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Rev	Description	Date	Approved
A	PRODUCTION RELEASE PER ECO 5344	6-28-02	

UNLESS OTHERWISE NOTED:

- 1.0 All resistor values are expressed in Ohms.
- 1.1 All resistors are 1/4 Watt types with their tolerance and material coded into their value.

VALUE	1%, Metal Film	5%, Carbon Film
0 Ohm to 0.99 Ohms	0R to 0R976	0R to 0R91
1 Ohm to 99 Ohms	1R00 to 97R6	1R0 to 91R
100 Ohms to 999 Ohms	100R0 to 976R0	100R to 910R
1k Ohm to 9k9 Ohms	1k00 to 9k76	1k0 to 9k1
10k Ohms to 99k Ohms	10k0 to 97k6	10k to 91k
100k Ohms to 999k Ohms	100k0 to 976k0	100k to 910k
1M Ohm to 99M Ohms	1M00 to 97M6	1M0 to 91M

- 2. All resistor networks are 2%, 1/8 Watt types with their values expressed in Ohms.
- 3.0 All capacitor values are expressed in Farads
- 3.1 All 100n bypass capacitors are 20%, 50 Volt, Z5U, Ceramic Monolythic types.
- 3.2 All non-electrolytic capacitors are 10%, 50 Volt, X7R, Ceramic Monolythic types.
- 3.3 All NPO capacitors are 5%, 50 Volt, Ceramic Monolythic types.
- 3.4 All MY capacitors are 5%, 50 Volt, Metalized Polyester types.
- 3.5 All PP capacitors are 5%, 50 Volt, Metalized Polypropylene types.
- 3.6 All PC capacitors are 5%, 50 Volt, Metalized Polycarbonate types.
- 3.7 All electrolytic capacitors are 20%, 16 Volt (or higher), Aluminum Electrolyte types.
- 3.8 All TA capacitors are 20%, 16 Volt (or higher), Tantalum Electrolyte types.
- 4. For complete information on any component please see the associated bill of materials.
- 5. All net names preceded by a / are active low signals.

305-0200 305-0200.SCH



305-0300 305-0300.SCH



305-0400 305-0400.SCH



305-0500 305-0500.SCH

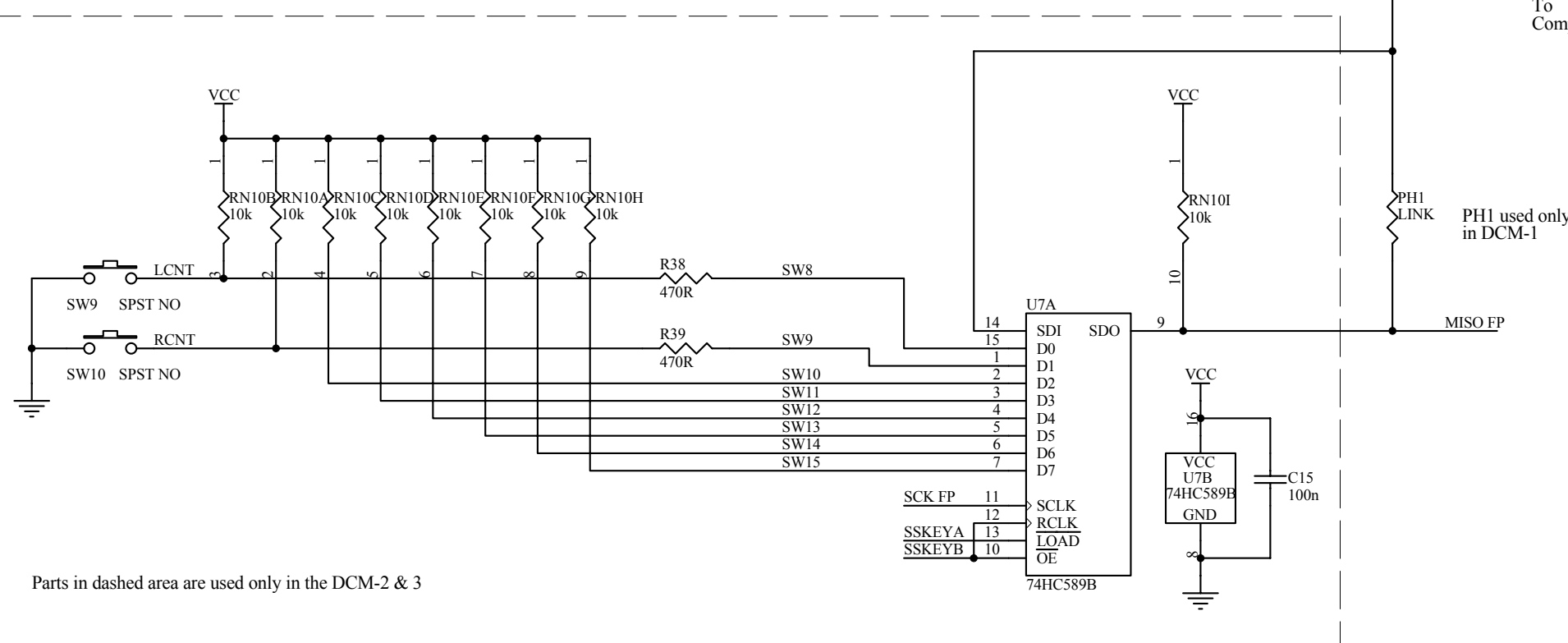
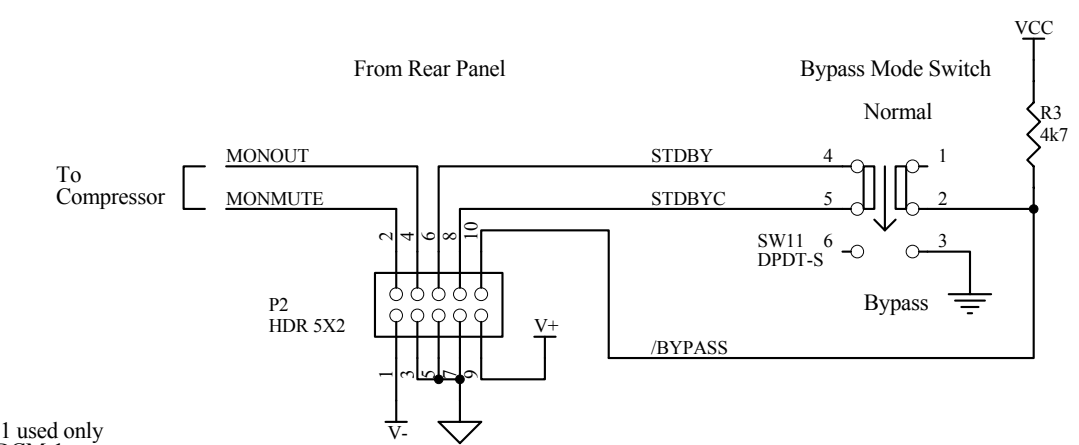
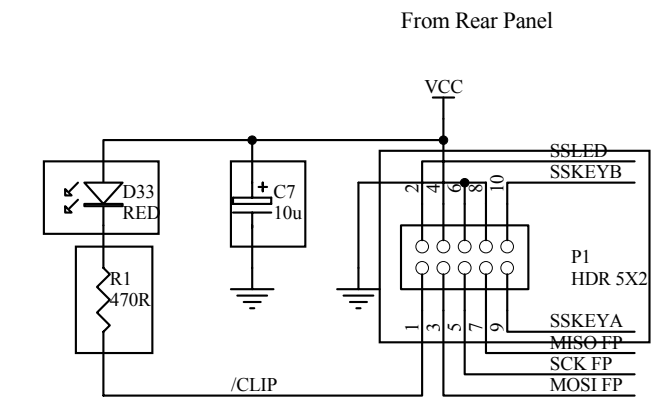
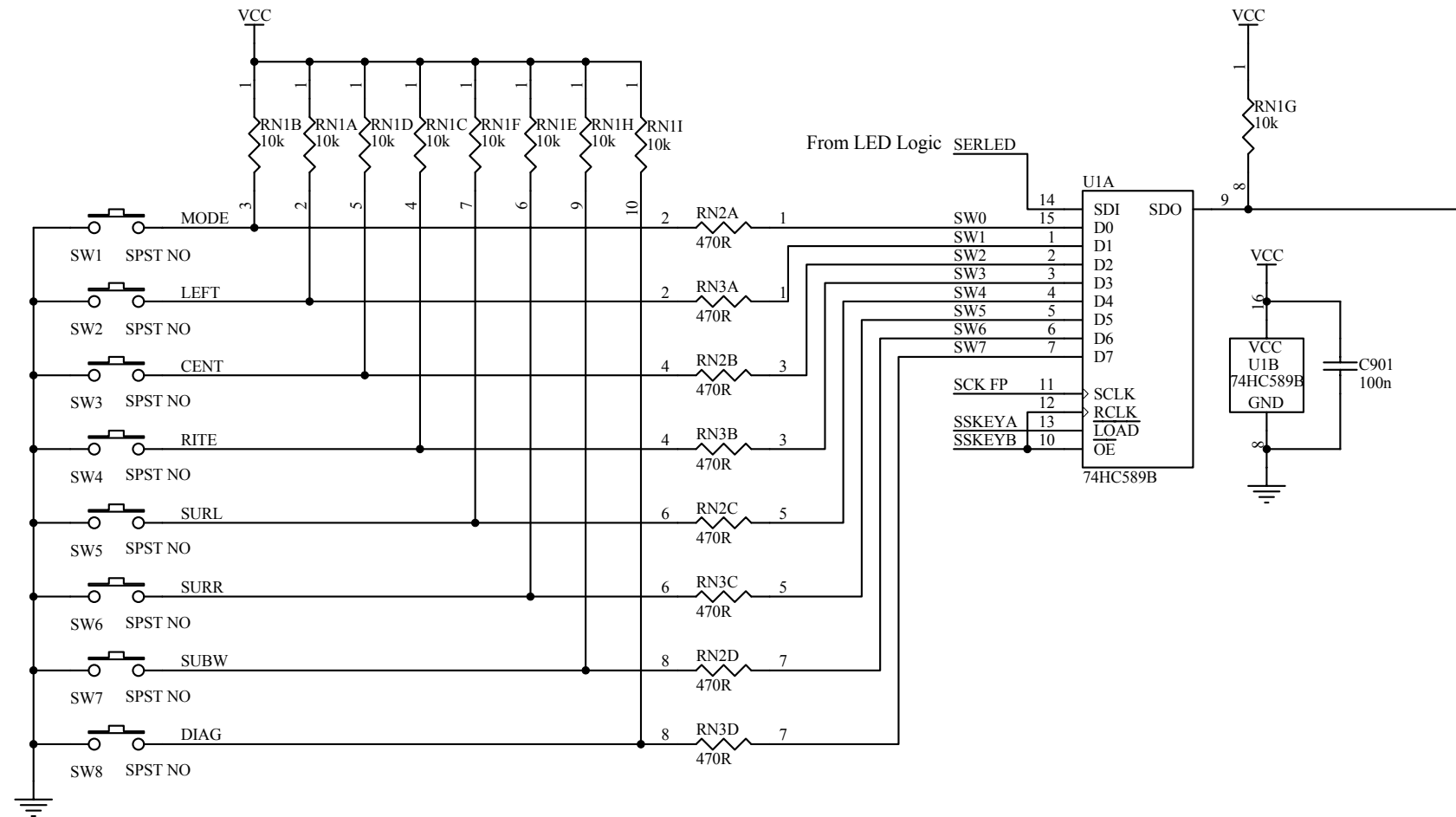


THAT Corporation 45 Sumner Street
Milford, MA
508-478-9200

Checked:	Date:	Title: QSC Digital Cinema Monitor DCM Front Panel & Power Amp (For 1, 2 & 3)
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC-000092-00 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 1 of 5 File: F:\DM\SH\SH000092\DEV_WORK\SH0092rA.DDB - Documents\SH0092rA.P

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Rev	Description	Date	Approved

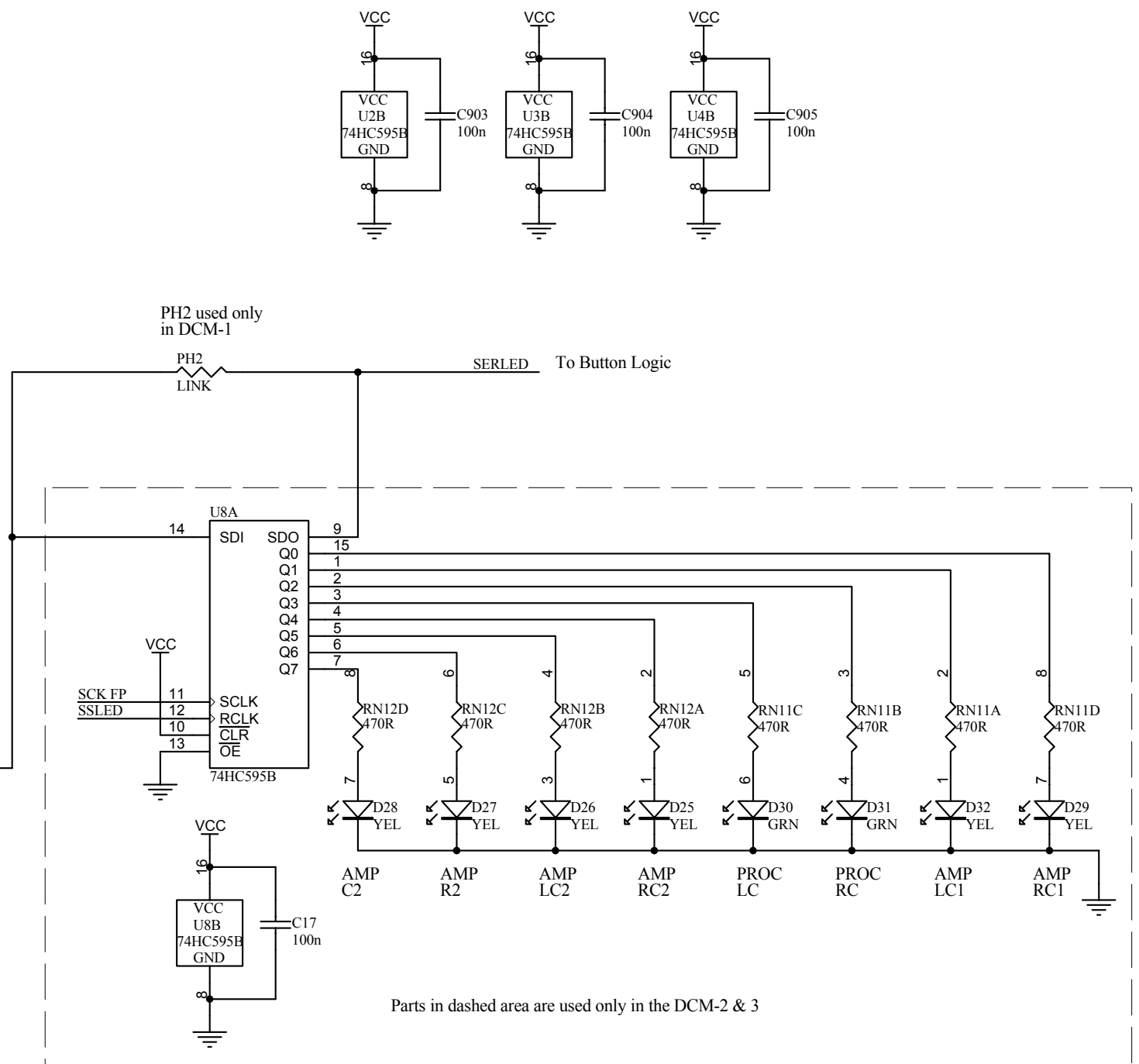
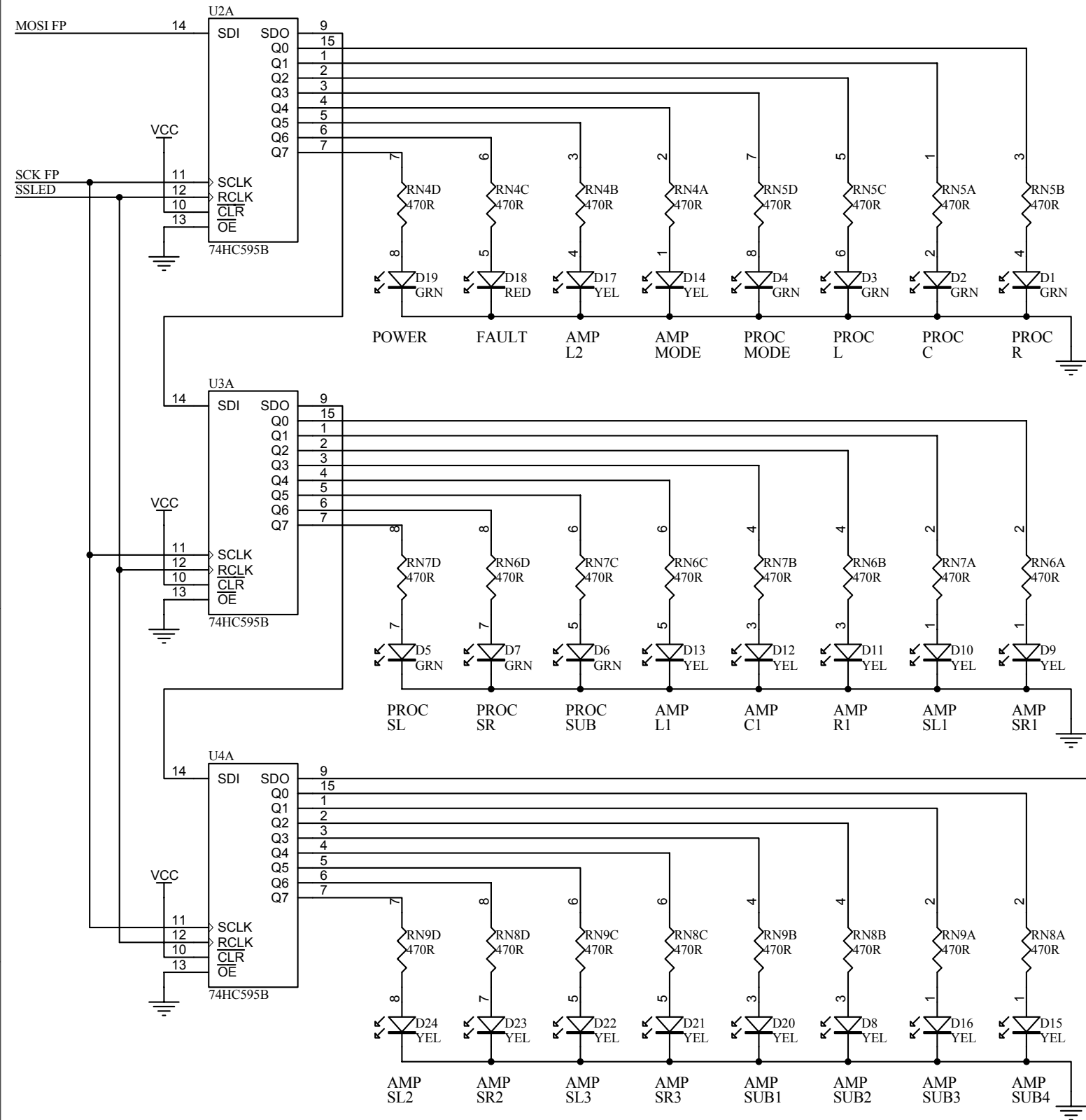


THAT Corporation 45 Sumner Street
Milford, MA 508-478-9200

Checked:	Date:	Title: DCM FRONT PANEL I/O Interface & Button Logic
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC-000092 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 2 of 5 File: F:\DM\SH\SH000092\DEV_WORK\SH0092rA.DDB - Documents\305-0200.SC

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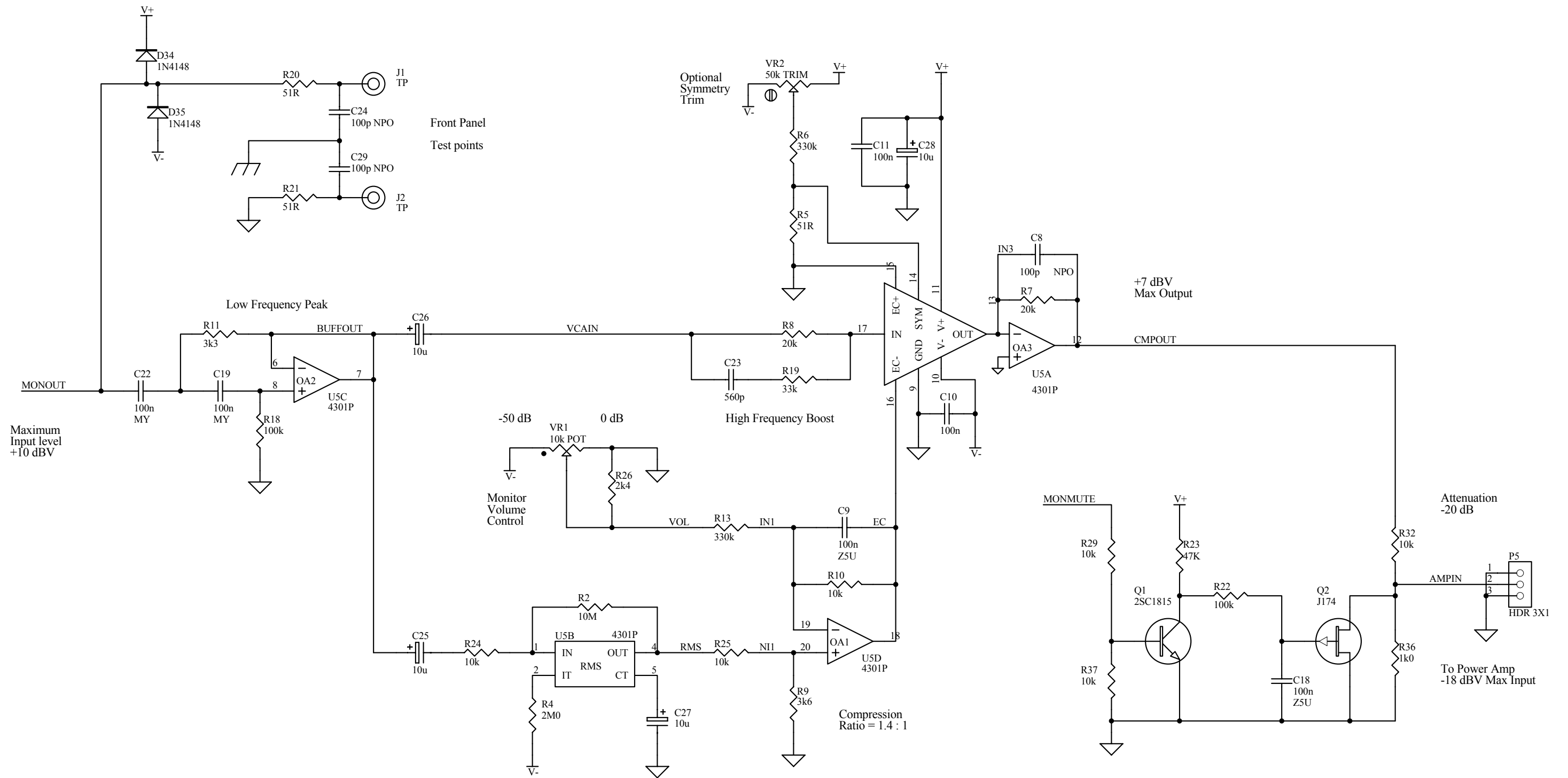


THAT Corporation 45 Sumner Street
Milford, MA 01850
508-478-9200

Checked:	Date:	Title: DCM FRONT PANEL LED Driver Logic
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC000092-00 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 3 of 5 File: F:\DM\SH\SH000092\DEV_WORK\SH0092rA.DDB - Documents\305-0300.SC

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508-478-9200

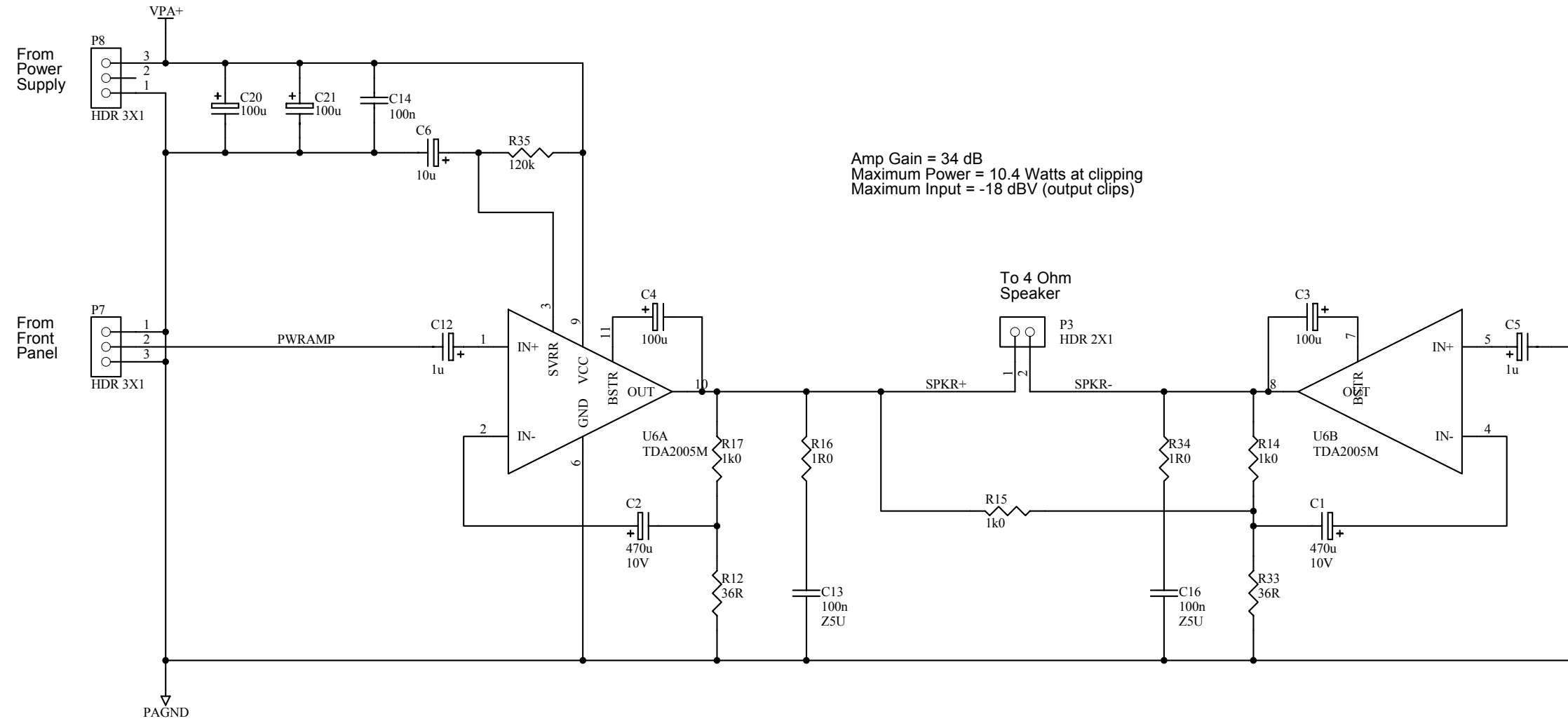
Title: **DCM FRONT PANEL**
Buffer / Compressor

Checked:	Date:
Proj. Eng.:	Date:
Chf. Eng.:	Date:
Production:	Date:

Size: B	Drawing Number: PC-000092-00	Revision: A
Date: 28-Jun-2002	Drawn by: A. ARANDA	Sheet 4 of 5
File: F:\DM\SH\SH000092\DEV_WORK\SH0092rA.DDB - Documents\305-0400.SC		

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THAT Corporation 45 Sumner Street
Milford, MA
508-478-9200

Checked:	Date:	Title: DCM FRONT PANEL Power Amplifier Module
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC-000092-00 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 5 of 5 File: F:\DM\SH\SH000092\DEV_WORK\SH0092rA.DDB - Documents\305-0500.SC


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A	PRODUCTION RELEASE PER ECO 5344	6-28-02	

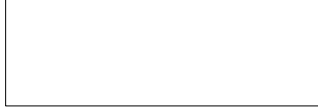
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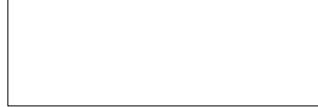
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304-0304 304-0304.SCH




304-1104 304-1104.SCH




304-0404 304-0404.SCH




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304-0504 304-0504.SCH




304-1304 304-1304.SCH




304-0604 304-0604.SCH




304-1404 304-1404.SCH



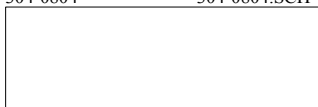
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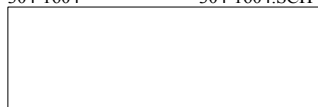
304-1504 304-1504.SCH




304-0804 304-0804.SCH




304-1604 304-1604.SCH



304-0904 304-0904.SCH



304-1704 304-1704.SCH



UNLESS OTHERWISE NOTED:

- 1.0 All resistor values are expressed in Ohms.
- 1.1 All resistors are 1/8 Watt SMT types with their tolerance and material coded into their value.

VALUE	1%, Metal Film	5%, Carbon Film
0 Ohm to 0.99 Ohms	0R to 0R976	0R to 0R91
1 Ohm to 99 Ohms	1R00 to 97R6	1R0 to 91R
100 Ohms to 999 Ohms	100R0 to 976R0	100R to 910R
1k Ohm to 9k9 Ohms	1k00 to 9k76	1k0 to 9k1
10k Ohms to 99k Ohms	10k0 to 97k6	10k to 91k
100k Ohms to 999k Ohms	100k0 to 976k0	100k to 910k
1M Ohm to 99M Ohms	1M00 to 97M6	1M0 to 91M

- 2. All resistor networks are 2%, 1/8 Watt types with their values expressed in Ohms.
- 3.0 All capacitor values are expressed in Farads
- 3.1 All 100n bypass capacitors are 10%, 50 Volt, X7R, Ceramic Monolithic types.
- 3.2 All 100p RF capacitors are 5%, 50 Volt, NP0, Ceramic Monolithic types.
- 3.3 All NPO capacitors are 5%, 50 Volt, Ceramic Monolithic types.
- 3.4 All MY capacitors are 5%, 50 Volt, Metalized Polyester types.
- 3.5 All PP capacitors are 5%, 50 Volt, Metalized Polypropylene types.
- 3.6 All PC capacitors are 5%, 50 Volt, Metalized Polycarbonate types.
- 3.7 All electrolytic capacitors are 20%, 16 Volt (or higher), Aluminum Electrolyte types.
- 3.8 All TA capacitors are 20%, 16 Volt (or higher), Tantalum Electrolyte types.
- 4. For complete information on any component please see the associated bill of materials.
- 5. All net names preceded by a / are active low signals.
- 6. V+ = +12 Vdc, V- = -12 Vdc, VCC = +5 Vdc

THAT Corporation 45 Sumner Street
Milford, MA
508-478-9200

Title: **QSC Digital Cinema Monitor**
DCM-I Rear Panel PCB

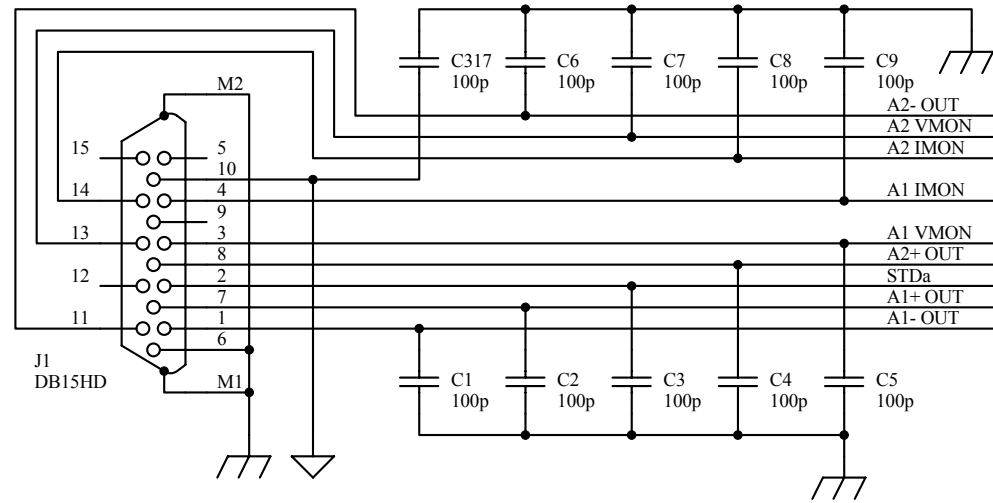
Checked:	Date:
Proj. Eng.:	Date:
Chf. Eng.:	Date:
Production:	Date:

Size: B	Drawing Number: PC-000093-00	Revision: A
Date: 28-Jun-2002	Drawn by: A. ARANDA	Sheet 1 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\SH0093rA.PRJ		

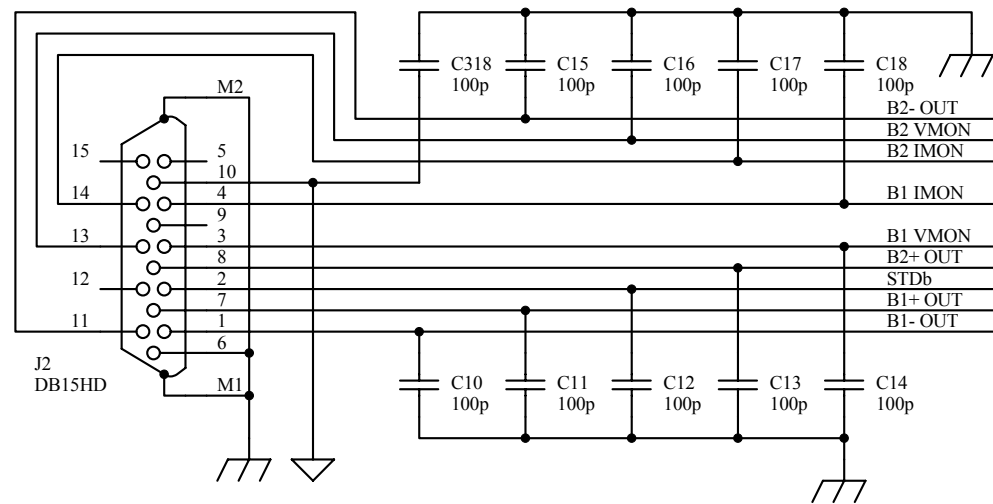
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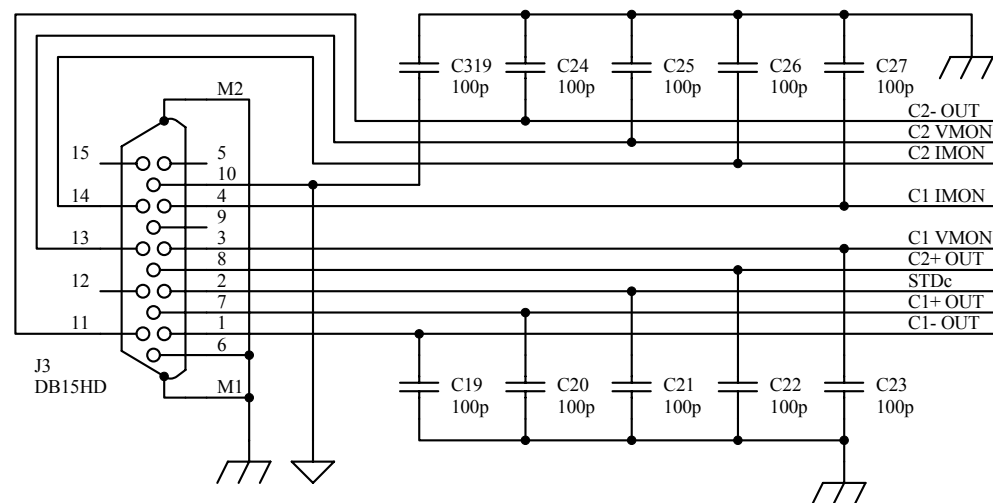
LEFT CHANNEL



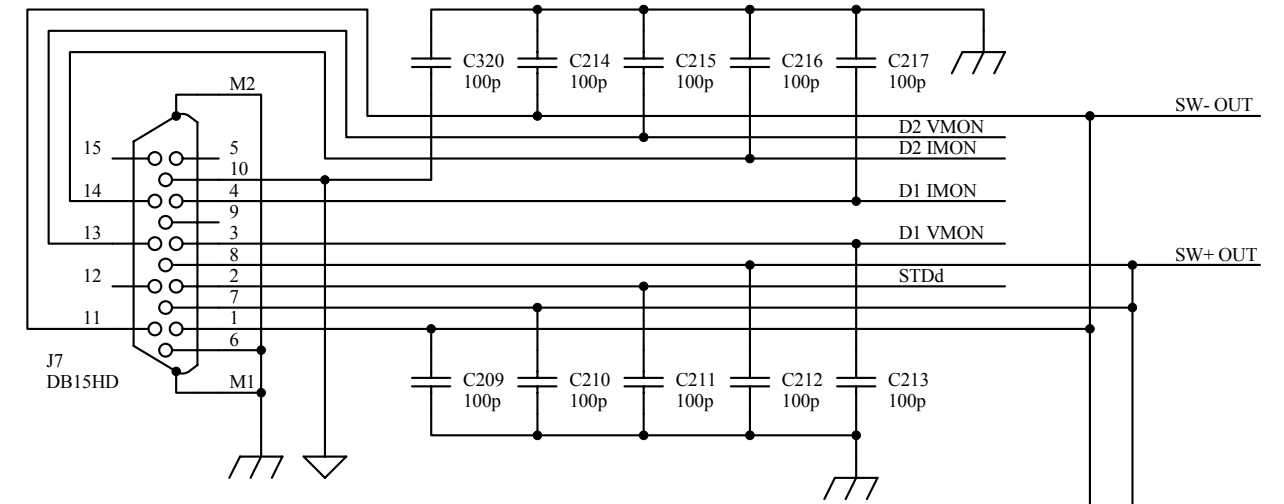
CENTER CHANNEL



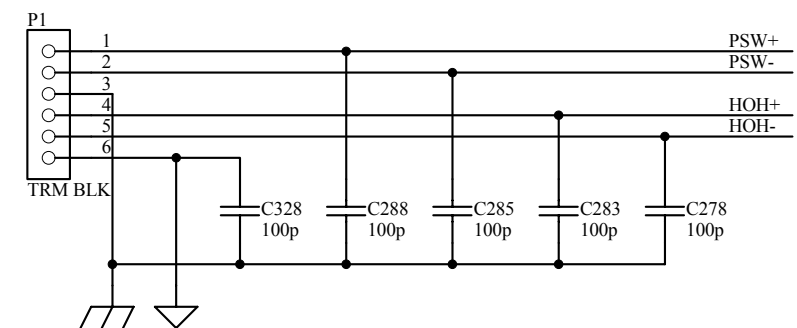
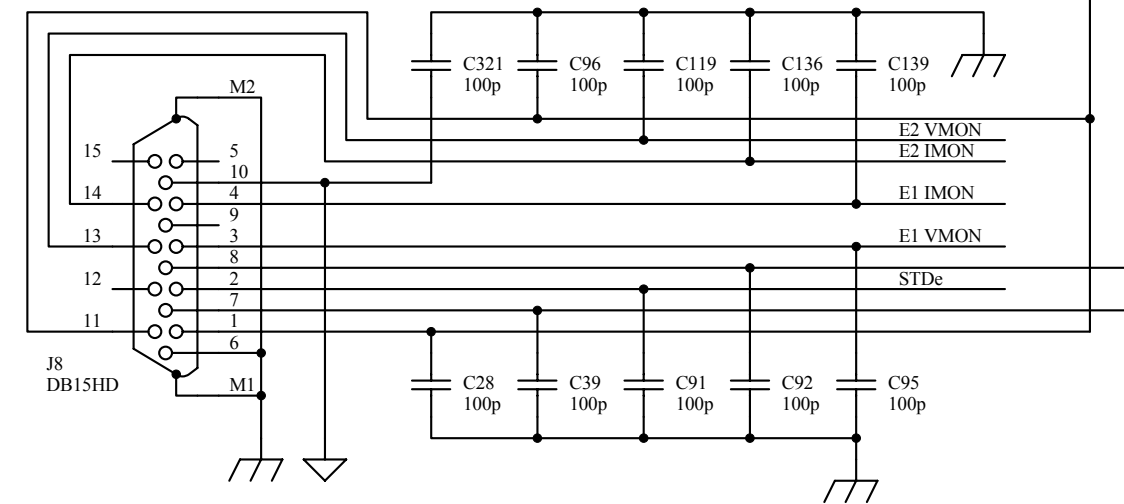
RIGHT CHANNEL



SUBS 1 & 2



SUBS 3 & 4



From Remote Powered Subwoofer Output Driver
From Hard of Hearing Output Driver

THAT Corporation 45 Sumner Street
Milford, MA 01850
508-478-9200

Title: **DCM-1 Rear Panel PCB**
Screen & Subwoofer Dataports, Aux Outputs

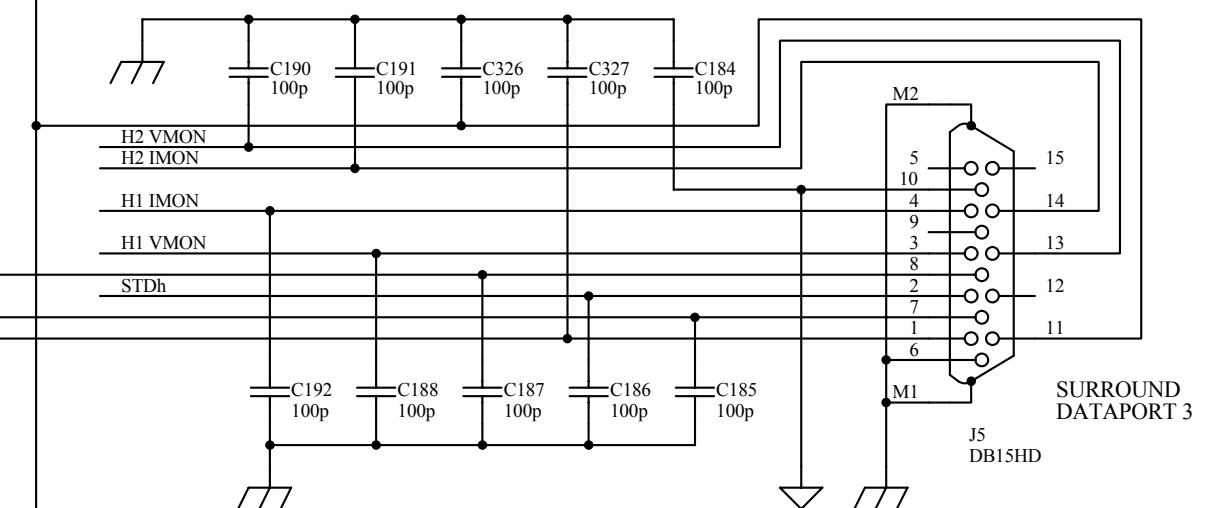
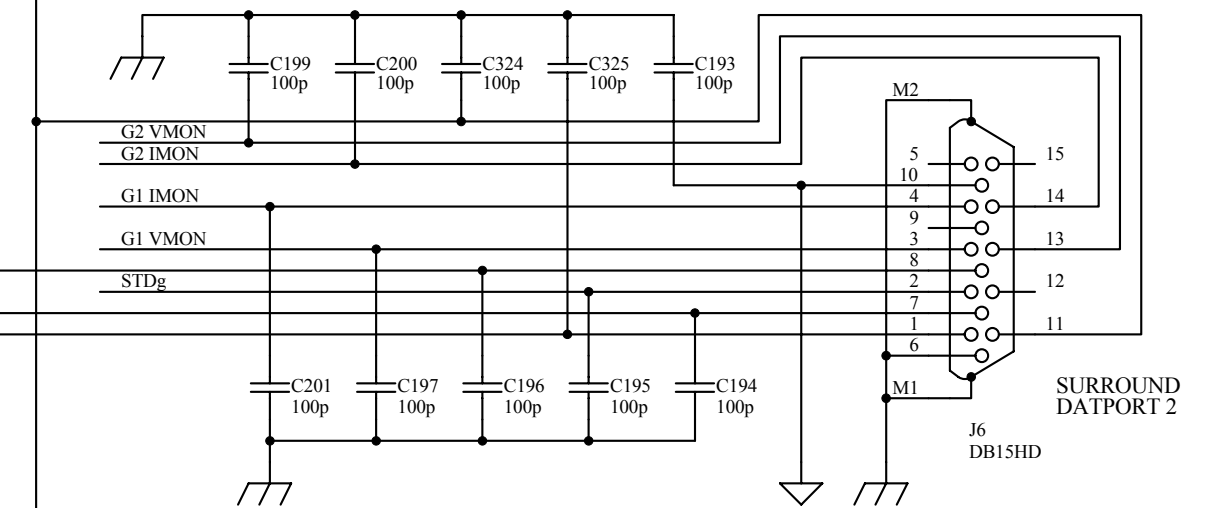
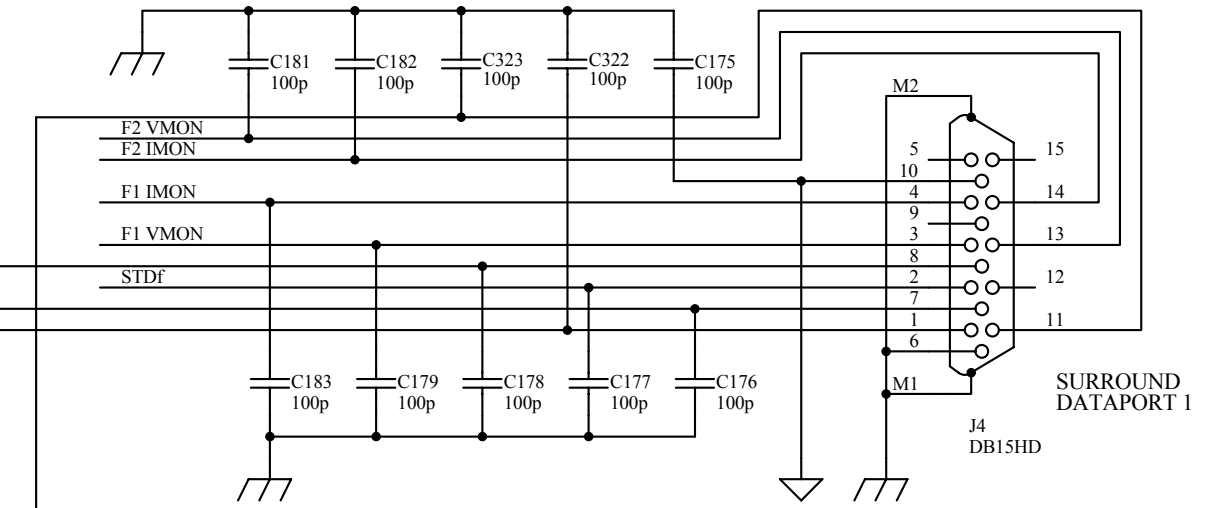
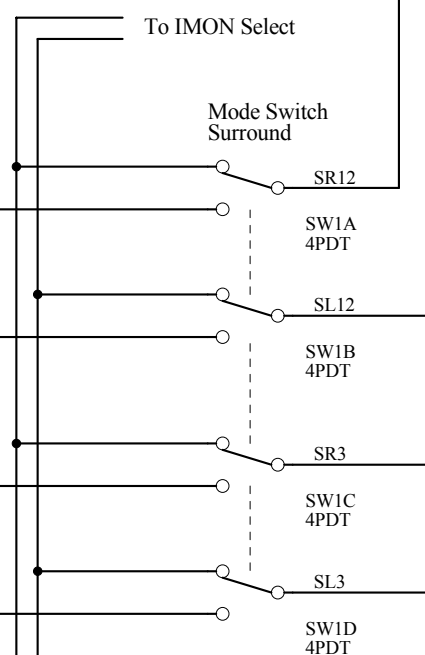
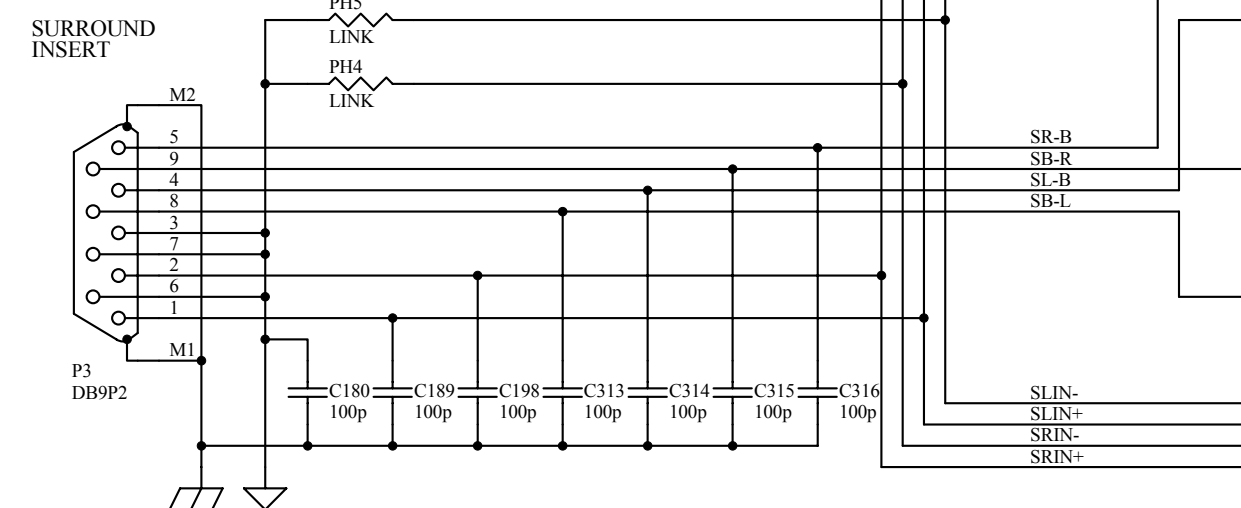
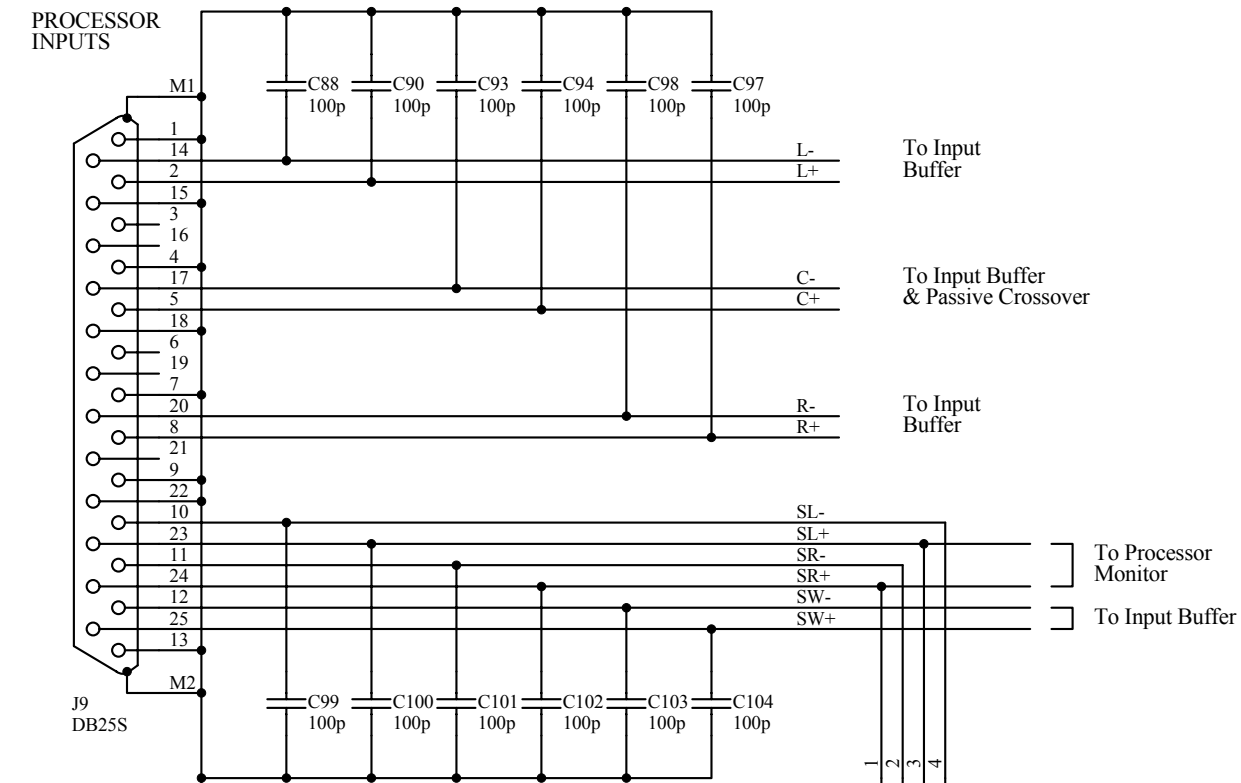
Checked:	Date:
Proj. Eng.:	Date:
Chf. Eng.:	Date:
Production:	Date:

Size: B	Drawing Number: PC-000093-00	Revision: A
Date: 28-Jun-2002	Drawn by: A. ARANDA	Sheet 3 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0304.SCH		

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Rev	Description	Date	Approved

D
C
B
A



THAT Corporation 45 Sumner Street
 Milford, MA 01854
 508-478-9200

Checked:	Date:	Title: DCM-1 Rear Panel PCB Surround Dataports & Insert, Processor Input
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC-000093-000 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 4 of 17 File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0404.SCH

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Rev	Description	Date	Approved

D

C

B

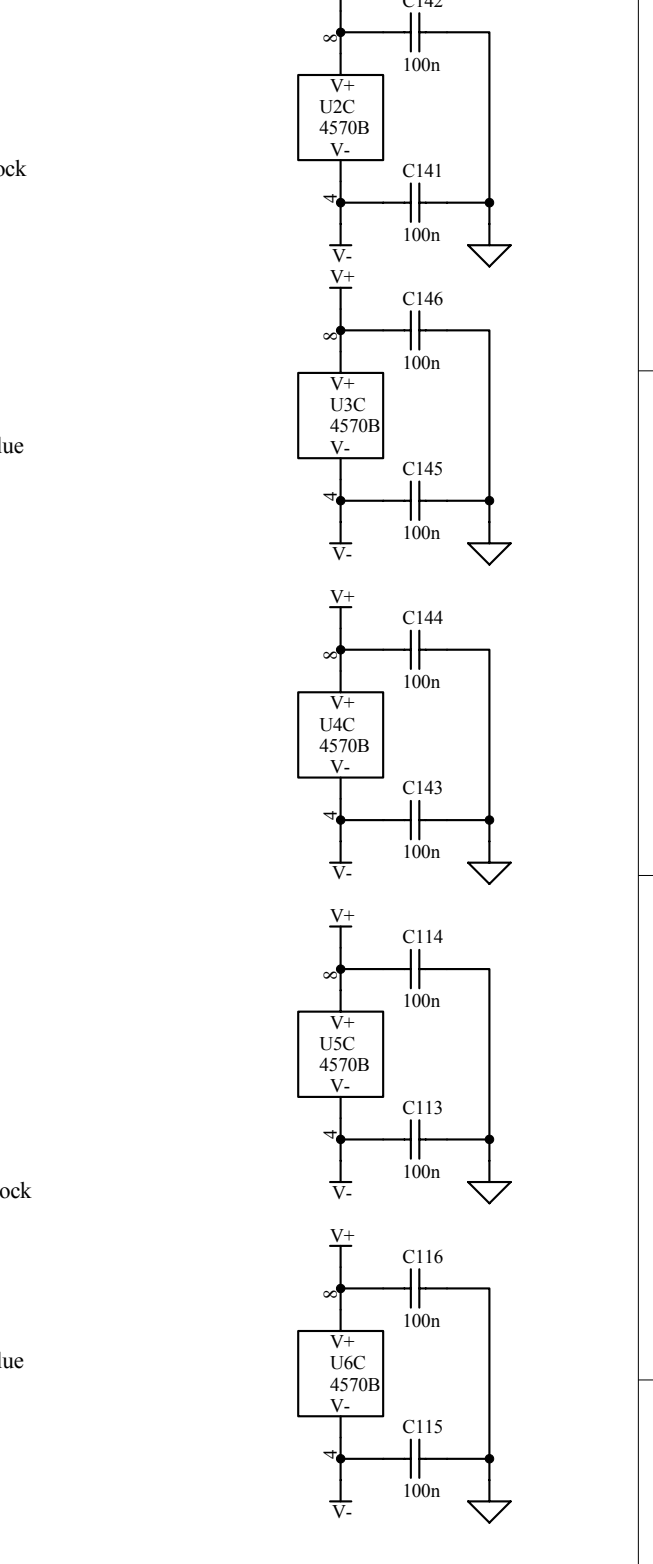
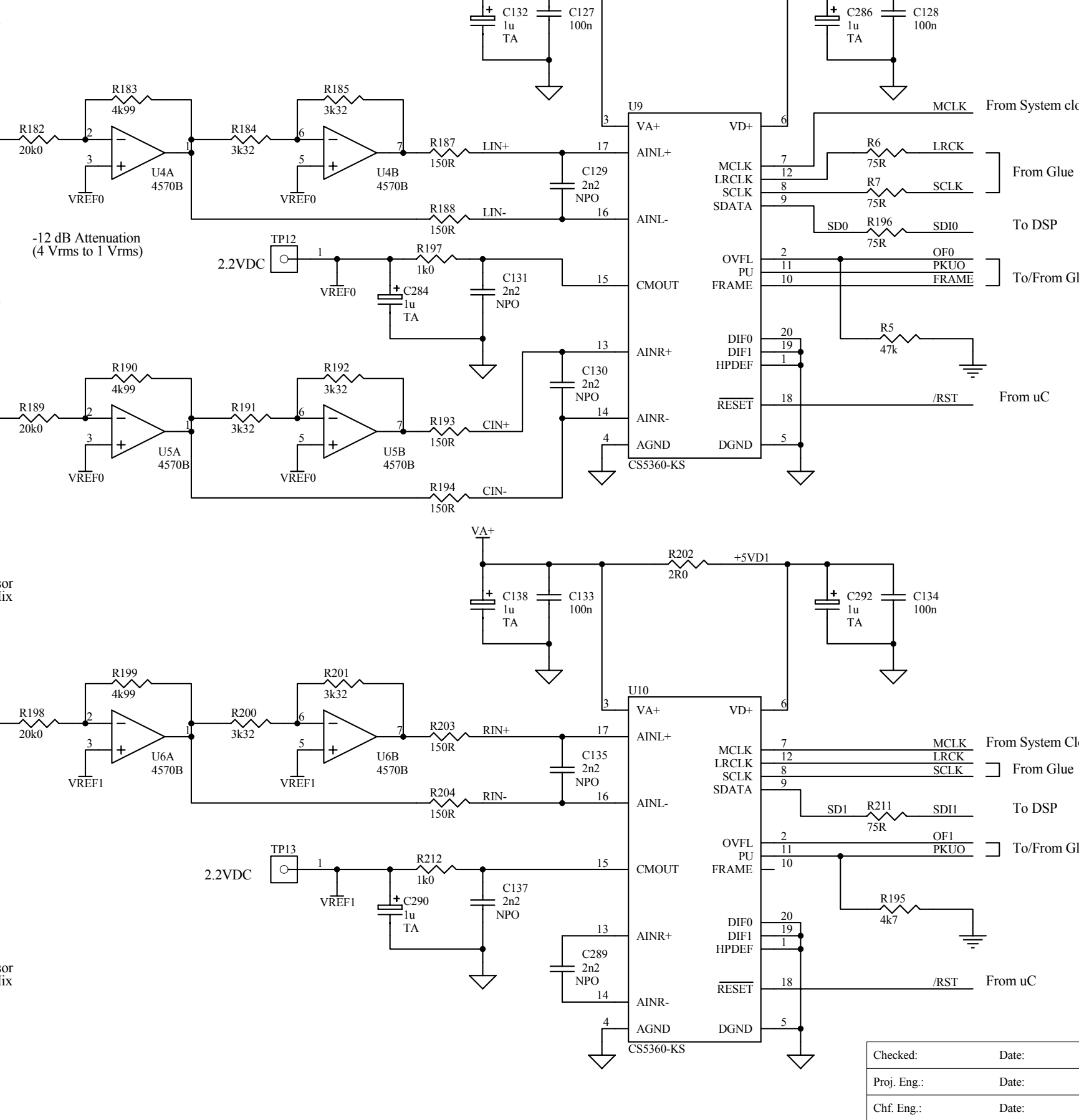
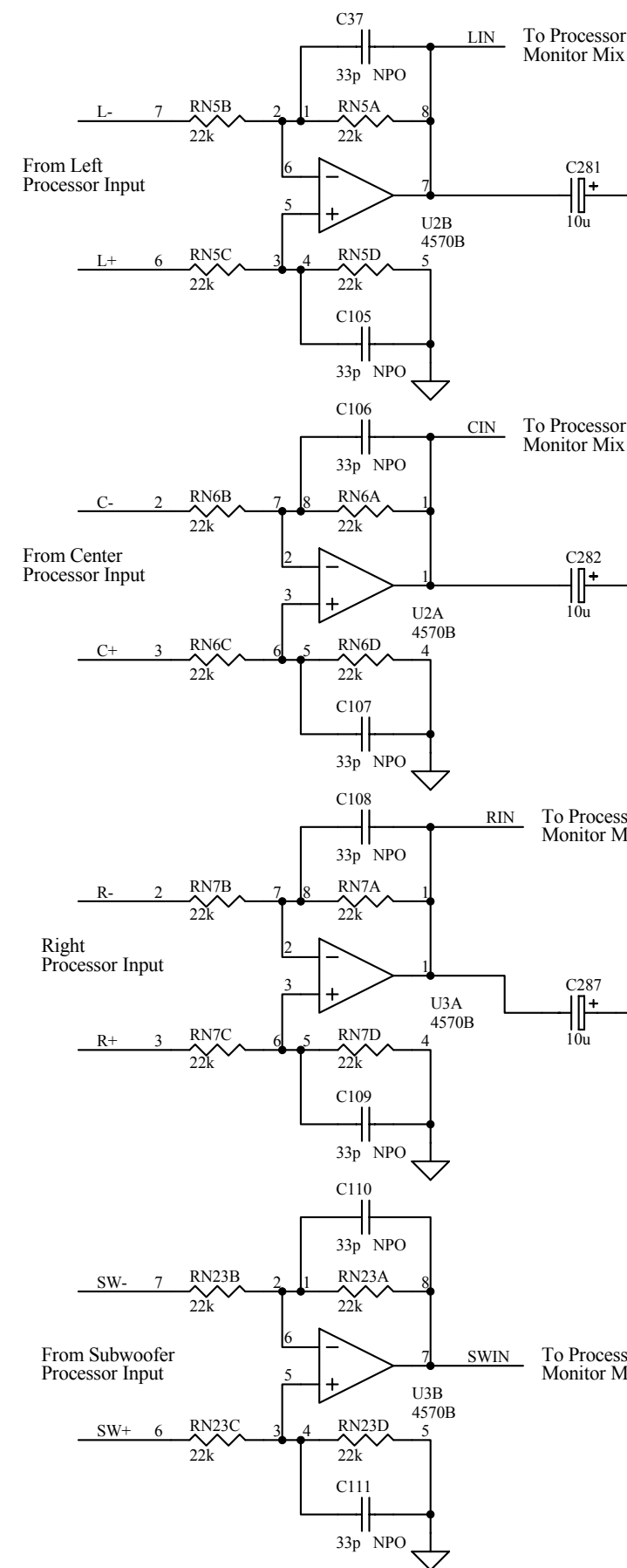
A

D

C

B

A



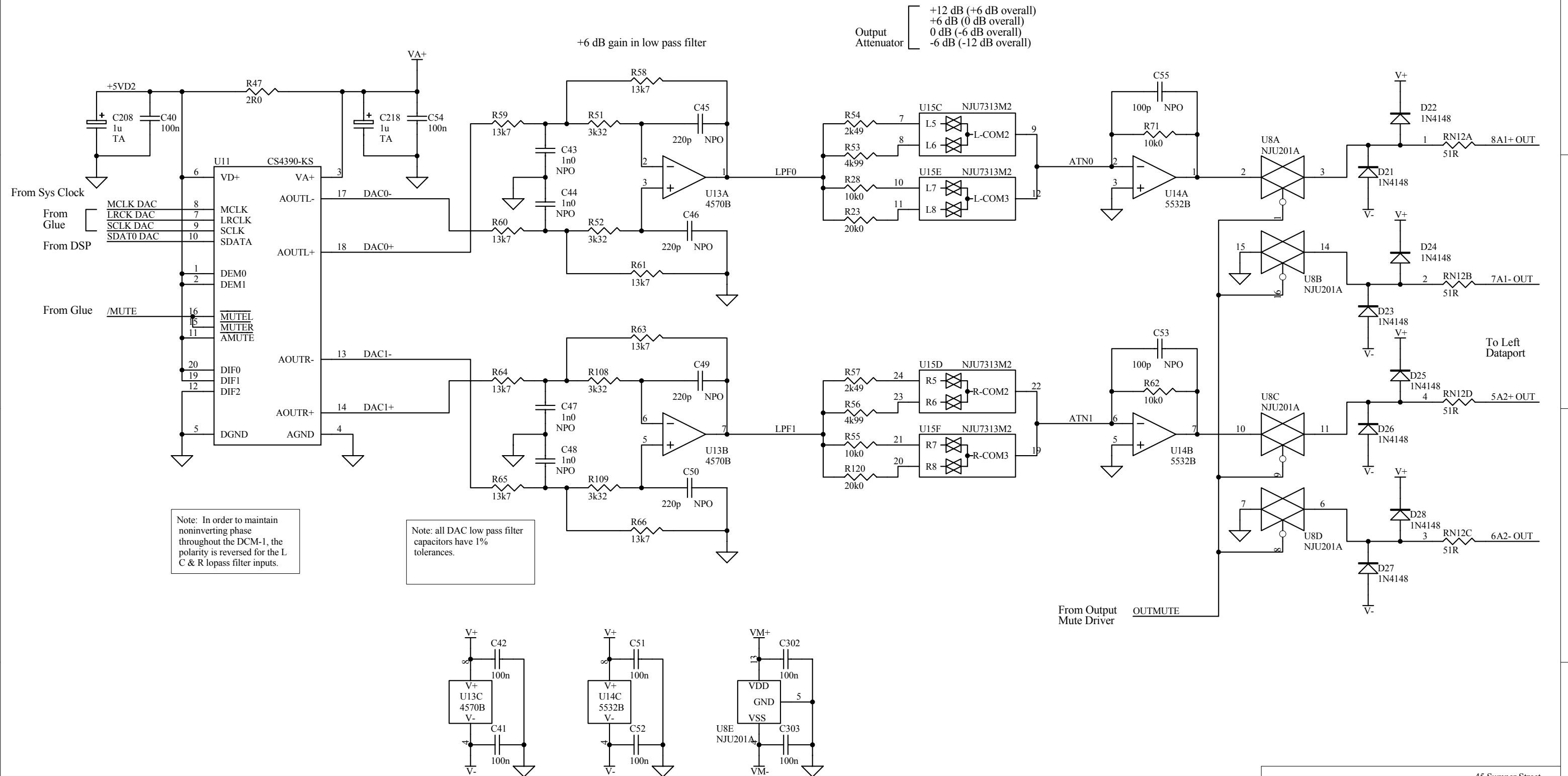
THAT Corporation
45 Sumner Street
Milford, MA
508-478-9200

DCM-1 Rear Panel PCB
Input Buffers & A/D Converters

Checked:	Date:	Title:	Size: B	Drawing Number: PC-000093	Revision: A
Proj. Eng.:	Date:				
Chf. Eng.:	Date:	Date: 28-Jun-2002	Drawn by: A. ARANDA	Sheet 5 of 17	File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0504.SCH
Production:	Date:				

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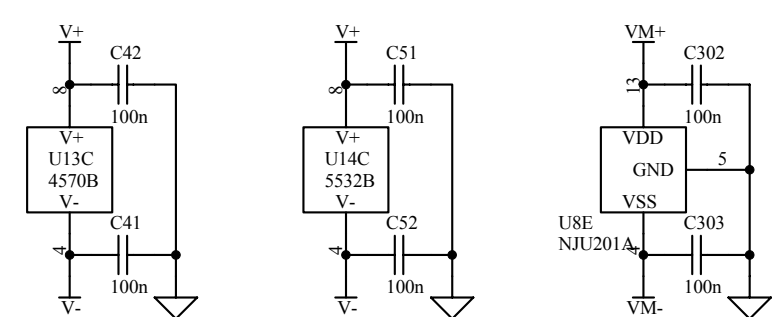
Rev	Description	Date	Approved



Output Attenuator
 +12 dB (+6 dB overall)
 +6 dB (0 dB overall)
 0 dB (-6 dB overall)
 -6 dB (-12 dB overall)

Note: In order to maintain noninverting phase throughout the DCM-1, the polarity is reversed for the L & R lopass filter inputs.

Note: all DAC low pass filter capacitors have 1% tolerances.



THAT Corporation 45 Sumner Street
 Milford, MA 01850
 508-478-9200

Title: **DCM-1 Rear Panel PCB**
 Left Channel D/A Converter

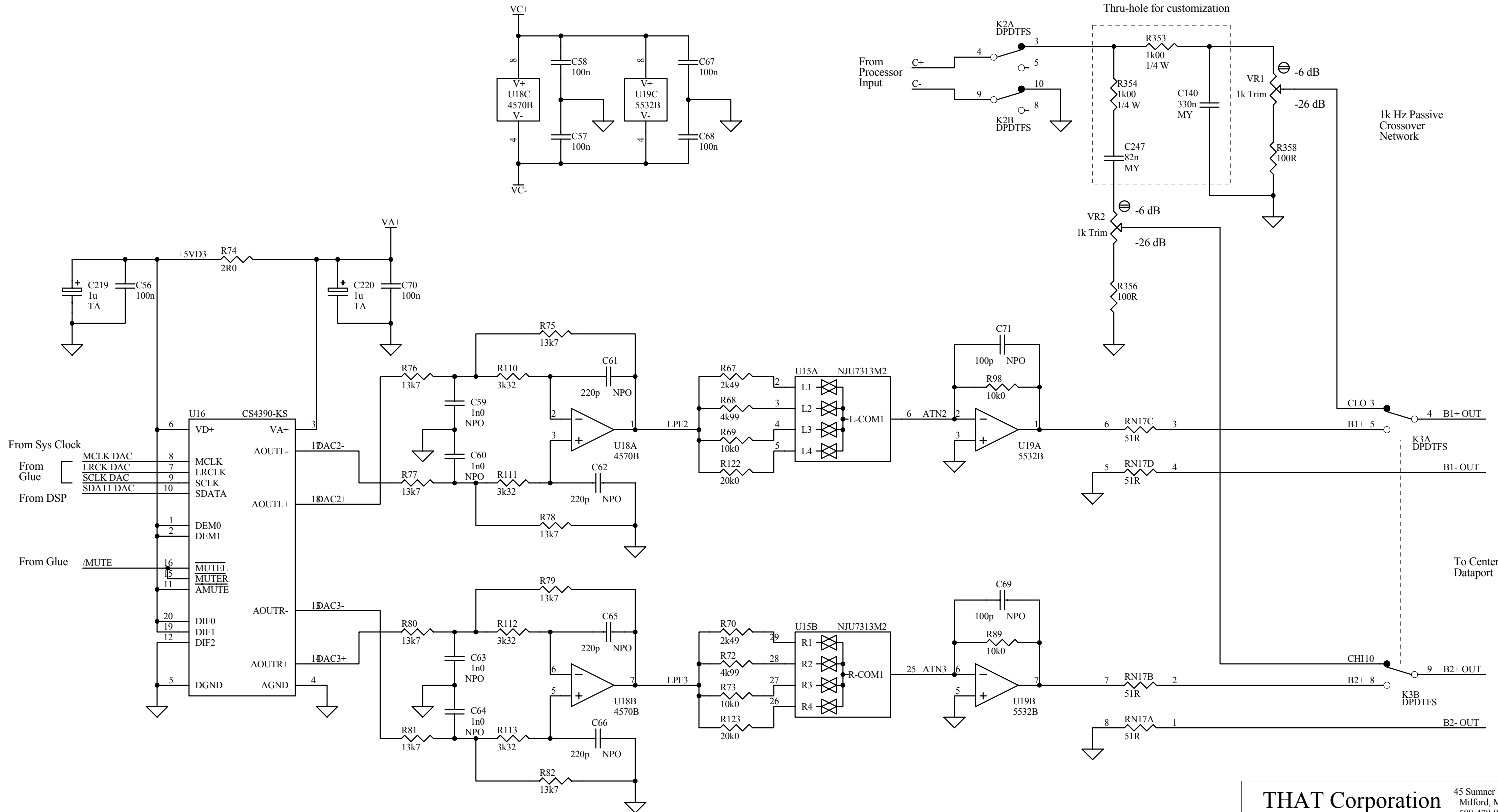
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Chf. Eng.:	Date:
Production:	Date:

Size: **B** Drawing Number: **PC-000093** Revision: **A**

Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 6 of 17
 File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0604.SCH

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Note: all DAC low pass filter capacitors have 1% tolerances.

THAT Corporation 45 Sumner Street
 Milford, MA 01840
 508-478-9200

Title: **DCM-1 Rear Panel PCB**
 Center D/A Converter With Bypass Xover

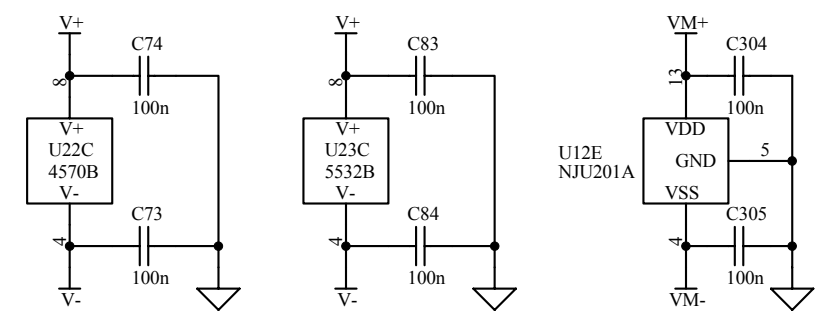
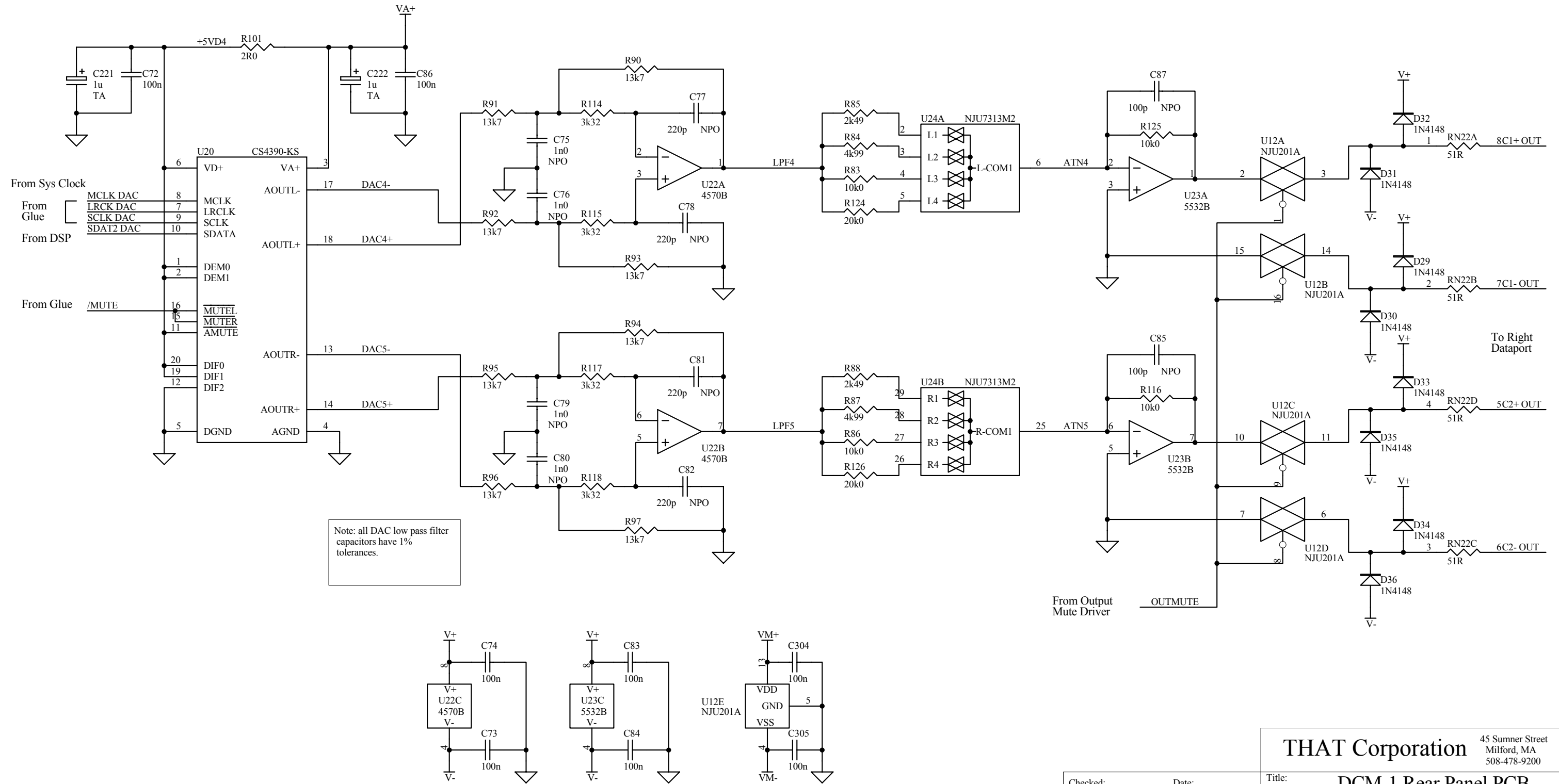
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 Proj. Eng.: _____ Date: _____
 Chf. Eng.: _____ Date: _____
 Production: _____ Date: _____

Size: **B** Drawing Number: **PC-000093** Revision: **A**

Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 7 of 17
 File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0704.SCH

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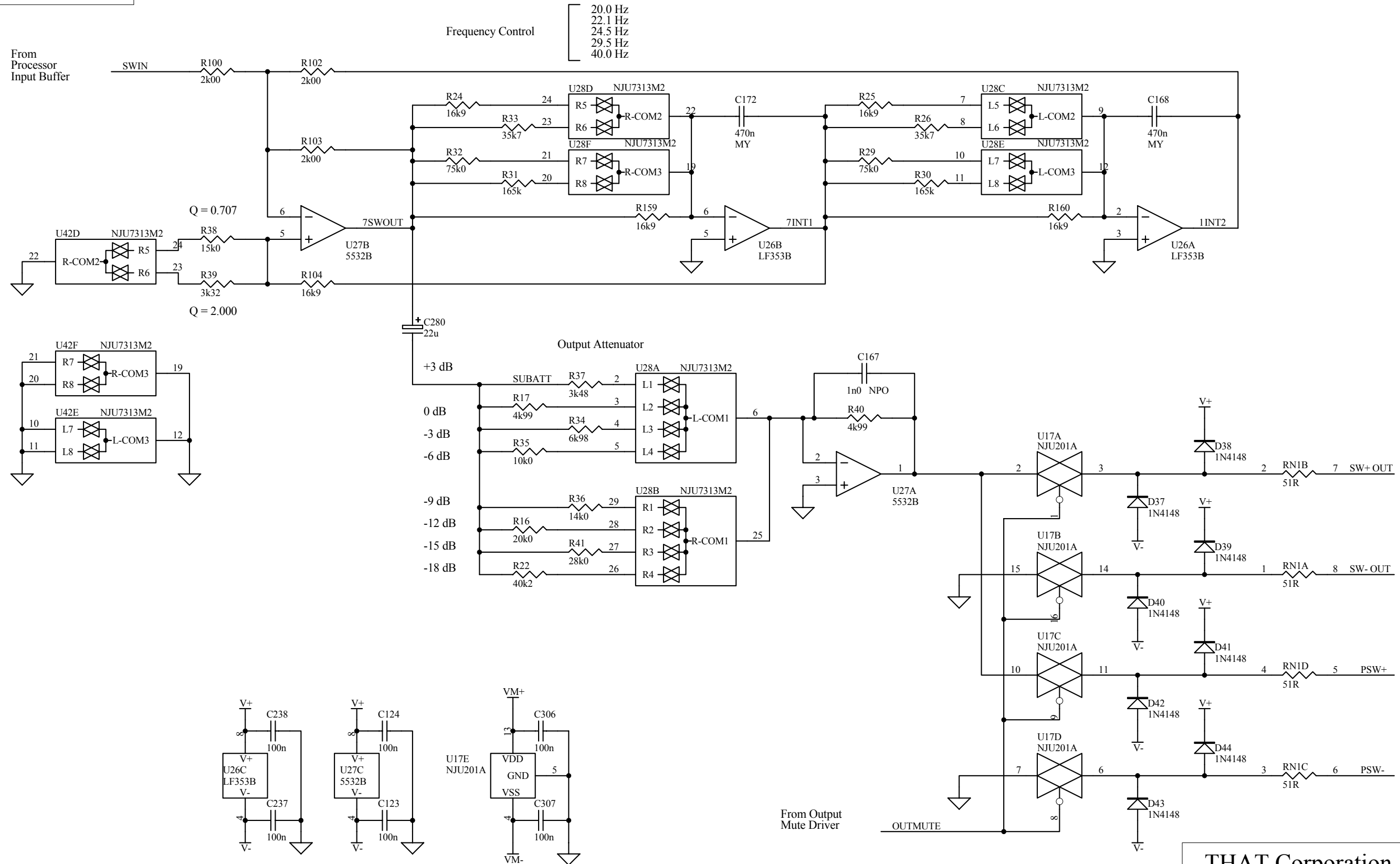


THAT Corporation 45 Sumner Street
Milford, MA 01850
508-478-9200

Checked:	Date:	Title: DCM-1 Rear Panel PCB Right Channel D/A Converter
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC-000093 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 8 of 17 File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0804.SCH

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THAT Corporation 45 Sumner Street
Milford, MA 01854
508-478-9200

Title: **DCM-1 Rear Panel PCB**
Subwoofer Processing

Checked:	Date:	Size: B	Drawing Number: PC-000093	Revision: A
Proj. Eng.:	Date:			
Chf. Eng.:	Date:	Date: 28-Jun-2002		
Production:	Date:	Drawn by: A. ARANDA		
		Sheet 9 of 17		
		File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-0904.SCH		

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D

D

From Dataport Voltage Inputs

C

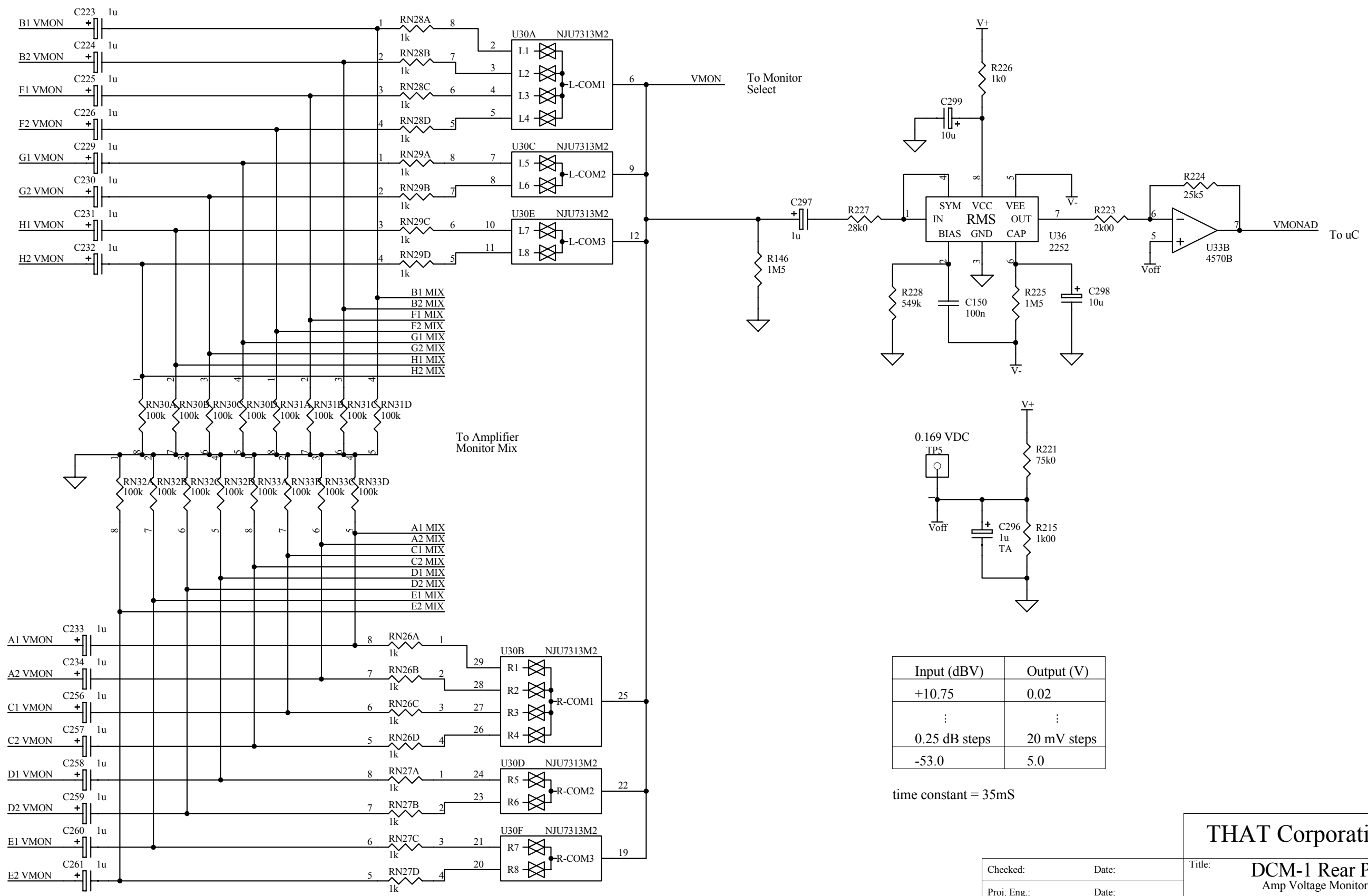
C

B

B

A

A



Input (dBV)	Output (V)
+10.75	0.02
⋮	⋮
0.25 dB steps	20 mV steps
-53.0	5.0

time constant = 35mS

THAT Corporation 45 Sumner Street
Milford, MA 01850
508-478-9200

Title: **DCM-1 Rear Panel PCB Amp Voltage Monitor**

Size: **B** Drawing Number: **PC-000093-000** Revision: **A**

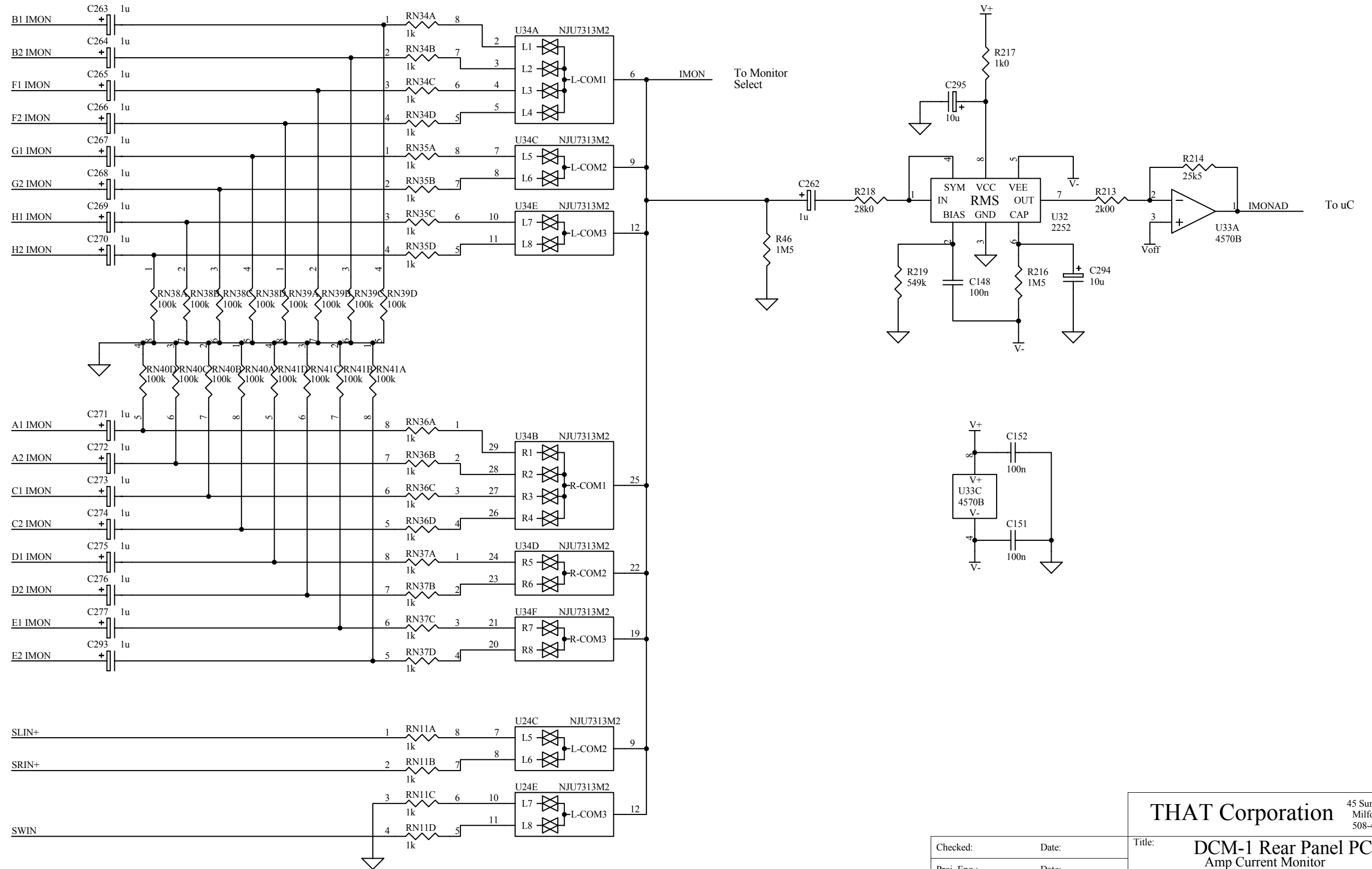
Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 10 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1004.SCH

Checked:	Date:
Proj. Eng.:	Date:
Chf. Eng.:	Date:
Production:	Date:

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From Dataport Current Inputs

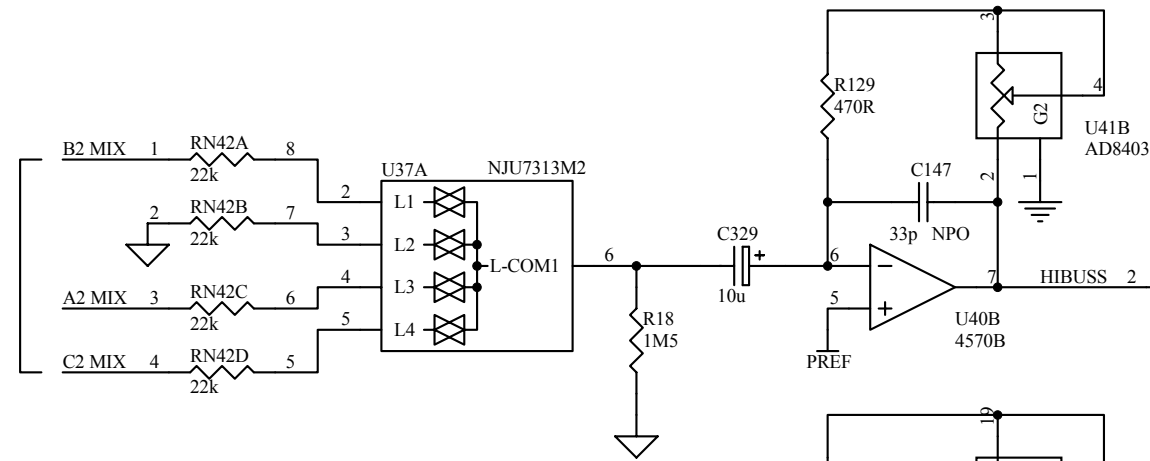


<p>THAT Corporation 45 Sumner Street Milford, MA 508-478-9200</p>		<p>Title: DCM-1 Rear Panel PCB Amp Current Monitor</p>	
		<p>Size: B Drawing Number: PC-000093-000 Revision: A</p>	<p>Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 11 of 17 File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1104.SCH</p>
<p>Checked: _____ Date: _____</p>	<p>Proj. Eng.: _____ Date: _____</p>	<p>Chf. Eng.: _____ Date: _____</p>	<p>Production: _____ Date: _____</p>

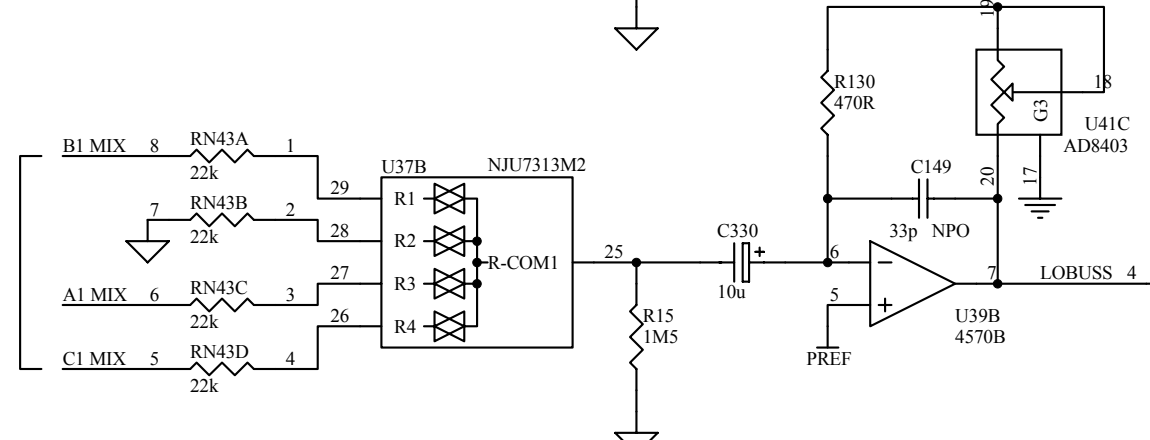
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Rev	Description	Date	Approved

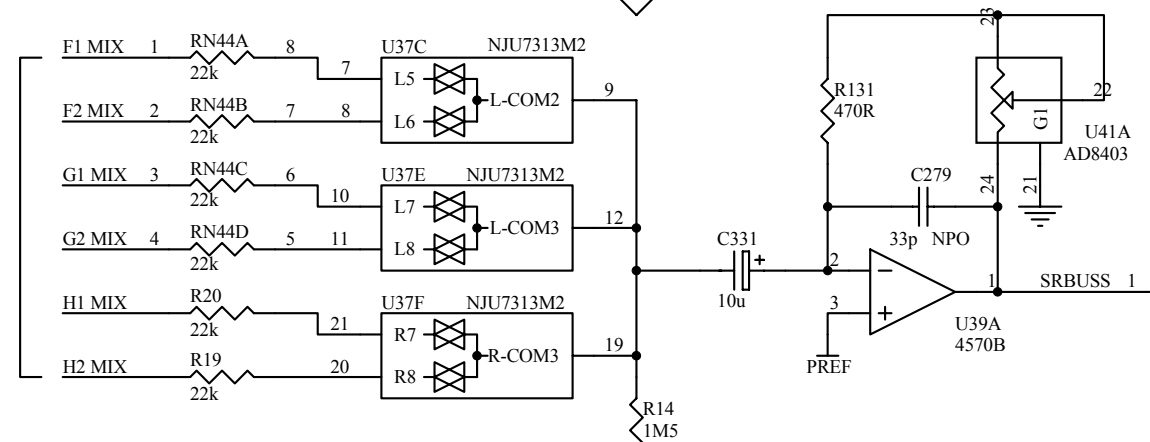
From VMON Inputs (Highs)



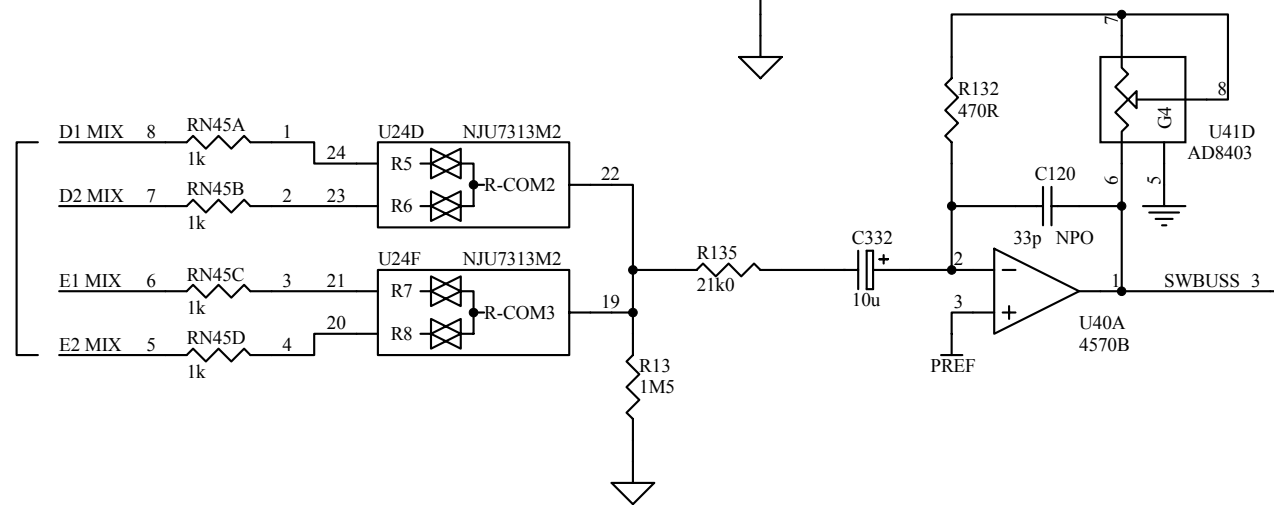
From VMON Inputs (Lows)



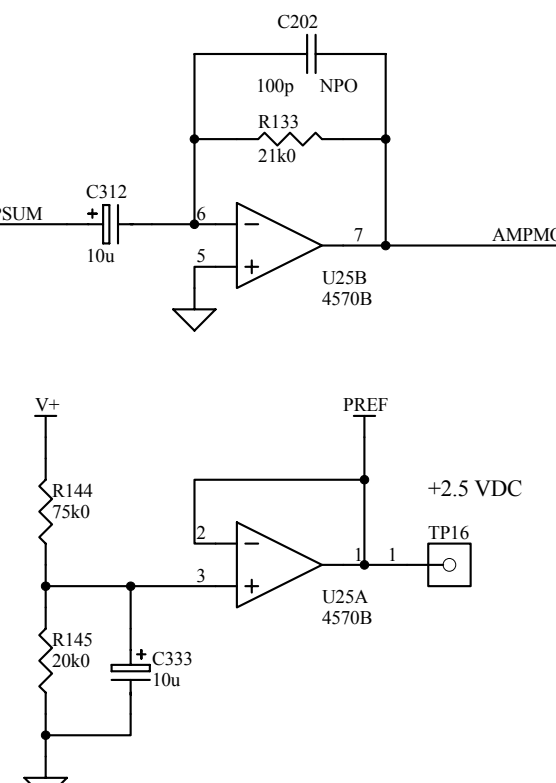
From VMON Inputs (Surrounds)



From VMON Inputs (Subs)

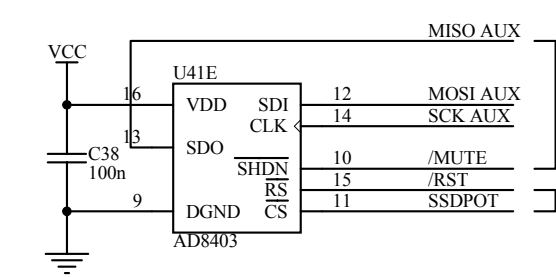


To Monitor Selector

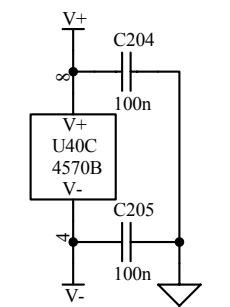
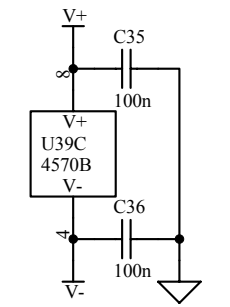
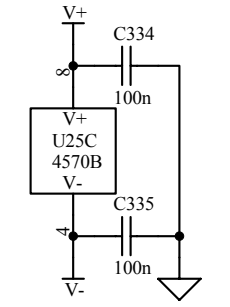


+2.5 VDC

To / From Glue



From uC



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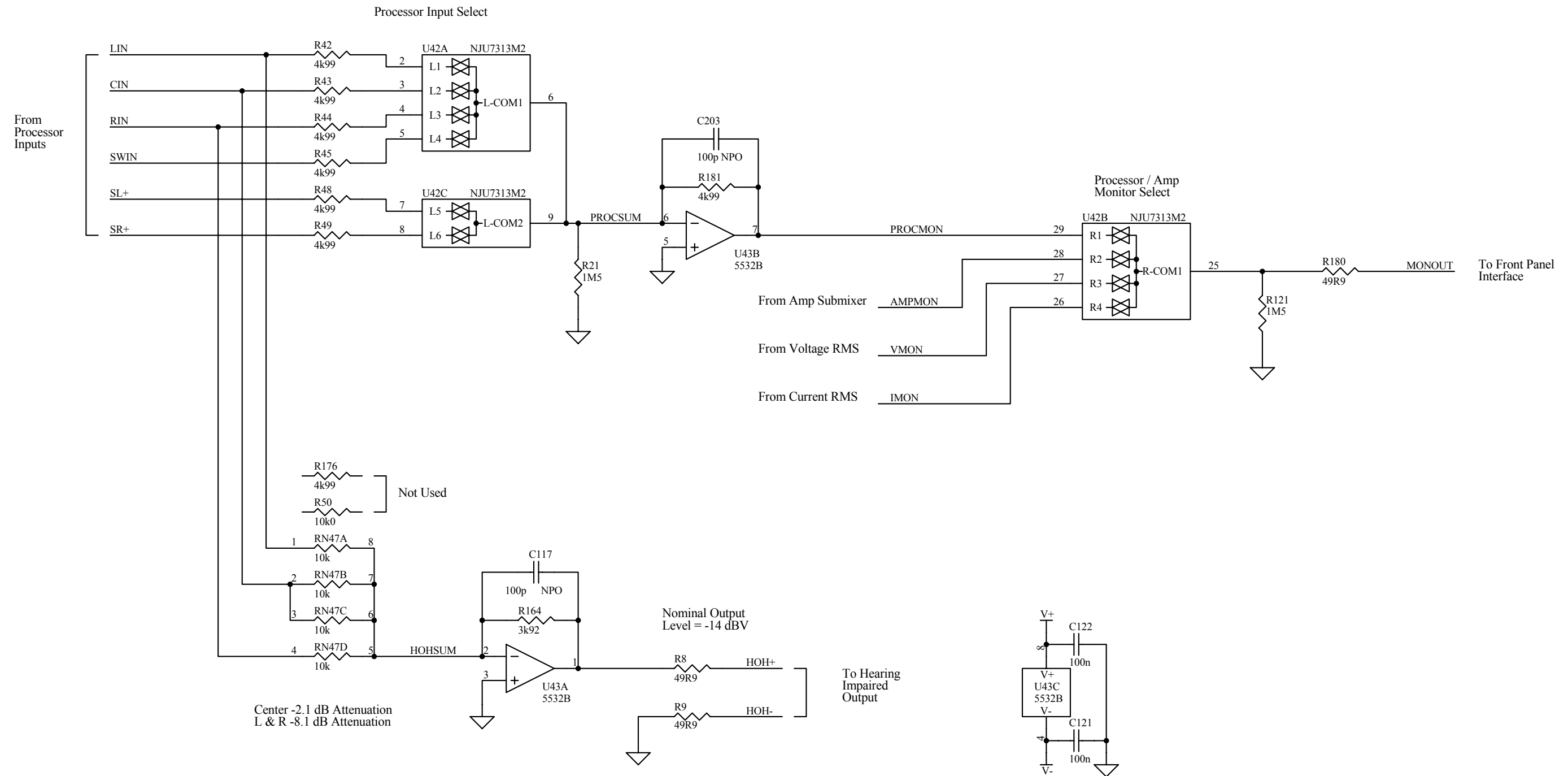
Title: DCM-1 Rear Panel PCB
Amp Monitor Select & Submix

Checked:	Date:
Proj. Eng.:	Date:
Chf. Eng.:	Date:
Production:	Date:

Size: B	Drawing Number: PC-000093-00	Revision: A
Date: 28-Jun-2002	Drawn by: A. ARANDA	Sheet 12 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1204.SCH		

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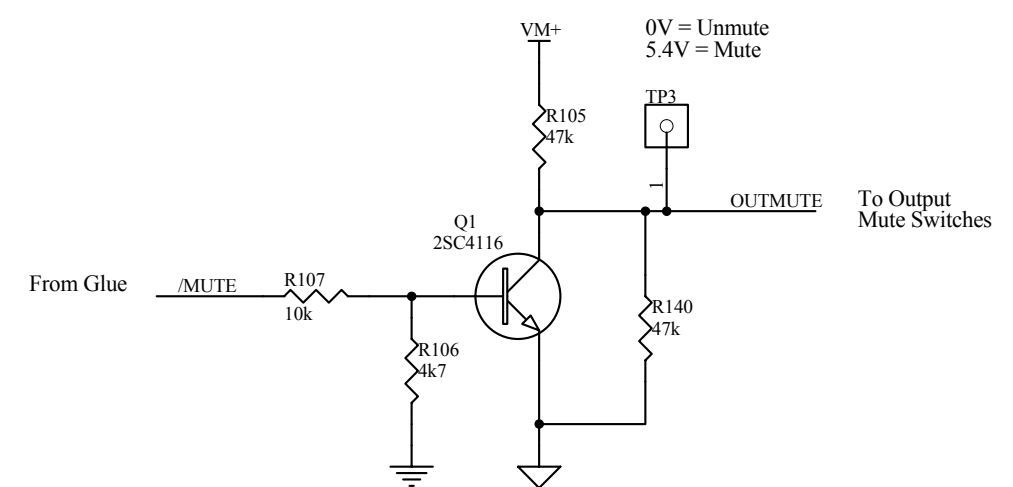
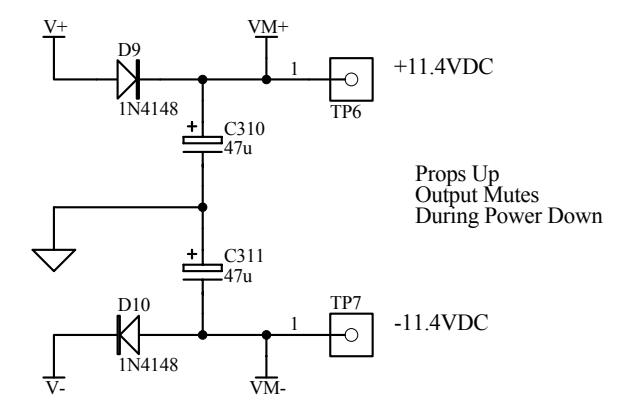
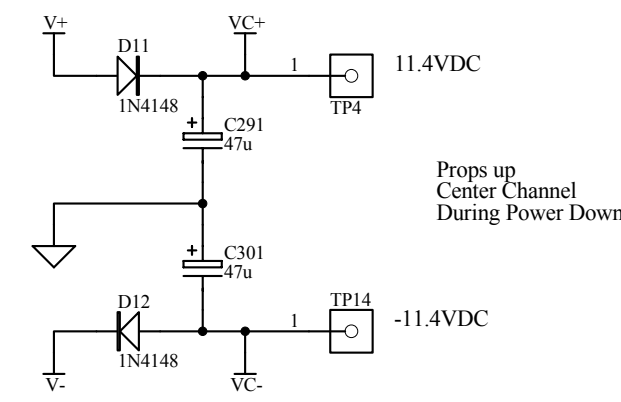
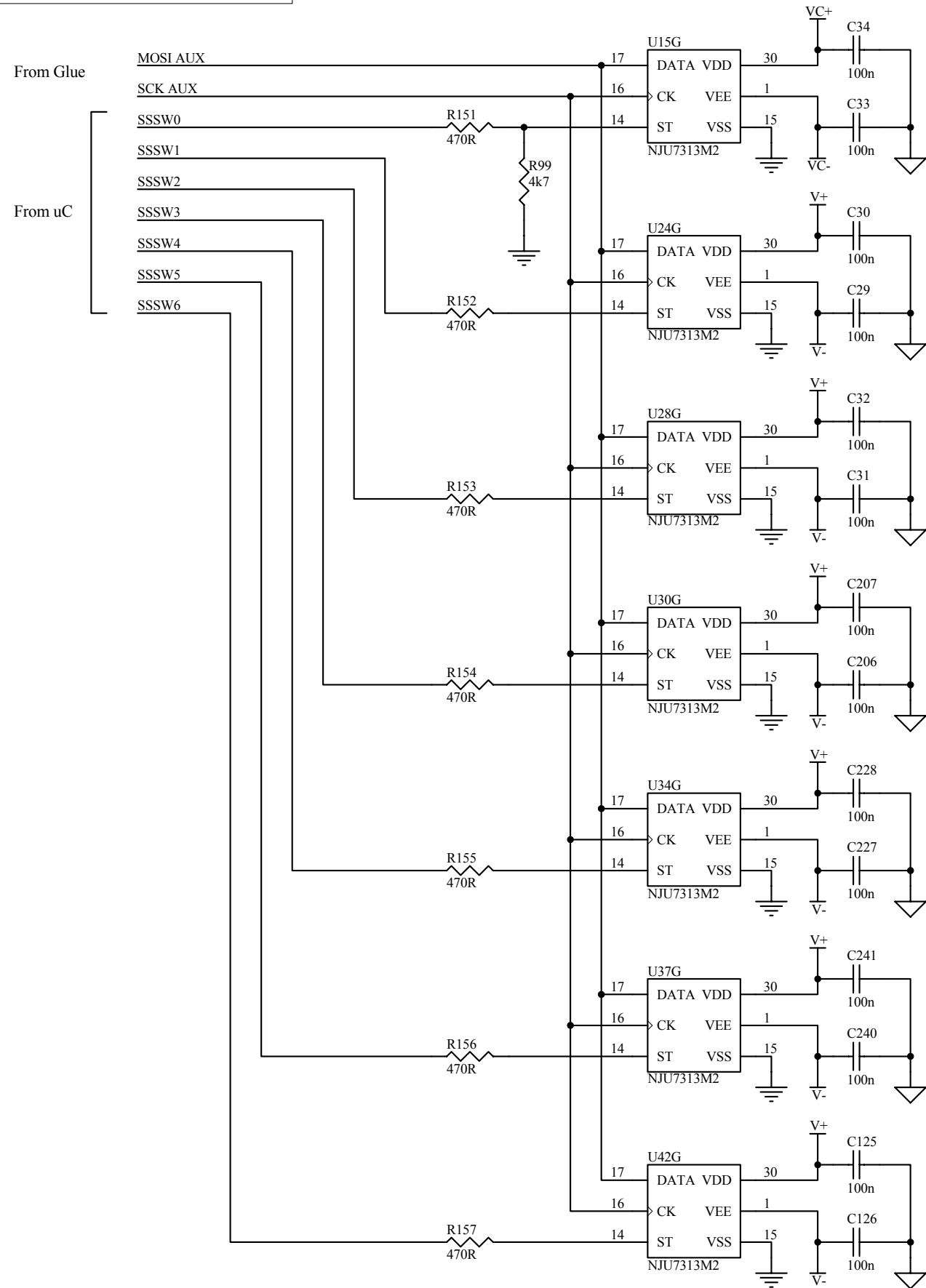


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Checked:	Date:	Title: DCM-1 Rear Panel PCB Processor Monitor Select & Hearing Impaired Mixer
Proj. Eng.:	Date:	
Chf. Eng.:	Date:	Size: B Drawing Number: PC-000093-000 Revision: A
Production:	Date:	Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 13 of 17 File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1304.SCH

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Rev	Description	Date	Approved

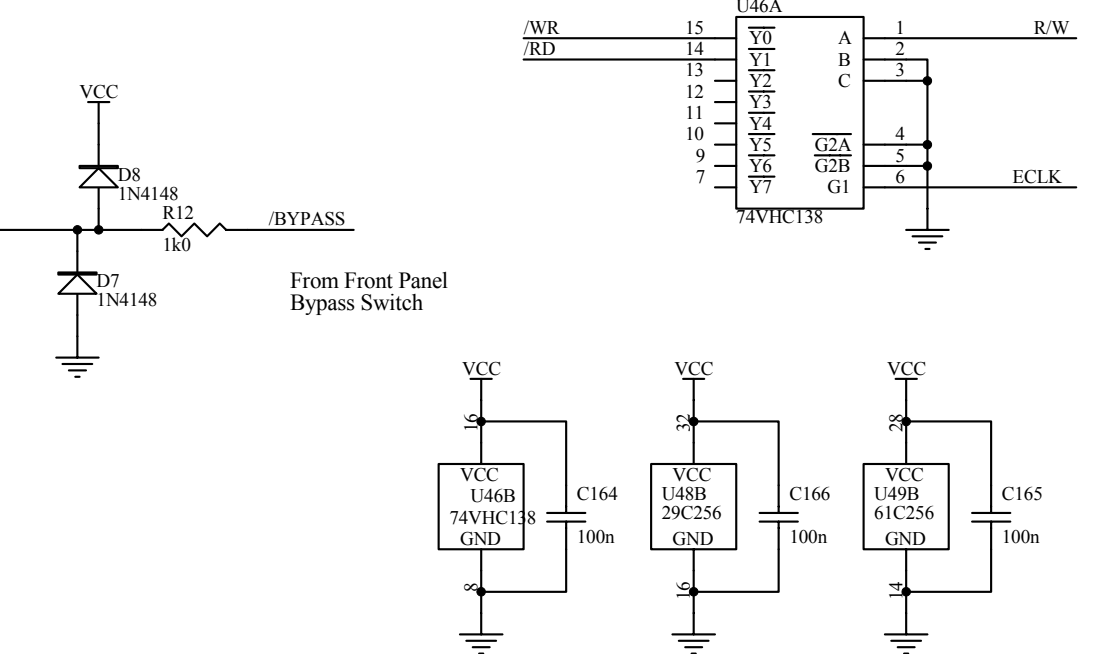
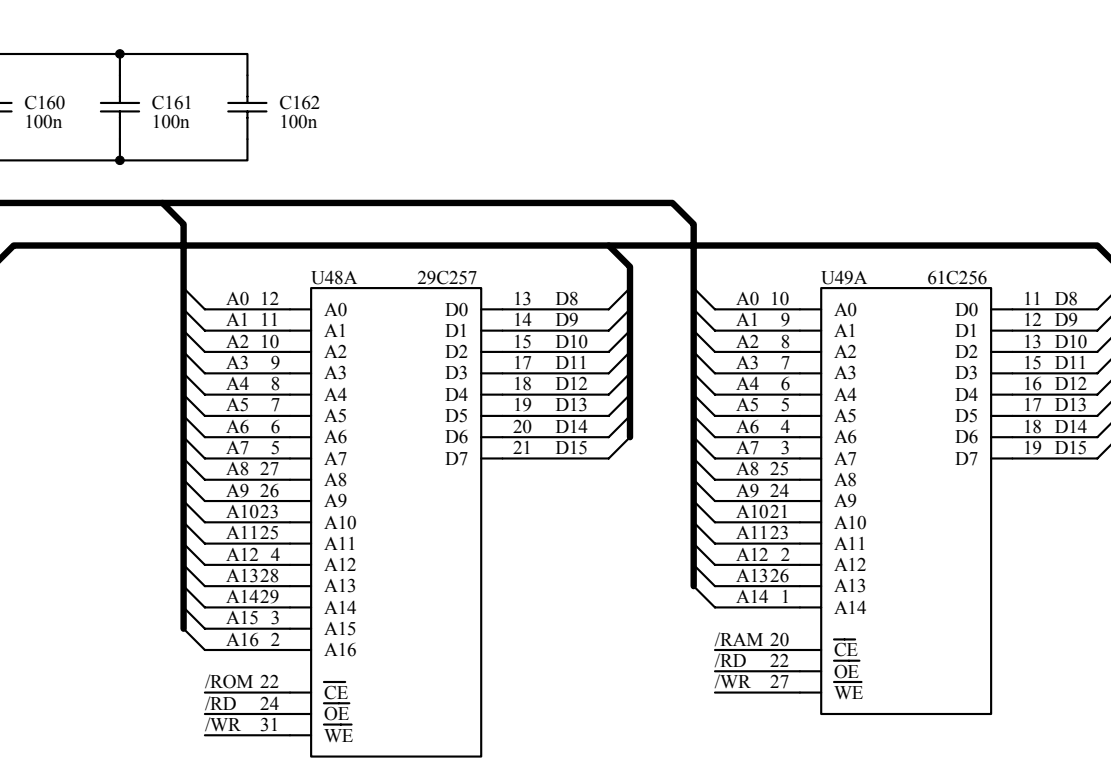
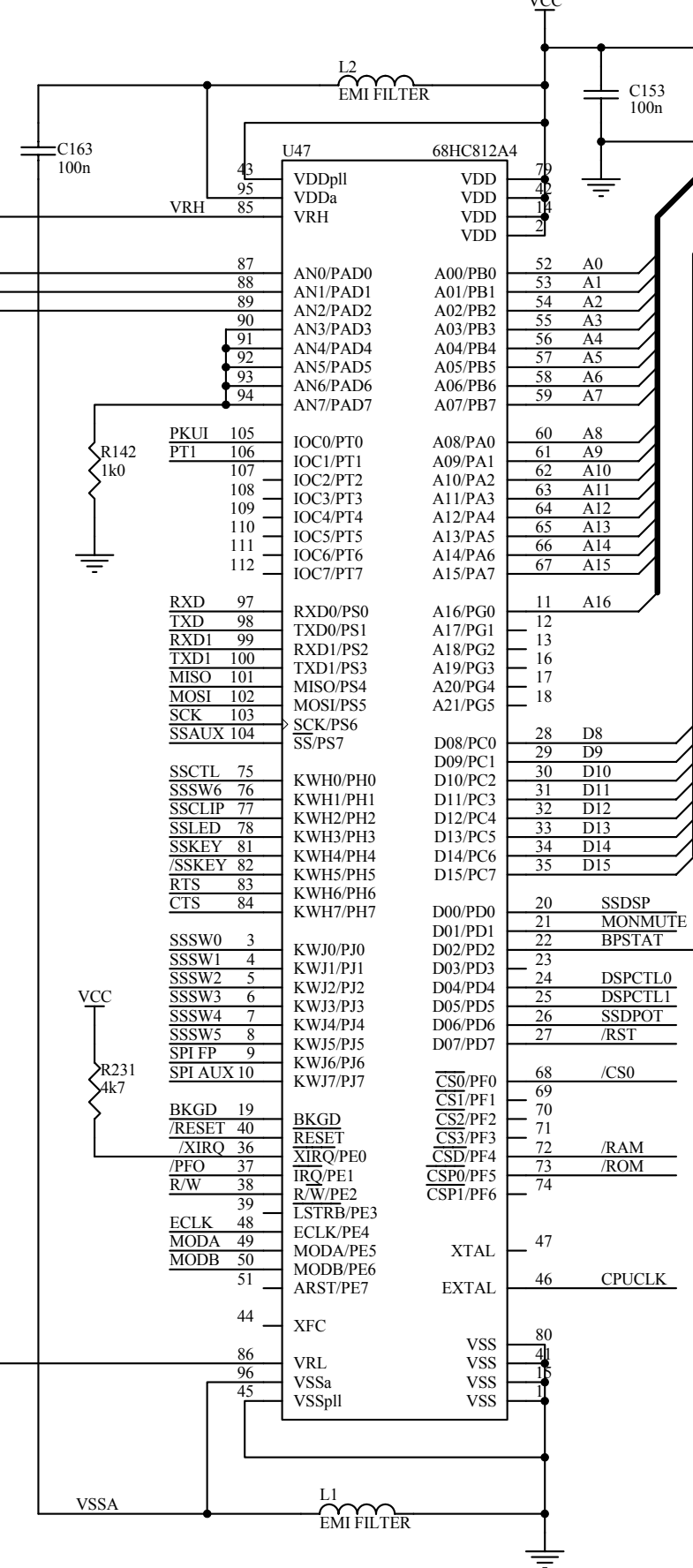
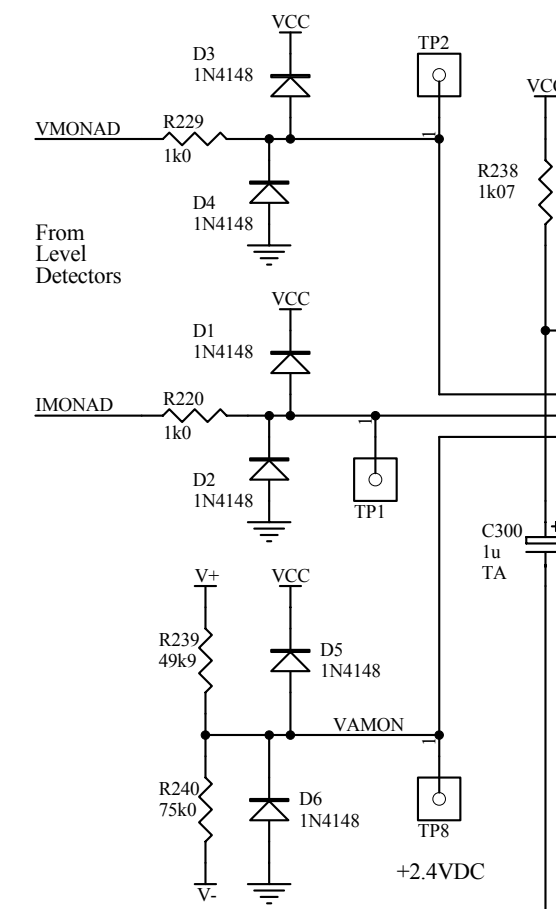
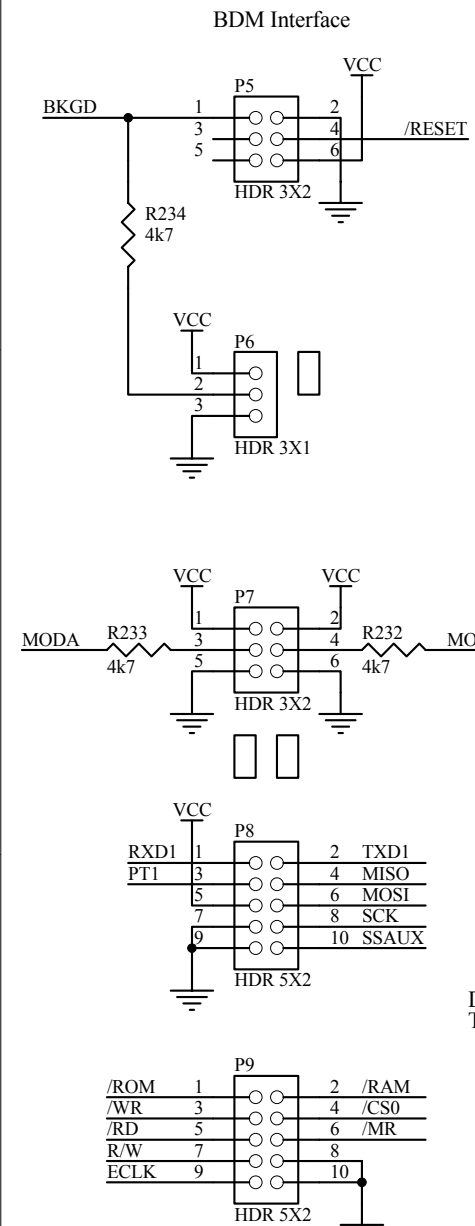


Checked: _____ Date: _____		Title: DCM-1 Rear Panel PCB	
		Analog Switch Control & Supply Prop-ups	
Proj. Eng.: _____ Date: _____		Size: B	Drawing Number: PC-000093-00
Chf. Eng.: _____ Date: _____		Date: 28-Jun-2002	Drawn by: A. ARANDA
Production: _____ Date: _____		Sheet 14 of 17	File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1404.SCH

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D
C
B
A



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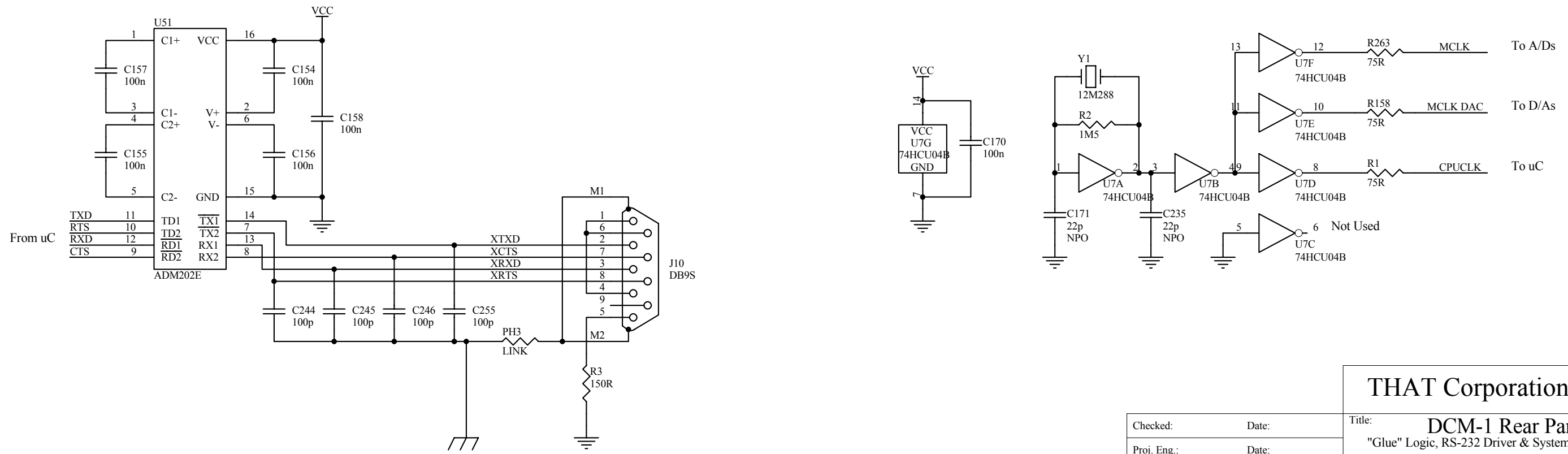
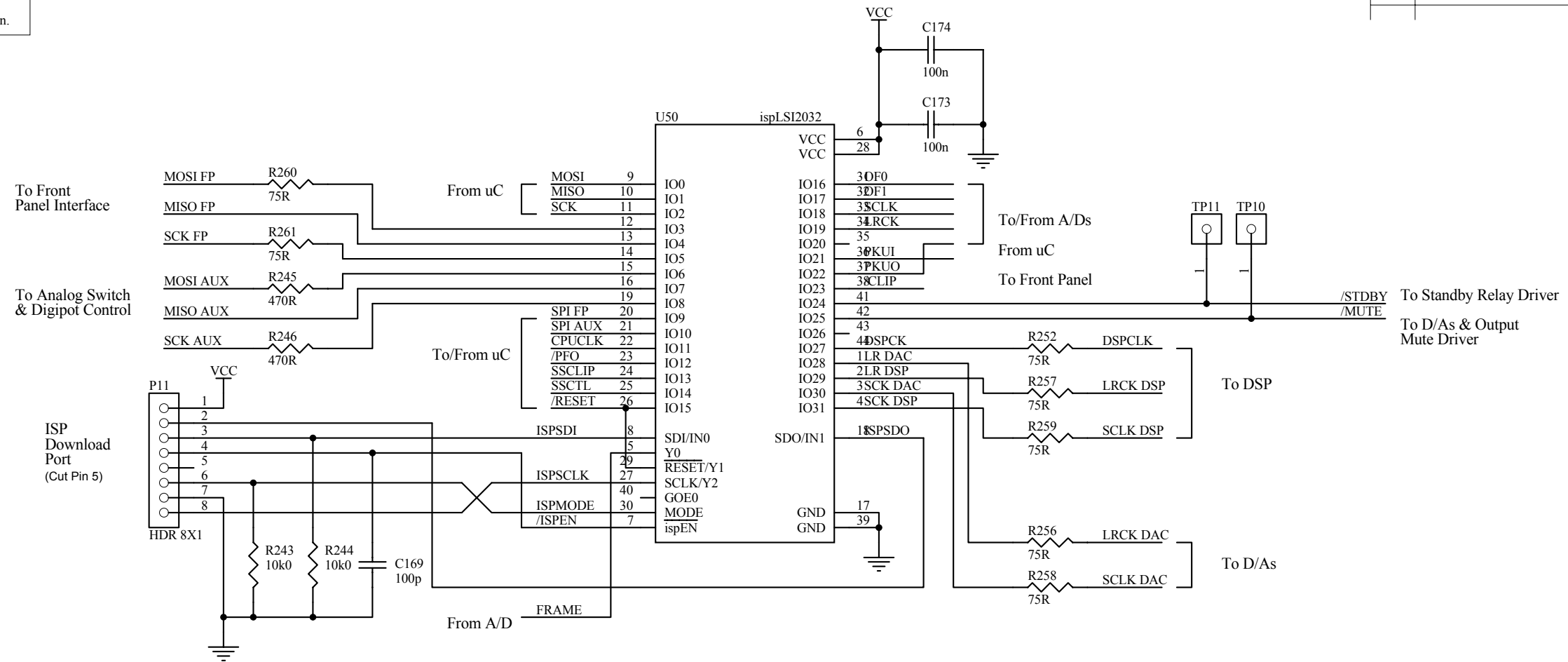
DCM-1 Rear Panel PCB
Microcontroller & Peripherals

Checked: _____ Date: _____
Proj. Eng.: _____ Date: _____
Chf. Eng.: _____ Date: _____
Production: _____ Date: _____

Title: **DCM-1 Rear Panel PCB**
Size: **B** Drawing Number: **PC-000093** Revision: **A**
Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 15 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1504.SCH

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Title: **DCM-1 Rear Panel PCB**
"Glue" Logic, RS-232 Driver & System Clock Oscillator

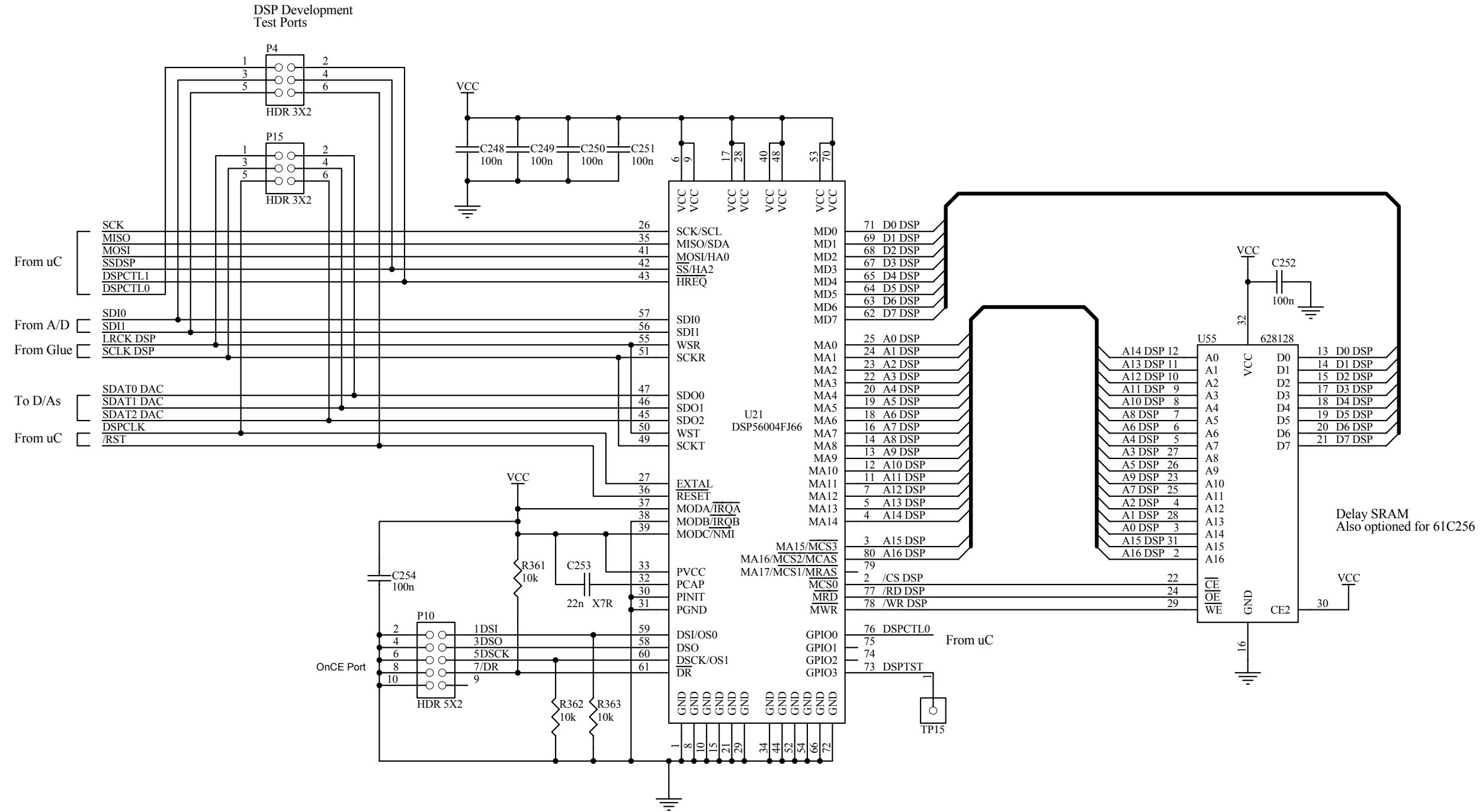
Checked: _____ Date: _____
Proj. Eng.: _____ Date: _____
Chf. Eng.: _____ Date: _____
Production: _____ Date: _____

Size: **B** Drawing Number: **PC-000093-000** Revision: **A**

Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 16 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1604.SCH

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Title: **DCM-1 Rear Panel PCB**
Digital Signal Processor

Checked: _____ Date: _____
Proj. Eng.: _____ Date: _____
Chf. Eng.: _____ Date: _____
Production: _____ Date: _____

Size: **B** Drawing Number: **PC-000093-00** Revision: **A**

Date: 28-Jun-2002 Drawn by: A. ARANDA Sheet 17 of 17
File: C:\AA\PC0093rA\SH0093rA.DDB - Documents\304-1704.SCH