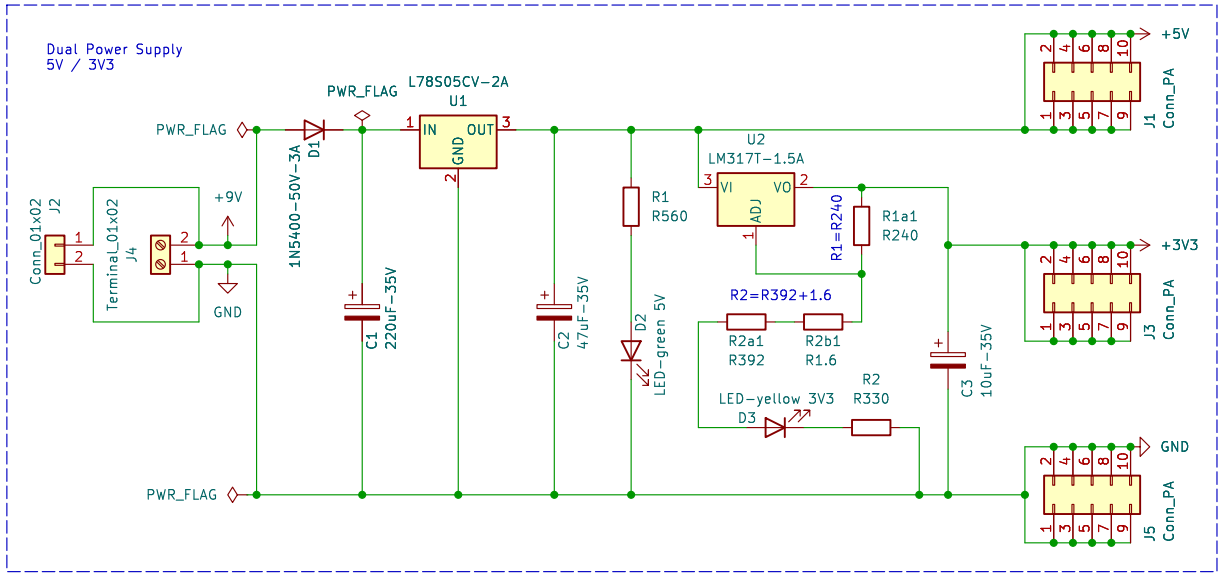

R1 vs R2 Grid

R2\R1	150	180	220	240	270	330	370	390	470
68	1.82	1.72	1.64	1.60	1.56	1.51	1.48	1.47	1.43
82	1.93	1.82	1.72	1.68	1.63	1.56	1.53	1.51	1.47
100	2.08	1.94	1.82	1.77	1.71	1.63	1.59	1.57	1.52
120	2.25	2.08	1.93	1.88	1.81	1.70	1.66	1.63	1.57
150	2.50	2.29	2.10	2.03	1.94	1.82	1.76	1.73	1.65
180	2.75	2.50	2.27	2.19	2.08	1.93	1.86	1.83	1.73
220	3.08	2.78	2.50	2.40	2.27	2.08	1.99	1.96	1.84
240	3.25	2.92	2.61	2.50	2.36	2.16	2.06	2.02	1.89
270	3.50	3.13	2.78	2.66	2.50	2.27	2.16	2.12	1.97
330	4.00	3.54	3.13	2.97	2.78	2.50	2.36	2.31	2.13
370	4.33	3.82	3.35	3.18	2.96	2.65	2.50	2.44	2.23
390	4.50	3.96	3.47	3.28	3.06	2.73	2.57	2.50	2.29
470	5.17	4.51	3.92	3.70	3.43	3.03	2.84	2.76	2.50
560	5.92	5.14	4.43	4.17	3.84	3.37	3.14	3.04	2.74
680	6.92	5.97	5.11	4.79	4.40	3.83	3.55	3.43	3.06
820	8.08	6.94	5.91	5.52	5.05	4.36	4.02	3.88	3.43
1000	9.58	8.19	6.93	6.46	5.88	5.04	4.63	4.46	3.91
1200	11.25	9.58	8.07	7.50	6.81	5.80	5.30	5.10	4.44
1500	13.75	11.67	9.77	9.06	8.19	6.93	6.32	6.06	5.24
1800	16.25	13.75	11.48	10.63	9.58	8.07	7.33	7.02	6.04
2200	19.58	16.53	13.75	12.71	11.44	9.58	8.68	8.30	7.10
2700	23.75	20.00	16.59	15.31	13.75	11.48	10.37	9.90	8.43
3300	28.75	24.17	20.00	18.44	16.53	13.75	12.40	11.83	10.03

Formel: Vout = 1.25V * (1 + R2/R1)

R1 = 240 Ohm

R2 =

3.3V = 1.25V * (1 + R2/240)

Jetzt lösen wir nach R2 auf:

R2/240 = 3.3V / 1.25V – 1
R2/240 = 2.64 – 1
R2/240 = 1.64

R2 = 1.64 * 240
R2 ≈ 393.6 Ohm

Vout = 1.25V * (1 + R2/R1)
Vout = 1.25V * (1 + 393.6/240)
Vout = 1.25V * (1 + 1.64)
Vout = 1.25V * 2.64
Vout ≈ 3.30V

Widerstände Metallschicht E96 Reihe 1%
R2 = 392 + 1.6

Resistors R1, R2: E96 series, Metall, 1% Tolerance
Input: 7–15V DC, 2–3A | Output: 5V DC (max. 2A) + 3V3 DC (max. 1.5A)

Design by Andreas Potthoff | github.com/ElectroDrome

Sheet: /Mainboard/Dual Power Supply/
File: power_supply.kicad_sch

Title: Dual Power Supply 5V / 3V3

Size: A4	Date: 2025-07-02	**Rev: 1.0**
KiCad E.D.A. 9.0.1		Id: 4/6