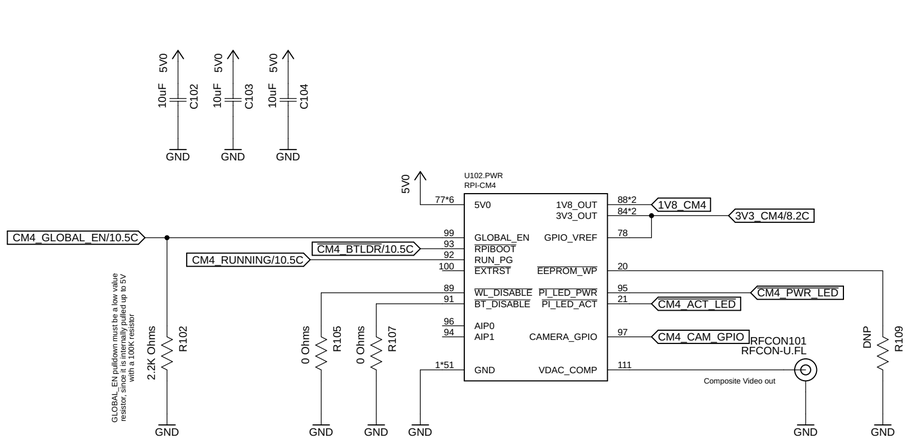

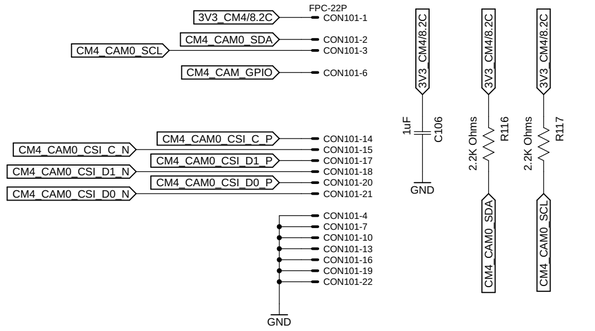

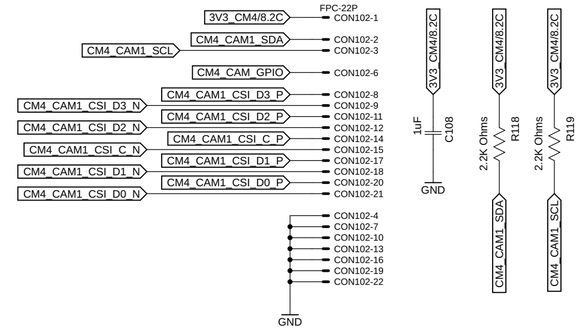

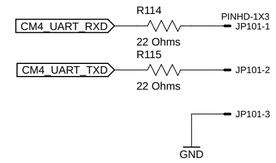

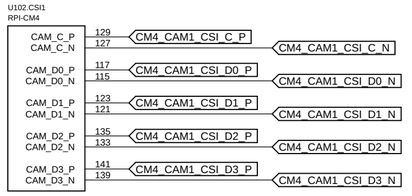

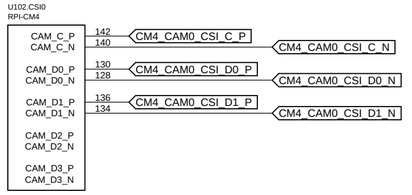

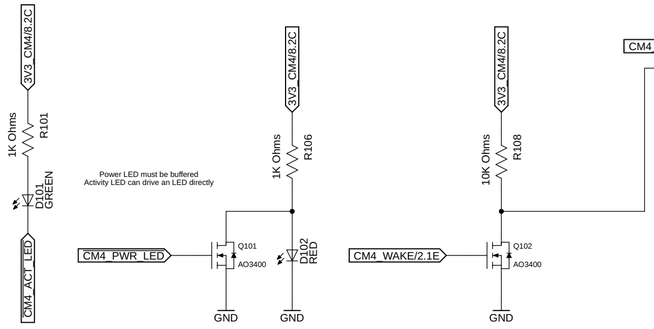

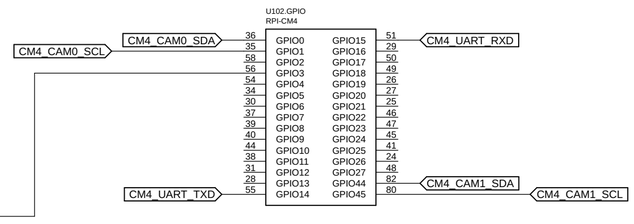

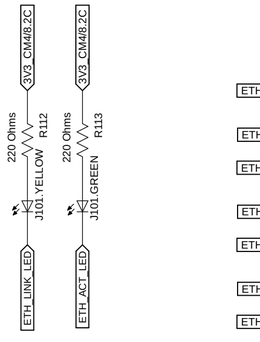

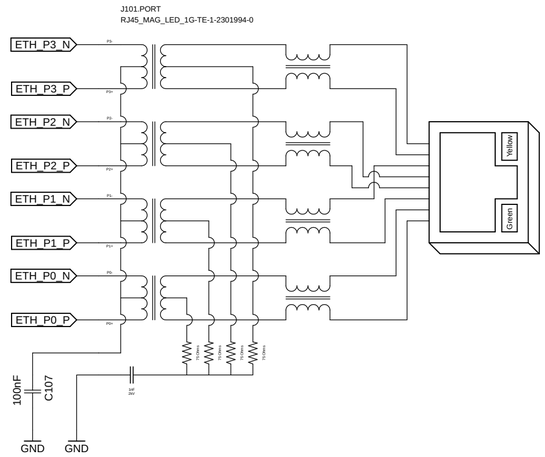

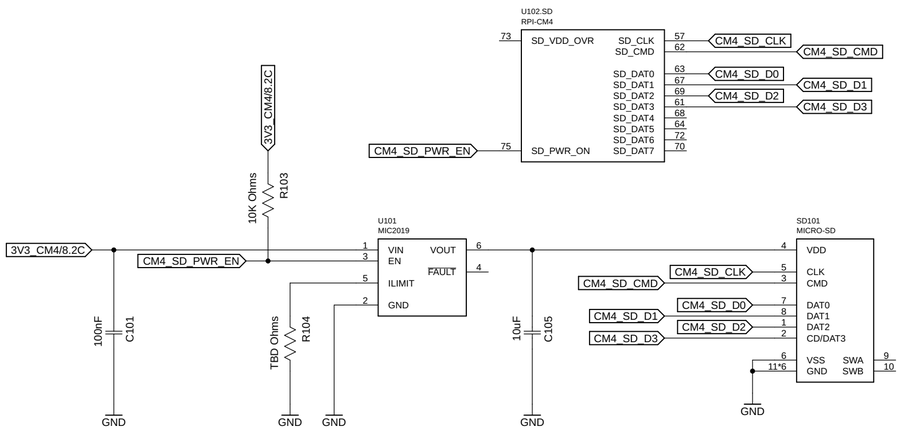

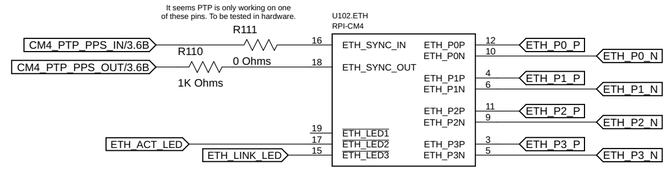

icyradio-main	João Silva Logo
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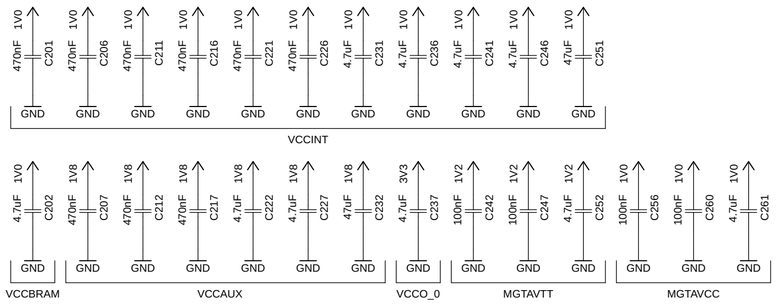

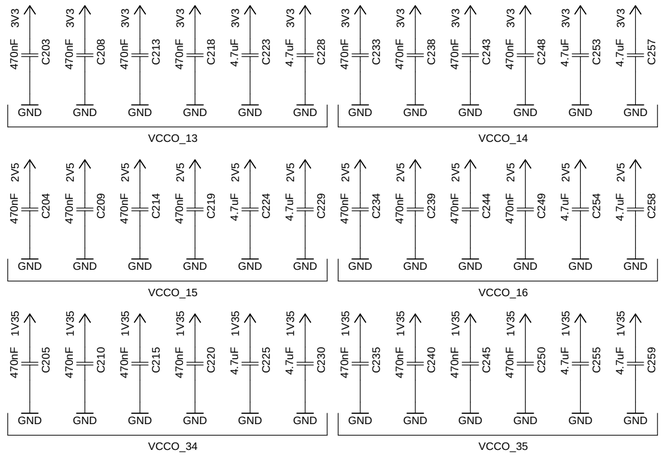

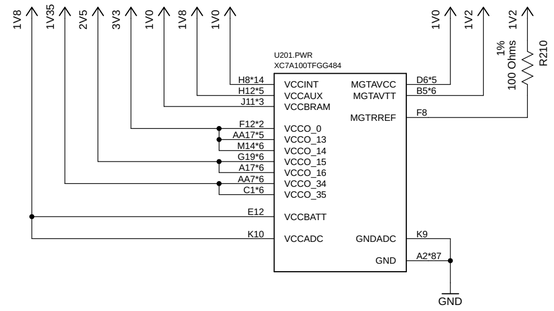

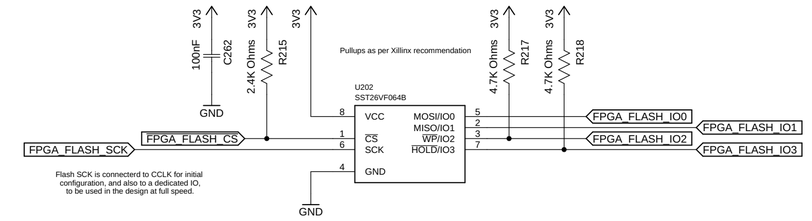

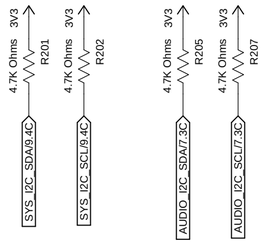

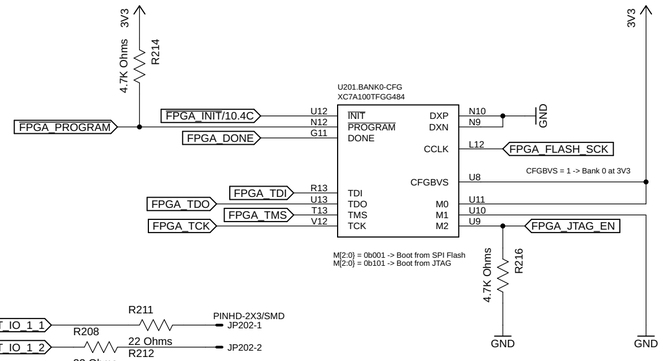

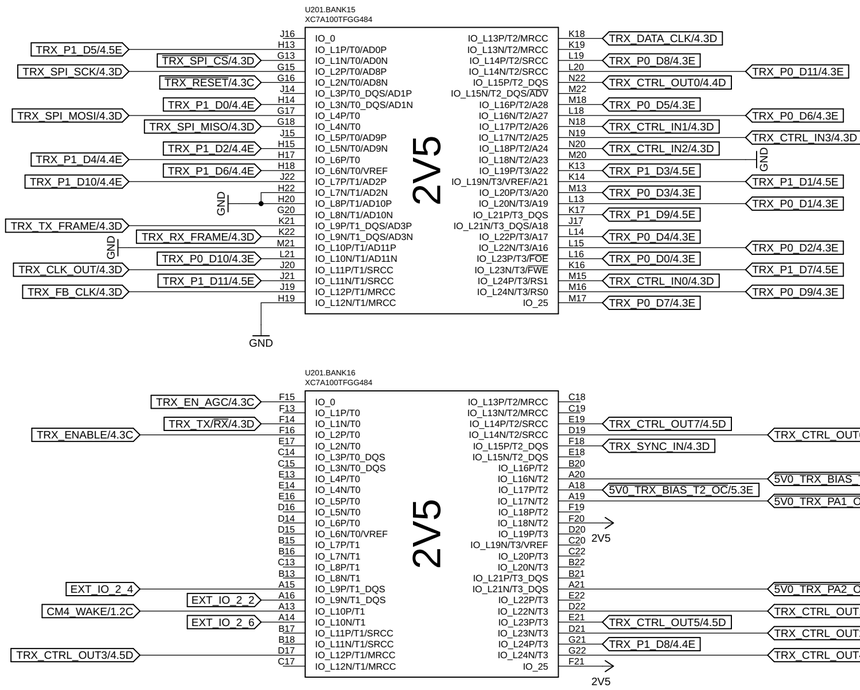

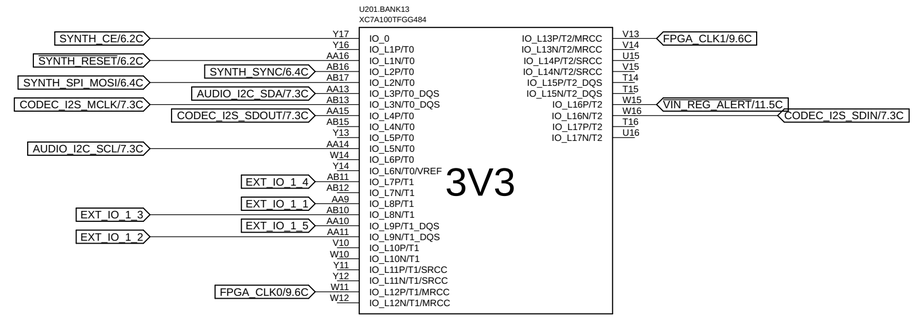

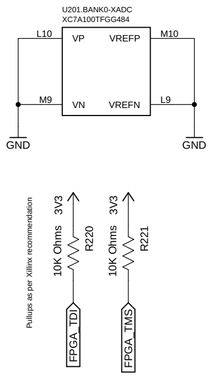

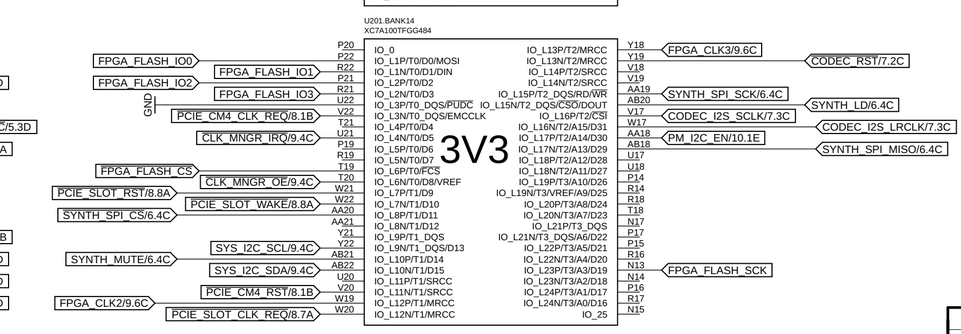

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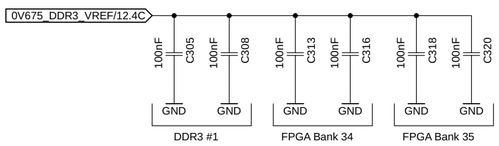

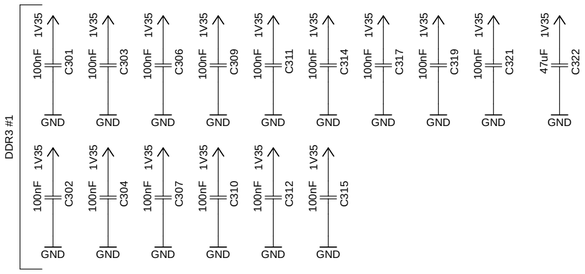

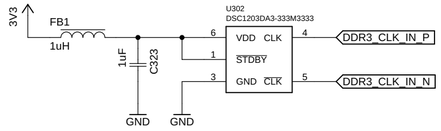

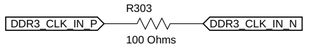

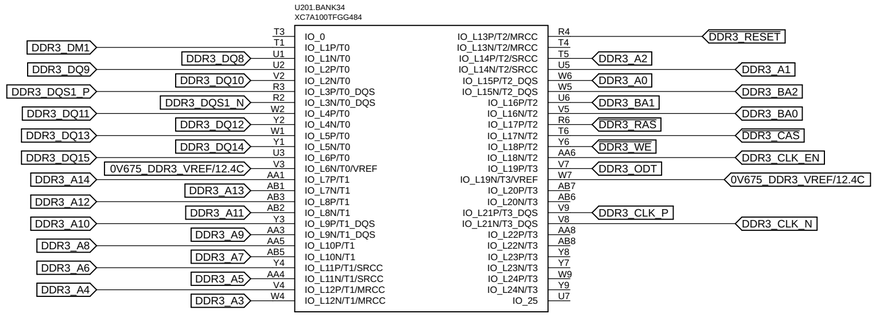

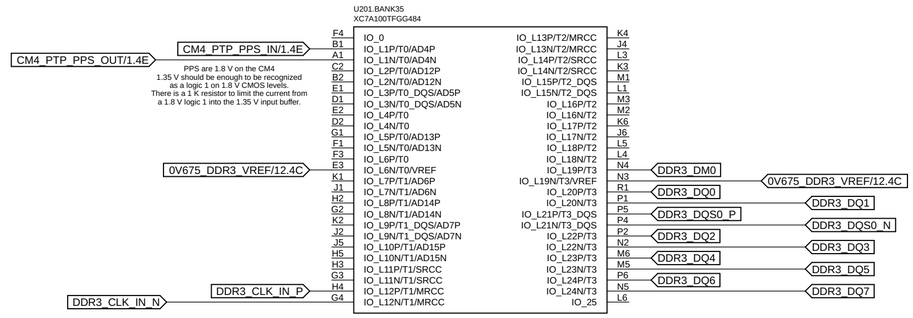

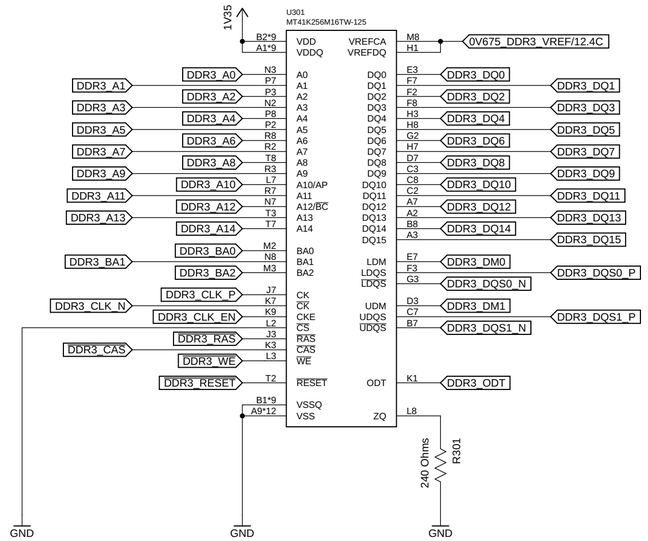

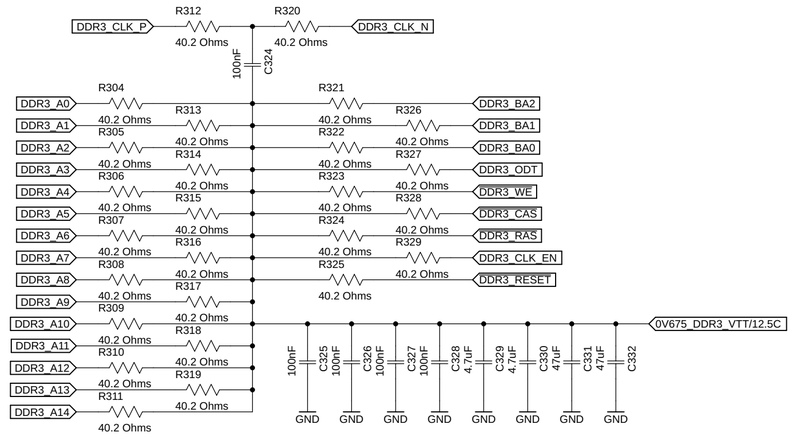

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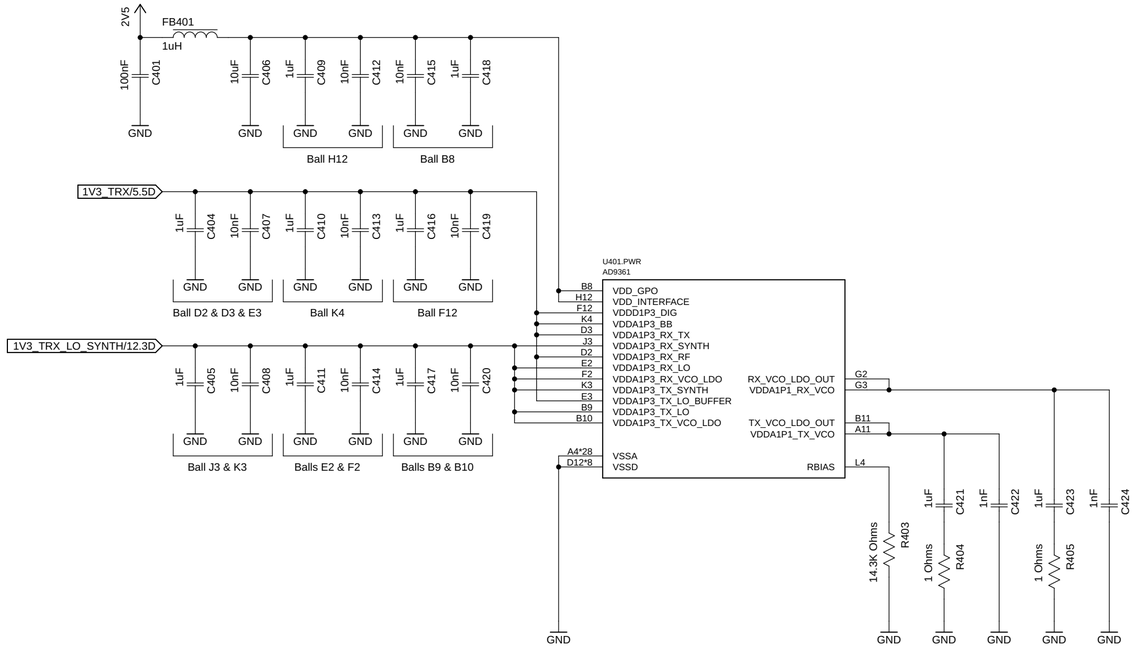
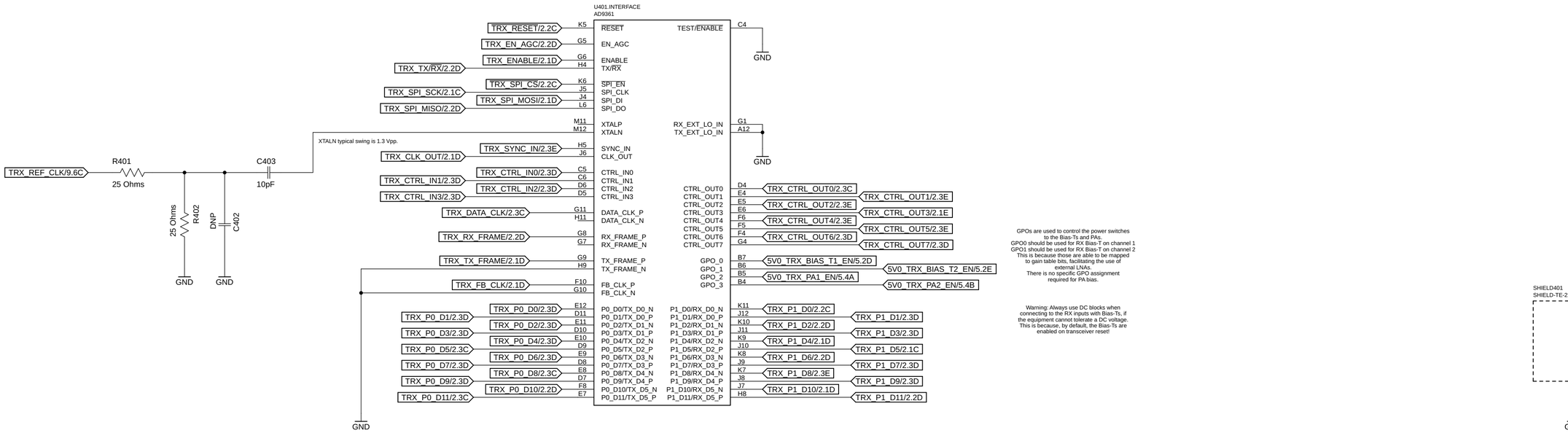
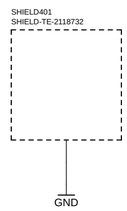


TODO:
- AUXDAC
- AUXADC
- GPO
- Add keepout on RF components
- GPO at 2.5V
- Caps 0201 below IC



GPOs are used to control the power switches to the Bias-Ts and PAs.
GPO0 should be used for RX Bias-T on channel 1
GPO1 should be used for RX Bias-T on channel 2
This is because those are able to be mapped to gain table bits, facilitating the use of external LNAs.
There is no specific GPO assignment required for PA bias.

Warning: Always use DC blocks when connecting to the RX inputs with Bias-Ts, if the equipment cannot tolerate a DC voltage. This is because, by default, the Bias-Ts are enabled on transceiver reset!



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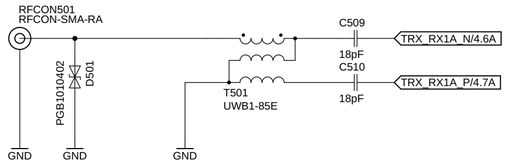

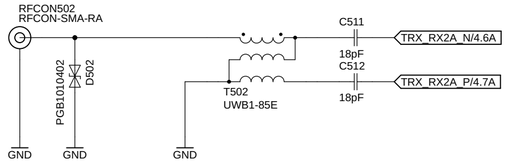

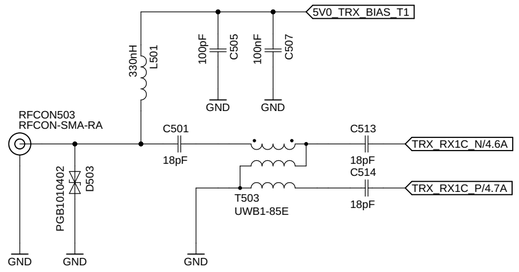

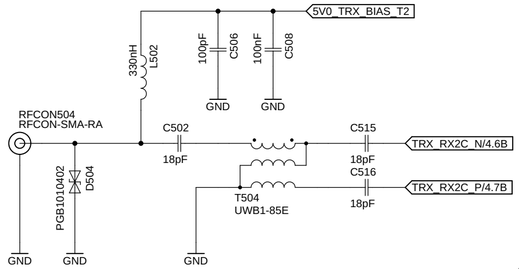

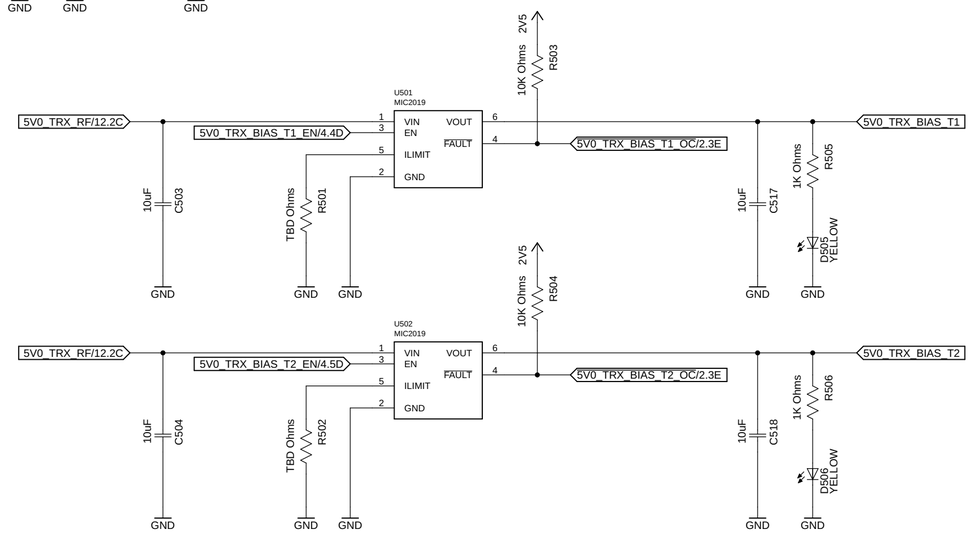

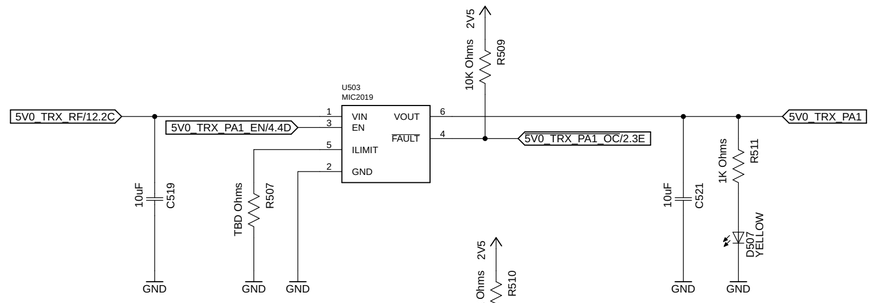

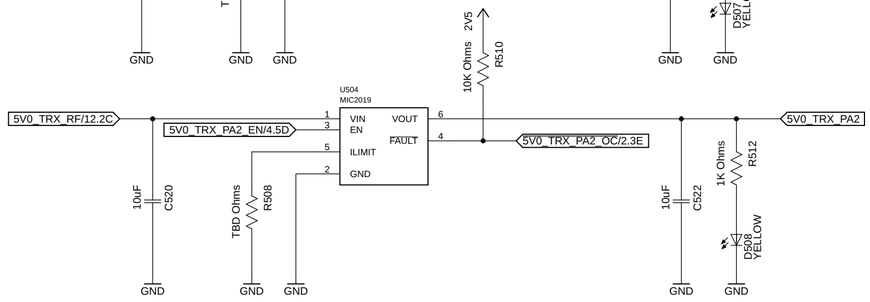

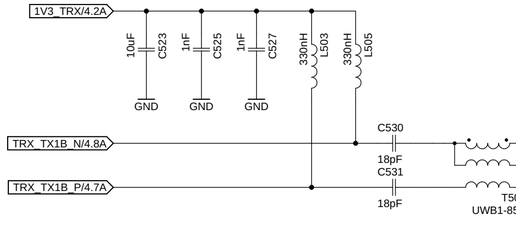

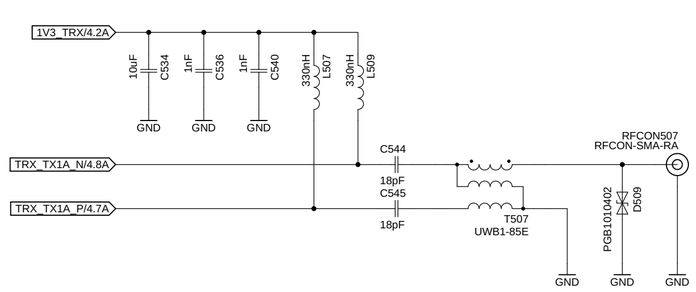

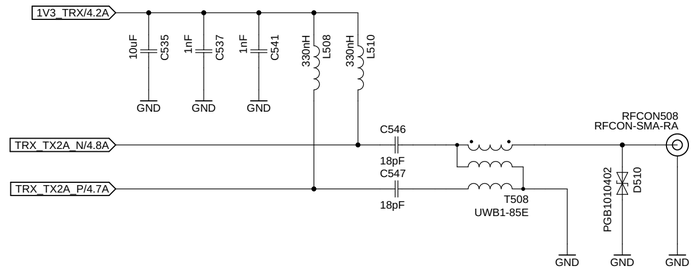

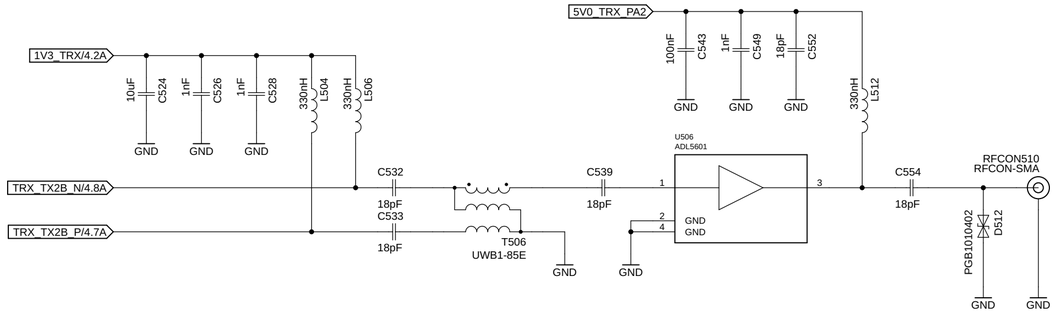

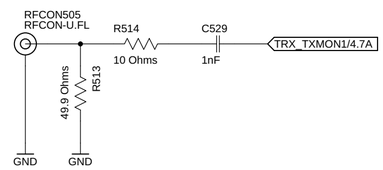

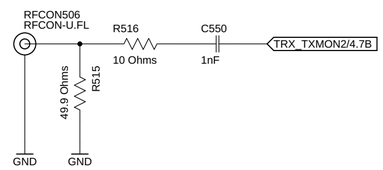

icyradio-main	
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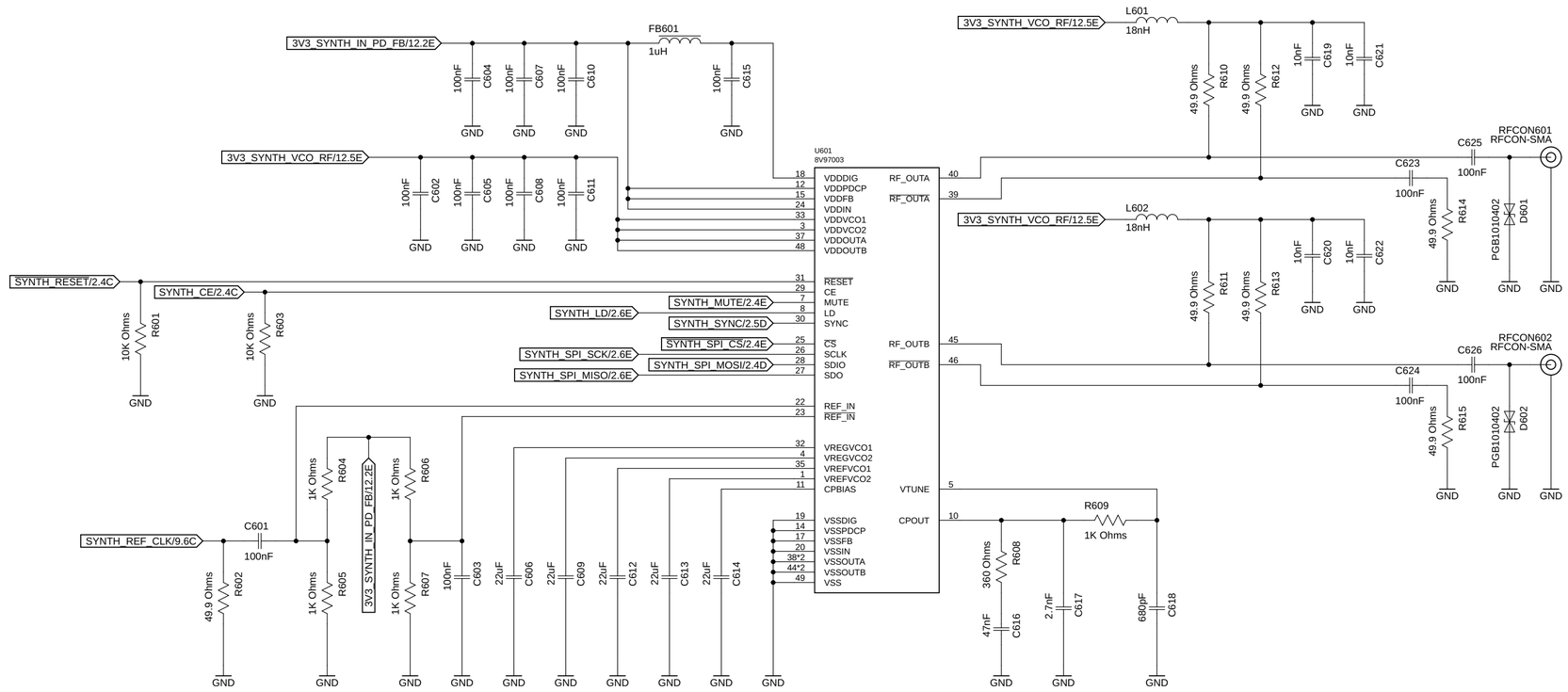

icyradio-main	
Joao Silva	
Sheet: 6/13	mmWave Synthesizer
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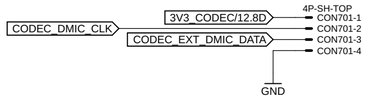
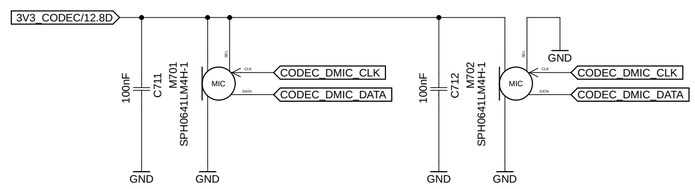
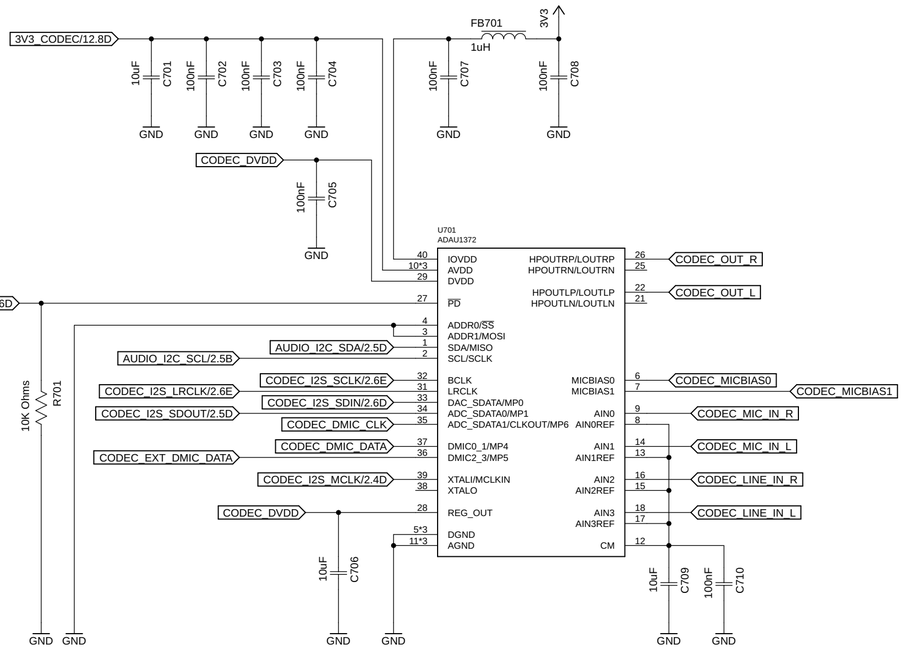
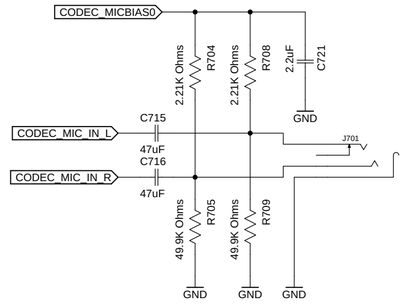
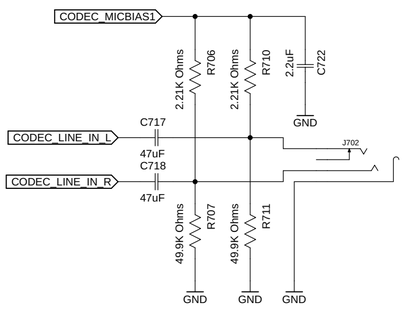
TODO:
- Figure out a smart way to connect this no easily available drivers for RPi yet...
Or replace with a supported CODEC

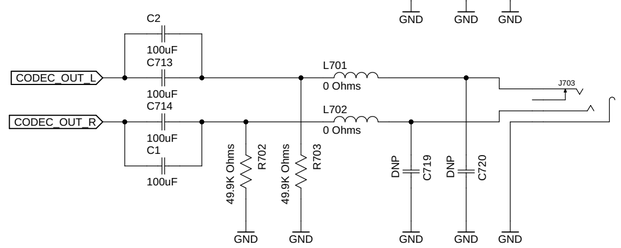












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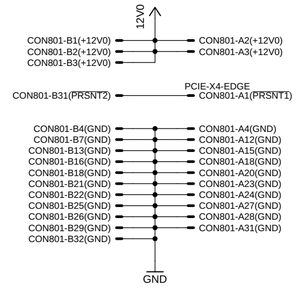

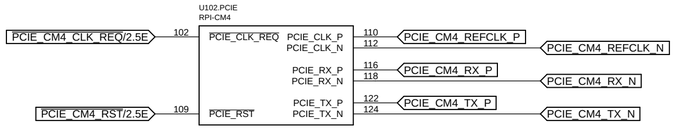

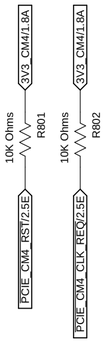

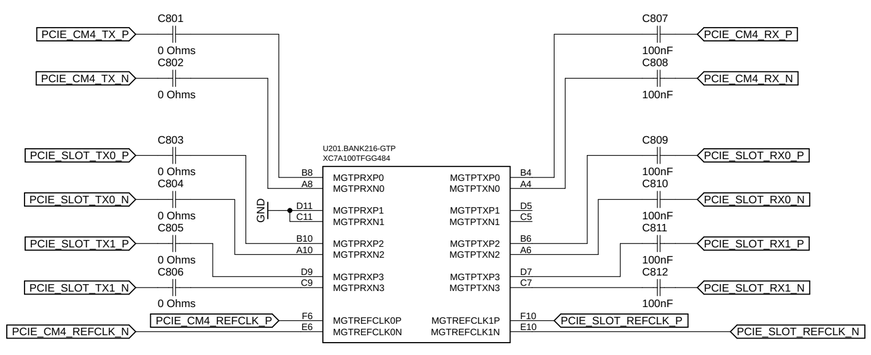

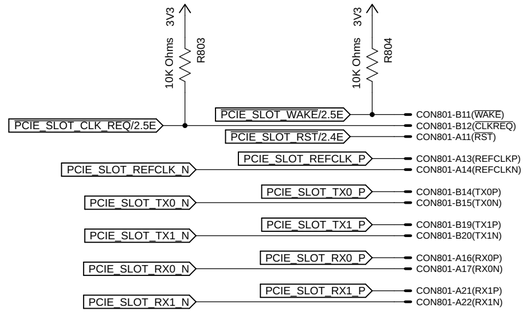

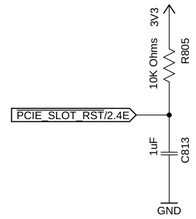

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Joao Silva	
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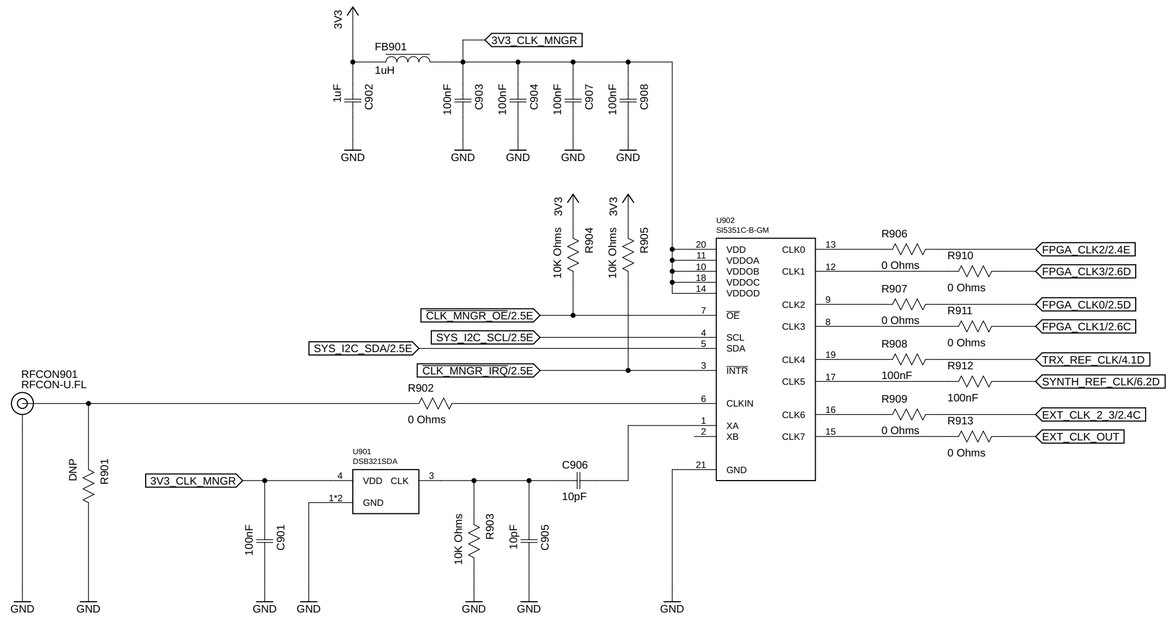
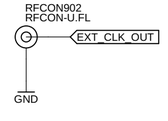
TODO:
- Discuss external reference clock connection method
(two inputs, one for RF, one for digital)
- Does this part degrade the clock provided to it? (adds jitter, phase noise?)
- Can a clock output from this IC be used as the
transceiver reference?
- Would be nice to have only a single external clock input...





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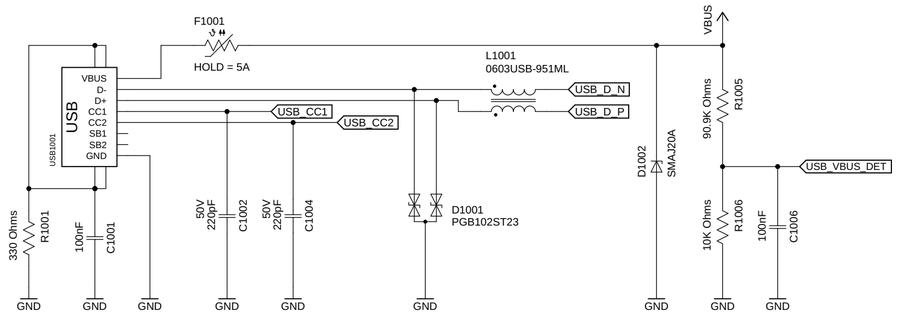

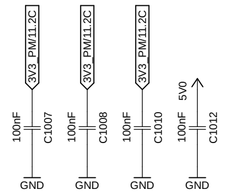

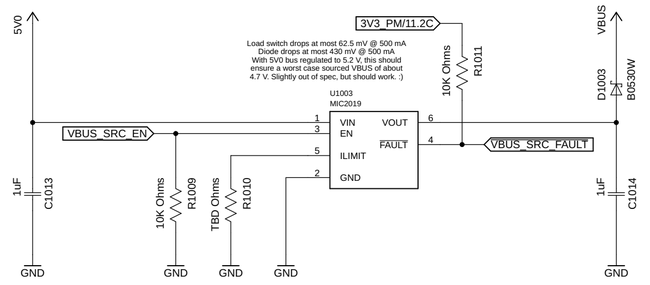

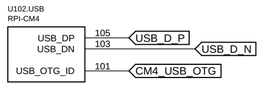

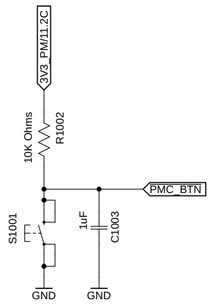

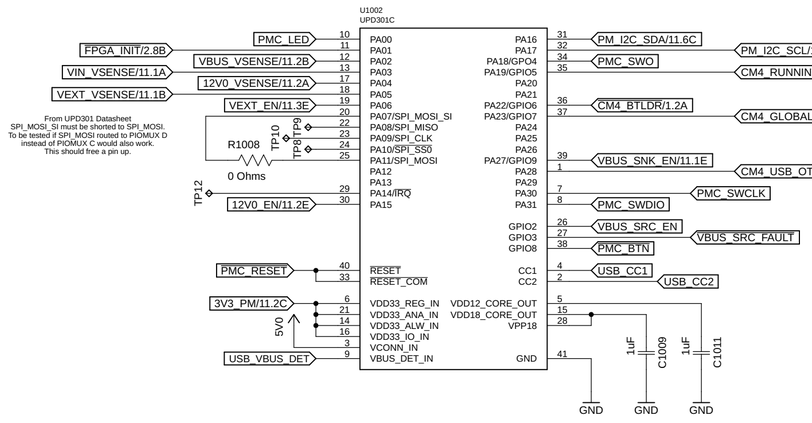

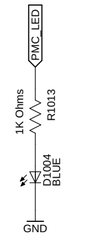

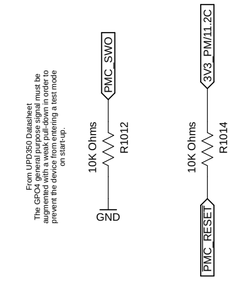

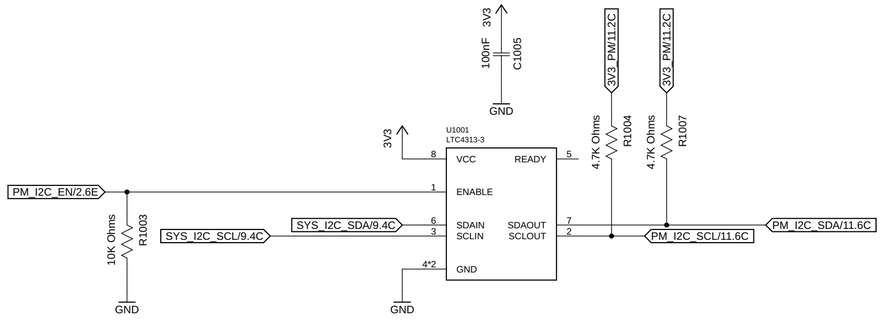

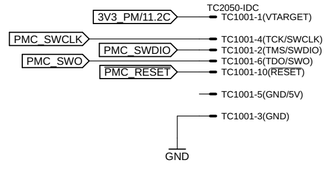

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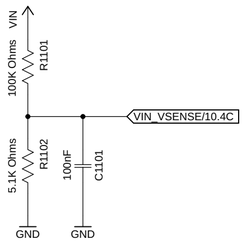
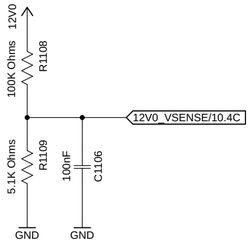
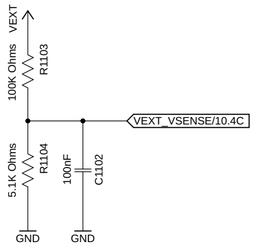
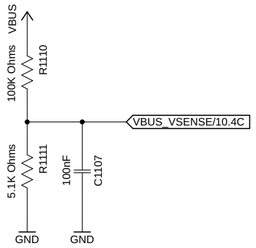
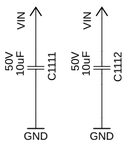
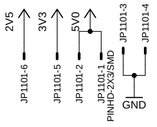


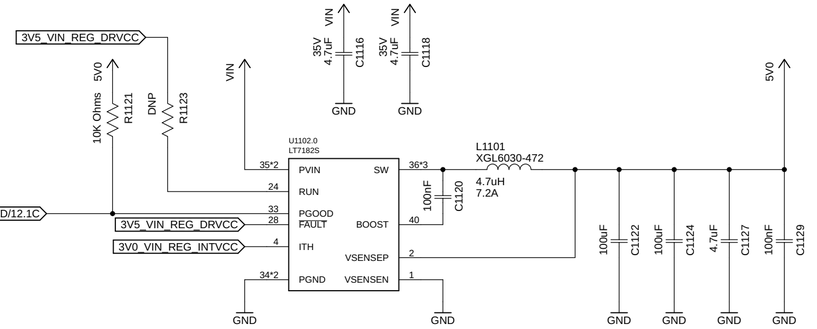


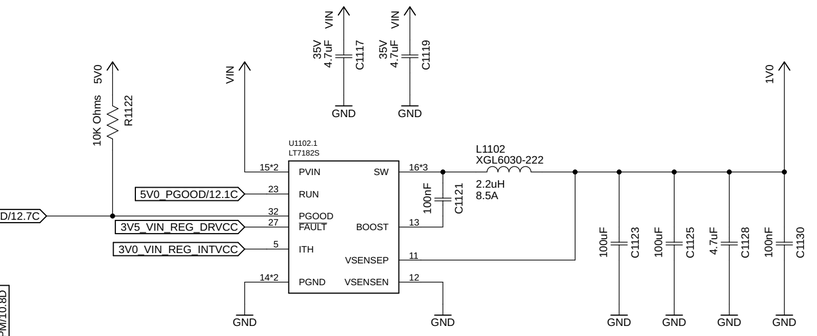




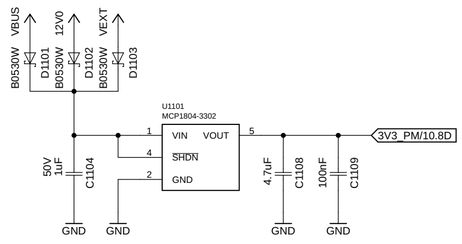


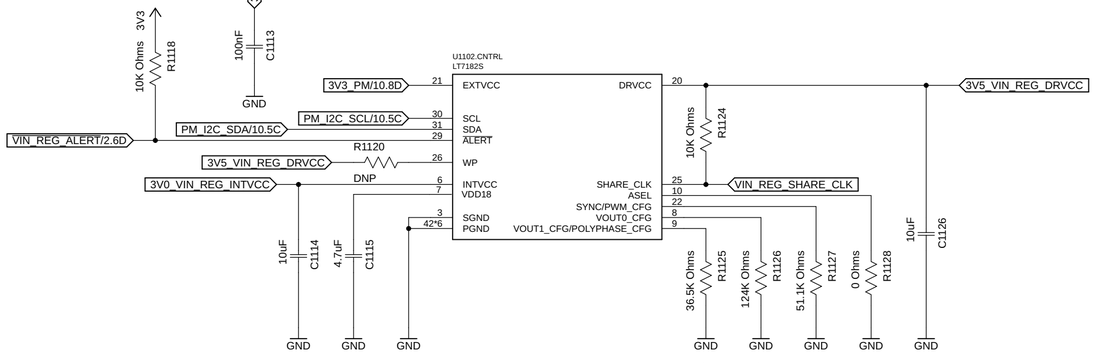


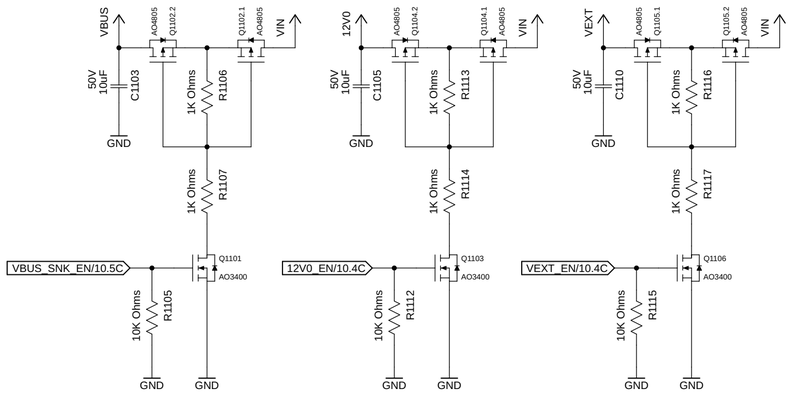


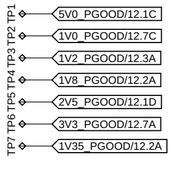


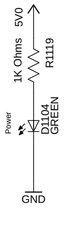
TODO:
- Check all power supplies
- Implement everything
in the power tree

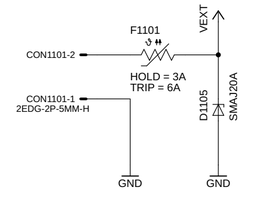












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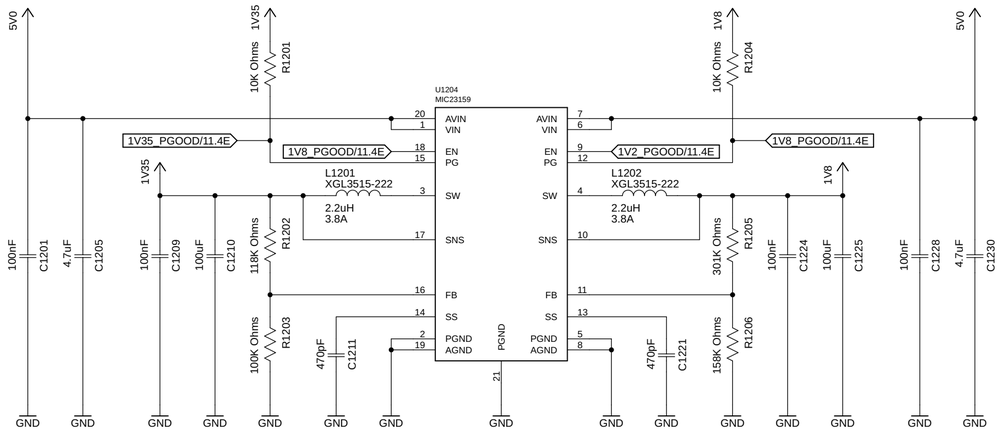

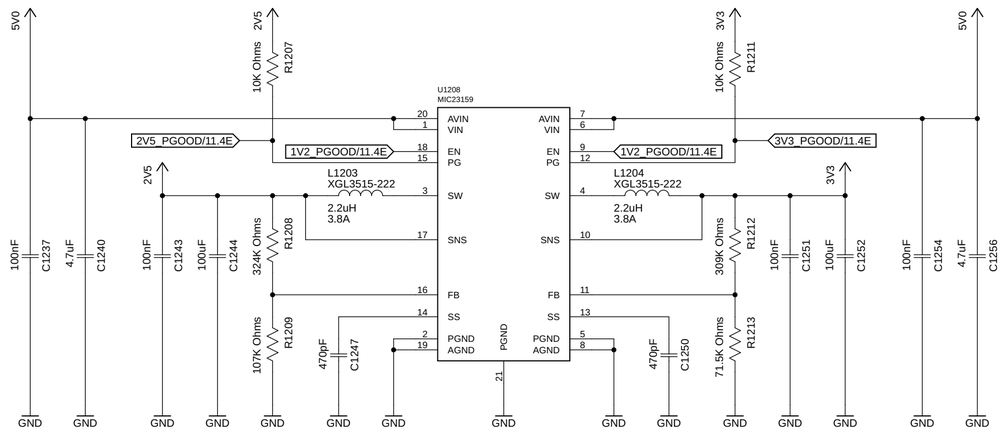

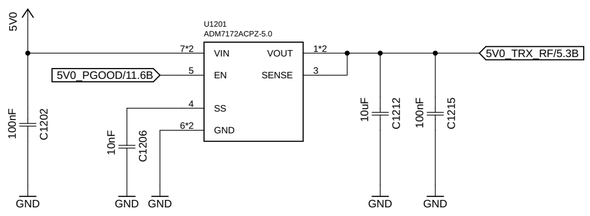

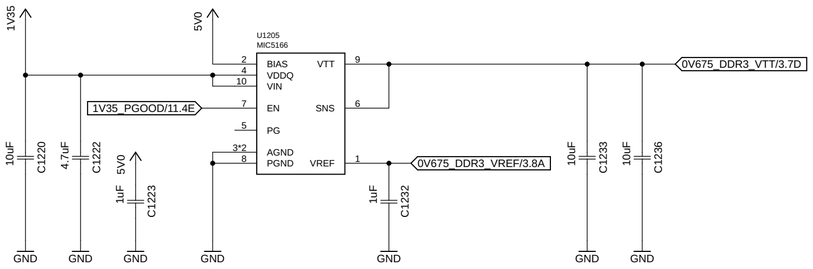

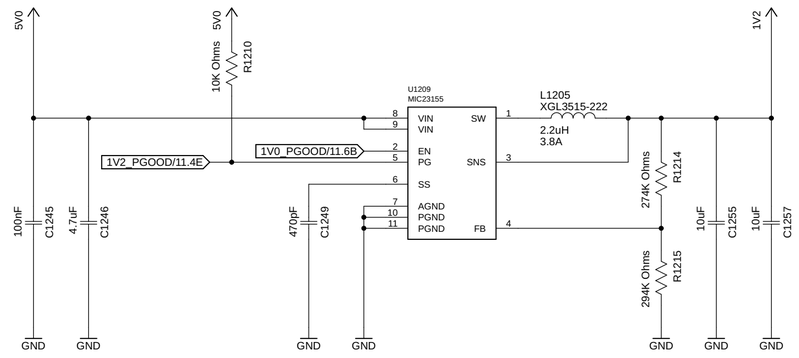

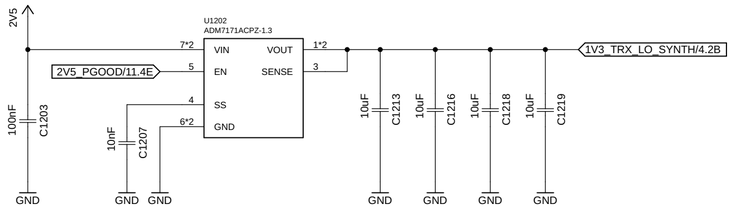

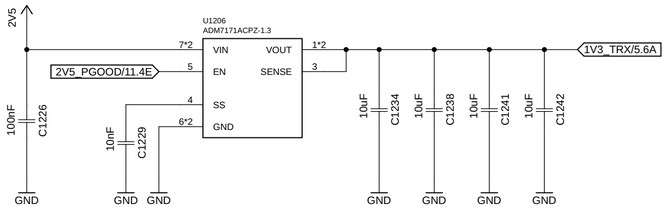

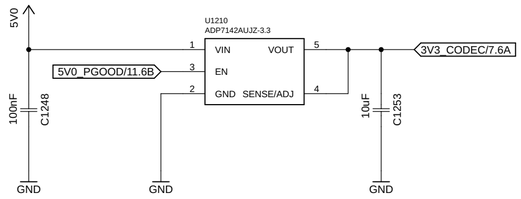

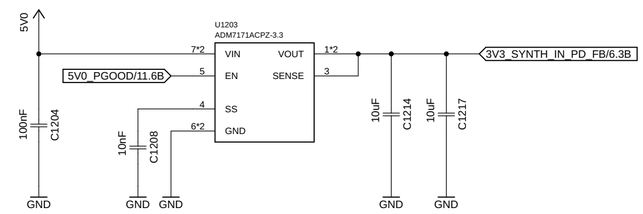

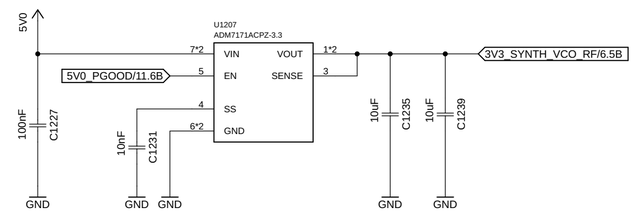

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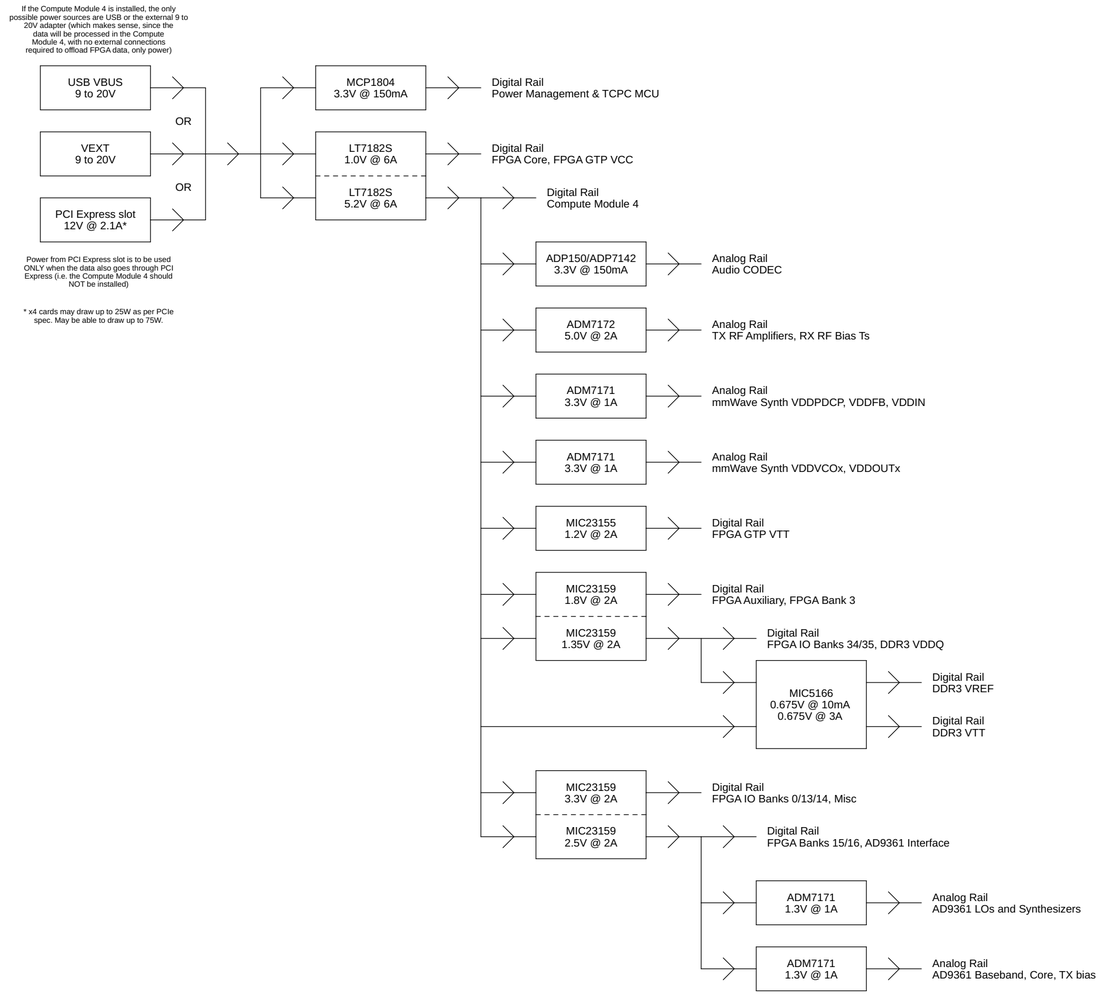
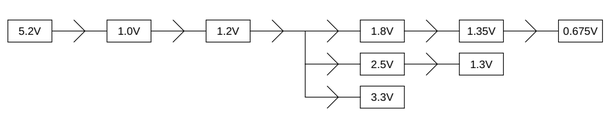
TODO:
- Review current requirements
- Check if the parts can supply the requested current



Power Sequence



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