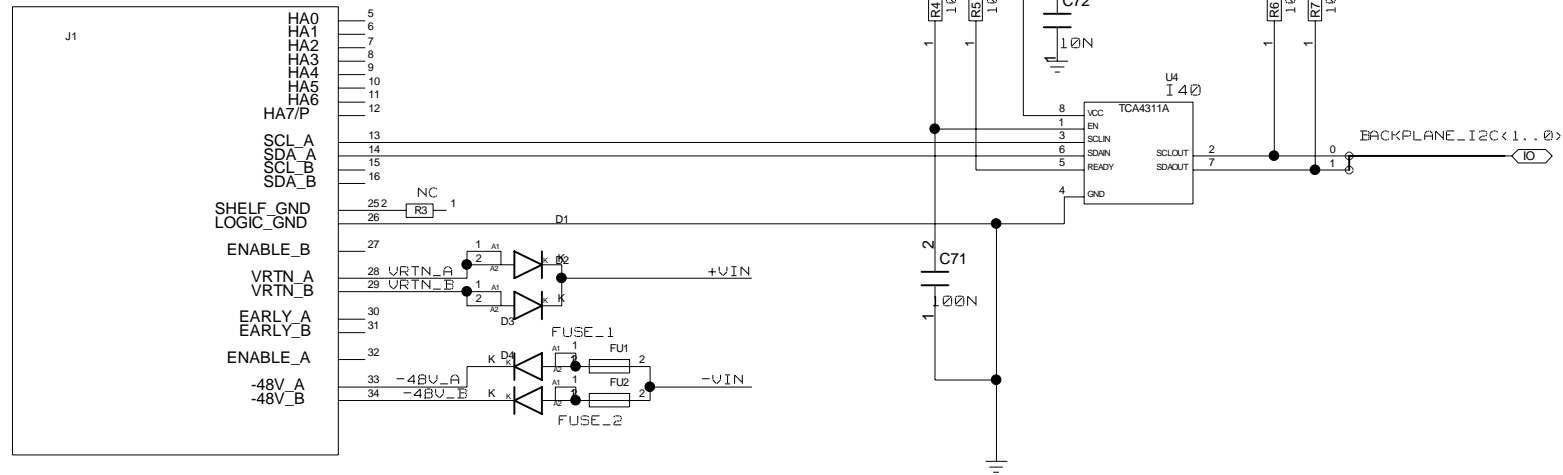
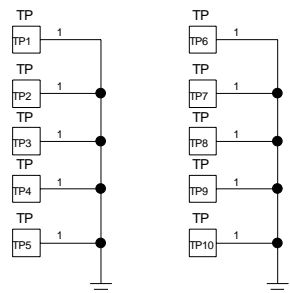
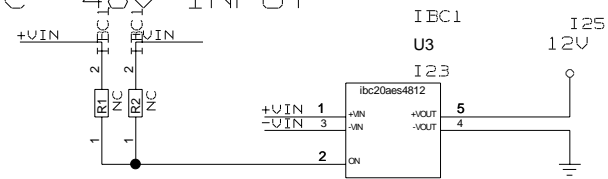


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POWER IN & CTRL  
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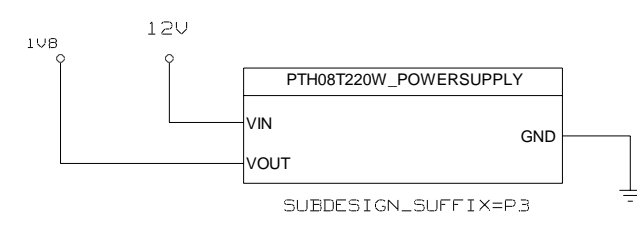
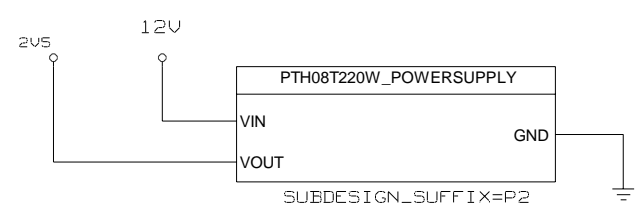
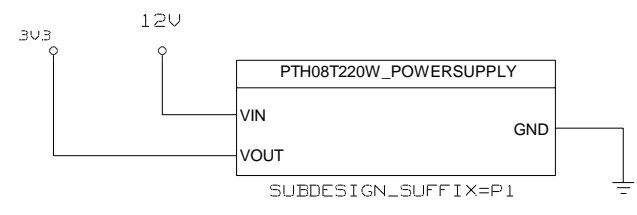


DC -48V INPUT



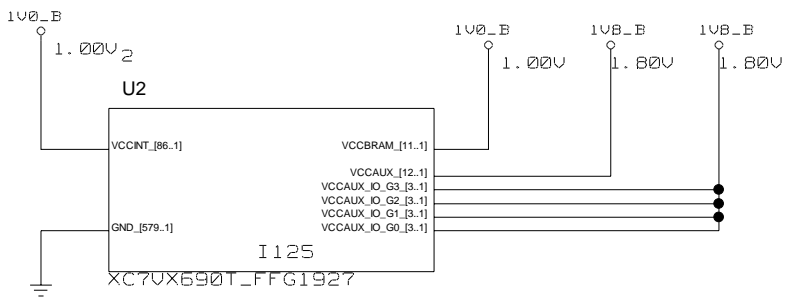
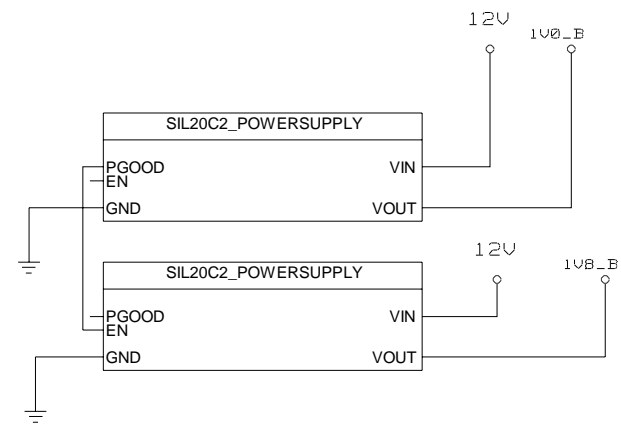
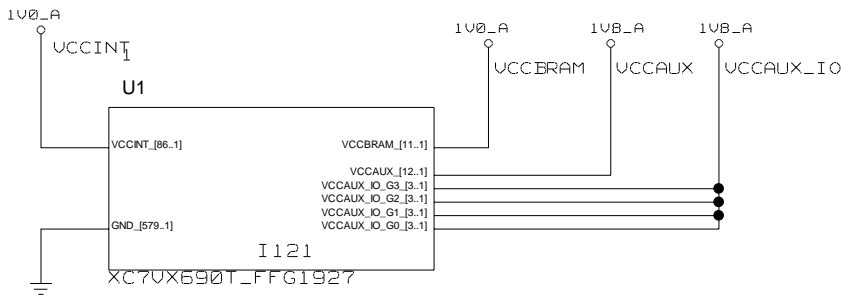
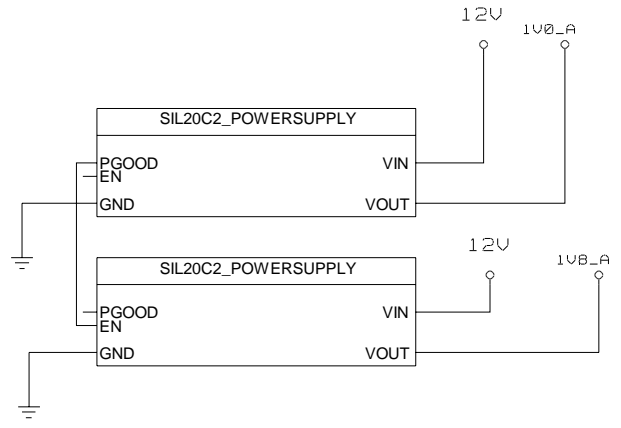
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POWER SUPPLY		12V POWERBUS	
SIZE	REV.	DRAWING NO.	
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SCALE			SHEET OF

REVISIONS				
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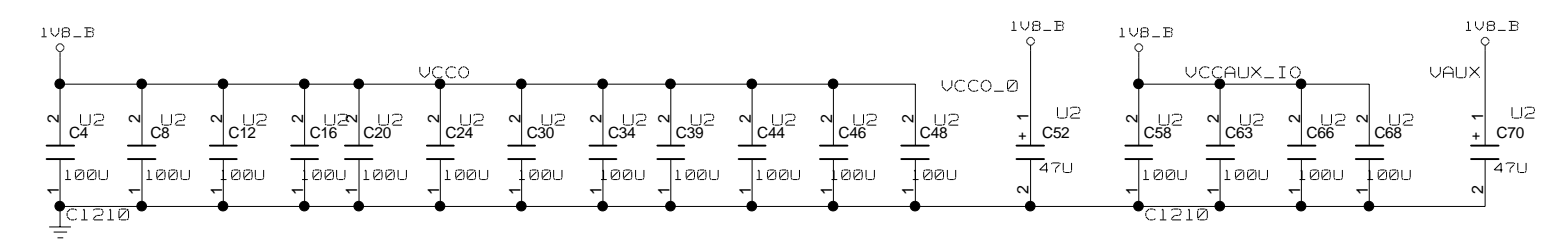
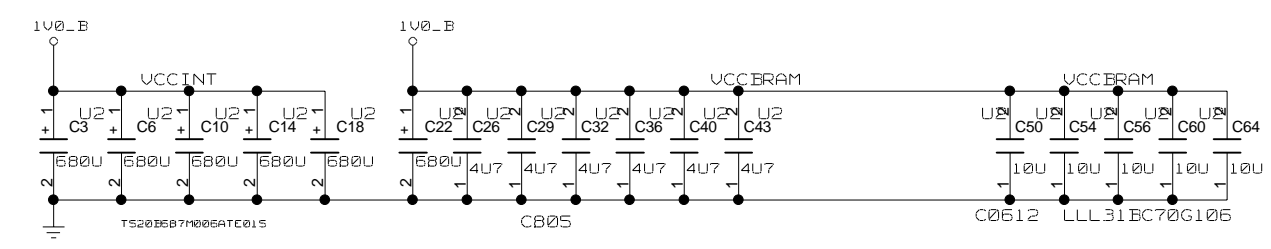
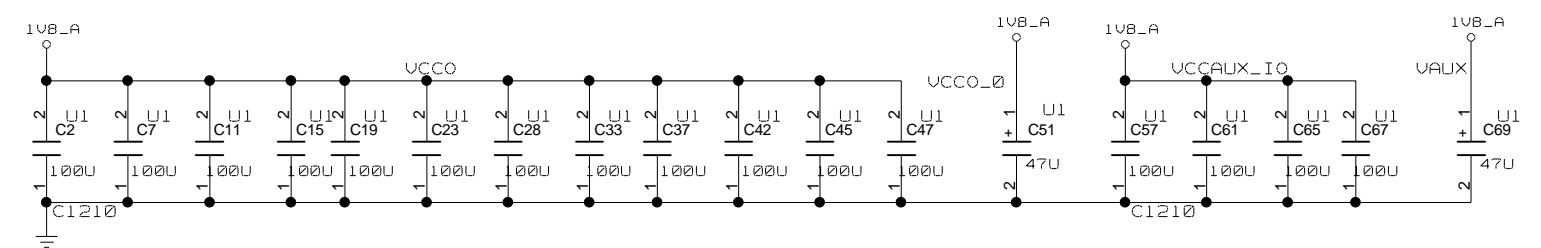
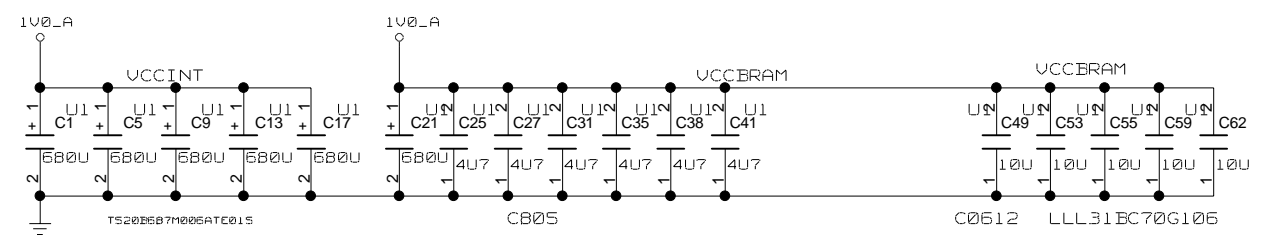


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	POWER		
	SIZE <b>C</b>	REV.	DRAWING NO.
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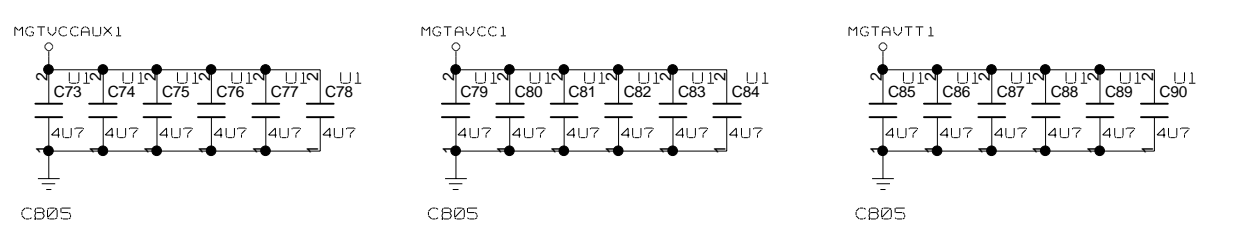
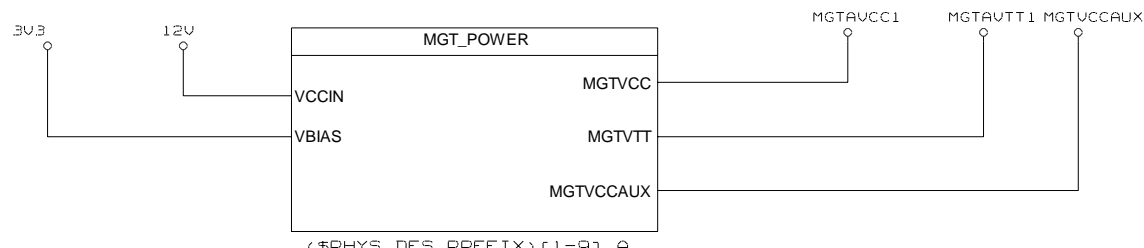
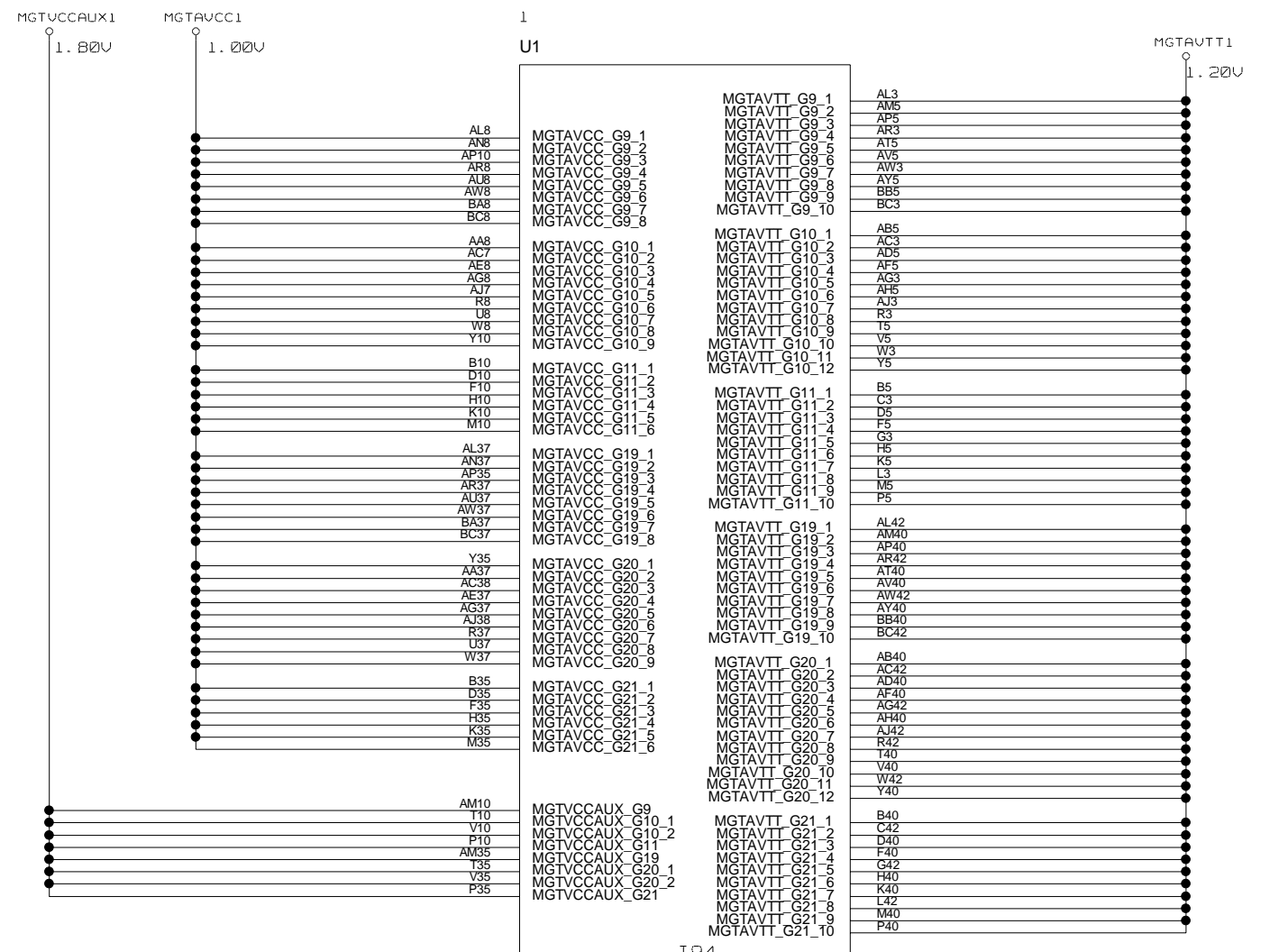


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POWER VIRTEX7

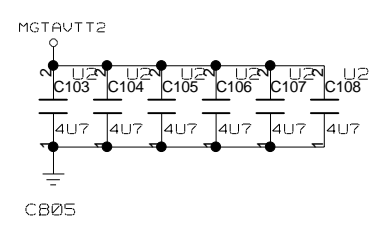
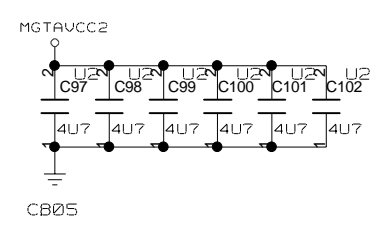
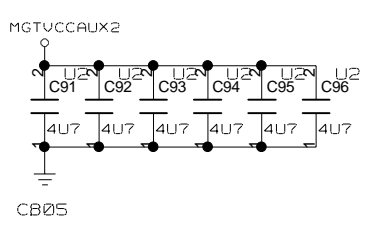
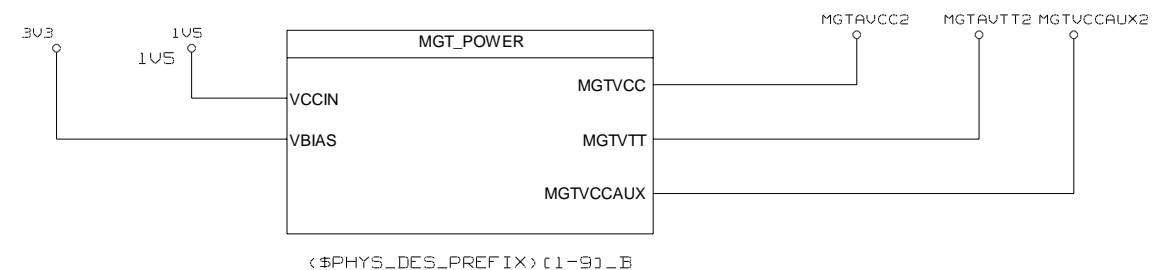
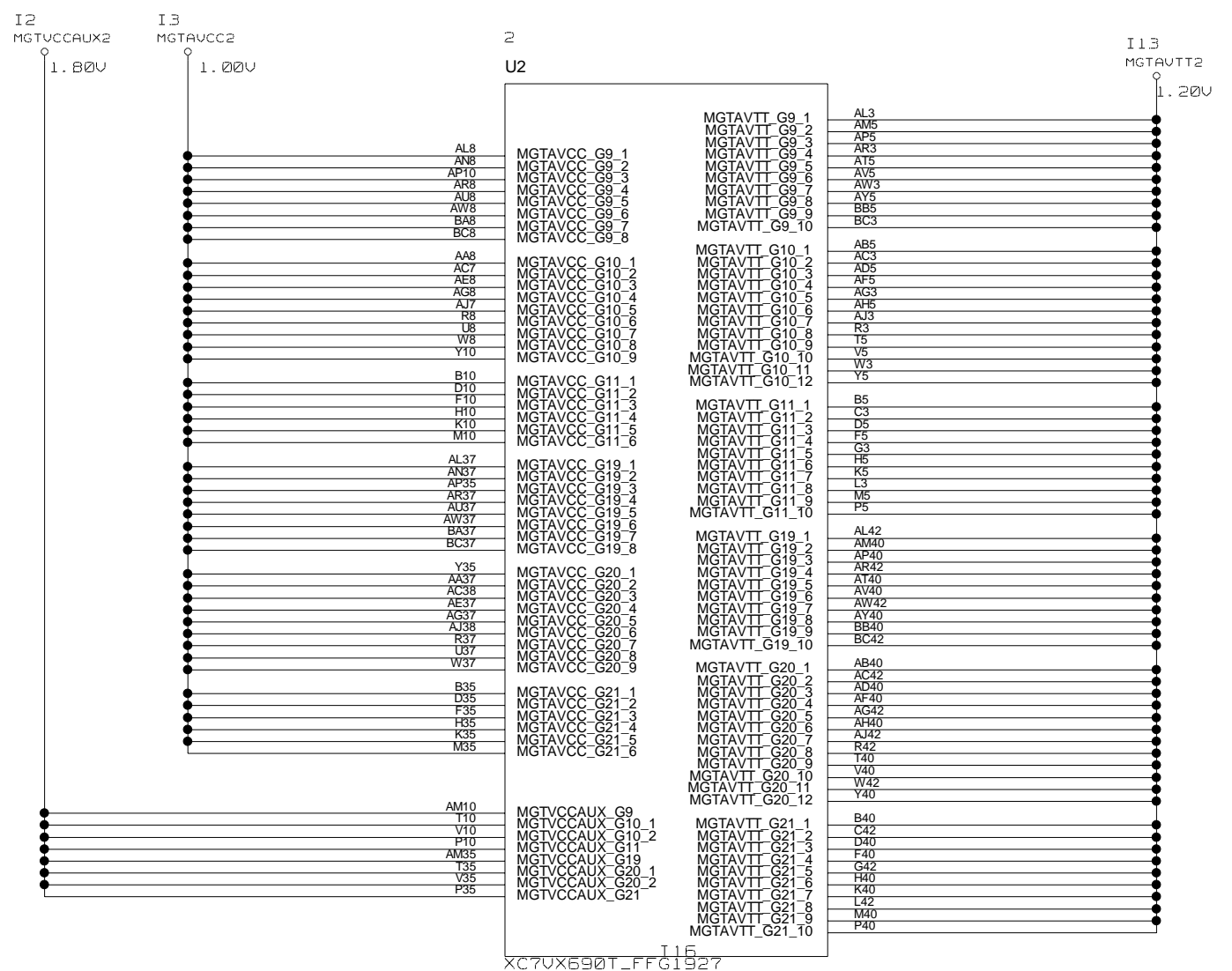
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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SIZE	REV.	DRAWING NO.	
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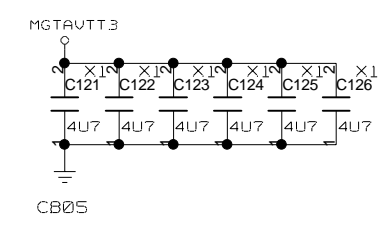
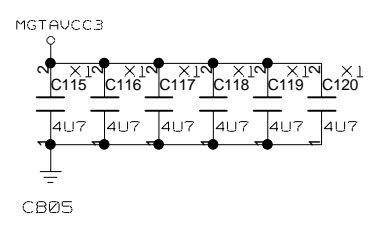
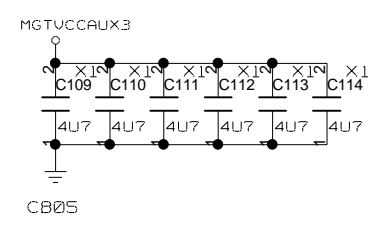
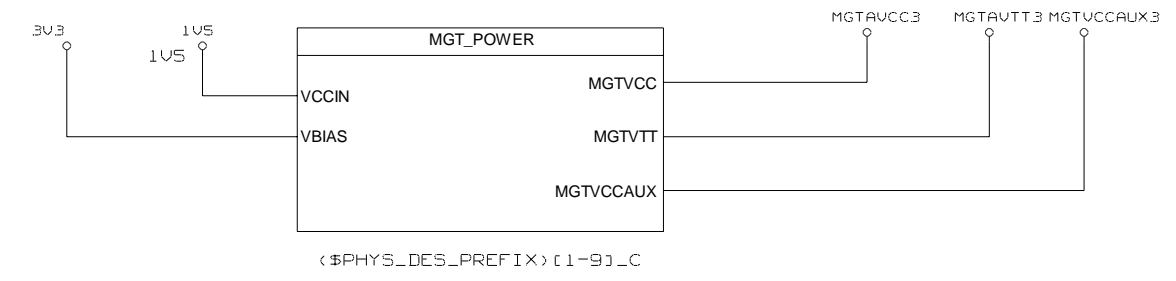
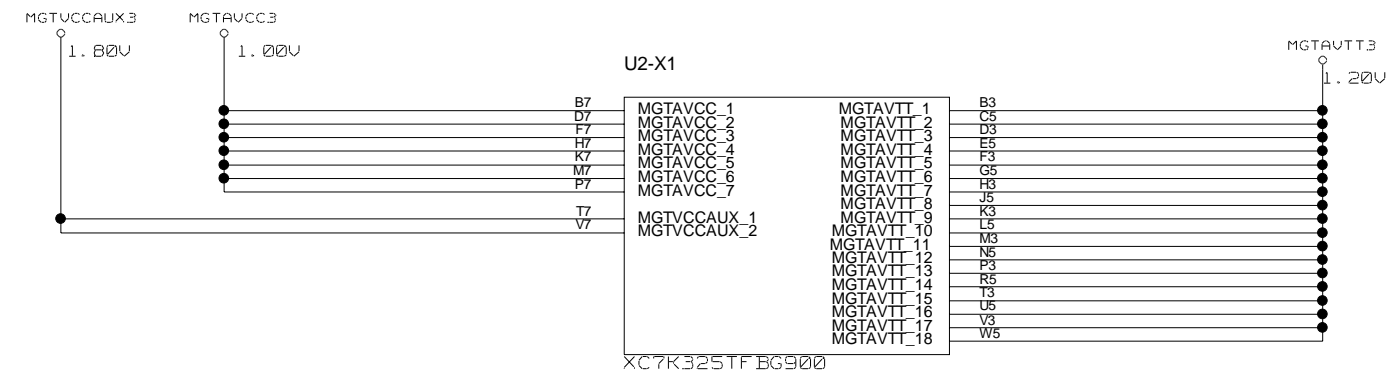
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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VIRTEX7 MGT POWER			
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ZONE	LTR	DESCRIPTION	DATE	APPR.

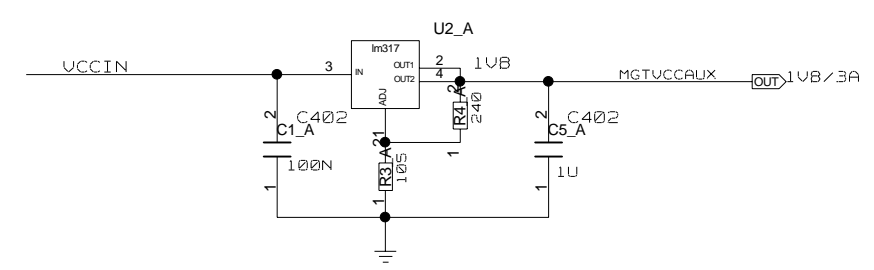
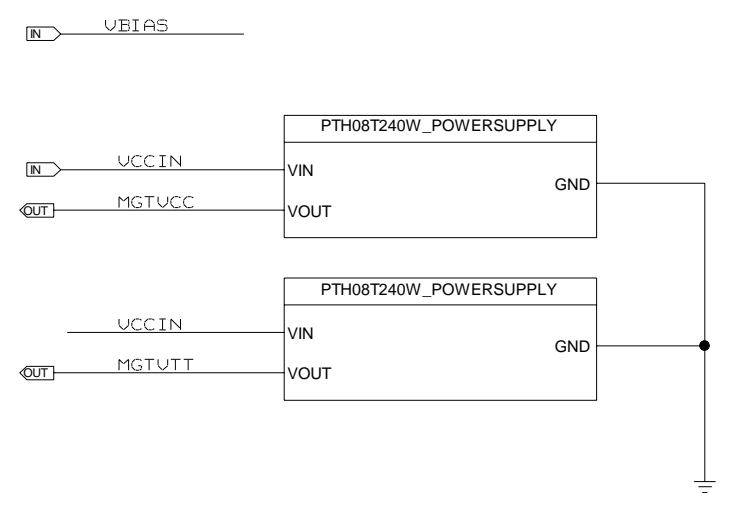


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KINTEX7 MGT POWER		
SIZE	REV.	DRAWING NO.
<b>C</b>		
SCALE		SHEET OF



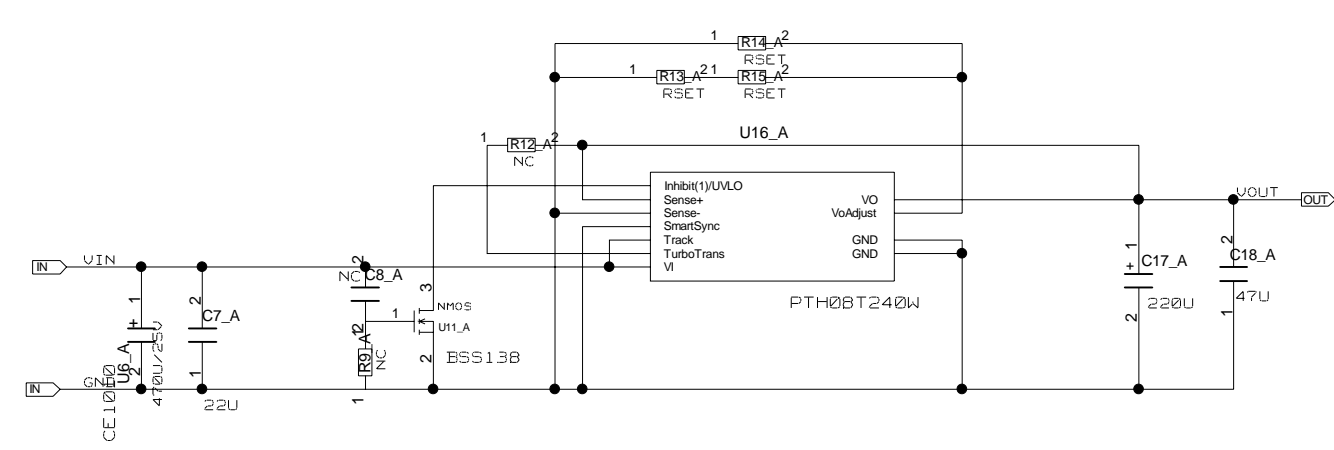
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ZONE	LTR	DESCRIPTION	DATE	APPR.



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POWERSUPPLY		MGT POWER		
SIZE <b>C</b>	REV.	DRAWING NO.		
SCALE			SHEET	OF



REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



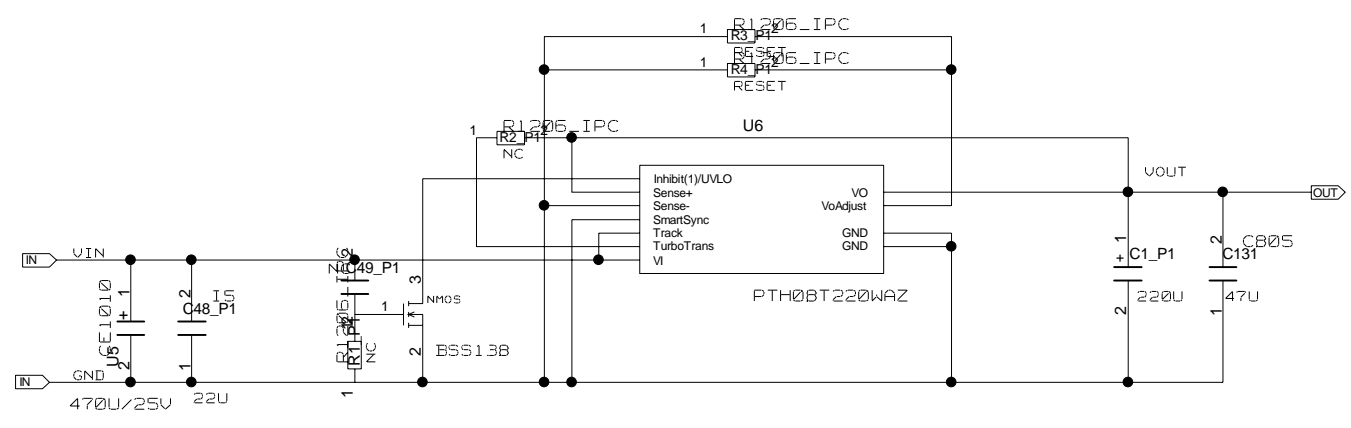
**Table 2. Output Voltage Set-Point Resistor Values (Standard Values)**

V <sub>O</sub> Required (V)	R <sub>SET</sub> (kΩ)	V <sub>O</sub> Required (V)	R <sub>SET</sub> (Ω)
0.70 <sup>(1)</sup>	681	2.50	2.37 k
0.75 <sup>(1)</sup>	113	2.60	2.15 k
0.80 <sup>(1)</sup>	61.9	2.70	2.00 k
0.85 <sup>(1)</sup>	41.2	2.80	1.82 k
0.90 <sup>(1)</sup>	31.8	2.90	1.69 k
0.95 <sup>(1)</sup>	24.9	3.00	1.54 k
1.00 <sup>(1)</sup>	20.5	3.10	1.43 k
1.05 <sup>(1)</sup>	17.8	3.20	1.33 k
1.10 <sup>(1)</sup>	15.4	3.30	1.21 k
1.15 <sup>(1)</sup>	13.3	3.40	1.10 k
1.20 <sup>(1)</sup>	12.1	3.50	1.02 k
1.25	10.7	3.60	931
1.30	9.88	3.70 <sup>(2)</sup>	866
1.35	9.09	3.80 <sup>(2)</sup>	787
1.40	8.25	3.90 <sup>(2)</sup>	715
1.45	7.68	4.00 <sup>(2)</sup>	649
1.50	6.98	4.10 <sup>(2)</sup>	590
1.55	6.49	4.20 <sup>(2)</sup>	536
1.60	6.04	4.30 <sup>(2)</sup>	475
1.65	5.78	4.40 <sup>(2)</sup>	432
1.70	5.36	4.50 <sup>(2)</sup>	383
1.75	5.11	4.60 <sup>(2)</sup>	332
1.80	4.75	4.70 <sup>(2)</sup>	287
1.85	4.53	4.80 <sup>(2)</sup>	249
1.90	4.22	4.90 <sup>(2)</sup>	210
1.95	4.02	5.00 <sup>(2)</sup>	169
2.00	3.83	5.10 <sup>(2)</sup>	133
2.10	3.40	5.20 <sup>(2)</sup>	100
2.20	3.09	5.30 <sup>(2)</sup>	66.5
2.30	2.67	5.40 <sup>(2)</sup>	34.8
2.40	2.61	5.50 <sup>(2)</sup>	4.99

(1) For output voltages ≤ 1.2V, at nominal operating frequency, the output ripple may increase (typically 2x) when operating at input voltages greater than (V<sub>O</sub> × 11). When using the SmartSync feature, review the SmartSync application section for further guidance.  
(2) For V<sub>O</sub> > 3.6 V, the minimum input voltage is (V<sub>O</sub> + 2) V.

UNIVERSITY OF MAINZ		DRAWING TITLE	
		PTH0BT240W_POWER SUPPLY	
SIZE	REV.	DRAWING NO.	
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$$R_{SET} = 10 \text{ k}\Omega \times \frac{0.69}{V_O - 0.69} - 1.43 \text{ k}\Omega$$

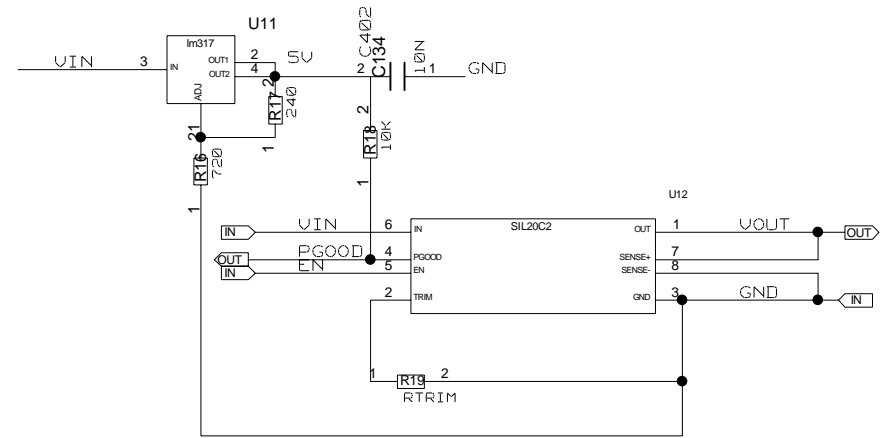
**Table 1. Standard Values of R<sub>SET</sub> for Standard Output Voltages**

V <sub>O</sub> (Standard)	R <sub>SET</sub> (Standard Value)	V <sub>O</sub> (Actual)
5.0 V <sup>(1)</sup>	169 Ω	5.005 V
3.3 V	1.21 kΩ	3.304 V
2.5 V	2.37 kΩ	2.506 V
1.8 V	4.75 kΩ	1.807 V
1.5 V	6.98 kΩ	1.510 V
1.2 V <sup>(2)</sup>	12.1 kΩ	1.200 V
1.0 V <sup>(2)</sup>	20.5 kΩ	1.004 V
0.7 V <sup>(2)</sup>	681 kΩ	0.700 V

UNIVERSITY OF MAINZ  
POWER SUPPLY

DRAWING TITLE			
PTH0BT220W_POWER SUPPLY			
SIZE	REV.	DRAWING NO.	
<b>C</b>			
SCALE			SHEET OF

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPR.



The resistor trim equation for the SIL20C2 is as follows:

$$R_{trim} \text{ (k}\Omega\text{)} = \frac{1.182}{(V_{out} - 0.591)}$$

UNIVERSITY OF MAINZ	DRAWING TITLE		
	SIL20C2_POWER SUPPLY		
POWER SUPPLY	SIZE <b>C</b>	REV.	DRAWING NO.
	SCALE		SHEET OF