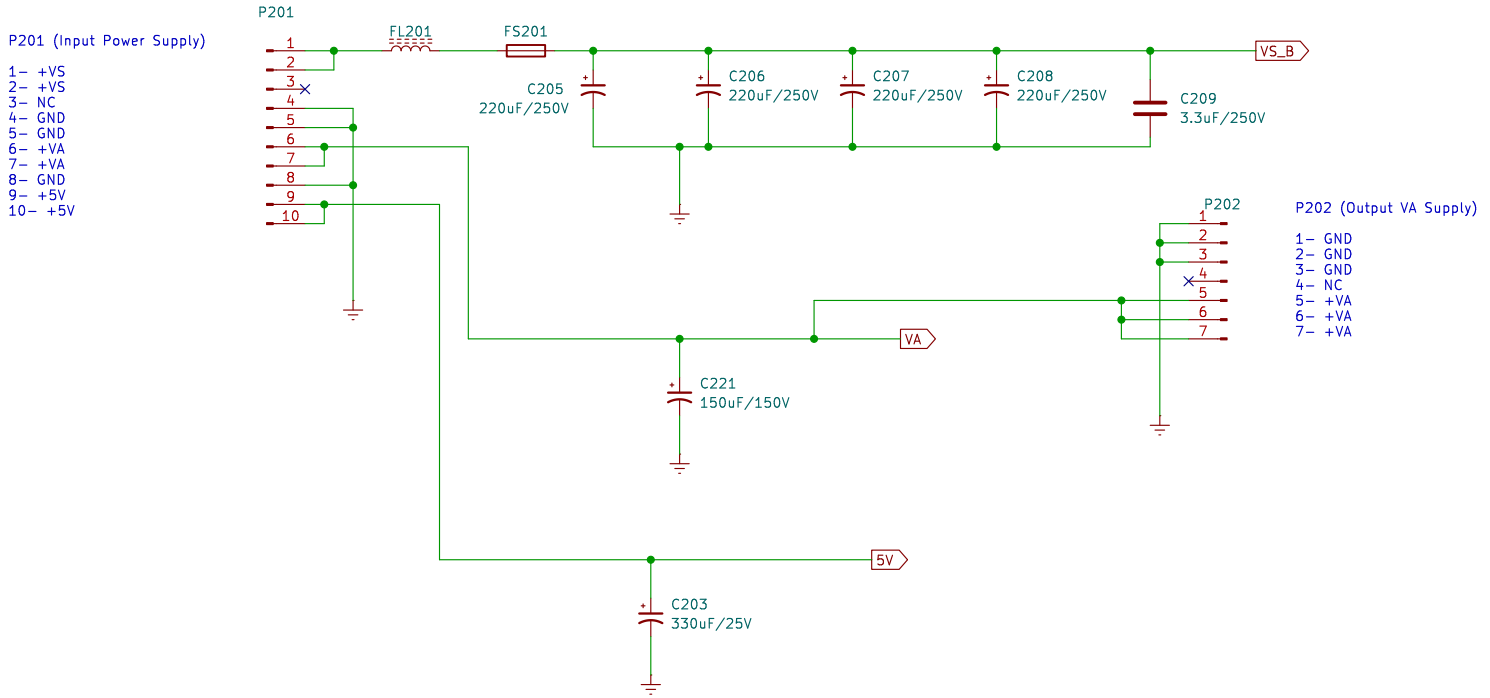
VOLTAGES SUPPLY



VS Voltage supply
Author: Fábio Pereira da Silva

Sheet: /
File: y_board.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

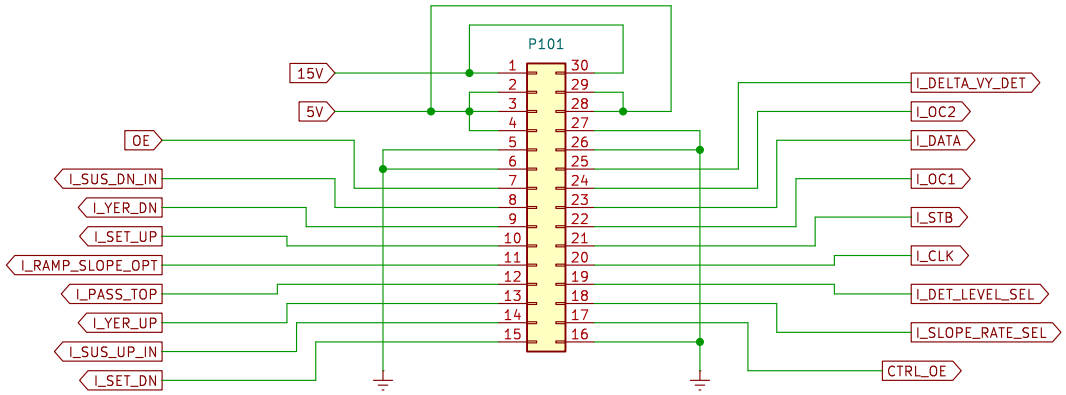
Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 1/23

Input Control (Part 1 of 3)

P101

1- 15V
2- 5V
3- 5V
4- 5V
5- GND
6- GND
7- (2- OE)
8- (4- I_YSUS_DN_IN)
9- (6- I_YER_DN)
10- (8- I_SET_UP)
11- (10- I_RAMP_SLOPE_OPT)
12- (12- I_PASS_TOP)
13- (14- I_YER_UP)
14- (16- I_SUS_UP_IN)
15- (18- I_SET_DN)

30- 15V
29- 5V
28- 5V
27- GND
26- GND
25- (1 - I_DELTA_VY_DET)
24- (3- I_OC2)
23- (5- I_DATA)
22- (7- I_OC1)
21- (9- I_STB)
20- (11- I_CLK)
19- (13- I_DET_LEVEL_SEL)
18- (15- I_SLOPE_RATE_SEL)
17- (17- I_CTRL_OE)
16- GND



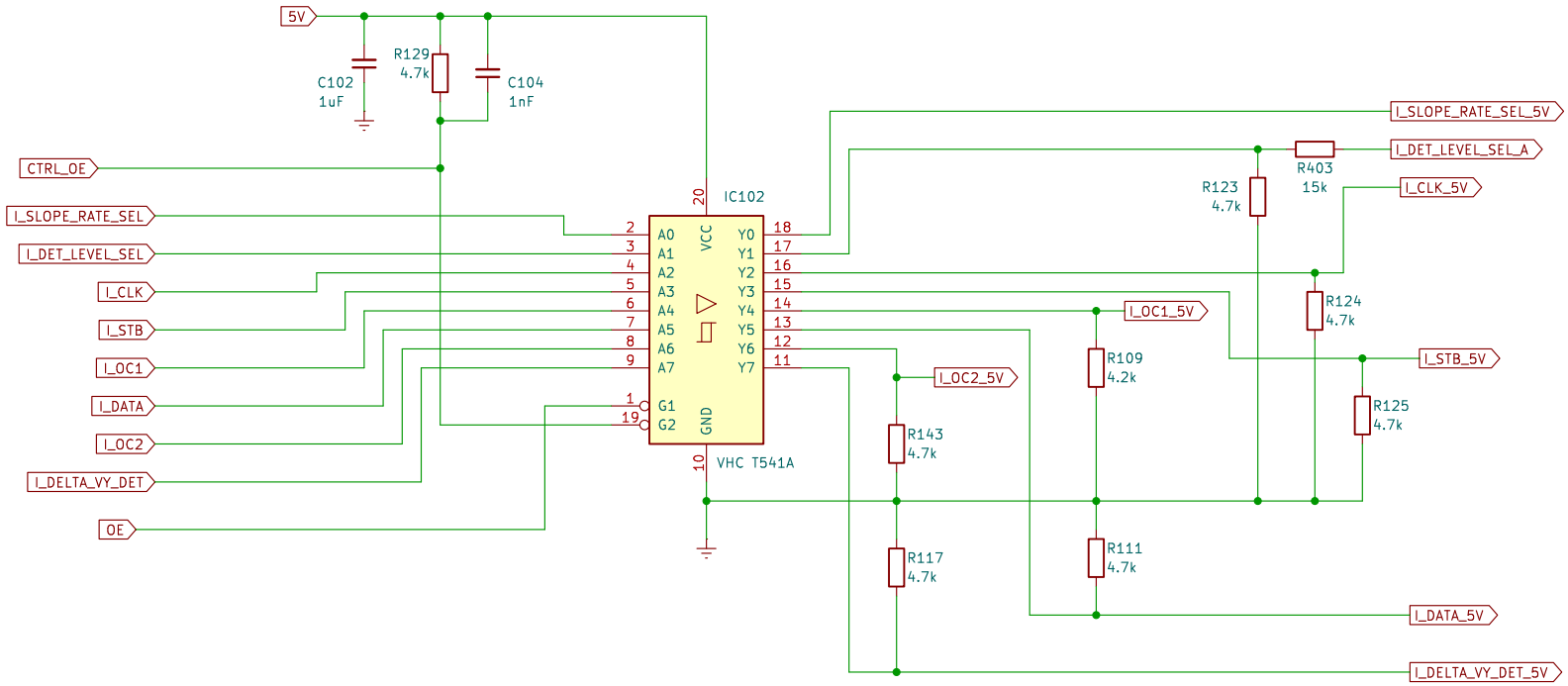
Input Control (Part 1 of 3)
Author: Fábio Pereira da Silva

Sheet: /Input control (Part 1 of 3)/
File: input_control.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 2/23

Input Control (Part 2 of 3)



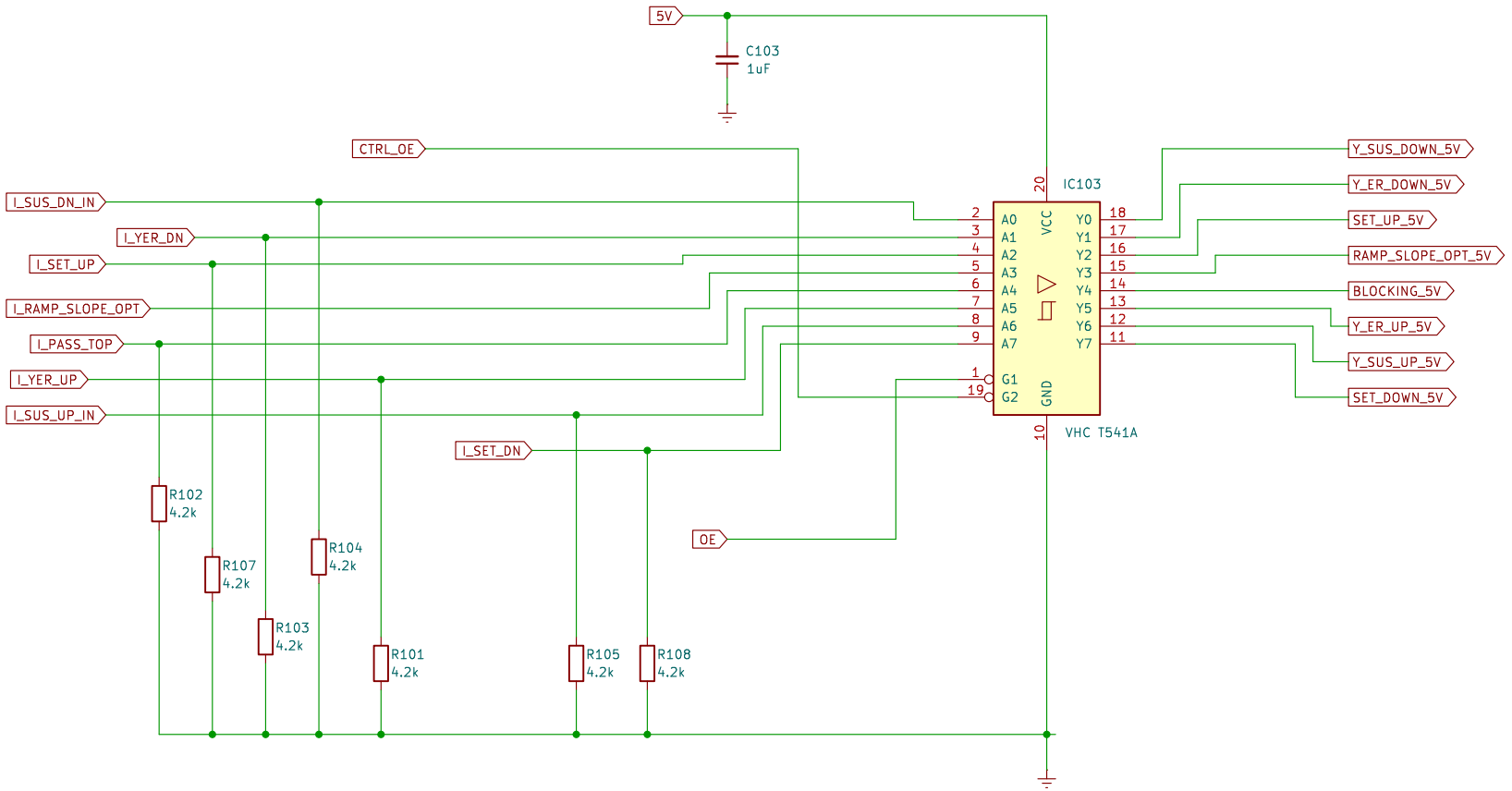
Input Control (Part 2 of 3)
Author: Fábio Pereira da Silva

Sheet: /Input control (Part 2 of 3)/
File: input_control2.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 3/23

Input Control (Part 3 of 3)



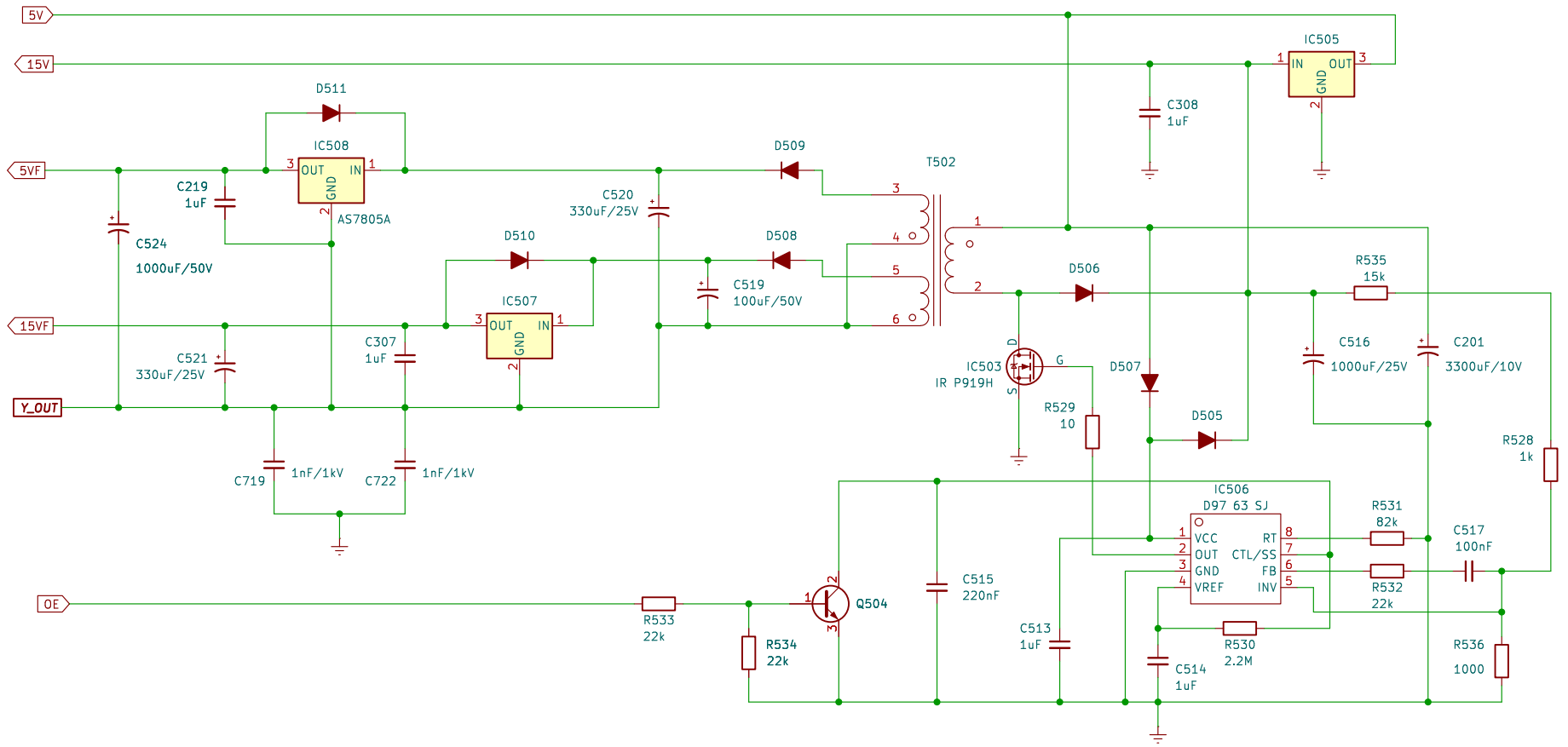
Input Control (Part 3 of 3)
Author: Fábio Pereira da Silva

Sheet: /Input control (Part 3 of 3)/
File: input_control3.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 4/23

5VF, 15VF and 15V Supply



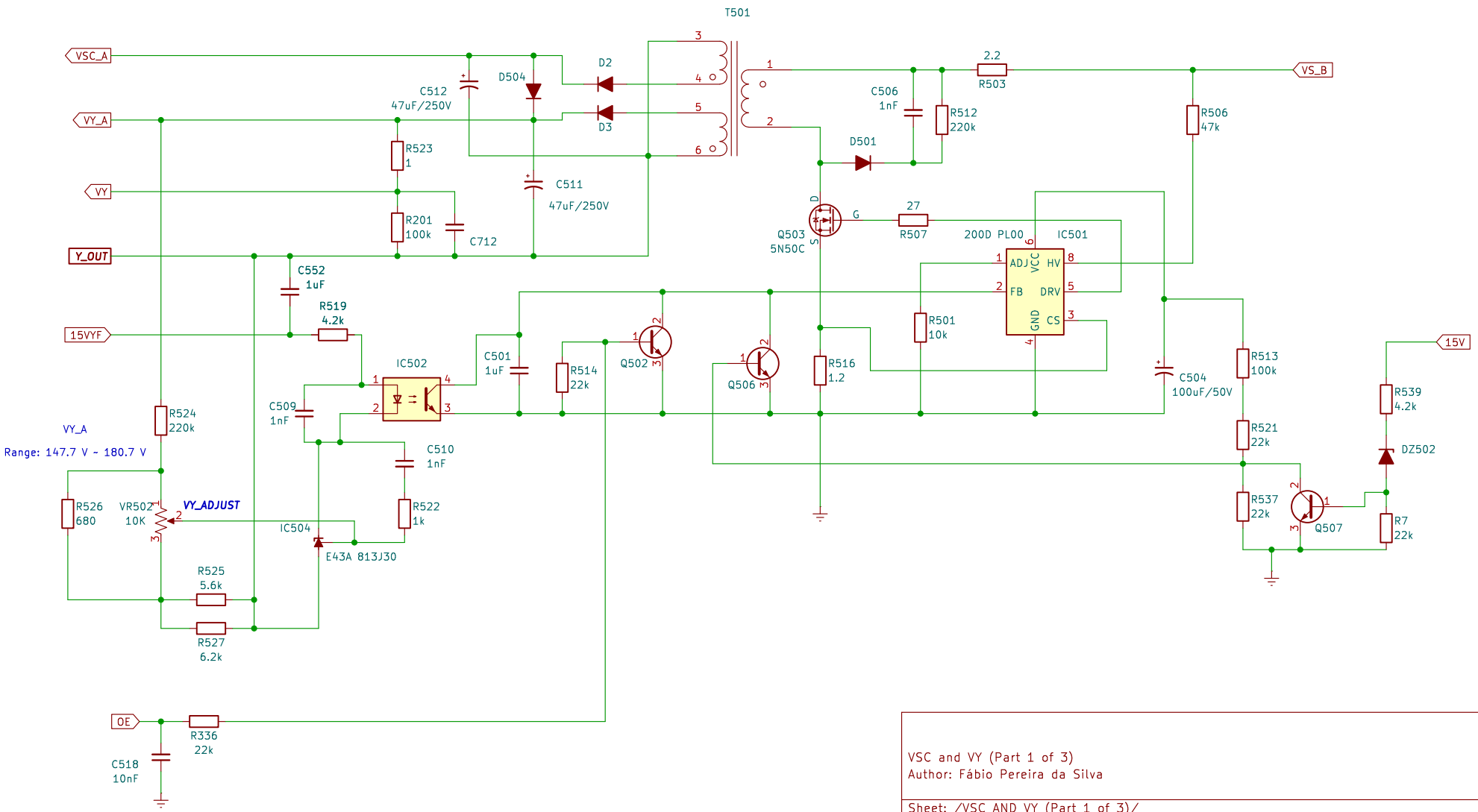
5VF, 15VF and 15V Supply
Author: Fábio Pereira da Silva

Sheet: /5VF, 15VF 15v/
File: 5VF_15VF_15V.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 5/23

VSC and VY (Part 1 of 3)



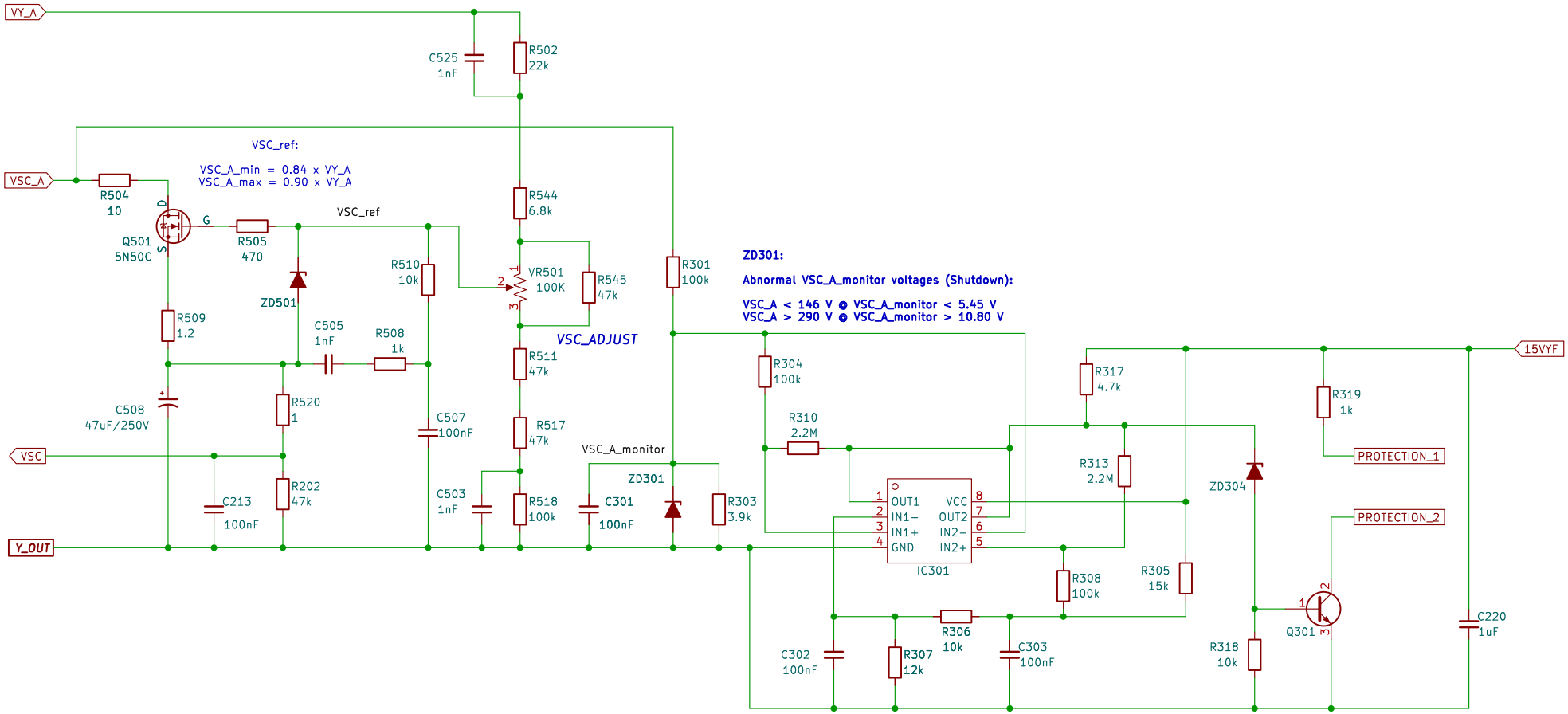
VSC and VY (Part 1 of 3)
Author: Fábio Pereira da Silva

Sheet: /VSC AND VY (Part 1 of 3)/
File: vsc_and_vy.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 6/23

VSC and VY (Part 2 of 3)



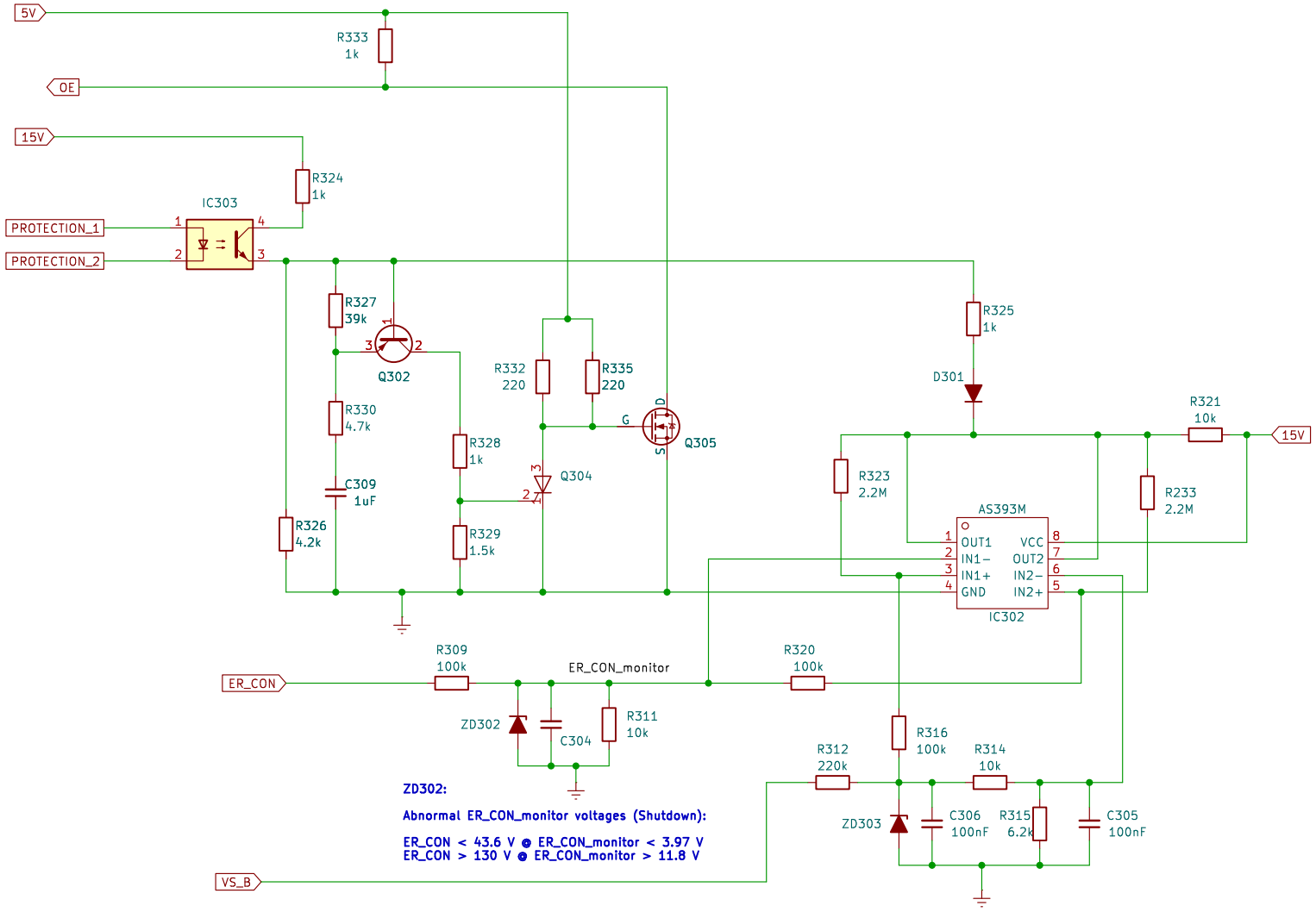
VSC and VY (Part 2 of 3)
Author: Fábio Pereira da Silva

Sheet: /VSC and VY (Part 2 of 3)/
File: vcs_and_vy_part2_of_3.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 7/23

VSC and VY (Part 3 of 3)



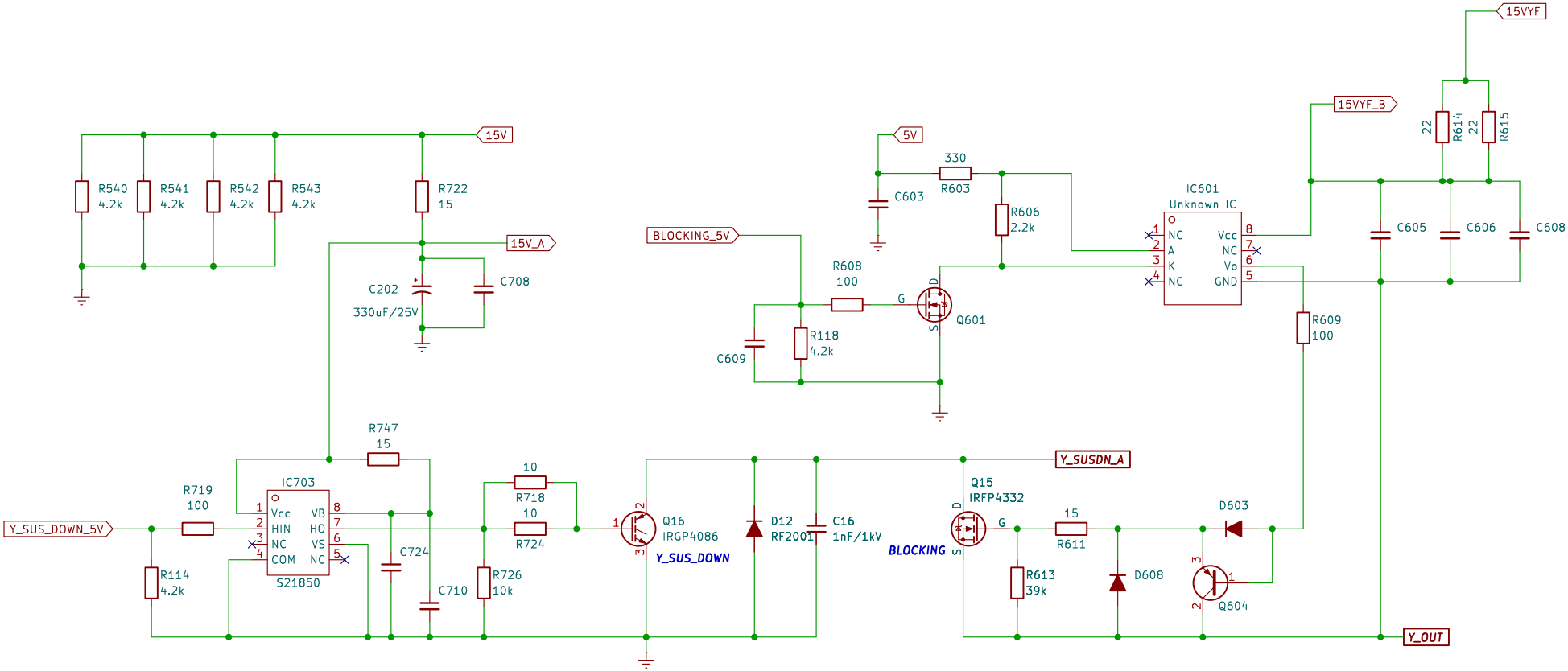
Author: Fábio Pereira da Silva

Sheet: /VSC and VY (Part 3 of 3)/
File: vsc_and_vy_part3_of_3.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 8/23

Y BLOCKING AND Y SUS DOWN



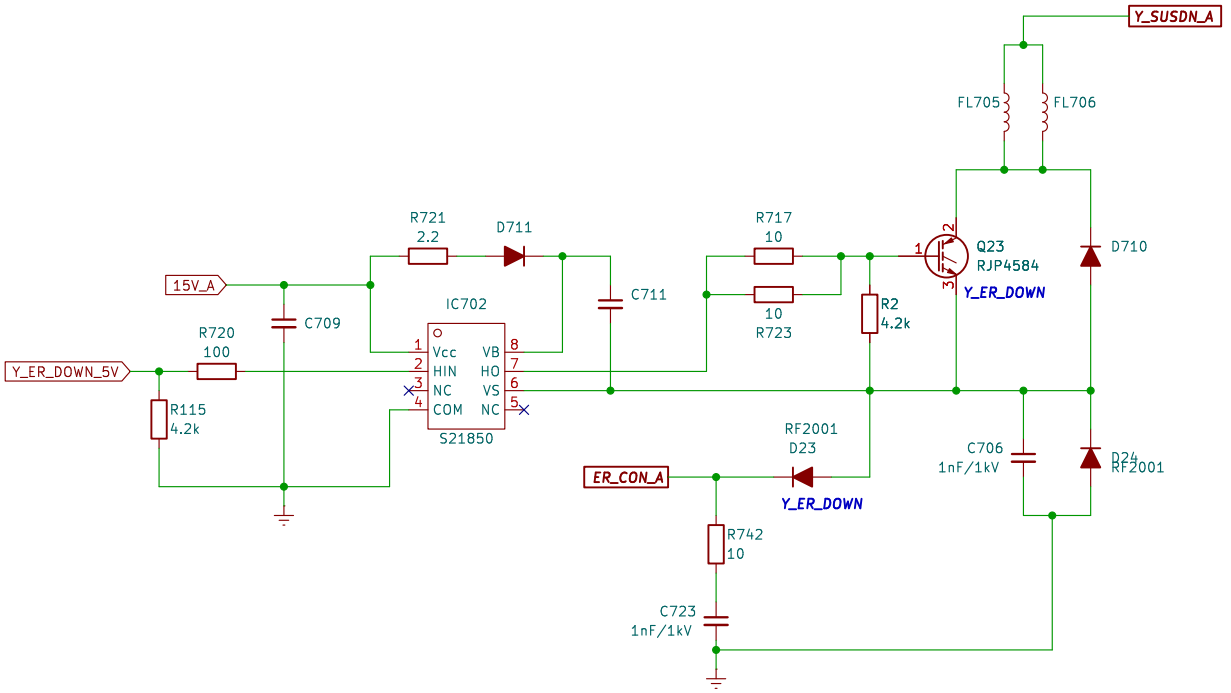
Y_BLOCKING | Y_SUS_DOWN
Author: Fábio Pereira da Silva

Sheet: /Y_SUS_DOWN_AND_Y_BLOCKING/
File: y_sus_dn_and_blocking.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 9/23

Y ENERGY RECOVERY DOWN



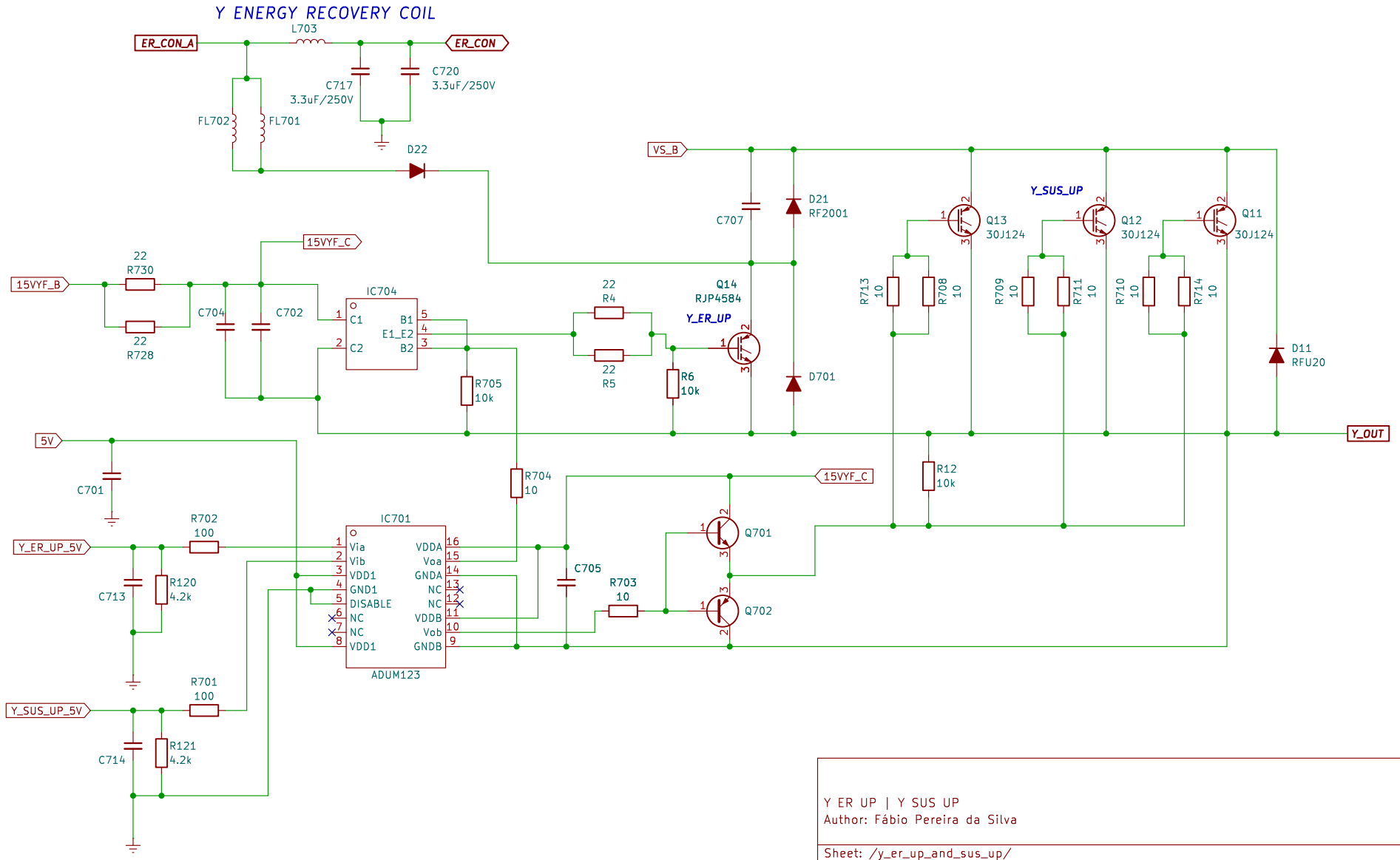
Y ER DOWN
Author: Fábio Pereira da Silva

Sheet: /y_er_down/
File: y_er_down.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 10/23

Y ENERGY RECOVERY UP AND Y SUS UP



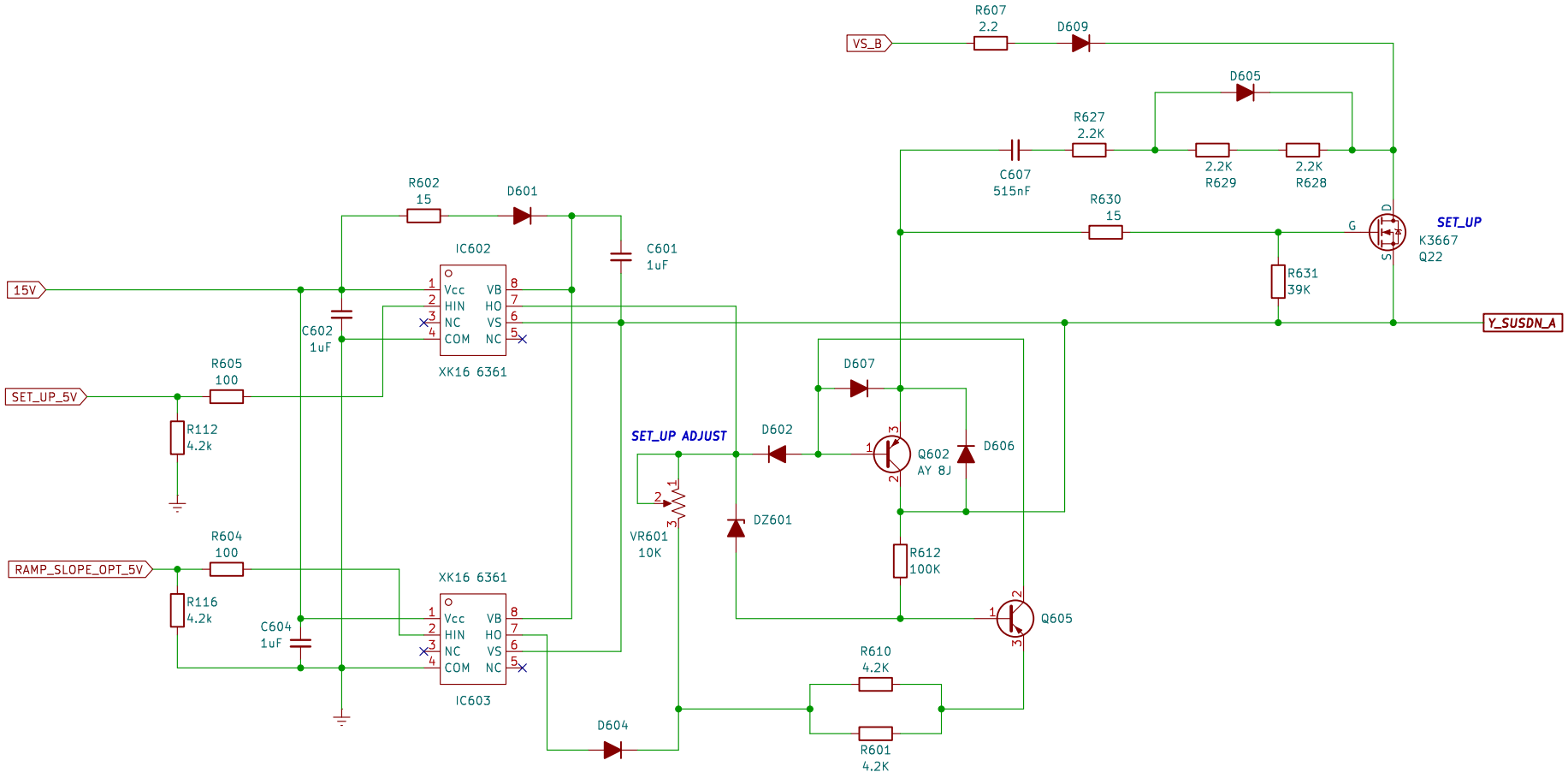
Y ER UP | Y SUS UP
Author: Fábio Pereira da Silva

Sheet: /y_er_up_and_sus_up/
File: y_er_up_and_sus_up.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 11/23

SET UP



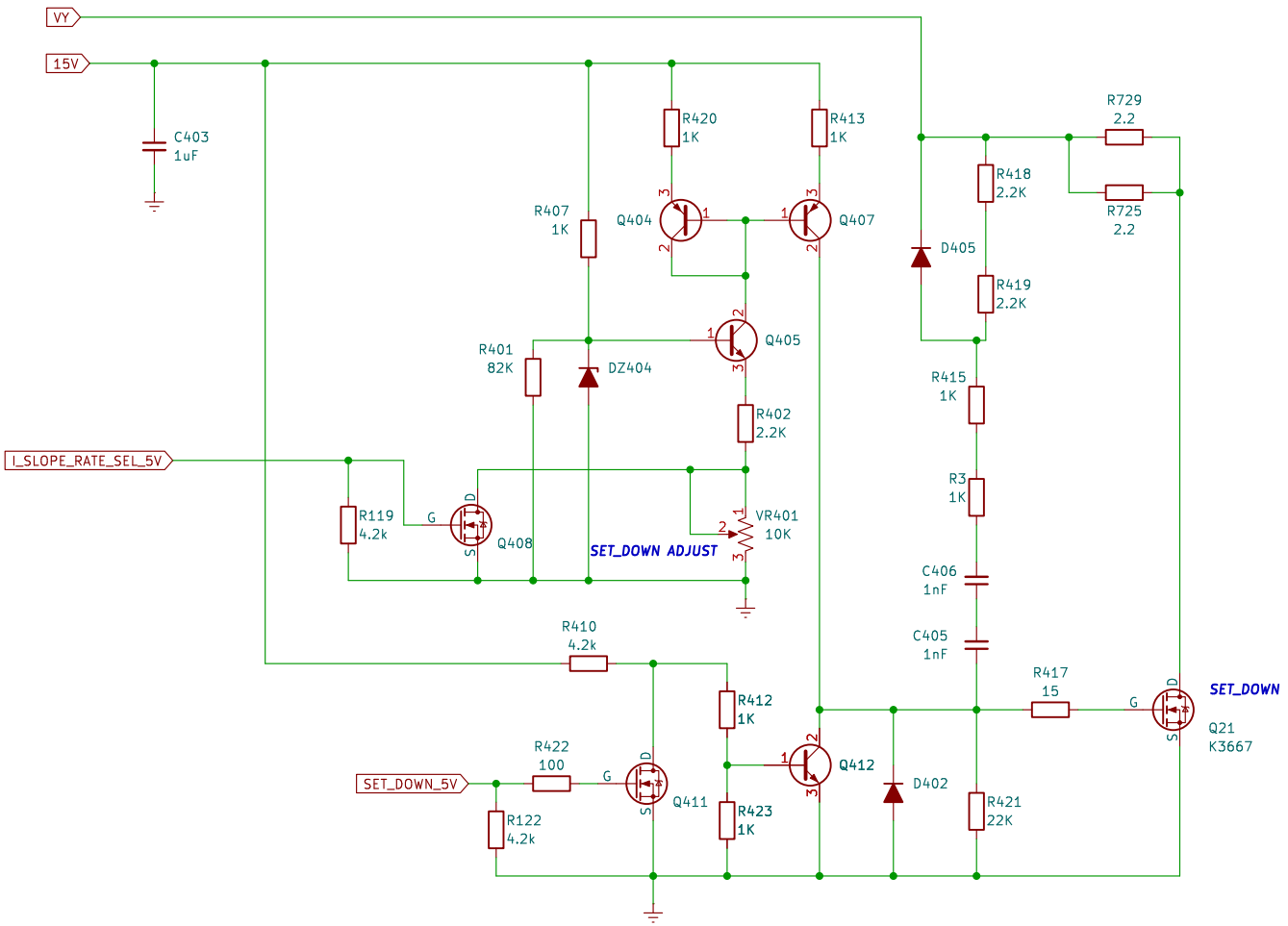
Set Up
Author: Fábio Pereira da Silva

Sheet: /SetUp/
File: set_up.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 12/23

SET DOWN



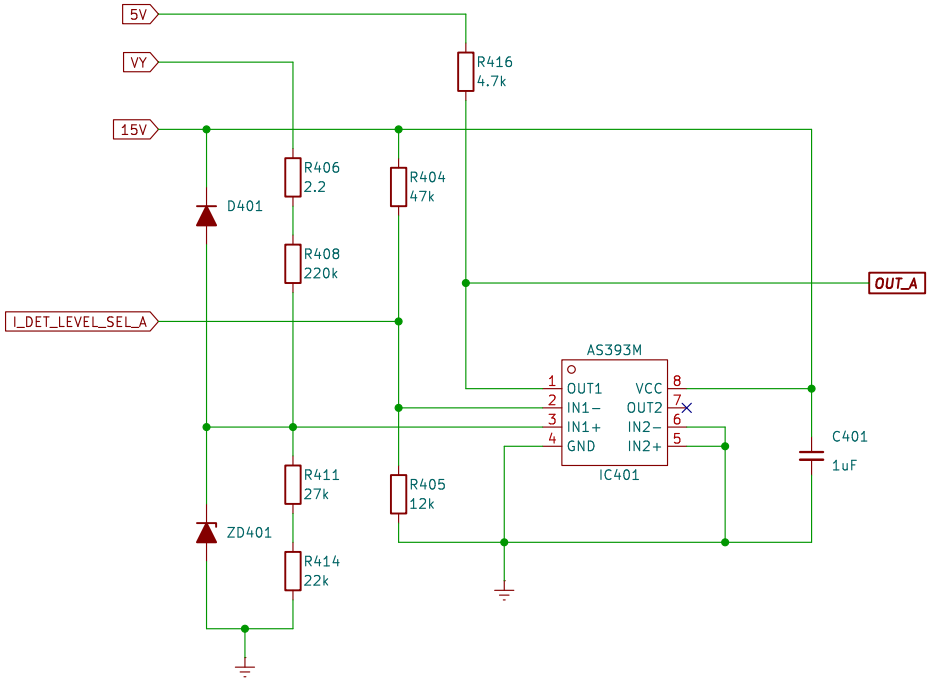
Author: Fábio Pereira da Silva

Sheet: /SetDown/
File: set_down.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 13/23

OUPUT CONTROL (Part 1 of 4)



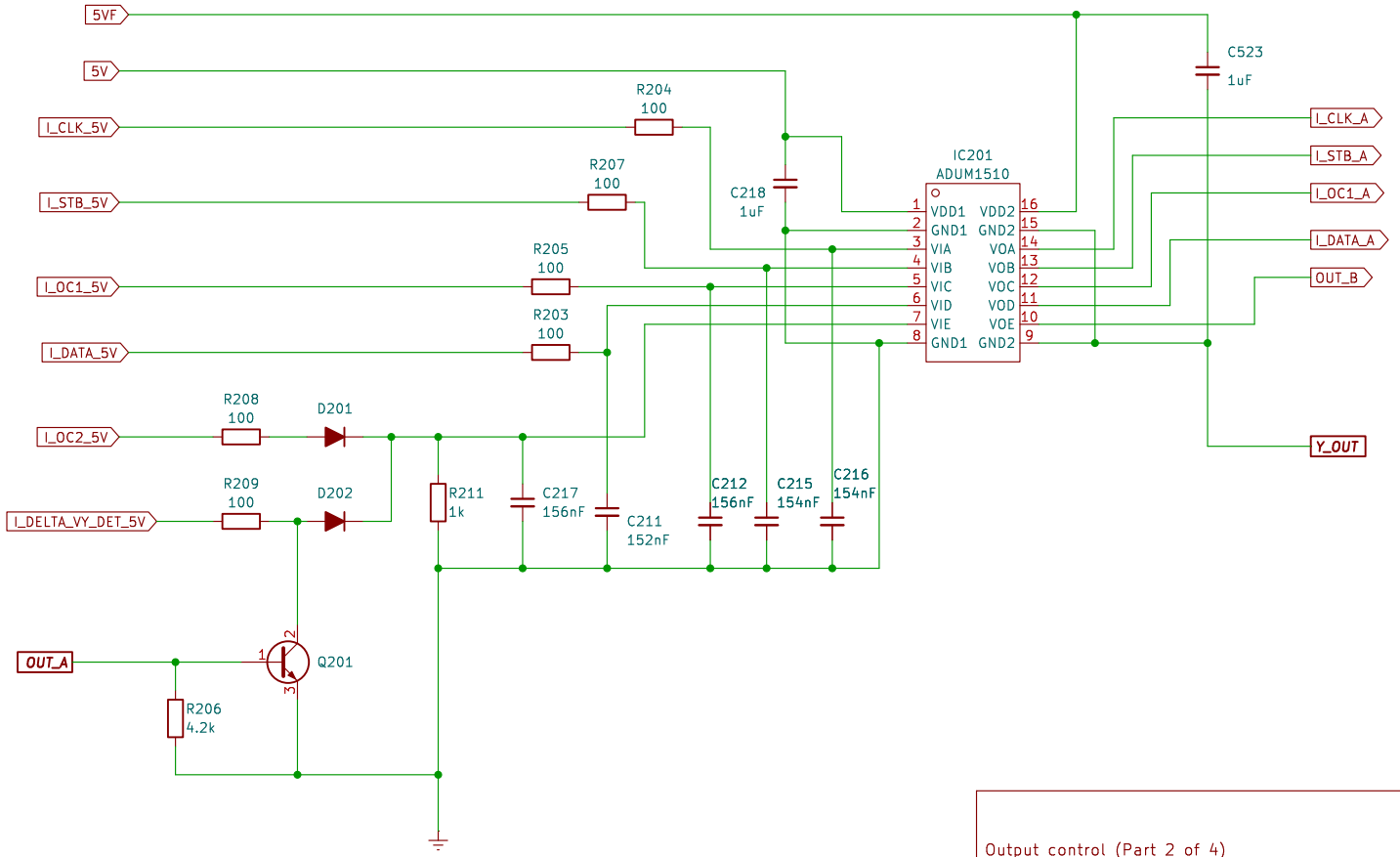
Output Control (Part 1 of 4)
Author: Fábio Pereira da Silva

Sheet: /Output Control (Part 1 of 4)/
File: output_control.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 14/23

OUPUT CONTROL (Part 2 of 4)



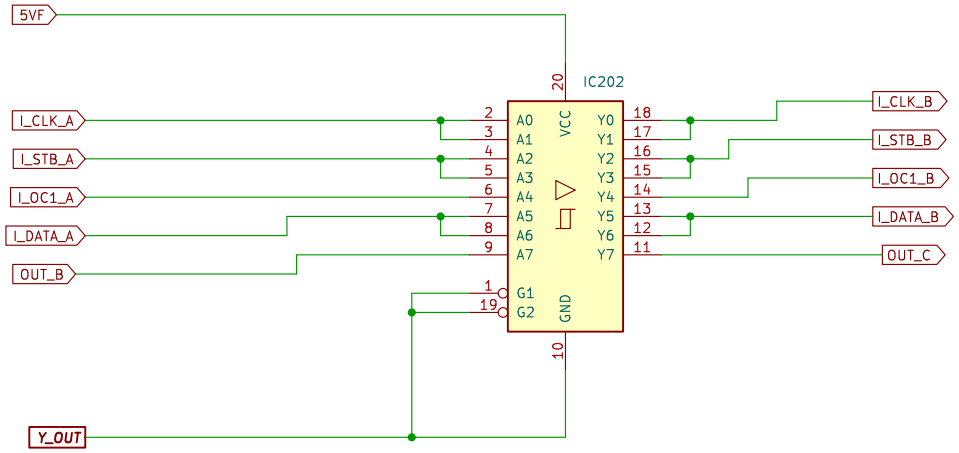
Output control (Part 2 of 4)
Author: Fábio Pereira da Silva

Sheet: /Output Control (Part 2 of 4)/
File: output_control2.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 15/23

OUPUT CONTROL (Part 3 of 4)



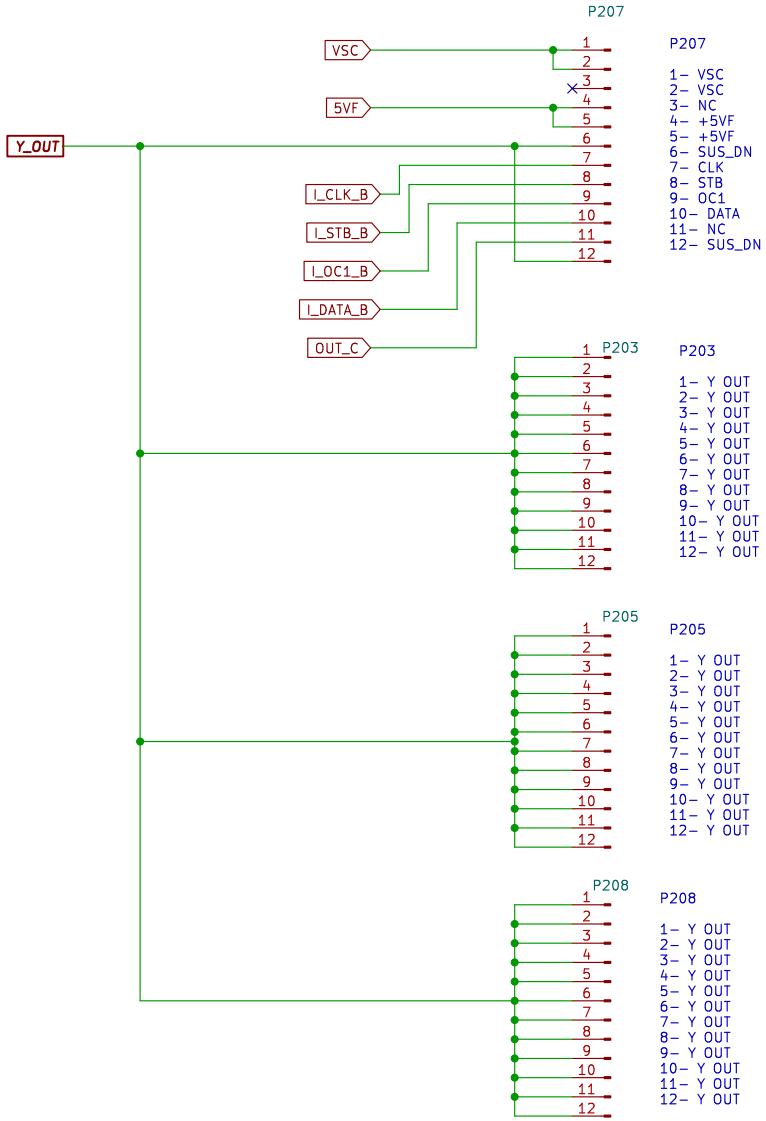
Output control (Part 3 of 4)
Author: Fábio Pereira da Silva

Sheet: /Output Control (Part 3 of 4)/
File: output_control3.kicad_sch

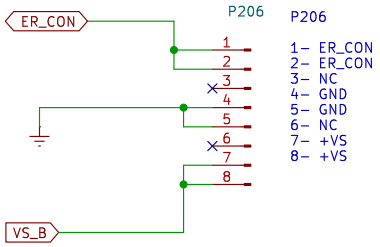
Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 16/23

OUPUT CONTROL (Part 4 of 4)



NOTES:
======
- Serigraphy notation in P207 (Y Out) is called SUS_DN
- Pin 11 in P207 in Serigraphy is NC but is connected to output pin 11 in IC 202



Output Control (Part 4 of 4)
Author: Fábio Pereira da Silva

Sheet: /Output Control (Part 4 of 4)/
File: output_control4.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 17/23

Measurements (P201)

P201

Res (OHMS)	Reverse bias (V)	Foward bias (V)
1 >200k	1- 0.551	1- OL
2 >200k	2- 0.551	2- OL
3- -	3- -	3- -
4- 0	4- 0	4- 0
5- 0	5- 0	5- 0
6- >1M	6- OL	6- OL
7- >1M	7- OL	7- OL
8- 0	8- 0	8- 0
9- 2.2k	9- 0.504	9- 1.1
10- 2.2k	10- 0.504	10- 1.1

MEASUREMENTS (P201)
Author: Fábio Pereira da Silva

Sheet: /Measurements P201/
File: measurements.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 18/23

Measurements (P206)

P206

Res (OHMS)	Reverse bias (V)	Foward bias (V)
1- 110k	1- 0.769	1- OL
2- 110k	2- 0.769	2- OL
3- OL	3- OL	3- OL
4- 0	4- 0	4- 0
5- 0	5- 0	5- 0
6- OL	6- OL	6- OL
7- OL	7- 0.550	7- OL
8- OL	8- 0.550	8- OL

Measurements P206
Author: Fábio Pereira da Silva

Sheet: /Measurements P206/
File: measurements_p206.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 | Date: 2025-03-24 | **Rev: 1.0**
KiCad E.D.A. 8.0.9 | Id: 19/23

Measurements (P101)

P101

	Res (OHMS)	Reverse bias (V)	Foward bias (V)
1	917	0.495	0.945
2	918	0.495	0.944
3	2.264k	0.503	1.089
4	2.240k	0.503	1.090
5	2.220k	0.502	1.089
6	2.240k	0.503	1.089
7	2.242k	0.503	1.089
8	0	0	0
9	0	0	0
10	0	0	0
11	0	0	0
12	OL	0.658	OL
13	3.2k	0.614	1.804
14	OL	0.659	OL
15	4.699k	0.650	2.723
16	OL	0.659	OL
17	4.695k	0.650	2.722
18	OL	0.660	OL
19	4.708k	0.651	2.724
20	OL	0.660	OL
21	OL	0.657	OL
22	OL	0.660	OL
23	4.689k	0.650	2.720
24	OL	0.660	OL
25	4.676k	0.650	2.718
26	OL	0.660	OL
27	4.699k	0.650	2.723
28	7.7k	0.617	2.926
29	4.685k	0.649	2.720
30	0	0	0

Measurements (P101)
Author: Fábio Pereira da Silva

Sheet: /Measurements P101/
File: measurements_p101.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 | Date: 2025-03-24 | **Rev: 1.0**
KiCad E.D.A. 8.0.9 | Id: 20/23

Measurements (P202)

P202

Res (OHMS)	Reverse bias (V)	Foward bias (V)
1 0	1- 0	1- 0
2 0	2- 0	2- 0
3- 0	3- 0	3- 0
4- OL	4- OL	4- OL
5- >50M	5- OL	5- OL
6- >50M	6- OL	6- OL
7- >50M	7- OL	7- OL

Measurements (P202)
Author: Fábio Pereira da Silva

Sheet: /Measurements P202/
File: measurements_p202.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 21/23

Measurements (P207)

NOTES:
======

Measure is related to floating ground (Y OUT)

P207

Res (OHMS)	Reverse bias (V)	Foward bias (V)
1- 29.2k	1- 3.209	1- OL
2- 29.2k	2- 3.209	2- OL
3- OL	3- OL	3- OL
4- 5.97k	4- 0.590	4- 1.916
5- 5.97k	5- 0.590	5- 1.916
6- 0	6- 0	6- 0
7- 744k	7- 0.609	7- 1.464
8- 742k	8- 0.600	8- 1.466
9- 795k	9- 0.641	9- 1.576
10- 740k	10- 0.601	10- 1.490
11- 790k	11- 0.659	11- 1.561
12- 0	12- 0	12- 0

Author: Fábio Pereira da Silva

Sheet: /Measurements P207/
File: measurements_p207.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 | Date: 2025-03-24 | **Rev: 1.0**
KiCad E.D.A. 8.0.9 | Id: 22/23

Measurements (P203, P208 and P205)

NOTES:
======

- All pins are Y Out connection (Floating ground)

1-> Y OUT related to Ground

Res (OHMS)	Reverse bias (V)	Foward bias (V)
210k	OL	OL

2-> Y OUT related to +VS

Res (OHMS)
-

Reverse bias (Black point in VS and Red point in Y Out) (V)
0.402

Foward bias (Red point in VS and Black point in Y Out) (V)
OL

Measurements (P203, P208 and P205)
Author: Fábio Pereira da Silva

Sheet: /Measurements P203, P208 and P205/
File: measurements_p203_p208_p205.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-03-24	**Rev: 1.0**
KiCad E.D.A. 8.0.9		Id: 23/23