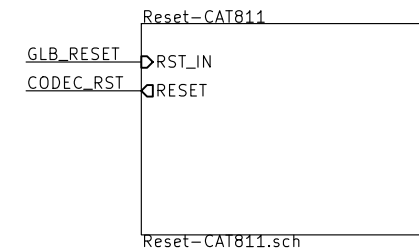
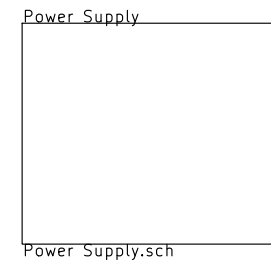
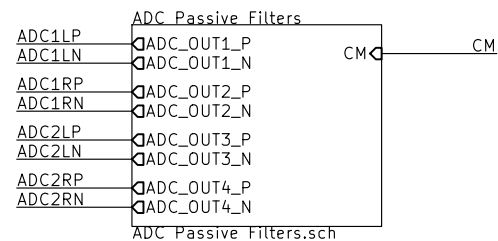
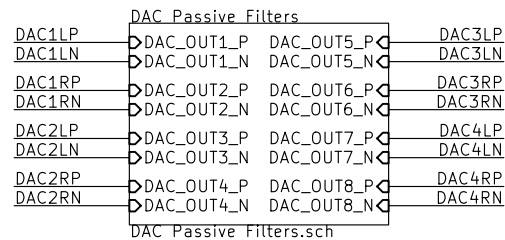
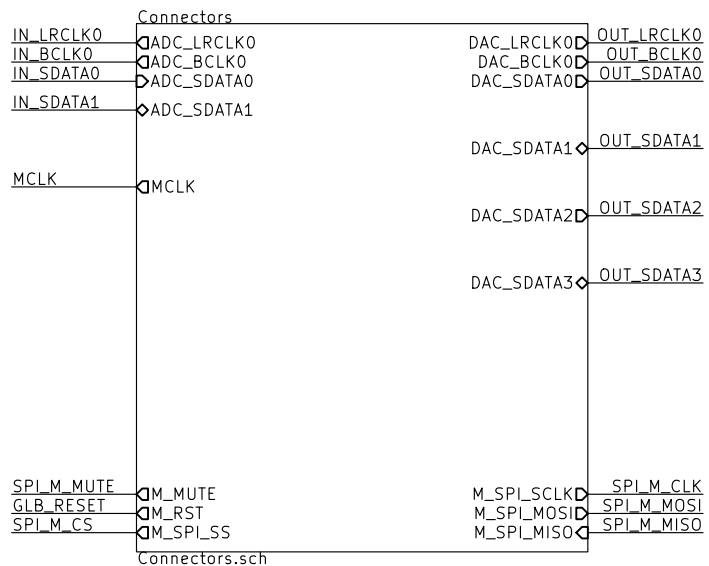
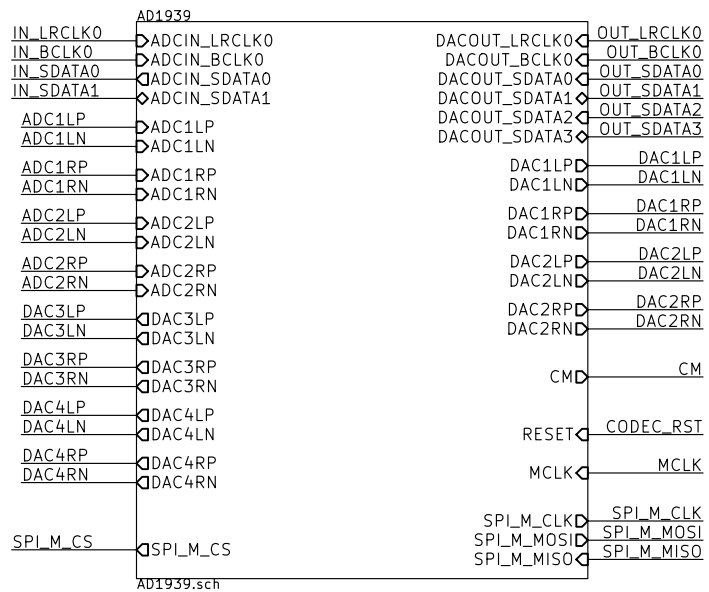


Open Hardware DSP Platform – www.ohdsp.org
uCODEC
AD1939 with 4 differential inputs and 8 differential outputs
Revision 1.0



Notes:

All digital I/O is 3V3. Use outside this voltage can cause damage.

See bill of materials for detailed parts information.

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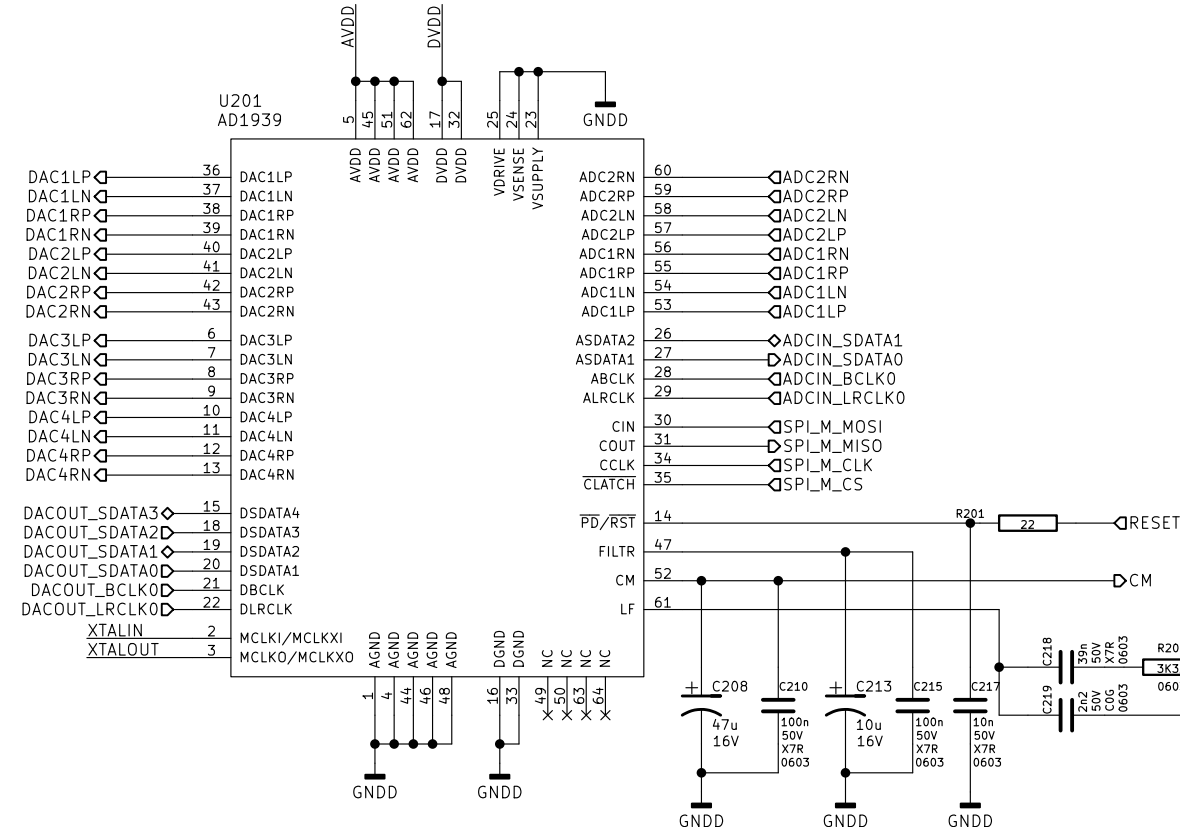
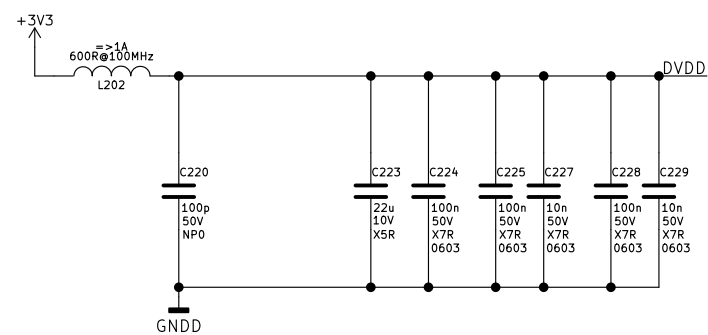
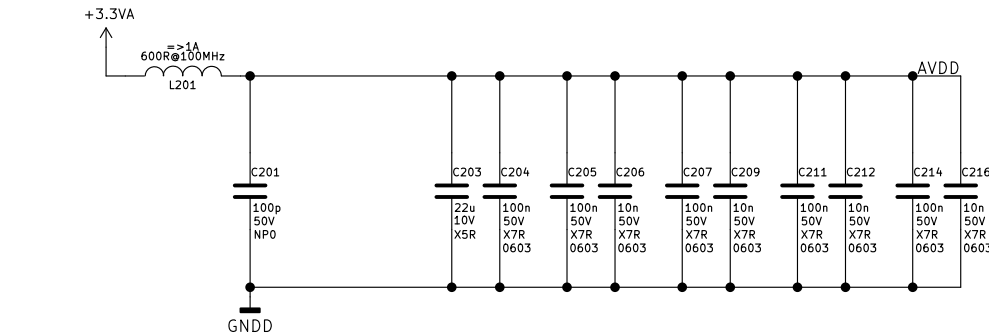
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Rev: 1.0

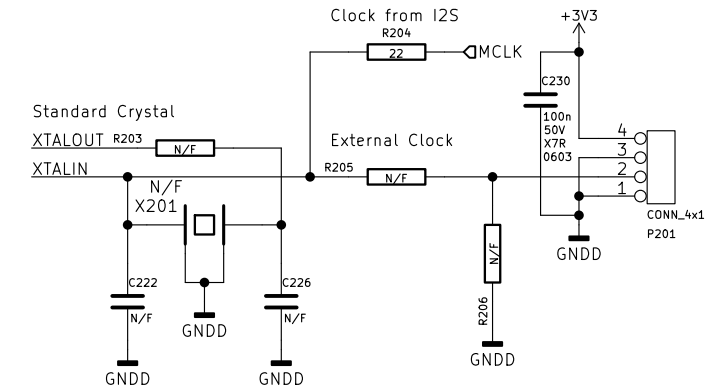
Id: 1/7

AD1939



Master Clock

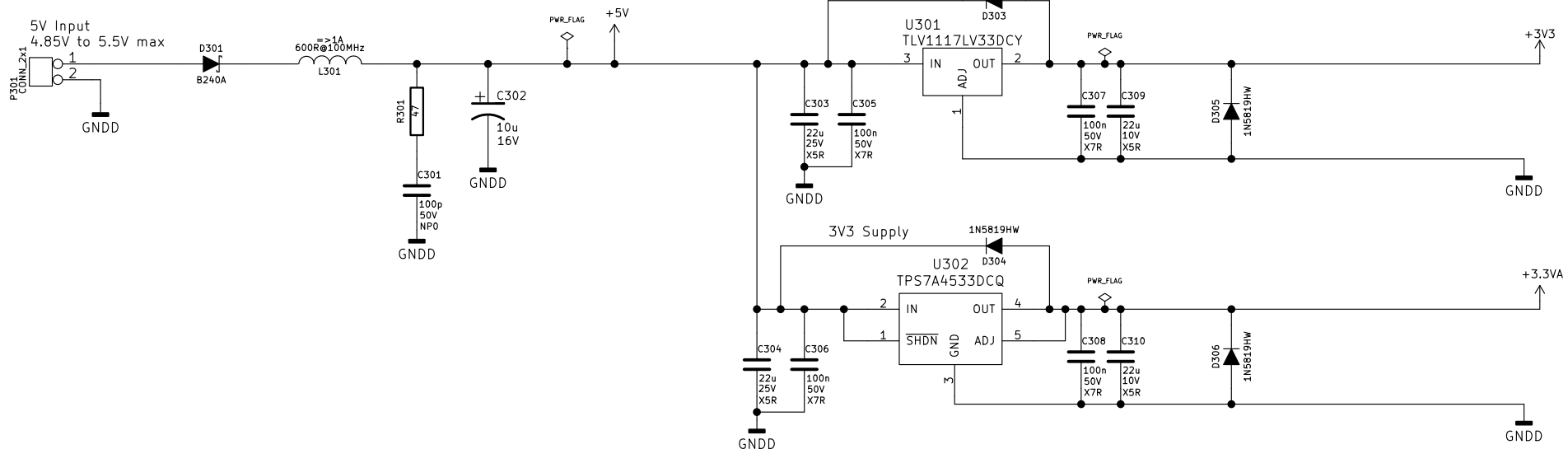
Three master clock options available.
 1) A standard crystal.
 2) From the I2S connectors, e.g. provided by the uDSP board
 3) An external source, such as a custom low jitter clock source
 Fit R205 (0R or low value) and if needed R206



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 File: AD1939.sch
Title: uCODEC

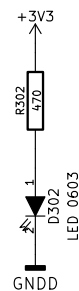
Size: A4	Date: 2019-04-02	Rev: 1.0
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Power Supply



Mounting Holes and Fiducials

MNT301 MNT303 FID301 FID303 FID305
MNT302 MNT304 FID302 FID304 FID306



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Sheet: /Power Supply/
File: Power Supply.sch

Title: uCODEC

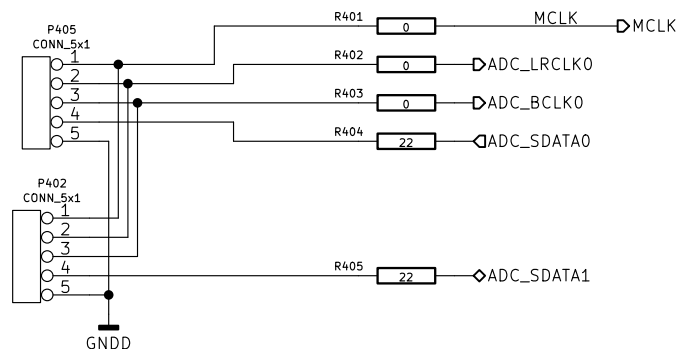
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KiCad E.D.A. kicad (5.1.0)-1

Rev: 1.0
Id: 3/7

Connectors

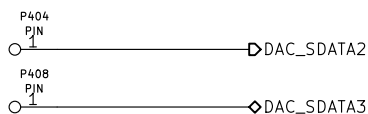
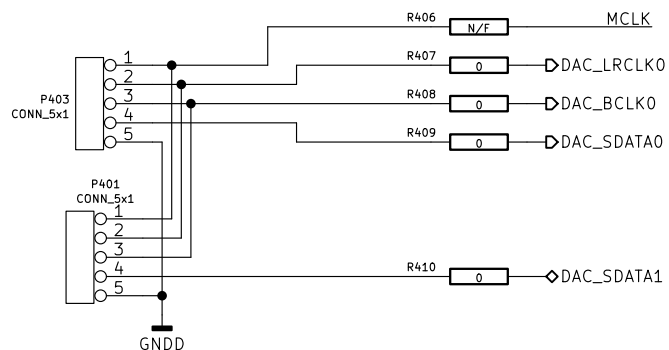
I2S Inputs

See ADAU1452 datasheet for details
Inputs are highly flexible

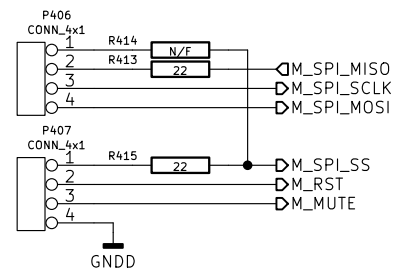


I2S Outputs

See ADAU1452 datasheet for details
Outputs are highly flexible



Master SPI Port



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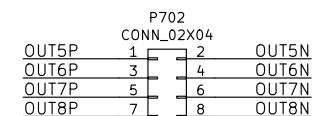
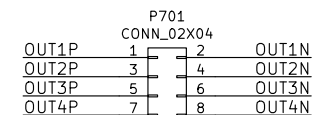
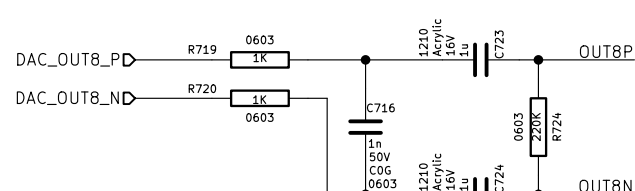
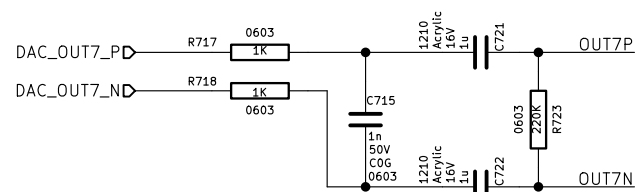
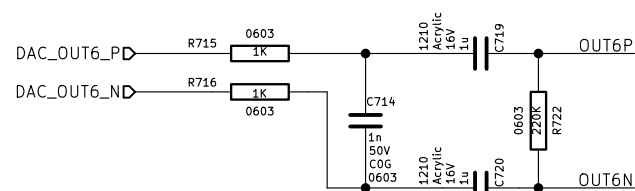
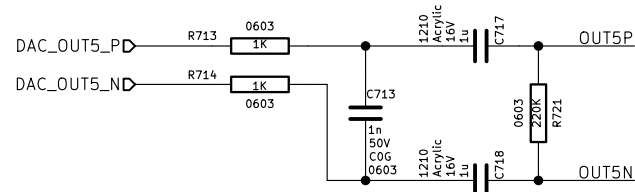
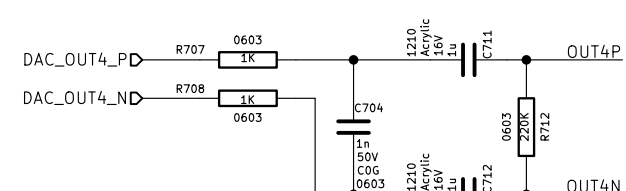
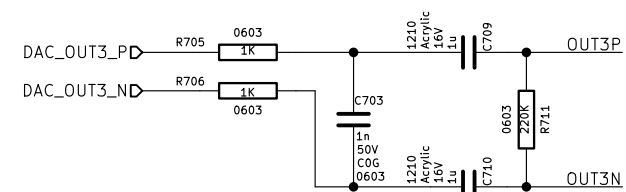
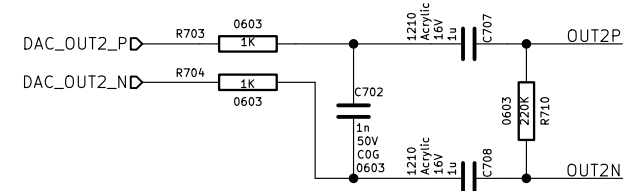
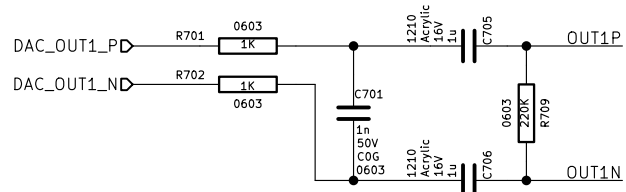
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Size: A4 Date: 2019-04-02
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Rev: 1.0
Id: 4/7

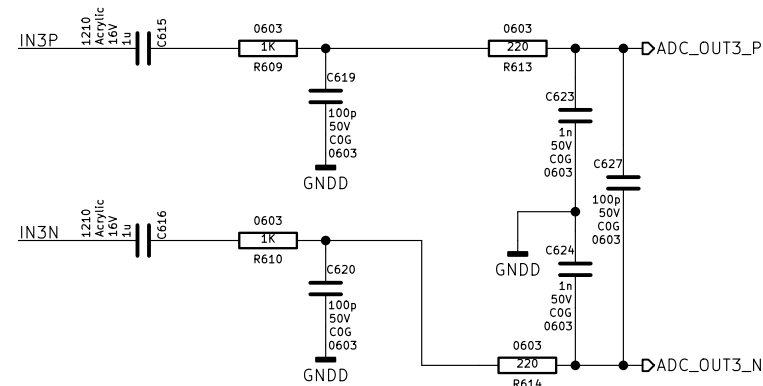
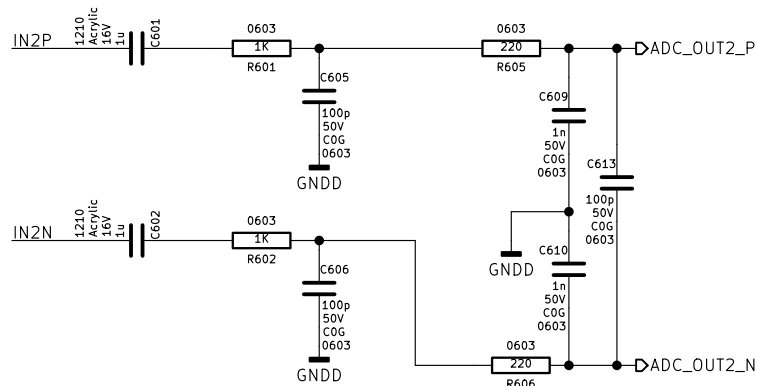
DAC Differential Passive Input Filters



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Title: uCODEC
 Size: A4 Date: 2019-04-02
 KiCad E.D.A. kicad (5.1.0)-1
Rev: 1.0
 Id: 5/7

ADC Differential Passive Input Filters

P601 CONN_02X04			
IN1P	1	2	IN1N
IN2P	3	4	IN2N
IN3P	5	6	IN3N
IN4P	7	8	IN4N



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Rev: 1.0

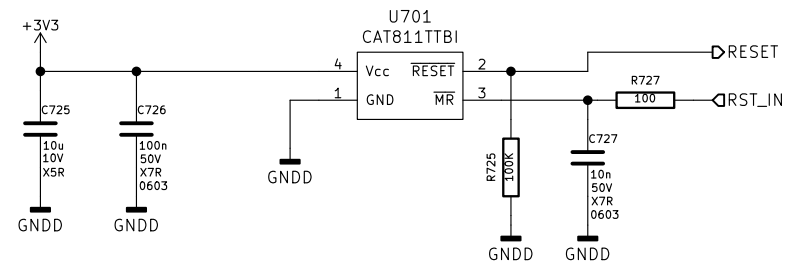
Id: 6/7

Voltage Monitor Reset

Generate a reset based on 3V3 voltage rail.

Use CAT811TTBI.

Supports external reset signal from SPI.



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Sheet: /Reset-CAT811/

File: Reset-CAT811.sch

Title: uCODEC

Size: A4 Date: 2019-04-02

KiCad E.D.A. kicad (5.1.0)-1

Rev: 1.0

Id: 7/7