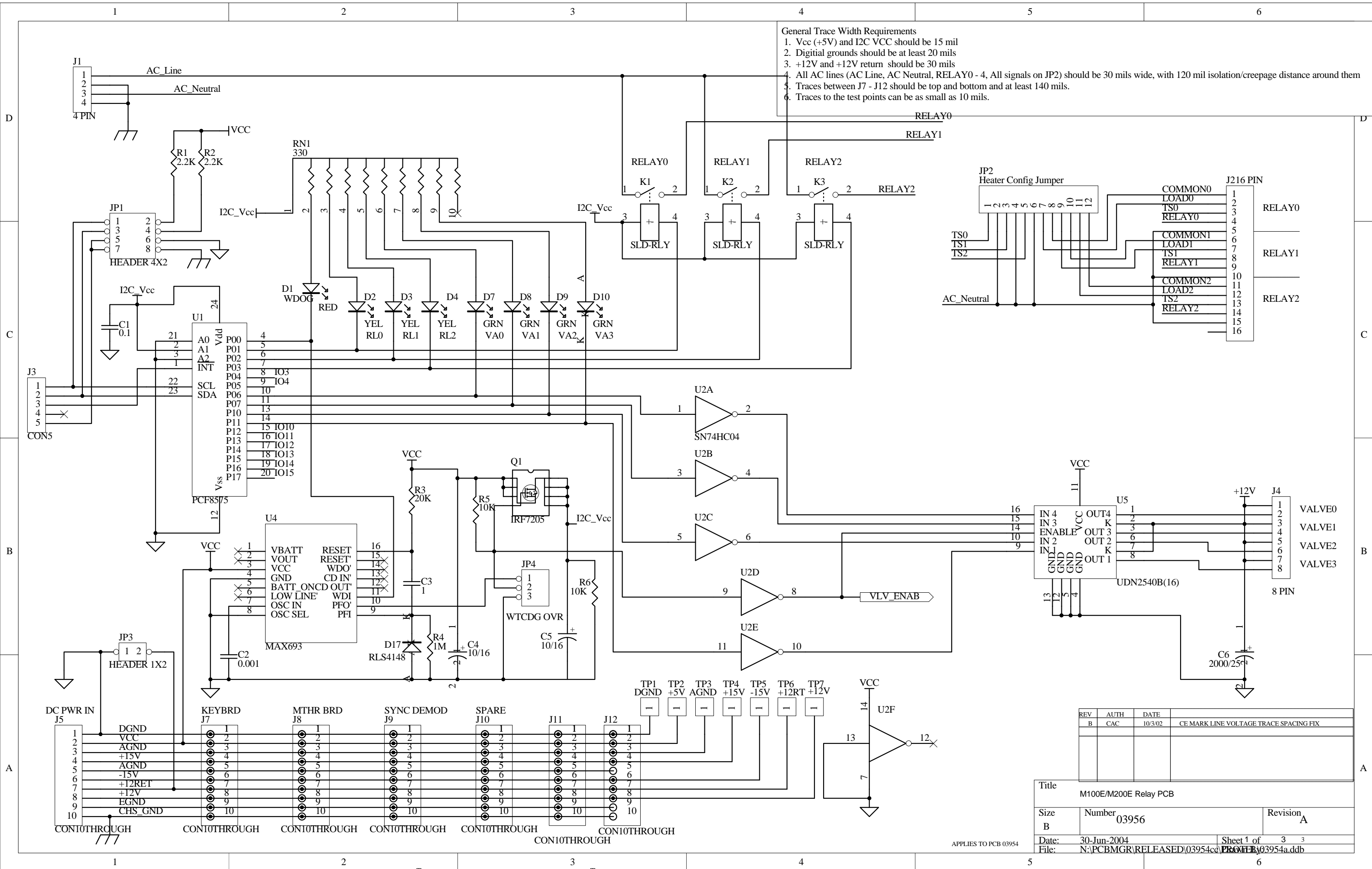


APPENDIX D - ELECTRONIC SCHEMATICS

Table D-1: List of Included Electronic Schematics

DOCUMENT #	DOCUMENT TITLE
03956	PCA, 03955, Relay Driver
02173	PCA, 02172, Pressure Flow Sensor Board
05703	PCA, 05702, Motherboard, E-Series Gen 4
04181	PCA, 04180, PMT Preamp
04259	PCA, 04258, Keyboard Display Interface
01312	PCA, 04120, UV Detector Preamp
04693	PCA, UV Lamp Driver, M100EH
04932	PCA, Thermo-Electric Cooler Board
04468	PCA, Analog Output Series Res

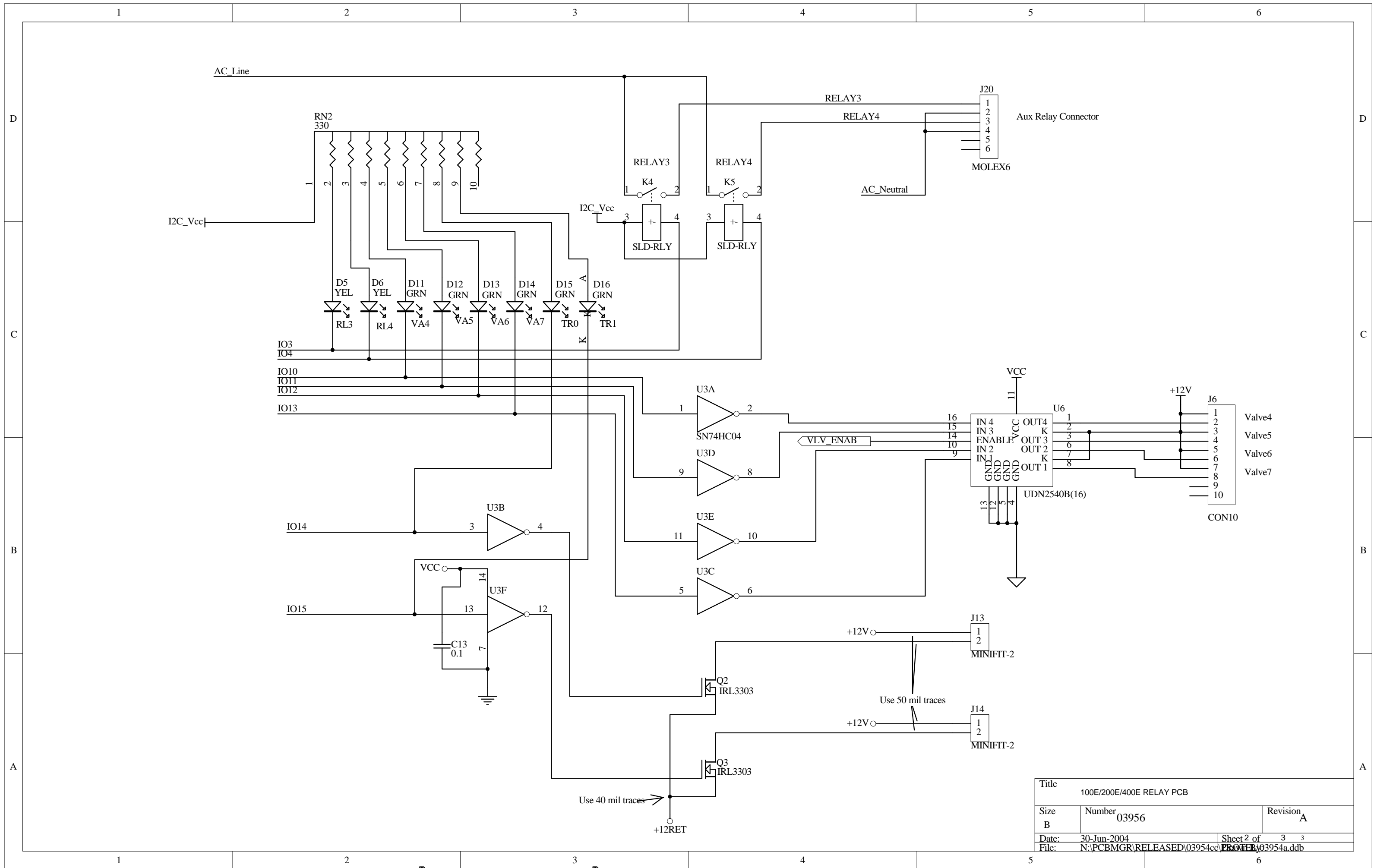
- General Trace Width Requirements
1. Vcc (+5V) and I2C VCC should be 15 mil
 2. Digital grounds should be at least 20 mils
 3. +12V and +12V return should be 30 mils
 4. All AC lines (AC Line, AC Neutral, RELAY0 - 4, All signals on JP2) should be 30 mils wide, with 120 mil isolation/creepage distance around them
 5. Traces between J7 - J12 should be top and bottom and at least 140 mils.
 6. Traces to the test points can be as small as 10 mils.



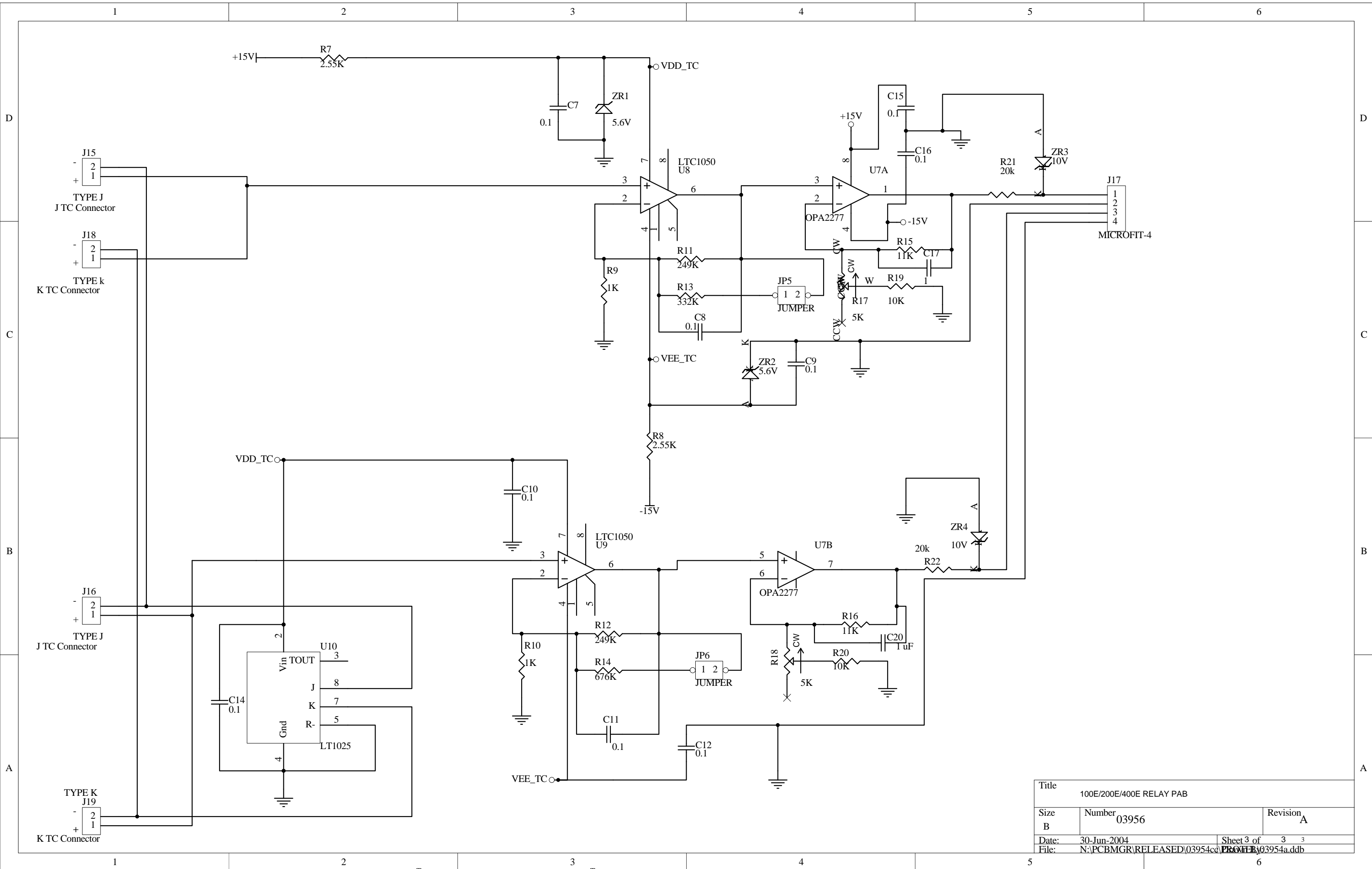
REV	AUTH	DATE	DESCRIPTION
B	CAC	10/3/02	CE MARK LINE VOLTAGE TRACE SPACING FIX

Title			M100E/M200E Relay PCB		
Size	Number	Revision			
B	03956	A			
Date:	30-Jun-2004	Sheet 1 of	3	3	
File:	N:\PCBMGR\RELEASED\03954.ddb				

APPLIES TO PCB 03954



Title		100E/200E/400E RELAY PCB	
Size	Number	Revision	
B	03956	A	
Date:	30-Jun-2004	Sheet 2 of	3 3
File:	N:\PCBMGR\RELEASED\03954a.ddb		



Title	100E/200E/400E RELAY PAB	
Size	Number	Revision
B	03956	A
Date:	30-Jun-2004	Sheet 3 of 3
File:	N:\PCBMGR\RELEASED\03954a.ddb	

1 2 3 4 5 6

D

D

C

C

B

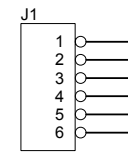
B

A

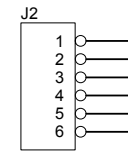
A

1 2 3 4 5 6

SENSYM ASCX
PRESSURE XDUCER

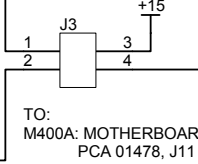


SENSYM ASCX
PRESSURE XDUCER



P1

P2



+15

TO:
M400A: MOTHERBOARD
PCA 01478, J11

+15



R1

1.1 K

2

1

3

4

5

6

7

8

9

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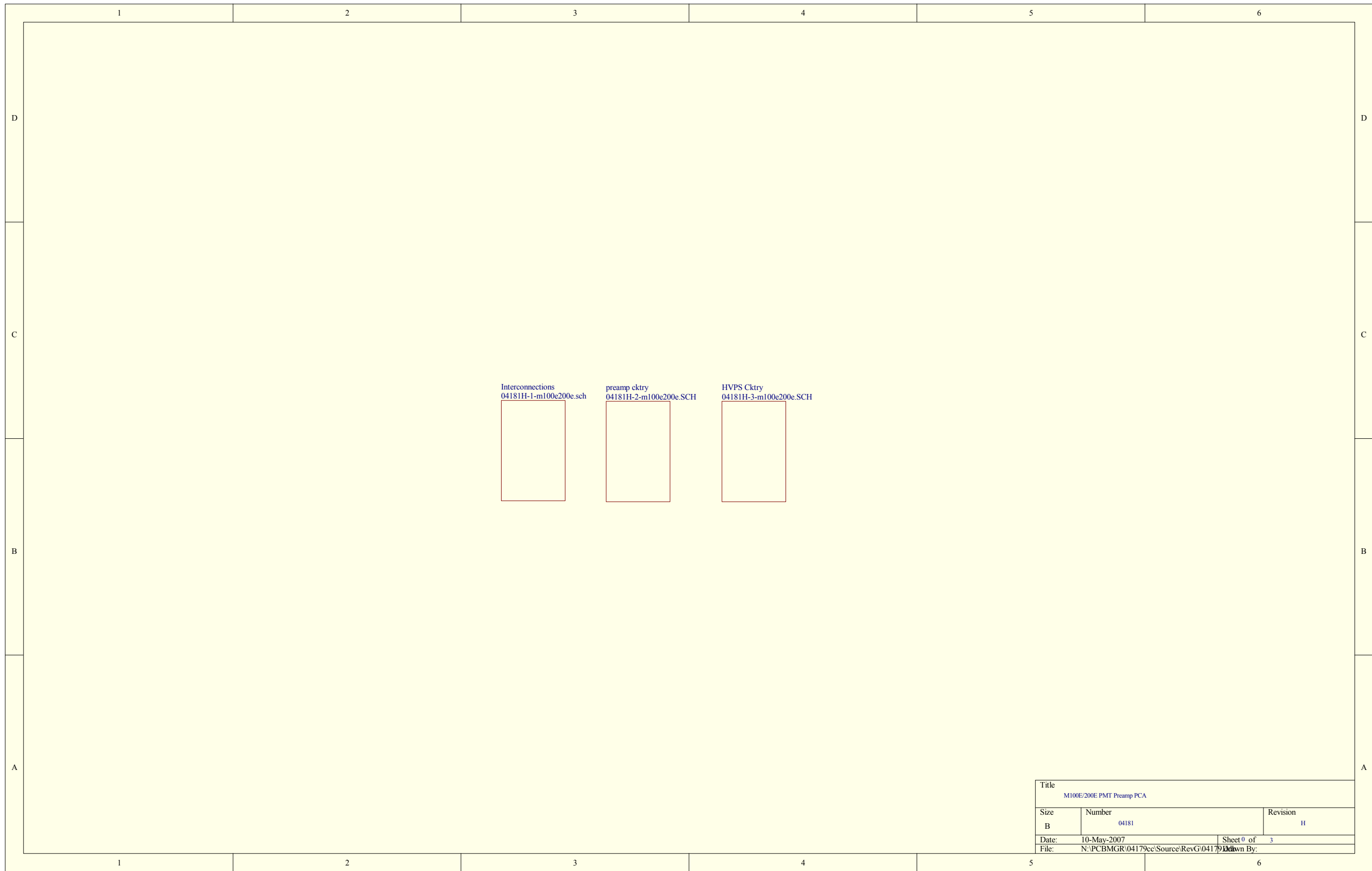
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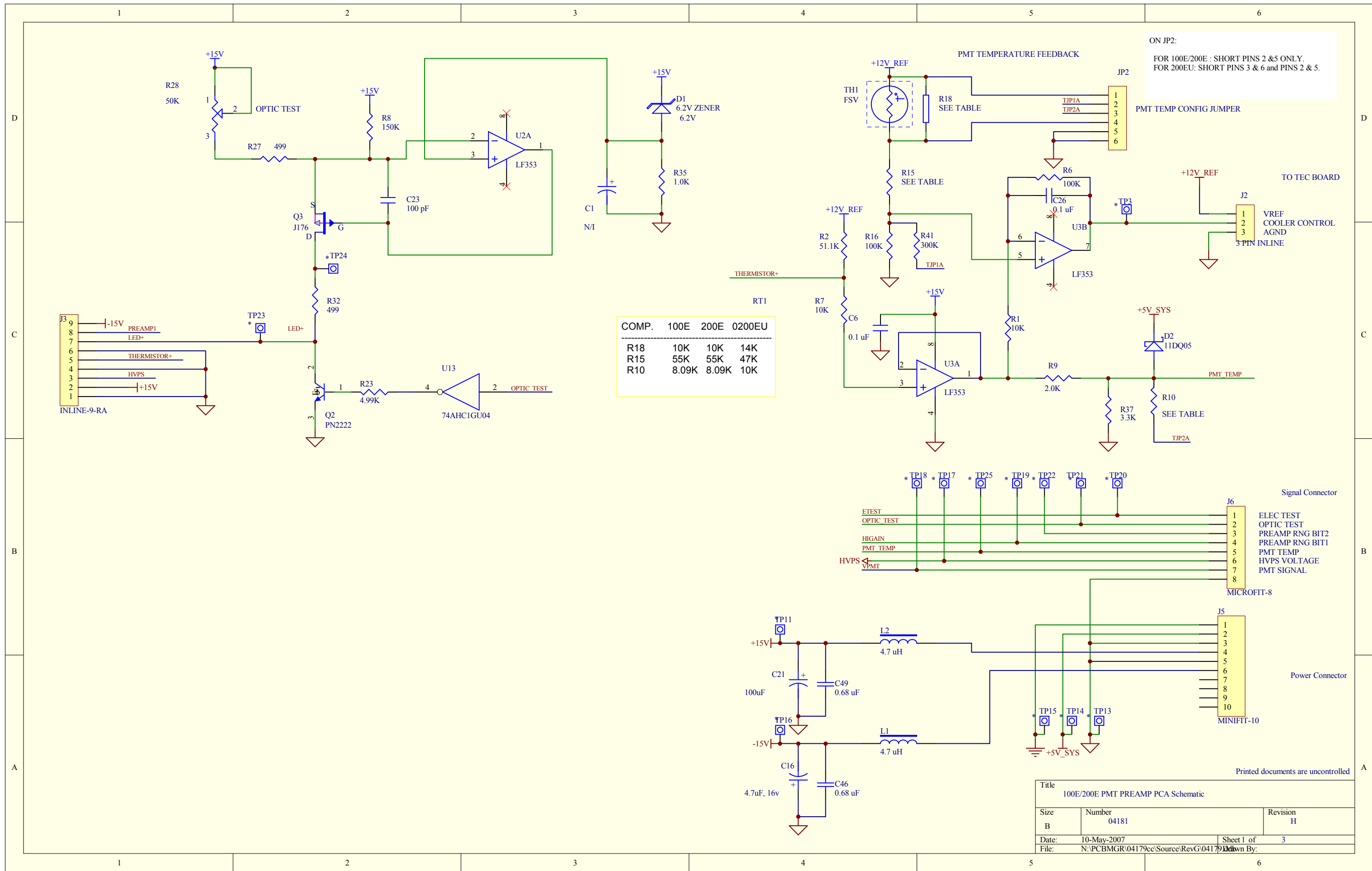
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314

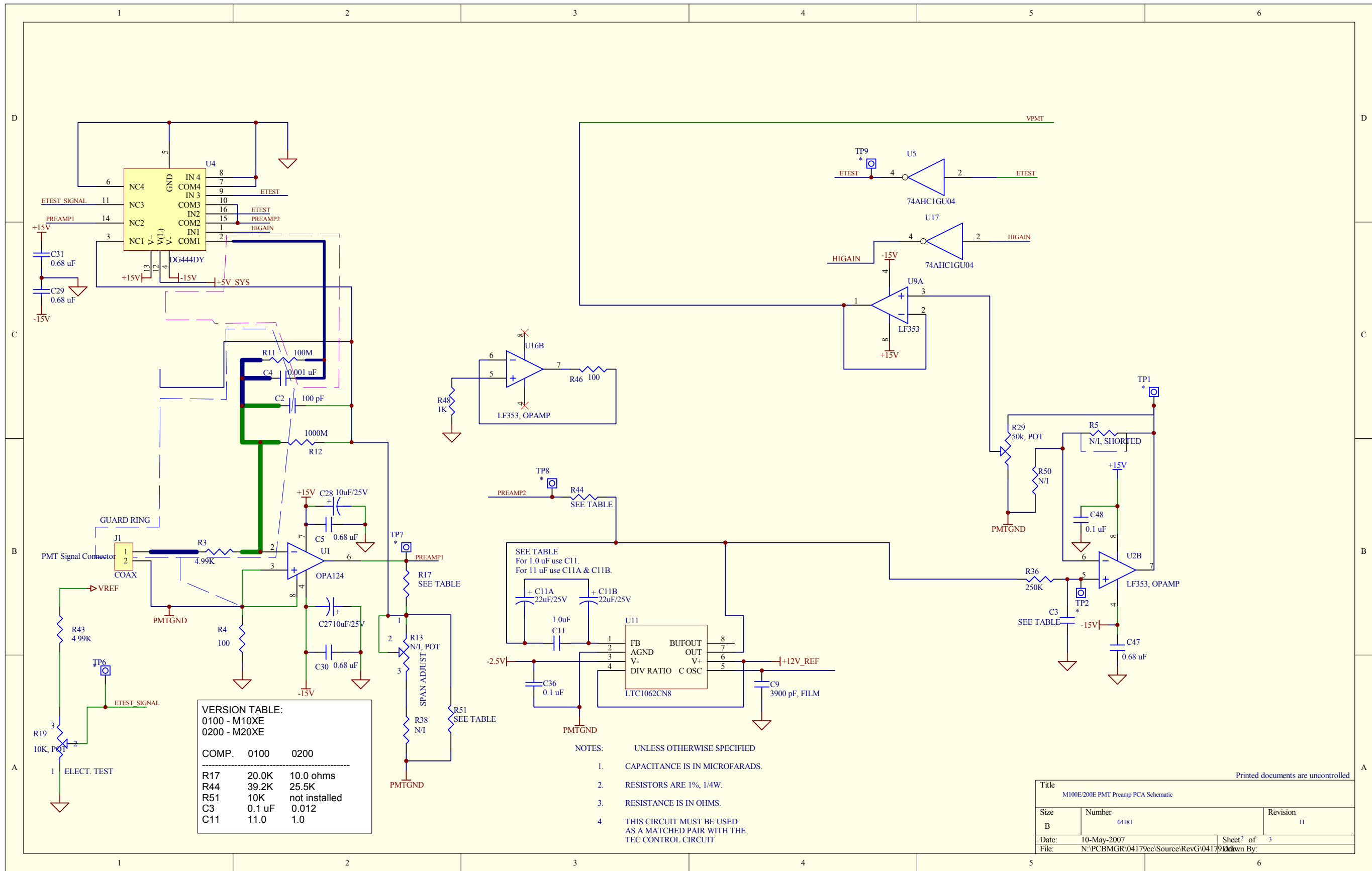


Title		
M100E/200E PMT Preamp PCA		
Size	Number	Revision
B	04181	H
Date:	10-May-2007	Sheet 0 of 3
File:	N:\PCBMGR\04179ce\Source\RevG\04179ce.dwg	



Printed documents are uncontrolled

Title		
100E/200E PMT PREAMP PCA Schematic		
Size	Number	Revision
B	04181	H
Date:	10-May-2007	Sheet 1 of 3
File:	N:\PCBMGR\04179cc\Source\RevG\04179cc\Down By:	



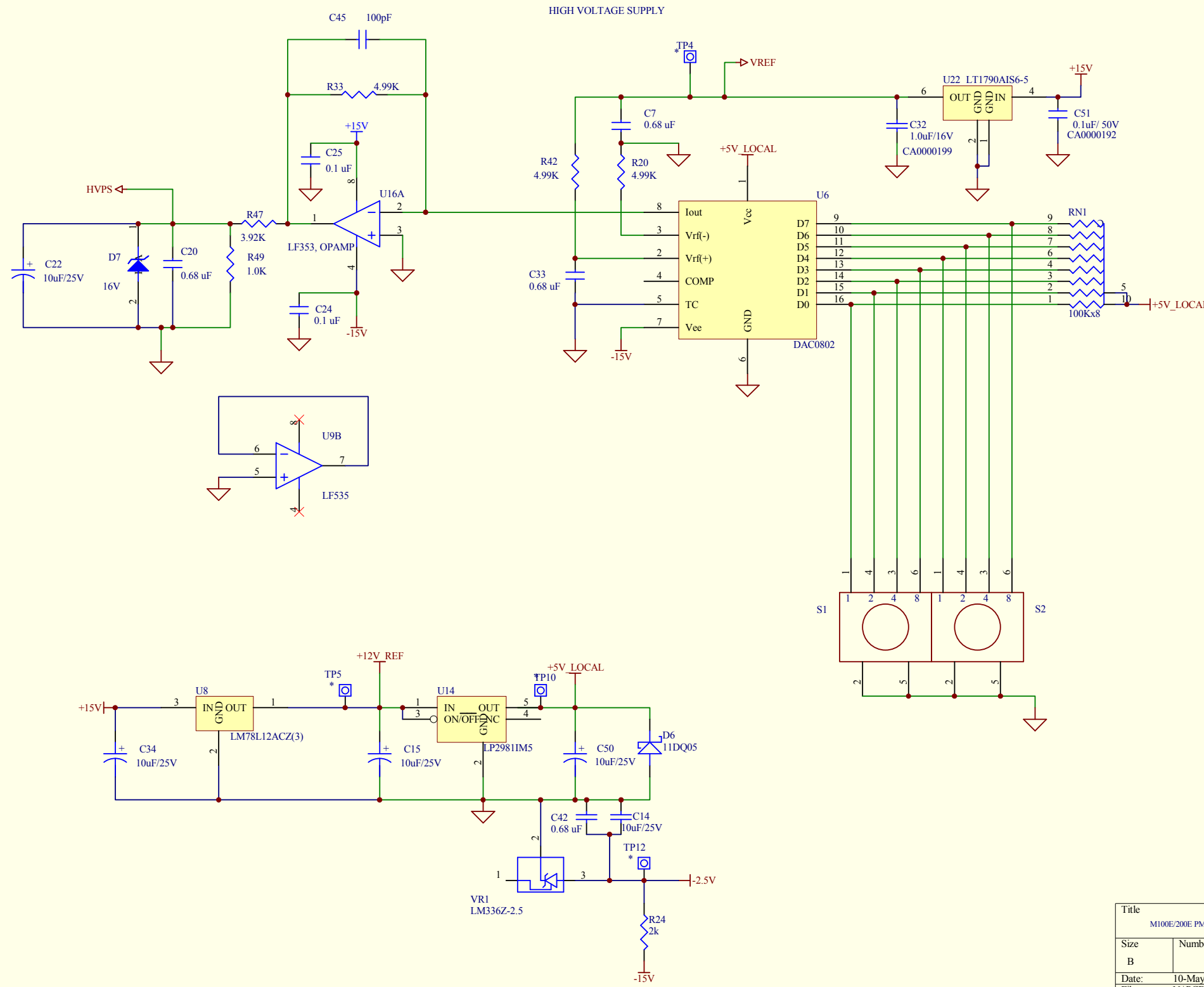
VERSION TABLE:
 0100 - M10XE
 0200 - M20XE

COMP.	0100	0200
R17	20.0K	10.0 ohms
R44	39.2K	25.5K
R51	10K	not installed
C3	0.1 uF	0.012
C11	11.0	1.0

- NOTES:** UNLESS OTHERWISE SPECIFIED
- CAPACITANCE IS IN MICROFARADS.
 - RESISTORS ARE 1%, 1/4W.
 - RESISTANCE IS IN OHMS.
 - THIS CIRCUIT MUST BE USED AS A MATCHED PAIR WITH THE TEC CONTROL CIRCUIT

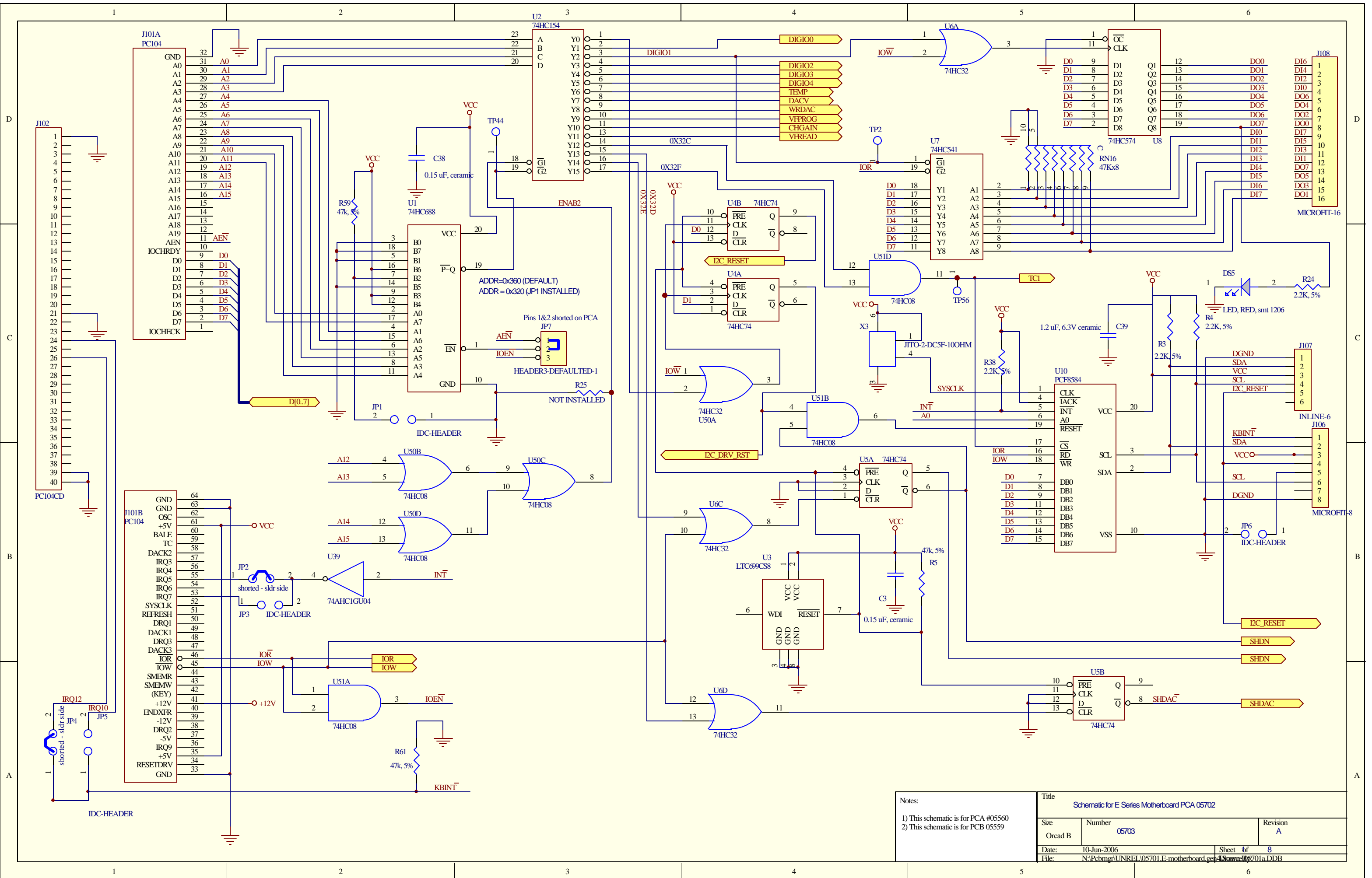
Printed documents are uncontrolled

Title M100E/200E PMT Preamp PCA Schematic		
Size B	Number 04181	Revision H
Date: 10-May-2007	Sheet 2 of 3	
File: N:\PCBMGR\04179ce\Source\RevG\04179ce.dwg		



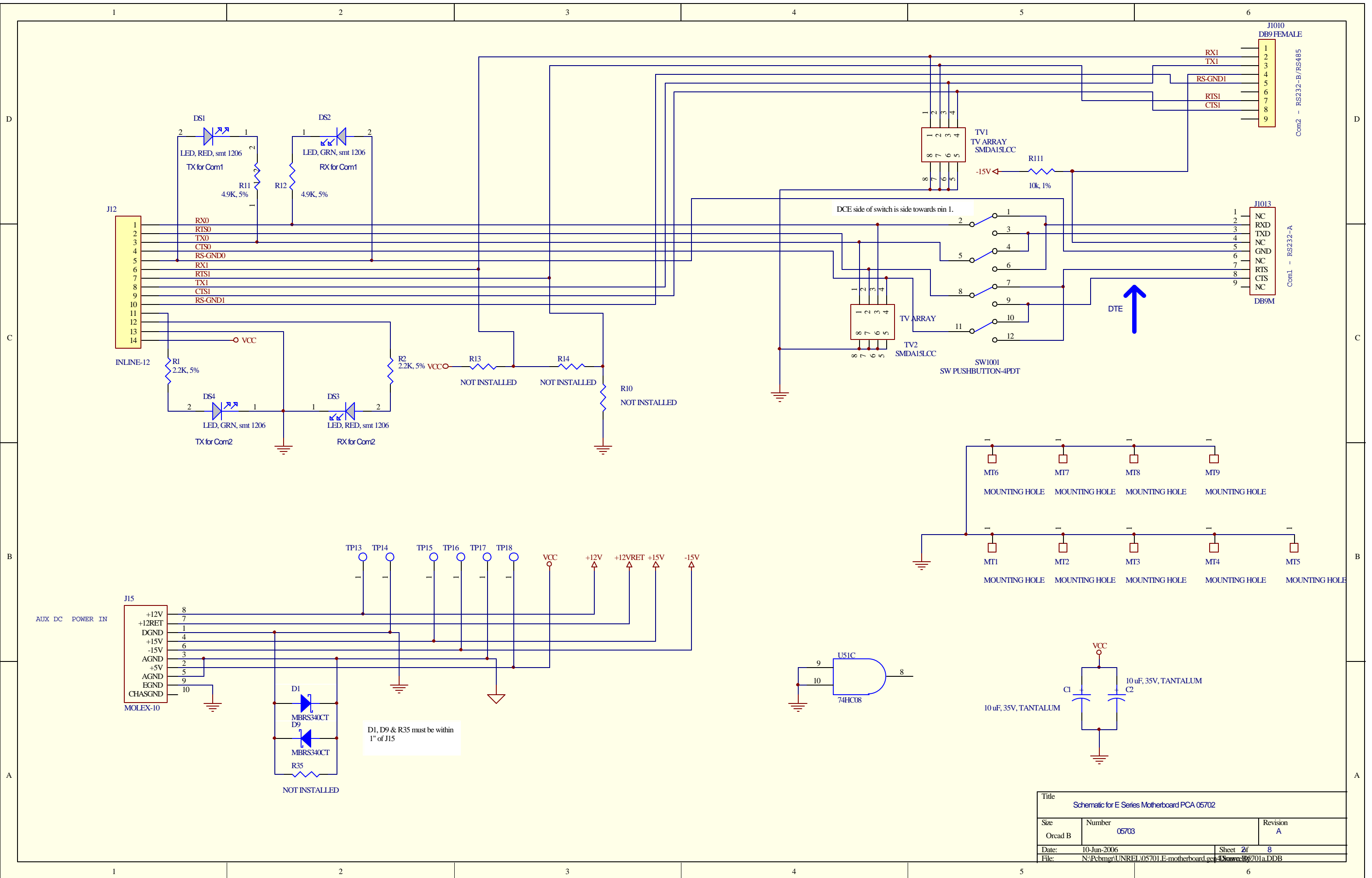
Printed documents are uncontrolled

Title		
M100E/200E PMT PREAMP PCA Schematic		
Size	Number	Revision
B	04181	H
Date:	10-May-2007	Sheet 3 of 3
File:	N:\PCBMGR\04179ce\Source\RevG\04179ce.dwg	

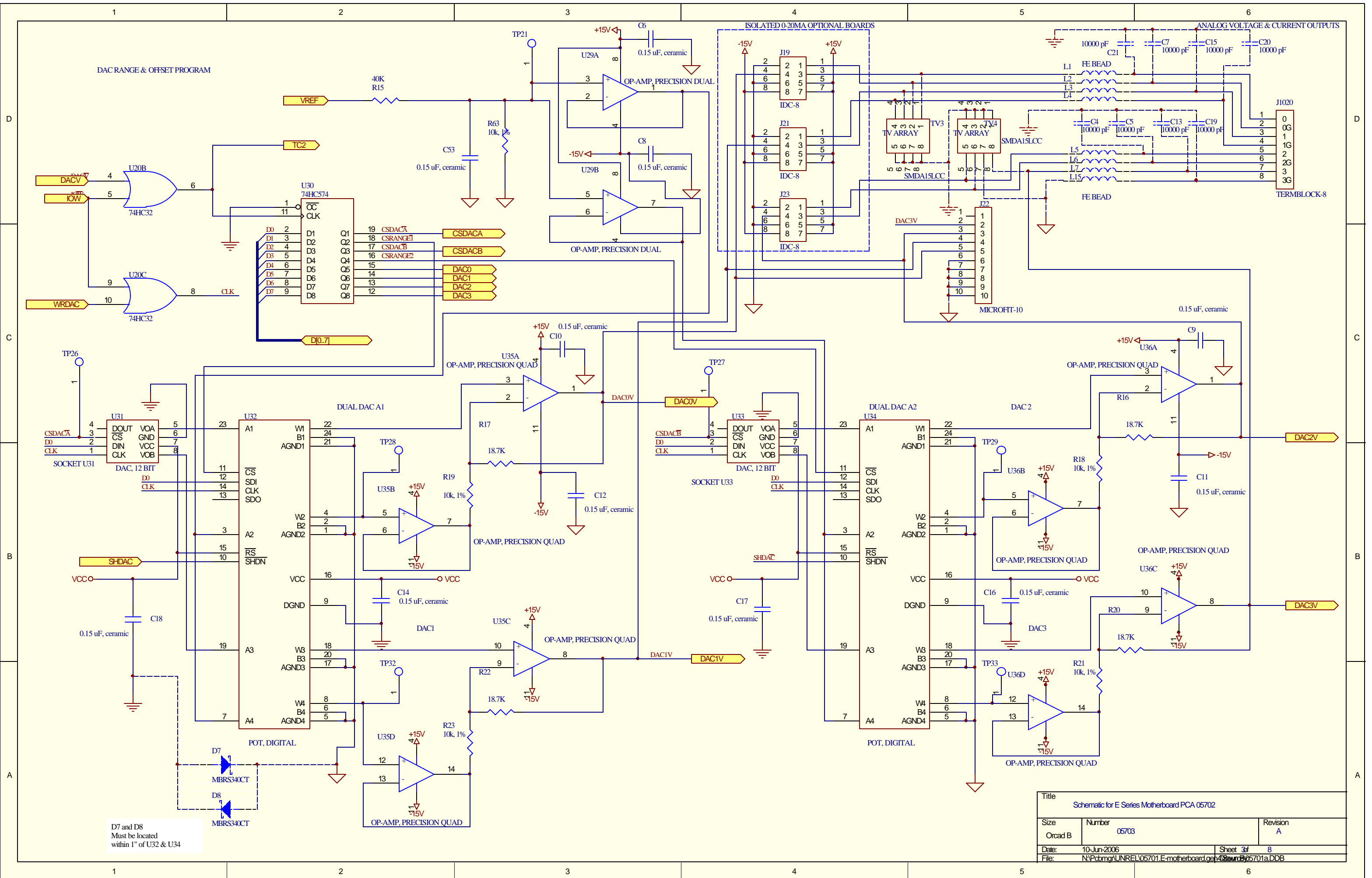


Notes:
 1) This schematic is for PCA #05560
 2) This schematic is for PCB #05559

Title Schematic for E Series Motherboard PCA 05702		
Size Orcad B	Number 05703	Revision A
Date: 10-Jun-2006	Sheet of 8	
File: N:\Pcbmgr\UNREL\05701.E-motherboard.cad		

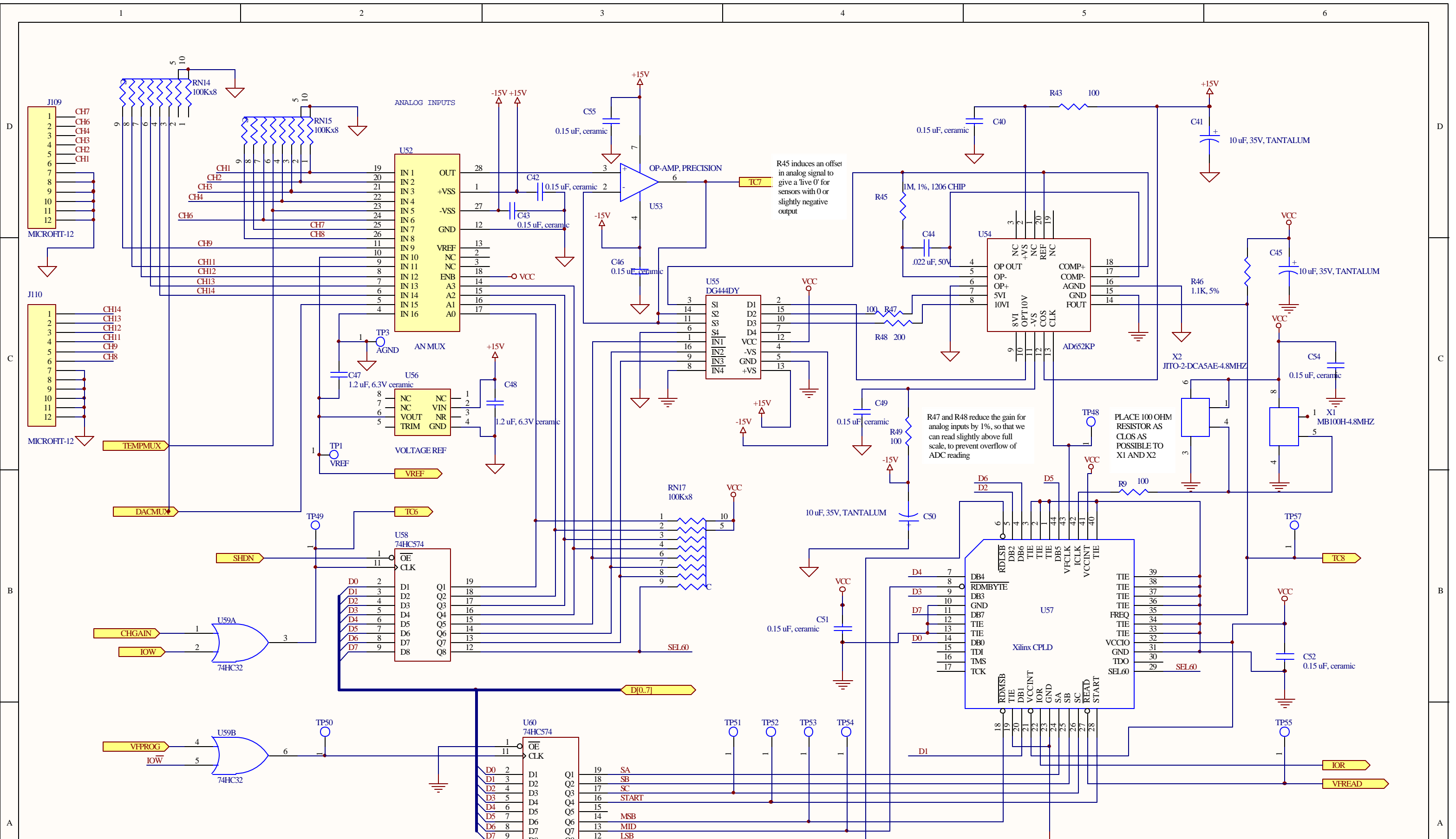


Title Schematic for E Series Motherboard PCA 05702		
Size Orcad B	Number 05703	Revision A
Date: 10-Jun-2006	Sheet 2 of 8	
File: N:\Pcbmgr\UNREL\05701.E-motherboard.g43\Draws\05701a.DDB		

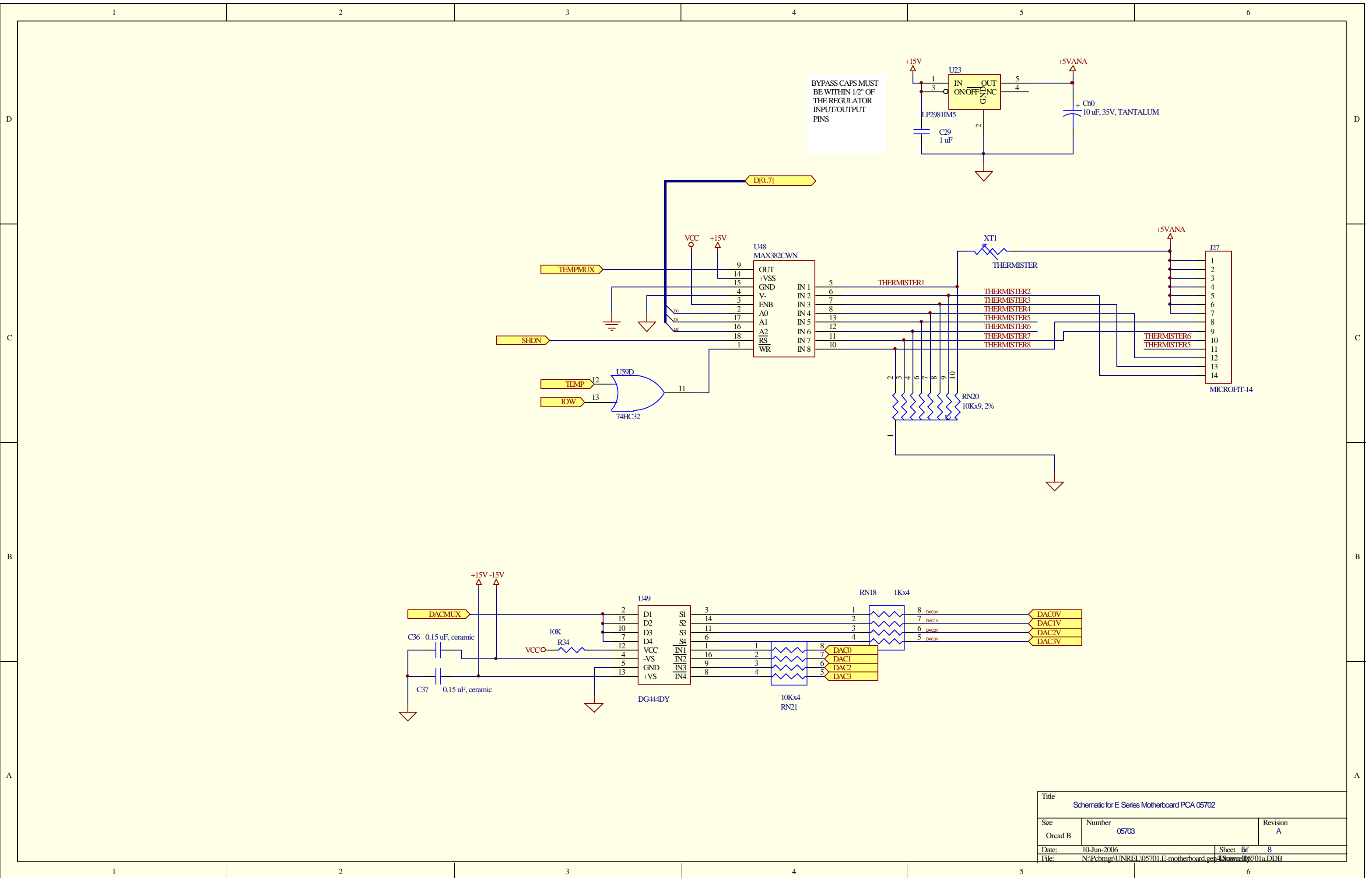


Title		
Schematic for E Series Motherboard PCA 05702		
Size	Number	Revision
Orcad B	05703	A
Date:	10-Jun-2006	Sheet 3 of 8
File:	N:\Pcbmg\UNREL\05701.E-motherboard.gcp\05701a.DDB	

D7 and D8
Must be located
within 1" of U32 & U34

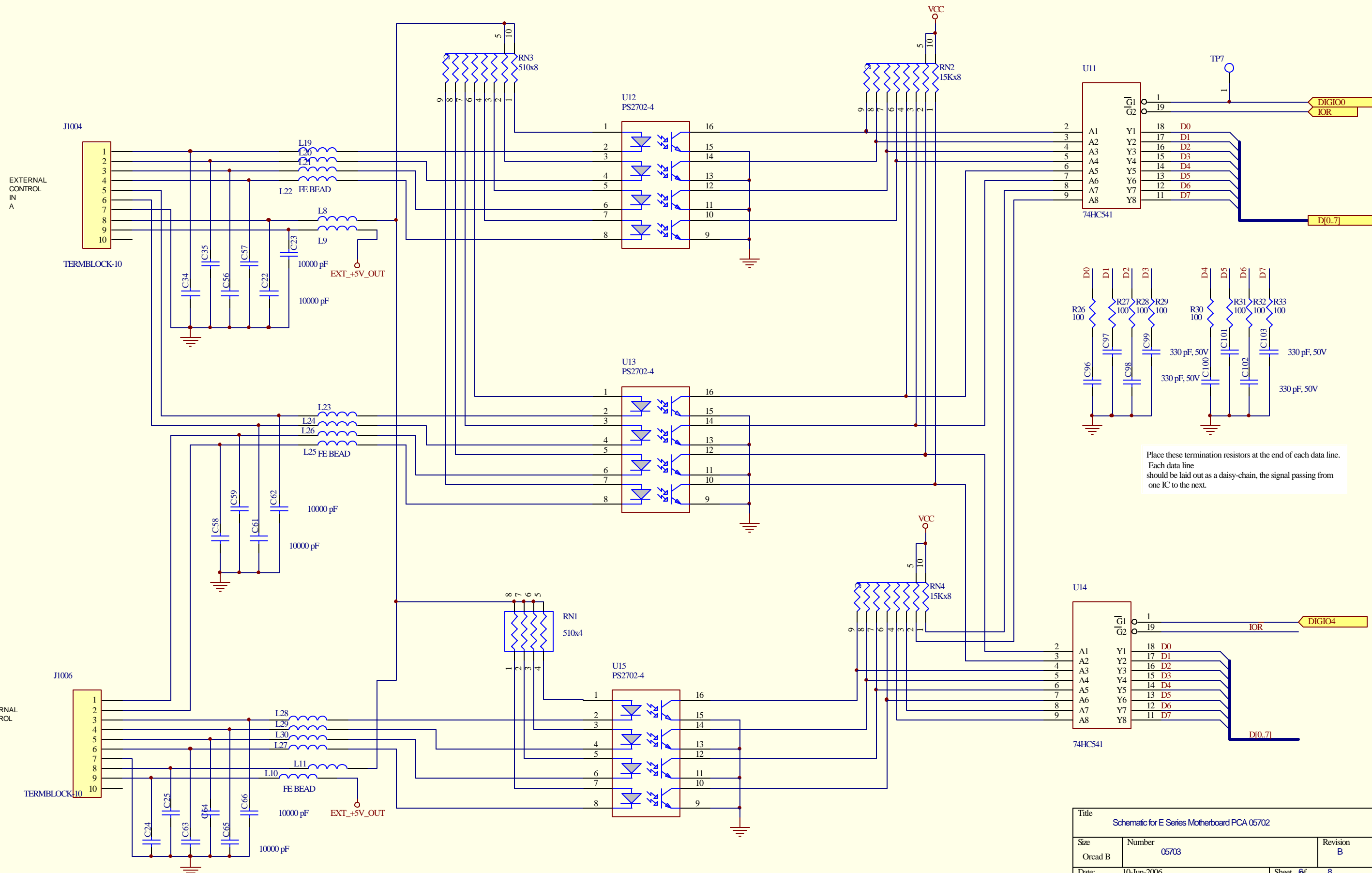


Title		
Schematic for E Series Motherboard PCA 05702		
Size	Number	Revision
Orcad B	05703	A
Date:	10-Jun-2006	Sheet 4of 8
File:	N:\Pcbmgr\UNREL\05701.E-motherboard.cad	Drawn: 18701a.DDB



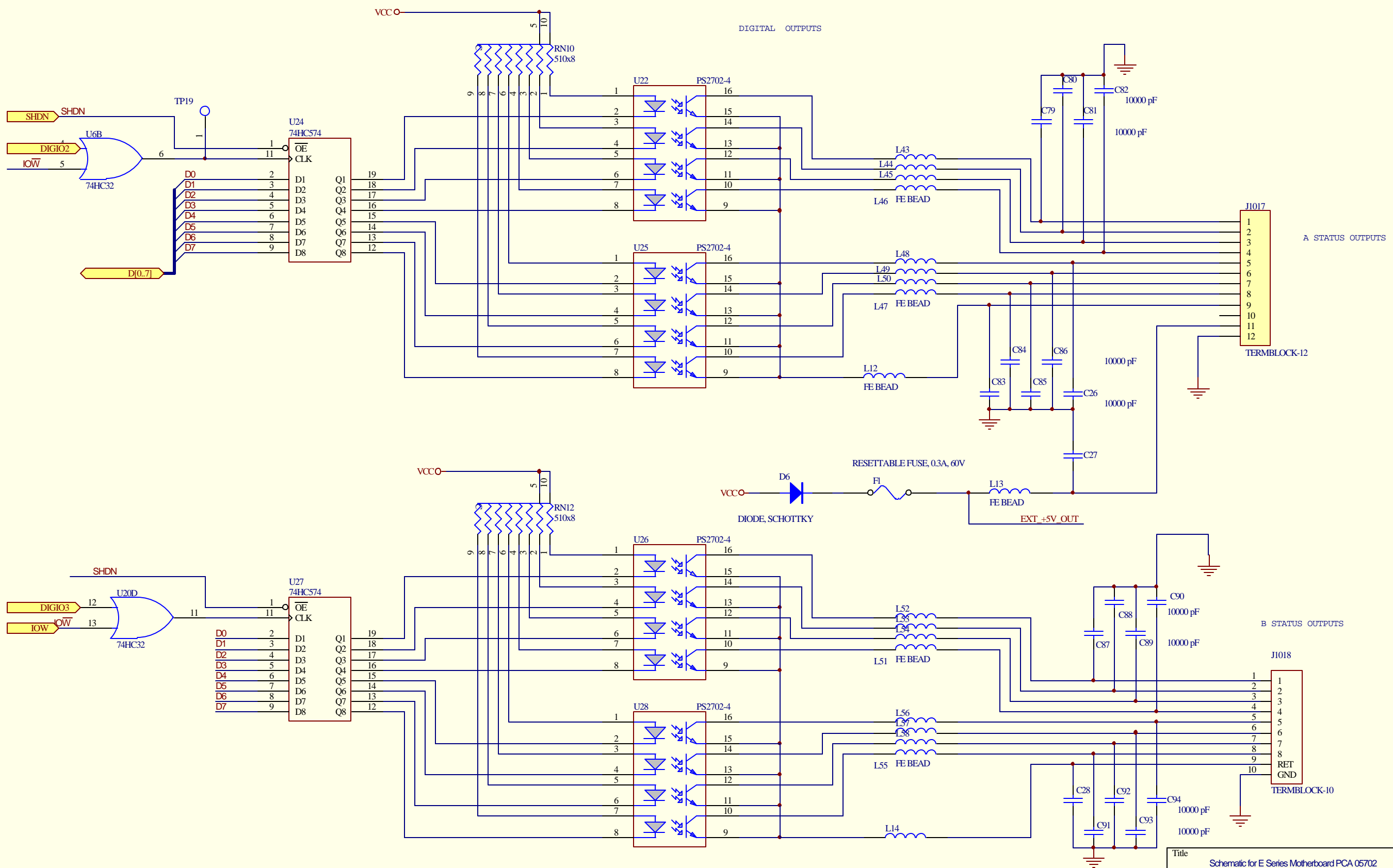
Title Schematic for E Series Motherboard PCA 05702		
Size Orcad B	Number 05703	Revision A
Date: 10-Jun-2006	Sheet 5 of 8	
File: N:\Pcbmgr\UNREL\05701.E-motherboard.g43\Draws\05701a.DDB		

CONTROL INPUTS

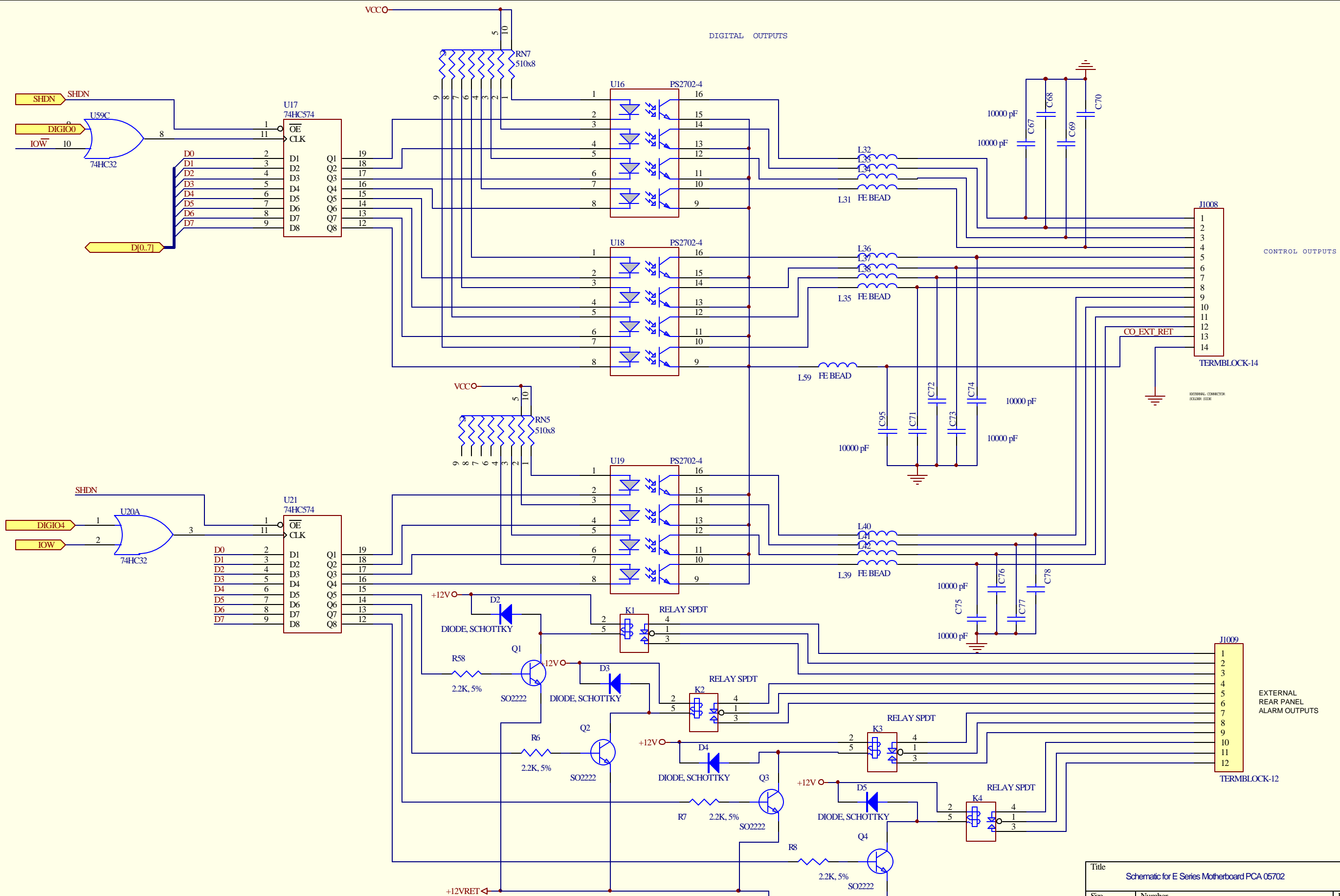


Place these termination resistors at the end of each data line. Each data line should be laid out as a daisy-chain, the signal passing from one IC to the next.

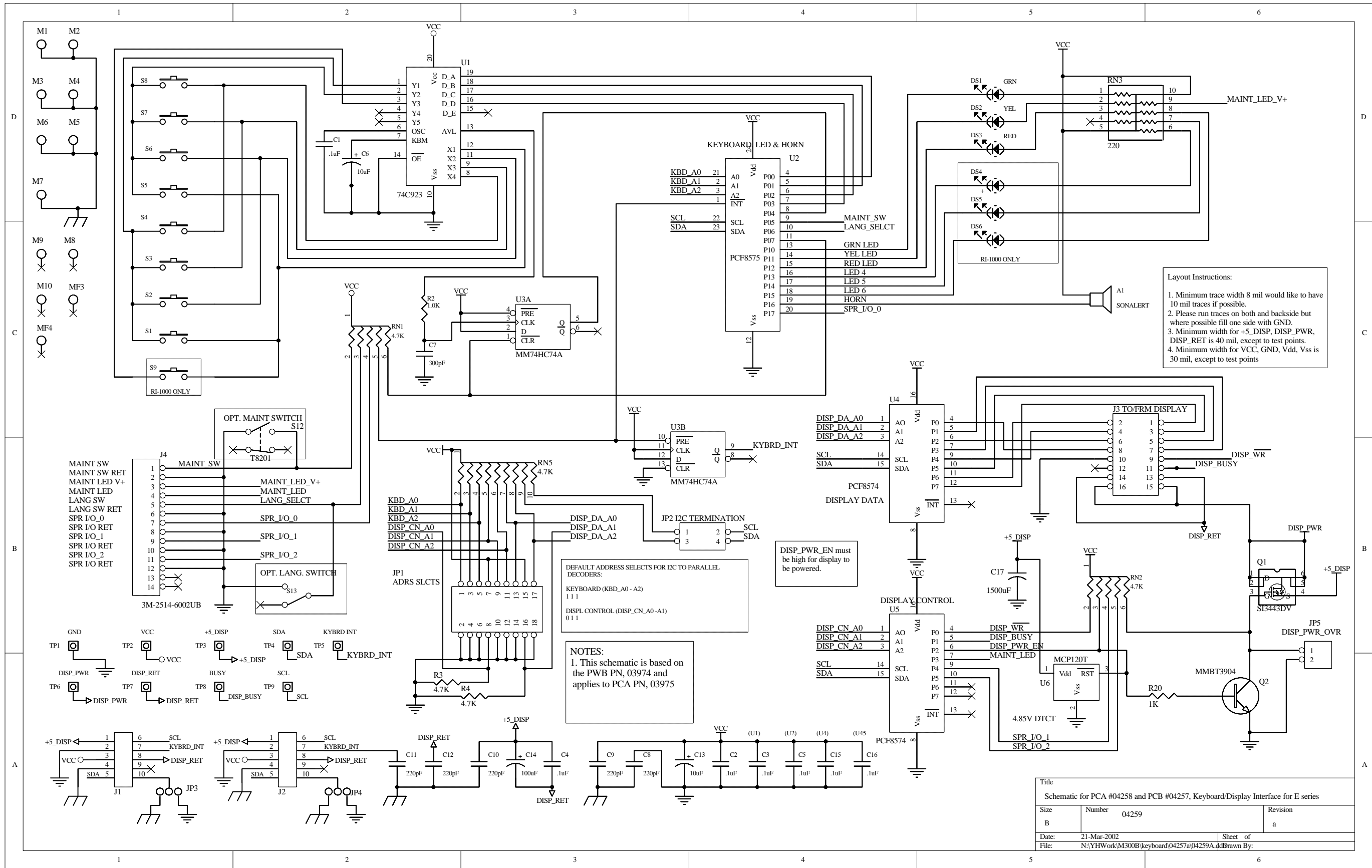
Title		
Schematic for E Series Motherboard PCA 05702		
Size	Number	Revision
Orcad B	05703	B
Date:	10-Jun-2006	Sheet 6 of 8
File:	N:\Pcbmgr\UNREL\05701.E-motherboard.cad\Draws\05701a.DDB	



Title		
Schematic for E Series Motherboard PCA 05702		
Size	Number	Revision
Orcad B	05703	A
Date:	10-Jun-2006	Sheet 7 of 8
File:	N:\Pcbmgr\UNREL\05701.E-motherboard.g43\Draws\05701a.DDB	

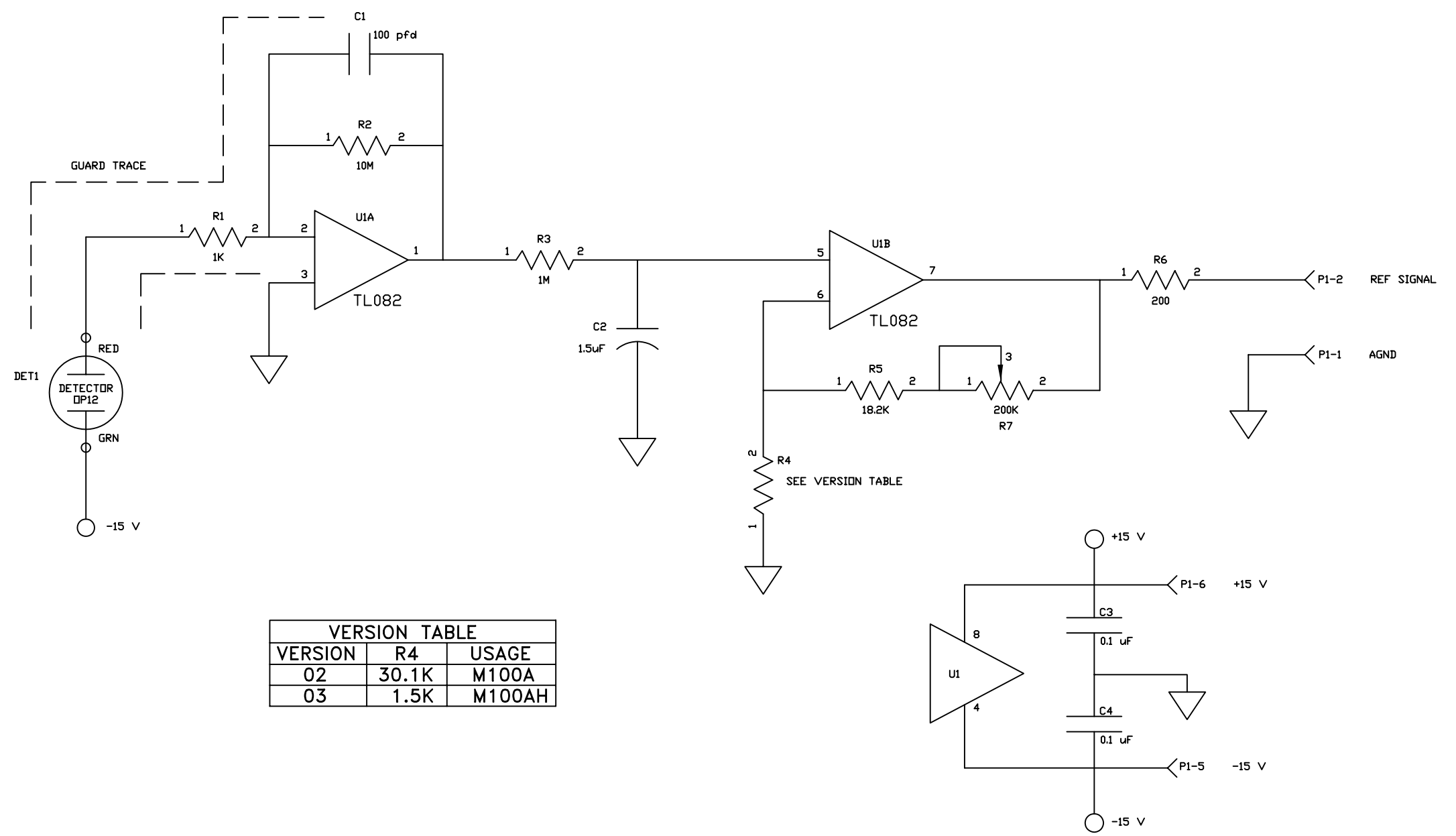


Title		
Schematic for E Series Motherboard PCA 05702		
Size	Number	Revision
Orcad B	05703	A
Date:	10-Jun-2006	Sheet 8 of 8
File:	N:\Pcbmgr\UNREL\05701.E-motherboard.cad\Draws\05701a.DDB	



Title		
Schematic for PCA #04258 and PCB #04257, Keyboard/Display Interface for E series		
Size	Number	Revision
B	04259	a
Date:	21-Mar-2002	Sheet of
File:	N:\YHWork\M300B\keyboard\04257a\04259A.d	
	Drawn By:	

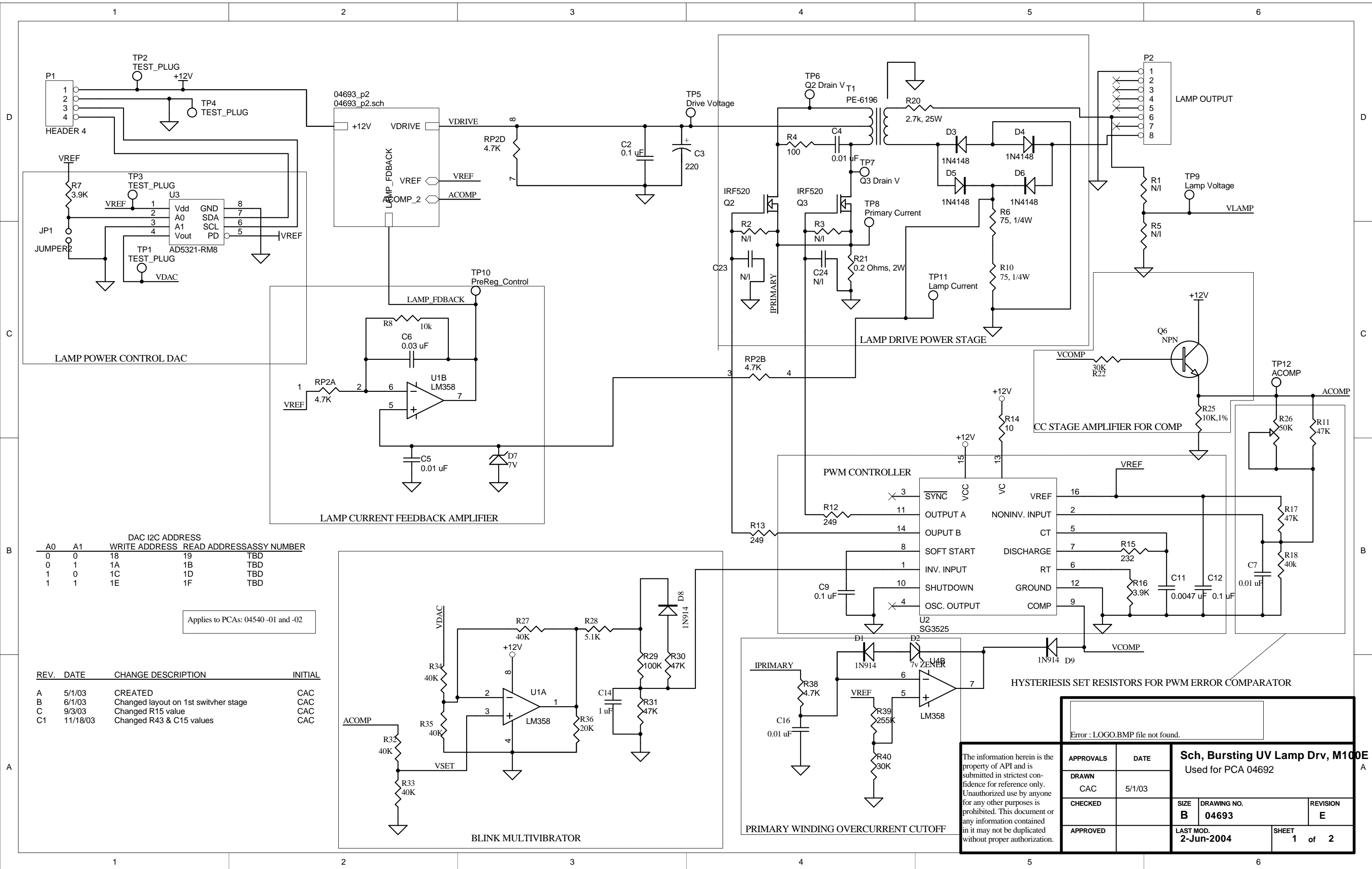
REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
C		U1,R5 CHANGED	8/15/95	HC
D		ADD C4, R7	10/5/98	HC
F		INCORPORATED ALL VERSIONS	12/11/02	CB
G		RESISTOR R5 IS 18.2K	4/17/03	CB



VERSION TABLE		
VERSION	R4	USAGE
02	30.1K	M100A
03	1.5K	M100AH

NOTES: UNLESS OTHERWISE SPECIFIED
 1. RESISTANCE IS IN OHMS.
 2. RESISTORS ARE 1%, 1/4W.
 3. CAPACITORS ARE IN MICROFARADS.

QTY REQD	CODE IDENT	PART OR IDENTIFYING NUMBER	NOMENCLATURE OR DESCRIPTION
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS ANGLES ± .XX ± .XXX ±			
MATERIAL		CONTRACT NO.	APPROVALS DATE
FINISH		DRAWN	CHECKED
DO NOT SCALE DRAWING		REFERENCE DETECTOR PREAMP	
SIZE	CODE IDENT NO.	DRAWING NO.	REV
B		01312	G
SCALE		SHEET 1 OF 1	



DAC I2C ADDRESS				
A0	A1	WRITE ADDRESS	READ ADDRESS	ASSY NUMBER
0	0	18	19	TBD
0	1	1A	1B	TBD
1	0	1C	1D	TBD
1	1	1E	1F	TBD

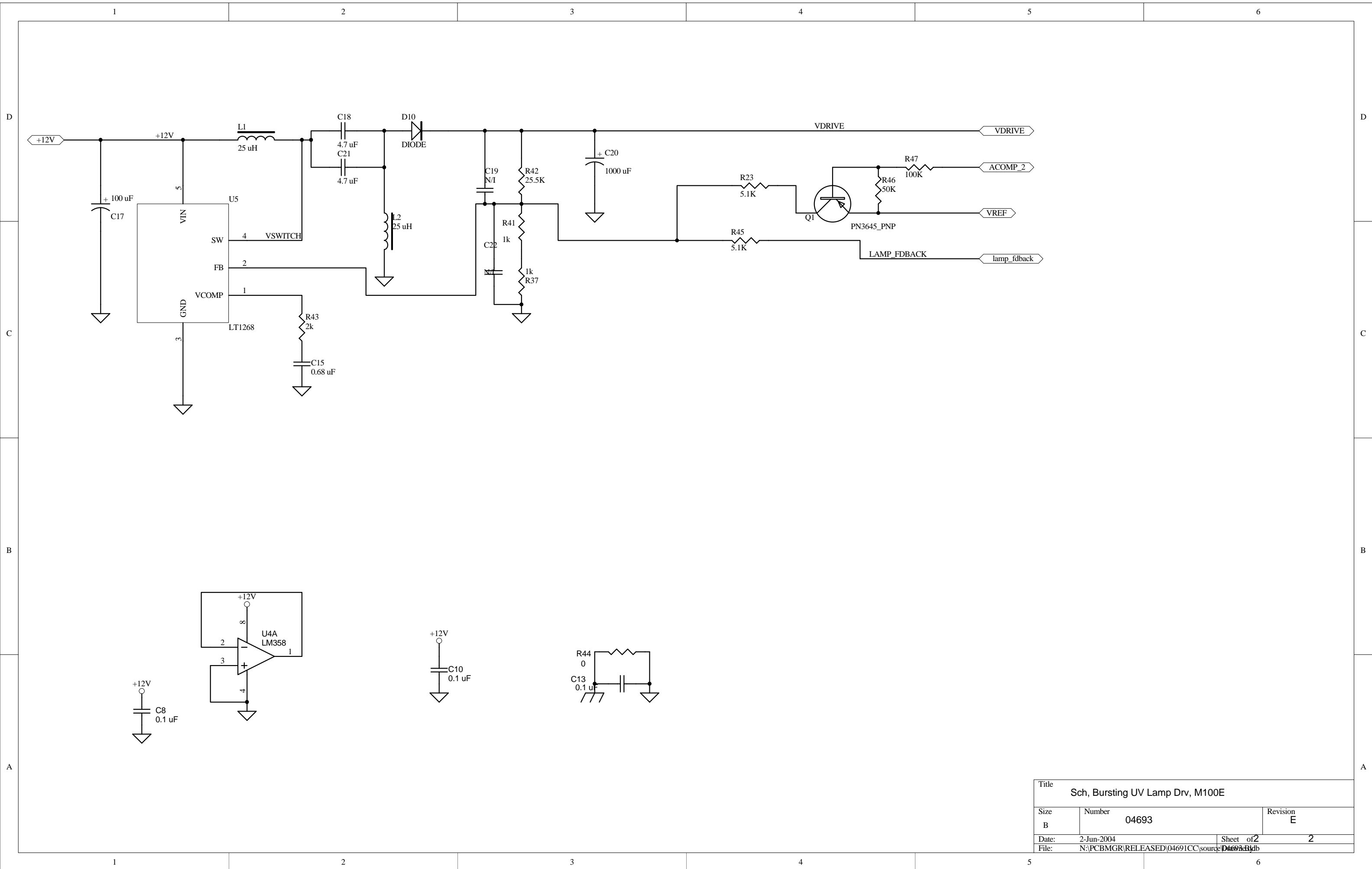
Applies to PCAs: 04540 -01 and -02

REV.	DATE	CHANGE DESCRIPTION	INITIAL
A	5/1/03	CREATED	CAC
B	6/1/03	Changed layout on 1st switvher stage	CAC
C	9/3/03	Changed R15 value	CAC
C1	11/18/03	Changed R43 & C15 values	CAC

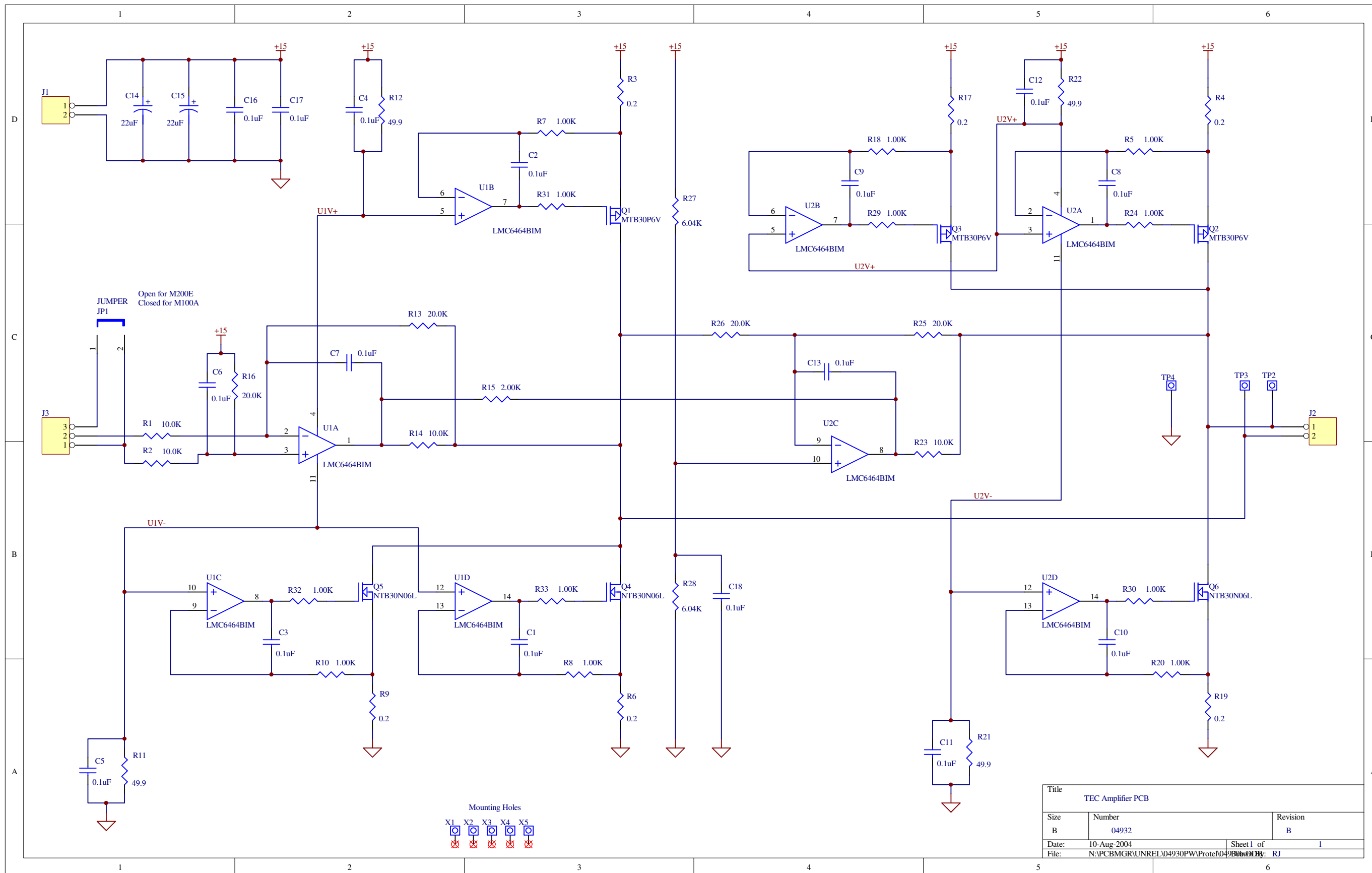
Error : LOGO.BMP file not found.

Sch, Bursting UV Lamp Drv, M100E		Used for PCA 04692	
APPROVALS	DATE	SIZE	DRAWING NO.
DRAWN	CAC	5/1/03	B 04693
CHECKED			REVISION
APPROVED		LAST MOD.	SHEET
		2-Jun-2004	1 of 2

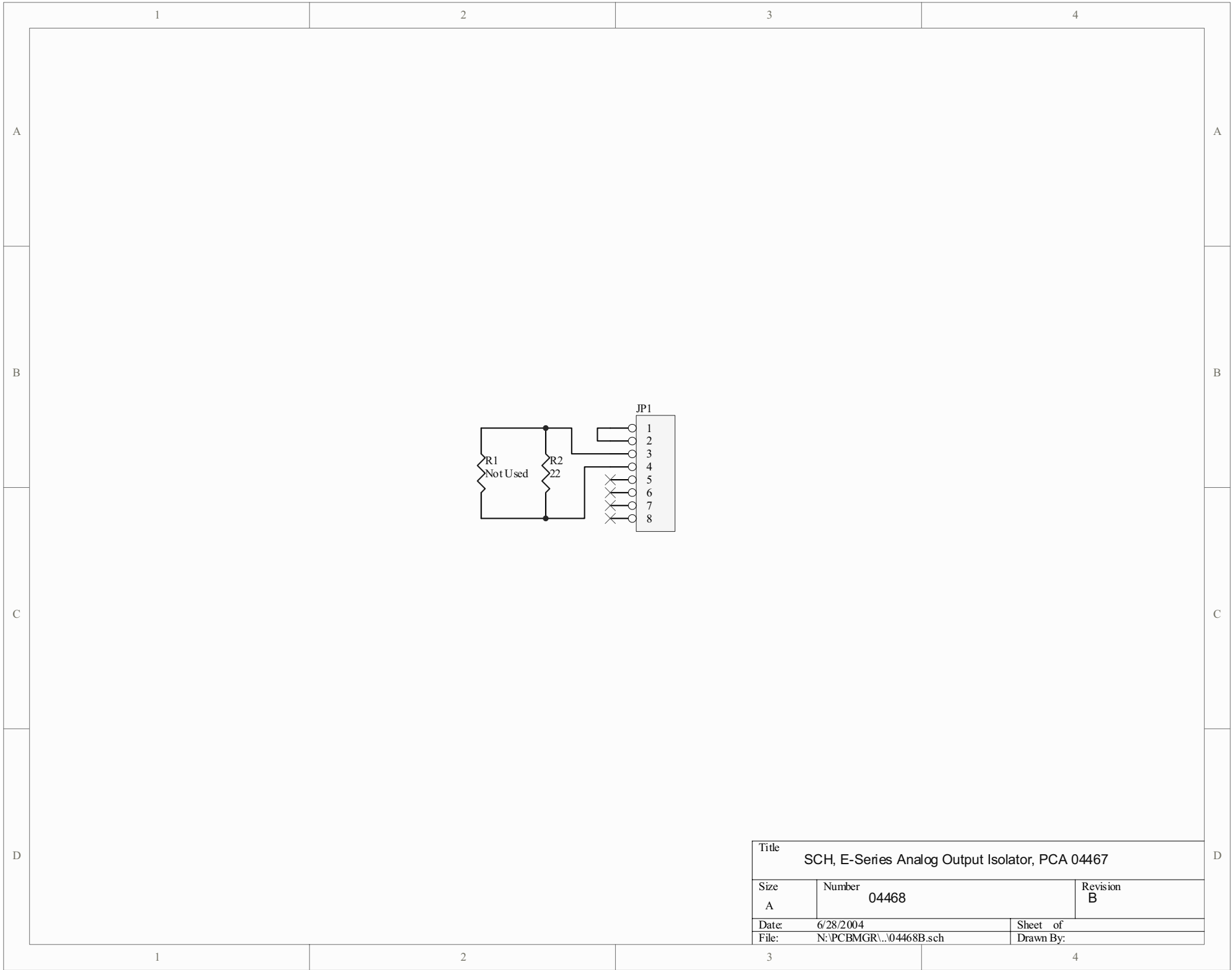
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Title			Sch, Bursting UV Lamp Drv, M100E		
Size	Number			Revision	
B	04693			E	
Date:	2-Jun-2004	Sheet of 2	2		
File:	N:\PCBMGR\RELEASED\04691CC\source\04691B1.dwg				



Title		
TEC Amplifier PCB		
Size	Number	Revision
B	04932	B
Date:	10-Aug-2004	Sheet 1 of 1
File:	N:\PCBMGR\UNREL\04930PW\Protel\04930.DDB: RJ	



Title		
SCH, E-Series Analog Output Isolator, PCA 04467		
Size	Number	Revision
A	04468	B
Date:	6/28/2004	Sheet of
File:	N:\PCBMGR\...\04468B.sch	Drawn By: