

DC9V WALL ADAPTOR

MAINS POWER SWITCH

RAS-PI POWER SWITCH

RAS-PI SHUT/REBOOT SWITCH

Short Push = REBOOT
Long Push = ShutDown
Push again = Boot

IR Receiver

I2C OEL DISPLAY (OPTIONAL)

FTDI TTL-232R-3V3 USB-UART DEBUG Cable

SOURCE SELECT SWITCH

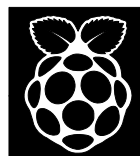
LOOK-UP-TABLE

SOURCE	MIN	MAX
4: Analog	12	15
3: S/PDIF	9	11
2: USB	6	8
1: RAS-PI	3	5
0: MUTE	0	2

Power ON/OFF Mute Driver

Shutdown Delay Driver

Raspberry-Pi Slot



LED SOURCE INDICATOR

SMPS 12V -> 3.3V, 1A

SMPS 12V -> 5V, 3A

Power Status LED

* 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.

Sheet: ADC_IQ Part

File: ADC_IQ.sch

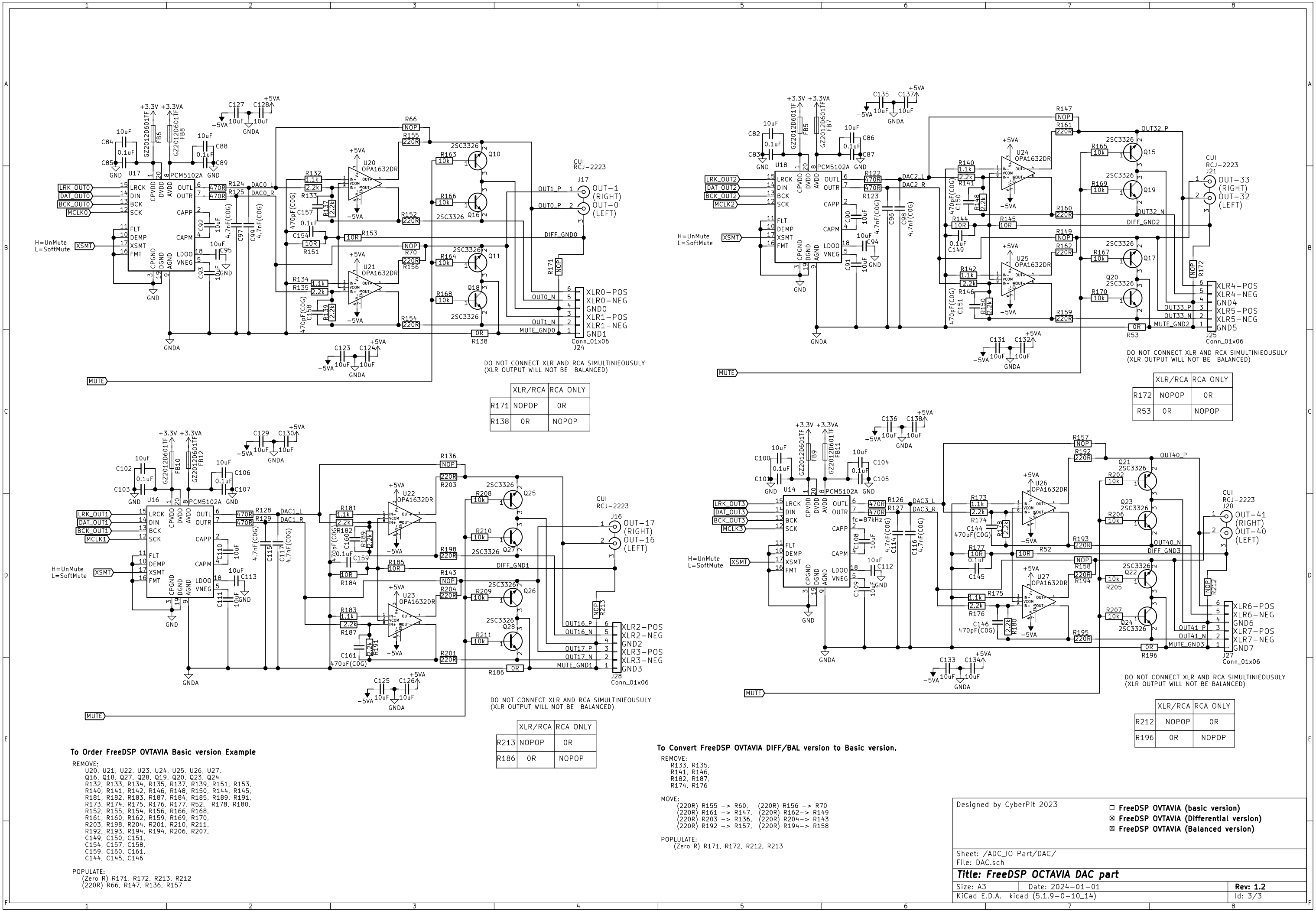
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Sheet: /
File: FreeDSP_OCTAVIA.sch

Title: FreeDSP OVTAVIA Main Board

Size: A3 Date: 2024-01-03
KiCad E.D.A. kicad (5.1.9-0-10.14)

Rev: 1.2
Id: 1/3



To Order FreeDSP OCTAVIA 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 OCTAVIA 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

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

Designed by CyberPit 2023

☐ FreeDSP OCTAVIA (basic version)
☒ FreeDSP OCTAVIA (Differential version)
☒ FreeDSP OCTAVIA (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