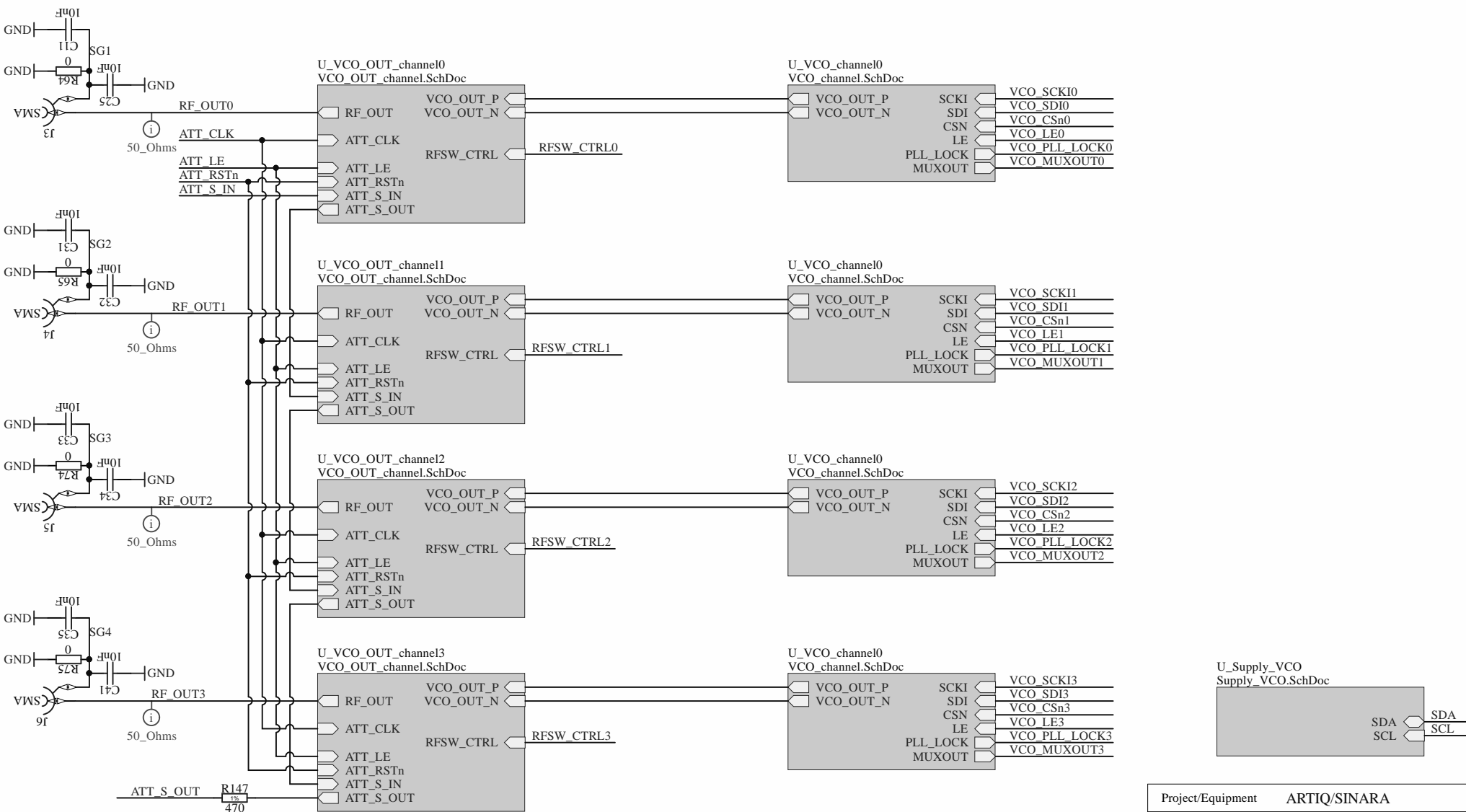







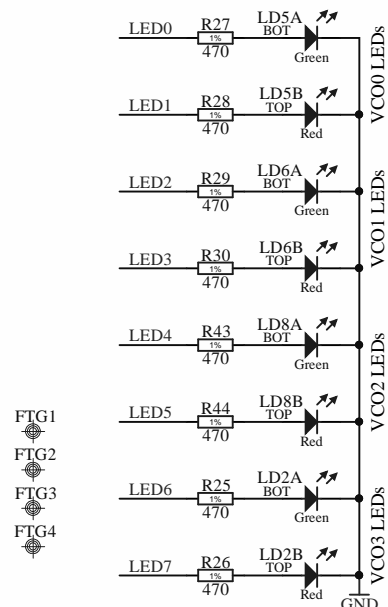
The diagram shows a 32-pin connector layout. The pins are arranged in two columns of 16 pins each. The pins are labeled CLIP1 through CLIP32. Each pin is connected to GND. The connections are as follows:

- CLIP1, CLIP2, CLIP3, CLIP4, CLIP5, CLIP6, CLIP7, CLIP8, CLIP9, CLIP10, CLIP11, CLIP12, CLIP13, CLIP14, CLIP15, CLIP16, CLIP17, CLIP18, CLIP19, CLIP20, CLIP21, CLIP22, CLIP23, CLIP24, CLIP25, CLIP26, CLIP27, CLIP28, CLIP29, CLIP30, CLIP31, CLIP32
- GND



SMA Insulating washers

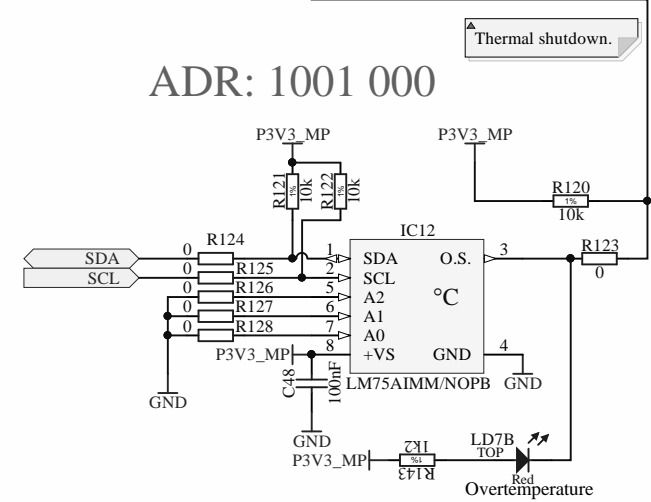
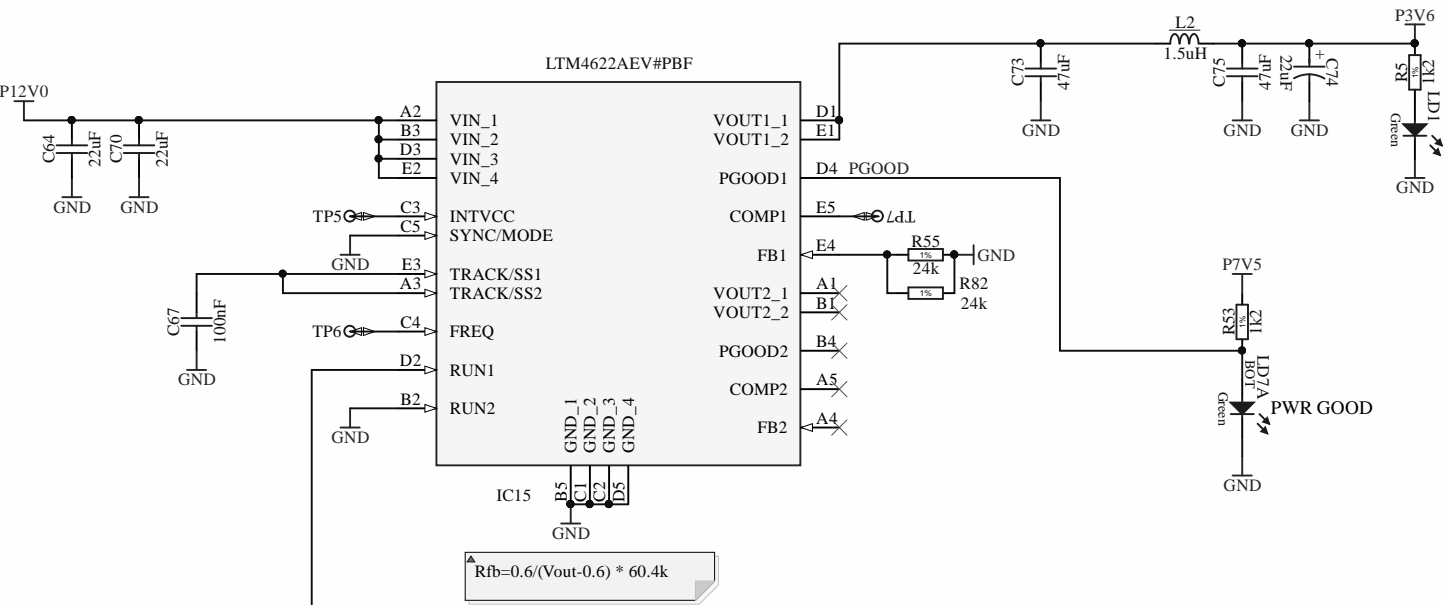
WASHER1 D11.1xd6.6		WASHER2 D11.1xd6.6
WASHER3 D11.1xd6.6		WASHER4 D11.1xd6.6
WASHER5 D11.1xd6.6		WASHER6 D11.1xd6.6
WASHER7 D11.1xd6.6		WASHER8 D11.1xd6.6
WASHER9 D11.1xd6.6		WASHER10 D11.1xd6.6



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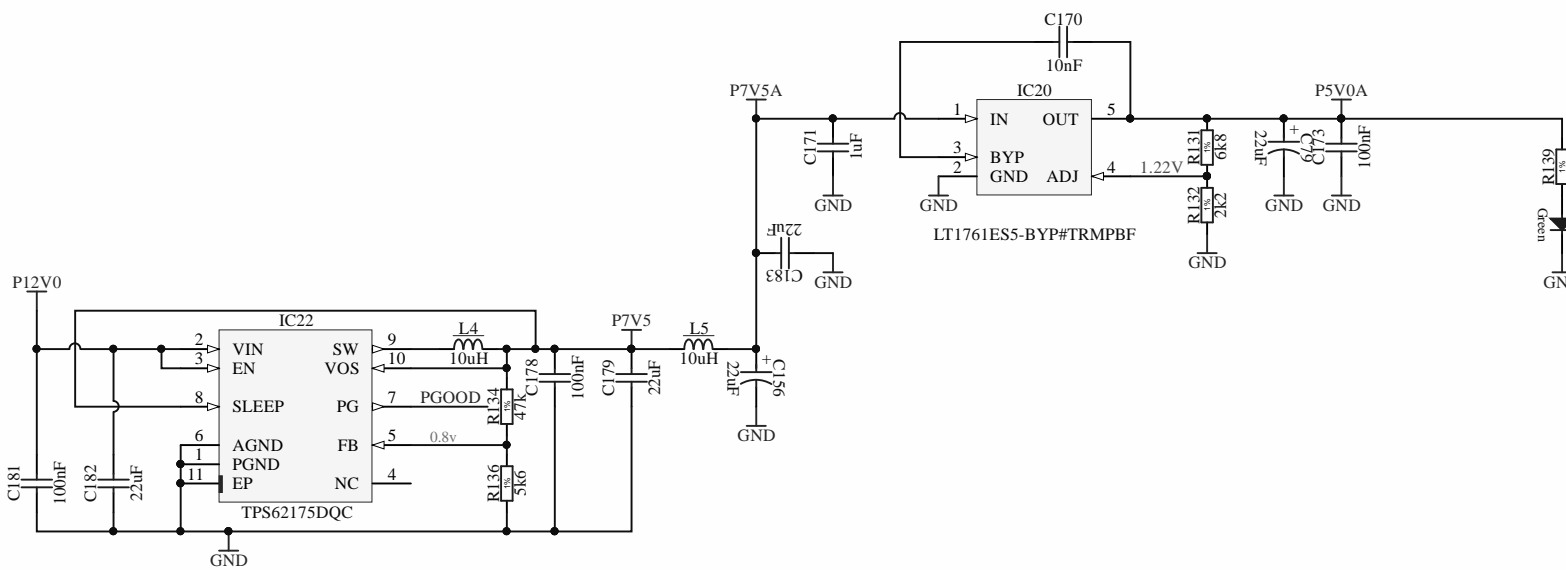
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One of Two RF filters can be used switchable by the two jumpers (R57/59 and R58/C28) for jumper configuration see ADC_channel sheet
Populate Filter Components according to individual project design
For Custom Filter reference design and Possible configurations (as AWR MWO projects) are found in documentation folder

Discrete-elemet filter with R57/59 & R58/C28

3x Mini-Circuits FV1206 filters

Amplifier
+13dB @ 2GHz typ.

Digital Attenuator

F clk max = 30MHz

Frequency multiplier here

SPDT switch

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		ARTIQ	
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$RF_{OUT} = [INT + (FRAC/MOD)] \times (f_{PPD}/RF\ Divider)$
where:
 RF_{OUT} is the RF frequency output.
 INT is the integer division factor.
 $FRAC$ is the numerator of the fractional division (0 to MOD – 1).
 MOD is the preset fractional modulus (2 to 4095).
 $RF\ Divider$ is the output divider that divides down the VCO frequency.

$$f_{PPD} = REF_{IN} \times [(1 + D)/(R \times (1 + T))]$$

where:
 REF_{IN} is the reference frequency input.
 D is the RF REF_{IN} doubler bit (0 or 1).
 R is the RF reference division factor (1 to 1023).
 T is the reference divide-by-2 bit (0 or 1).

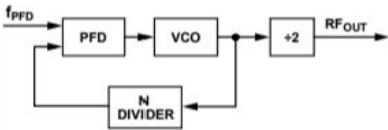
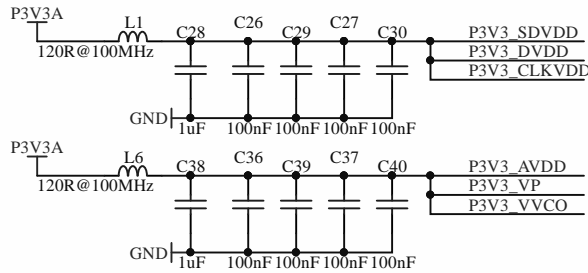
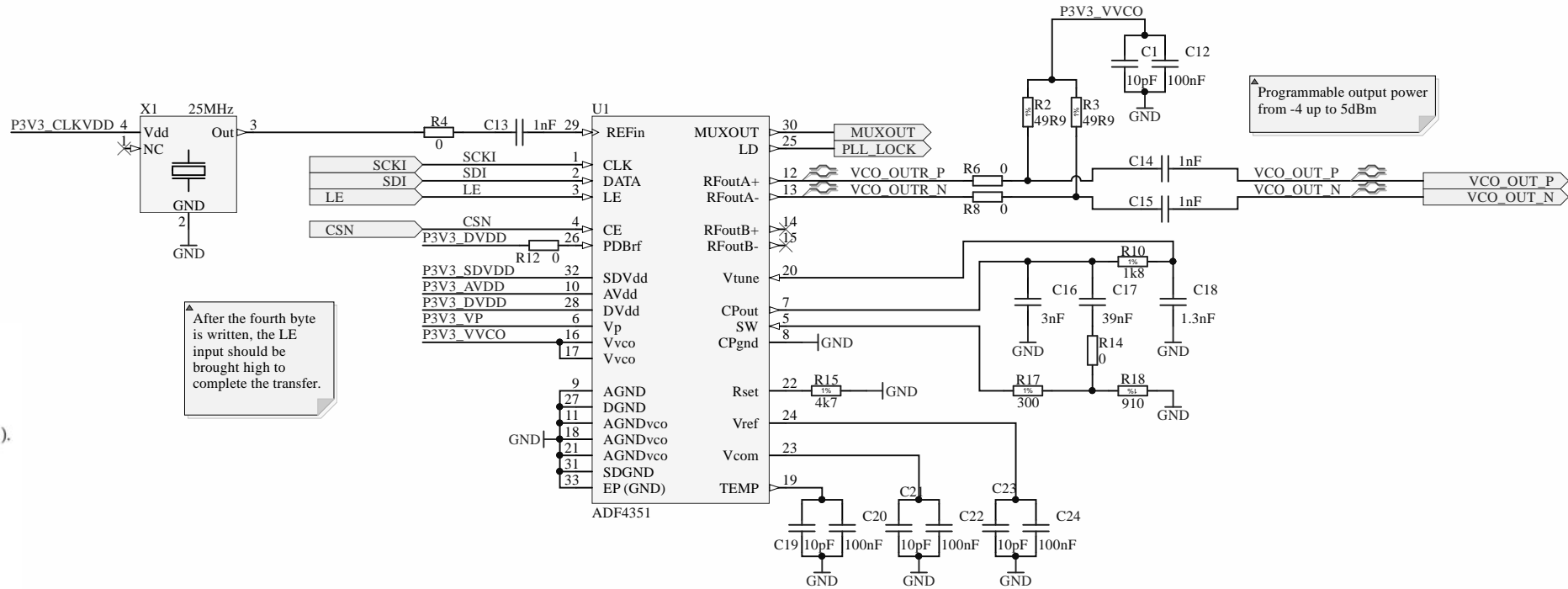


Figure 30. Loop Closed Before Output Divider

▲
D = 0
T = 0
R = 1
MOD = 4000

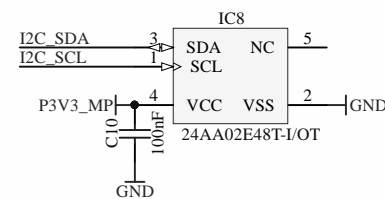
Start Freq	Stop Freq	VCO Divider	Channel Spacing
40.0MHz	68.75MHz	64	97.656 Hz
68.75MHz	137.5MHz	32	195.31 Hz
137.5MHz	275MHz	16	390.63 Hz
275MHz	550MHz	8	781.25 Hz
550MHz	1.10GHz	4	1.5625kHz
1.10GHz	2.20GHz	2	3.125kHz
2.20GHz	4.00GHz	1	6.25kHz



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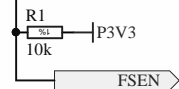
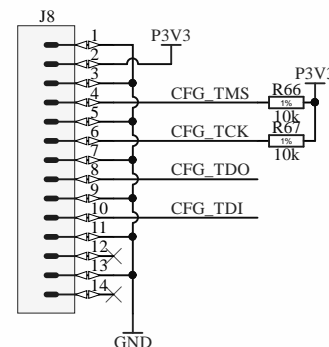
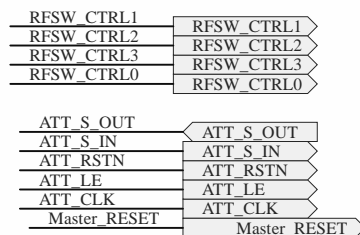
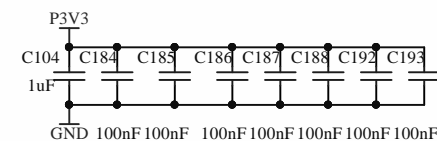
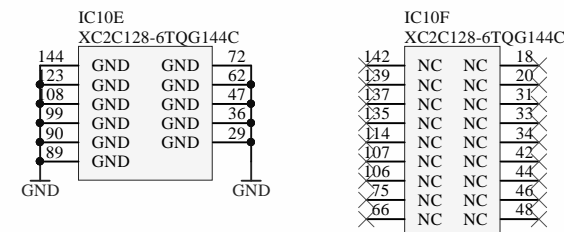
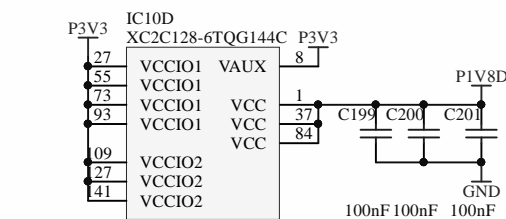
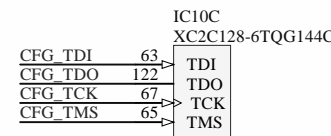
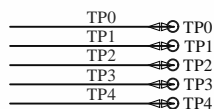
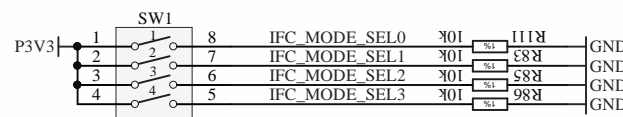
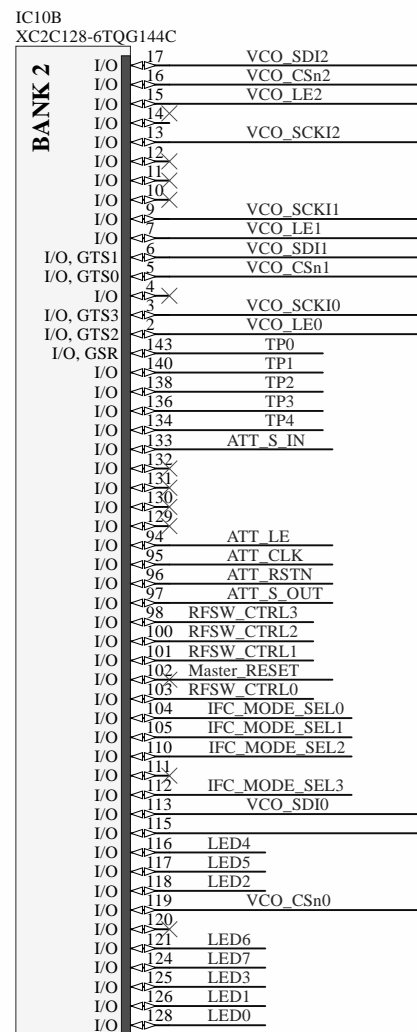
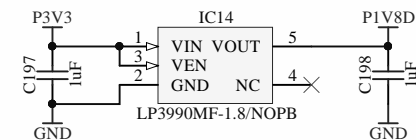
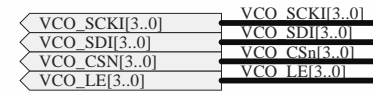
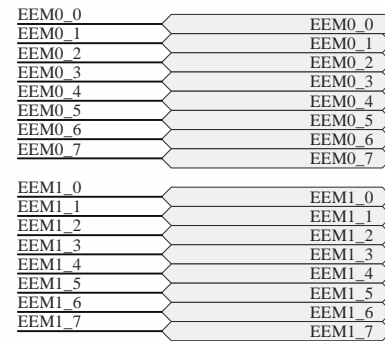
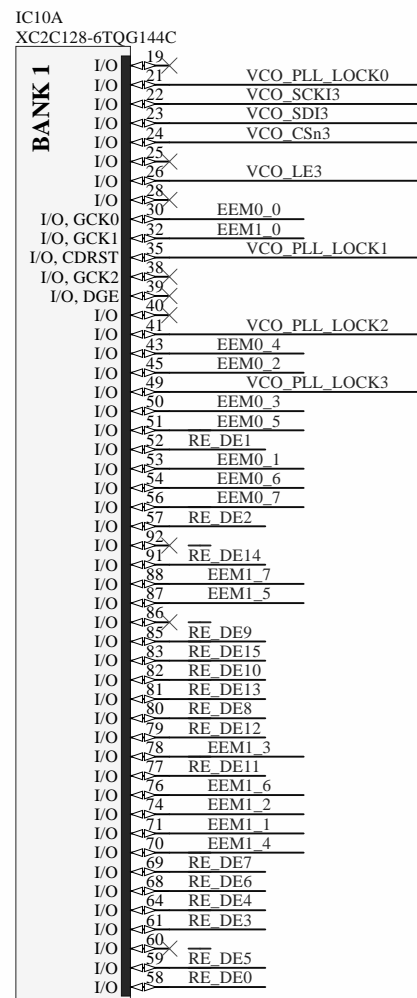
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