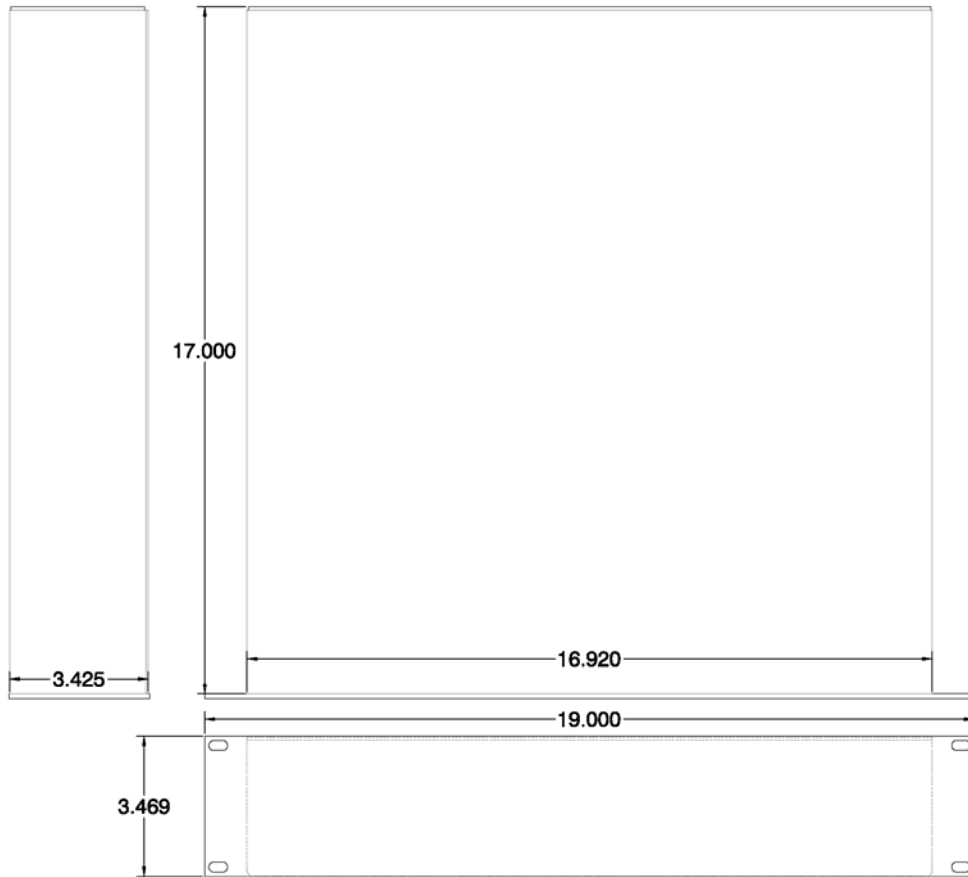
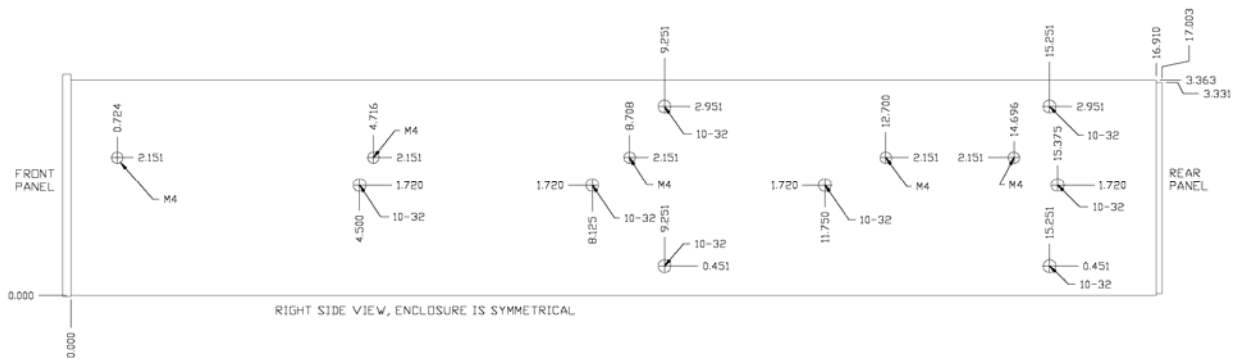


5.0 DRAWINGS & SCHEMATICS

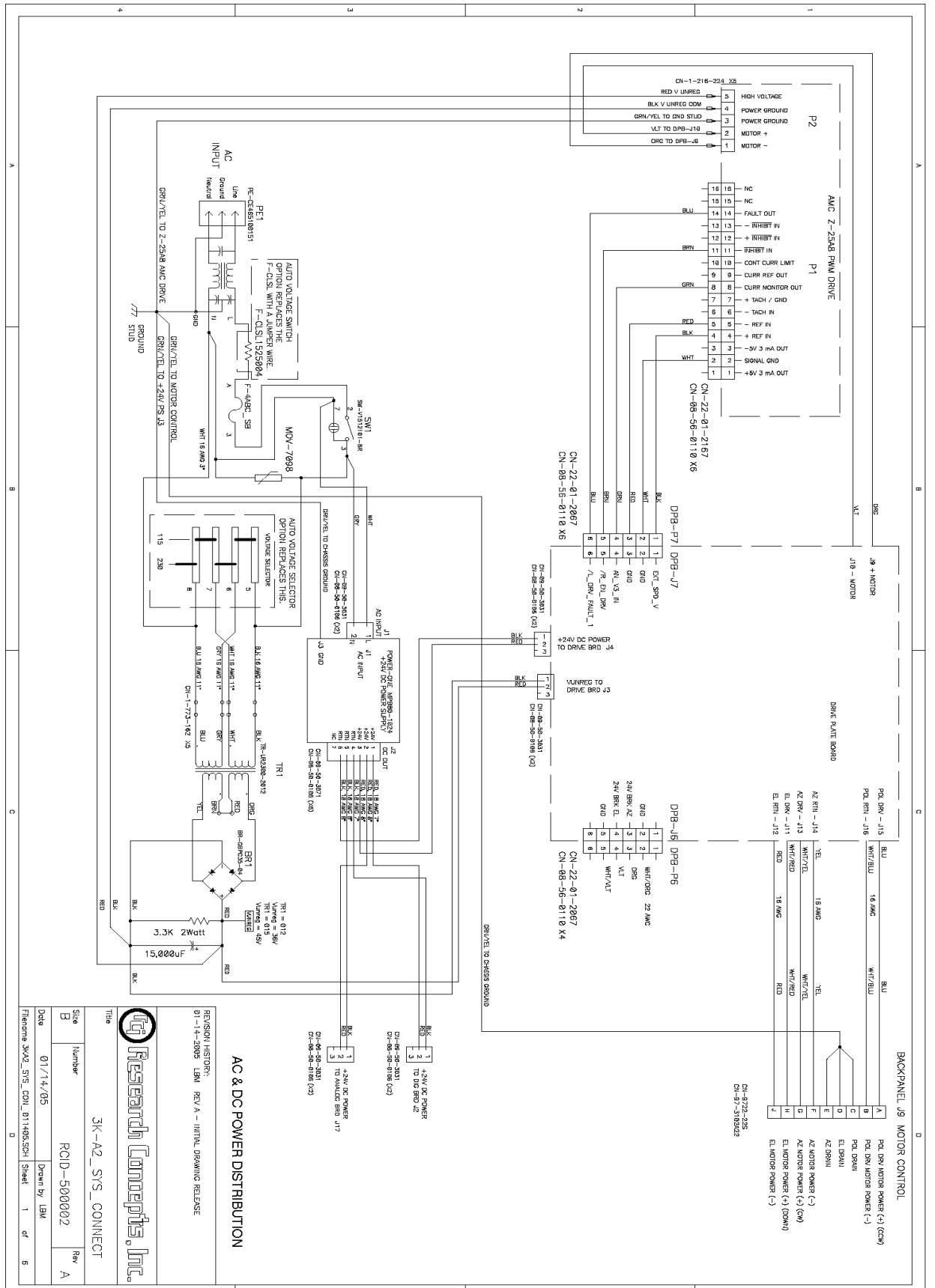
ITEM	SCHEMATIC NAME	# OF PAGES
RC3000 Main Enclosure		1
System Interconnects	3K-A2-SYS_CONNECT	6
Digital Board	B-3KDIG1B	3
Analog Board	B-3KAN5	13
Drive Board	B-3KDPB04	6
Resolver Board	3KRLSVR3	3

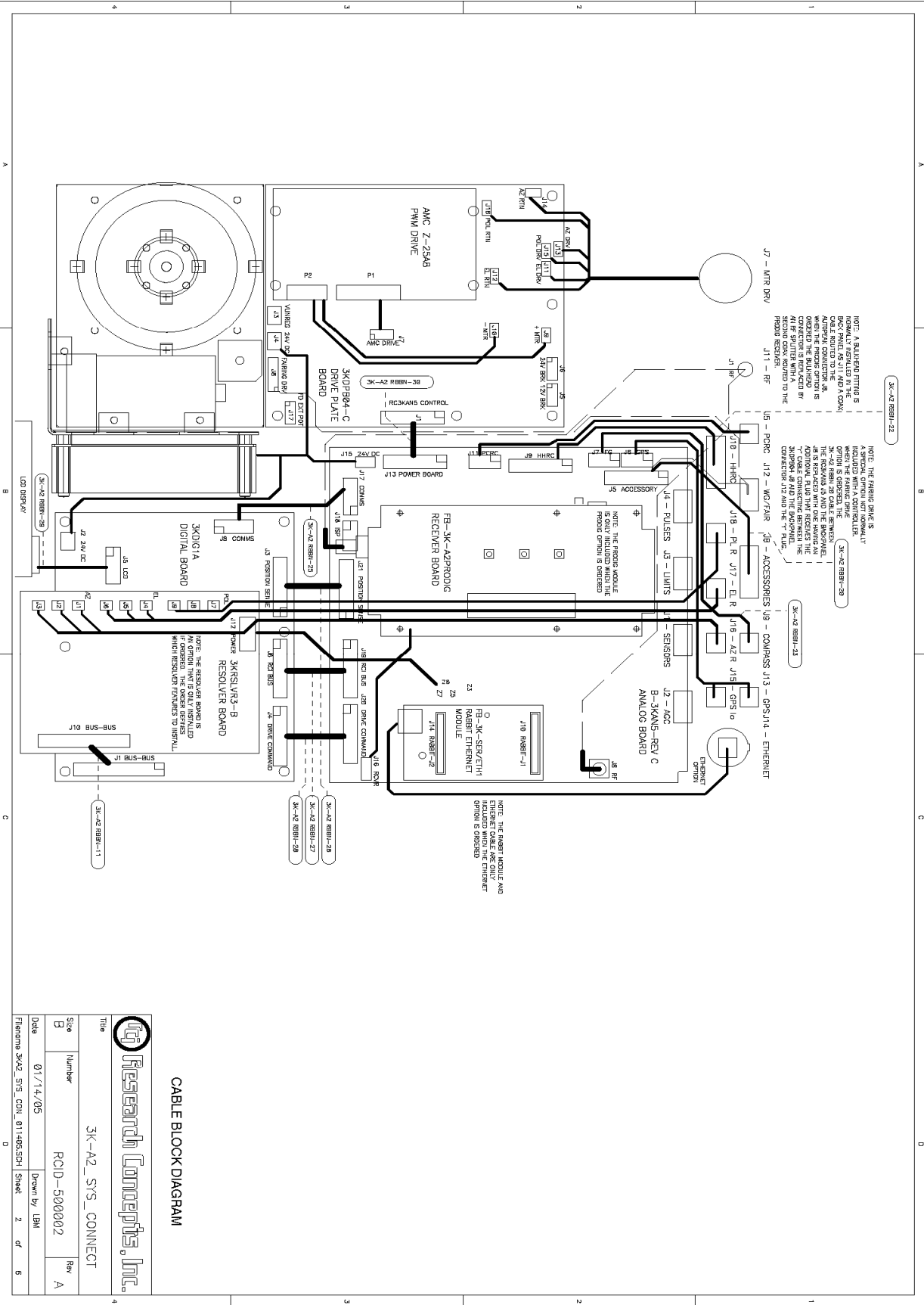


ENCLOSURE

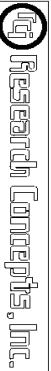


SIDE DETAILS





CABLE BLOCK DIAGRAM



3K-A2_SYS_CONNECT

RCID-500002

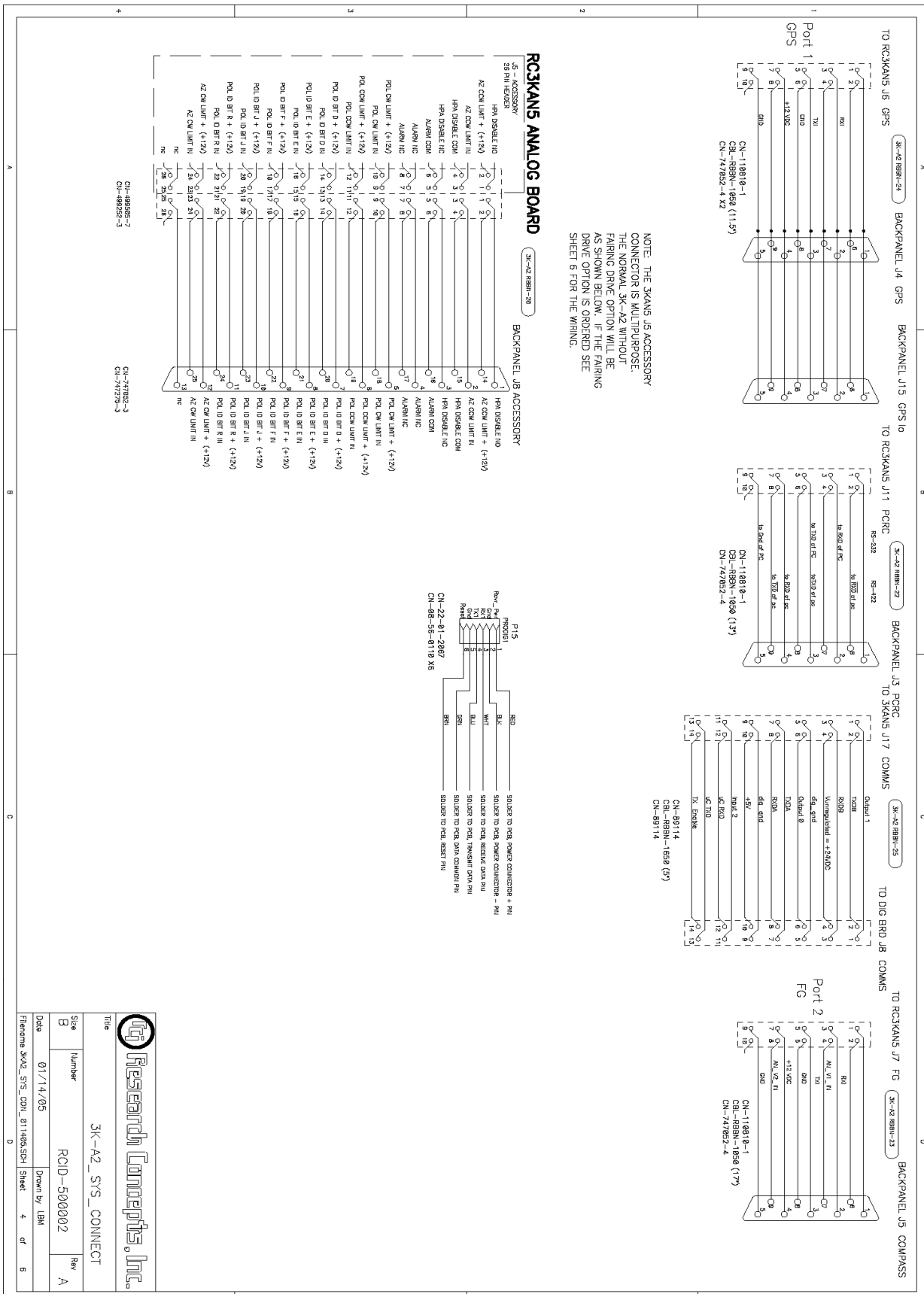
01/14/05

Drawn by LBM

Rev A

Date

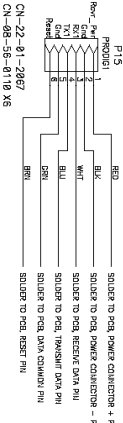
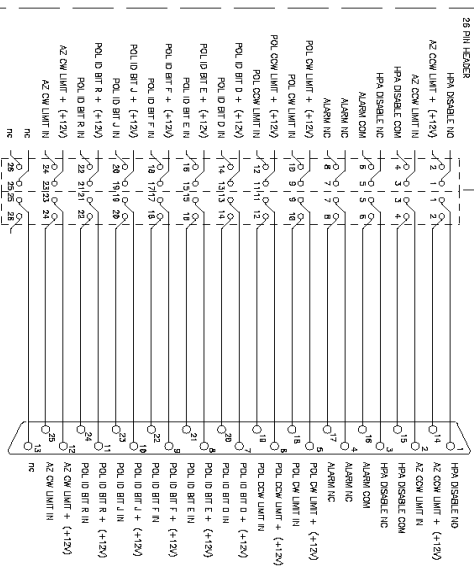
Filename 3K-A2_SYS_CONN_011405.SPH Sheet 2 of 6



NOTE: THE 3KXANS J5 ACCESSORY CONNECTOR IS MULTIPURPOSE. THE NORMAL 3K-A2 WITHOUT FAIRING DRIVE OPTION WILL BE AS SHOWN BELOW. IF THE FAIRING DRIVE OPTION IS ORDERED SEE SHEET 6 FOR THE WIRING.

RC3KXANS ANALOG BOARD

RC3K-A2 8888-28 BACKPANEL J8 ACCESSORY



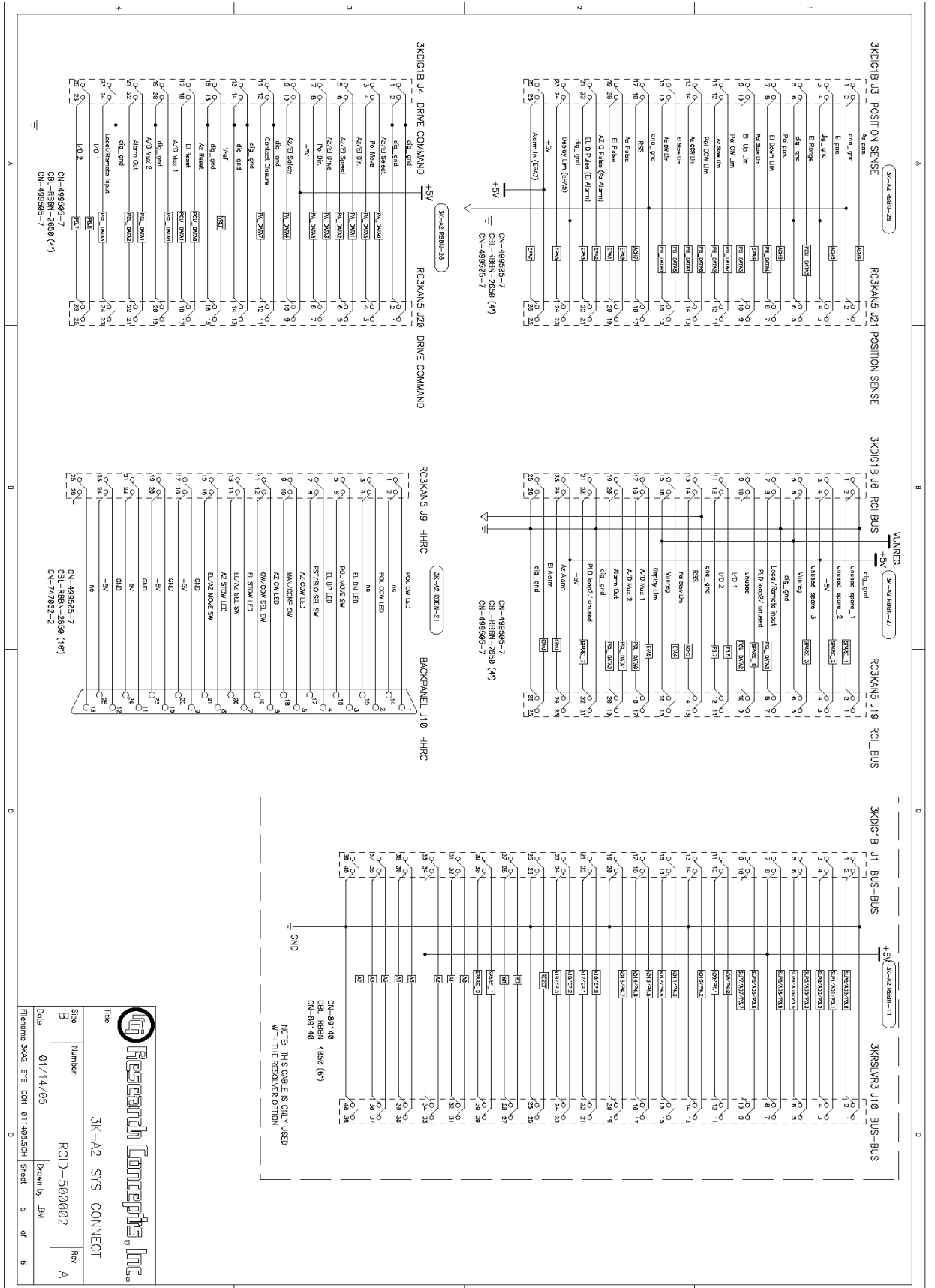
Research Concepts, Inc.

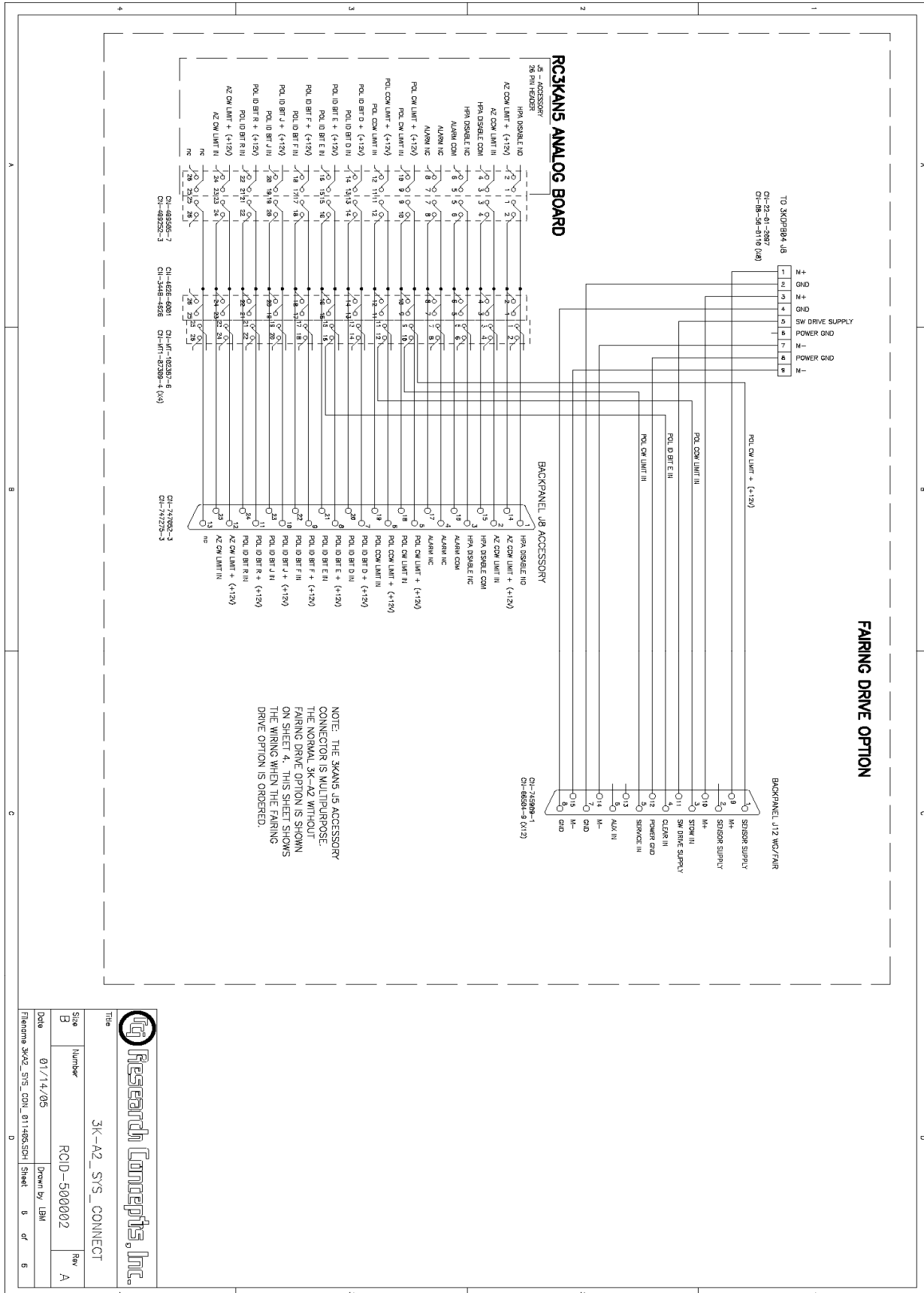
Title: 3K-A2_SYS_CONNECT

Size: B
 Number: RCID-500002
 Date: 01/14/05
 Rev: A

Drawn by: LBM
 Sheet: 4 of 6

File: nomia_3kx2_sys_conn_011405.sph



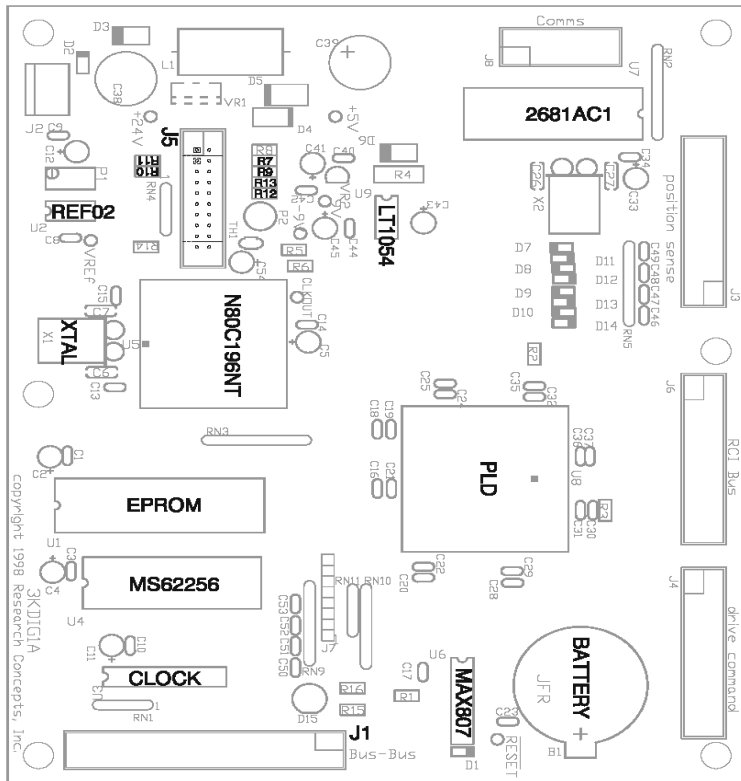


Research Concepts, Inc.

Title: 3K-A2_SYS_CONNECT

Size: B
Number: RCID-500002
Date: 01/14/05
Drawn by: LBM
Rev: A

File: 3K-A2_SYS_CONNECT_011405.SPH
Sheet: 5 of 5

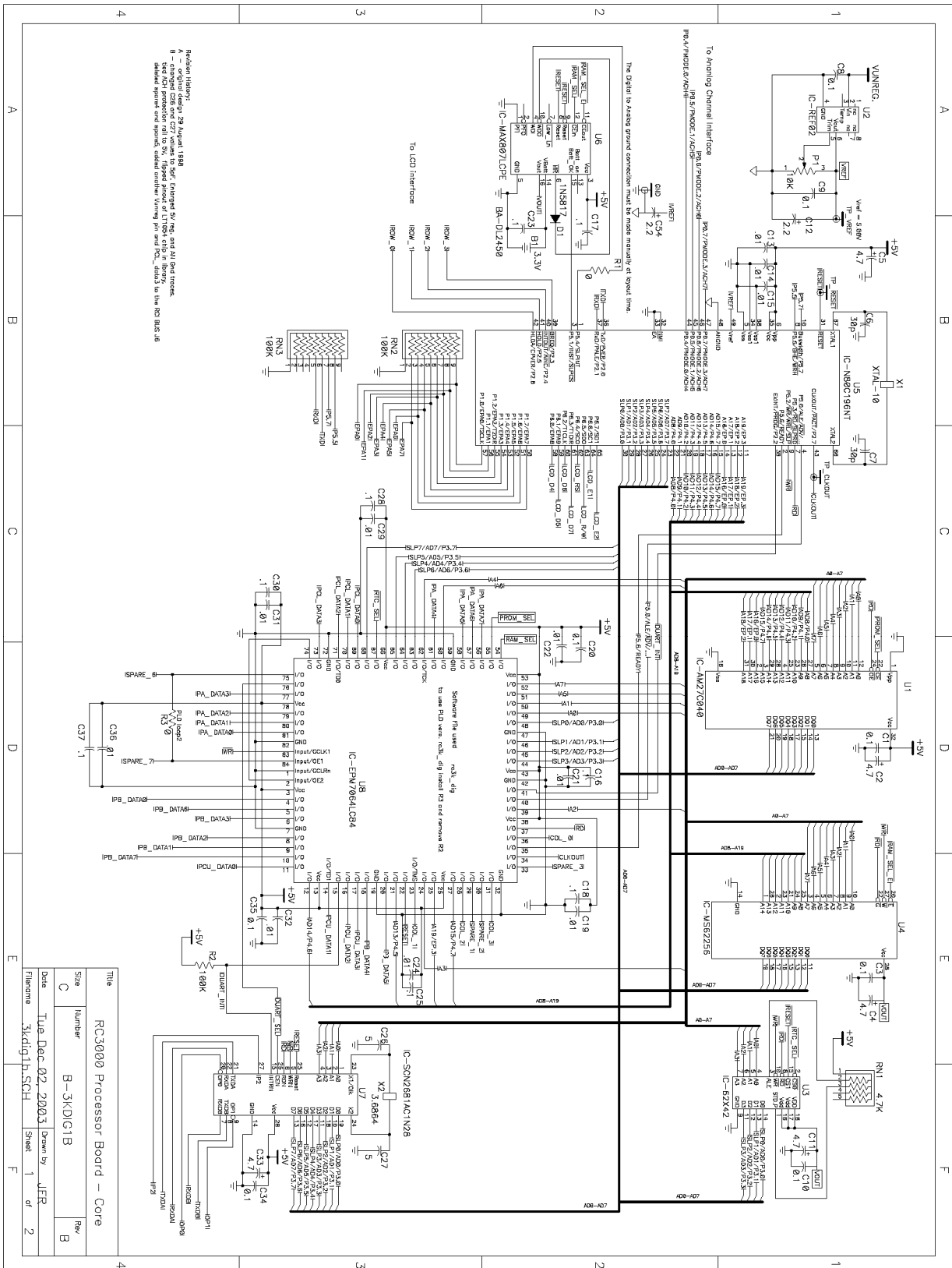


- U1 EPROM = IC-AM27C040
- U2 REF02 = IC-RER02
- U3 CLOCK = IC-82C42
- U4 MS62256 = IC-MS62256
- U5 N80C198NT = IC-N80C198NT
- U6 MAX807 = IC-MAX807LQPE
- U7 2681AC1 = IC-2681AC1N28
- U8 PLD = IC-EPM7064LC94 (DIG3 FOR ALL EXCEPT FOR RESOLVER = DIG5)
- U9 LT1054 = IC-LT1054
- B1 BATTERY = BA-DL2450
- J1 = NOT INSTALLED EXCEPT FOR RESOLVER = CN-103308-8
ADD 4.7 uF CAP BETWEEN 25 (+) & 28
ADD 4.7 K RES BETWEEN 25 & 34
- J5 CN103308 = CN-103308-5 FOR 3000
= CN-103308-3 FOR 3050. INSTALL BETWEEN DOTTED LINES
- R7, R11, R12 = CUT OUT FOR 3000
- R9, R10, R13 = CUT OUT FOR 3050
- X1 XTAL = XTAL-10 FOR ALL EXCEPT FOR RESOLVER = XTAL-8

(DO NOT INSTALL IN 3050)

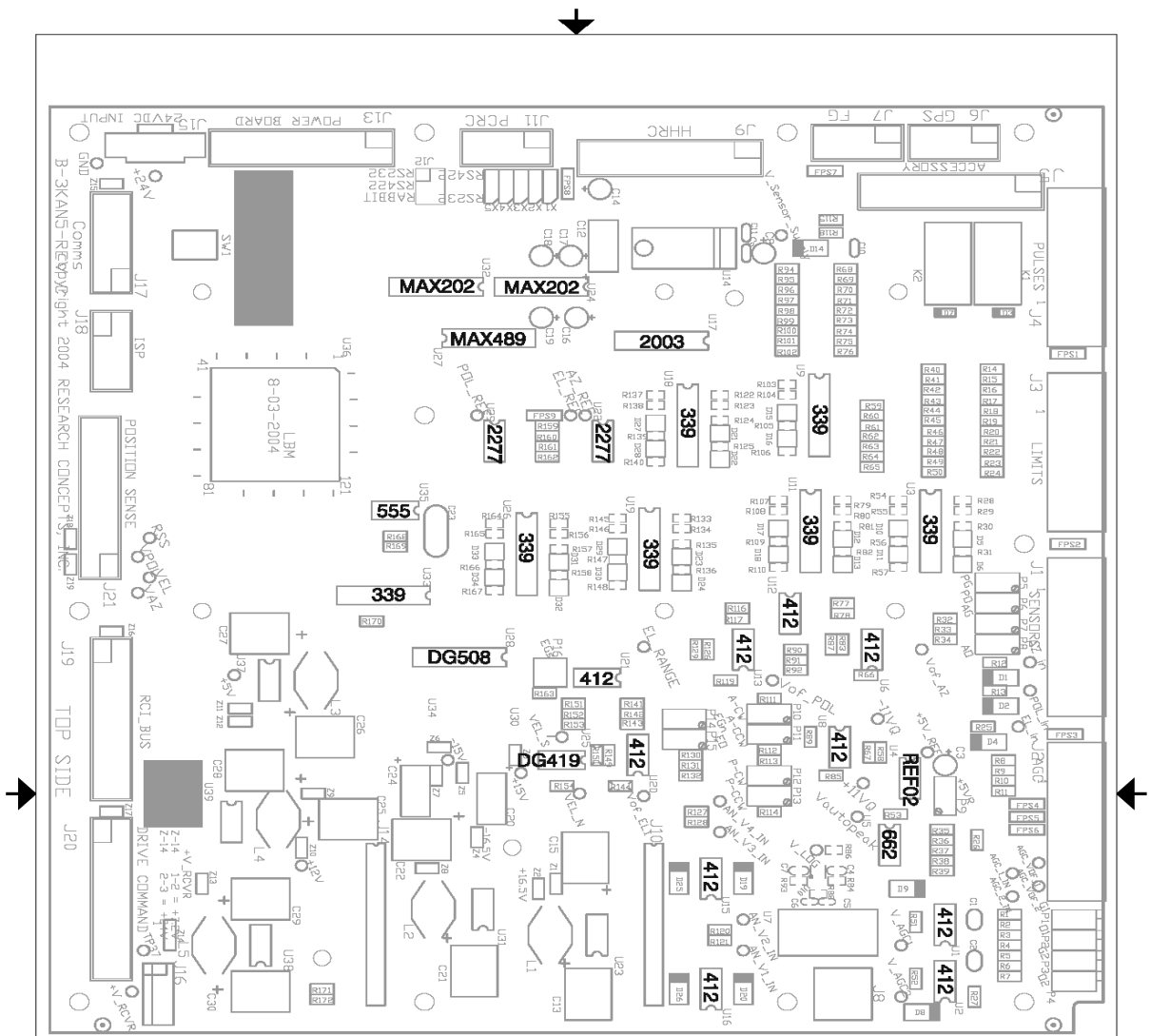
REV	DATE	DESCRIPTION	APPROVED
0	07-21-2004	DRAFT COPY RELEASED	LBM


Research Concepts, Inc.
 3KDIGIB IC STUFFING GUIDE
 FORM 32 (REVISED 07-2004)
 LBM 306 SK 72277777
 3KDIGIB IC STUFFING GUIDE
 PAGE 1 OF 1



Revision History:
 A - original design 29 August 1988
 B - original design 29 August 1988
 C - original design 29 August 1988
 D - original design 29 August 1988
 E - original design 29 August 1988
 F - original design 29 August 1988

Title	RC3000 Processor Board - Core	
Size	C	
Number	B-3KDG1B	
Date	Tue Dec 02 2003	Drawn by JFR
Filename	3kdg1b.sch	Sheet 1 of 2

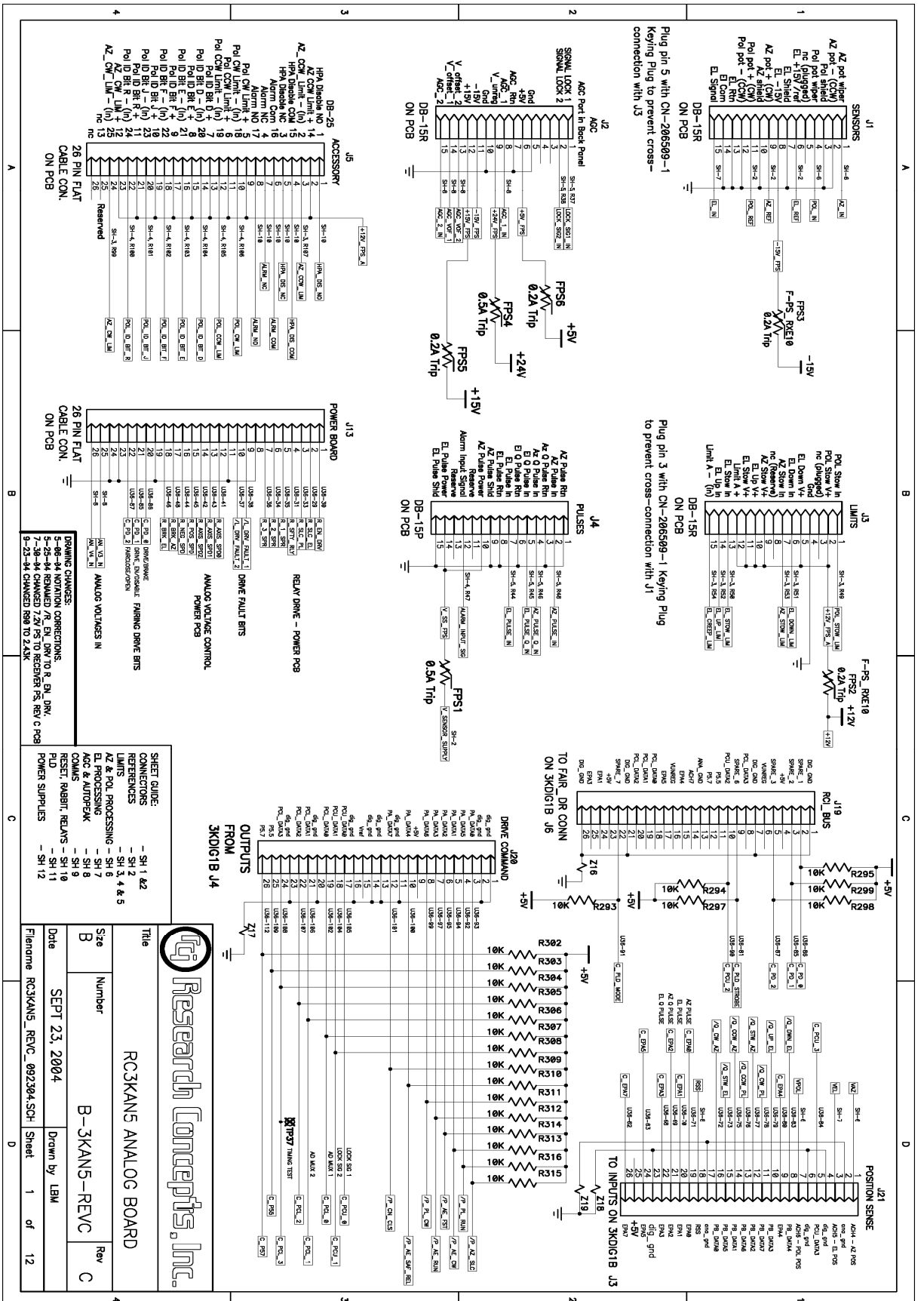


RESEARCH CONCEPTS, INC. B-3KAN5-REVC 8-03-2004

- 339 = IC-LM393AN
- 412 = IC-LF412CN
- 555 = IC-LM555CN
- 662 = IC-LMC662CN
- 2003 = IC-ULN2003
- 2277 = IC-OPA2277
- DG419 = IC-DG419
- DG508 = IC-DG508A
- MAX202 = IC-MAX202E
- MAX489 = IC-MAX489E
- REF02 = IC-REF02

REV	DATE	DESCRIPTION	APPROVED
0	08-03-2004	DRAFT COPY RELEASED	LBM
A	12-14-2004	CHANGED TO LM555CN	LBM

 Research Concepts, Inc. B-3KAN5 REV C IC STUFF GUIDE LBM 400008 REV 1 of 1
--



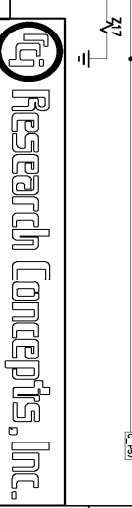
DRAWING CHANGES:

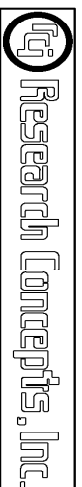
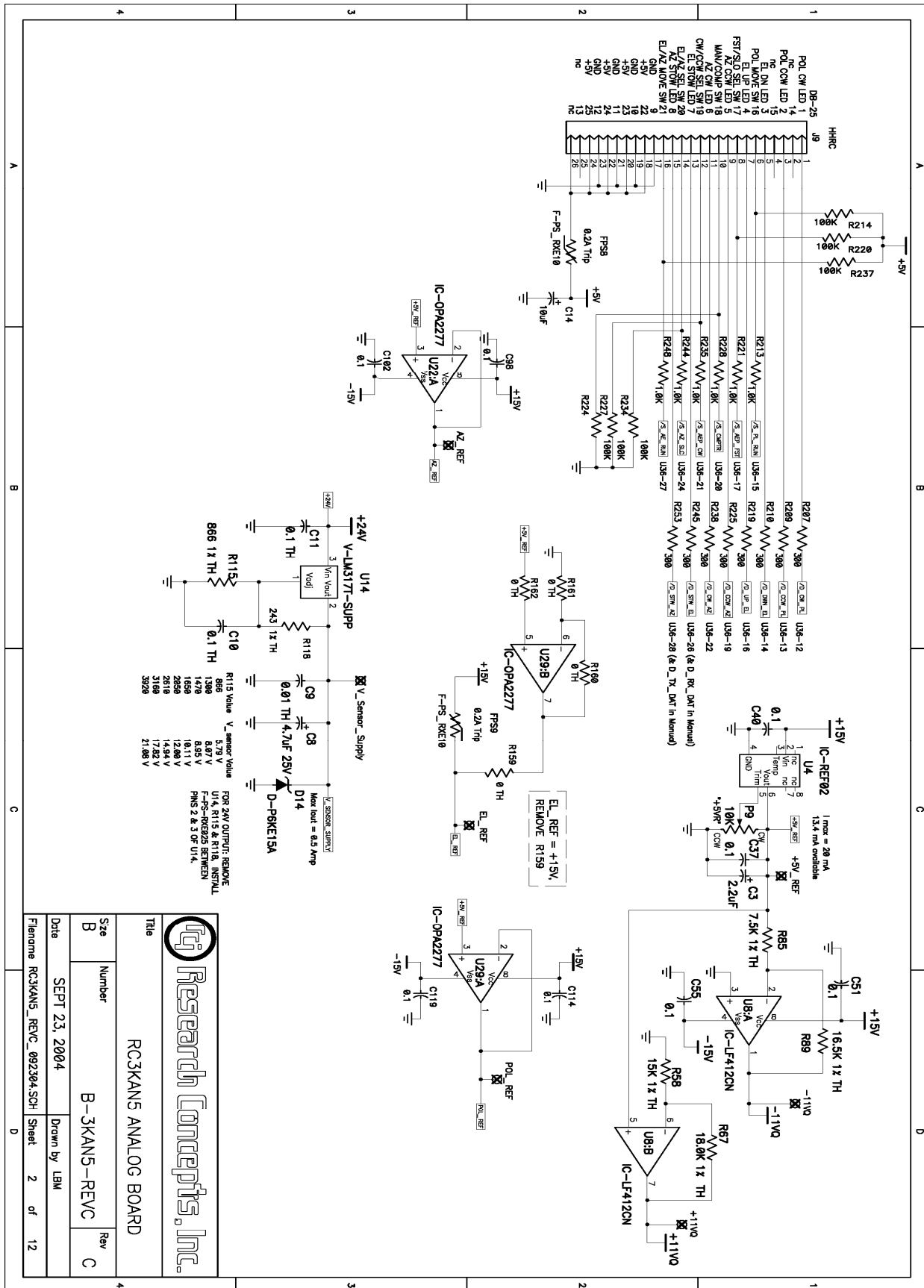
- 3-23-04 NOTATION CORRECTIONS
- 5-22-04 REMOVED J1, J2, J3, J4, J19, J26, J29 FROM C PCB
- 9-23-04 CHANGED R80 TO 2.43K

SHEET GUIDE:

- CONNECTIONS - SH 1 & 2
- REFERENCES - SH 2, 3, 4 & 5
- EL. PROCESSING - SH 8
- ACC. & AUTOPK - SH 9
- COMMS - SH 10
- RESET, ROBBIT, RELAYS - SH 11
- POWER SUPPLIES - SH 12

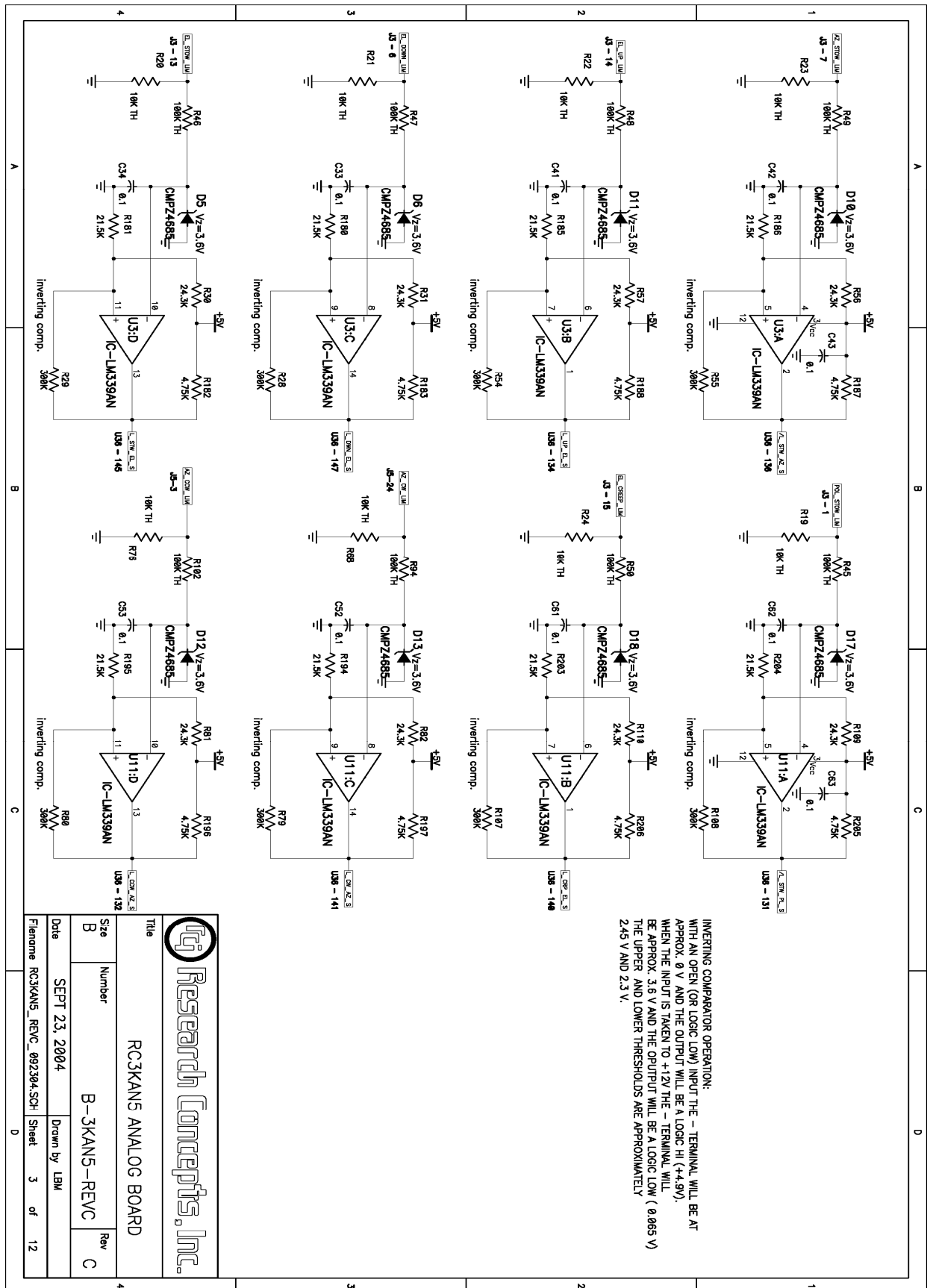
Title		RC3KANS ANALOG BOARD	
Size	Number	B-3KANS-REVC	
Date	Drawn by	LBW	
Filenome		RC3KANS_REV.C_092304.SCH	Sheet 1 of 12





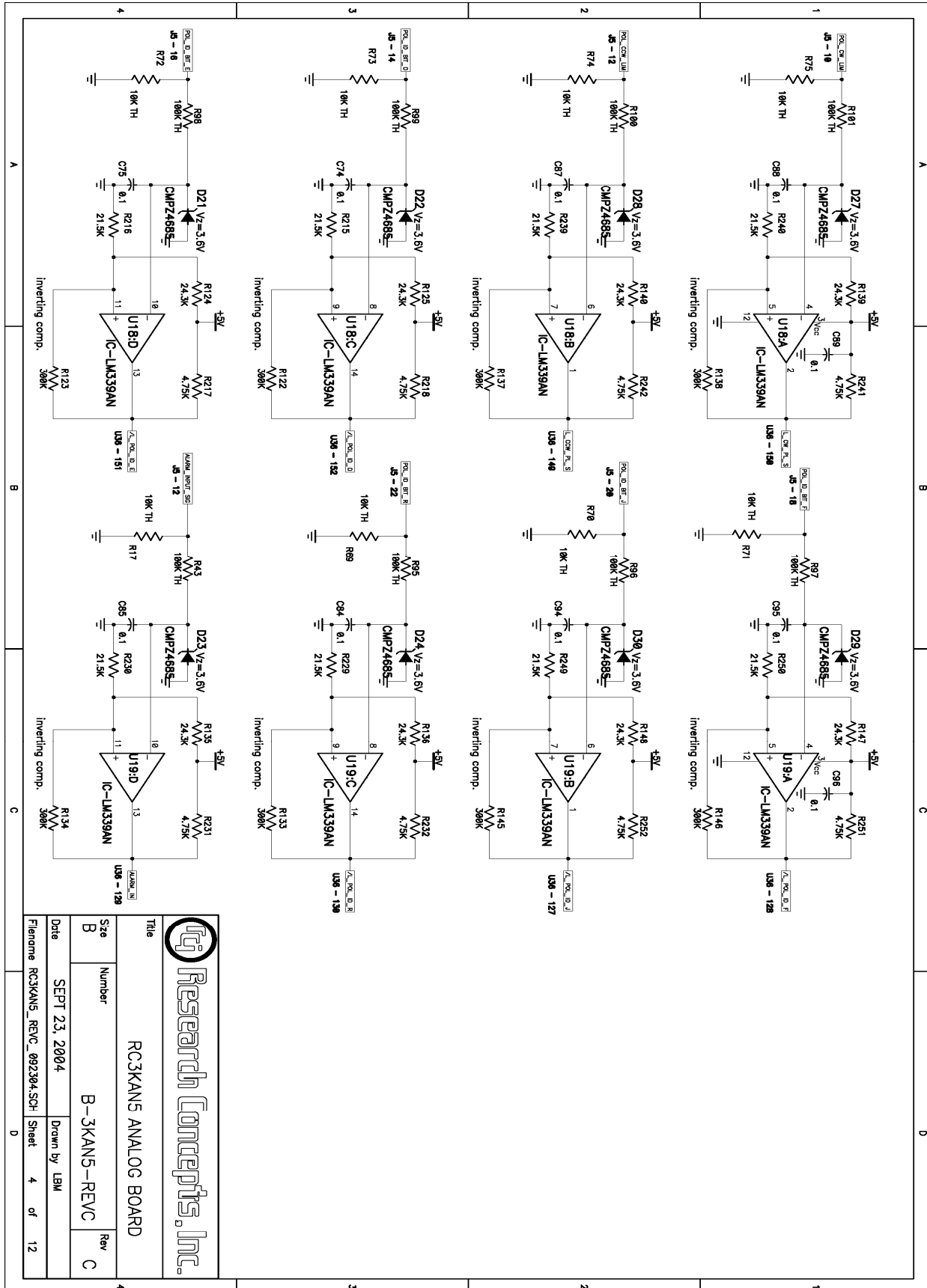
RC3KANS ANALOG BOARD

Title	RC3KANS ANALOG BOARD	
Size	Number	Rev
B	B-3KANS-REVC	C
Date	SEPT 23, 2004	
Drawn by	LBW	
Filename	RC3KANS_REV_C_092304.SCH	
Sheet	2	of 12



INVERTING COMPARATOR OPERATION:
 WITH AN OPEN (OR LOGIC LOW) INPUT THE - TERMINAL WILL BE AT APPROX. 0 V AND THE OUTPUT WILL BE A LOGIC HI (+4.5V). WHEN THE INPUT IS TAKEN TO +12V THE - TERMINAL WILL BE APPROX. 3.6 V AND THE OUTPUT WILL BE A LOGIC LOW (0.065 V). THE UPPER AND LOWER THRESHOLDS ARE APPROXIMATELY 2.45 V AND 2.3 V.

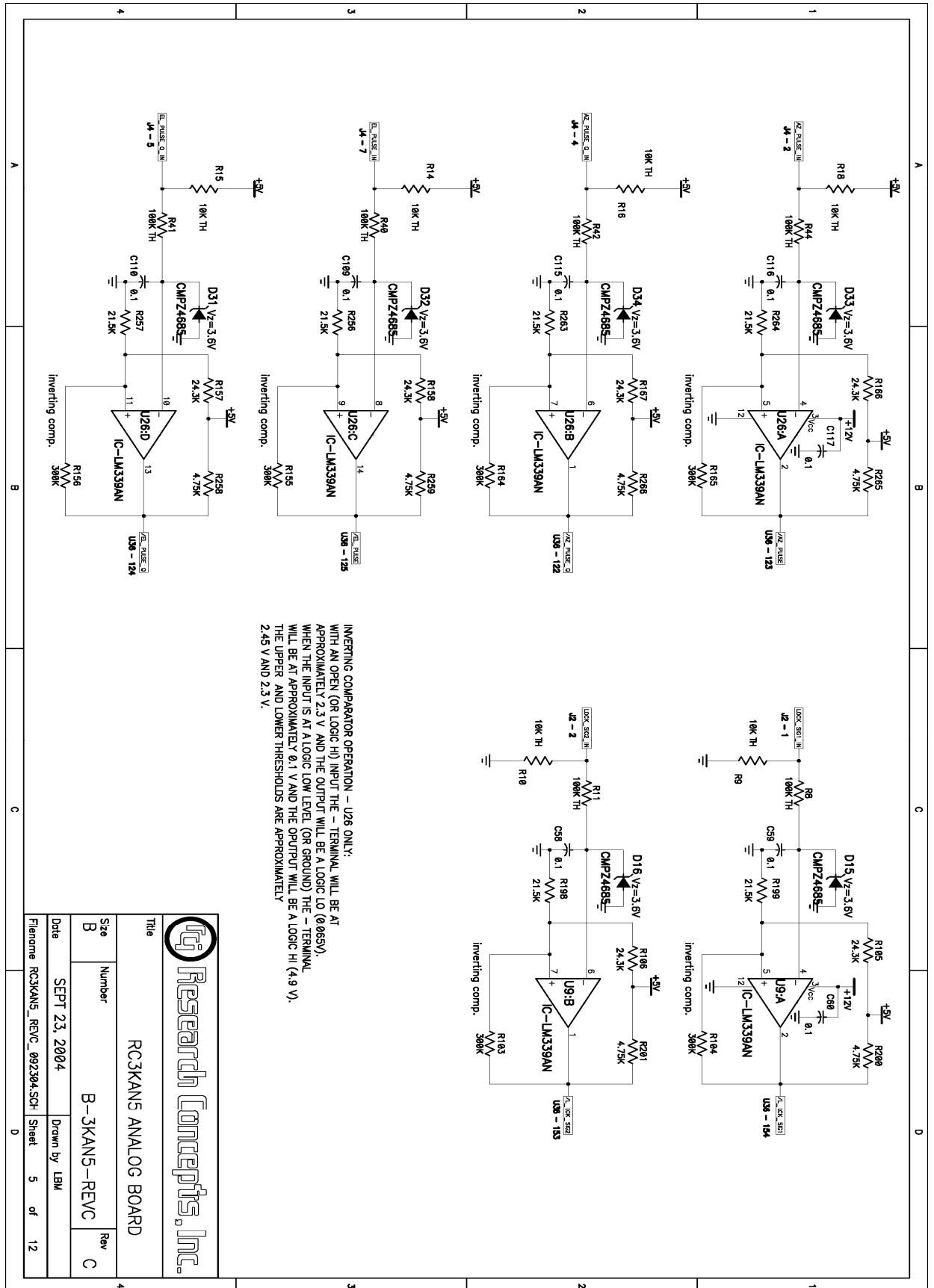
		Title	
		RC3KANS ANALOG BOARD	
Size	Number	Rev	
B		C	
Date	SEPT 23, 2004	Drawn by	LBW
Filename	RC3KANS_REV_C_092304.SCH	Sheet	3 of 12



RC3KANS ANALOG BOARD

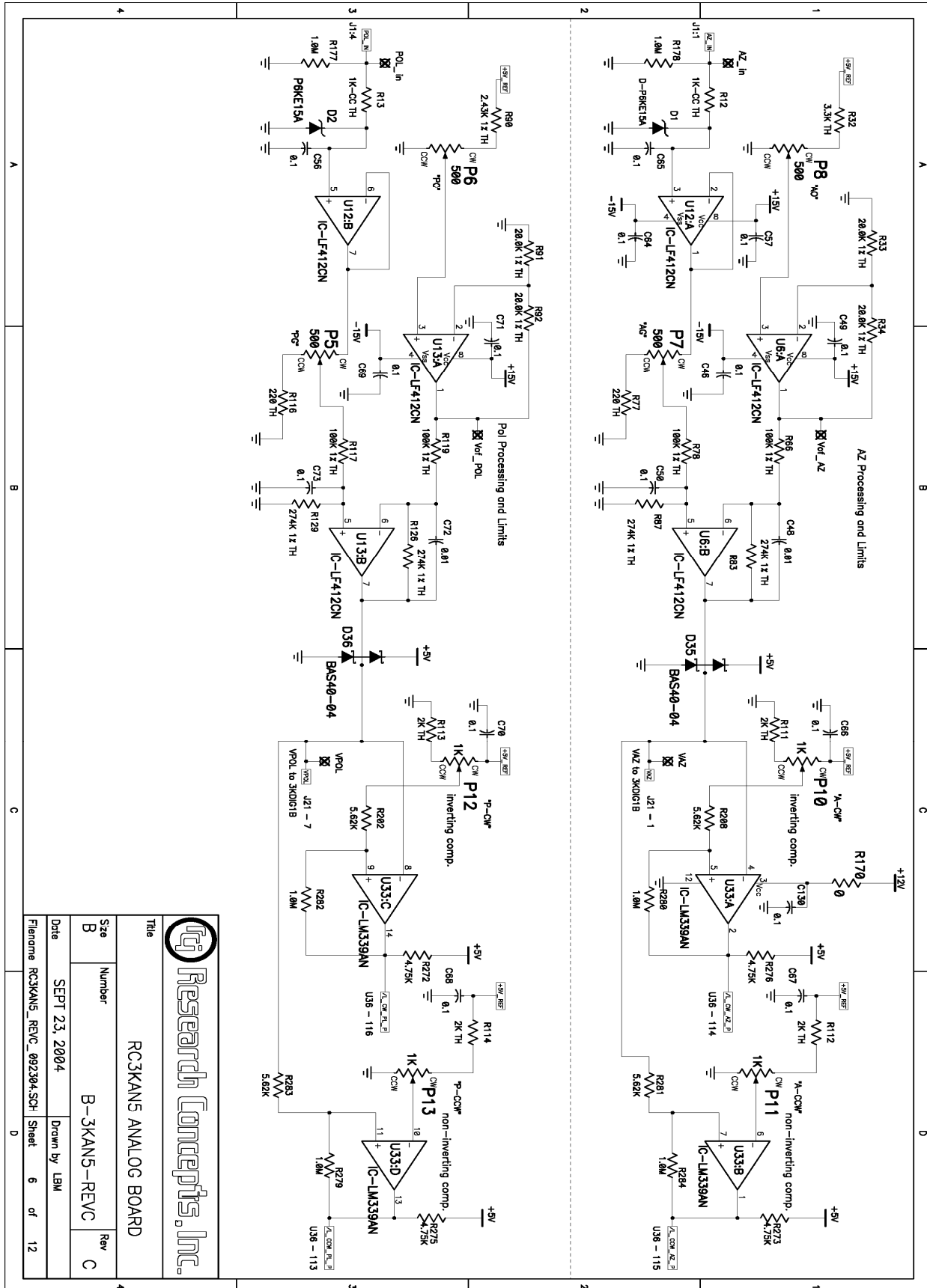
Title	RC3KANS ANALOG BOARD	
Size	Number	Rev
B	B-3KANS-REVC	C

Date	SEPT 23, 2004	Drawn by	LBW
Filename	RC3KANS_REV_092304SCH	Sheet	4 of 12



INVERTING COMPARATOR OPERATION - U26 ONLY:
 WITH AN OPEN (OR LOGIC HI) INPUT THE - TERMINAL WILL BE AT APPROXIMATELY 2.3 V AND THE OUTPUT WILL BE A LOGIC LO (0.065V). WHEN THE INPUT IS AT A LOGIC LOW LEVEL (OR GROUND) THE - TERMINAL WILL BE AT APPROXIMATELY 0.1 V AND THE OUTPUT WILL BE A LOGIC HI (4.9 V). THE UPPER AND LOWER THRESHOLDS ARE APPROXIMATELY 2.45 V AND 2.3 V.

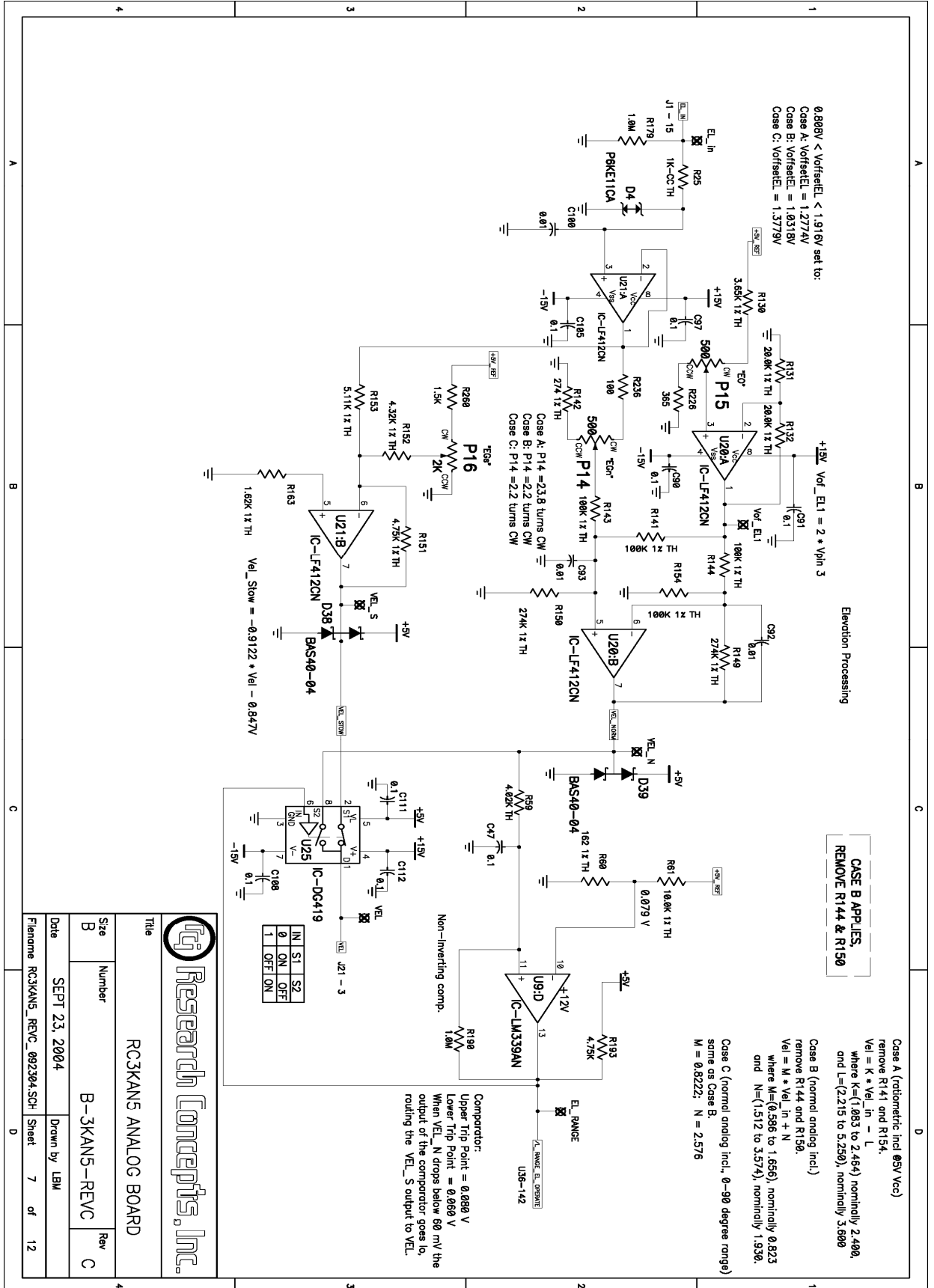
		Title	
		RC3KANS ANALOG BOARD	
Size	Number	Rev	
B	B-3KANS-REVC	C	
Date	SEPT 23, 2004	Drawn by	LBM
Filename	RC3KANS_REV_C_092304.SCH	Sheet	5 of 12



RC3KANS ANALOG BOARD

Title	RC3KANS ANALOG BOARD	
Size	Number	Rev
B	B-3KANS-REVC	C

Date: SEPT 23, 2004
 Drawn by: LBM
 Filename: RC3KANS_REV_C_092304.SCH Sheet 6 of 12



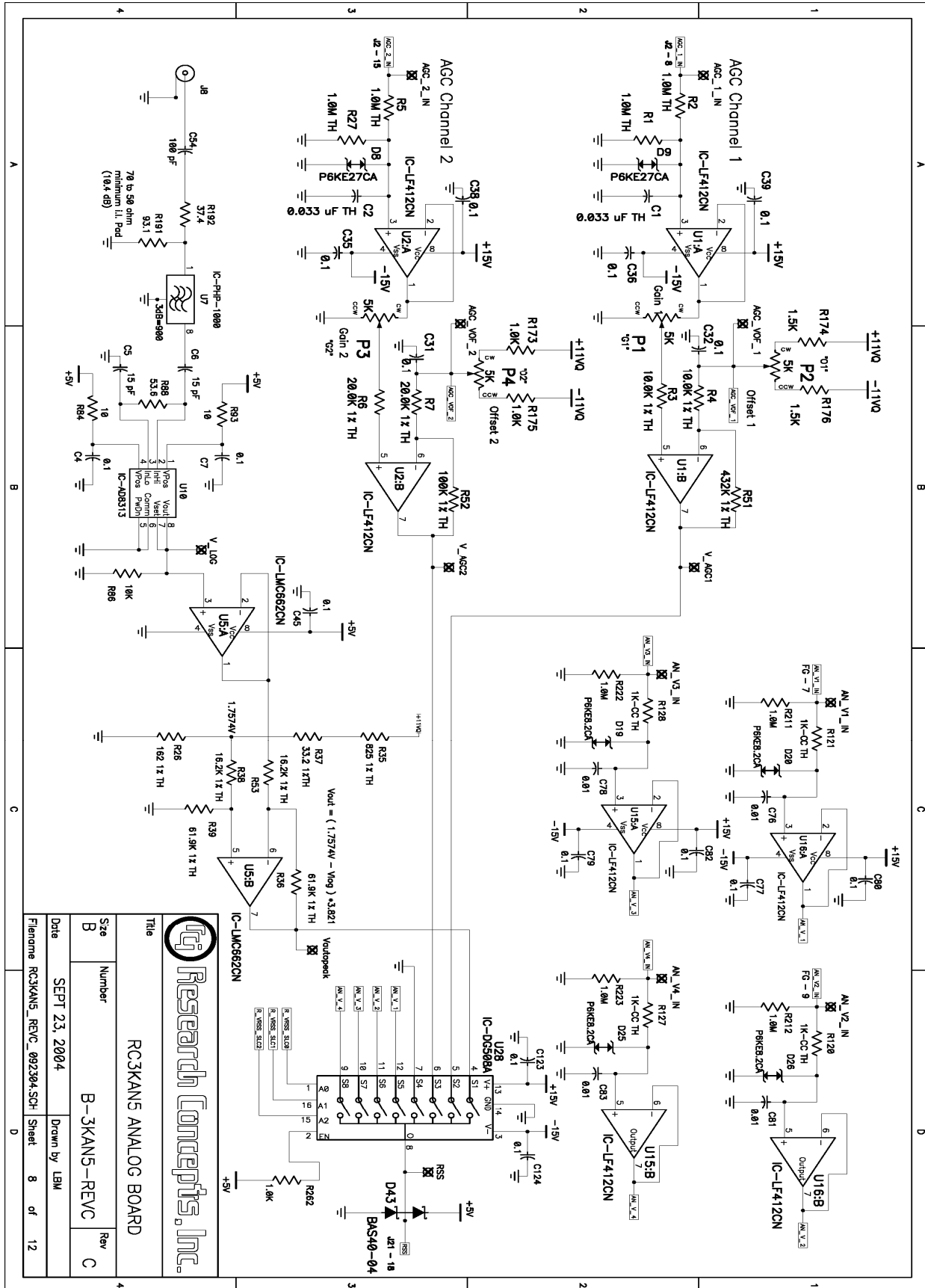
Research Concepts, Inc.

Title: RC3KANS ANALOG BOARD

Size: B Number: B-3KANS-REVC Rev: C

Date: SEPT 23, 2004 Drawn by: LBW

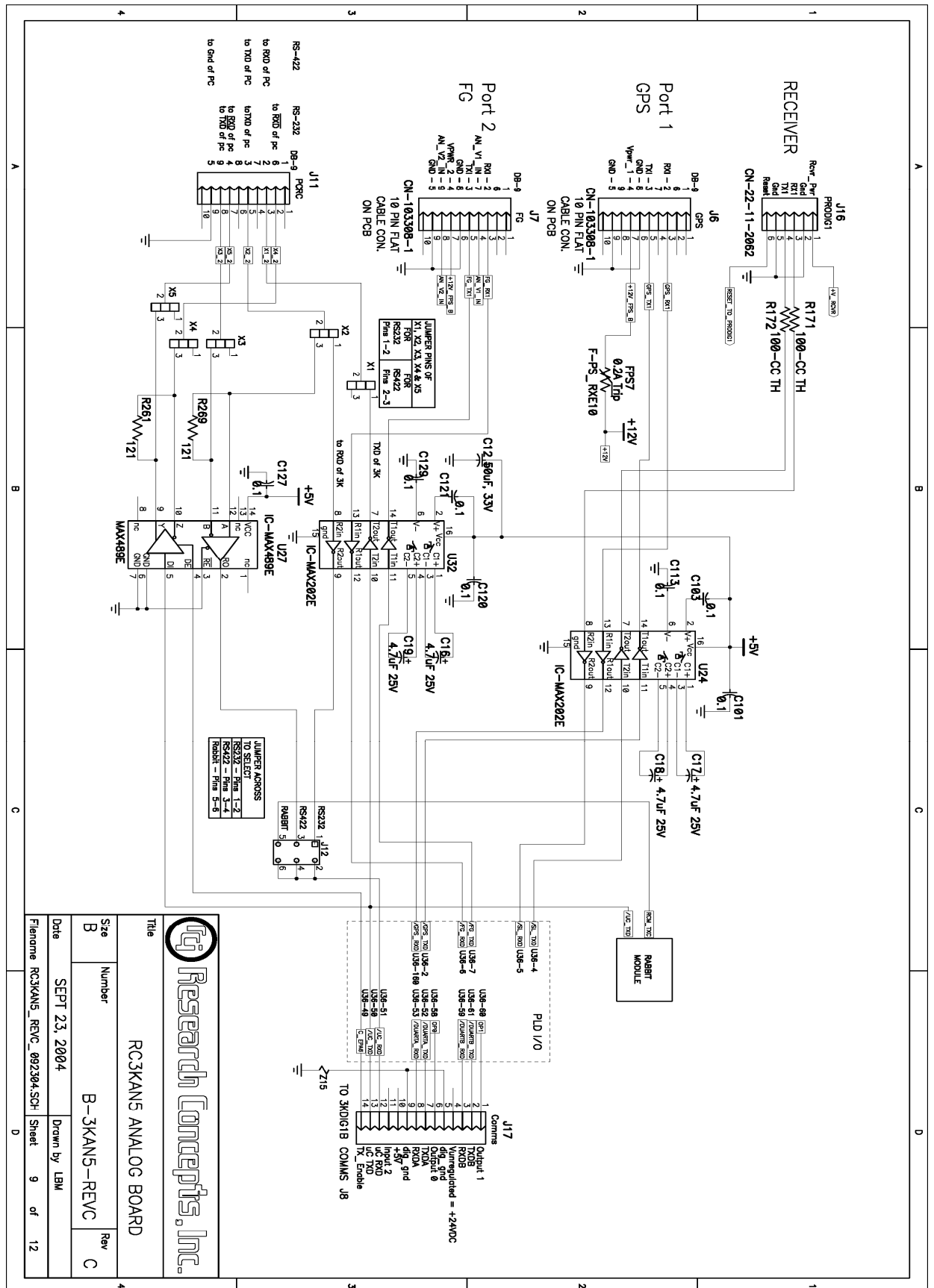
Filename: RC3KANS_REV_C_092304.SCH Sheet: 7 of 12




Research Concepts, Inc.

RC3KANS ANALOG BOARD

Title	RC3KANS ANALOG BOARD	
Size	Number	Rev
B	B-3KANS-REVC	C
Date	SEPT 23, 2004	Drawn by
		LBW
Filename	RC3KANS_REV_C_092304-SCH	Sheet
		8
		of
		12





Research Concepts, Inc.

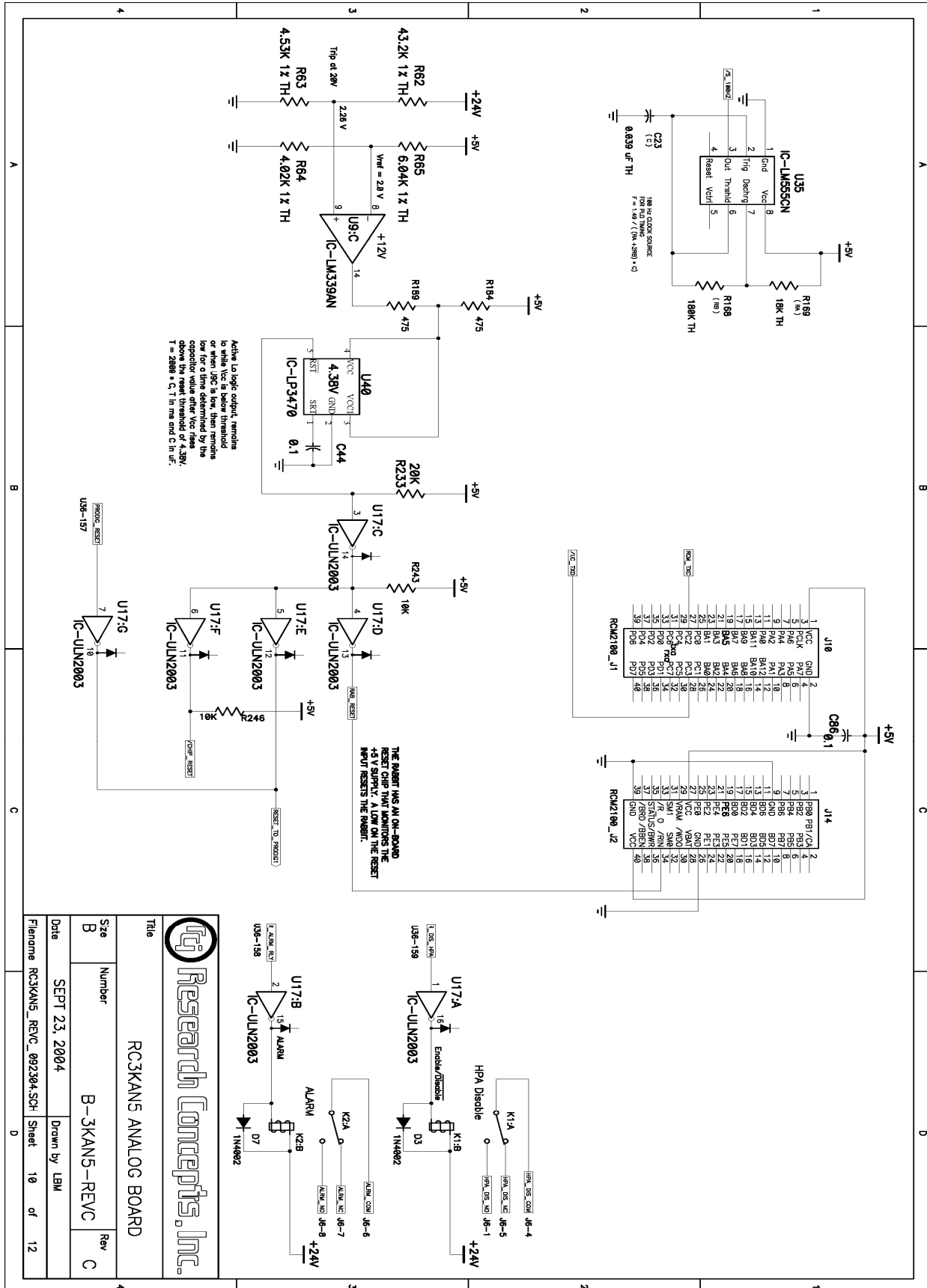
RC3KANS ANALOG BOARD

Size	Number	Rev	C
B	B-3KANS-REVC		

Title: RC3KANS ANALOG BOARD

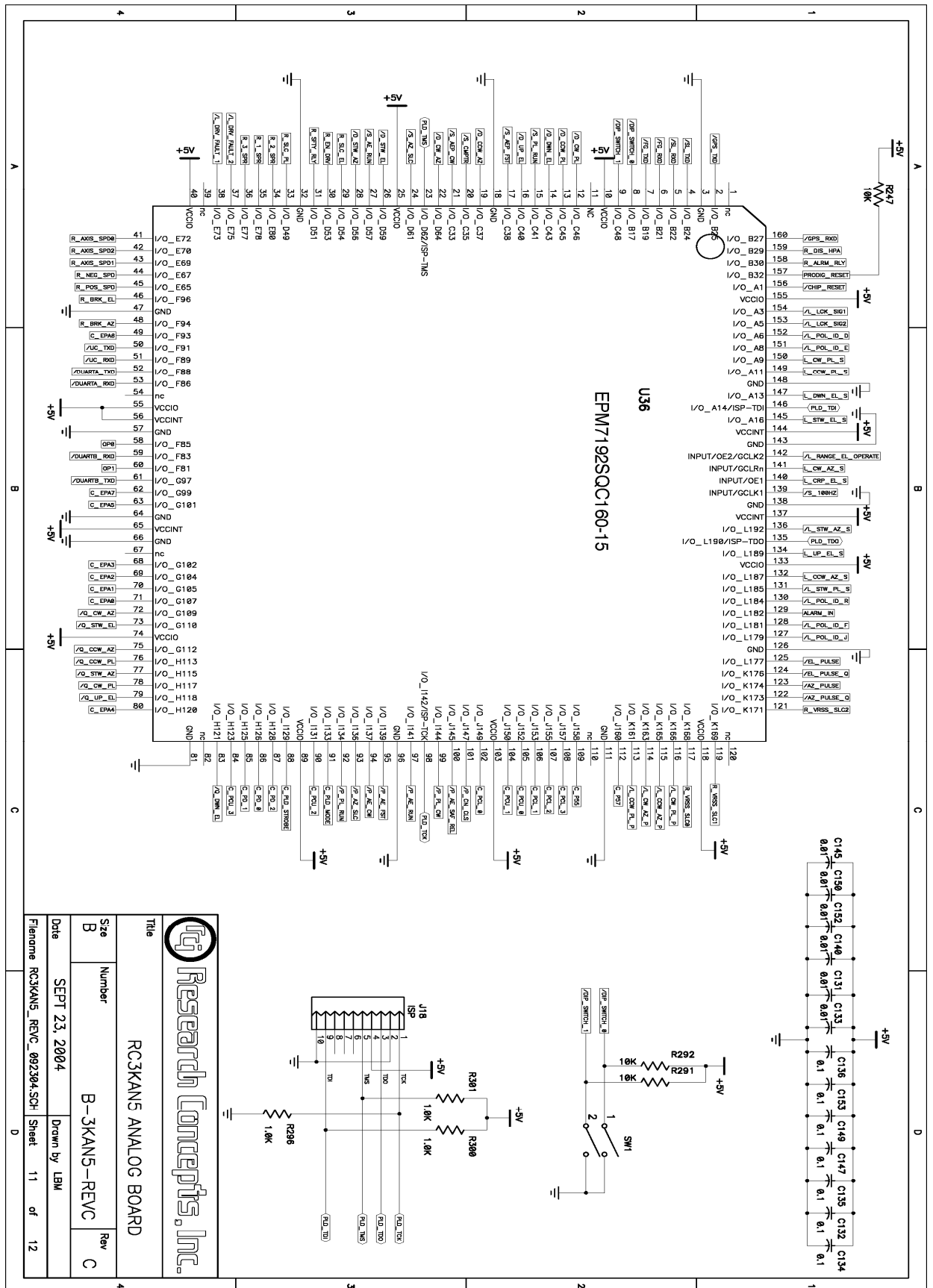
Date: SEPT 23, 2004 Drawn by: LBM

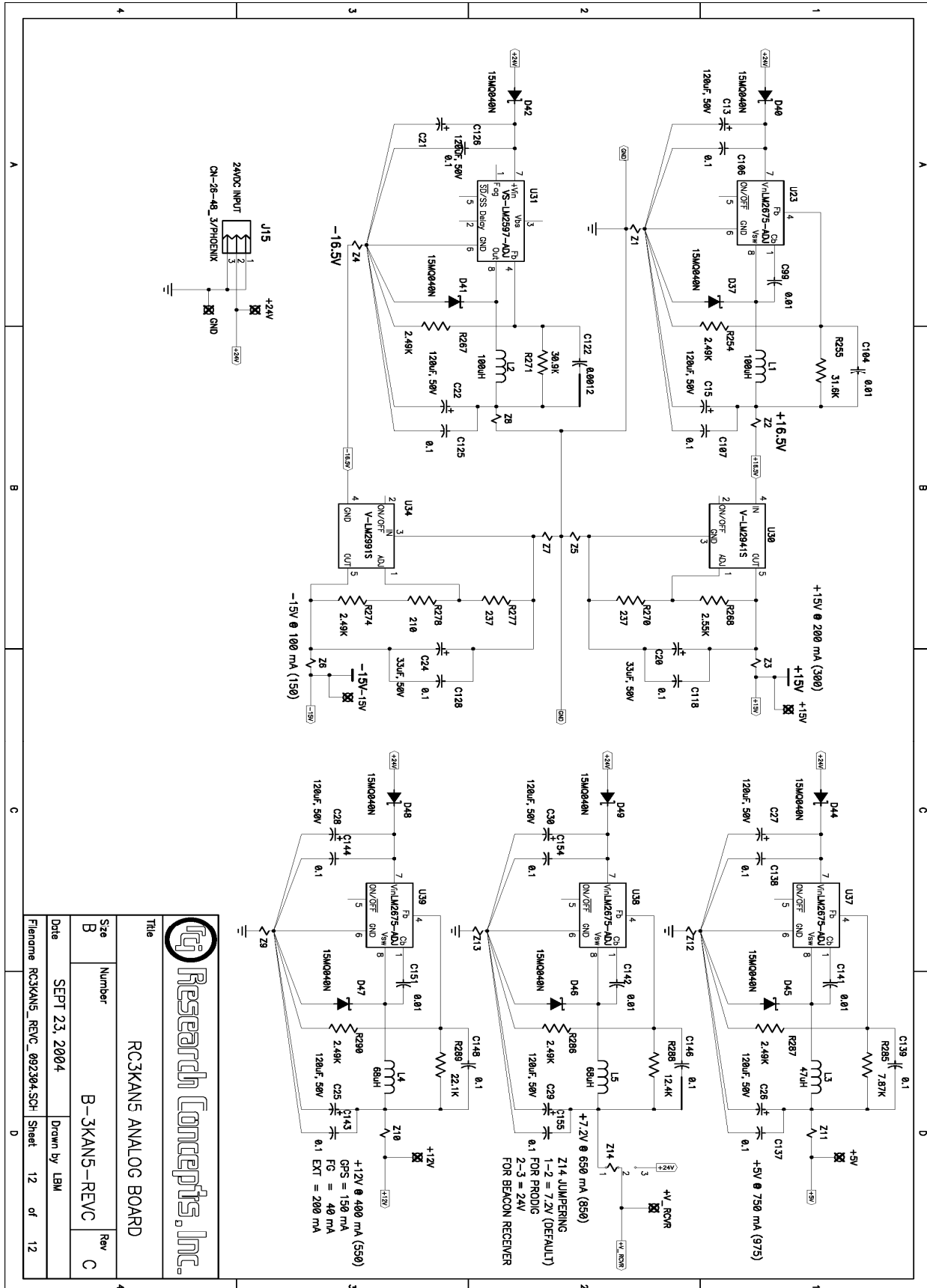
Filename: RC3KANS_REV_C_092304.SCH Sheet 9 of 12



RC3KANS ANALOG BOARD

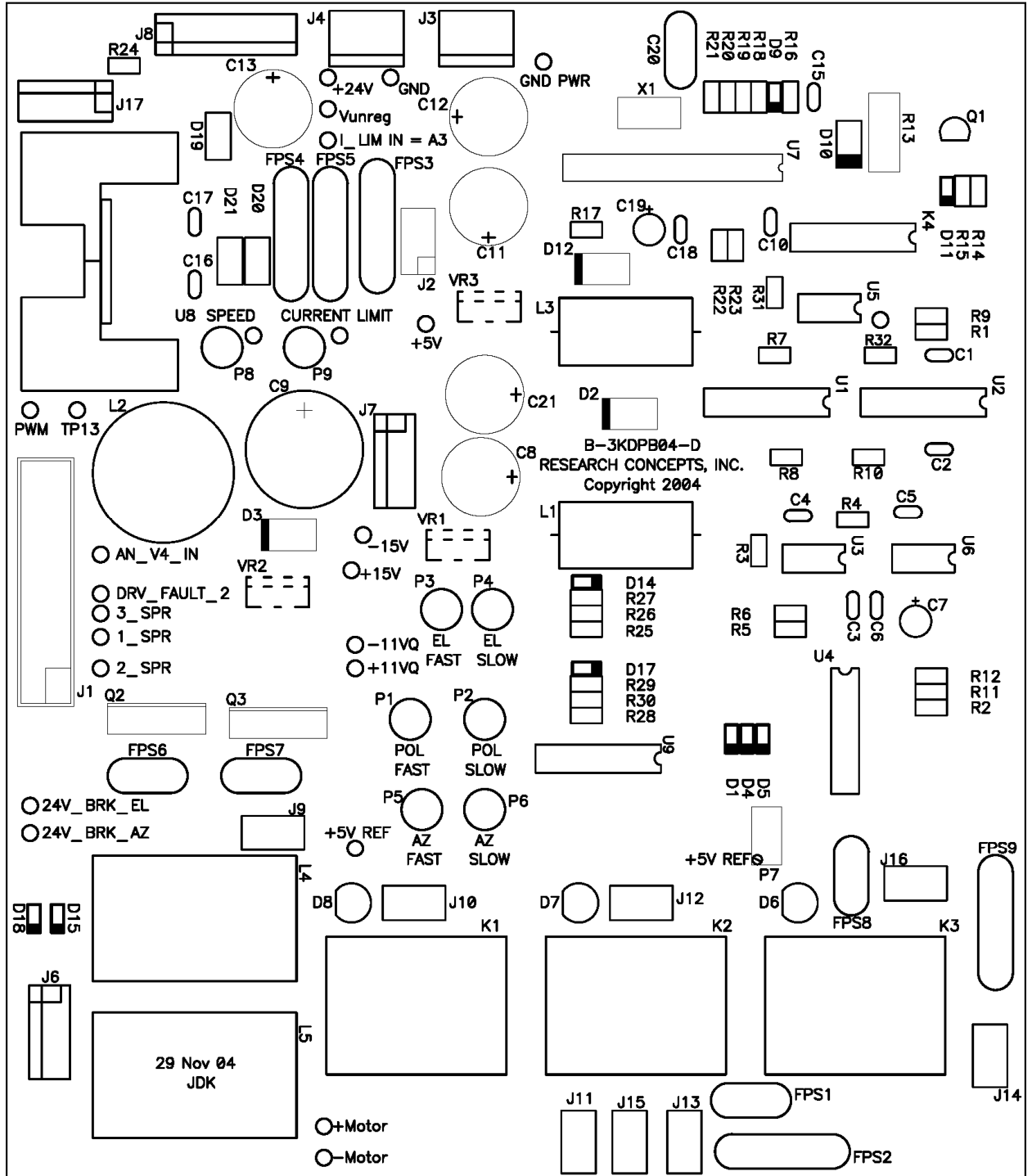
Title	RC3KANS ANALOG BOARD	
Size	Number	Rev
B	B-3KANS-REVC	C
Date	SEPT 23, 2004	Drawn by LBM
Filename	RC3KANS_REV_C_092304+SCH	Sheet 10 of 12



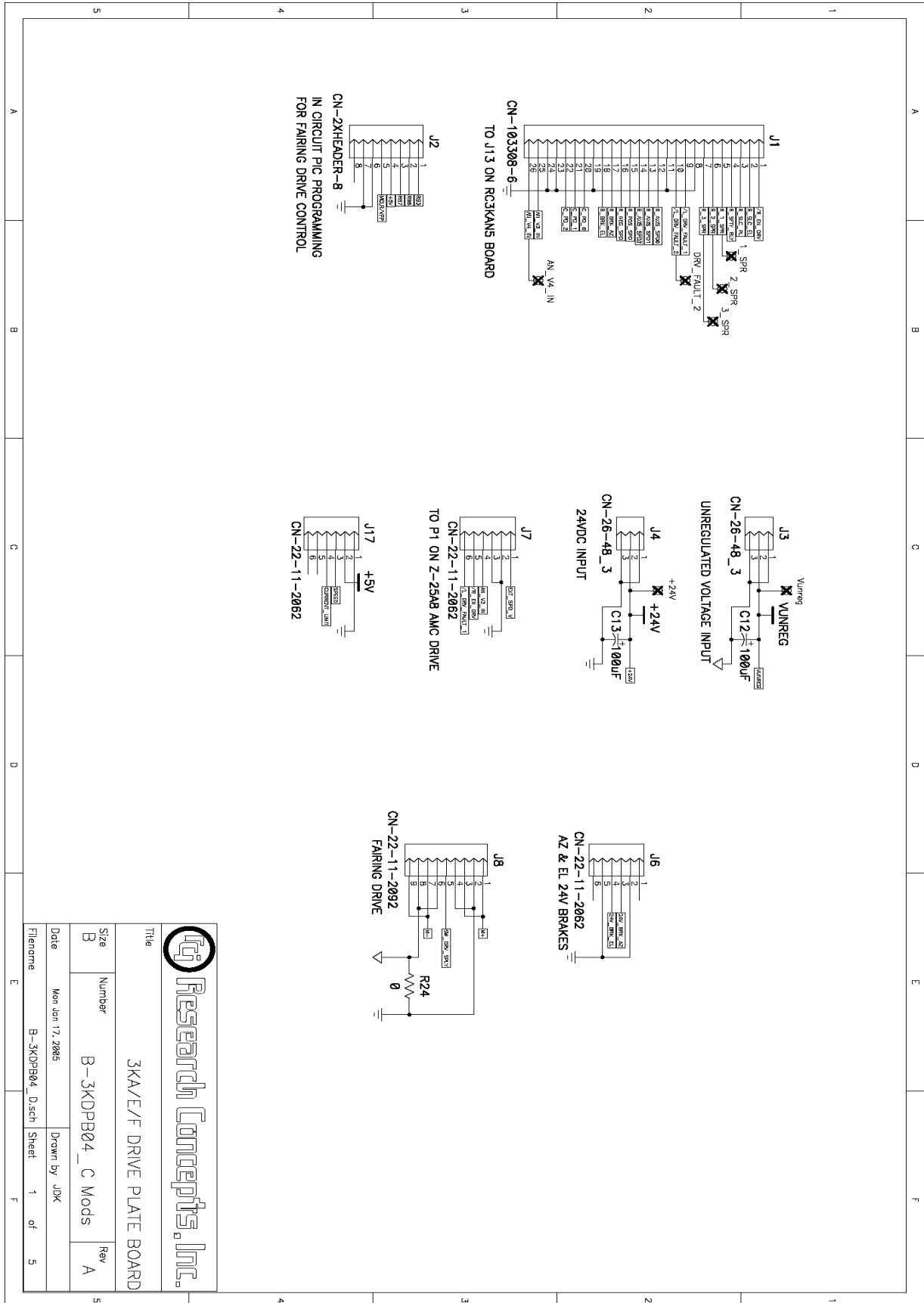


RC3KANS ANALOG BOARD

Title	RC3KANS ANALOG BOARD	
Size	Number	Rev
B	B-3KANS-REVC	C
Date	SEPT 23, 2004	Drawn by
Filename	RC3KANS_REV_C_092304SCH	Sheet
	12	of
		12



DRIVE BOARD TOP SILK

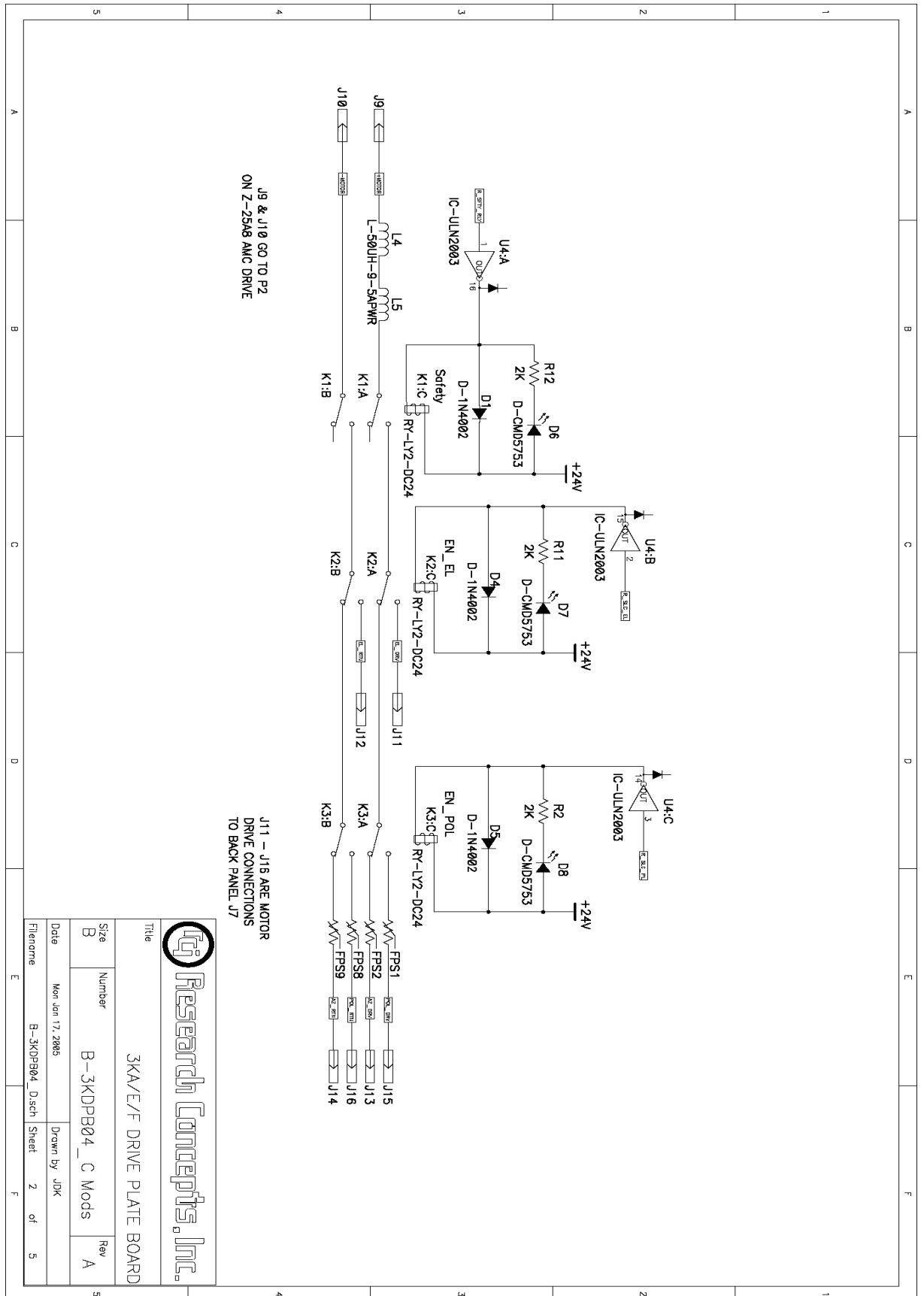


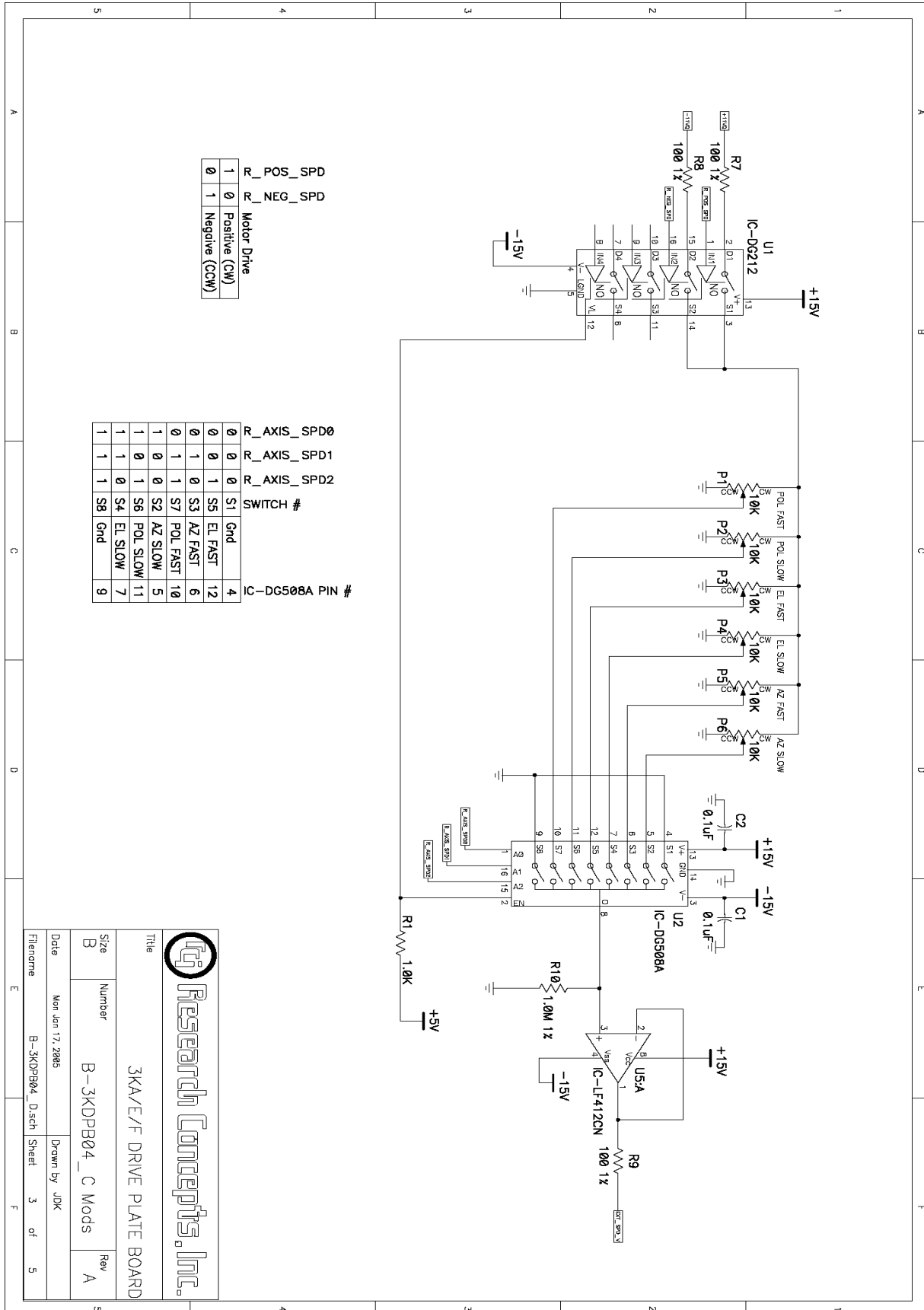
Research Concepts, Inc.

3KAVE/F DRIVE PLATE BOARD

Title	Size	Number	Rev
	B	B-3KDPB04_C Mods	A

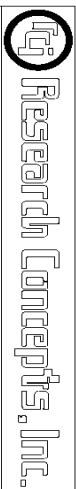
Date	Filename	Drawn by	Sheet	of
Mon Jan 17, 2005	B-3KDPB04_D.sch	JDK	1	5





1	R_POS_SPD	Motor Drive
0	R_NEG_SPD	Positive (CW)
0	1	Negative (CCW)

0	0	0	0	S1	Gnd	4
0	0	1	S3	EL FAST	12	
0	1	0	S3	AZ FAST	6	
0	1	1	S7	POL FAST	10	
1	0	0	S2	AZ SLOW	5	
1	0	1	S6	POL SLOW	11	
1	1	0	S4	EL SLOW	7	
1	1	1	S8	Gnd	9	

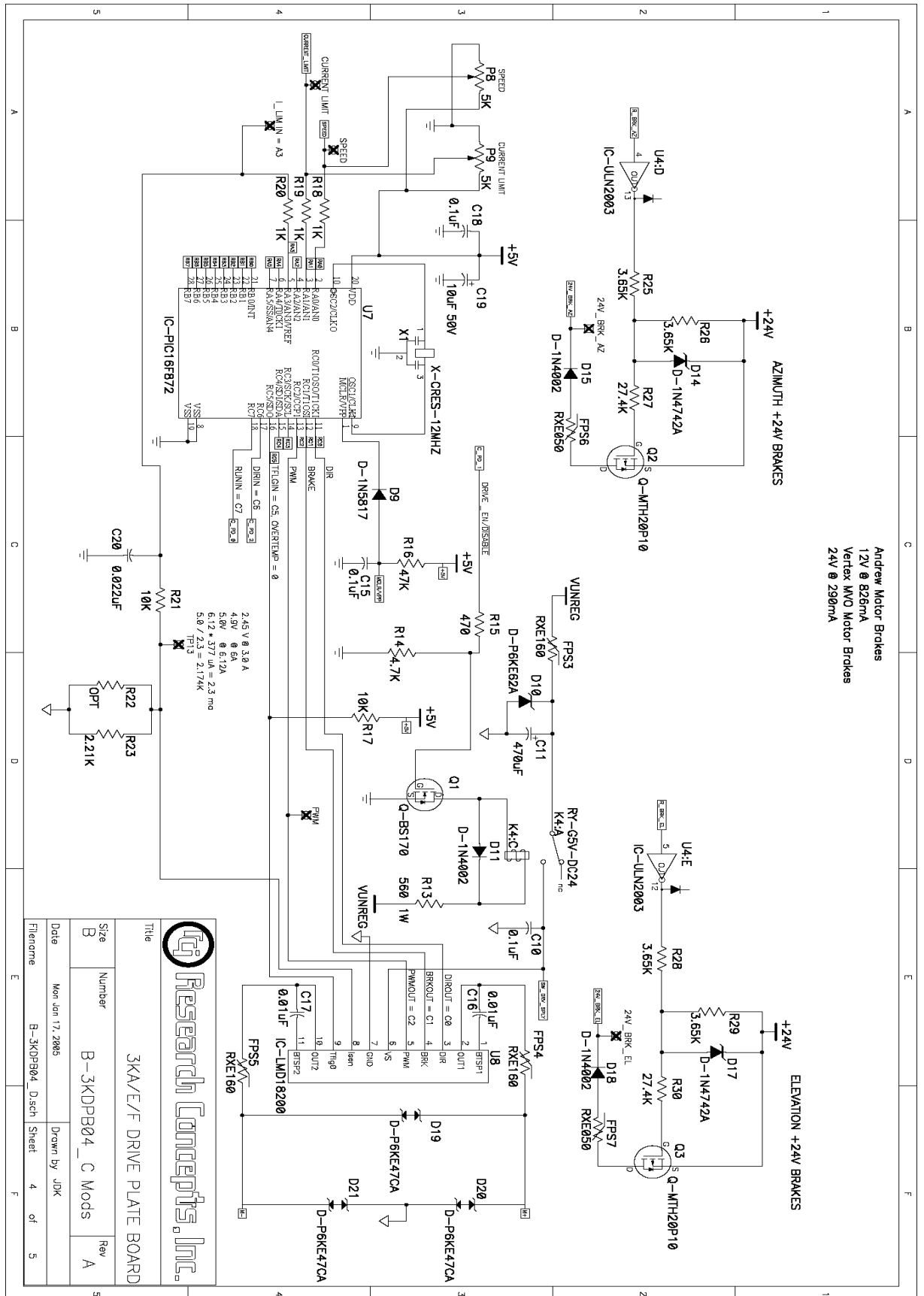


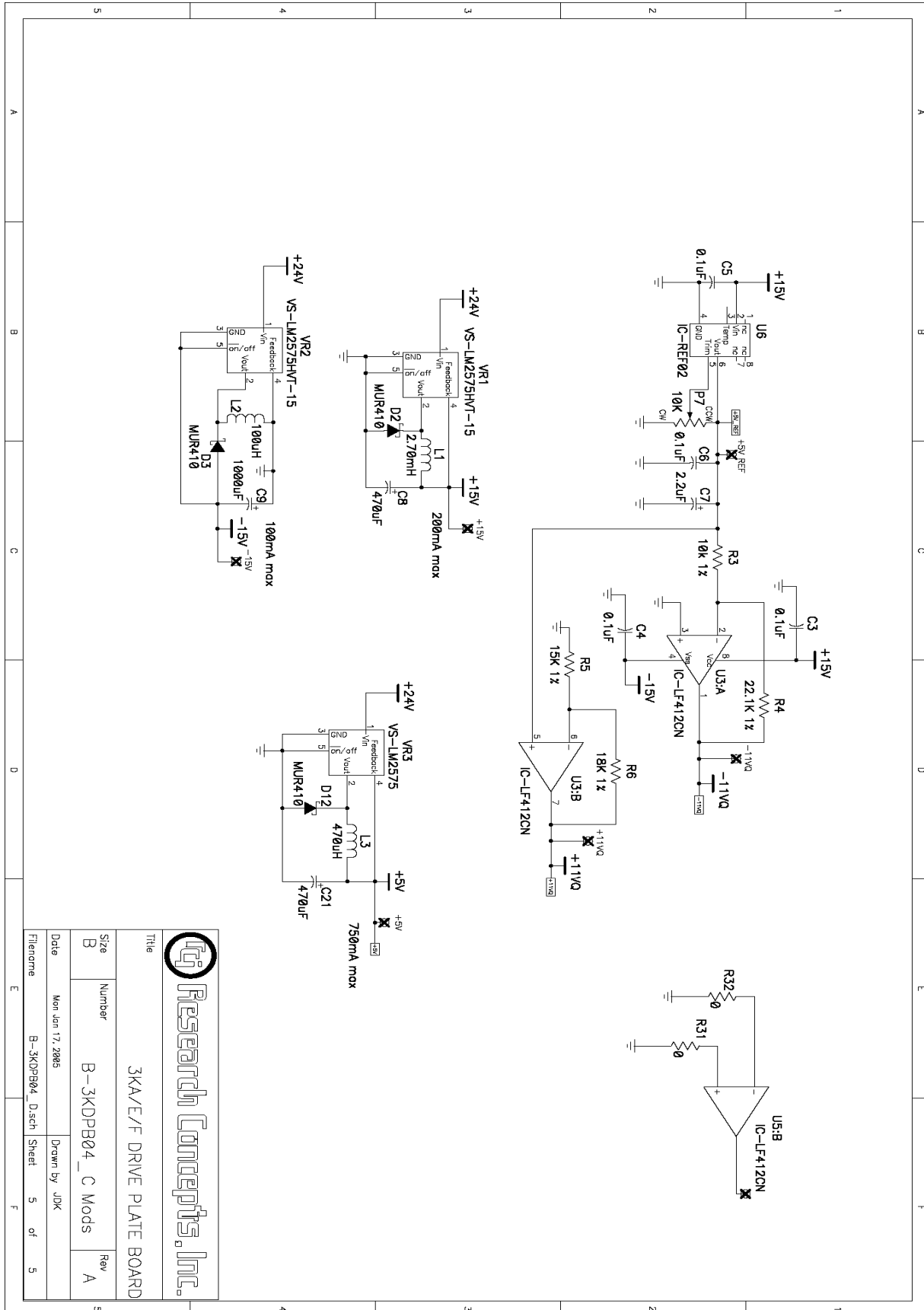
3KAE/F DRIVE PLATE BOARD

Size B Number B-3KDPB04_C Mods Rev A

Date Mon Jan 17, 2005 Drawn by JJK

Filename B-3KDPB04_D.sch Sheet 3 of 5



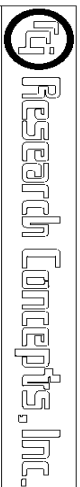
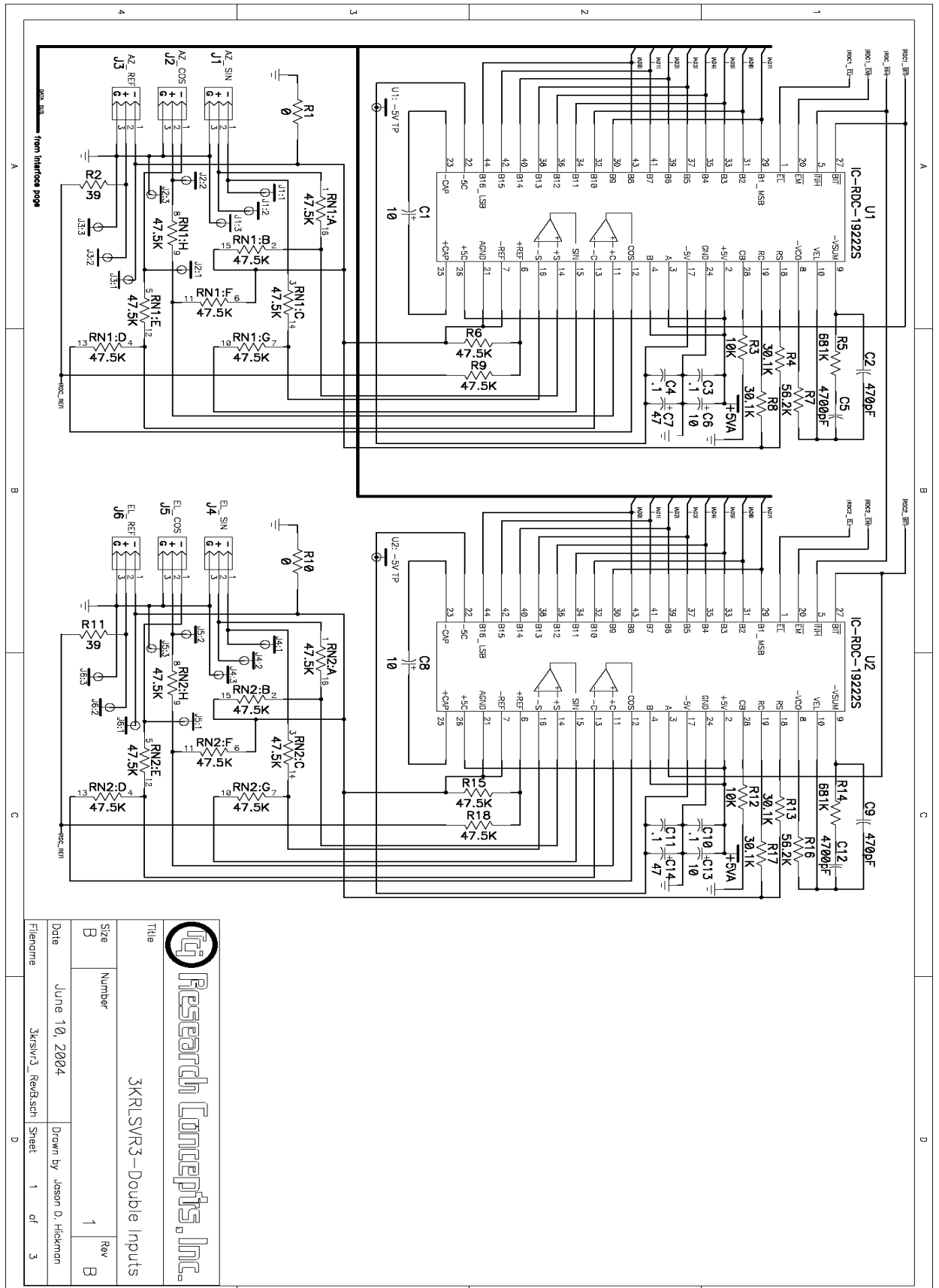


Research Concepts, Inc.

3KAE/F DRIVE PLATE BOARD

Title	3KAE/F DRIVE PLATE BOARD	
Size	Number	Rev
B	B-3KDPB04_C Mods	A

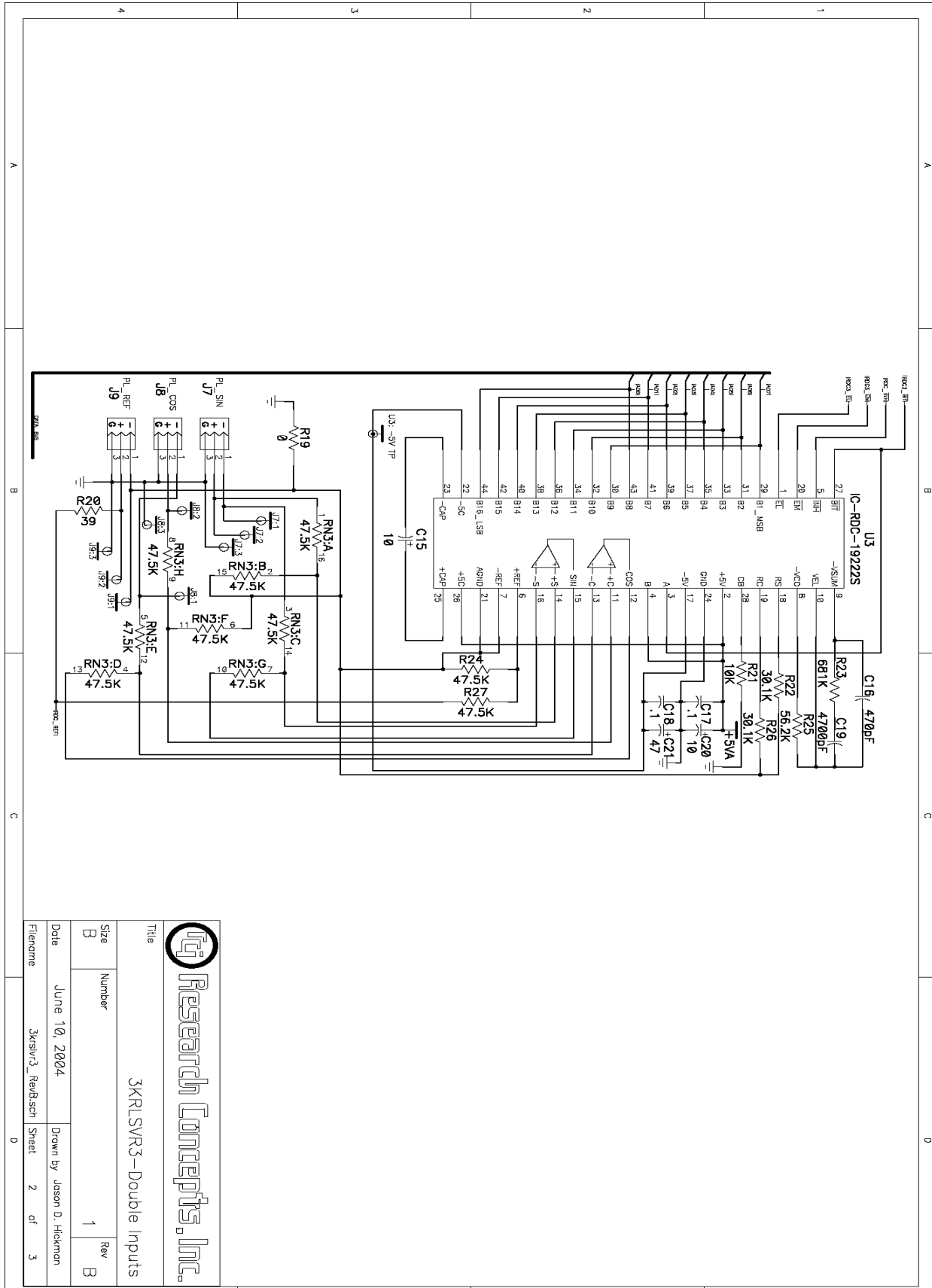
Date	Mon Jan 17, 2005	Drawn by	JDK
Filename	B-3KDPB04_D.sch	Sheet	5 of 5



3KR1SVR3-Double Inputs

Title	3KR1SVR3-Double Inputs		
Size	Number	Rev	
B	1	B	

Date	June 10, 2024	Drawn by	Jason D. Hickman
Filename	3krsvr3_RevB.sch	Sheet	1 of 3

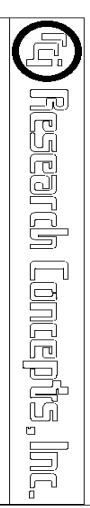
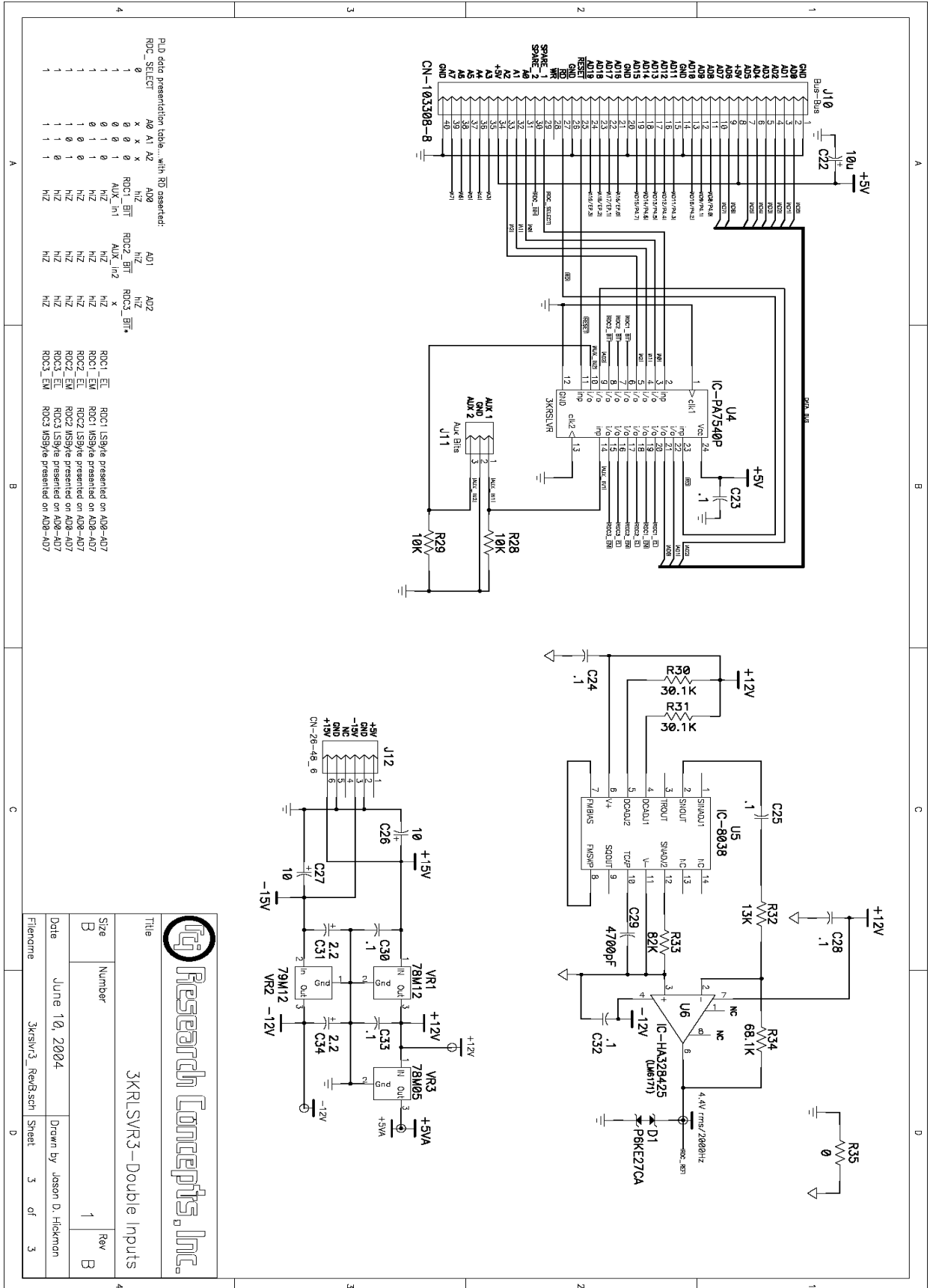


Research Concepts, Inc.

3KRLSVR3-Double Inputs

Title	Size	Number	Rev
3KRLSVR3-Double Inputs	B	1	B

Date: June 10, 2004
 Drawn by: Jason D. Hickman
 Filename: 3KRLSVR3_RevB.sch Sheet 2 of 3



3KRSVLR3-Double Inputs

Title	Size	Number	Rev
3KRSVLR3-Double Inputs	B	1	B

Date	Drawn By	Sheet	of
June 10, 2004	Jason D. Hickman	3	3

Filename: 3KRSVLR3_RevB.sch