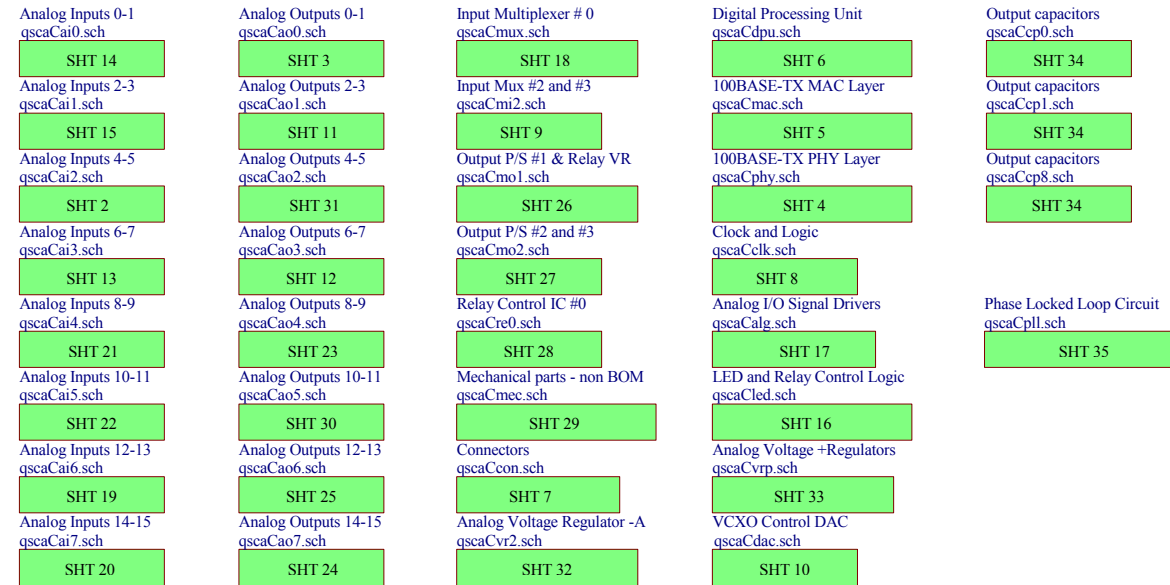


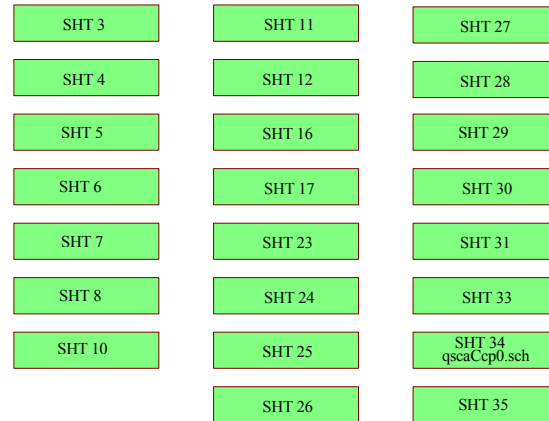
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| REV | DESCRIPTION | EFF. DATE | CHK | APPROVED DATE |
|-----|---------------------------------|-----------|-----|---------------|
| A | Production release per ECO xxxx | 00/00/00 | | |

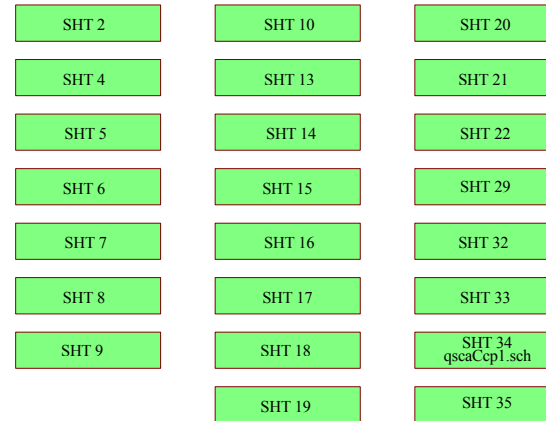
RAVE 's-24' SERIES ANALOG MODELS COMBINED



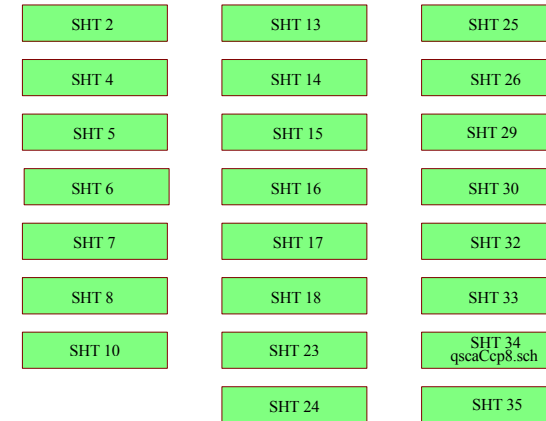
RAVE 160s-24 USE THE FOLLOWING SHEETS



RAVE 161s-24 USE THE FOLLOWING SHEETS



RAVE 188s-24 USE THE FOLLOWING SHEETS



QSC AUDIO PRODUCTS, INC. 1675 MACARTHUR BLVD. COSTA MESA, CA 92626

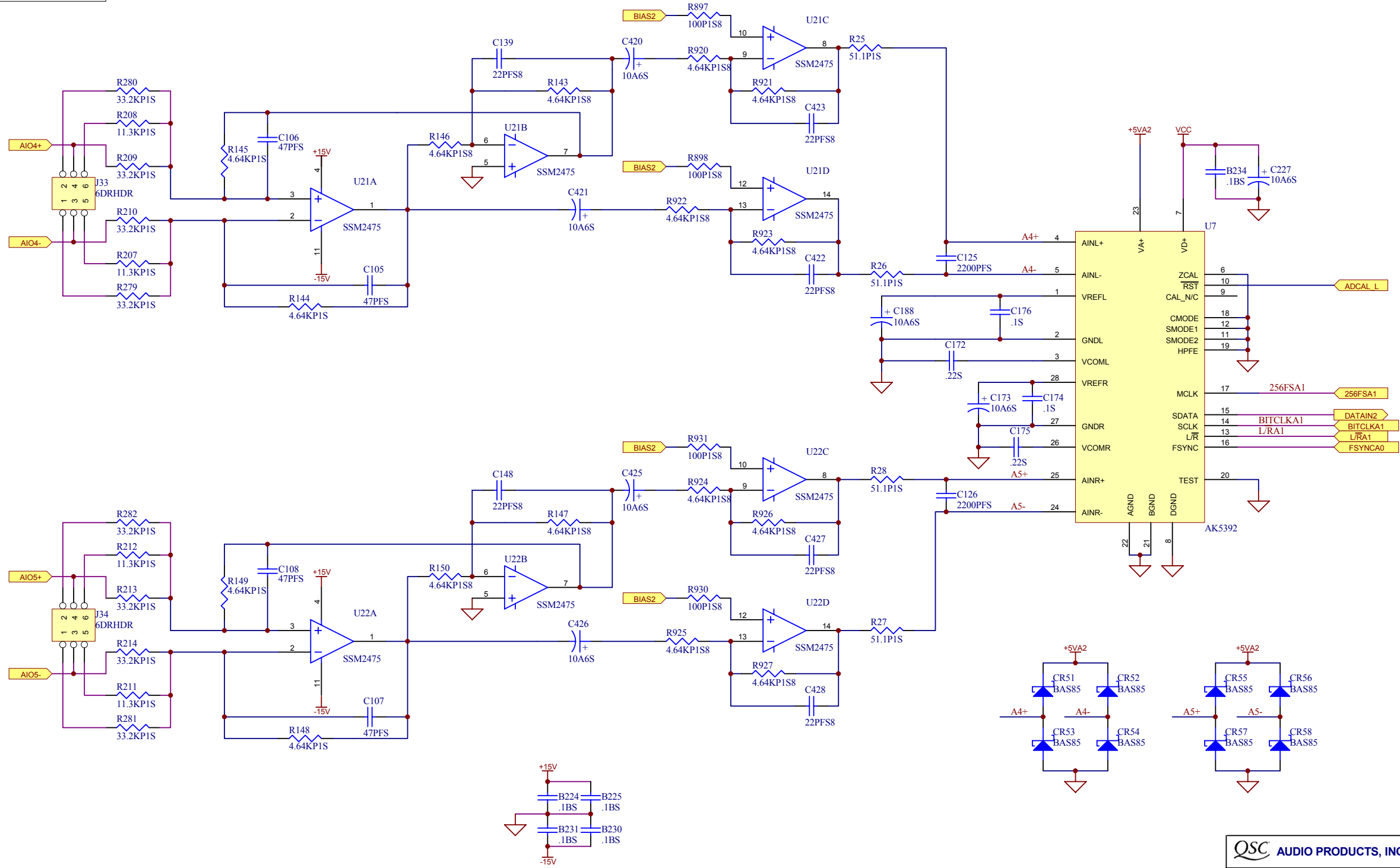
Title: **RAVE Analog Block Diagram**

Size: **B** Number: **SH-000864-00** Rev **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\864r\Abik.sch

Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 1 of 35

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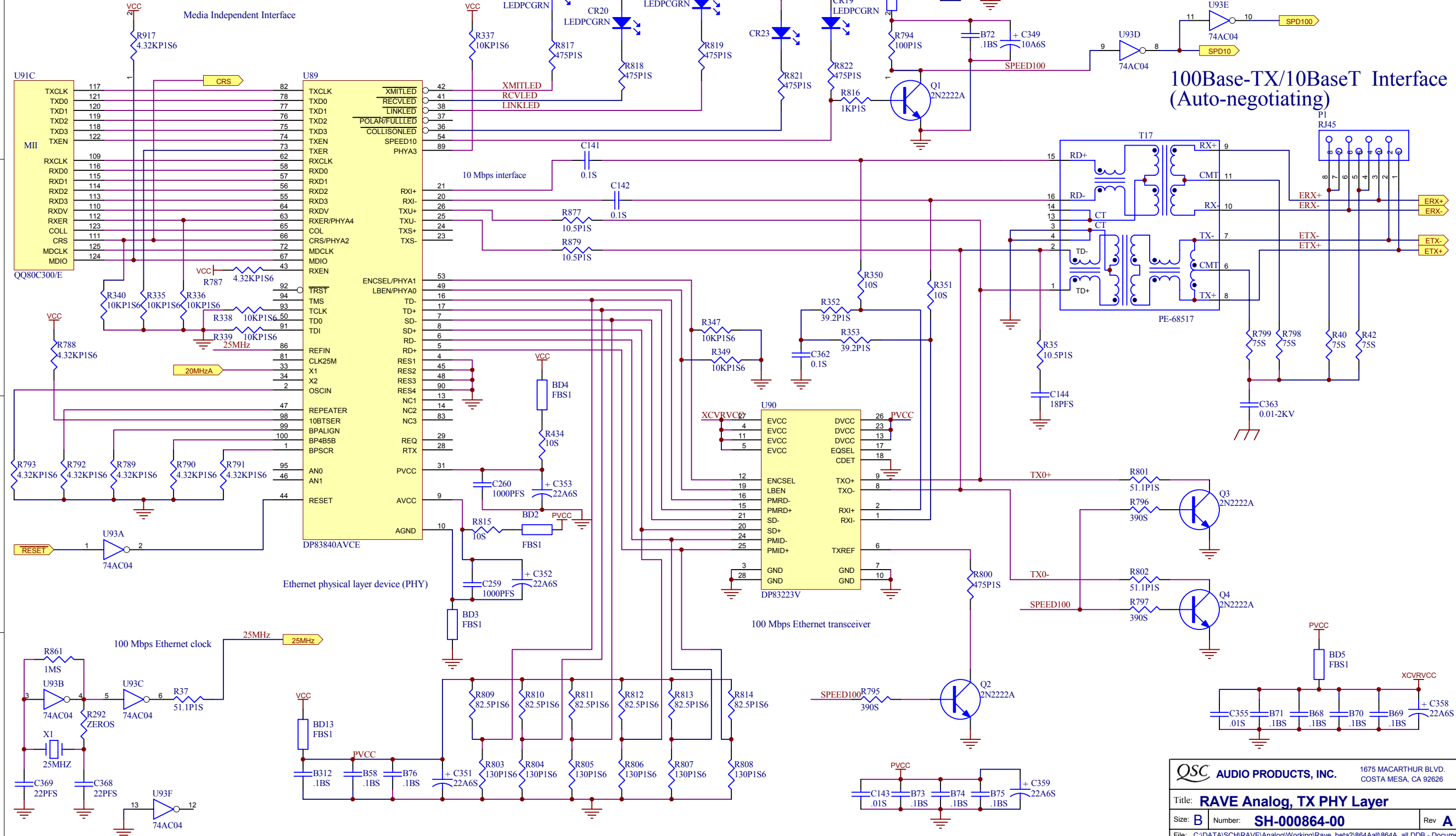
Title: **RAVE Analog Inputs # 4-5**

Size: **B** Number: **SH-000864-00** Rev: **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspa\Cal2.sch

Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 2 of 35

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100Base-TX/10BaseT Interface (Auto-negotiating)

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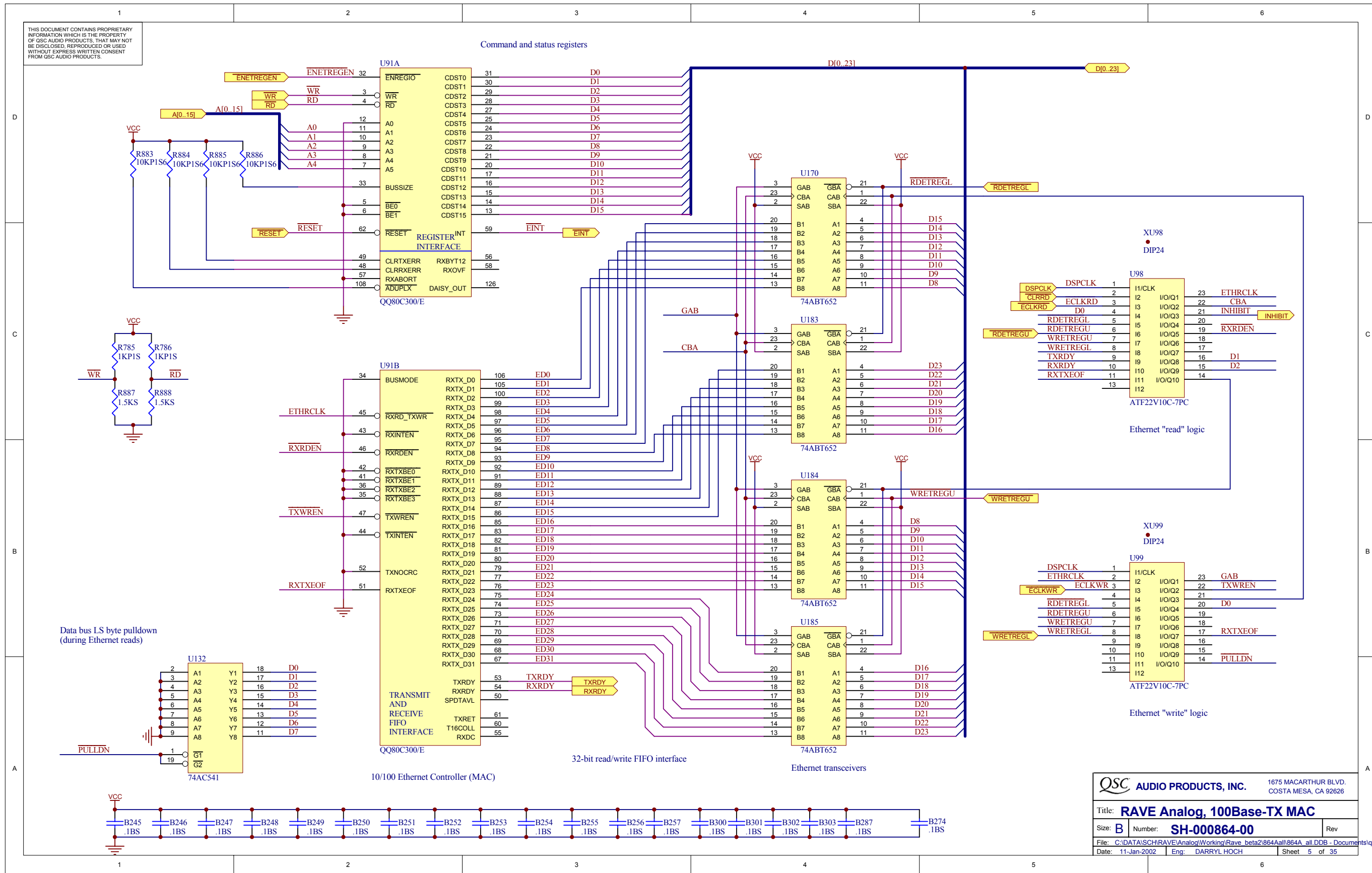
Title: **RAVE Analog, TX PHY Layer**

Size: **B** Number: **SH-000864-00** Rev: **A**

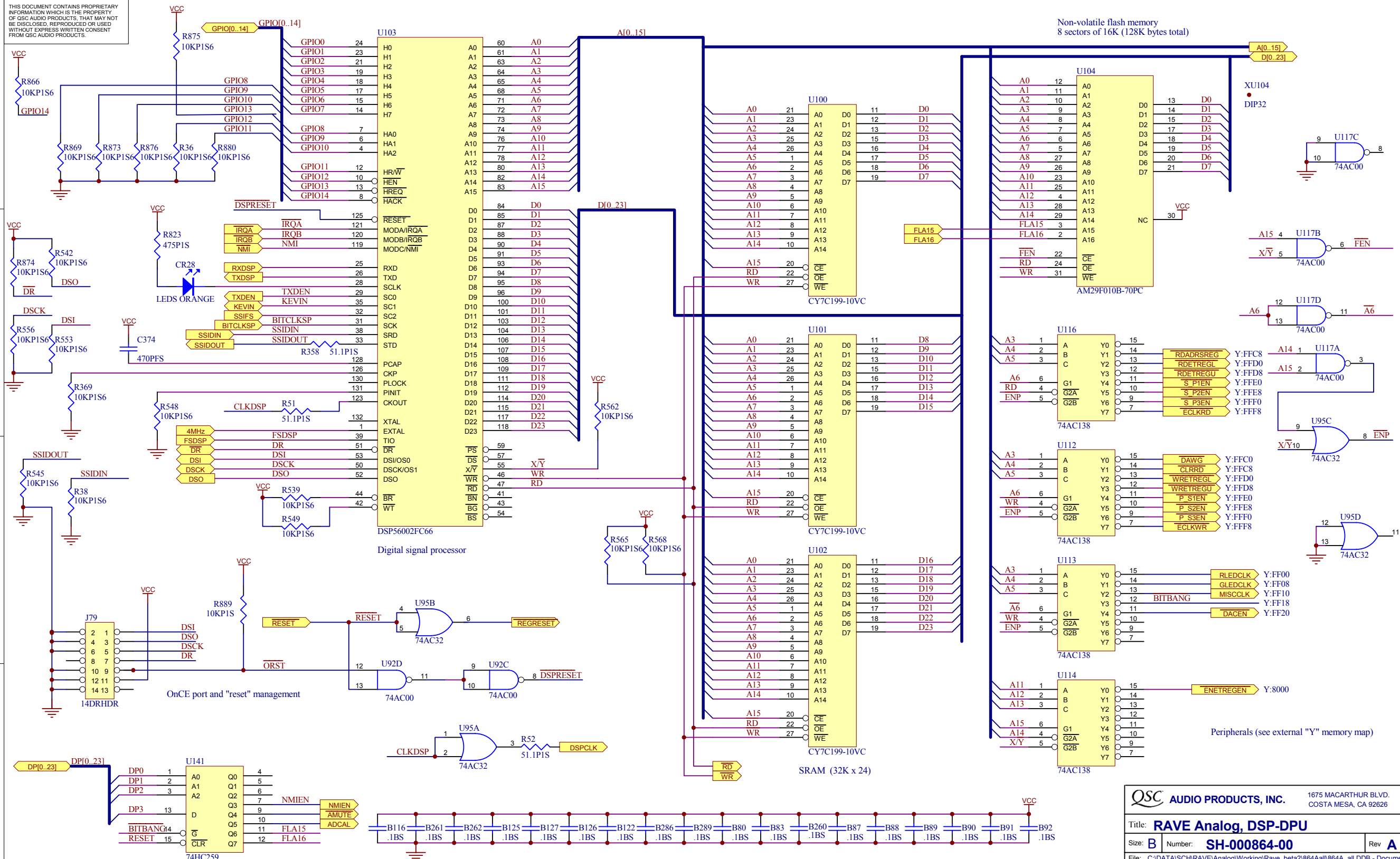
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Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 4 of 35

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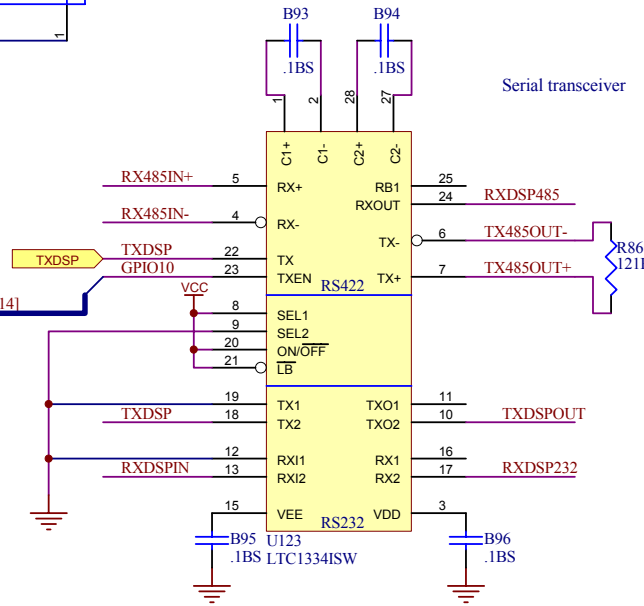
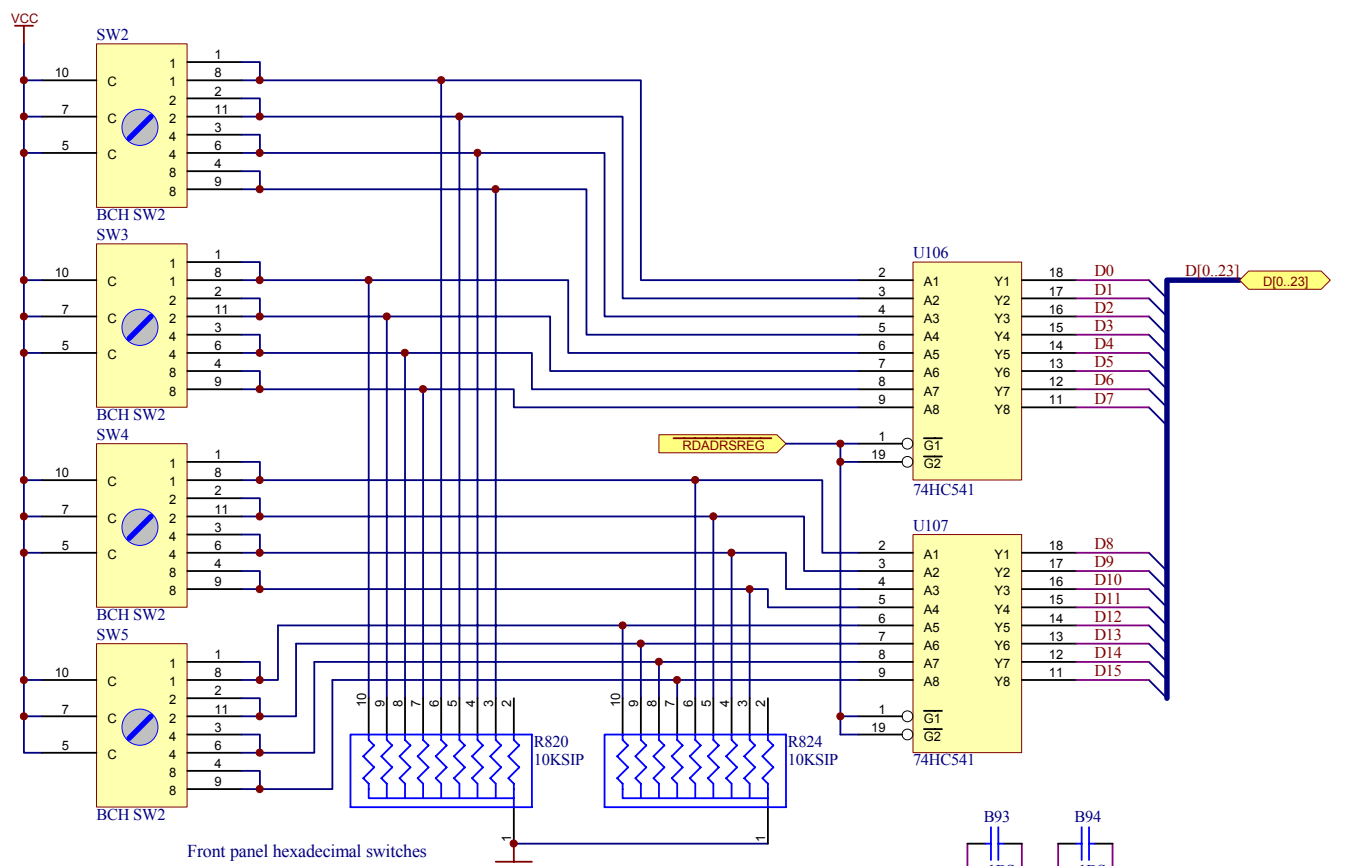
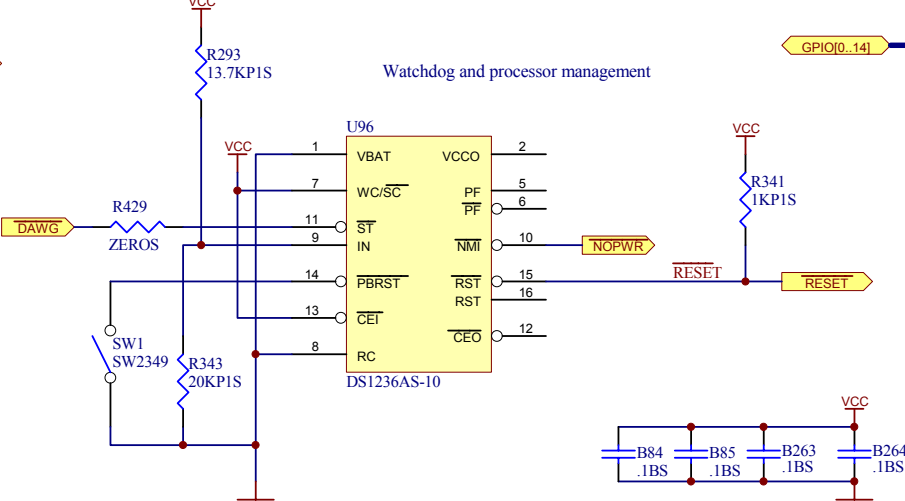
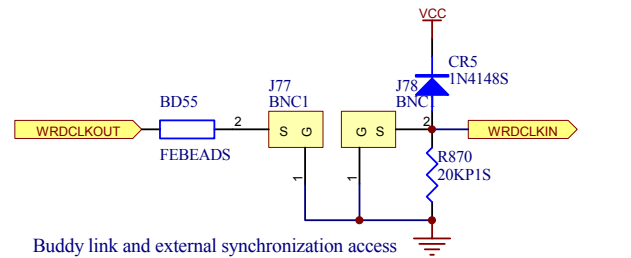
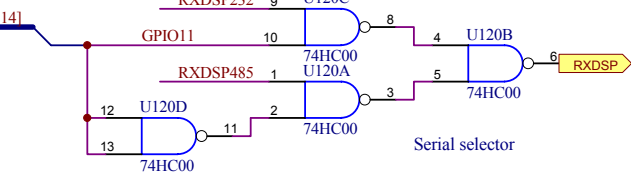
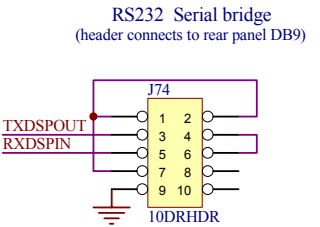
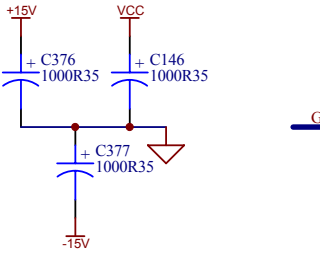
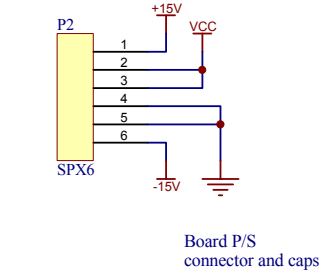
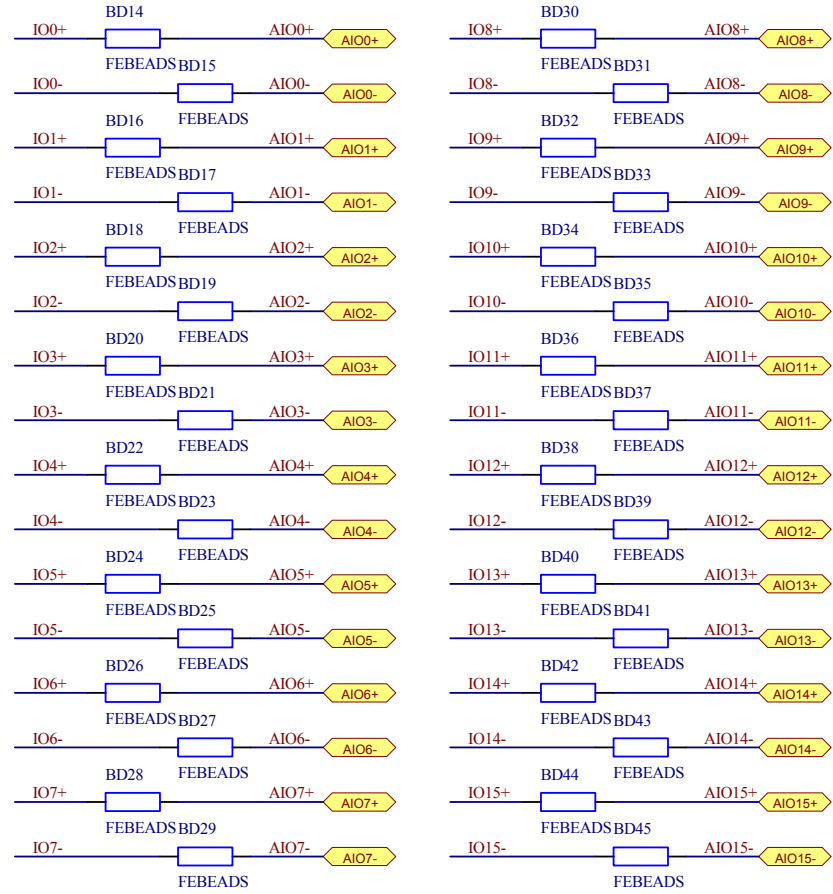
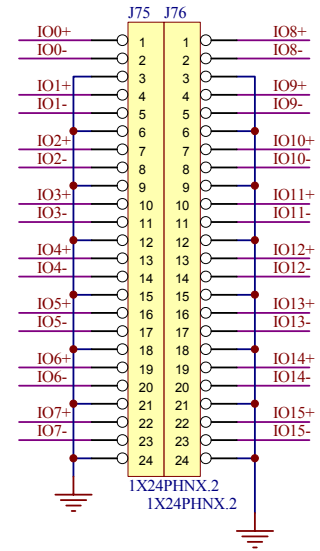


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Audio Phoenix connectors and LP filters



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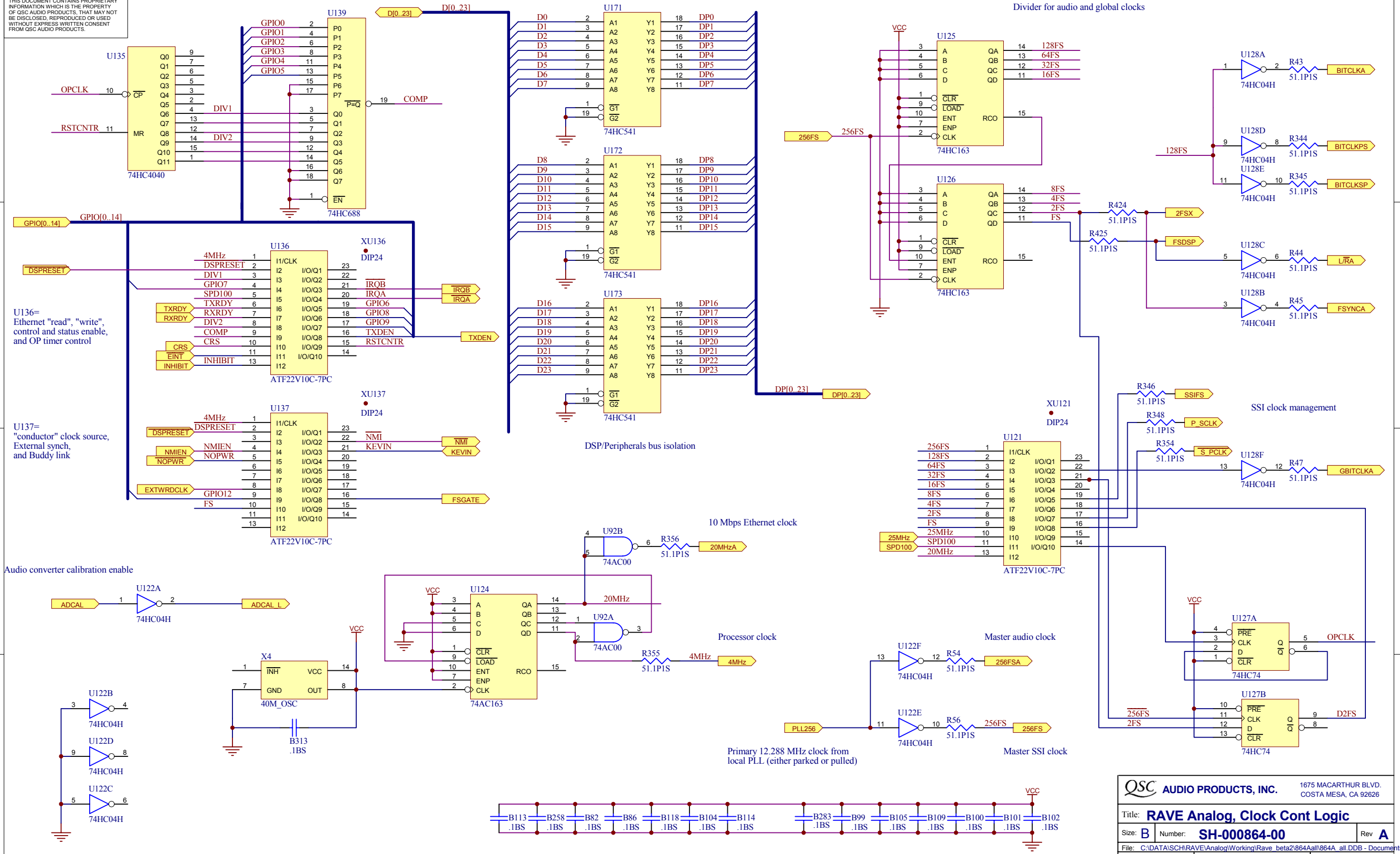
Title: **RAVE Analog, Connectors**

Size: **B** Number: **SH-000864-00** Rev: **A**

File: C:\DATA\SH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qsc\qsc\Con.sh

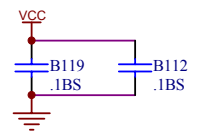
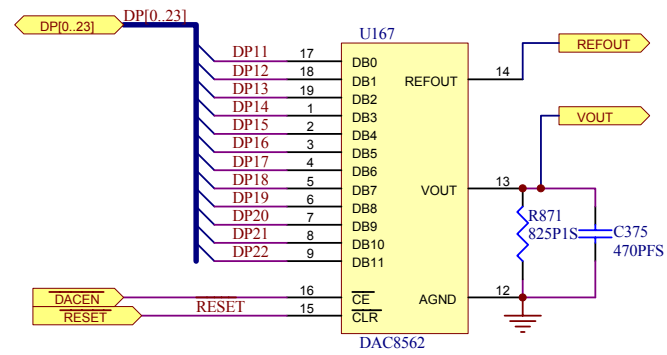
Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 7 of 35

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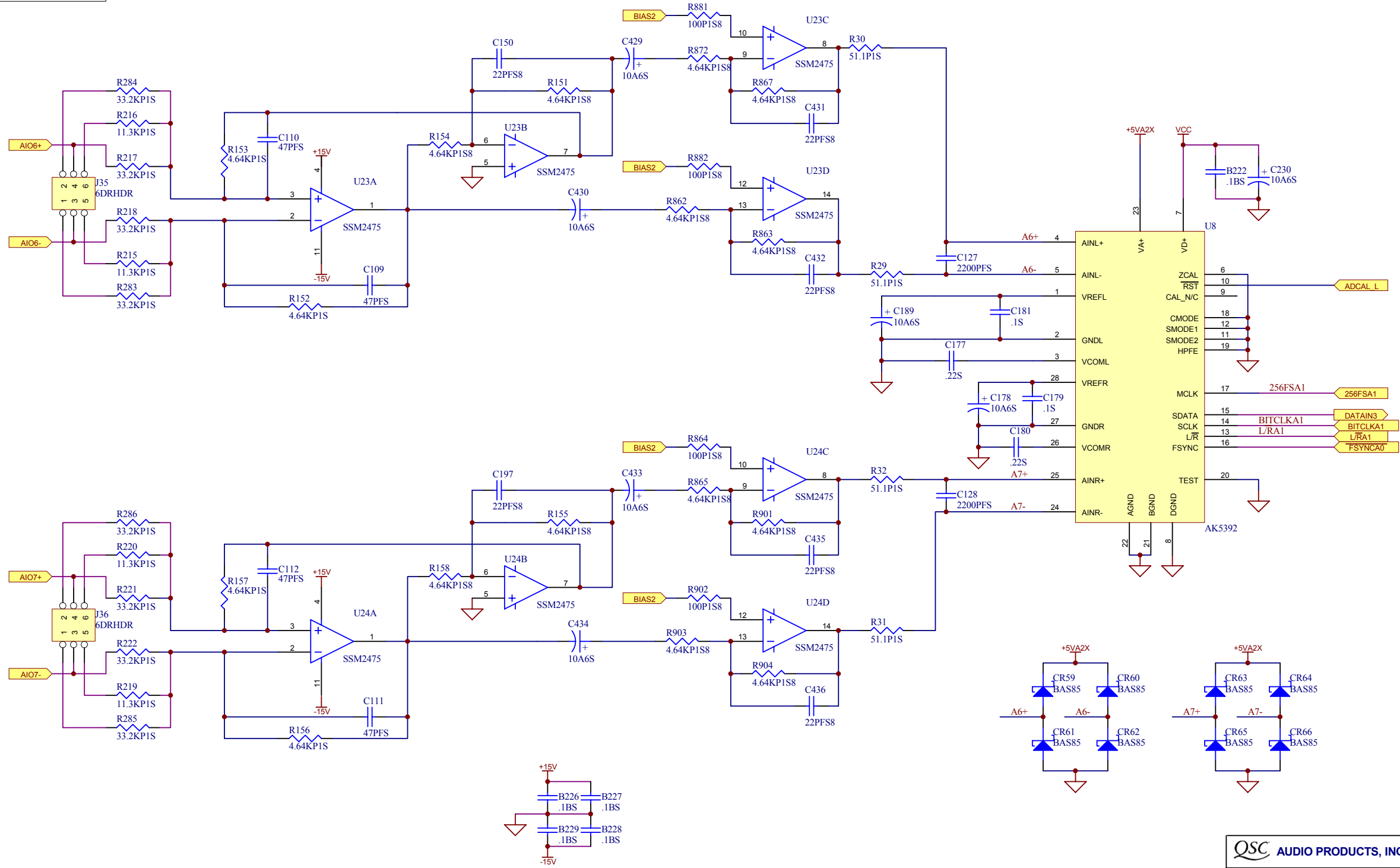


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PLL DAC, provides controll voltage for VCXO



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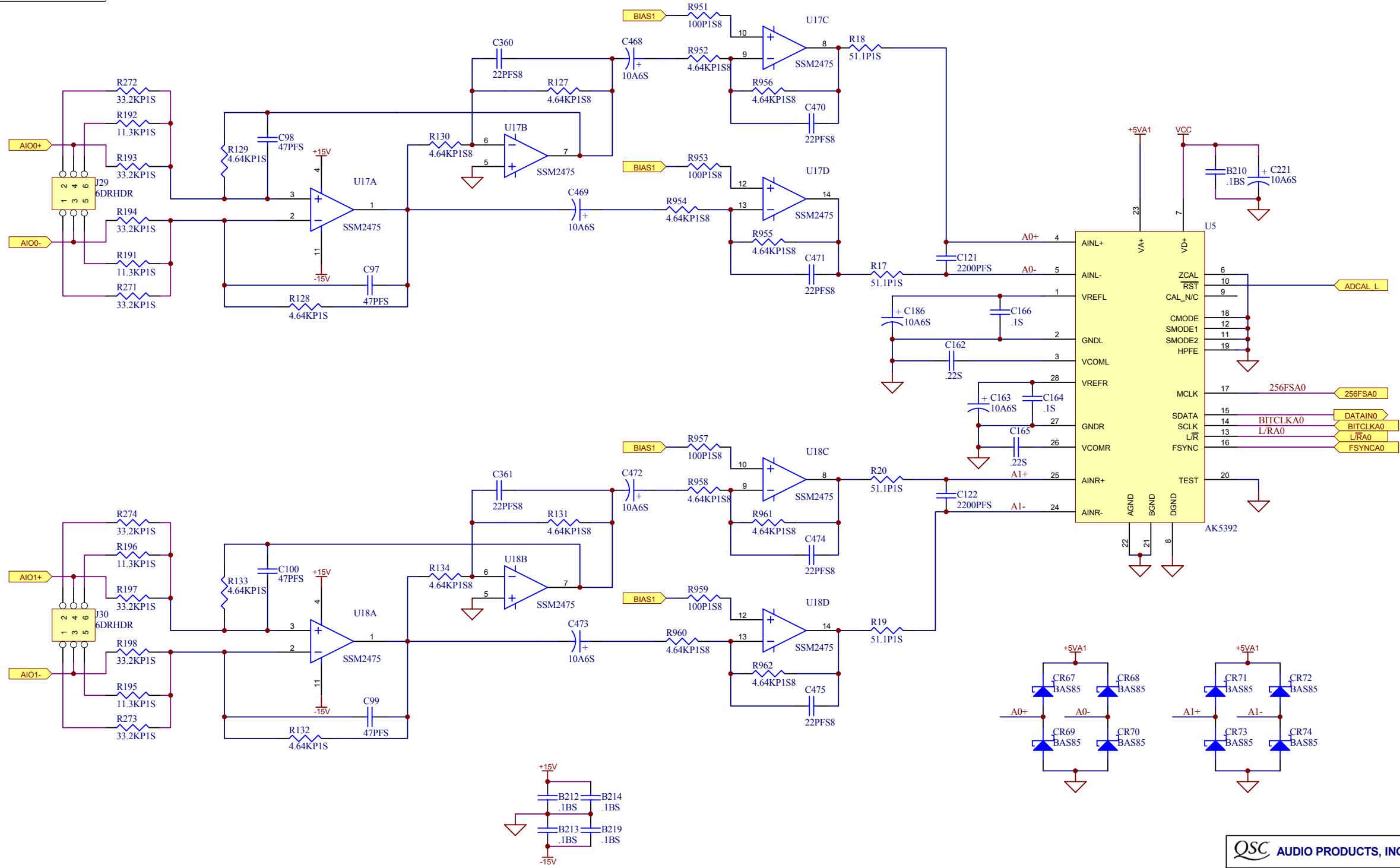
Title: **RAVE Analog Inputs # 6-7**

Size: **B** Number: **SH-000864-00** Rev: **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspa\Cal3.sch

Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 13 of 35

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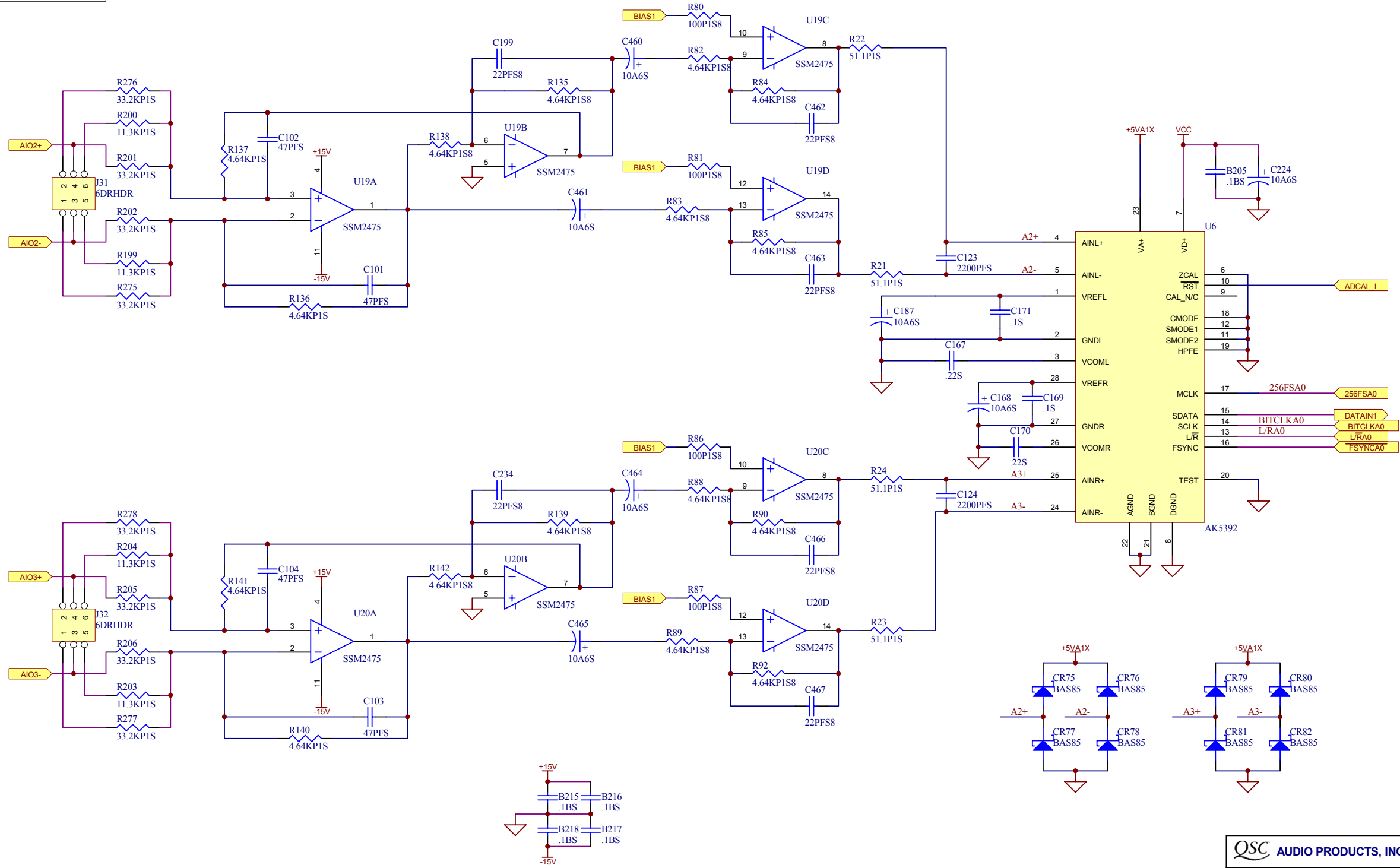
Title: **RAVE Analog Inputs # 0-1**

Size: **B** Number: **SH-000864-00** Rev: **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspa\Caio0.sch

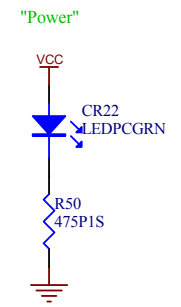
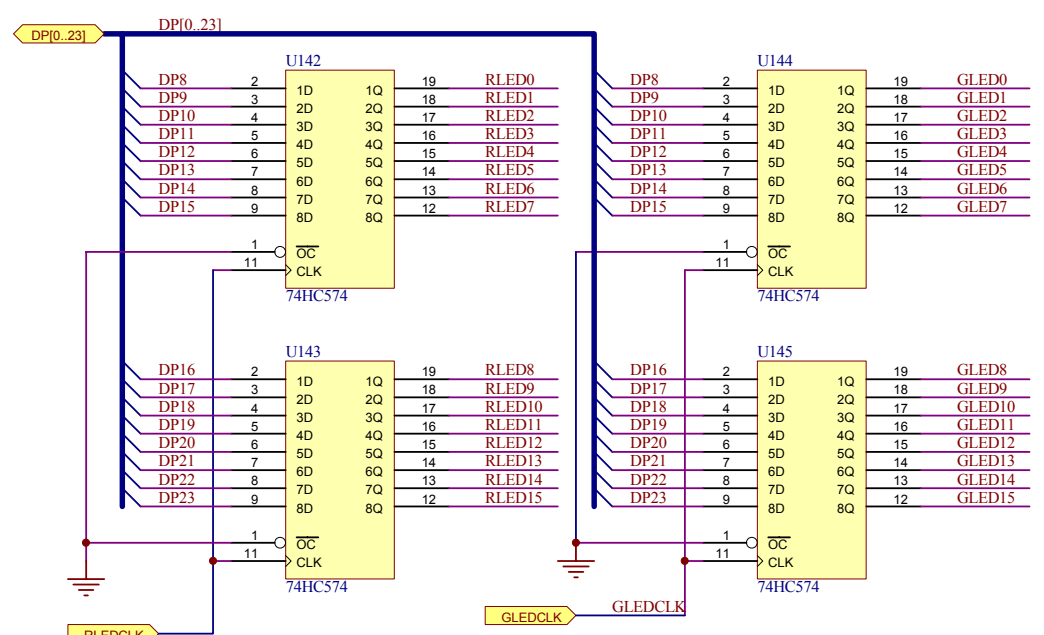
Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 14 of 35

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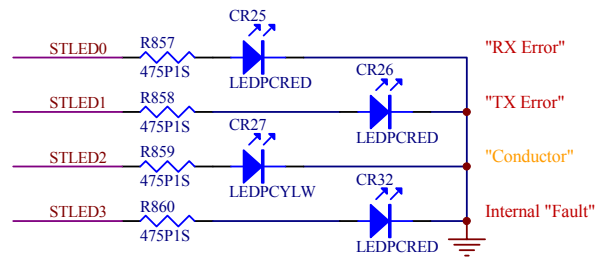


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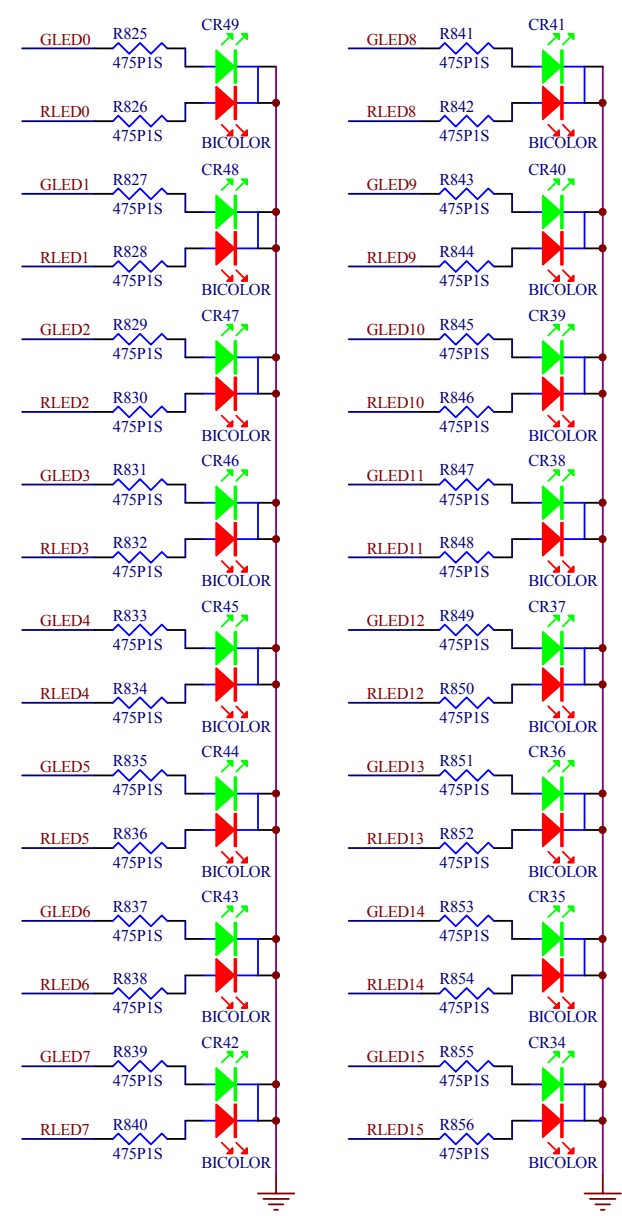
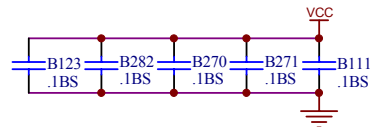
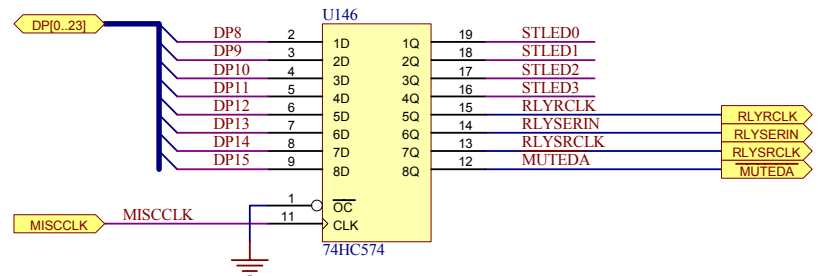
Metering LED drivers



CobraNet status indicators (front panel)



Status LED drivers and DAC functions (relay and mute control)



Metering, error code and version display LEDs (tri-color)

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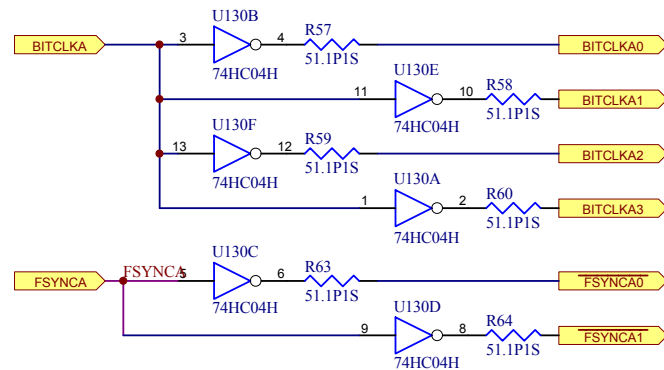
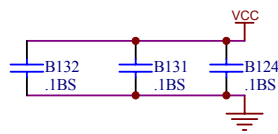
Title: **RAVE Analog, LED & Relay Logic**

Size: **B** Number: **SH-000864-00** Rev: **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCled.sch

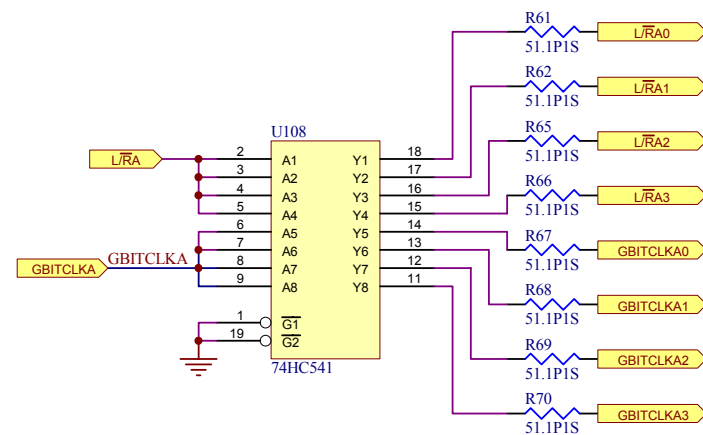
Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 16 of 35

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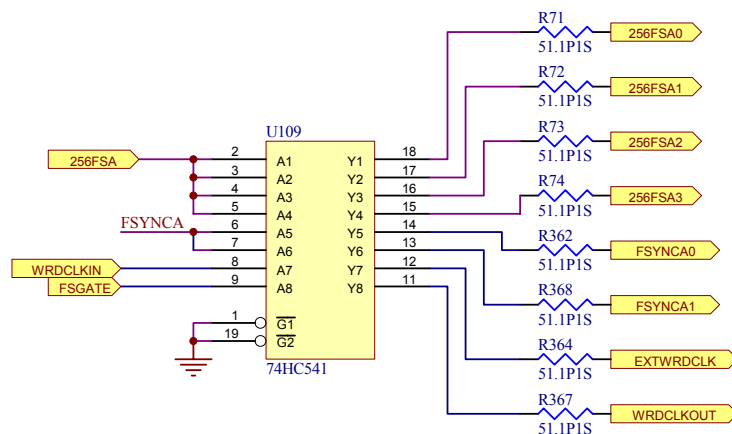
Independent "bit clocks" for audio converters (128FS)

Inverted "frame synch" control for multiplexing two converters onto each SSI stream (2FS)



Independent "L/R" clocks for audio converters (FS)

Independent gated "bit clocks" for even numbered DACs (128FS)



Independent "master" clocks for audio converters (256FS)

"Frame synch" control for multiplexing two converters onto each SSI stream (2FS)

External word clock from BNC input (750 Hz to FS)

Word clock to drive BNC output (Buddy Link and synchronization driver) (FS)

QSC AUDIO PRODUCTS, INC. 1675 MACARTHUR BLVD. COSTA MESA, CA 92626

Title: **RAVE Analog I/O Signal Drivers**

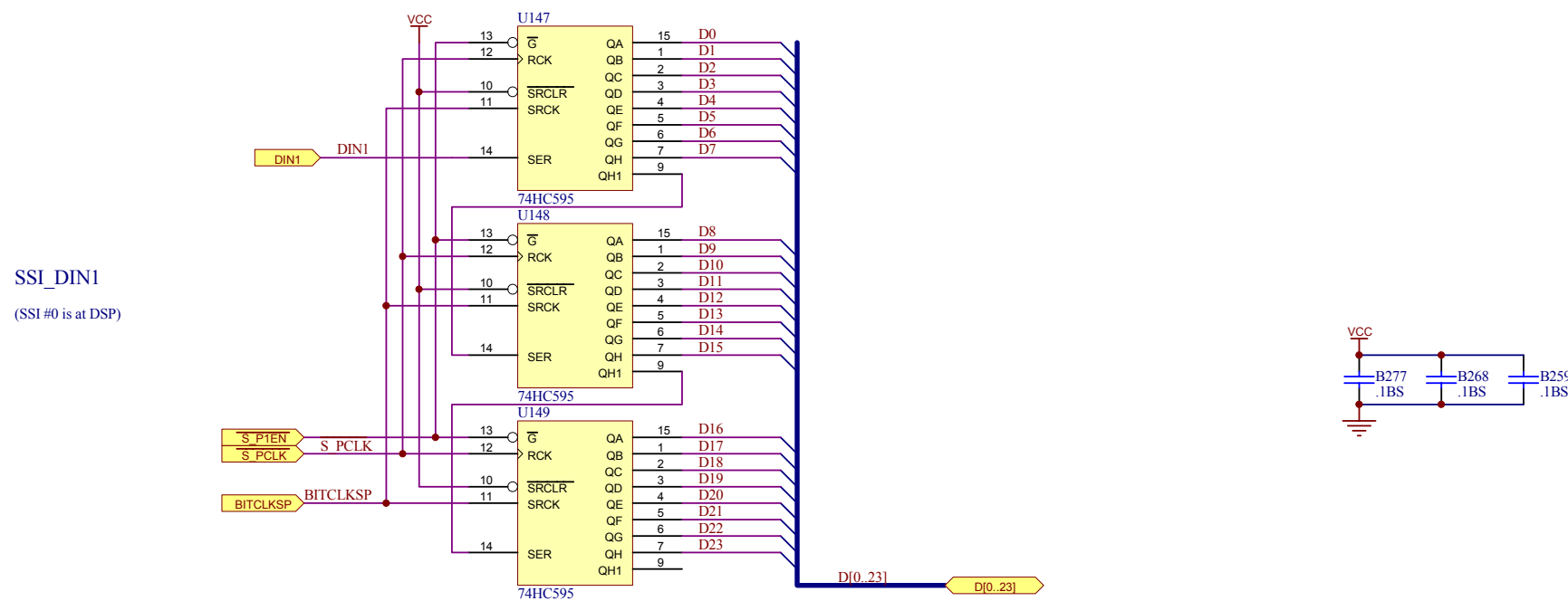
Size: **B** Number: **SH-000864-00** Rev: **A**

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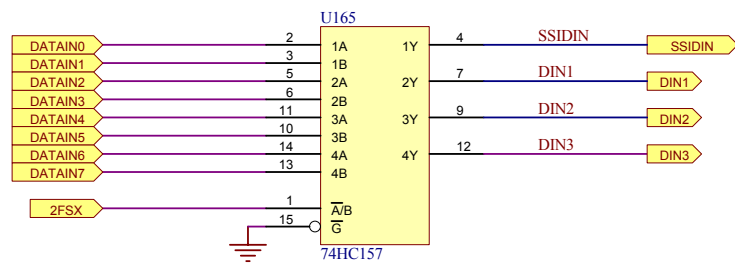
Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 17 of 35

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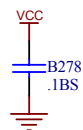
24-bit serial audio from ADCs (U7 and U8) to DSP data bus



Serial data (SDATA) outputs from ADCs

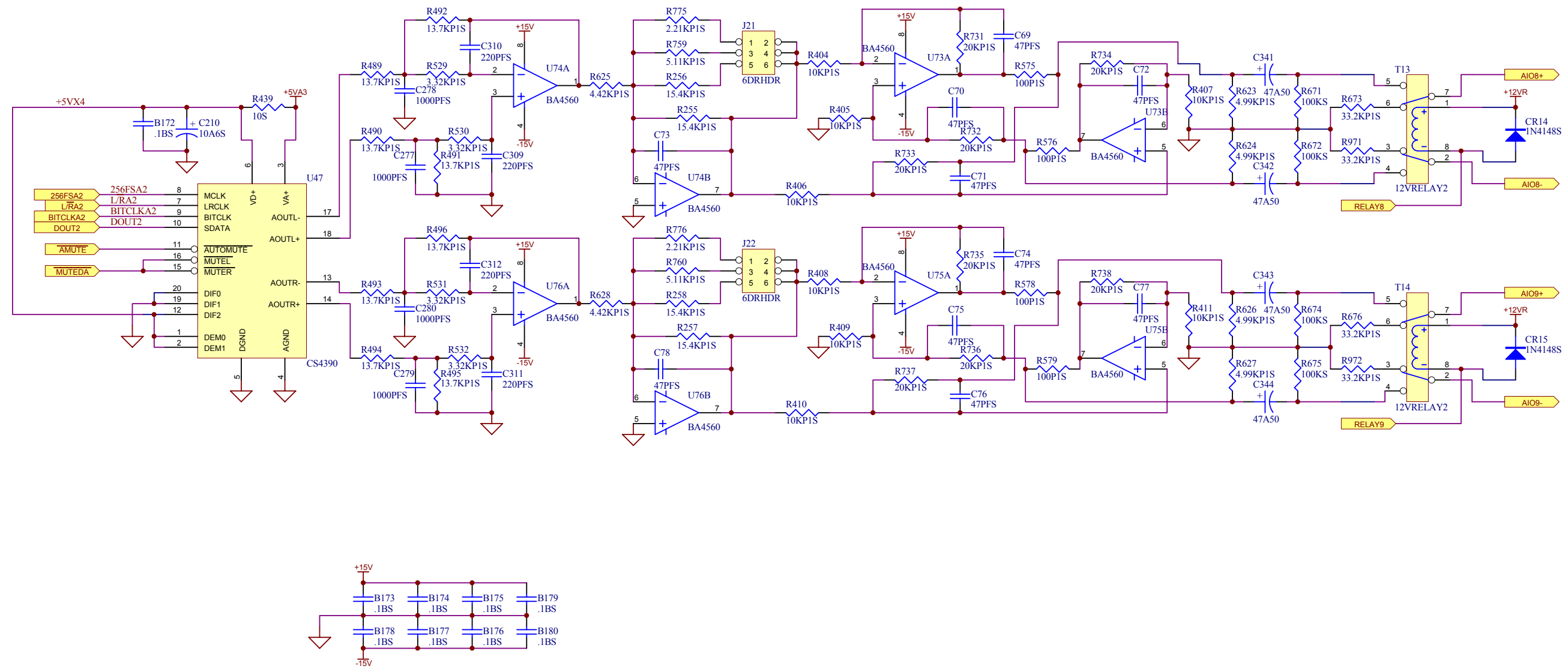


SSI data in streams (0..3)



| | | | |
|---|----------------------|--|--|
| QSC AUDIO PRODUCTS, INC. | | 1675 MACARTHUR BLVD. COSTA MESA, CA 92626 | |
| Title: RAVE Analog Input Multiplexer #0 | | | |
| Size: B | Number: SH-000864-00 | Rev A | |
| File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCmux.sch | | | |
| Date: 11-Jan-2002 | Eng: DARRYL HOCH | Sheet 18 of 35 | |

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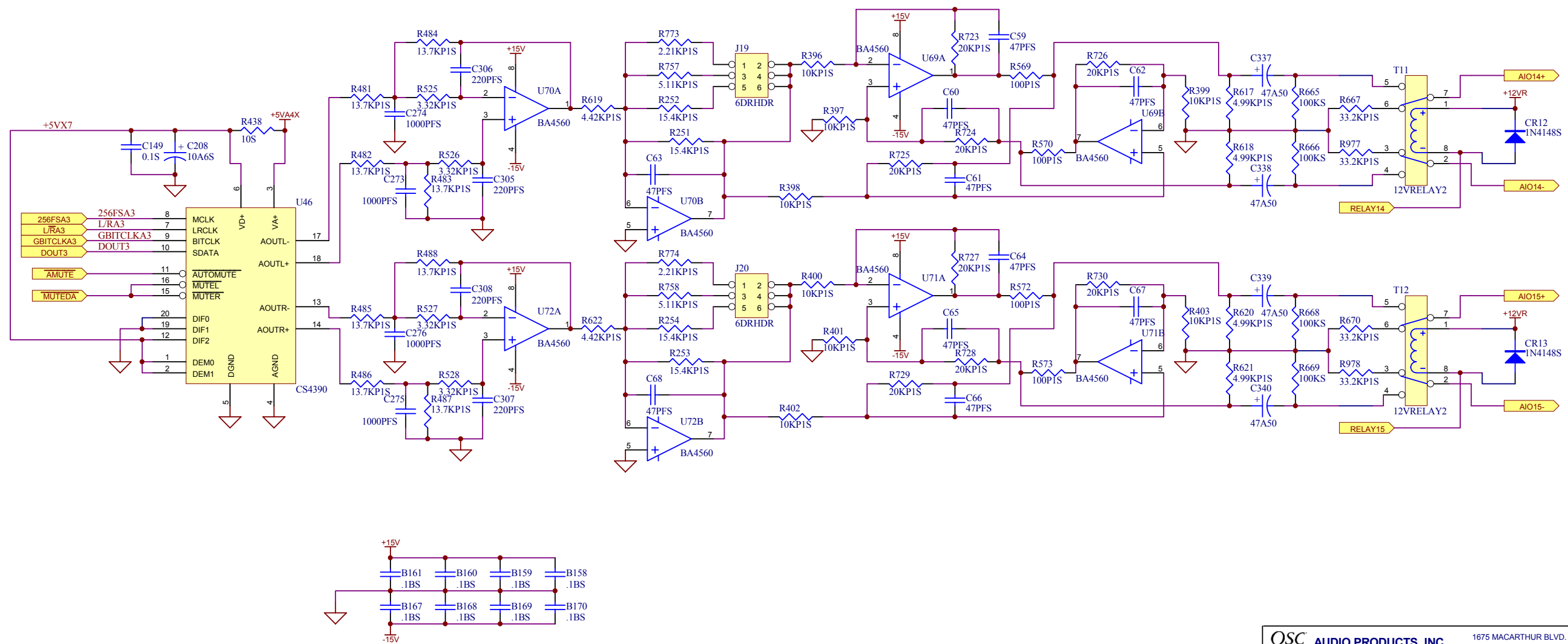


QSC AUDIO PRODUCTS, INC. 1675 MACARTHUR BLVD. COSTA MESA, CA 92626

Title: **RAVE Analog, Outputs #8-9**

| | | |
|--|-----------------------------|----------------|
| Size: B | Number: SH-000864-00 | Rev: A |
| File: C:\DATA\SH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCao4.sch | | |
| Date: 11-Jan-2002 | Eng: DARRYL HOCH | Sheet 23 of 35 |

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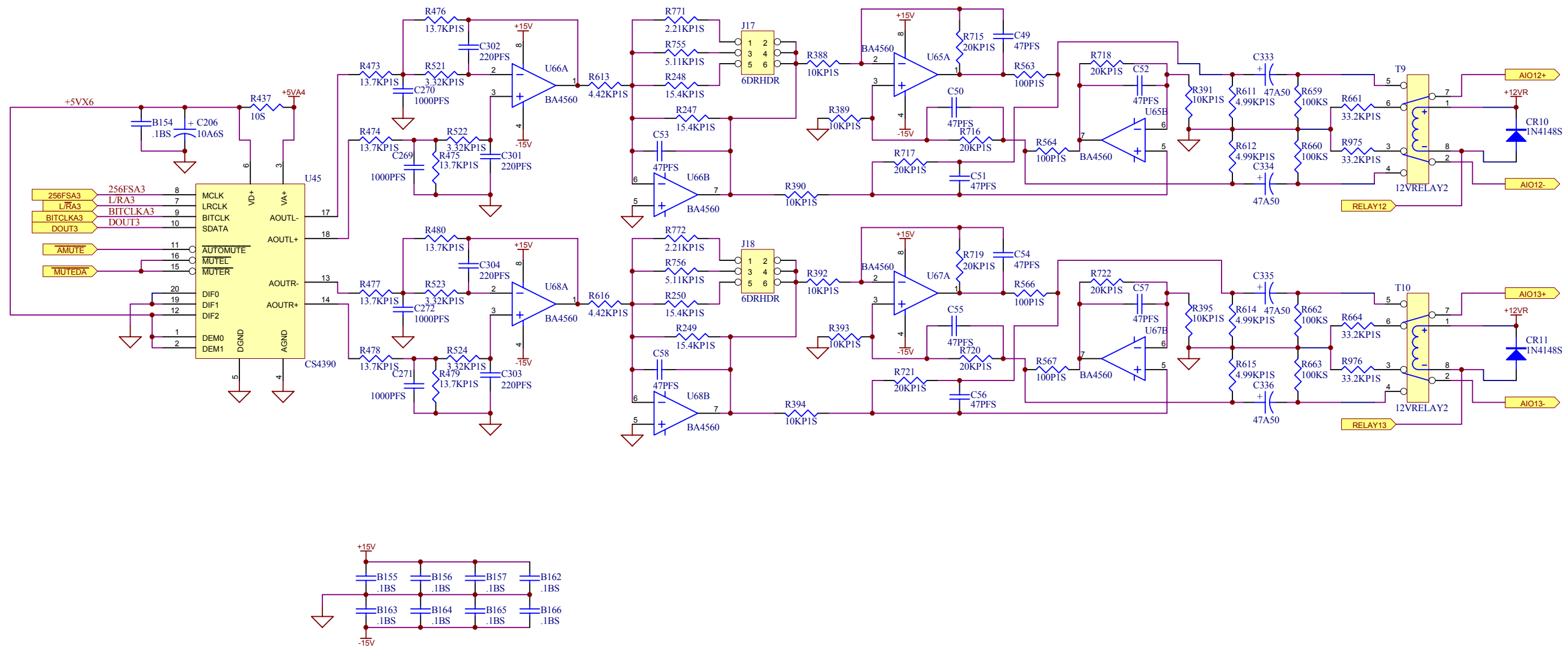
Title: **RAVE Analog Outputs #14-15**

Size: **B** Number: **SH-000864-00** Rev: **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCao7.sch

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QSC AUDIO PRODUCTS, INC. 1675 MACARTHUR BLVD. COSTA MESA, CA 92626

Title: **RAVE Analog Outputs #12-13**

Size: **B** Number: **SH-000864-00** Rev: **A**

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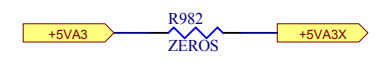
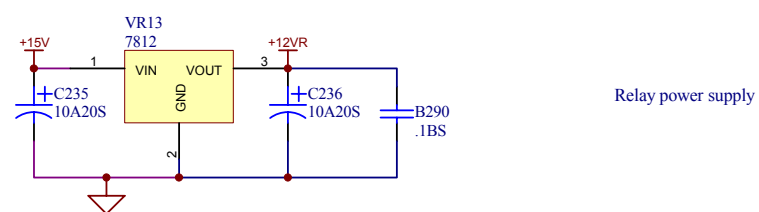
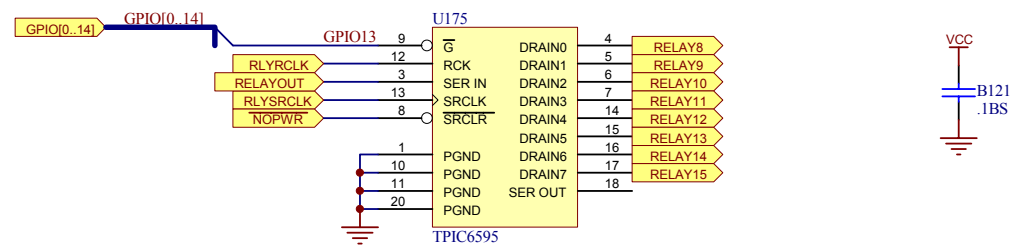
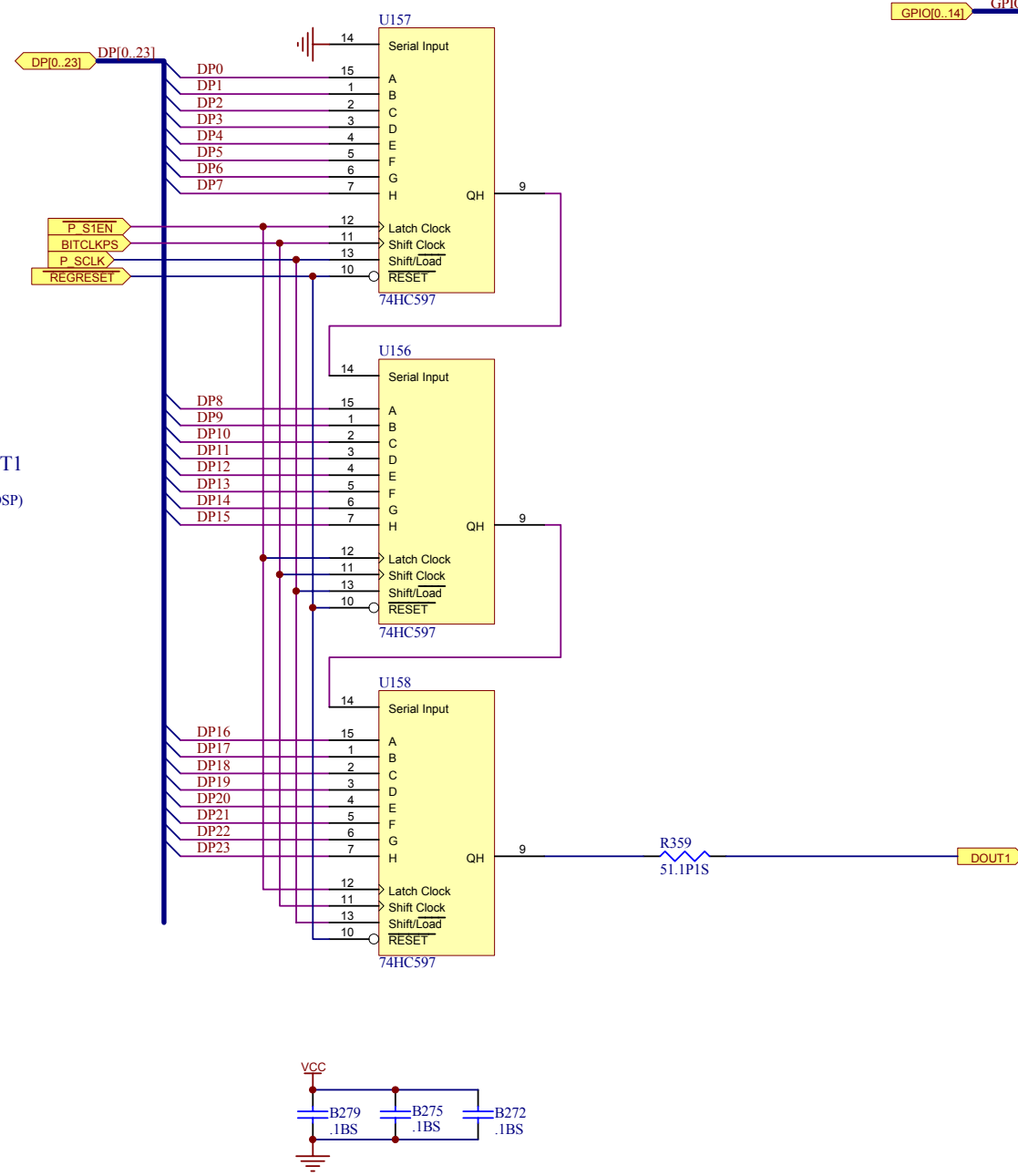
Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 25 of 35

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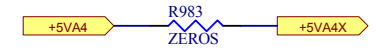
24-bit audio from DSP to serial data in at DACs (U43 and U44)

Output relay drivers (bank 2)

SSI_DOUT1
(SSI #0 is at DSP)



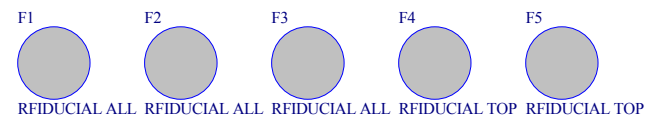
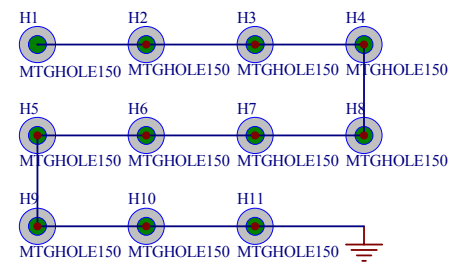
Bridge for single +5 V source for DACs (U47 and U48)



Bridge for single +5 V source for DACs (U45 and U46)

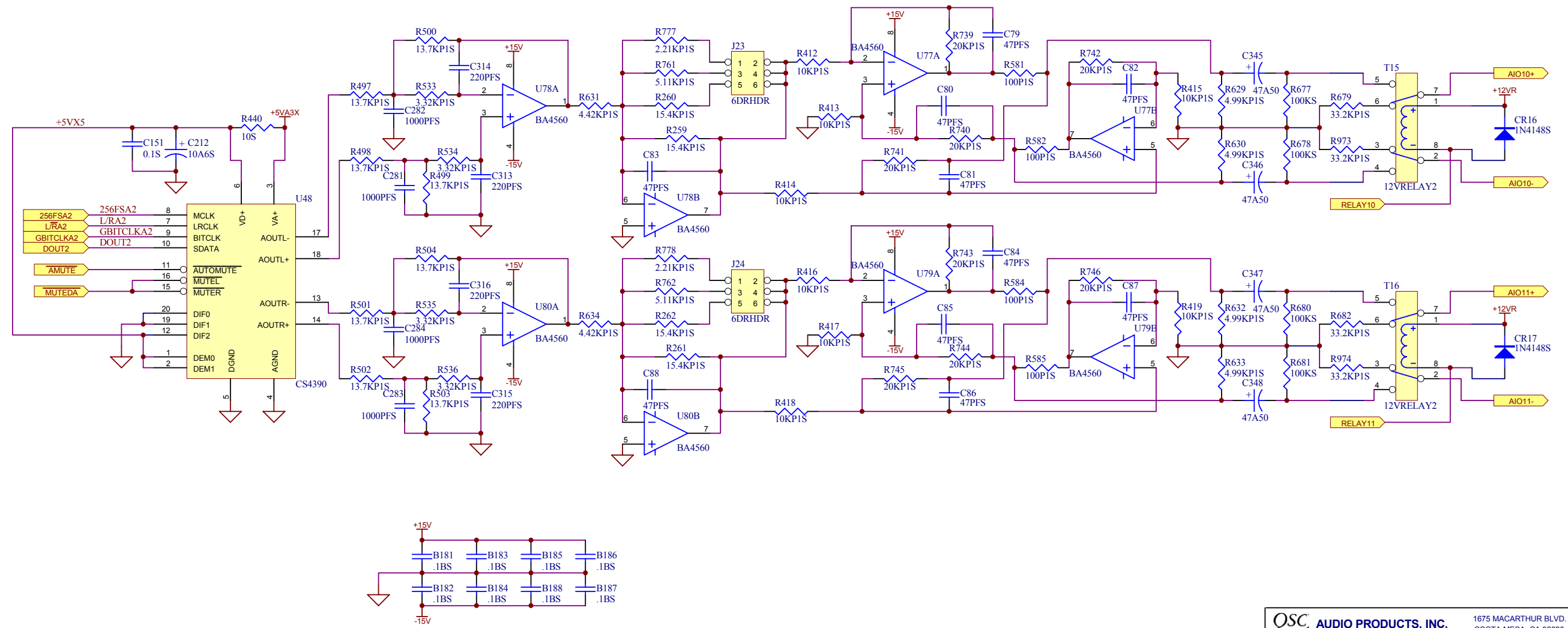
| | | | |
|--|-----------------------------|--|--|
| QSC AUDIO PRODUCTS, INC. | | 1675 MACARTHUR BLVD. COSTA MESA, CA 92626 | |
| Title: RAVE Analog, P/S #1 & Relay | | | |
| Size: B | Number: SH-000864-00 | Rev A | |
| File: C:\DATA\SH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCm01.sch | | | |
| Date: 11-Jan-2002 | Eng: DARRYL HOCH | Sheet 26 of 35 | |

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| | | | |
|---|----------------------------|--|--|
| QSC AUDIO PRODUCTS, INC. | | 1675 MACARTHUR BLVD. COSTA MESA, CA 92626 | |
| Title: RAVE Analog, Mech & Spare Cmpnt | | | |
| Size: B | Number: SH-00864-00 | Rev A | |
| File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCmec.sch | | | |
| Date: 11-Jan-2002 | Eng: DARRYL HOCH | Sheet 29 of 35 | |

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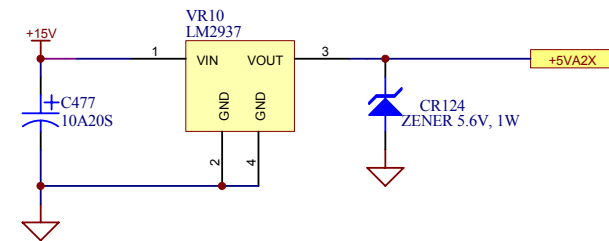
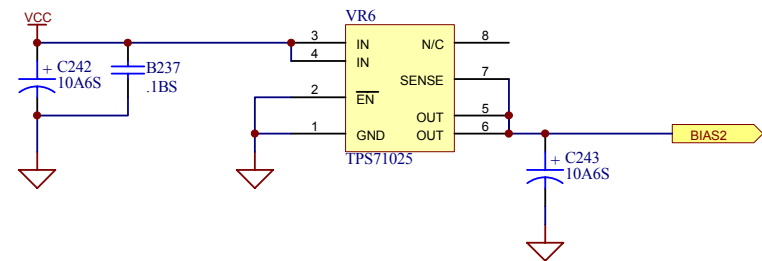
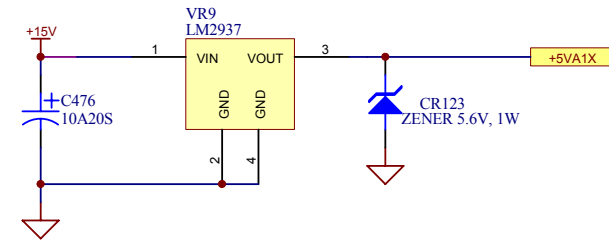
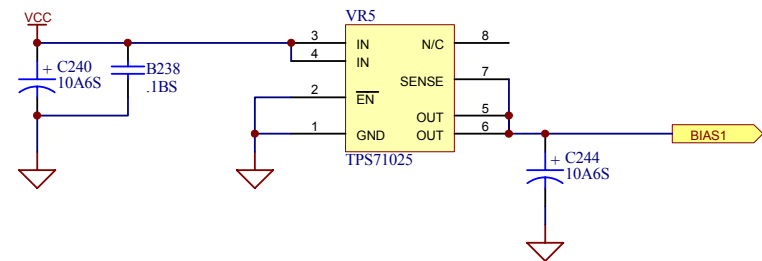
Title: **RAVE Analog Outputs #10-11**

Size: **B** Number: **SH-000864-00** Rev: **A**

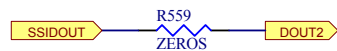
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Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 30 of 35

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SSI swap for RAVE 188s-24
(Channel 1 output goes to PCB output 9)



SSI swap for RAVE 188s-24
(Channel 5 output goes to PCB output 13)



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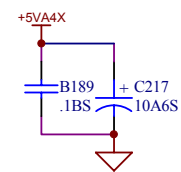
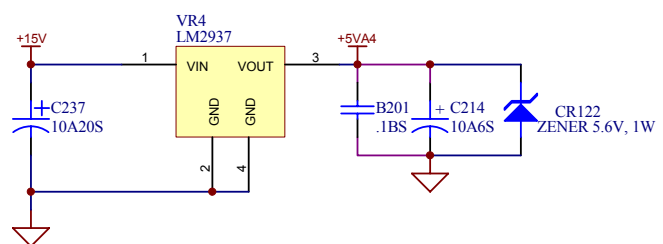
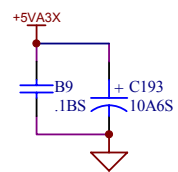
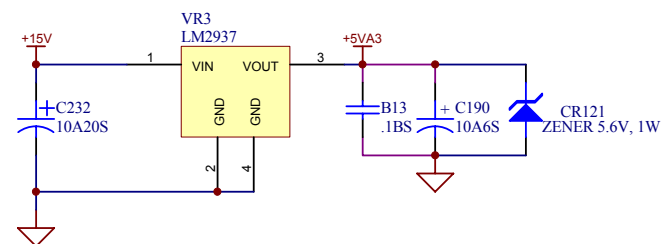
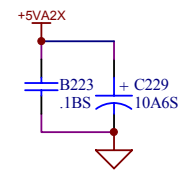
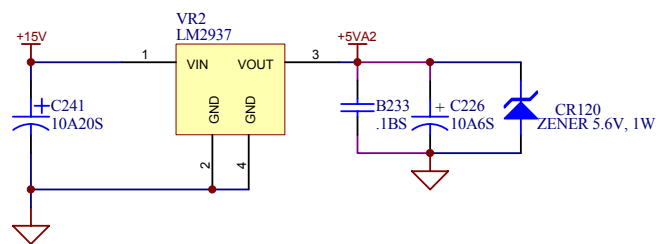
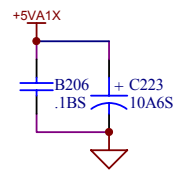
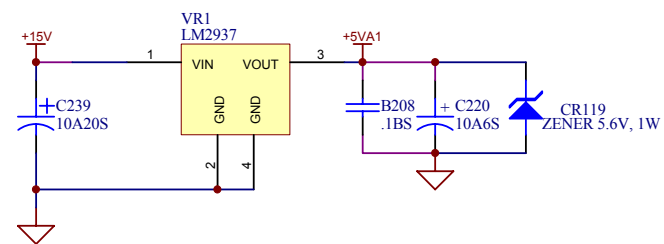
Title: RAVE Analog, +2.5V Voltage Reg

Size: B Number: SH-000864-00 Rev: A

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCvr2.sch

Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 32 of 35

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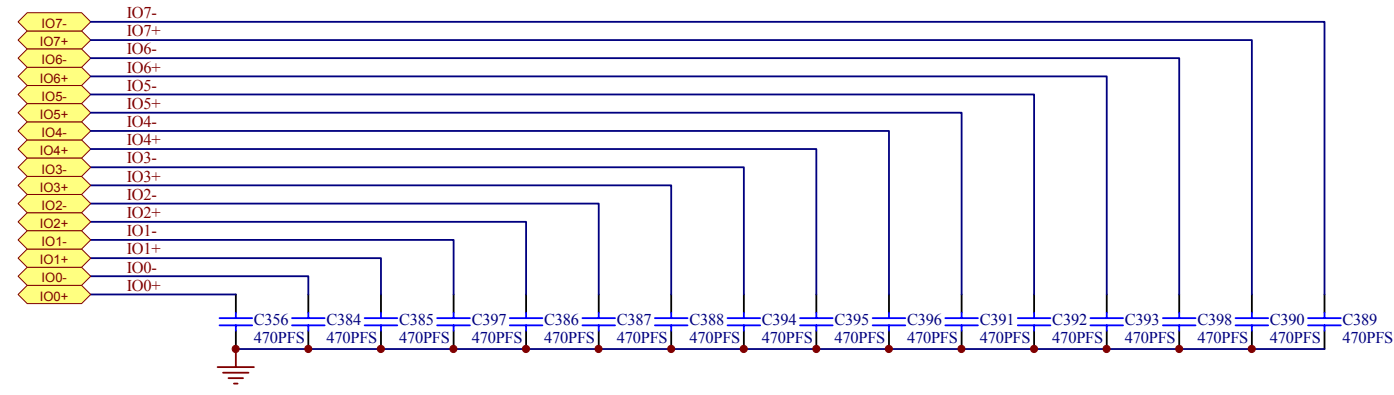
Title: **RAVE Analog, +5V Voltage Reg**

Size: **B** Number: **SH-000864-00** Rev **A**

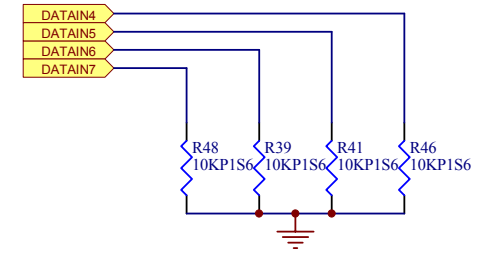
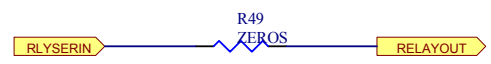
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Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 33 of 35

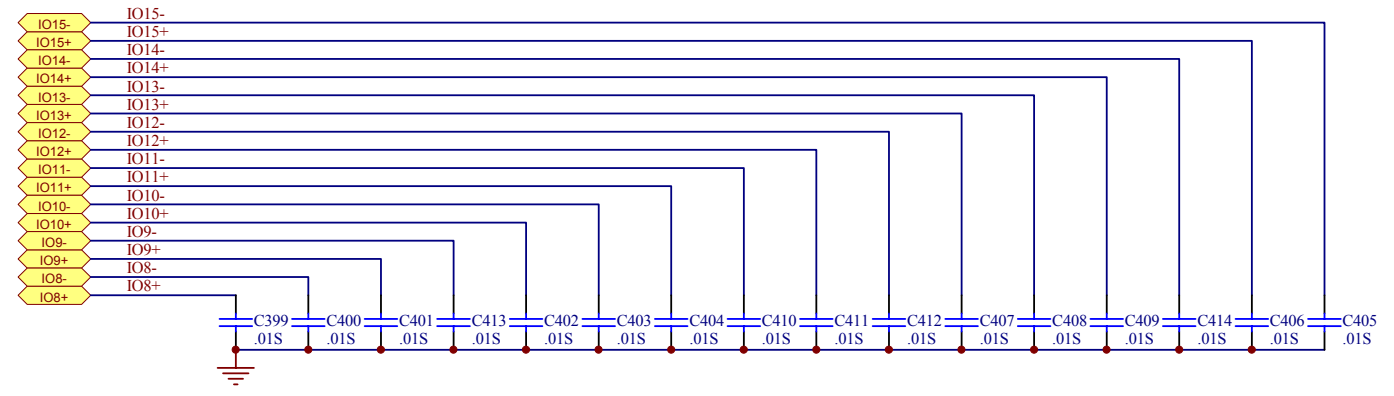
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Bank 2 relay driver becomes bank 1 on RAVE 188s-24
 R49 bypasses relay drive daisy chain on bank 1



Audio multiplexer's input pulldowns.
 Terminates serial data outputs when ADCs U1 through U4 are not stuffed.

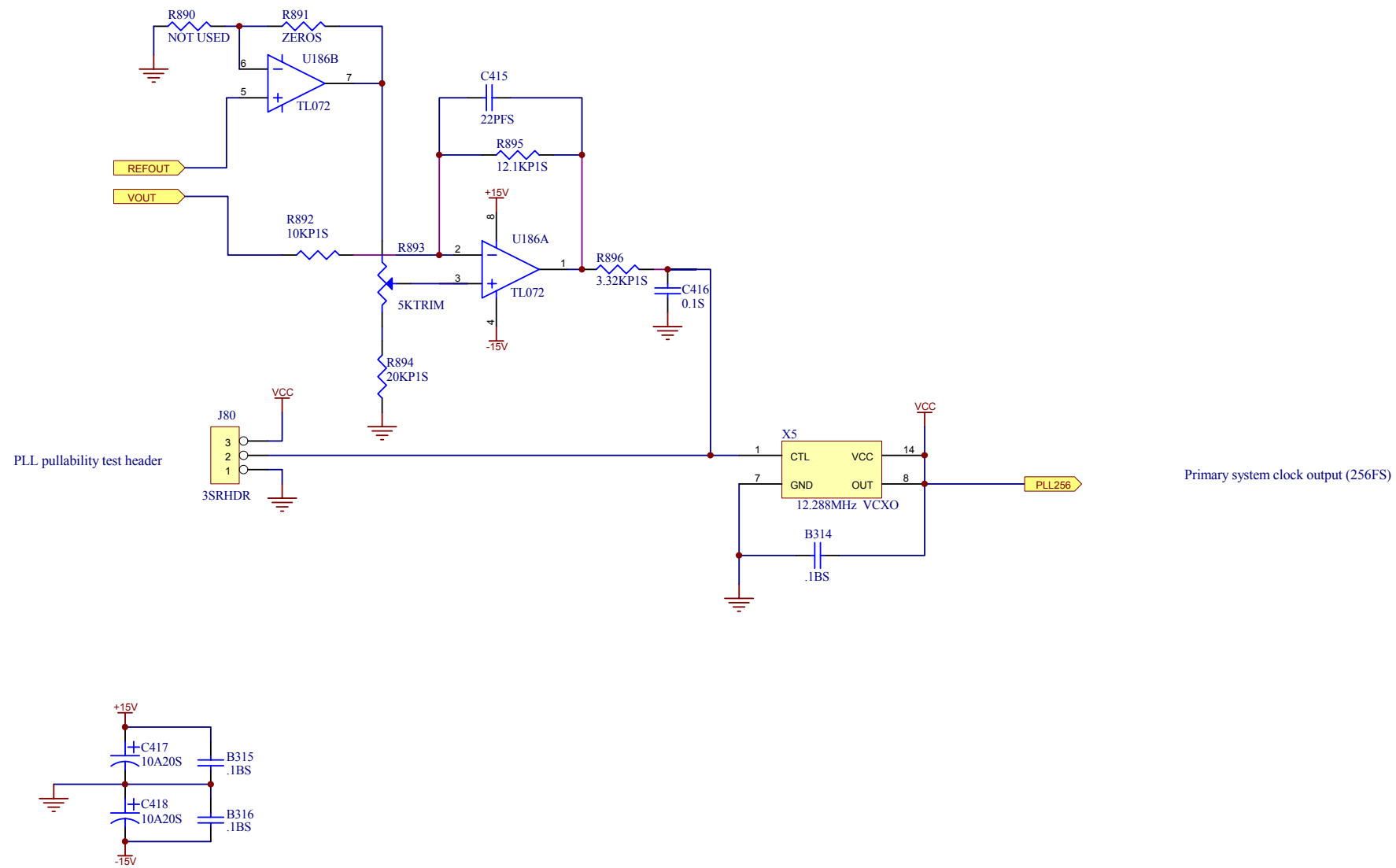


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Title: **RAVE Analog, 188 I/O caps**

| | | |
|---|-----------------------------|----------------|
| Size: B | Number: Sh-000864-00 | Rev: A |
| File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCcp8.sch | | |
| Date: 11-Jan-2002 | Eng: DARRYL HOCH | Sheet 34 of 35 |

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Title: **RAVE Analog PLL / VCXO**

Size: **B** Number: **SH-000864-00** Rev **A**

File: C:\DATA\SCH\RAVE\Analog\Working\RAVE_beta2\864A\all\864A_all.DDB - Documents\qspaCpl1.sch
Date: 11-Jan-2002 Eng: DARRYL HOCH Sheet 35 of 35