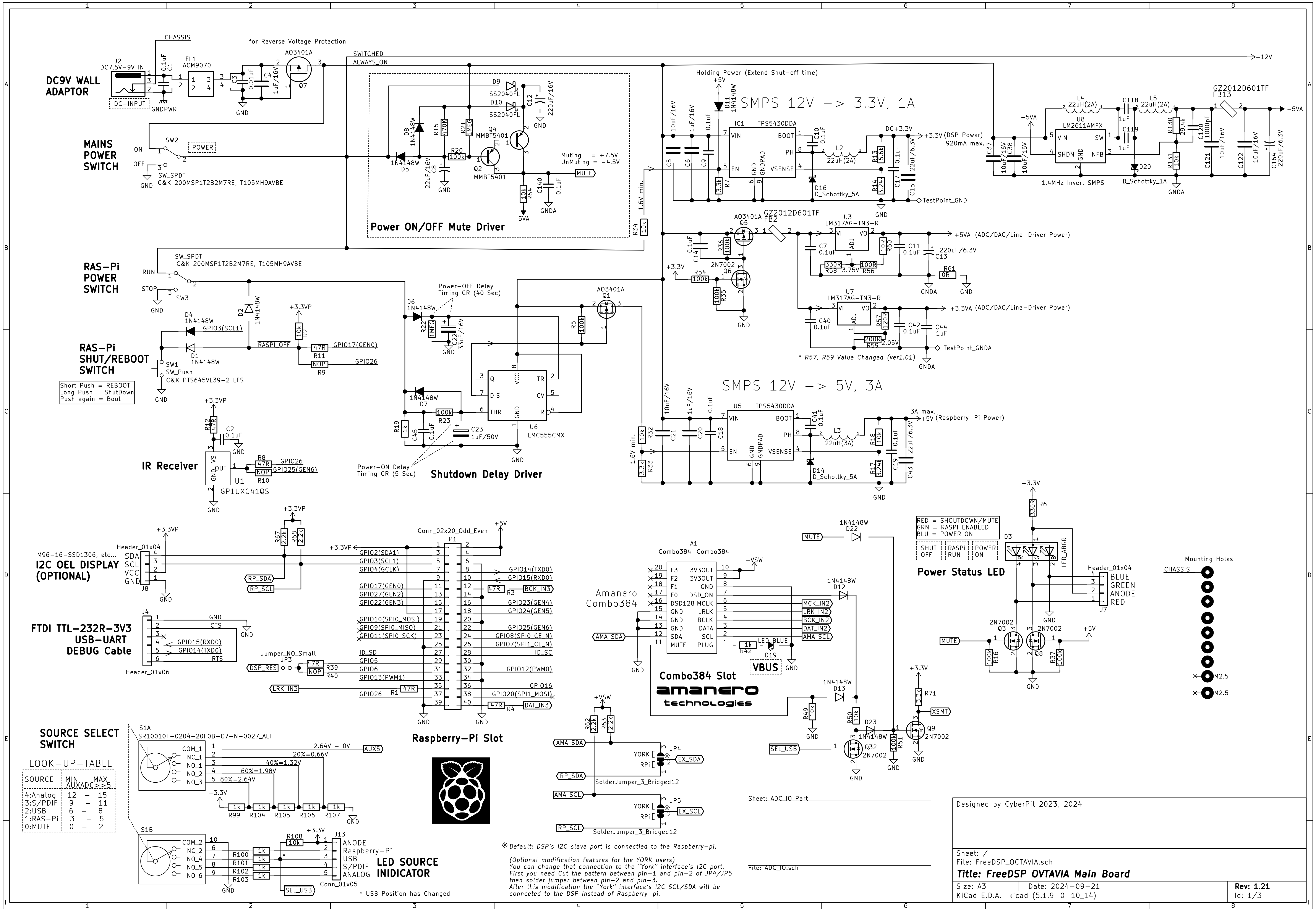


※Default: DSP's I2C slave port is connected to the Raspberry-pi.

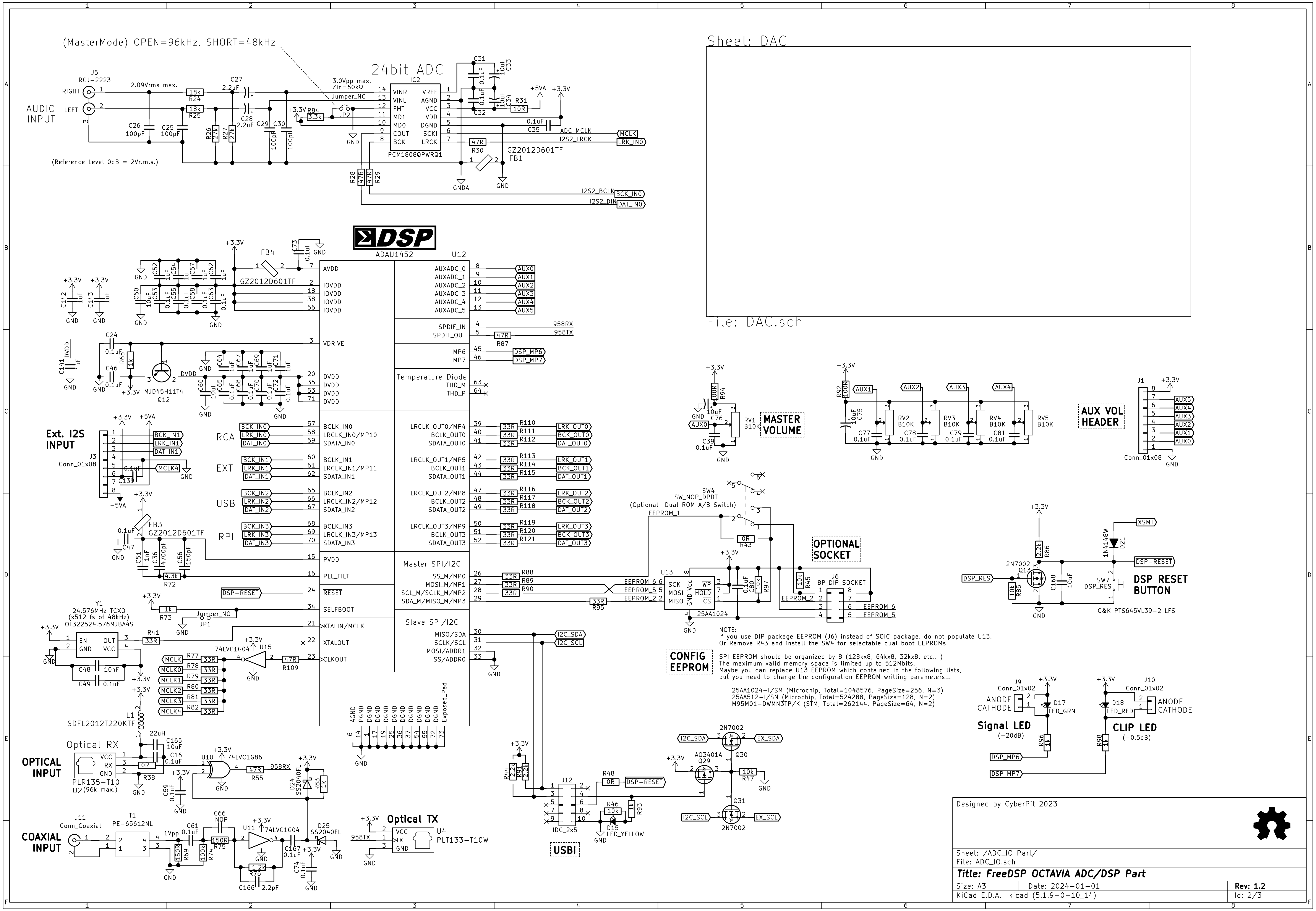
(Optional modification features for the YORK users)
You can change that connection to the "York" interface's I2C port.
First you need Cut the pattern between pin-1 and pin-2 of JP4/JP5
then solder jumper between pin-2 and pin-3.
After this modification the "York" interface's I2C SCL/SDA will be
connected to the DSP instead of Raspberry-pi.

Designed by CyberPit 2023, 2024

Sheet: /
File: FreeDSP_OCTAVIA.sch

Title: FreeDSP OVTAVIA Main Board

Size: A3	Date: 2024-09-21	Rev: 1.21
KiCad E.D.A. kicad (5.1.9-0-10_14)		Id: 1/3



NOTE:
If you use DIP package EEPROM (J6) instead of SOIC package, do not populate U13.
Or Remove R43 and install the SW4 for selectable dual boot EEPROMs.

SPI EEPROM should be organized by 8 (128kx8, 64kx8, 32kx8, etc..)
The maximum valid memory space is limited up to 512Mbits.
Maybe you can replace U13 EEPROM which contained in the following lists,
but you need to change the configuration EEPROM writting parameters...

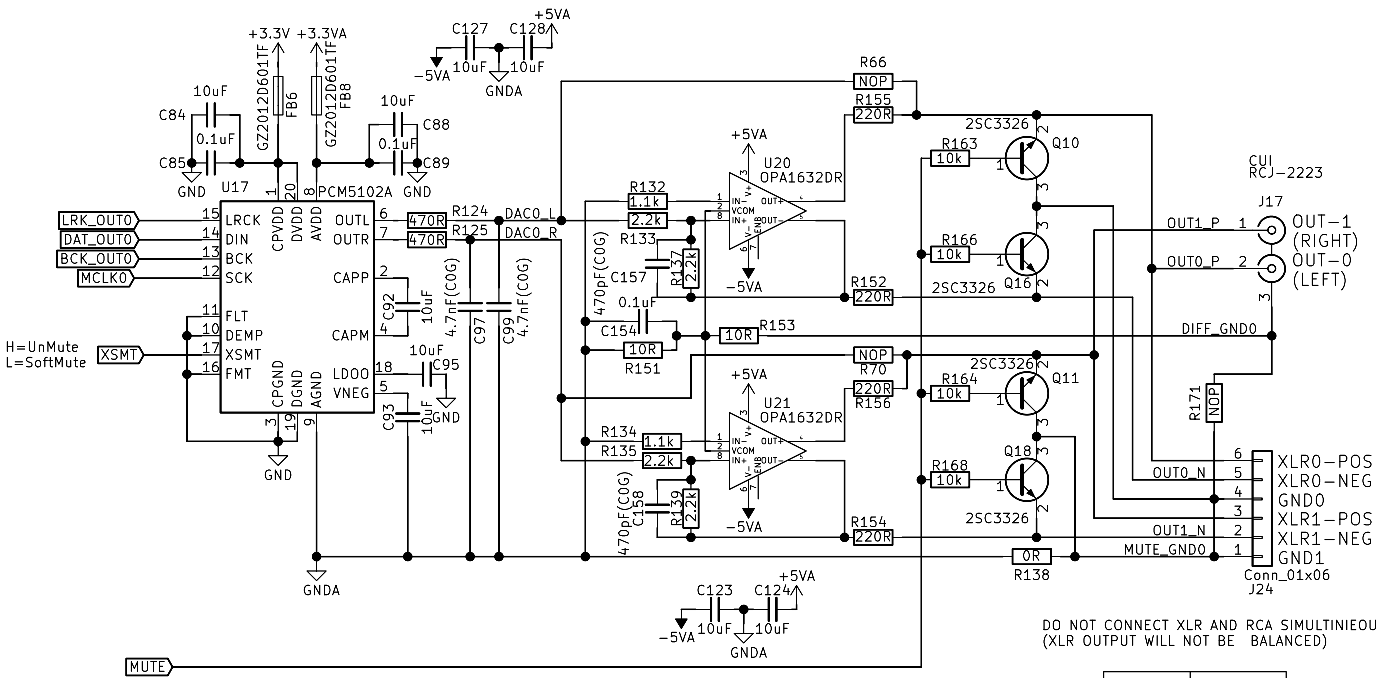
25AA1024-I/SM (Microchip, Total=1048576, PageSize=256, N=3)
25AA512-I/SN (Microchip, Total=524288, PageSize=128, N=2)
M95M01-DWMN3TP/K (STM, Total=262144, PageSize=64, N=2)

Designed by CyberPit 2023

Sheet: /ADC_IO Part/
File: ADC_IO.sch

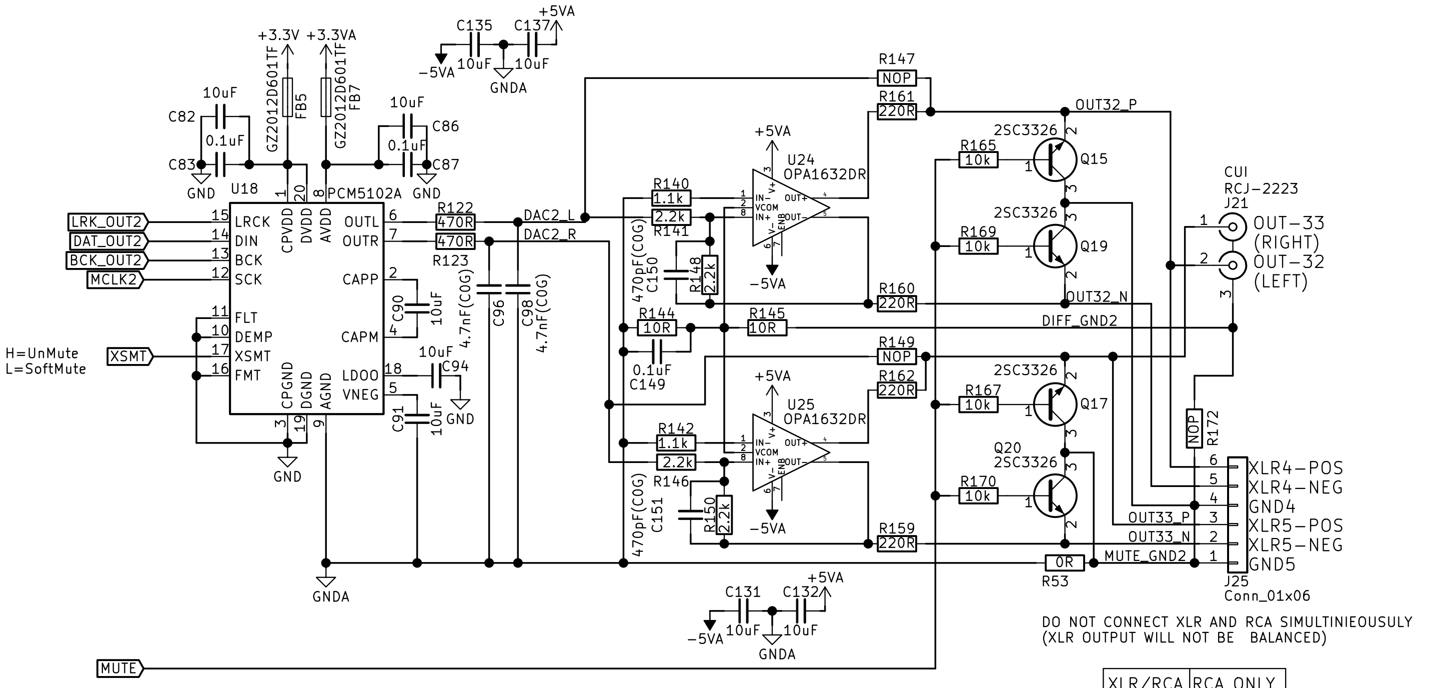
Title: FreeDSP OCTAVIA ADC/DSP Part

Size: A3 Date: 2024-01-01 Rev: 1.2
KiCad E.D.A. kicad (5.1.9-0-10_14) Id: 2/3



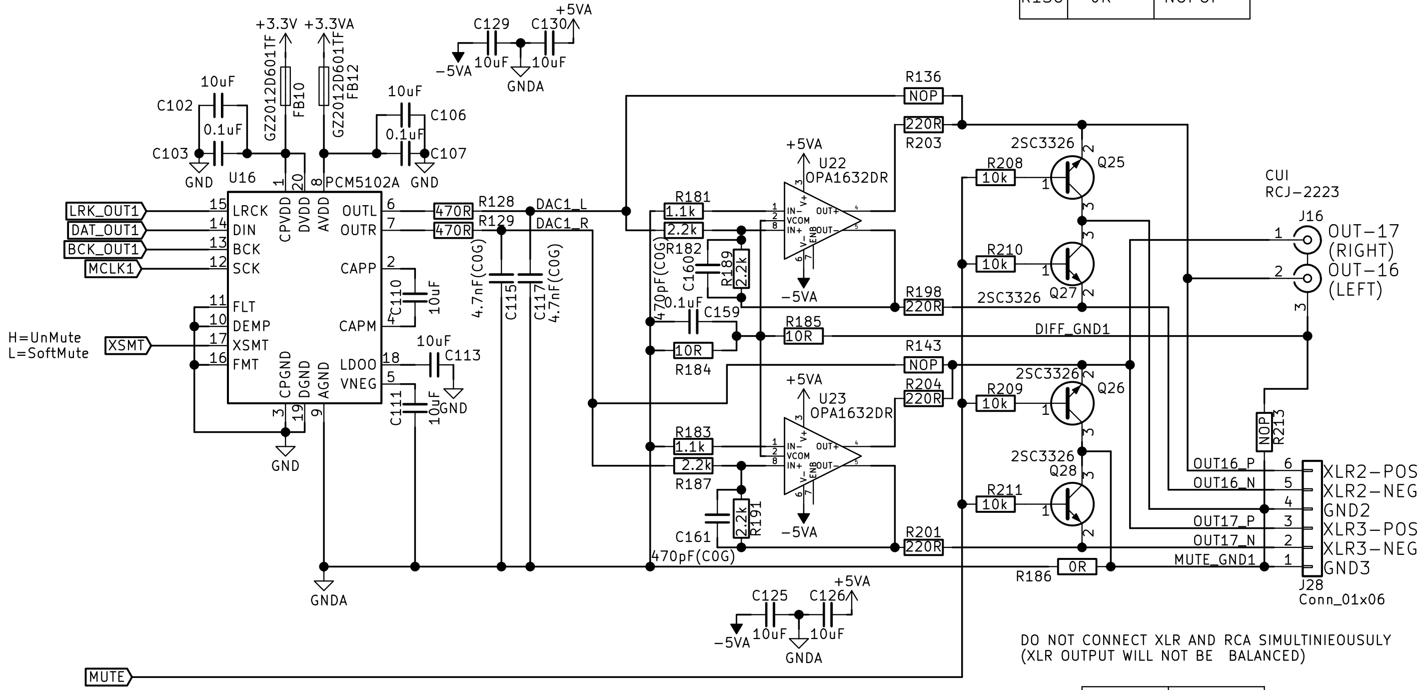
DO NOT CONNECT XLR AND RCA SIMULTINIEOUSULY
(XLR OUTPUT WILL NOT BE BALANCED)

	XLR/RCA	RCA ONLY
R171	NOPOP	0R
R138	0R	NOPOP



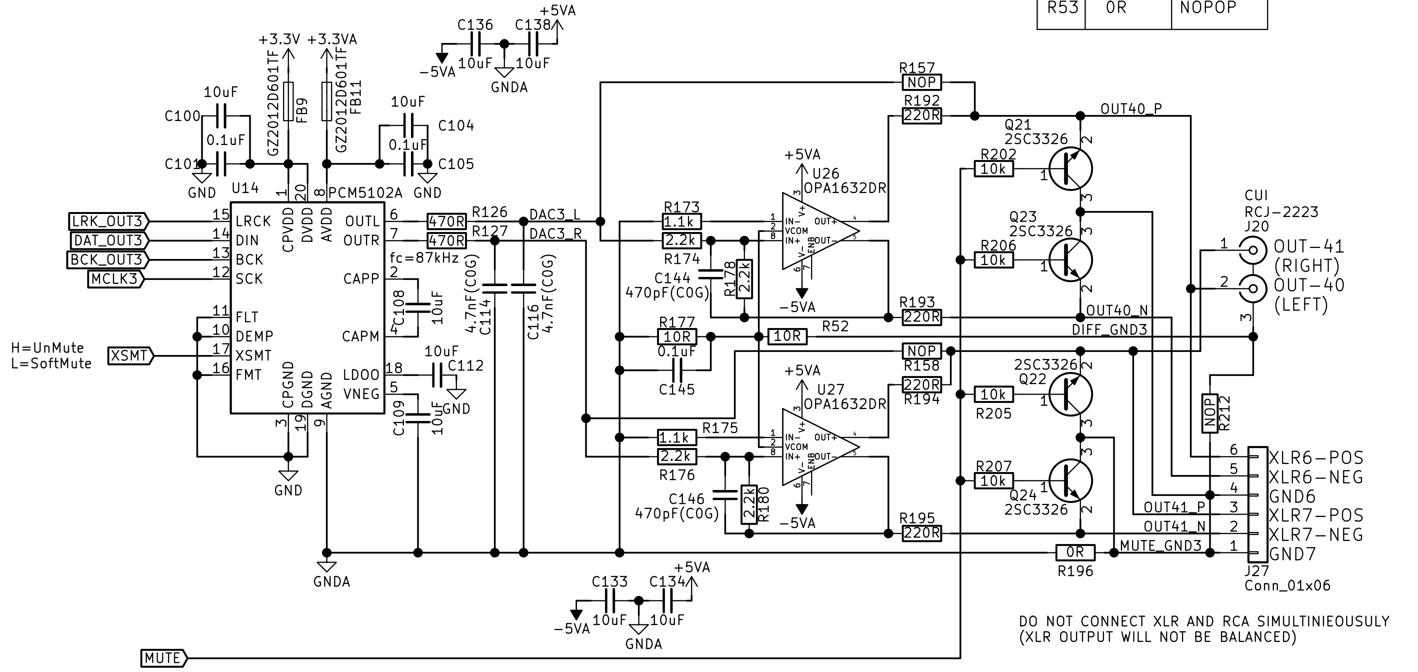
DO NOT CONNECT XLR AND RCA SIMULTINIEOUSULY
(XLR OUTPUT WILL NOT BE BALANCED)

	XLR/RCA	RCA ONLY
R172	NOPOP	0R
R53	0R	NOPOP



DO NOT CONNECT XLR AND RCA SIMULTINIEOUSULY
(XLR OUTPUT WILL NOT BE BALANCED)

	XLR/RCA	RCA ONLY
R213	NOPOP	0R
R186	0R	NOPOP



DO NOT CONNECT XLR AND RCA SIMULTINIEOUSULY
(XLR OUTPUT WILL NOT BE BALANCED)

	XLR/RCA	RCA ONLY
R212	NOPOP	0R
R196	0R	NOPOP

To Order FreeDSP OVTAVIA Basic version Example

REMOVE;
 U20, U21, U22, U23, U24, U25, U26, U27,
 Q16, Q18, Q27, Q28, Q19, Q20, Q23, Q24
 R132, R133, R134, R135, R137, R139, R151, R153,
 R140, R141, R142, R146, R148, R150, R144, R145,
 R181, R182, R183, R187, R184, R185, R189, R191,
 R173, R174, R175, R176, R177, R52, R178, R180,
 R152, R155, R154, R156, R166, R168,
 R161, R160, R162, R159, R169, R170,
 R203, R198, R204, R201, R210, R211,
 R192, R193, R194, R194, R206, R207,
 C149, C150, C151,
 C154, C157, C158,
 C159, C160, C161,
 C144, C145, C146

POPULATE:
 (Zero R) R171, R172, R213, R212
 (220R) R66, R147, R136, R157

To Convert FreeDSP OVTAVIA DIFF/BAL version to Basic version.

REMOVE;
 R133, R135,
 R141, R146,
 R182, R187,
 R174, R176

MOVE:
 (220R) R155 -> R60, (220R) R156 -> R70
 (220R) R161 -> R147, (220R) R162-> R149
 (220R) R203 -> R136, (220R) R204-> R143
 (220R) R192 -> R157, (220R) R194-> R158

POPLULATE:
 (Zero R) R171, R172, R212, R213

Designed by CyberPit 2023

☐ **FreeDSP OVTAVIA (basic version)**
☒ **FreeDSP OVTAVIA (Differential version)**
☒ **FreeDSP OVTAVIA (Balanced version)**

Sheet: /ADC_IO Part/DAC/
File: DAC.sch

Title: FreeDSP OCTAVIA DAC part

Size: A3
Date: 2024-01-01
Rev: 1.2
KiCad E.D.A. kicad (5.1.9-0-10_14)
Id: 3/3