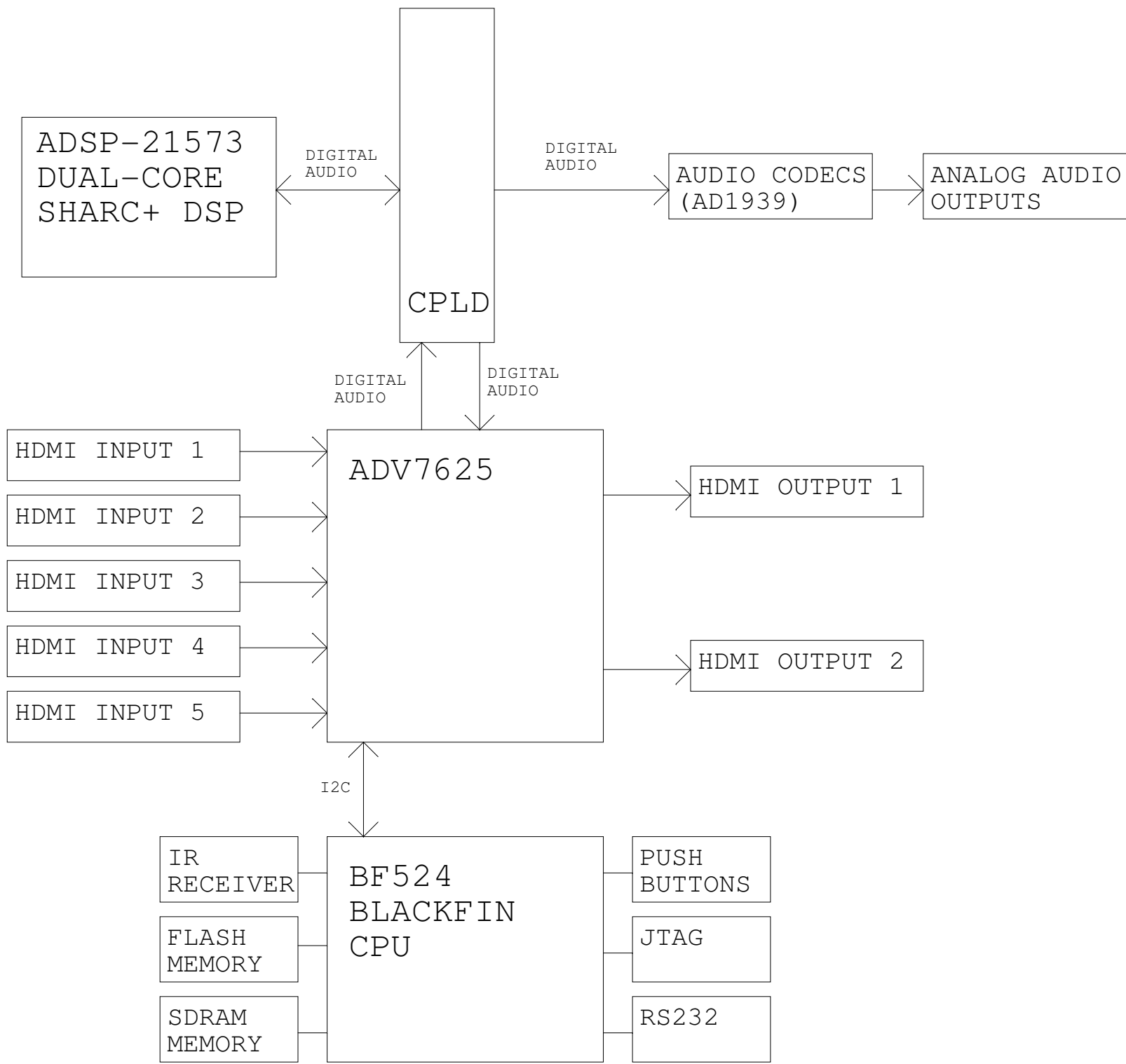
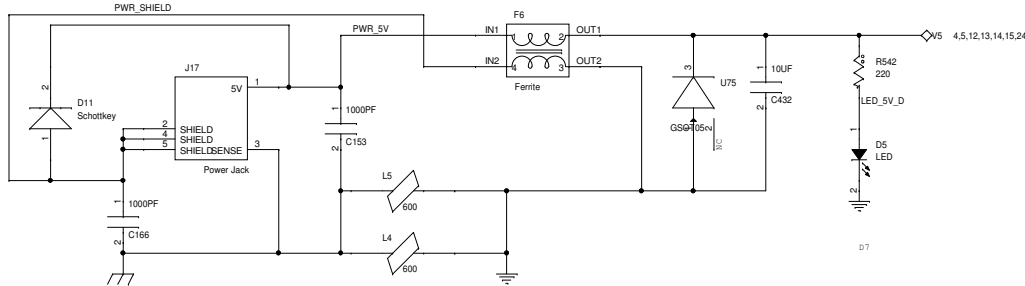
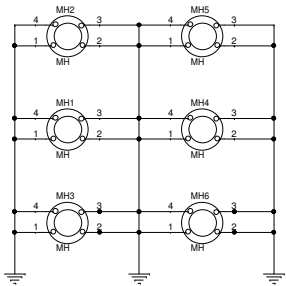


EVAL-MELODY-7 Audio/Video Evaluation Board

Change Log

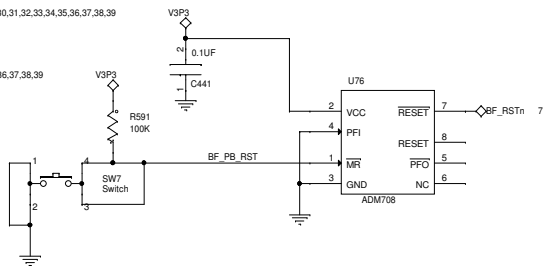
| Revision | Date | Description |
|----------|------------|-----------------|
| 0.1 | 2016/08/30 | Initial Release |
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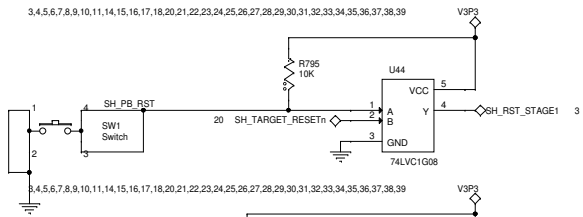


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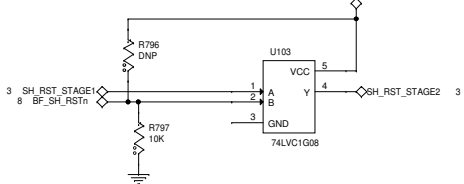
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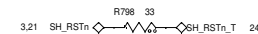
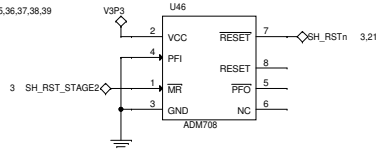
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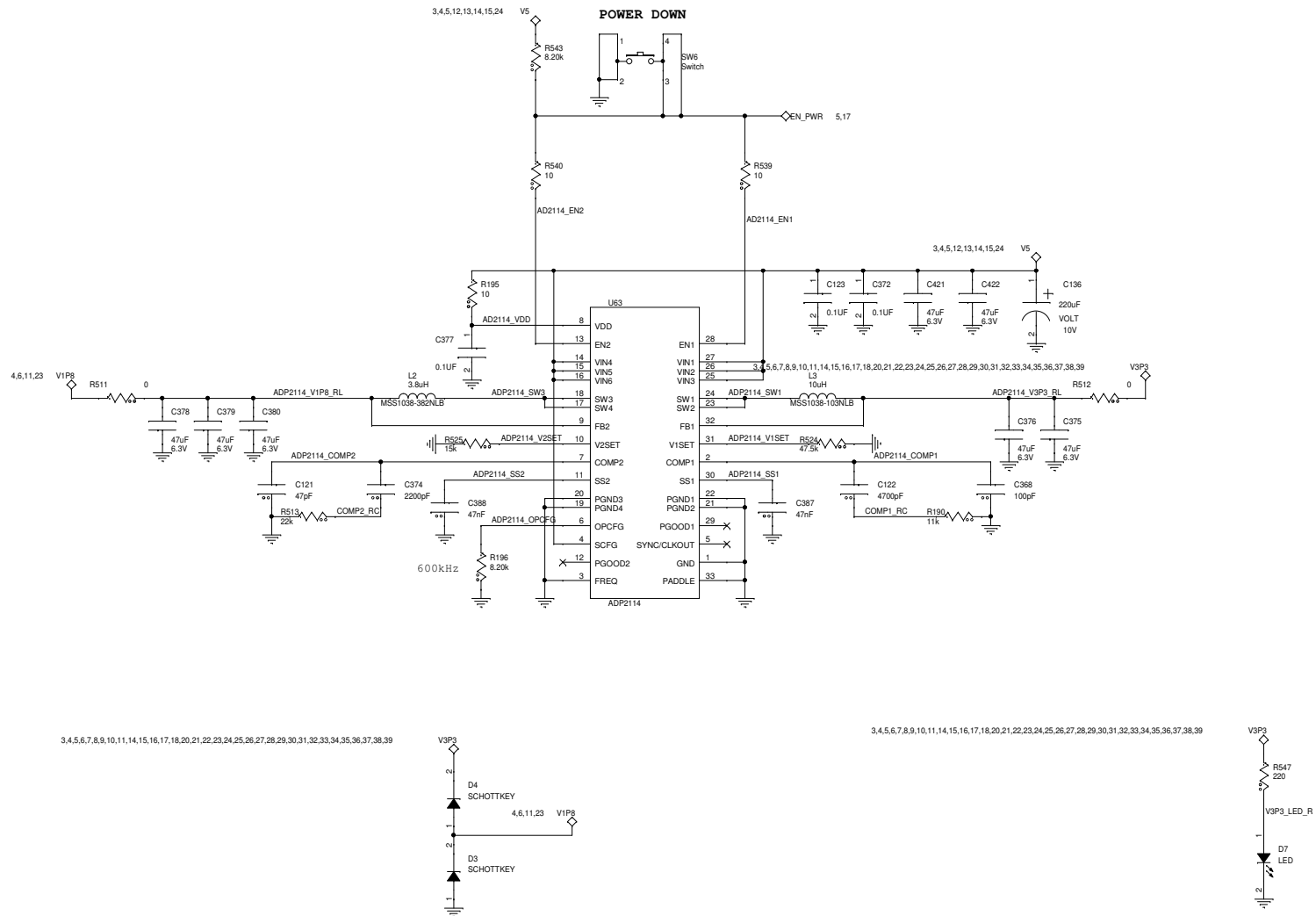
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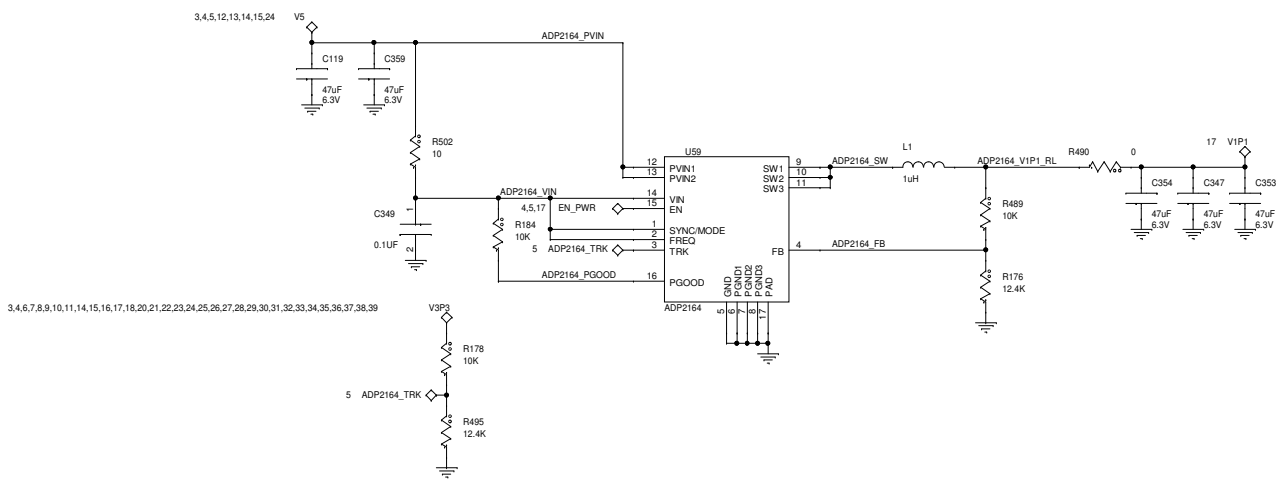
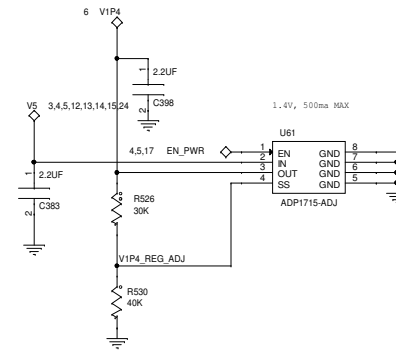
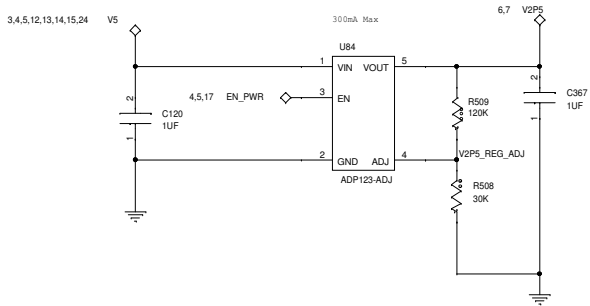
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| Title | | |
| BOARD POWER | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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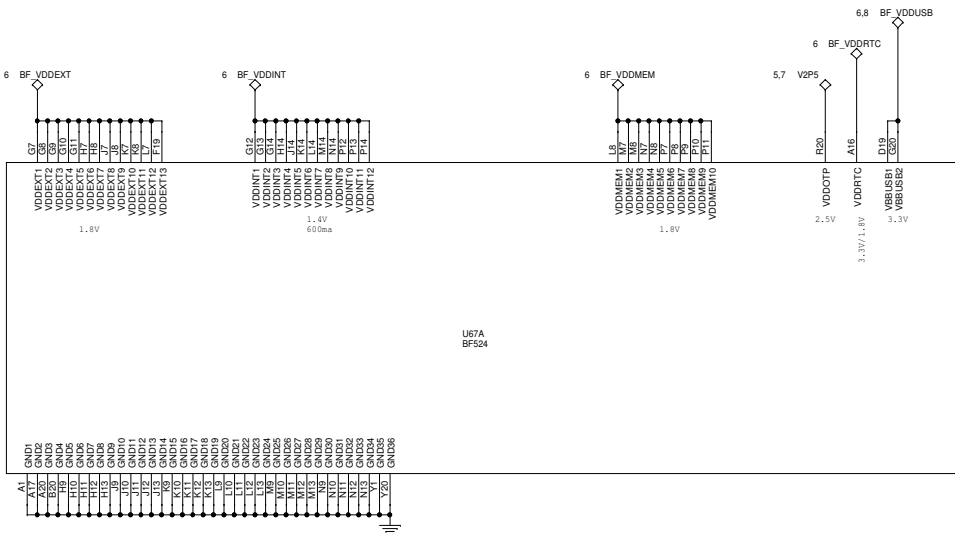
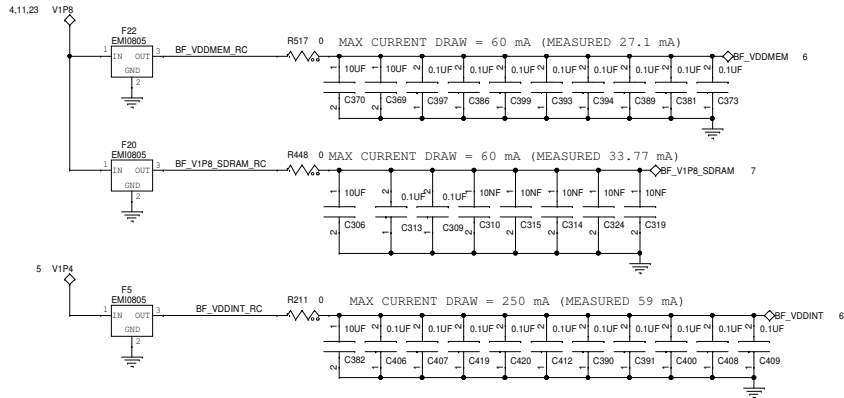
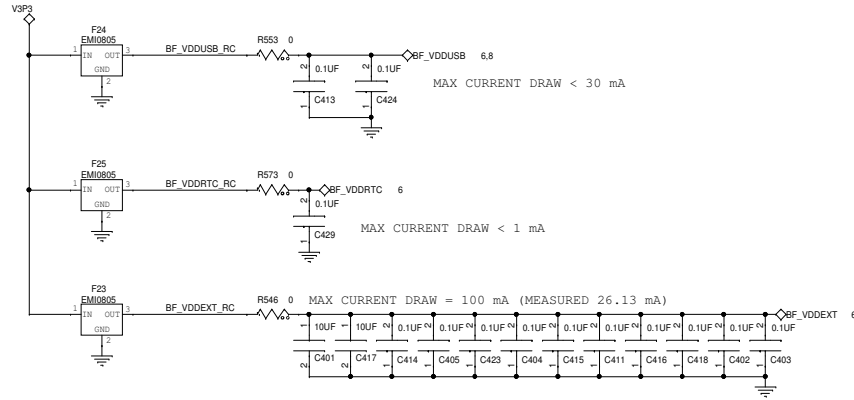


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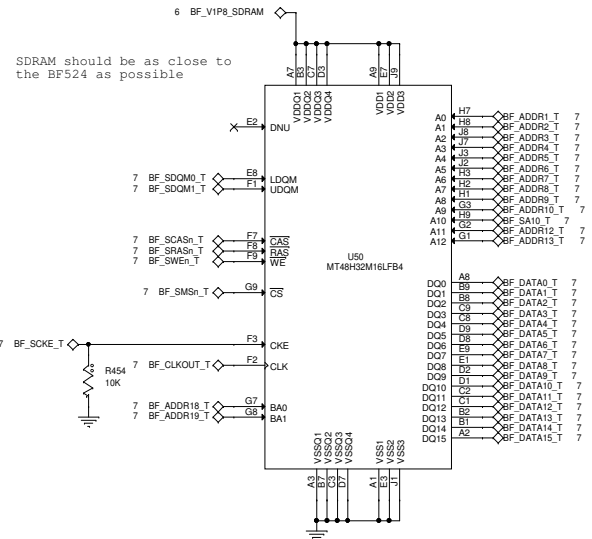
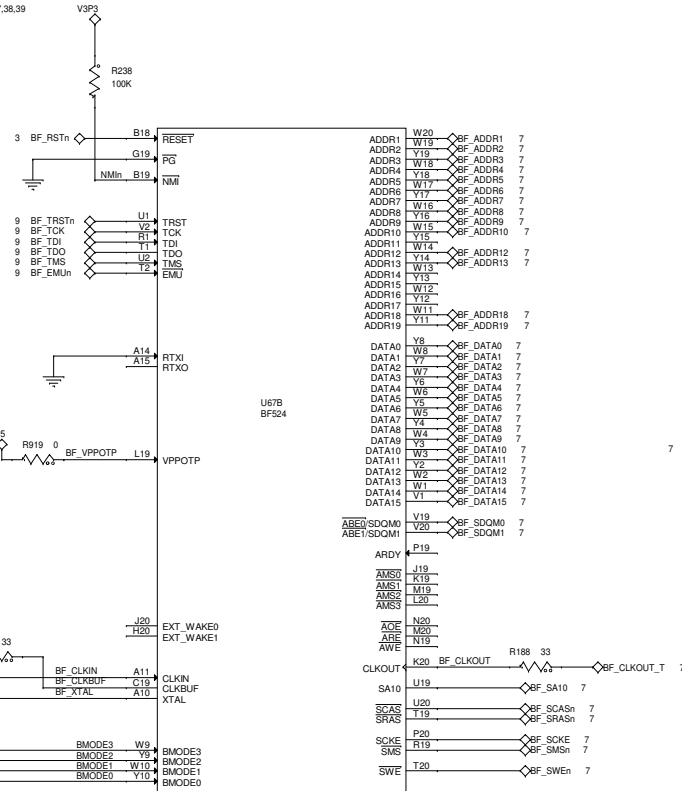
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|---------------------------------------|--|---------------|
| Title | | |
| SWITCHING REGULATOR FOR 3.3V AND 1.8V | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
| Date: | Wednesday, January 04, 2017 | Sheet 4 of 40 |

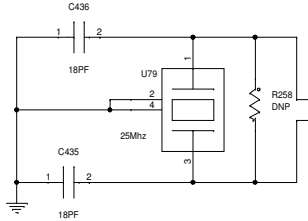




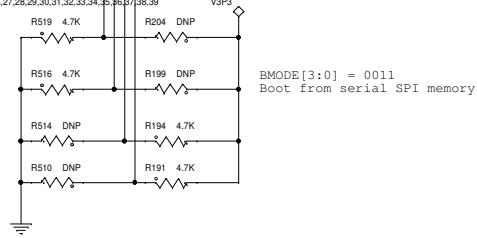
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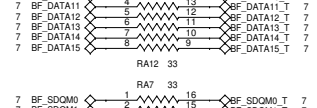
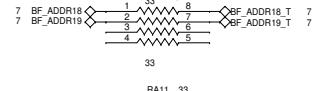
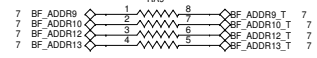
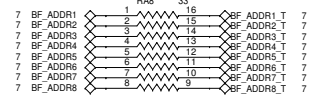
SDRAM should be as close to the BF524 as possible



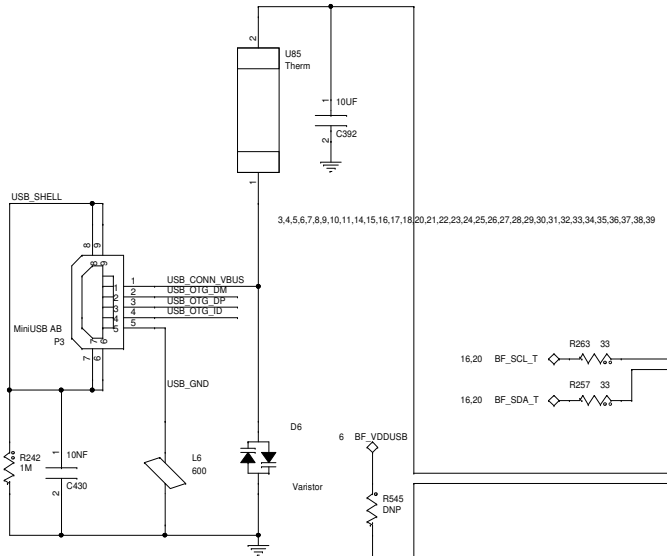
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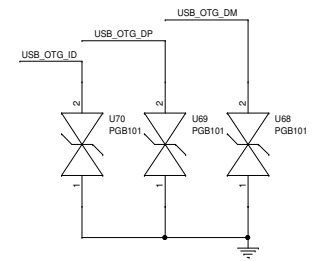
BMODE[3:0] = 0011
Boot from serial SPI memory



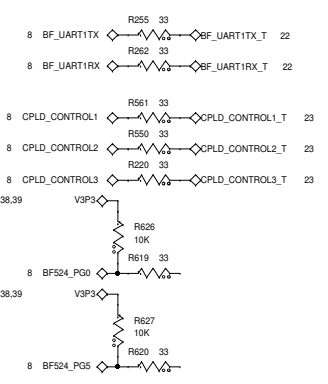
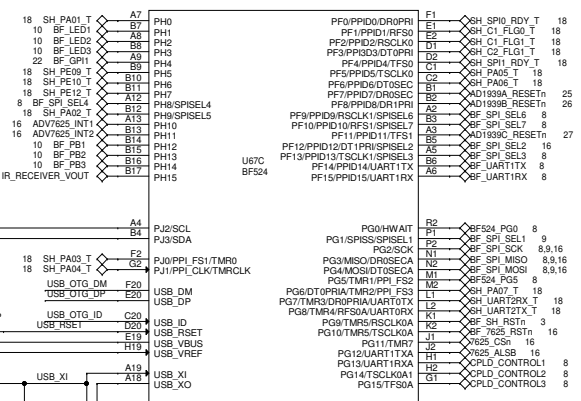
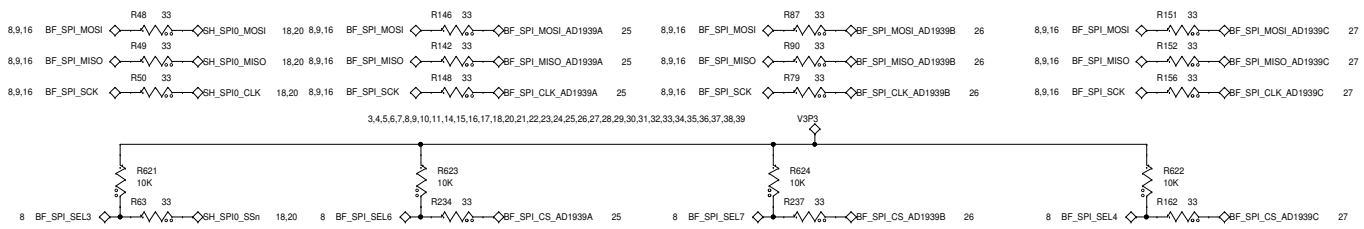
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|-------|--|-------|-------------|----|-----------------------------|
| Title | | | BF524 SDRAM | | |
| Size | Document Number | Rev | | | 0.2 |
| C | Eval-MELODY-7 Audio/Video Evaluation Board | Date: | | | Wednesday, January 04, 2017 |
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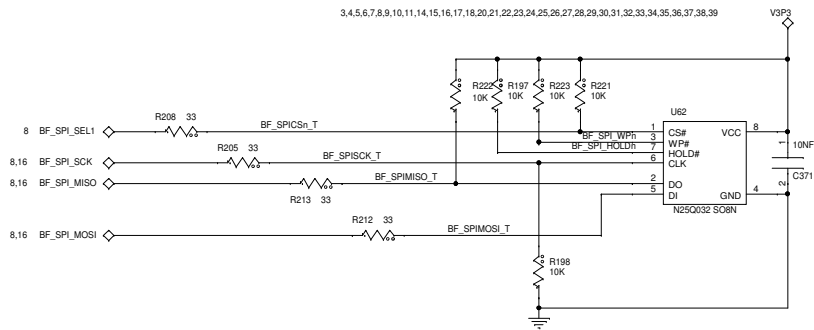
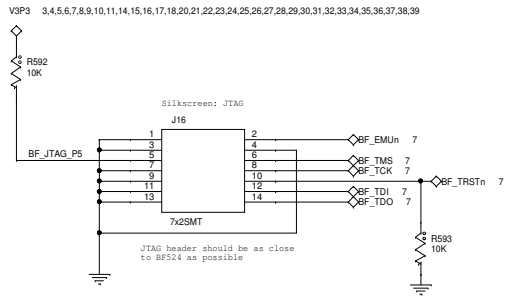


USB_OTG_DM and USB_OTG_DP are differential pairs with 90 ohm impedance and should be as short as possible

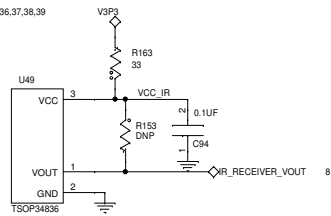


BF_SPI_SEL1: BF524 SERIAL FLASH MEMORY
 BF_SPI_SEL2: ADV7625 SERIAL FLASH MEMORY
 BF_SPI_SEL3: ADSP-21584 SPI0 CS
 BF_SPI_SEL4: AD1939C SPI CS
 BF_SPI_SEL5: UNUSED
 BF_SPI_SEL6: AD1939A SPI CS
 BF_SPI_SEL7: AD1939B SPI CS

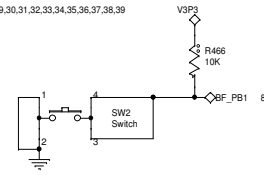




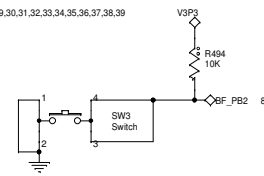
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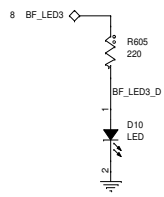
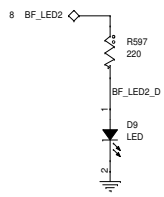
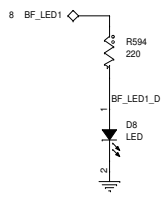
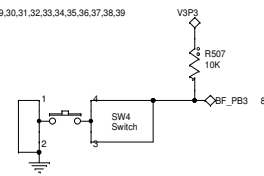
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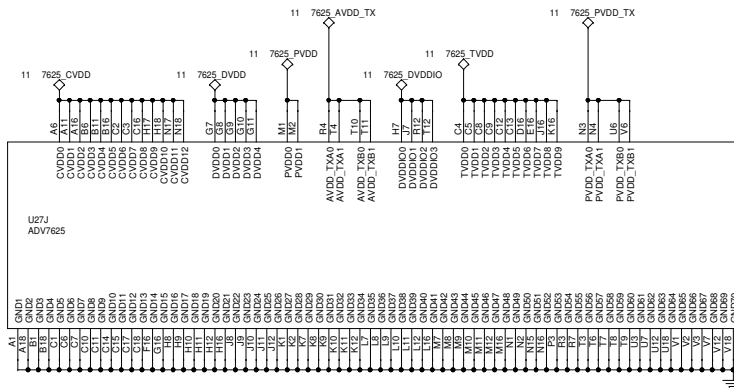
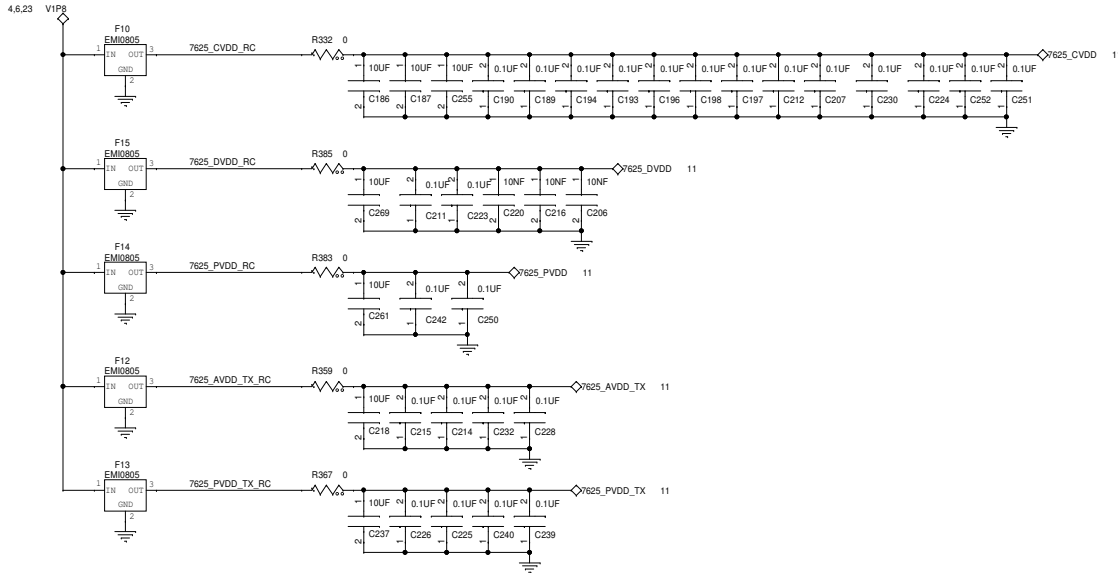
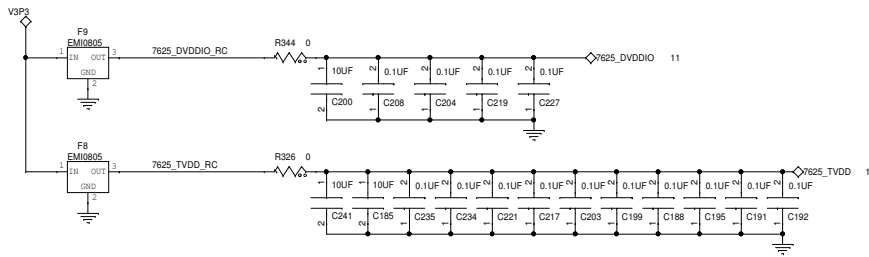
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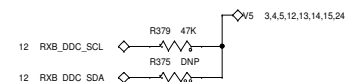
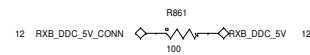
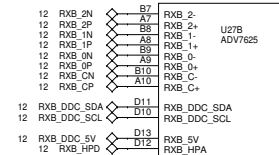
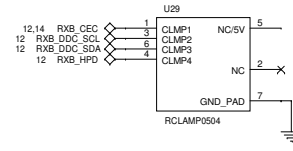
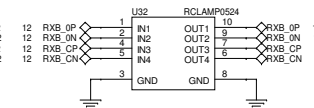
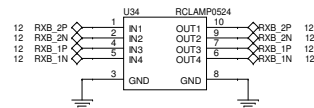
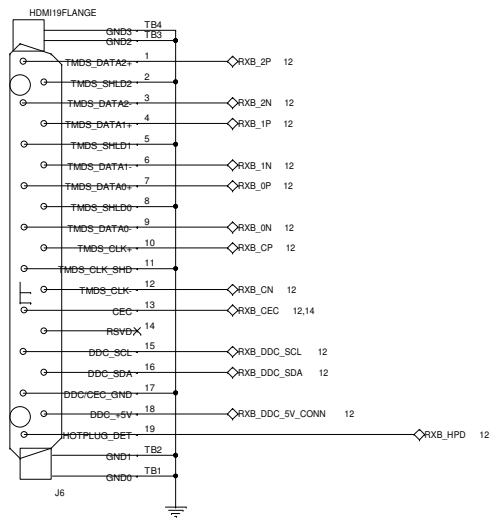
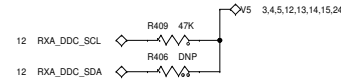
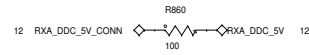
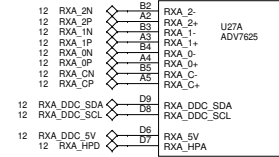
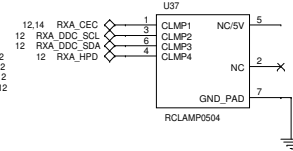
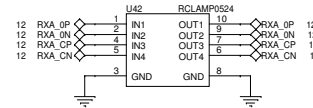
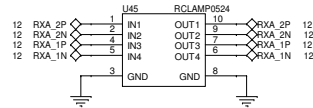
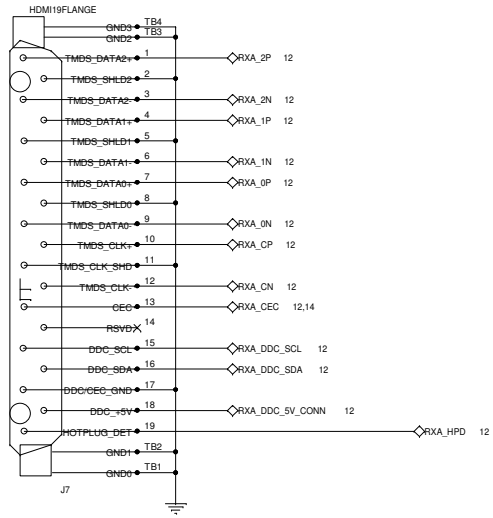


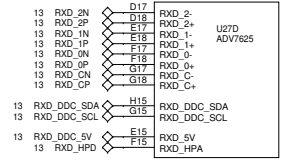
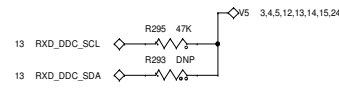
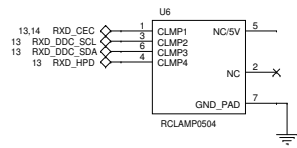
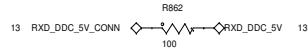
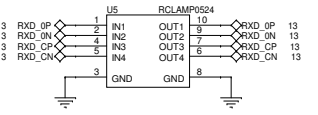
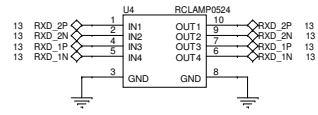
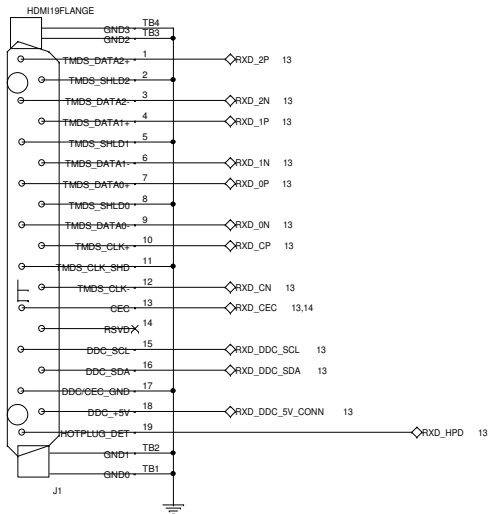
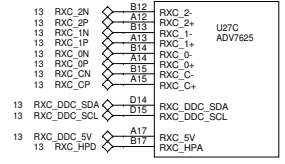
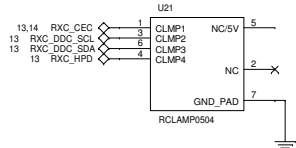
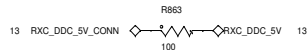
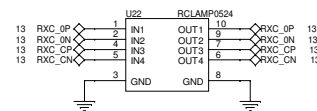
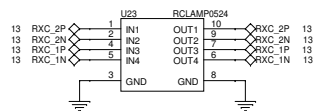
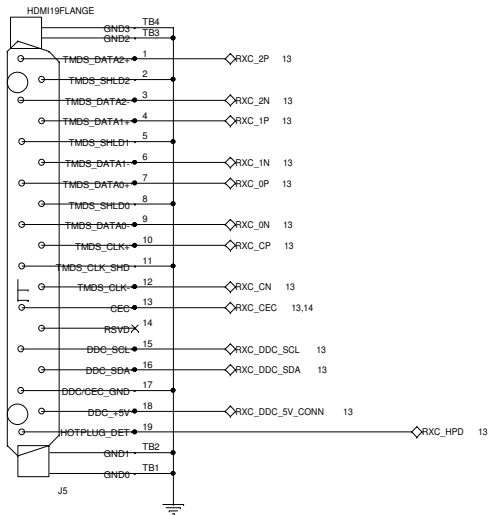
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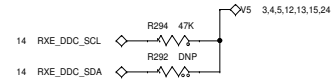
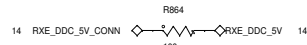
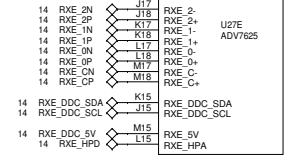
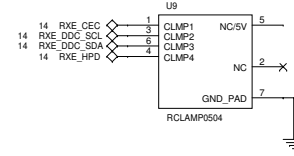
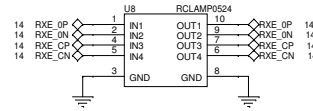
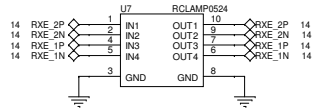
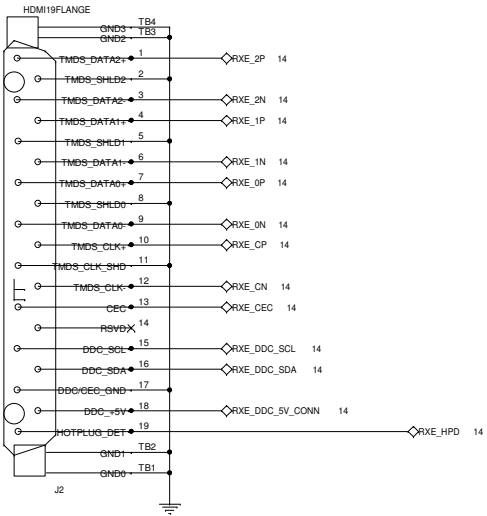


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|---------------------------|--|----------------|
| Title | | |
| BF524 GP INPUTS / OUTPUTS | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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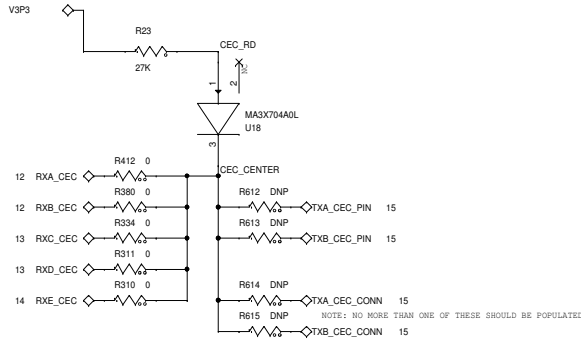


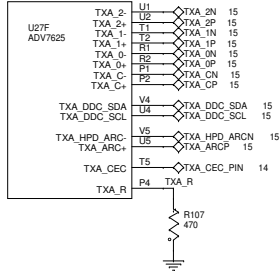




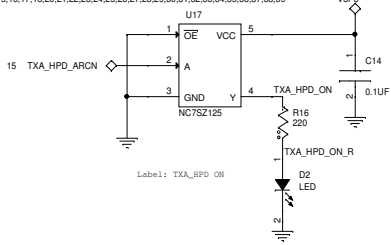


3,4,5,6,7,8,9,10,11,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39

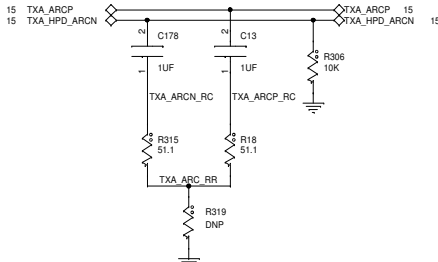
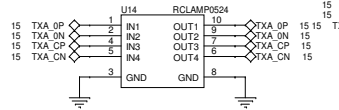
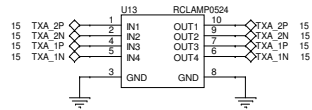




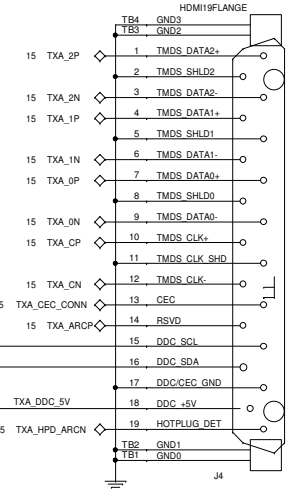
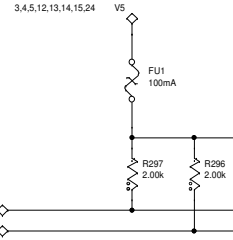
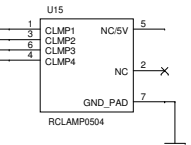
3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39



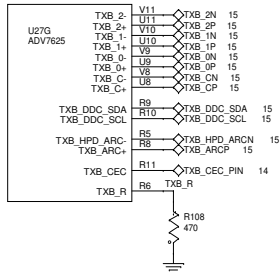
Label: TXA_HPD_ON



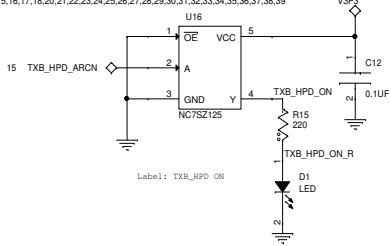
Populate R319 with a 5.1 ohm 0603 if ARC functionality is desired on TXA.



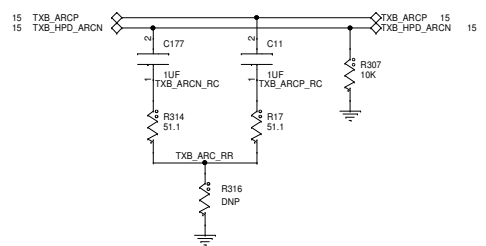
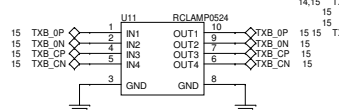
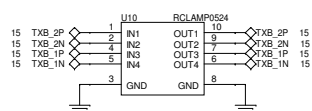
HDMI OUTPUT A



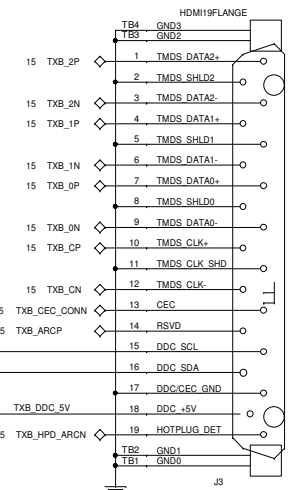
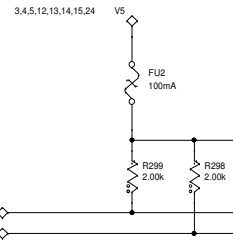
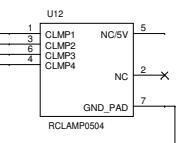
3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39



Label: TXB_HPD_ON

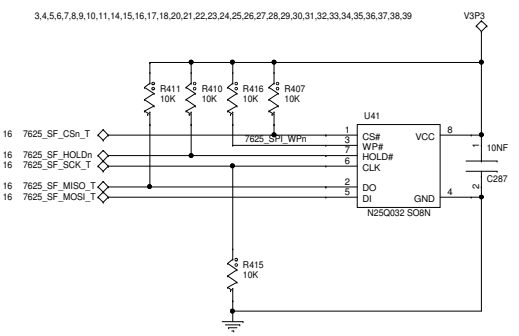
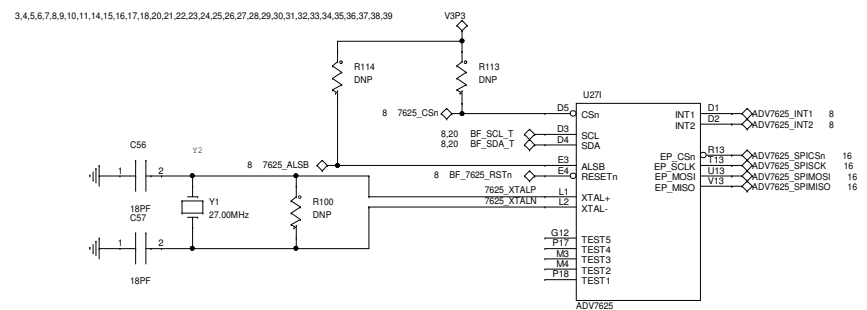
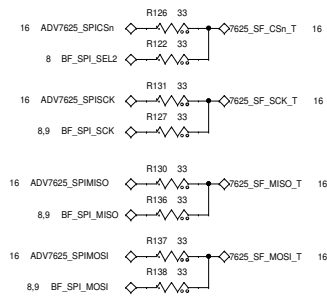
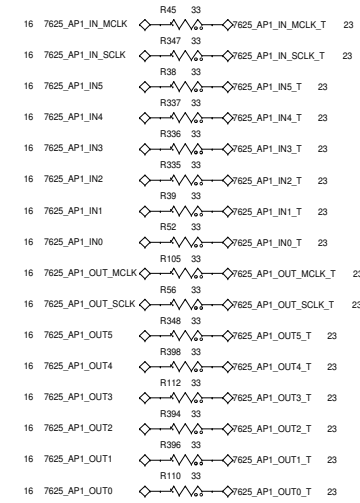
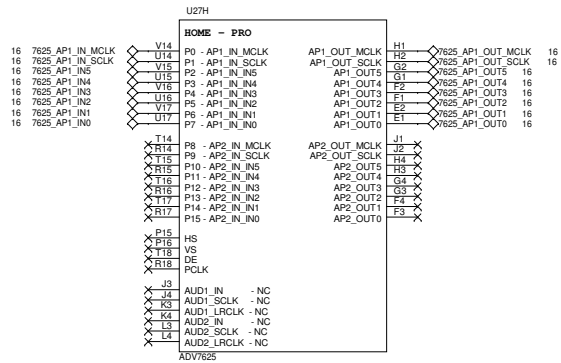


Populate R316 with a 5.1 ohm 0603 if ARC functionality is desired on TXB.



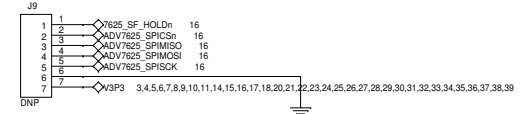
HDMI OUTPUT B

| | | |
|-------------------------|--|----------------|
| Title | | |
| ADV7625 OUTPUTS A AND B | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
| Date: | Wednesday, January 04, 2017 | Sheet 15 of 40 |



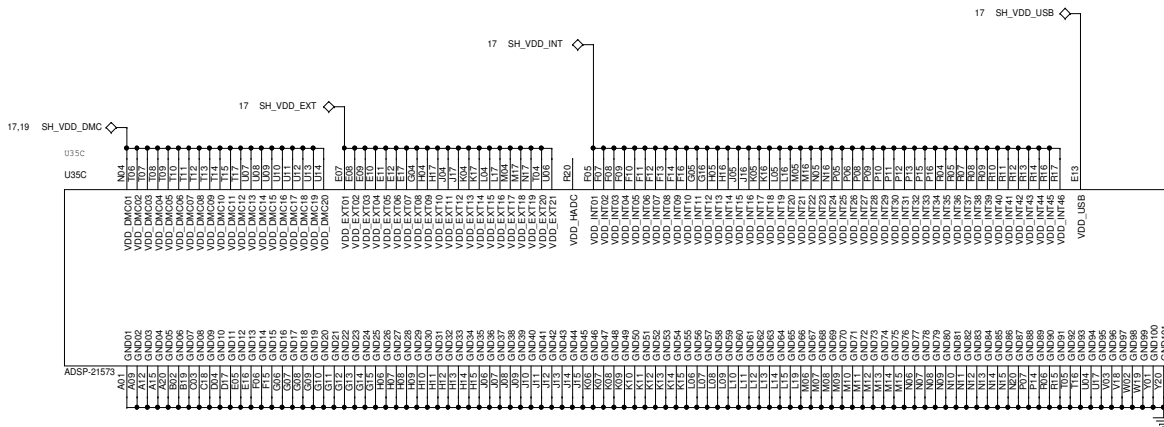
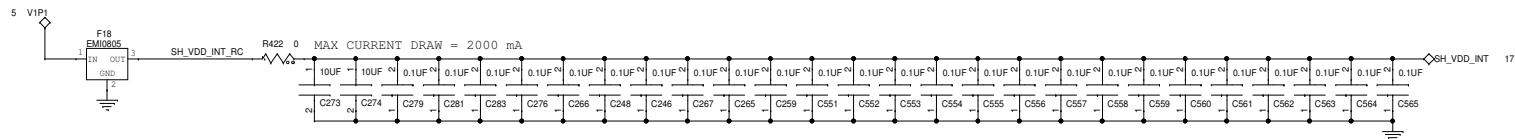
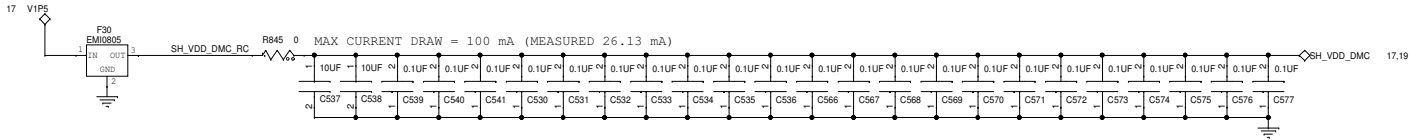
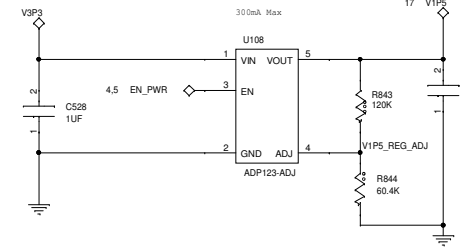
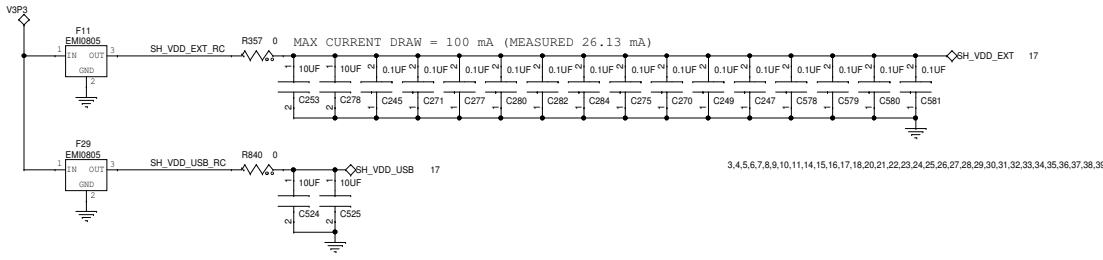
ADV7625 I2C ADDRESS:
 ALSB Low : IO Map address is 0xB0 (default)
 ALSB High : IO Map address is 0xB2

8003-STYLE MASTER SPI HEADER (NOT POPULATED)

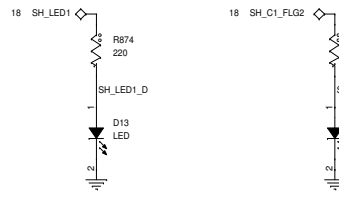
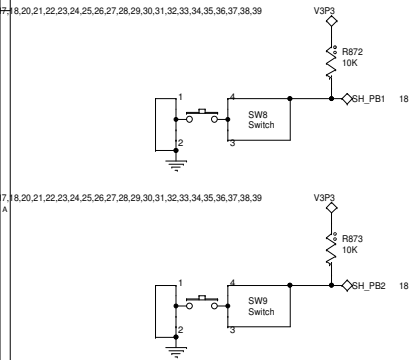
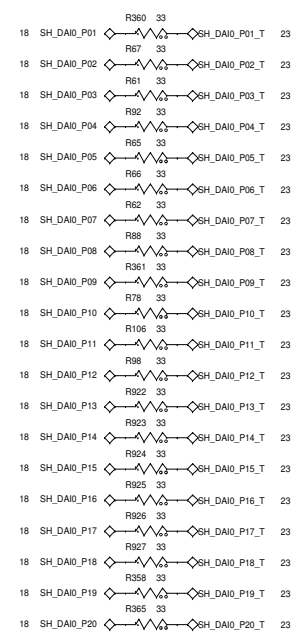
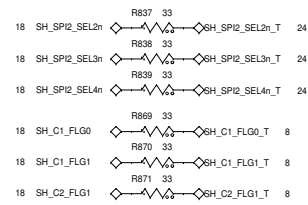
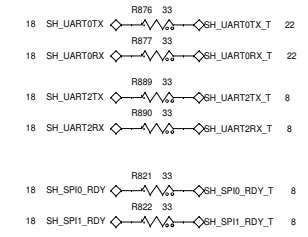
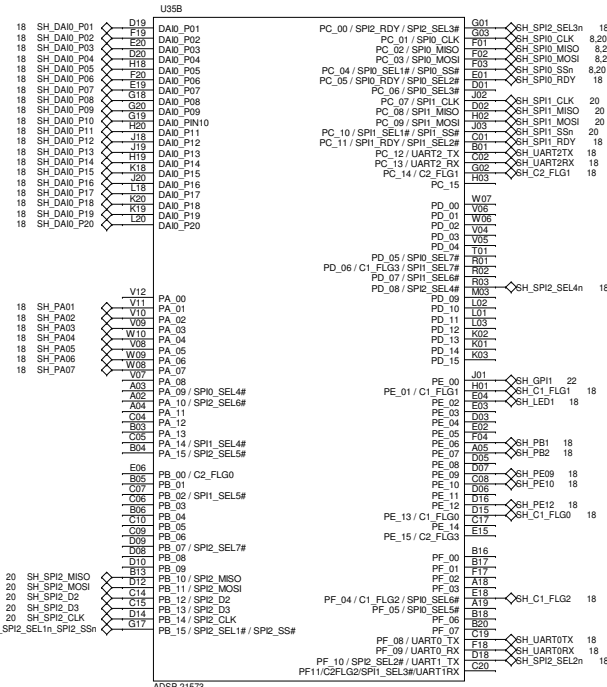


NEED TO CALCULATE VALUES FOR 1.5V

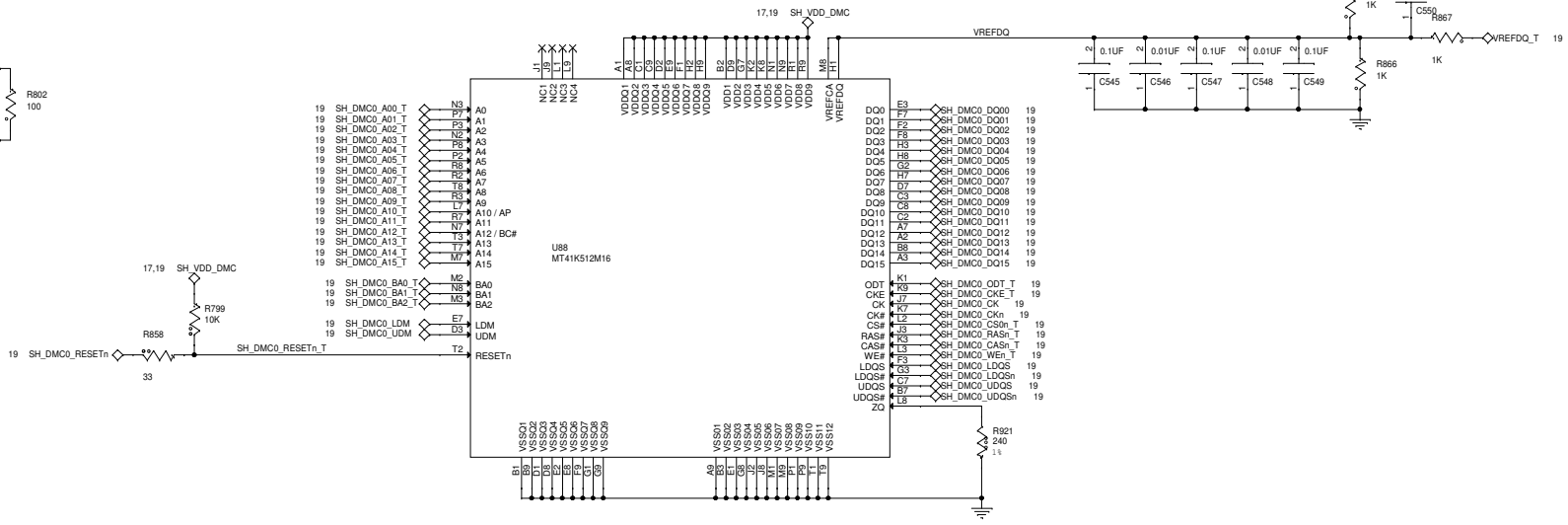
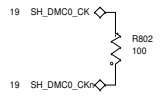
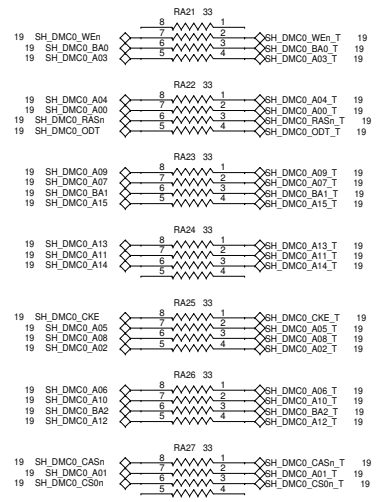
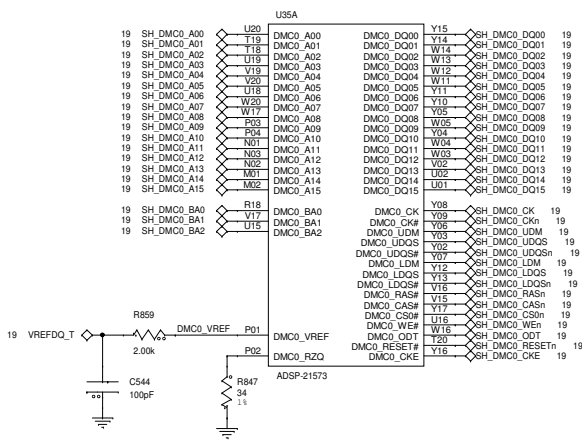
3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39

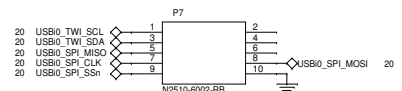
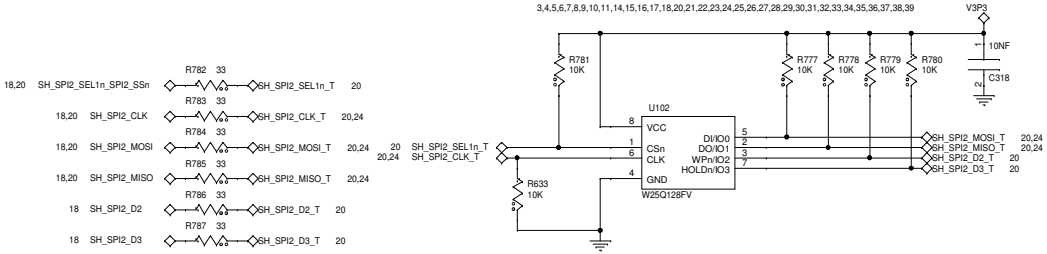
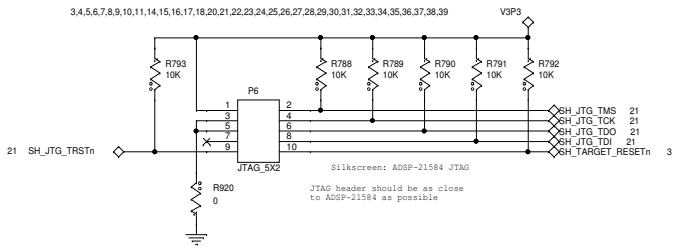


| | | |
|------------------|--|----------------|
| Title | | |
| ADSP-21573 POWER | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
| Date: | Wednesday, January 04, 2017 | Sheet 17 of 40 |

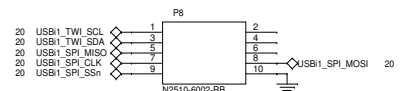
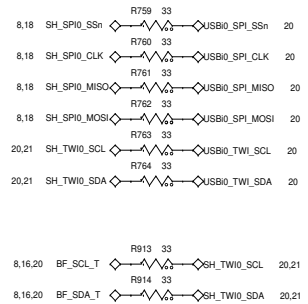


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|------------------------|--|----------------|
| Title | | |
| ADSP-21573 PERIPHERALS | | |
| Size | Document Number | Rev |
| C | EVAl-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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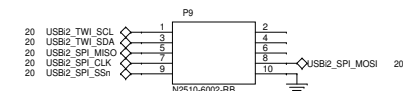
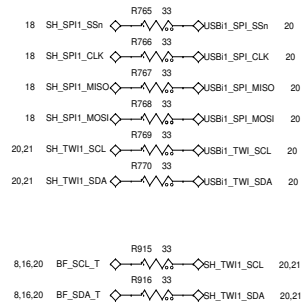




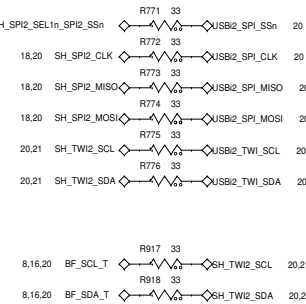
USBi or Aardvark SPI INTERFACE



USBi or Aardvark SPI INTERFACE

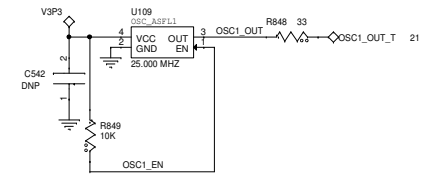


USBi or Aardvark SPI INTERFACE

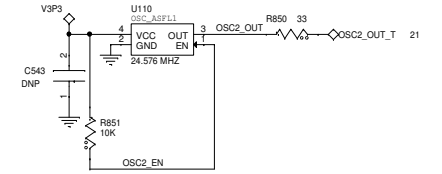


| | | | |
|-------|-----------------------------|--|-------------------------|
| Title | | | ADSP-21573 FLASH / JTAG |
| Size | Document Number | EVAL-MELODY-7 Audio/Video Evaluation Board | |
| C | | | Rev 0.2 |
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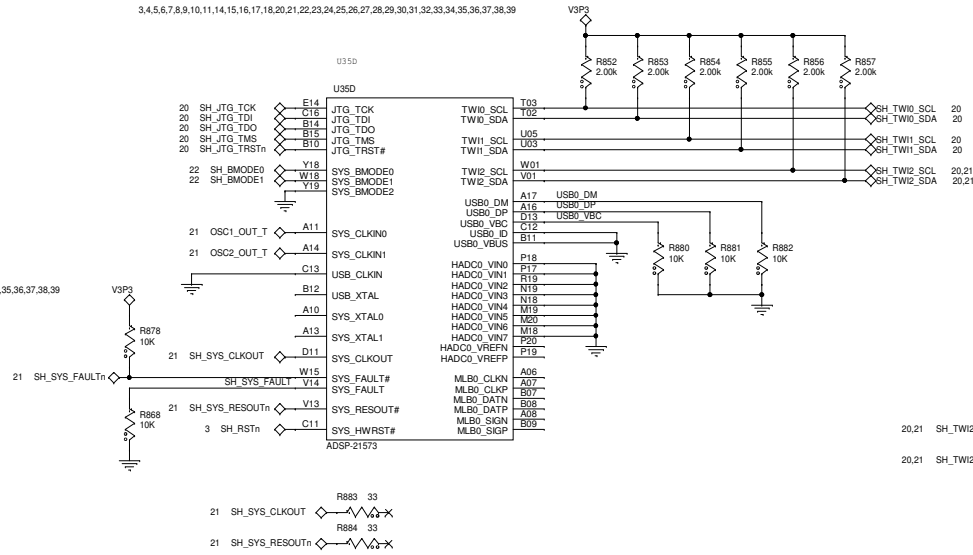
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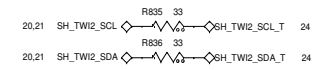
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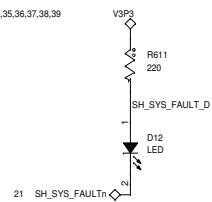
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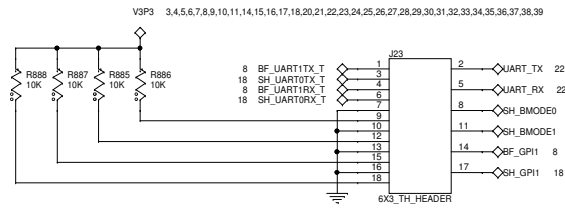
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3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39

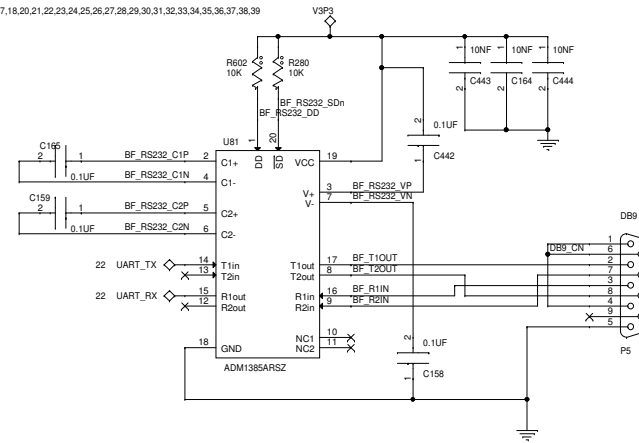


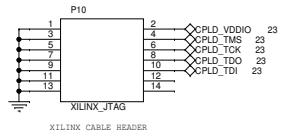
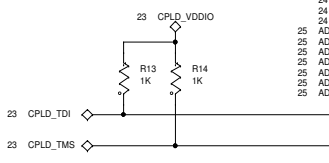
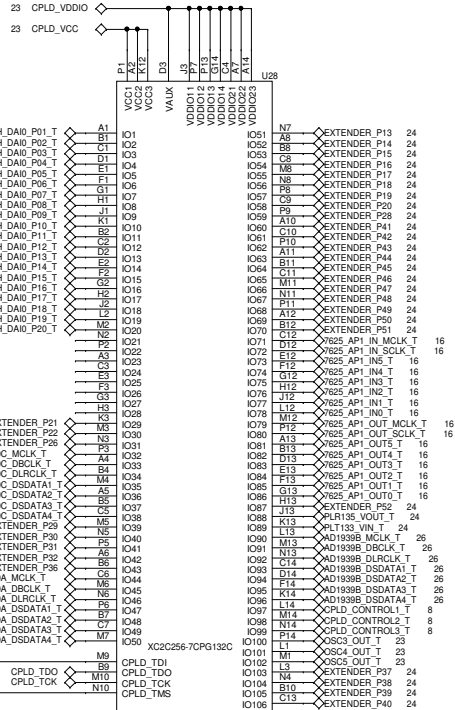
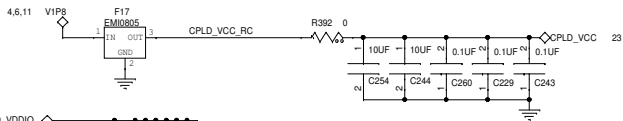
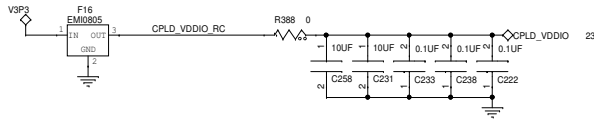
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|-------------------|--|----------------|
| Title | | |
| ADSP-21573 SYSTEM | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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SH_BMODE[1:0] BOOT SOURCE
 00 NO BOOT / CUSTOM ROM
 01 SPI2 MASTER BOOT
 10 SPI2 SLAVE BOOT

3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39

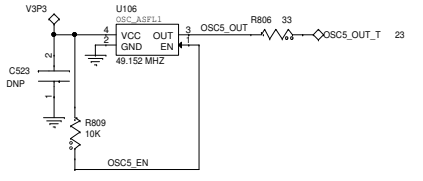
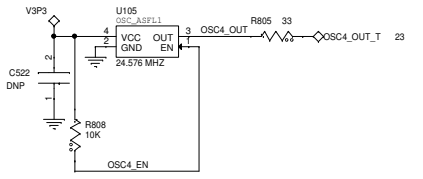
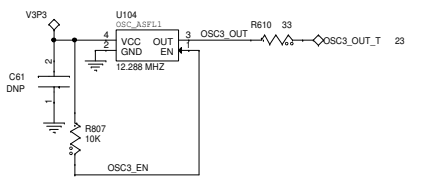




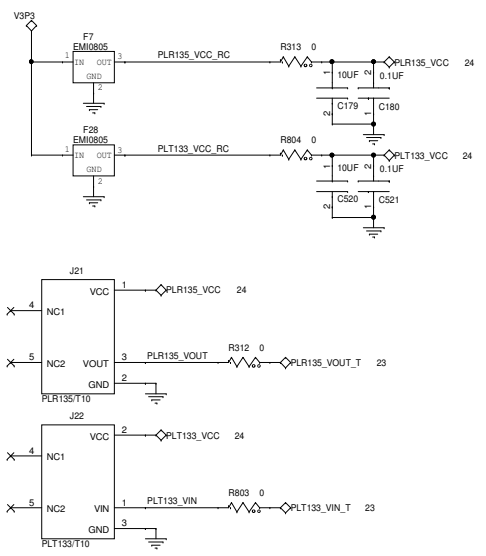
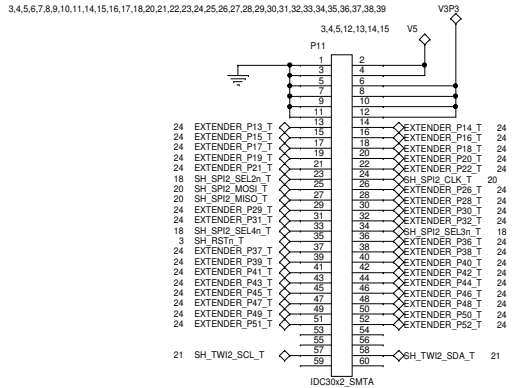
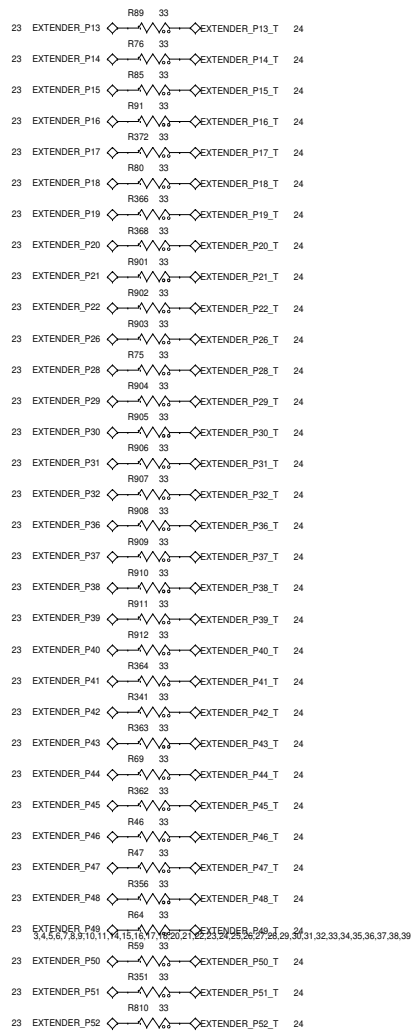
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3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39

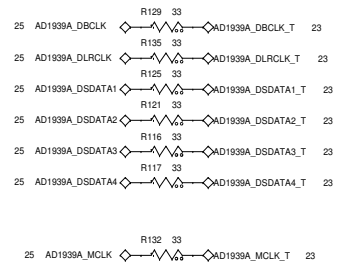
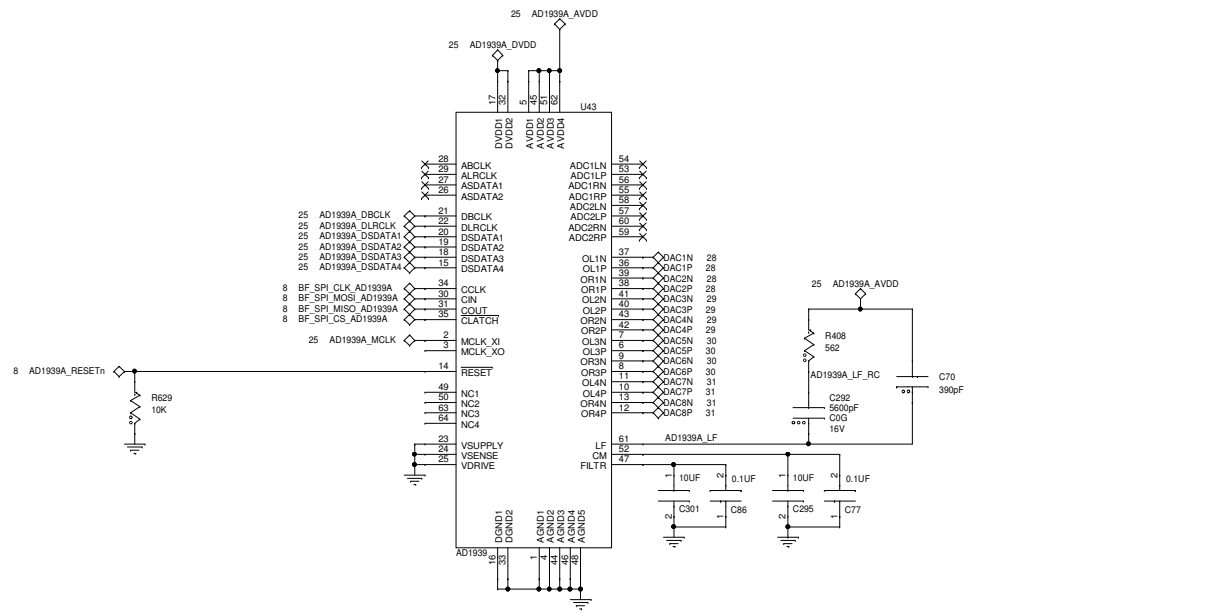
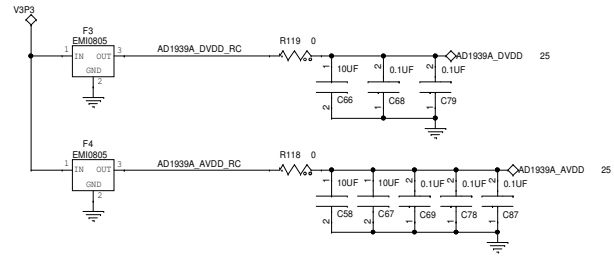
3,4,5,6,7,8,9,10,11,14,15,16,17,18,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39



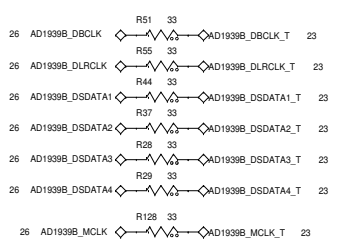
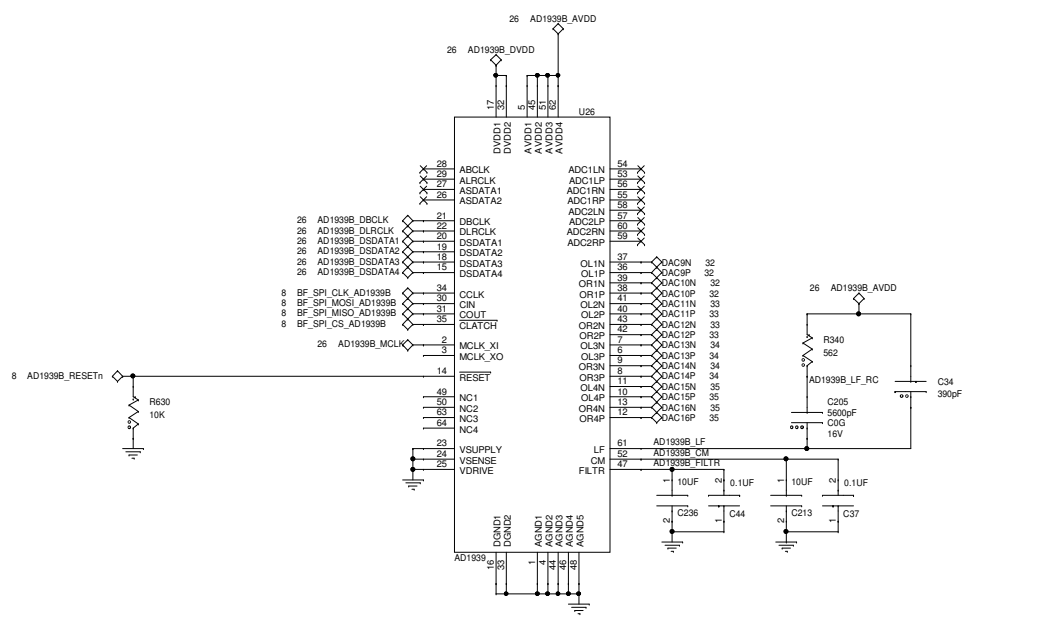
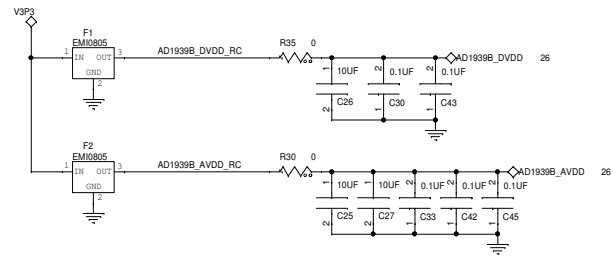
| | | |
|-------|--|----------------|
| Title | | |
| CPLD | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
| Date: | Wednesday, January 04, 2017 | Sheet 23 of 40 |



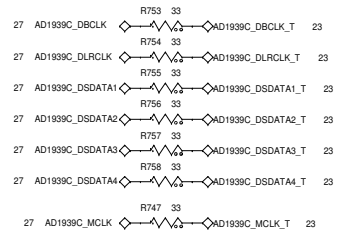
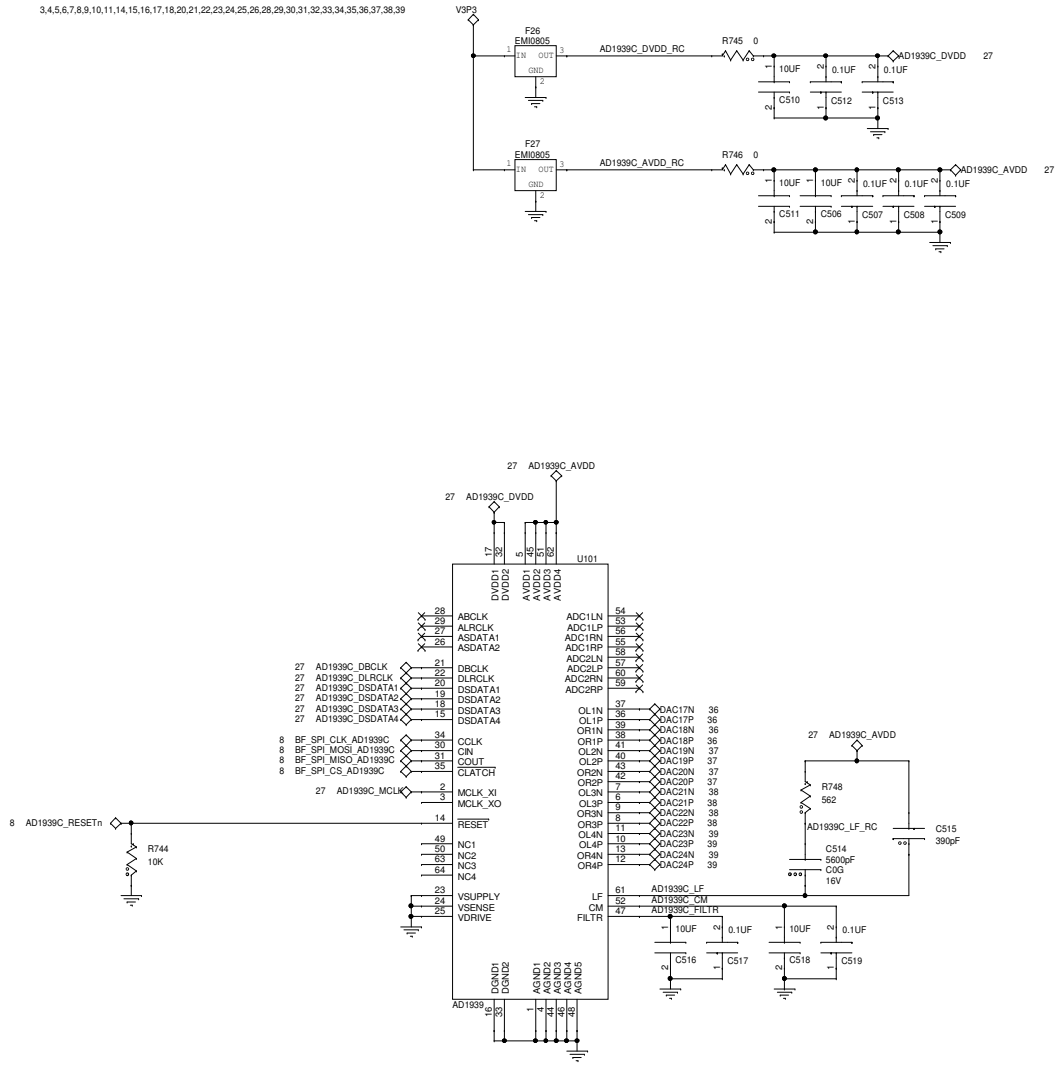
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|-------|-----------------------------|--|----------|
| Title | | 60-PIN E12 CONNECTOR | |
| Size | Document Number | EVAL-MELODY-7 Audio/Video Evaluation Board | |
| C | | | Rev 0.2 |
| Date: | Wednesday, January 04, 2017 | Sheet | 24 of 40 |



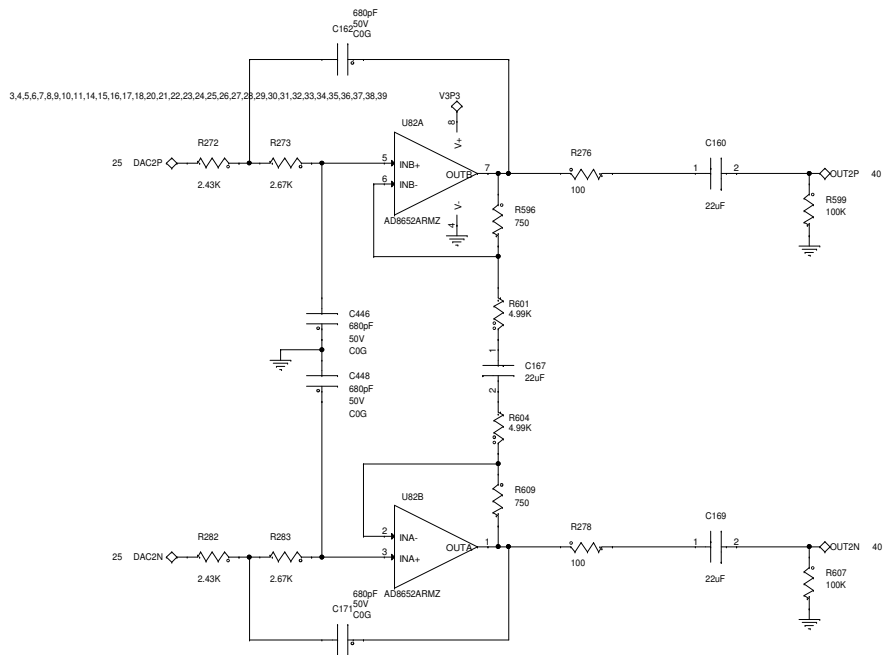
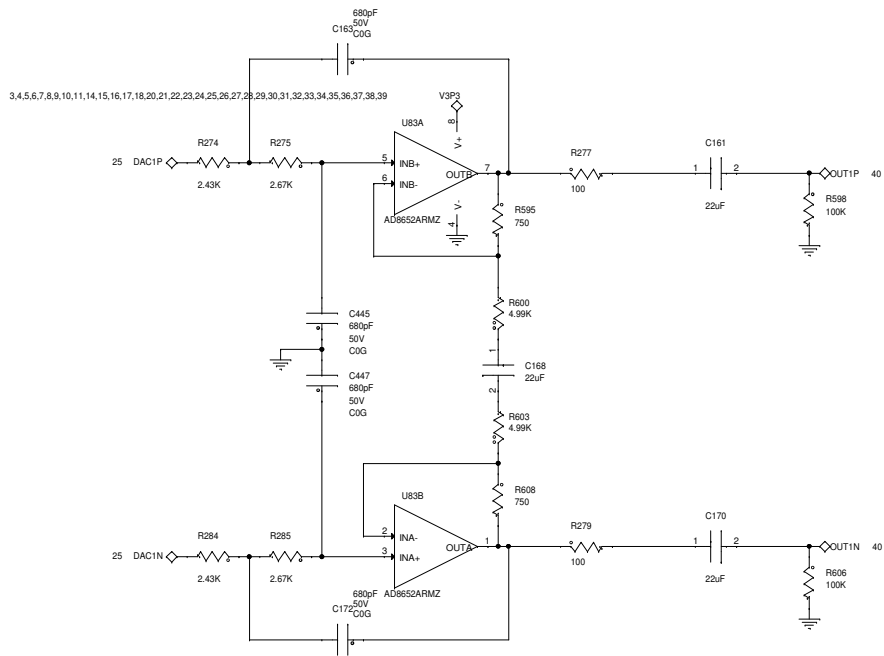
| | | |
|----------------|--|----------------|
| Title | | |
| AD1939 CODEC A | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
| Date: | Wednesday, January 04, 2017 | Sheet 25 of 40 |



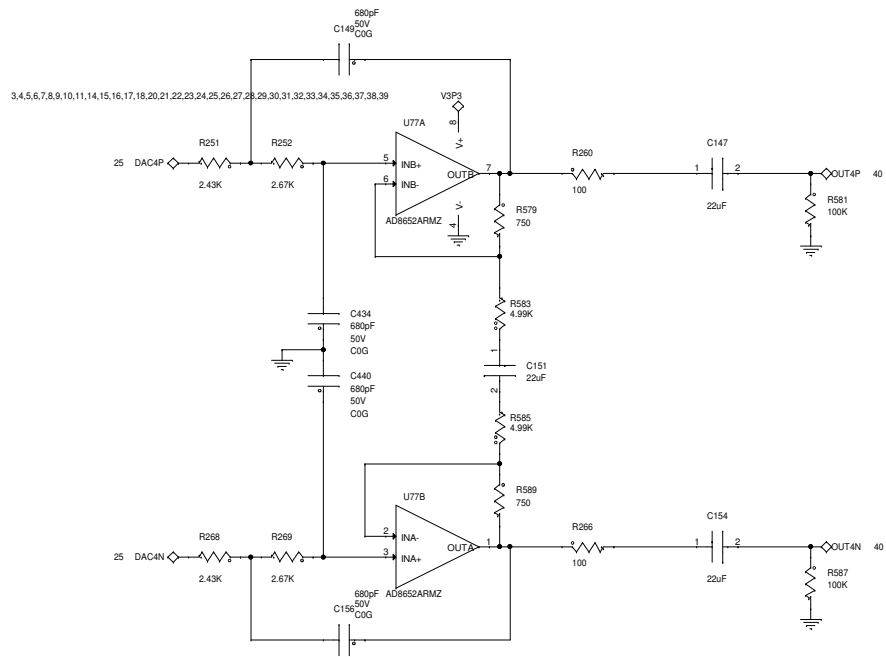
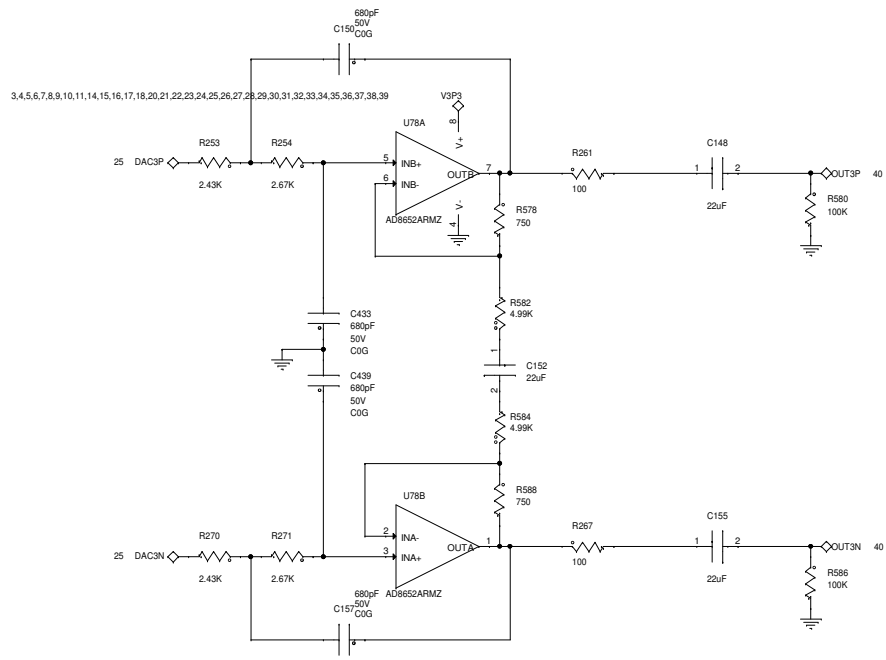
| | | |
|----------------|--|----------------|
| Title | | |
| AD1939 CODEC B | | |
| Size | Document Number | Rev |
| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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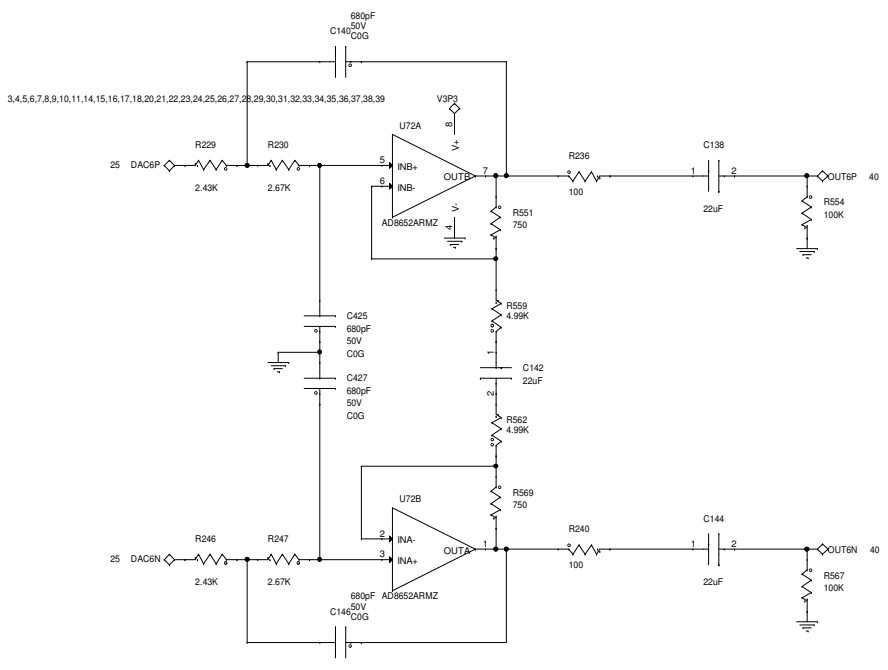
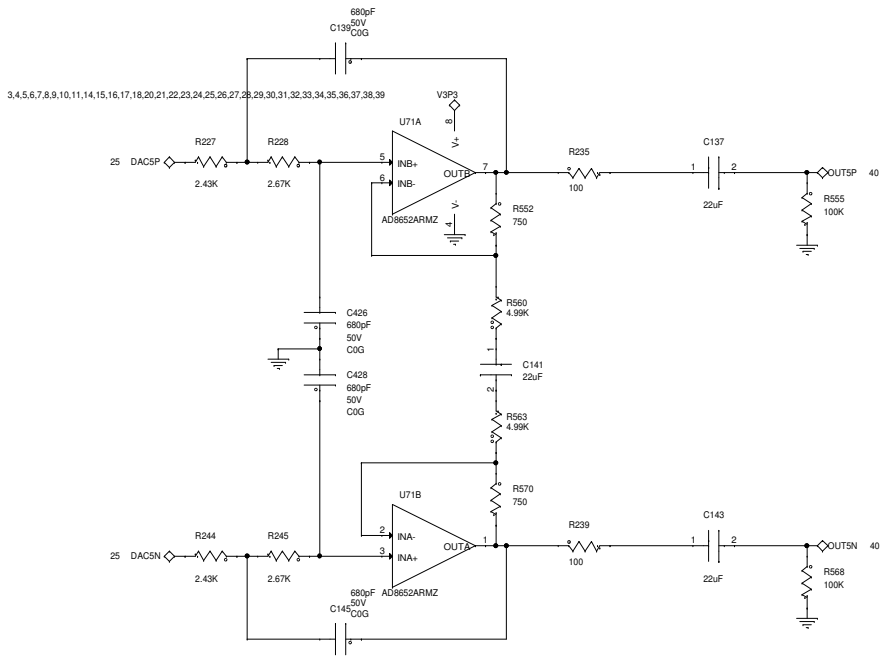
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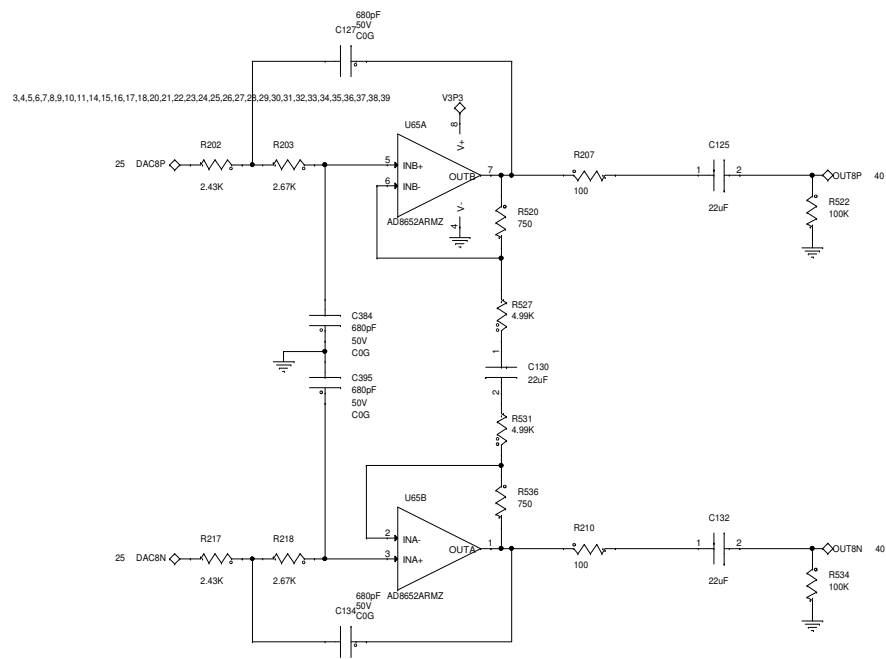
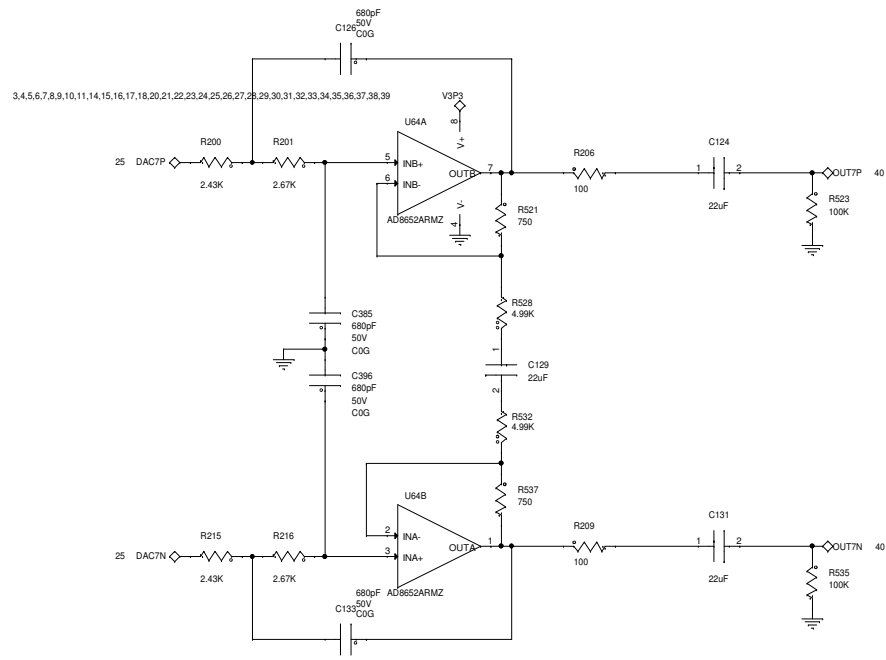
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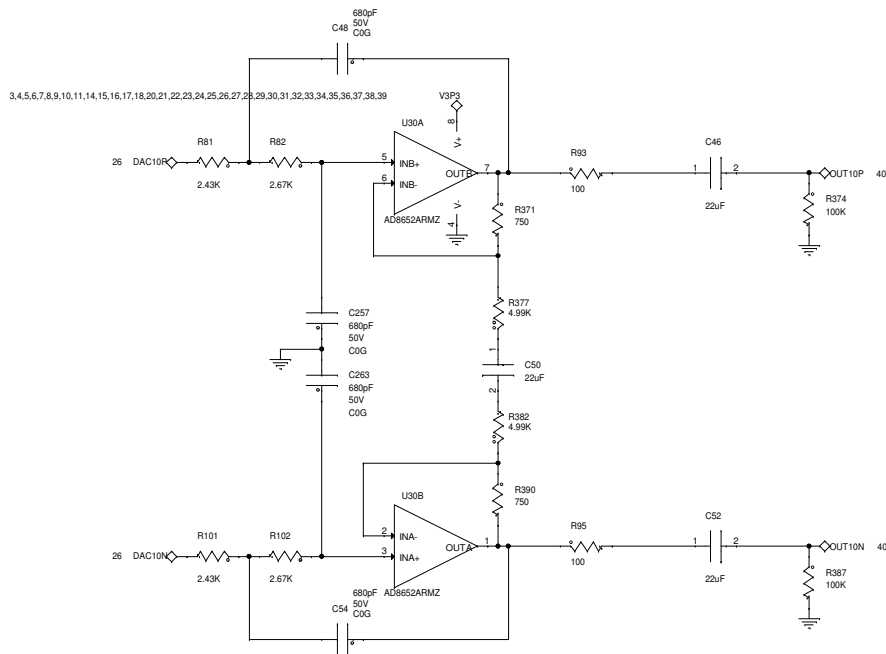
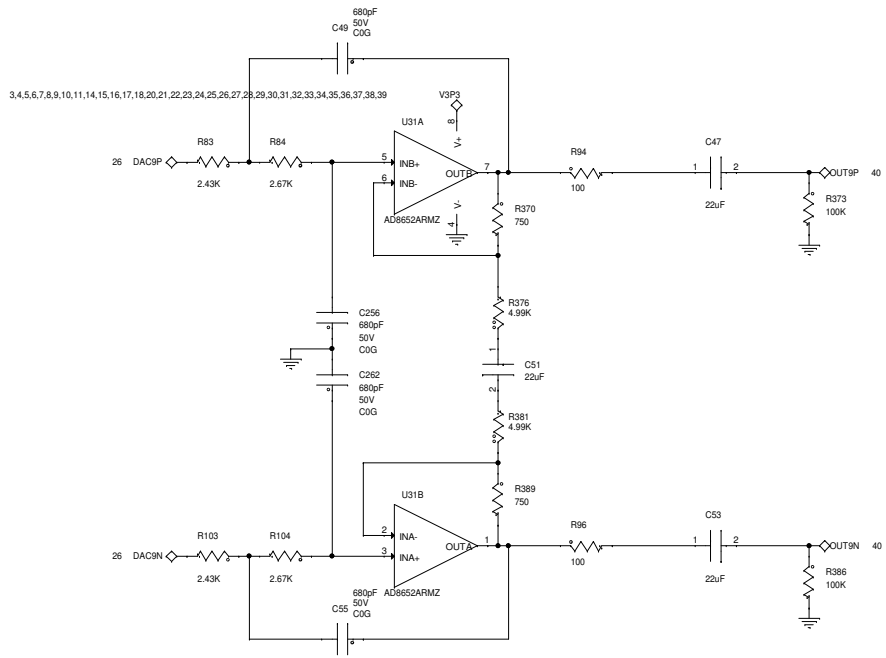
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| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 | |
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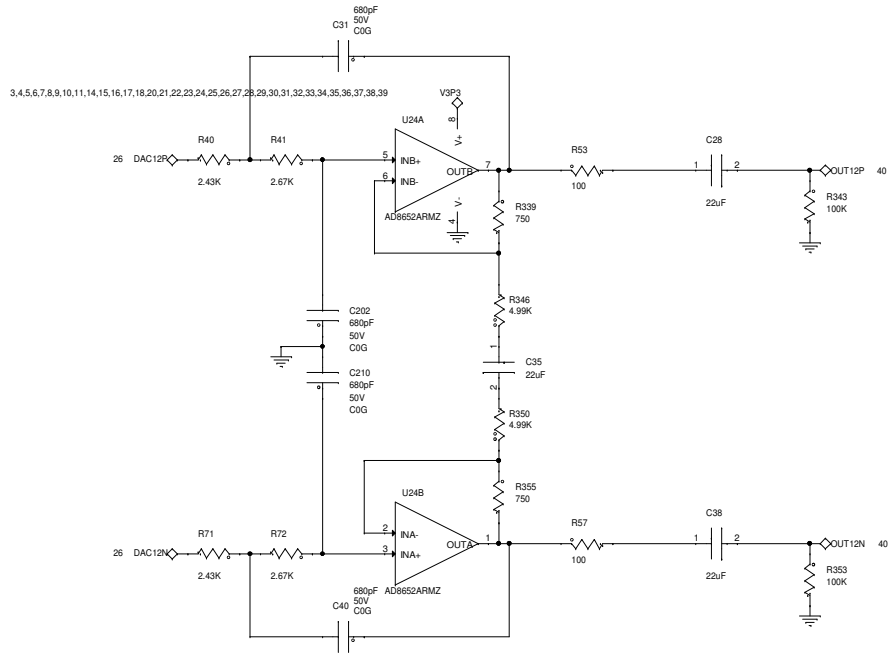
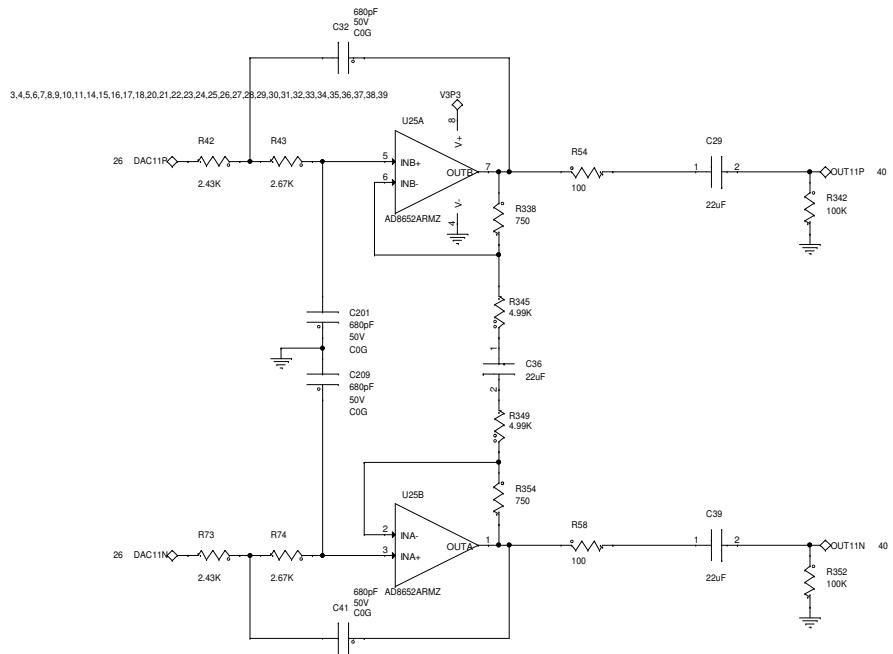
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| C | EVAl-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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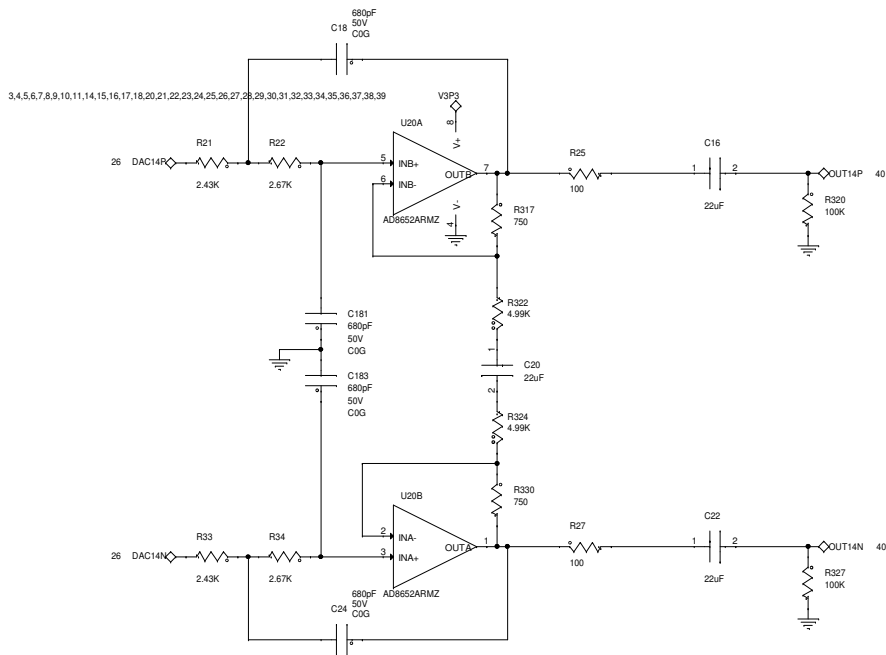
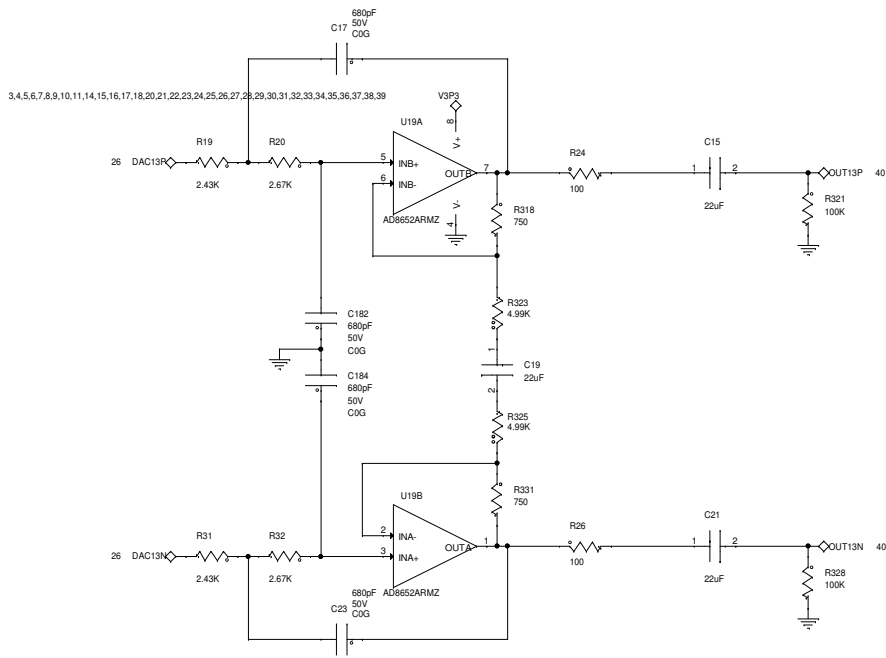
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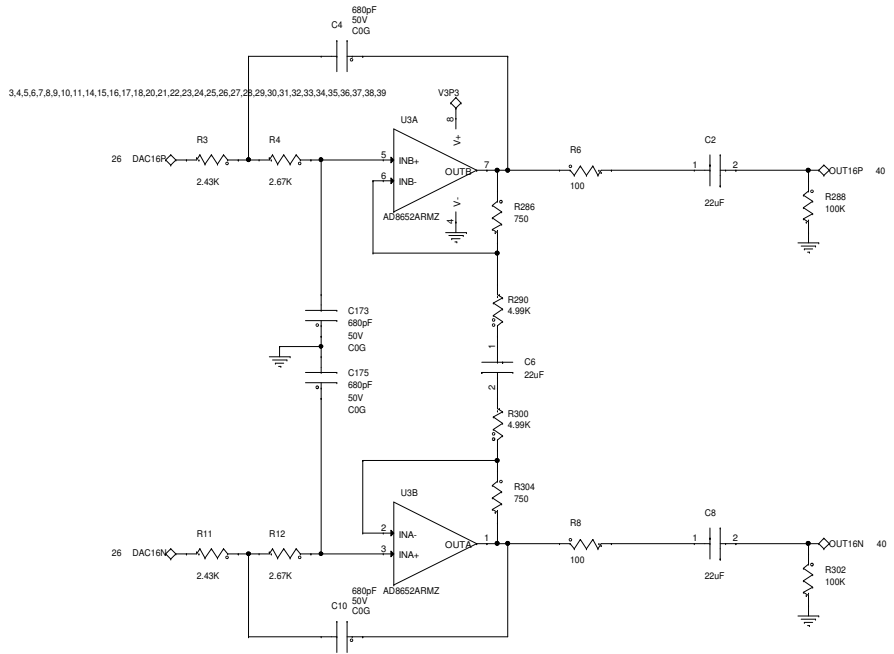
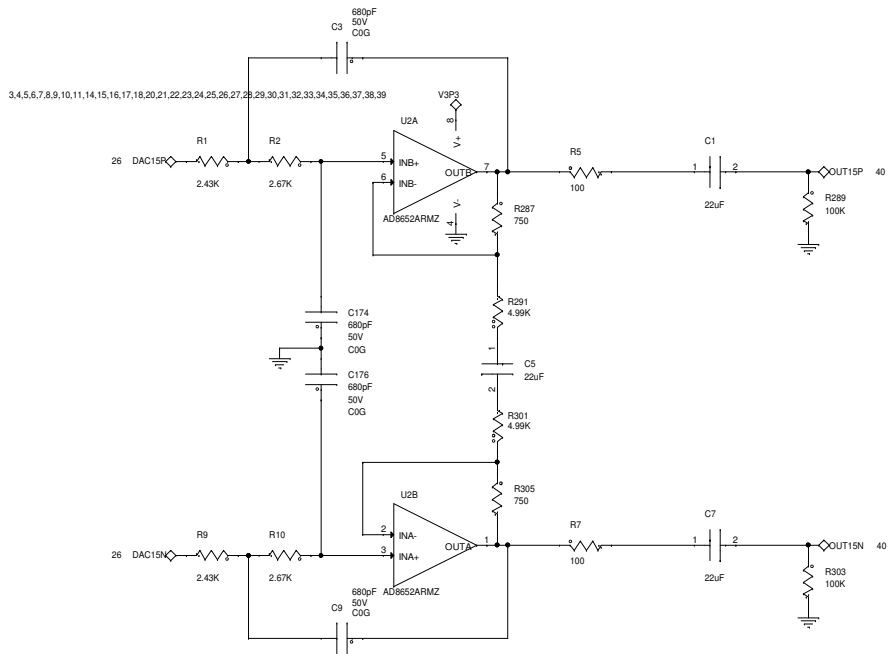
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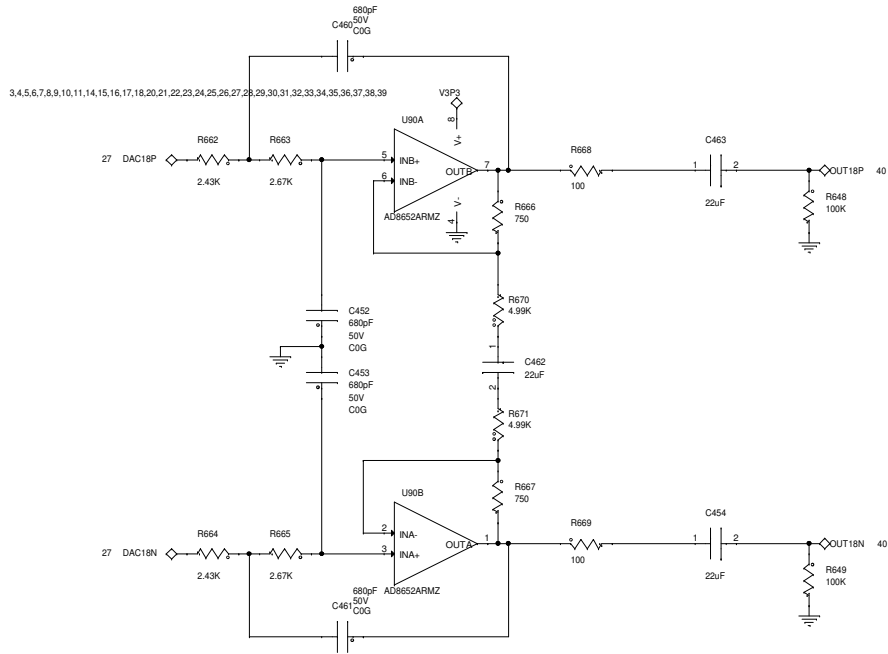
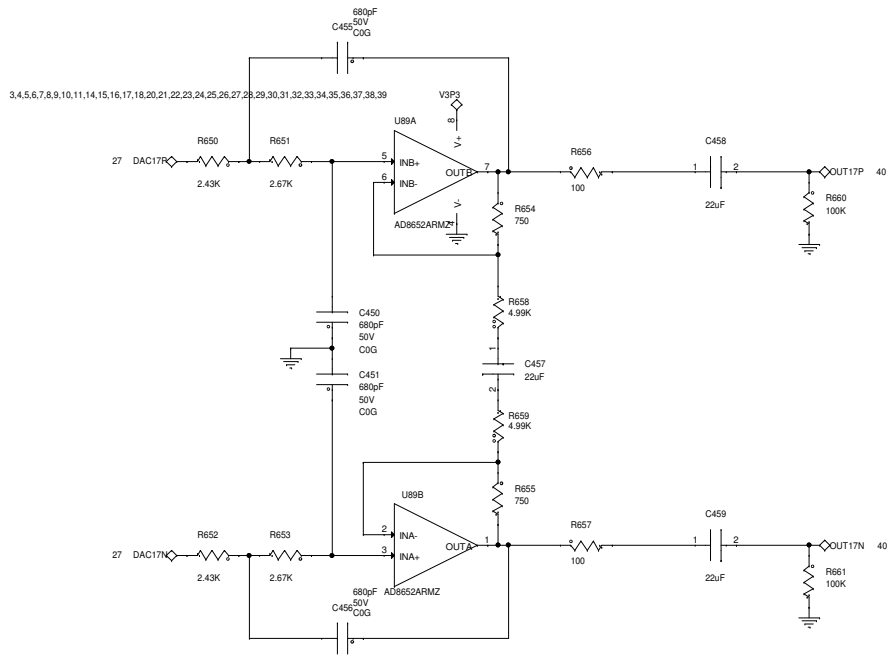
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| C | EVAL-MELODY-7 Audio/Video Evaluation Board | 0.2 |
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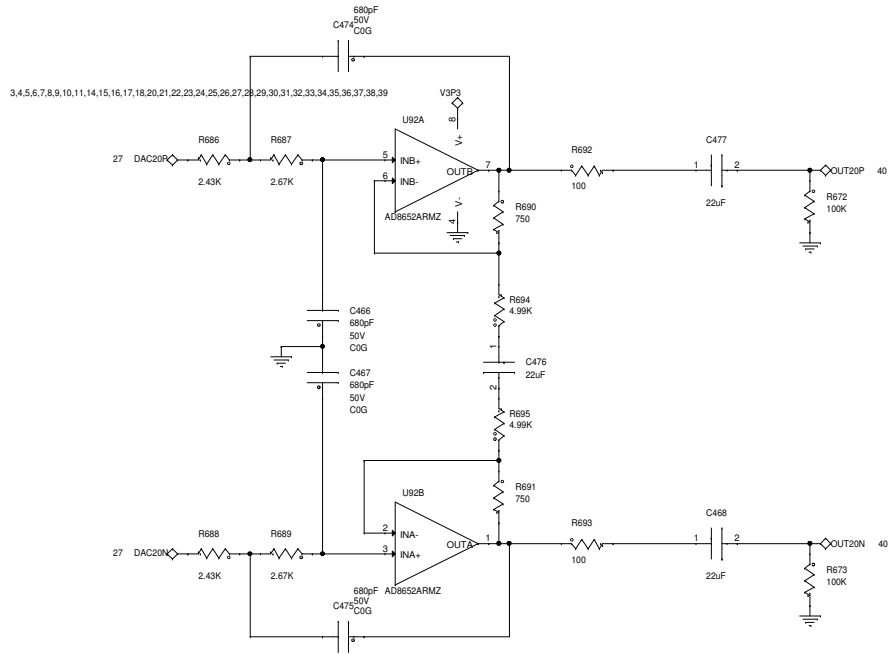
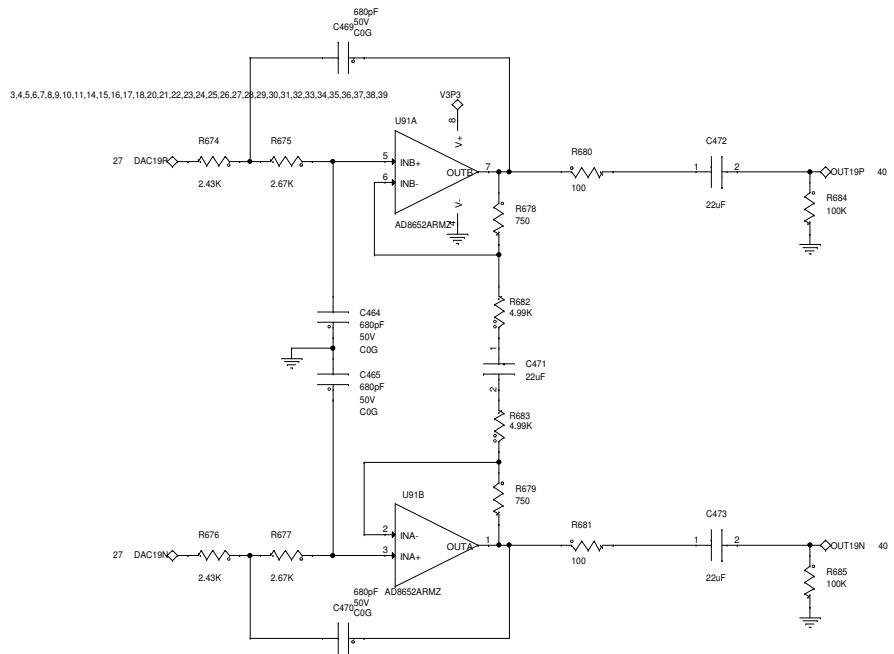
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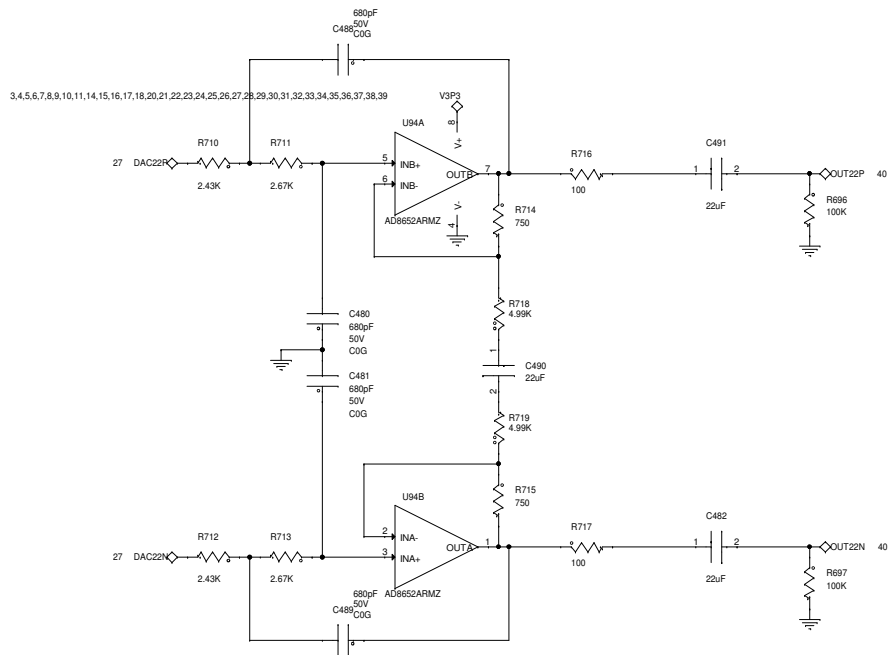
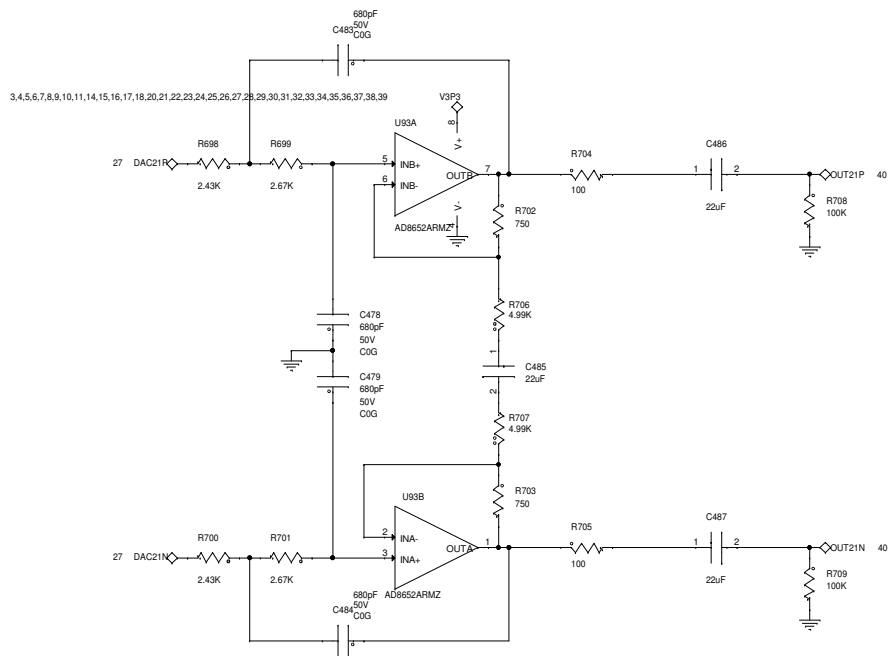
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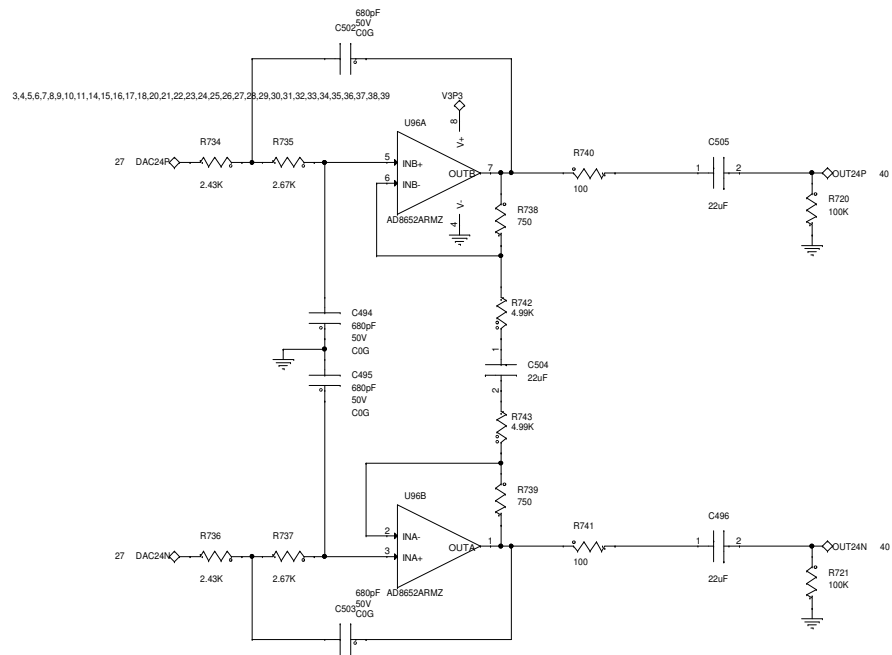
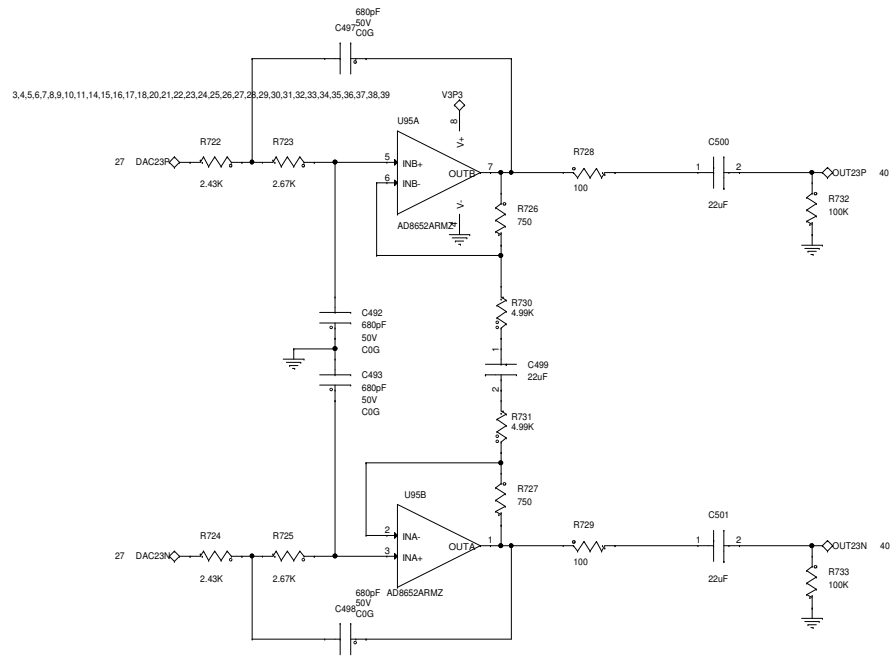
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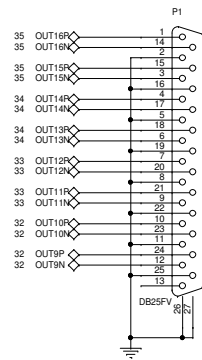
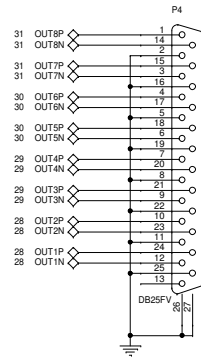
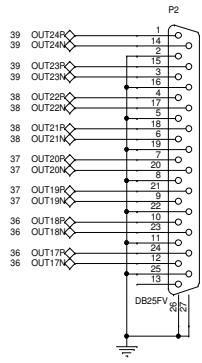
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| Title | | |
| DB25 CONNECTORS | | |
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