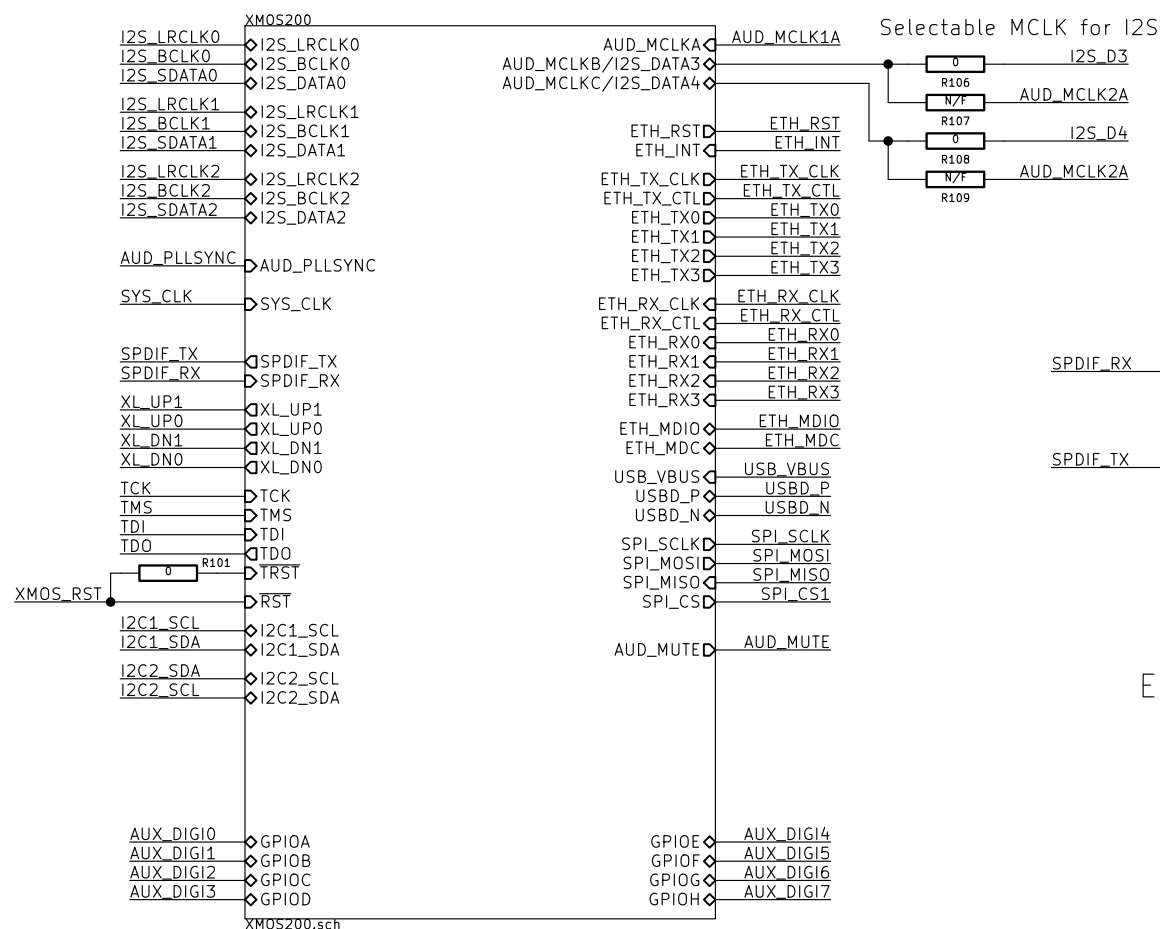
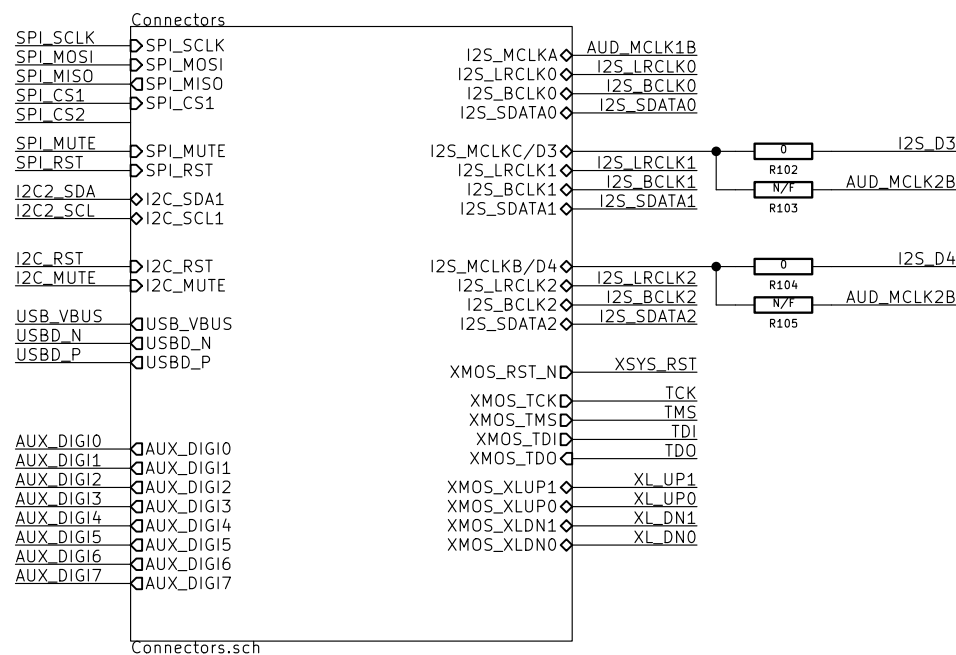


Open Hardware DSP Platform – www.ohdsp.org
CoreOne – XMOS 200 Platform
Revision 1.0

XMOS 200



Connectors



Notes:

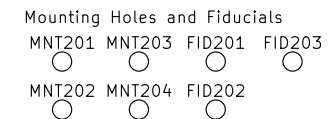
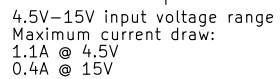
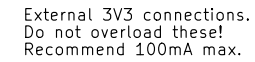
All digital I/O is 3V3. Use outside this voltage can cause damage.

See bill of materials for detailed parts information.

Trace impedance on SPI/I2C, MCLK, and I2S is designed for approx 89ohm. 26AWG ribbon cable used with Ground-Signal-Ground is approx 89ohm.

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Sheet: / File: DEV-CoreOne.sch		
Title: CoreOne – XMOS 200 Platform		
Size: A3	Date: 2017-02-08	Rev: 1.0
KiCad E.D.A. kicad 4.0.5		Id: 1/8

Two SMPS generate 3v3 and 1v0

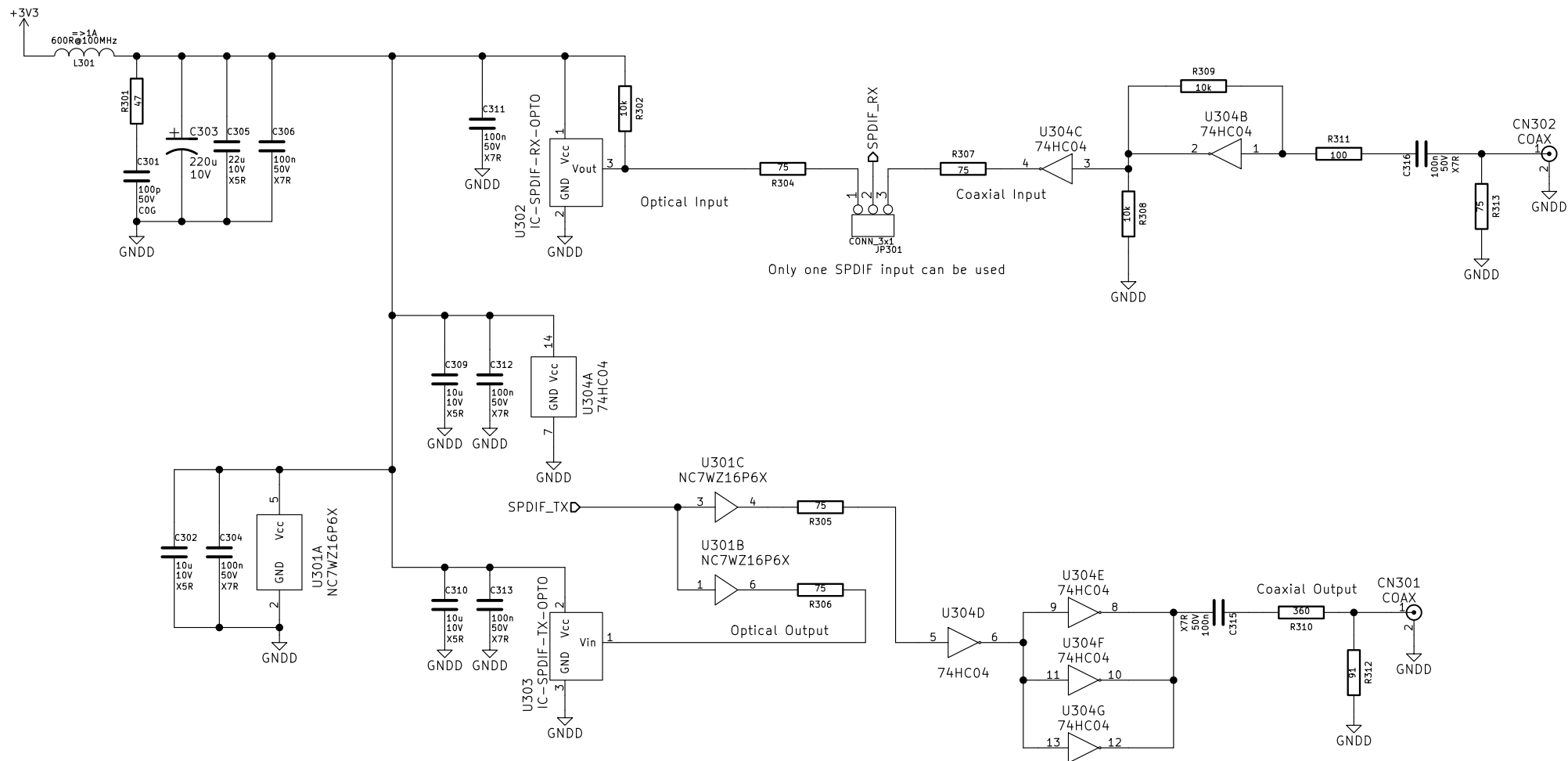


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Size: A4	Date: 11/01/2025
KiCad E.D.A.	kicad 4.0.5

Id: 2/8

SPDIF Inputs and Outputs – Optical and Coaxial



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Sheet: /SPDIF/

File: SPDIF.sch

Title: CoreOne – XMOS 200 Platform

Size: A4 Date: 2017-02-08

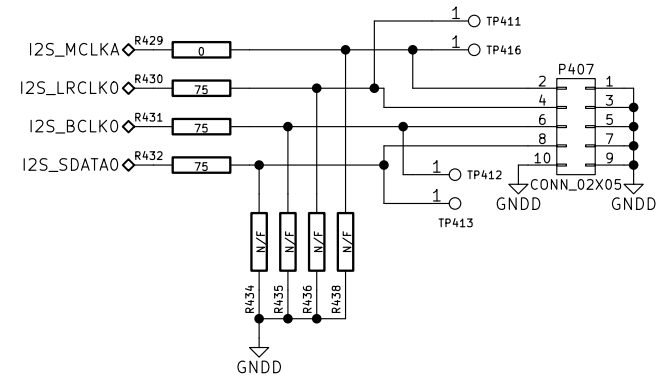
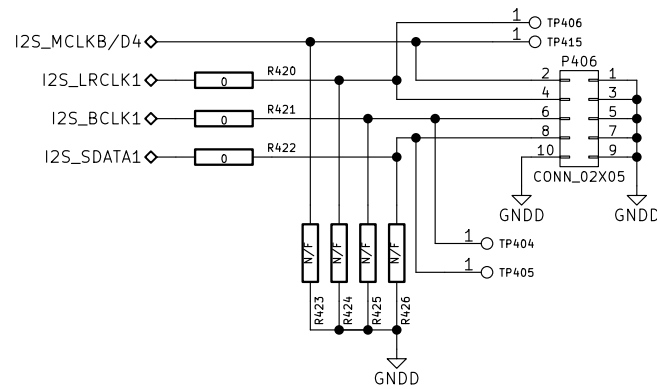
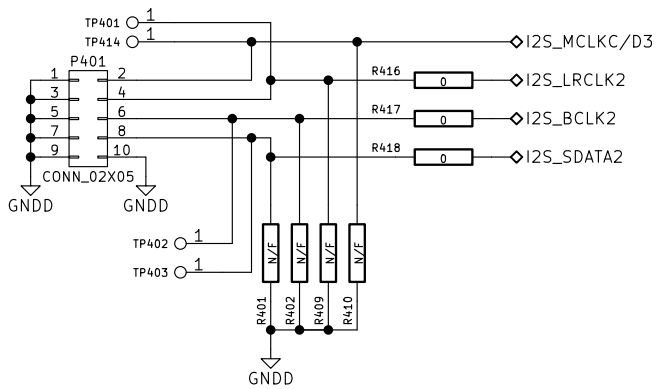
KiCad E.D.A. kicad 4.0.5

Rev: 1.0

Id: 3/8

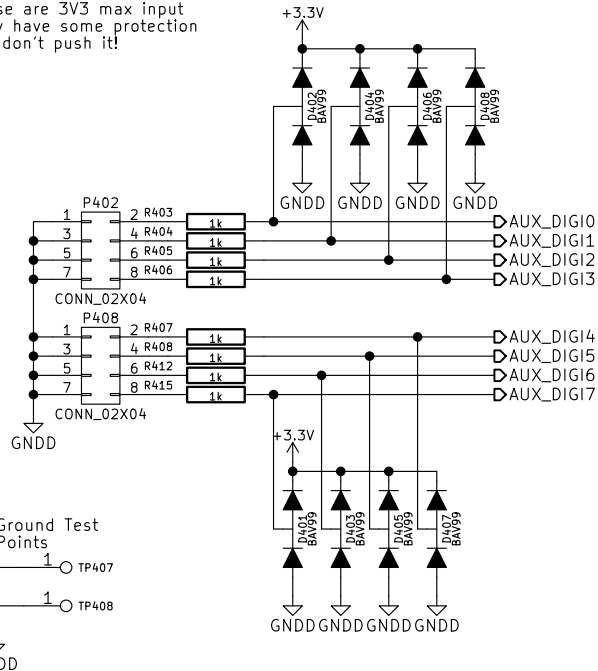
Connectors

I2S Connectors

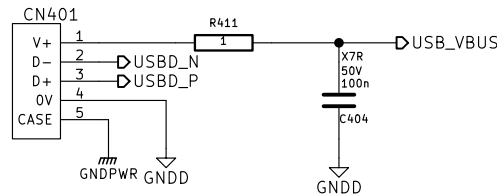


AUX Digital I/O

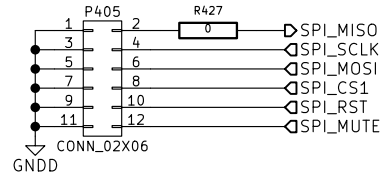
These are 3V3 max input
They have some protection
but don't push it!



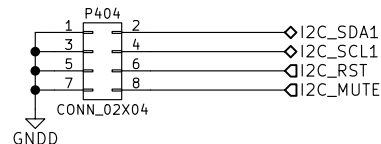
USB Port



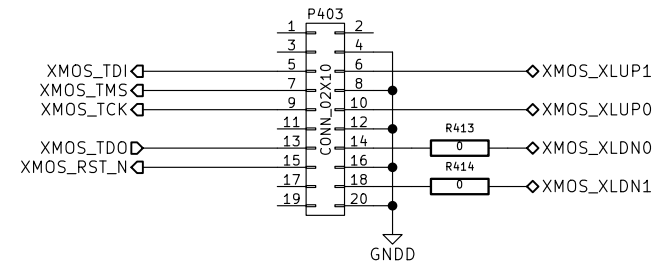
SPI Ports



I2C Ports



XMOS xSYS Interface Programming/Debug



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Sheet: /Connectors/

File: Connectors.sch

Title: CoreOne – XMOS 200 Platform

Size: A4 Date: 2017-02-08

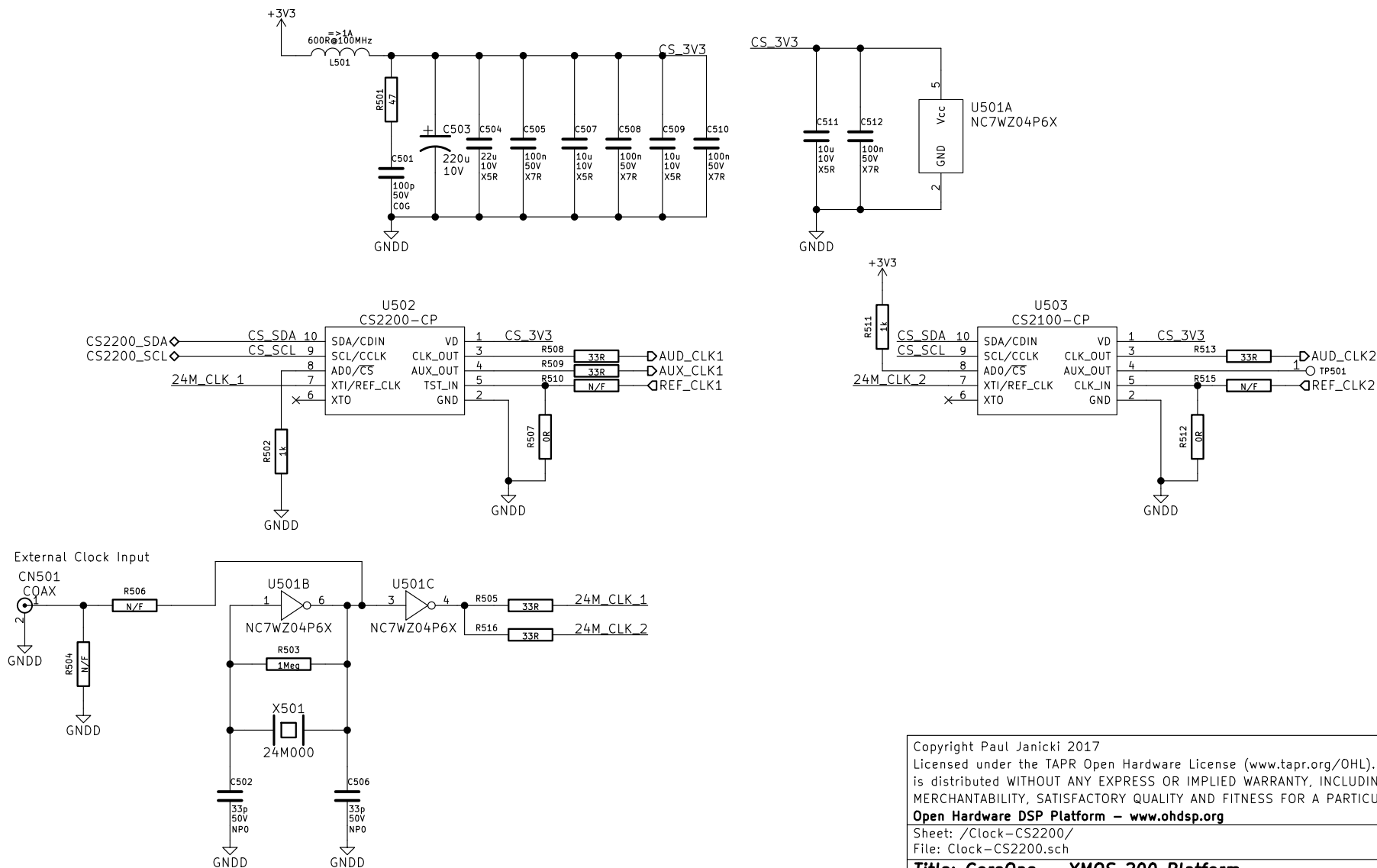
KiCad E.D.A. kicad 4.0.5

Rev: 1.0

Id: 4/8

System and Audio Clocks

Note: Two controlled clocks are provided to allow two audio clock domains. Both clocks are fed from the same crystal. If U502 and/or U503 are fitted as CS2100-CP parts then the clocks can be run from the REF_CLK signals to synchronise the clocks to the AUD_PLLSYNC signal from U801.



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Sheet: /Clock-CS2200/

File: Clock-CS2200.sch

Title: CoreOne – XMOS 200 Platform

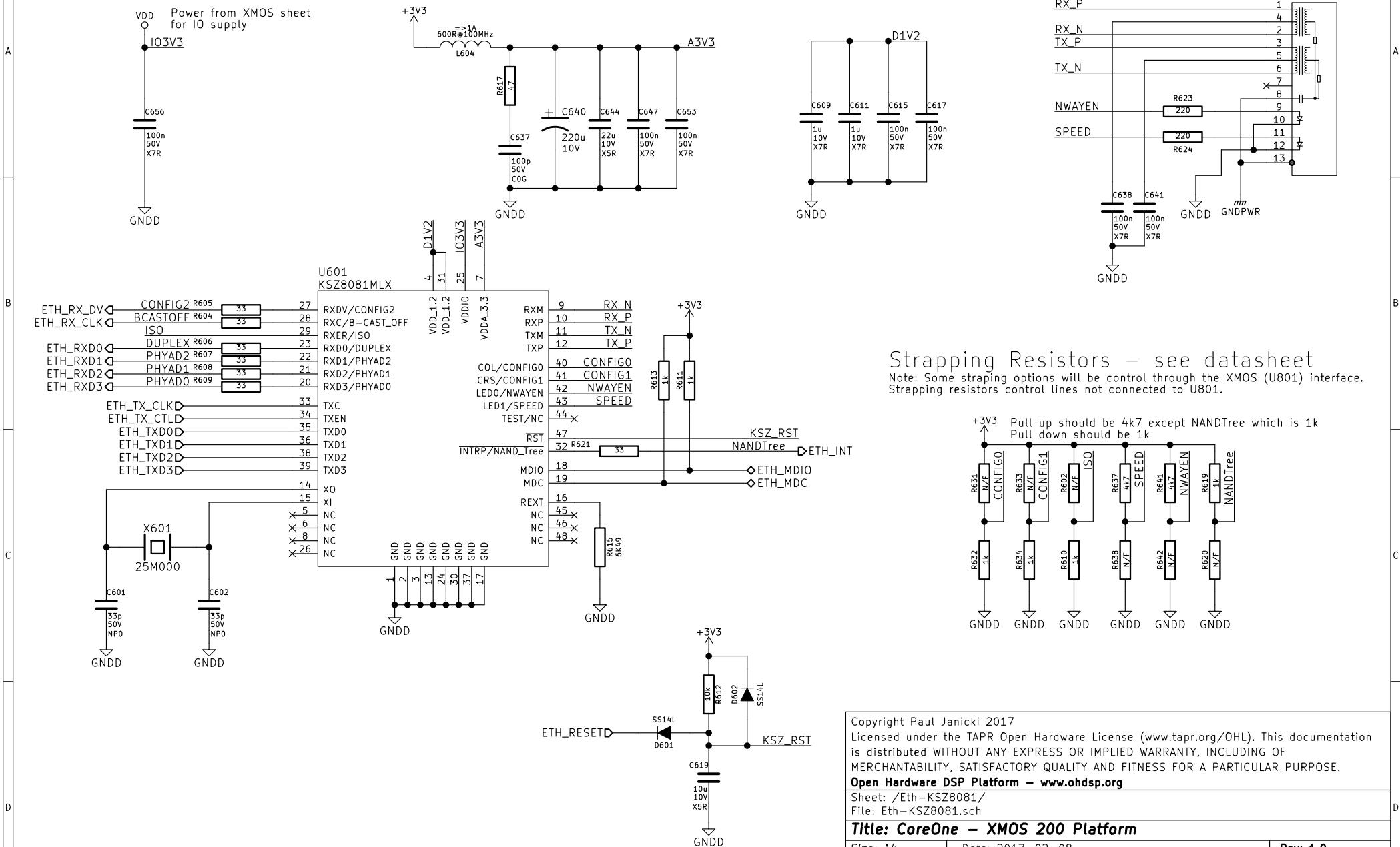
Size: A4 Date: 2017-02-08

KiCad E.D.A. kicad 4.0.5

Rev: 1.0

Id: 5/8

Ethernet – KSZ8081 10/100Meg Base-TX



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Sheet: /Eth-KSZ8081/

File: Eth-KSZ8081.sch

Title: CoreOne – XMOS 200 Platform

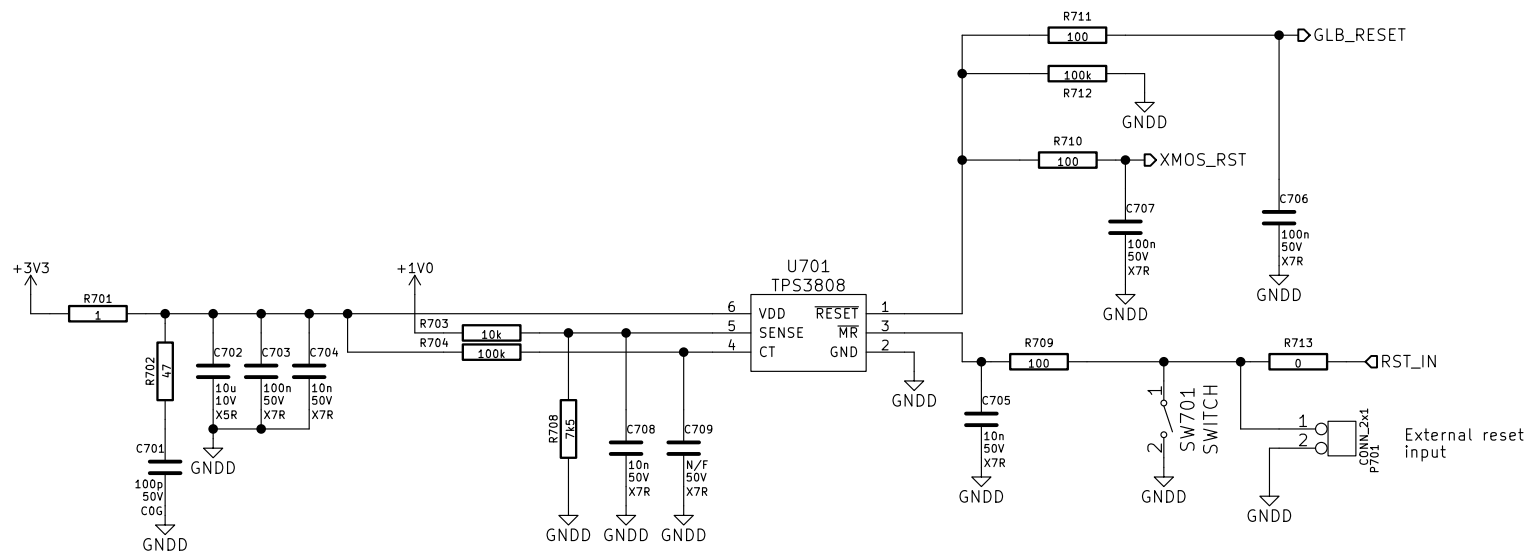
Size: A4	Date: 2017-02-08
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KiCad E.D.A.	kicad 4.0.5
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Rev: 1.0

Id: 6/8

Generate a global reset based on voltage rails.
Supports external reset signal.



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Sheet: /Reset-TPS3808/

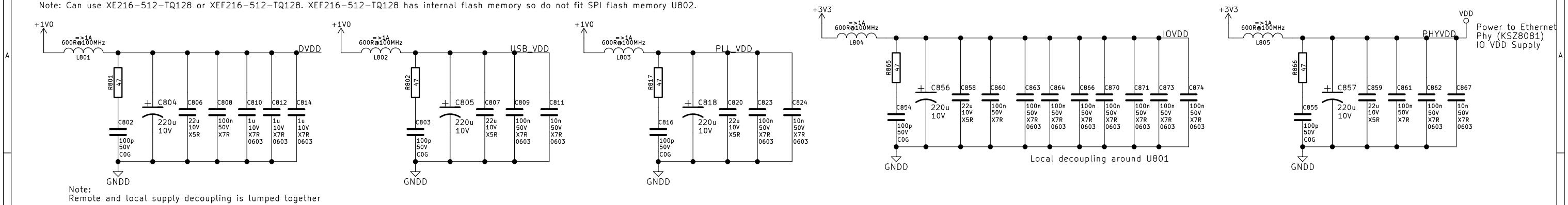
Title: CoreOne – XMOS 200 Platform

Rev: 1.0

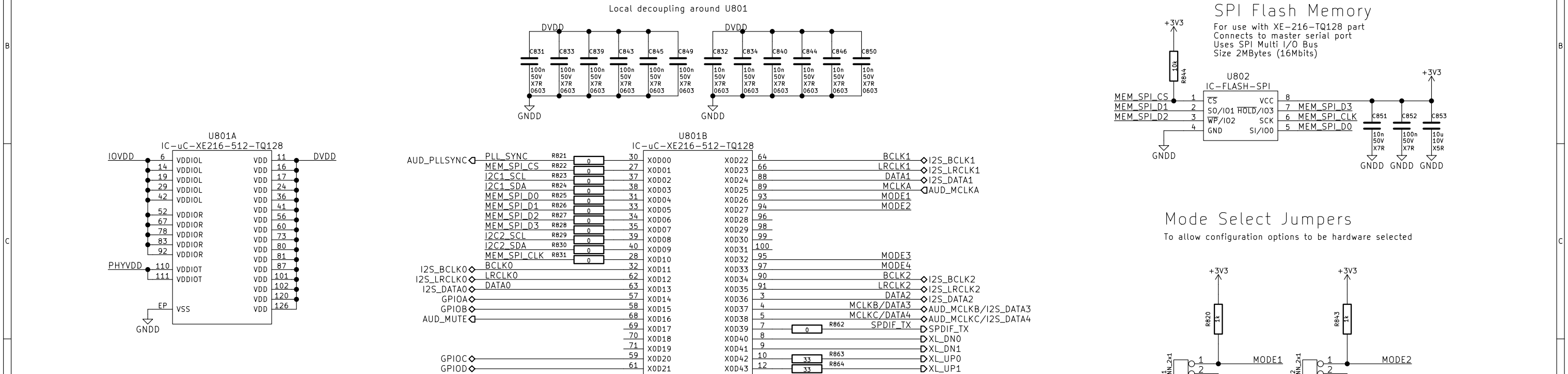
Id: 7/8

XMOS 200 – XE216-512-TQ128 or XEF216-512-TQ128

Note: Can use XE216-512-TQ128 or XEF216-512-TQ128. XEF216-512-TQ128 has internal flash memory so do not fit SPI flash memory U802.

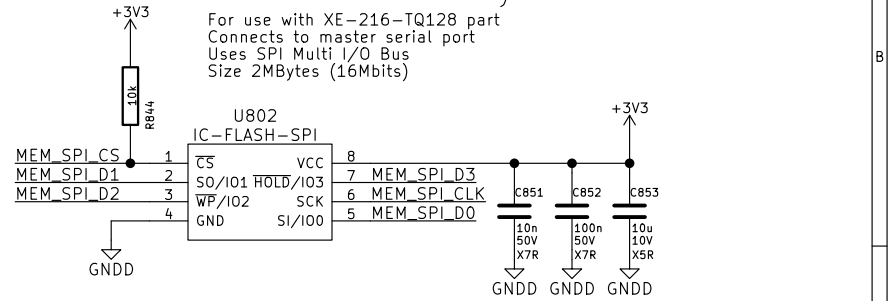


Note: Remote and local supply decoupling is lumped together



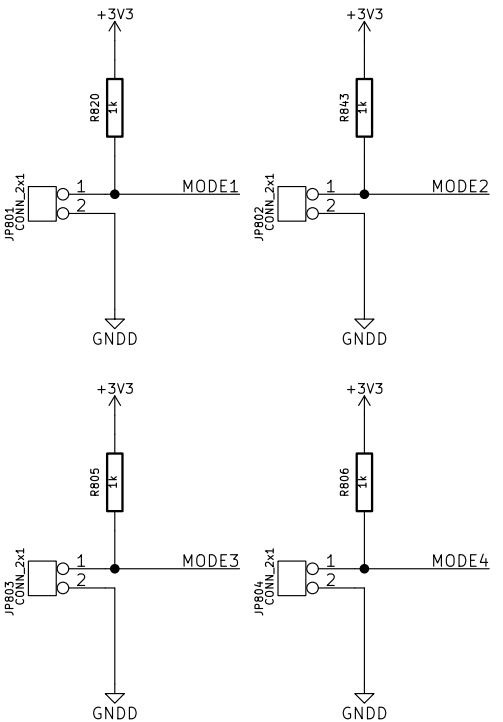
SPI Flash Memory

For use with XE-216-TQ128 part
Connects to master serial port
Uses SPI Multi I/O Bus
Size 2MBytes (16Mbits)



Mode Select Jumpers

To allow configuration options to be hardware selected



Control ports

I2C



SPI



I2C Pull-ups

