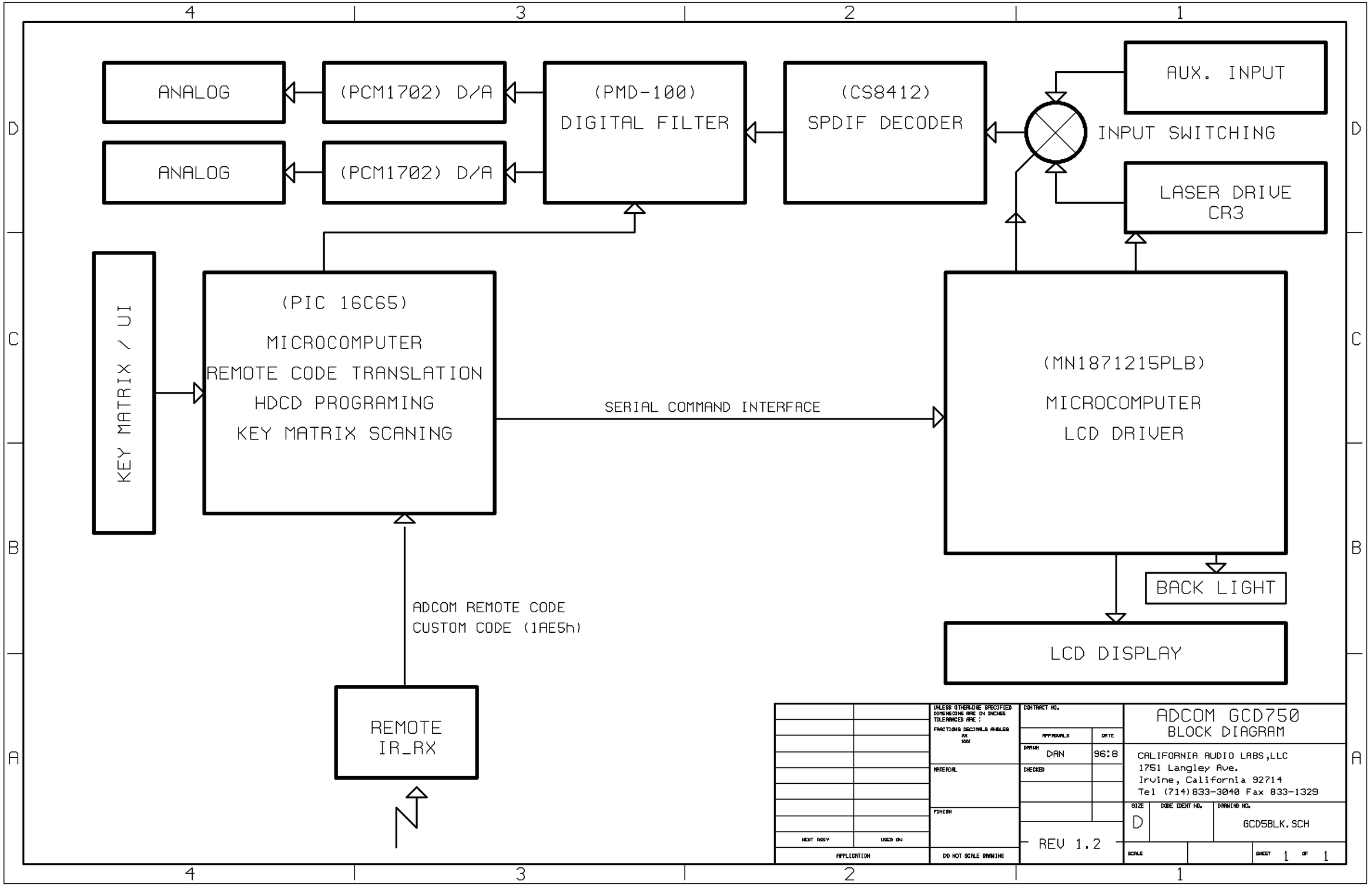
ADCOM GCD-750
LEFT BALANCED ANALOG

CALIFORNIA AUDIO LABS
1751 Langley Ave.
Irvine, California 92714
Tel (714) 833-3040 Fax 833-1329

SIZE	CODE IDENT NO	DRAWING NO.
D		GCD5ANAL.SCH

SCALE | SHEET 4 OF


U500/B
74LS86
U500/C
74LS86
U500/D
74LS86
U500/A
74LS86
78L05AC
78L05AC
79L05AC
79L05AC
79L05AC
U501
U502
PCM1702
PCM1702
+5VDR
+15VDR
-5VAR
-15VDR
DGND
-5VDR
+5VAR
DOR
BCK
LRCK
PHASE
DATA
BCK
+5VD
DCOM
-5VD
LE
-5VA
REF_DC
SERV_DC
ACOM2
ACOM1
I_OUT
BPODC
+5VA
R527
R528
R529
R530
R531
R532
221R
1/4W_1%
C501
C502
C503
C504
C505
C506
C507
C508
C509
C510
C511
C512
C513
C514
C515
100UF
25V
1UF
35V
1UF
50V
GCD5SSP
SHEET 1
R501
R502
R503
R504
R505
R506
R507
R508
R509
R510
100R
1/4W_1%
10K
1/4W_1%
9K09
187R
562R
20K
22K1
51R1
150R
C526
C527
C528
C529
C530
C531
C532
1500pF
63V
680pf
63v
220pf
63V
1000pf
2200pf
.22UF
2.2uf
50v
4700PF
100V
Q500
Q501
Q502
Q503
Q504
2N5639
MPSA06
MPSA56
D500
D501
1N4148
U508
TL071
RIGHT_POS
GCD5MUT
SHEET 3
R511
R512
R513
22R1
1MEG
R514
R515
R516
R517
R518
R519
R520
R521
R522
R523
R524
R525
C533
C534
C535
C536
C537
C538
C539
Q505
Q506
Q507
Q508
Q509
D502
D503
U509
R526
RIGHT_NEG
CONTRACT NO.
APPROVALS
DATE
DRAWN
dan d.
96:11
CHECKED
ADCOM GCD-750
RIGHT BALANCED ANALOG
CALIFORNIA AUDIO LABS
1751 Langley Ave.
Irvine, California 92714
Tel(714)833-3040 Fax 833-1329
SIZE
D
CODE IDENT NO.
DRAWING NO.
GCD5ANAR.SCH
SCALE
SHEET 5 OF


ANALOG
(PCM1702) D/A
ANALOG
(PCM1702) D/A
(PMD-100)
DIGITAL FILTER
(CS8412)
SPDIF DECODER
AUX. INPUT
INPUT SWITCHING
LASER DRIVE
CR3
KEY MATRIX / UI
(PIC 16C65)
MICROCOMPUTER
REMOTE CODE TRANSLATION
HDCD PROGRAMING
KEY MATRIX SCANING
SERIAL COMMAND INTERFACE
(MN1871215PLB)
MICROCOMPUTER
LCD DRIVER
BACK LIGHT
LCD DISPLAY
ADCOM REMOTE CODE
CUSTOM CODE (1AE5h)
REMOTE
IR_RX
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE :
FRACTIONS DECIMALS ANGLES
XX
XXX
MATERIAL
FINISH
DO NOT SCALE DRAWING
NEXT ASSY
USED ON
APPLICATION
CONTRACT NO.
APPROVALS
DATE
DRAWN
DAN
96:8
CHECKED
REV 1.2
ADCOM GCD750
BLOCK DIAGRAM
CALIFORNIA AUDIO LABS,LLC
1751 Langley Ave.
Irvine, California 92714
Tel (714)833-3040 Fax 833-1329
SIZE
D
CODE IDENT NO.
DRAWING NO.
GCD5BLK.SCH
SCALE
SHEET 1 OF 1

GCD5DIS SHEET 8 (DISPLAY BOARD)

INITIAL OFF CIRCUIT

CR3 LASER DRIVE SHEET 0

GCD5SSP SHEET 1

GCD5PW2 SHEET 7

GCD5MUT SHEET 3

GCD5PW1 SHEET6

GCD5SSP SHEET 1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE : FRACTIONAL DECIMAL ANGULAR XX .XXX	CONTRACT NO.	GCD-750 CENTRAL PROCESSING UNIT	
MATERIAL	APPROVALS / DRAWN / CHECKED	CALIFORNIA AUDIO LABS 1751 LANGLEY AVE. IRVINE, CALIFORNIA 92714 USA Ph 714.833.3040 Fax 714.833.3040	
FINISH	REVISED 11/26/96 RD; REVISED 02/04/97 RD	SIZE D	DRAWING NO. GCD5CPU.SCH
NEXT ASSY / USED ON	DO NOT SCALE DRAWING	SCALE	SHEET 2 OF
APPLICATION			

GCD5DIS SHEET 8 (DISPLAY BOARD)

INITIAL OFF CIRCUIT

CR3 LASER DRIVE SHEET 0

U200 MN1871215PLB

U201/A 74HC08

U202 DS1233D-15

GCD5SSP SHEET 1

GCD5PW2 SHEET 7

GCD5MUT SHEET 3

GCD5PW1 SHEET6

GCD5SSP SHEET 1

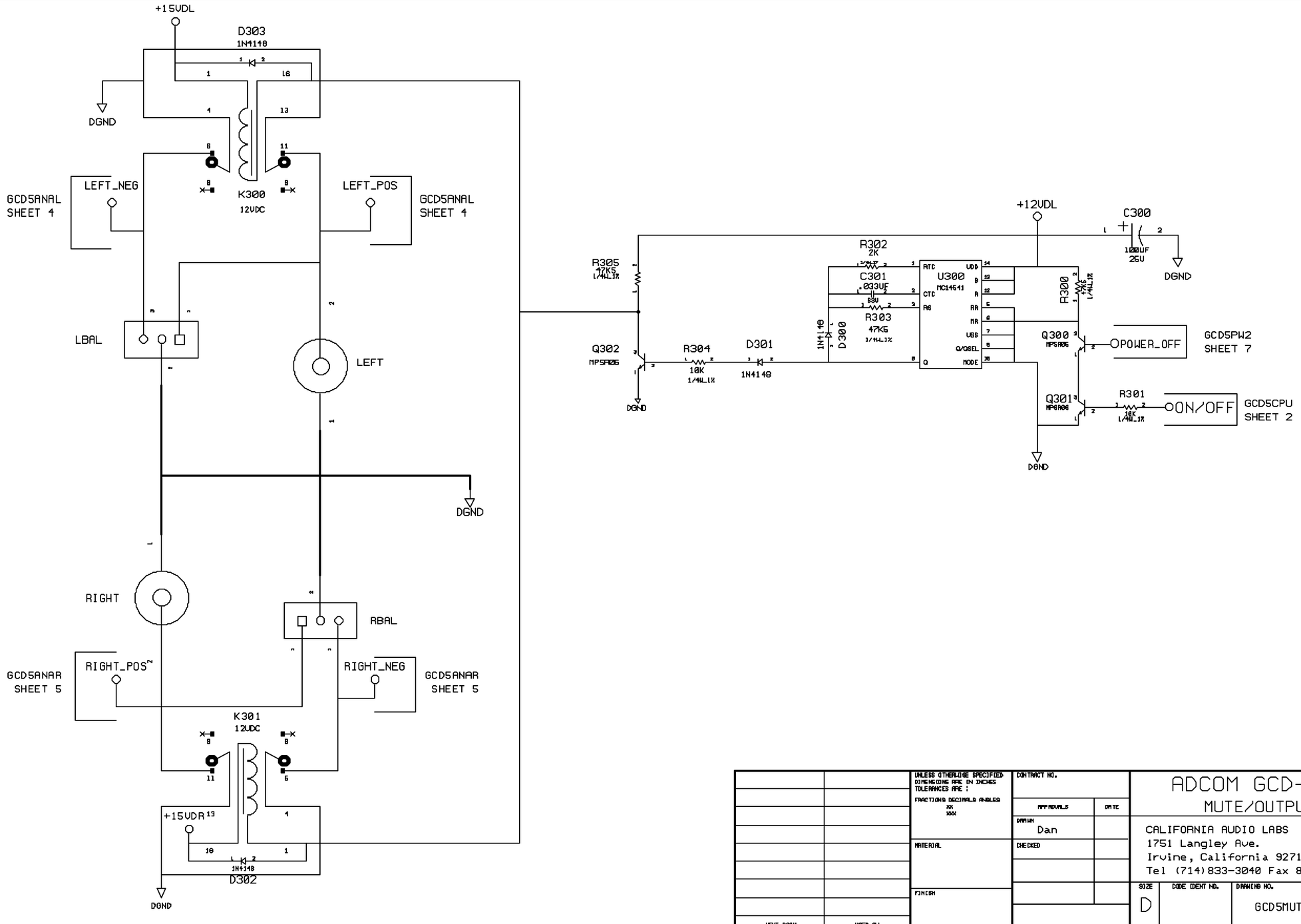
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE : FRACTIONS DECIMALS ANGLES XX .XXX	CONTRACT NO.
MATERIAL	APPROVALS / DATE
FINISH	DRAWN
NEXT ASSY / USED ON	CHECKED
APPLICATION	DO NOT SCALE DRAWING
	REVISED 11/26/96 RD
	REVISED 02/04/97 RD
	REVISED 07/28/97 RD

GCD-750
CENTRAL PROCESSING UNIT

CALIFORNIA AUDIO LABS
1751 LANGLEY AVE.
IRVINE, CALIFORNIA 92714
USA
Ph 714.833.3040 Fax 714.833.3040

SIZE	CODE IDENT NO.	DRAWING NO.
D		GCD5CPU.SCH

SCALE | REV 1.3 | SHEET 2 OF



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE : FRACTIONS DECIMALS ANGLES .XX .XXX	CONTRACT NO.
MATERIAL	APPROVALS / DATE
FINISH	DRAWN Dan
NEXT ASSY / USED ON	CHECKED
APPLICATION	DO NOT SCALE DRAWING

ADCOM GCD-750
MUTE/OUTPUT

CALIFORNIA AUDIO LABS
1751 Langley Ave.
Irvine, California 92714
Tel (714)833-3040 Fax 833-1329

SIZE	CODE IDENT NO.	DRAWING NO.
D		GCD5MUT.SCH

SCALE | SHEET 3 OF

GCD5PW2
SHEET 7

120V
0V

TRANSFORMER

XFR600

22VAC 888mA
9VAC 888mA
6VAC 138mA

DGND

PW2A
PW2B

D600 1N4007
D601 1N4007
D602 1N4007
D603 1N4007
D604 1N4007
D605 1N4007

VR600 LM317T ADJ
+15VDR
C600 35V 2200UF
R600 1/4W 1% 243R
R601 1/4W 1% 2K67
C603 25V 10UF
C604 25V 1000UF

VR601 LM337T ADJ
-15VDR
C605 35V 2200UF
R602 1/4W 1% 243R
R603 1/4W 1% 2K67
C608 25V 10UF
C609 25V 1000UF

VR602 LM7805CT
+5VDD
C610 25V 2200UF
C611 25V 1000UF

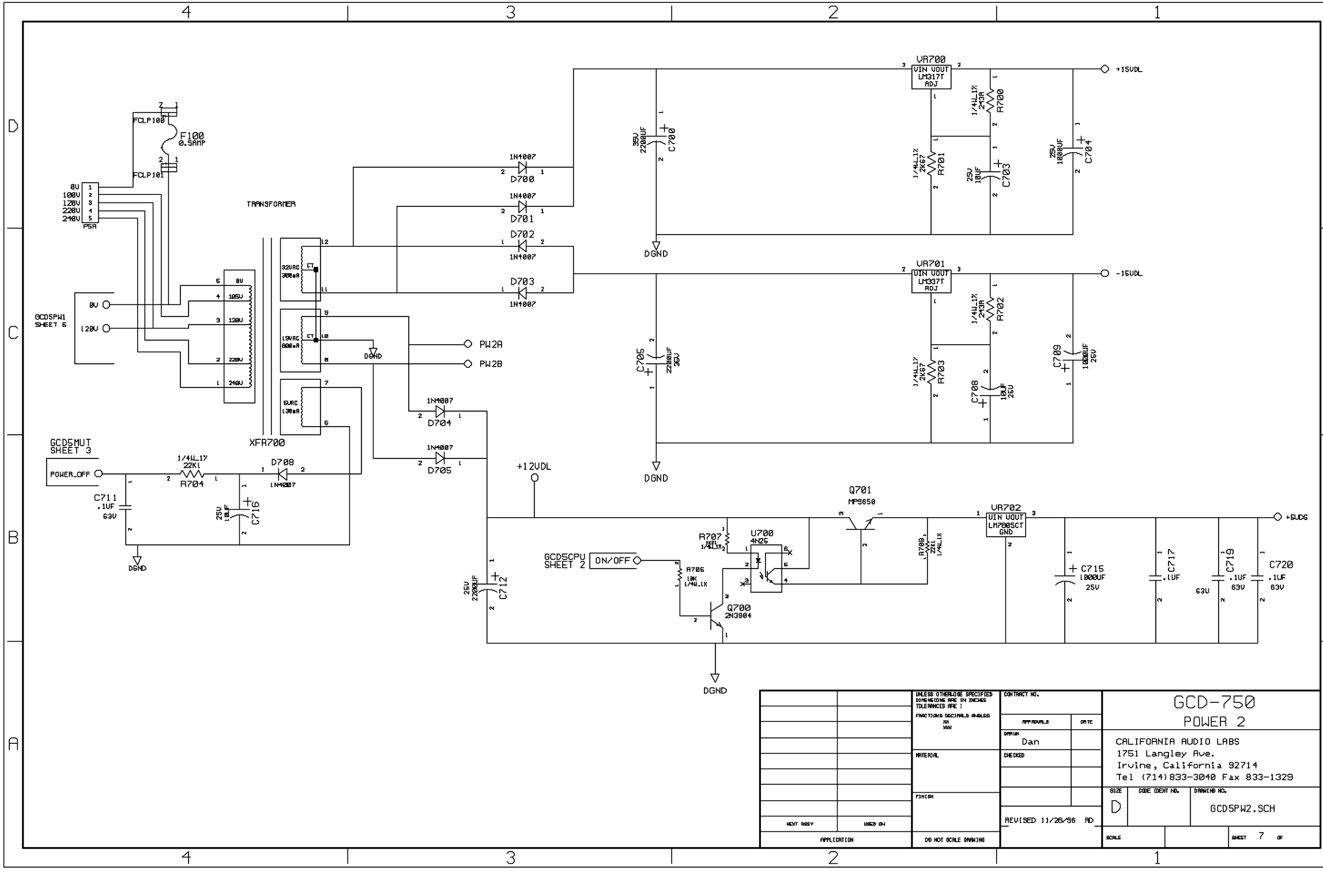
VR603 LM317T ADJ
+7.5VDS
R608 1/4W 1% 243R
R607 1/4W 1% 2K67
C615 25V 10UF
C616 25V 1000UF

+12VDR
C612 25V 2200UF

GCD5CPU
SHEET 2
ON/OFF

R604 10K 1/4W 1%
R605 1K21 1/4W 1%
U600 4N25
Q600 2N3904
Q601 MPS650
R606 2K67 1/4W 1%

CONTRACT NO.	GCD-750
APPROVALS / DATE	POWER 1
DRAWN dan d.	CALIFORNIA AUDIO LABS 1751 Langley Ave. Irvine, California 92714 Tel(714)833-3040 Fax 833-1329
CHECKED	SIZE D / CODE IDENT NO. / DRAWING NO. GCD5PW1.SCH
	SCALE / SHEET 6 OF



NEXT ASSY	USED ON
APPLICATION	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE :
FRACTIONAL DECIMALS ANGLES
XX
XXX
MATERIAL
FINISH
DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN Dan	
CHECKED	

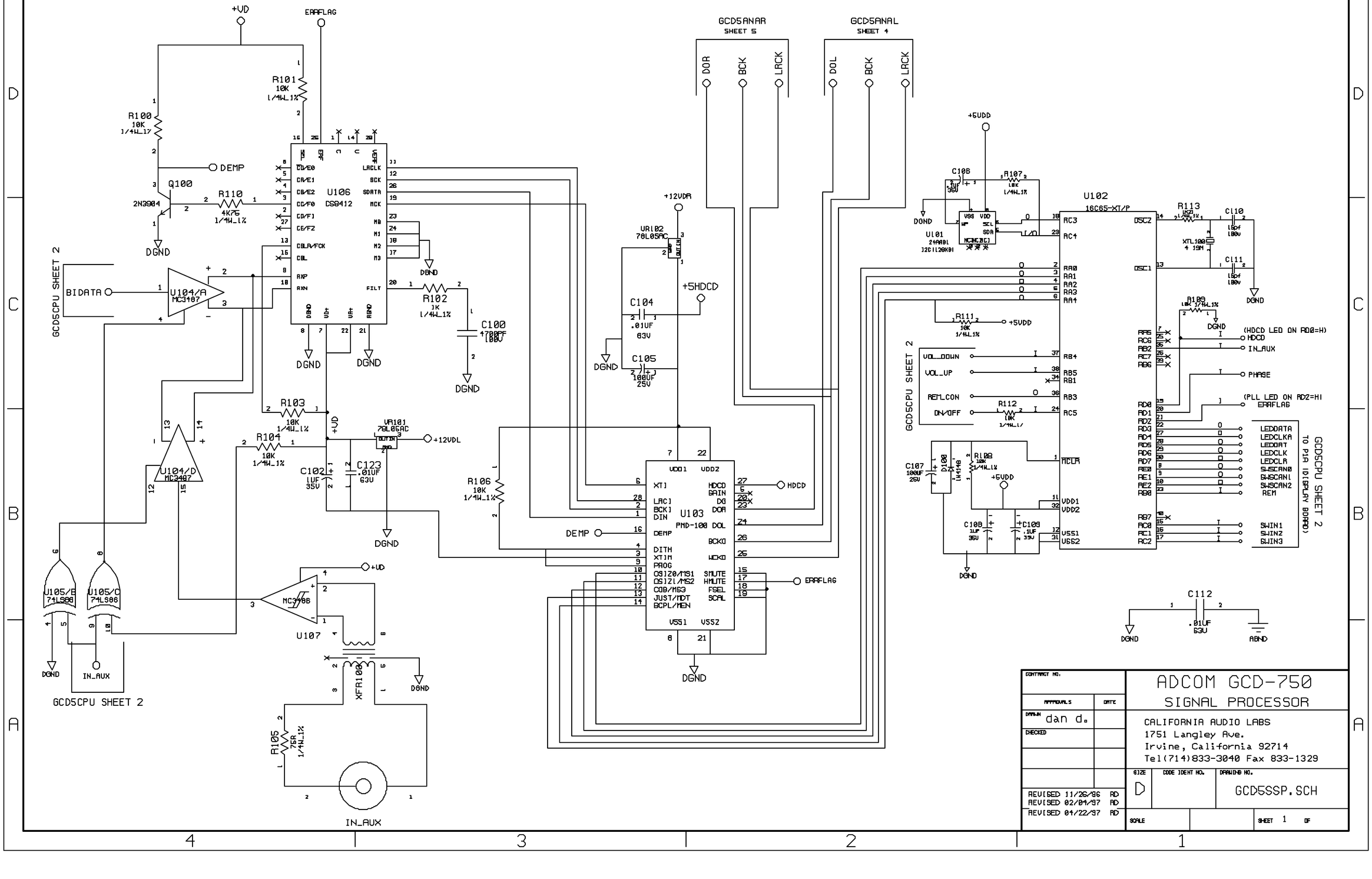
REVISED 11/26/96 RD

GCD-750
POWER 2

CALIFORNIA AUDIO LABS
1751 Langley Ave.
Irvine, California 92714
Tel (714)833-3040 Fax 833-1329

SIZE	CODE IDENT NO.	DRAWING NO.
D		GCD5PW2.SCH

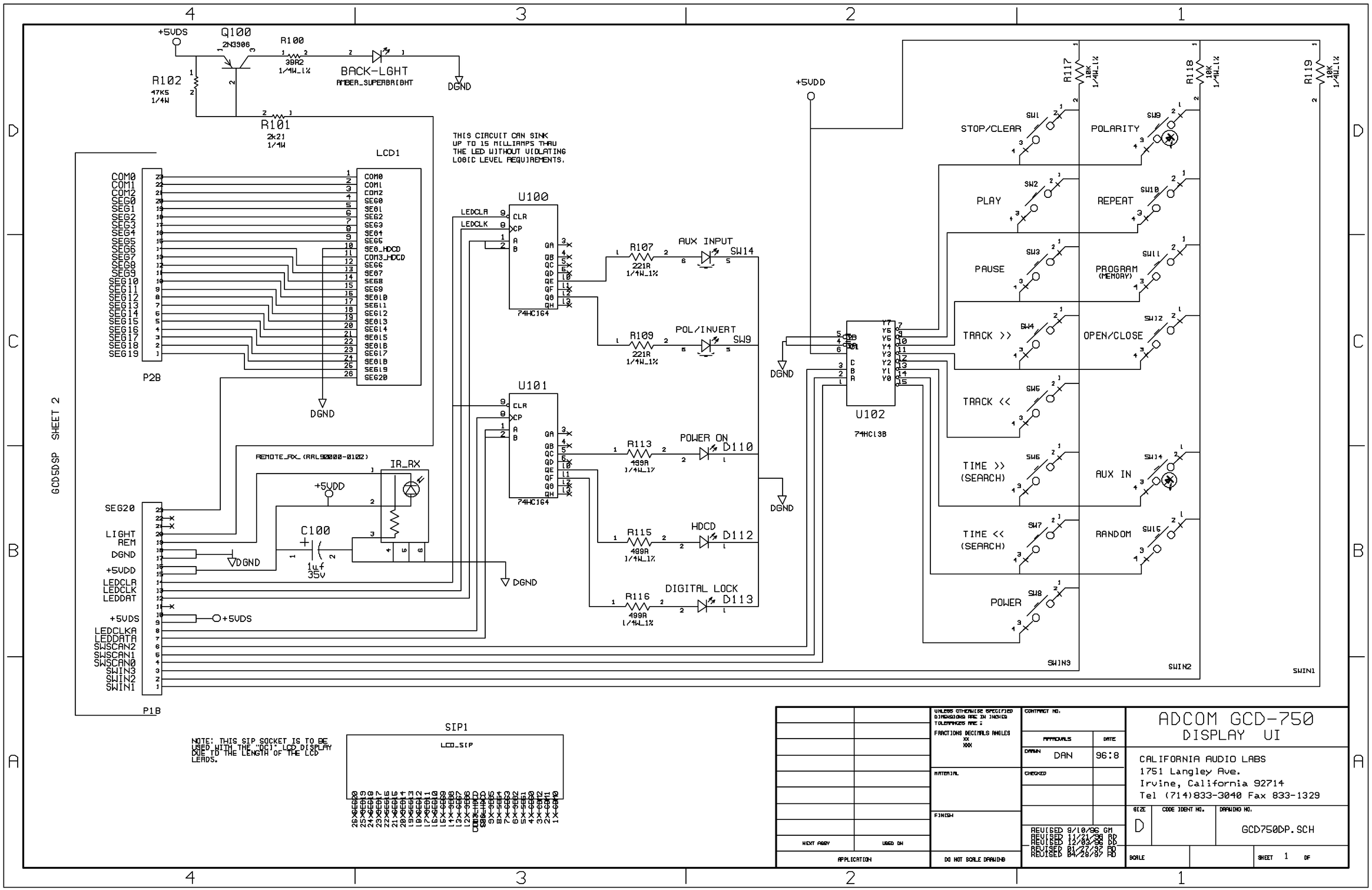
SCALE | SHEET 7 OF

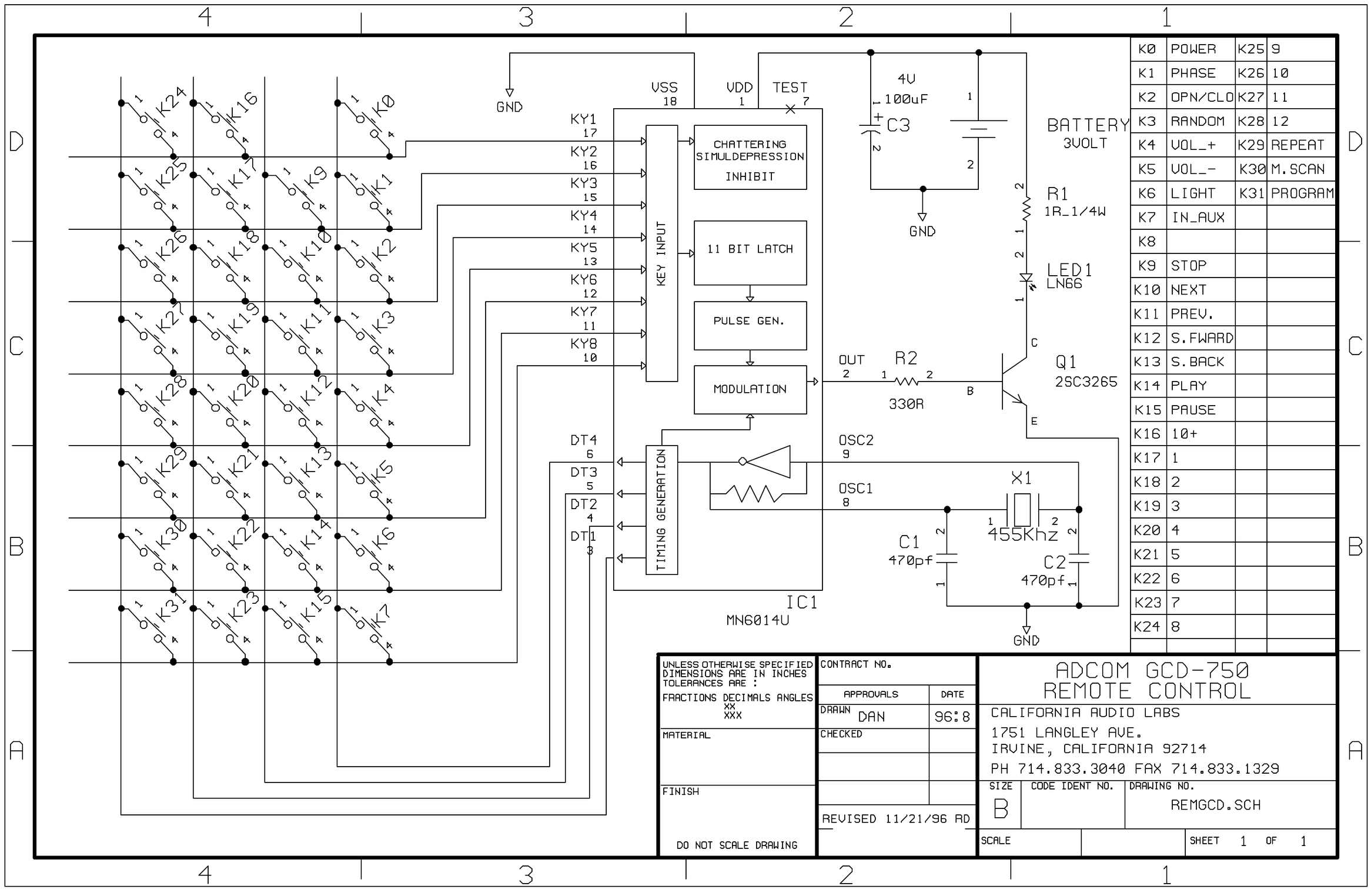


CONTRACT NO.		ADCOM GCD-750
APPROVALS	DATE	SIGNAL PROCESSOR
DRAWN dan d.		CALIFORNIA AUDIO LABS 1751 Langley Ave. Irvine, California 92714 Tel(714)833-3040 Fax 833-1329
CHECKED		
REVISED 11/26/96 RD REVISED 02/04/97 RD REVISED 04/22/97 RD		SIZE D · CODE IDENT NO. · DRAWING NO. GCD5SSP.SCH SCALE · SHEET 1 OF

+VD
ERRFLAG
R101 10K 1/4W_1%
R100 10K 1/4W_1%
DEMP
Q100 2N3904
R110 4K75 1/4W_1%
DGND
U106 CS8412
BIDATA
U104/A MC3487
U104/D MC3487
R103 10K 1/4W_1%
R104 10K 1/4W_1%
+VD
VR101 78L05AC
+12VDL
C102 1UF 35V
C123 .01UF 63V
DGND
U105/B 74LS86
U105/C 74LS86
DGND
IN_AUX
GCD5CPU SHEET 2
U107 MC3486
+VD
XFR101
R105 75R 1/4W_1%
IN_AUX
R102 1K 1/4W_1%
C100 4700PF 100V
DGND
GCD5ANAR SHEET 5
DOR
BCK
LRCK
+12VDR
VR102 78L05AC
C104 .01UF 63V
C105 100UF 25V
DGND
+5HDCD
U103 PMD-100
R106 10K 1/4W_1%
DEMP
HDCD
ERRFLAG
DGND
GCD5ANAL SHEET 4
DOL
BCK
LRCK
+5VDD
C106 1UF 35V
R107 10K 1/4W_1%
DGND
U101 24AA01 128(128X8)
U102 16C65-XT/P
R111 10K 1/4W_1%
+5VDD
R112 10K 1/4W_1%
VOL_DOWN
VOL_UP
REM_CON
ON/OFF
RESET
GCD5CPU SHEET 2
+5VDD
C108 .1UF 35V
C109 .1UF 35V
DGND
R113 1K 1/4W_1%
XTL100 4.194M
C110 15pF 100V
C111 15pF 100V
DGND
R109 10K 1/4W_1%
DGND
(HDCD LED ON RD0=HI
HDCD
IN_AUX
PHASE
(PLL LED ON RD2=H)
ERRFLAG
LEDDATA
LEDCLKA
LEDDAT
LEDCLK
LEDCLA
SWSCAN0
SWSCAN1
SWSCAN2
REM
SWIN1
SWIN2
SWIN3
GCD5CPU SHEET 2
TO PIA (DISPLAY BOARD)
C112 .01UF 63V
DBND
AGND

CONTRACT NO.	ADCOM GCD-750 SIGNAL PROCESSOR
APPROVALS / DATE	
DRAWN: dan d.	CALIFORNIA AUDIO LABS 1751 Langley Ave. Irvine, California 92714 Tel(714)833-3040 Fax 833-1329
CHECKED	
REVISED 11/26/96 RD REVISED 02/01/97 RD REVISED 04/22/97 RD REVISED 07/28/97 RD	SIZE: D; CODE IDENT NO.; DRAWING NO.: GCD5SSP.SCH
	SCALE; REV 1.3; SHEET 1 OF


GCD5DSP SHEET 2
+5VDS
Q100
2N3906
R100
390R2
1/4W_1%
BACK-LGHT
AMBER_SUPERBRIGHT
DGND
R102
47K5
1/4W
R101
2k21
1/4W
LCD1
P2B
COM0
COM1
COM2
SEG0
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6_HDCD
COM3_HDCD
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
SEG16
SEG17
SEG18
SEG19
SEG20
THIS CIRCUIT CAN SINK
UP TO 15 MILLIAMPS THRU
THE LED WITHOUT VIOLATING
LOGIC LEVEL REQUIREMENTS.
U100
74HC164
LEDCLR
LEDCLK
R107
221R
1/4W_1%
AUX INPUT
SW14
R109
221R
1/4W_1%
POL/INVERT
SW9
U101
74HC164
R113
499R
1/4W_1%
POWER ON
D110
R115
499R
1/4W_1%
HDCD
D112
R116
499R
1/4W_1%
DIGITAL LOCK
D113
REMOTE_RX_(RRL90000-0102)
IR_RX
+5VDD
C100
1uf
35v
LIGHT
REM
LEDDAT
LEDCLKA
LEDDATA
SWSCAN2
SWSCAN1
SWSCAN0
SWIN3
SWIN2
SWIN1
P1B
U102
74HC138
R117
10K
1/4W_1%
R118
10K
1/4W_1%
R119
10K
1/4W_1%
STOP/CLEAR
SW1
POLARITY
SW9
PLAY
SW2
REPEAT
SW10
PAUSE
SW3
PROGRAM
(MEMORY)
SW11
TRACK >>
SW4
OPEN/CLOSE
SW12
TRACK <<
SW5
TIME >>
(SEARCH)
SW6
AUX IN
SW14
TIME <<
(SEARCH)
SW7
RANDOM
SW15
POWER
SW8
SWIN3
SWIN2
SWIN1
NOTE: THIS SIP SOCKET IS TO BE
USED WITH THE "OC" LCD DISPLAY
DUE TO THE LENGTH OF THE LCD
LEADS.
SIP1
LCD_SIP
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE :
FRACTIONS DECIMALS ANGLES
XX
XXX
MATERIAL
FINISH
DO NOT SCALE DRAWING
NEXT ASSY
USED ON
APPLICATION
CONTRACT NO.
APPROVALS
DATE
DRAWN
DAN
96:8
CHECKED
REVISED 9/10/96 GM
REVISED 11/21/96 RR
REVISED 12/03/96 DD
REVISED 01/27/97 RD
REVISED 04/28/97 RD
ADCOM GCD-750
DISPLAY UI
CALIFORNIA AUDIO LABS
1751 Langley Ave.
Irvine, California 92714
Tel (714)833-3040 Fax 833-1329
SIZE
D
CODE IDENT NO.
DRAWING NO.
GCD750DP.SCH
SCALE
SHEET 1 OF



K0	POWER	K25	9
K1	PHASE	K26	10
K2	OPN/CLO	K27	11
K3	RANDOM	K28	12
K4	VOL_+	K29	REPEAT
K5	VOL_-	K30	M.SCAN
K6	LIGHT	K31	PROGRAM
K7	IN_AUX		
K8			
K9	STOP		
K10	NEXT		
K11	PREV.		
K12	S.FWARD		
K13	S.BACK		
K14	PLAY		
K15	PAUSE		
K16	10+		
K17	1		
K18	2		
K19	3		
K20	4		
K21	5		
K22	6		
K23	7		
K24	8		

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ARE :
FRACTIONS DECIMALS ANGLES
XX
XXX

MATERIAL

FINISH

DO NOT SCALE DRAWING

CONTRACT NO.

APPROVALS	DATE
DRAWN DAN	96:8
CHECKED	

REVISED 11/21/96 RD

ADCOM GCD-750 REMOTE CONTROL

CALIFORNIA AUDIO LABS
1751 LANGLEY AVE.
IRVINE, CALIFORNIA 92714
PH 714.833.3040 FAX 714.833.1329

SIZE	CODE IDENT NO.	DRAWING NO.
B		REMGCD.SCH

SCALE | SHEET 1 OF 1