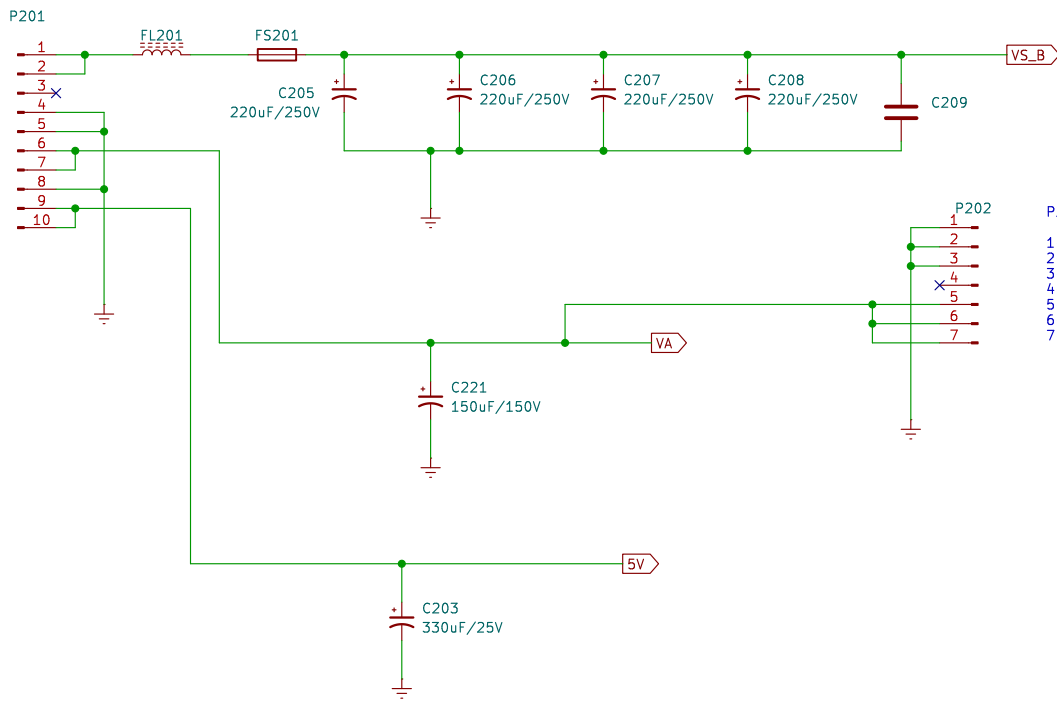


VOLTAGES SUPPLY

P201 (Input Power Supply)

- 1- +VS
- 2- +VS
- 3- NC
- 4- GND
- 5- GND
- 6- +VA
- 7- +VA
- 8- GND
- 9- +5V
- 10- +5V



P202 (Output VA Supply)

- 1- GND
- 2- GND
- 3- GND
- 4- NC
- 5- +VA
- 6- +VA
- 7- +VA

VS Voltage supply
Author: Fábio Pereira da Silva

Sheet: /
File: y_board.kicad_sch

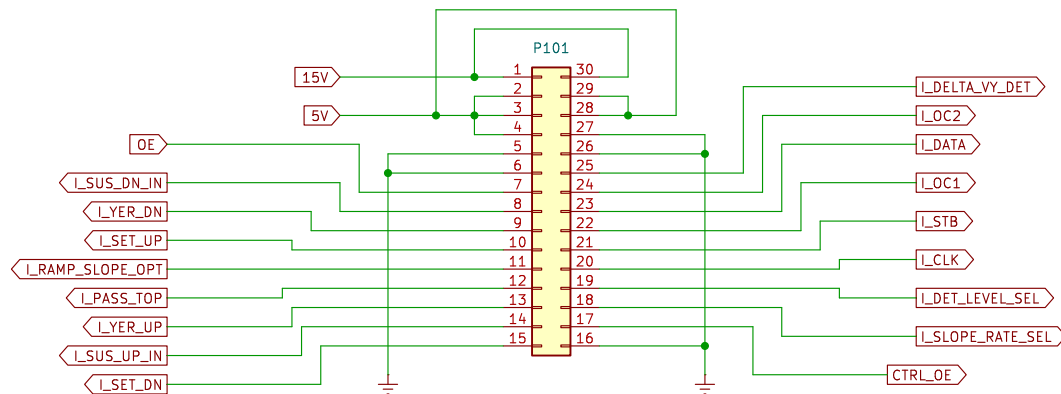
Title: Y BOARD LG PLASMA TV PANEL

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	30- 15V
2- 5V	29- 5V
3- 5V	28- 5V
4- 5V	27- GND
5- GND	26- GND
6- GND	25- (1- L_DELTA_VY_DET)
7- (2- OE)	24- (3- L_OC2)
8- (4- L_SUS_DN_IN)	23- (5- L_DATA)
9- (6- L_YER_DN)	22- (7- L_OC1)
10- (8- L_SET_UP)	21- (9- L_STB)
11- (10- L_RAMP_SLOPE_OPT)	20- (11- L_CLK)
12- (12- L_PASS_TOP)	19- (13- L_DET_LEVEL_SEL)
13- (14- L_YER_UP)	18- (15- L_SLOPE_RATE_SEL)
14- (16- L_SUS_UP_IN)	17- (17- L_CTRL_OE)
15- (18- L_SET_DN)	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

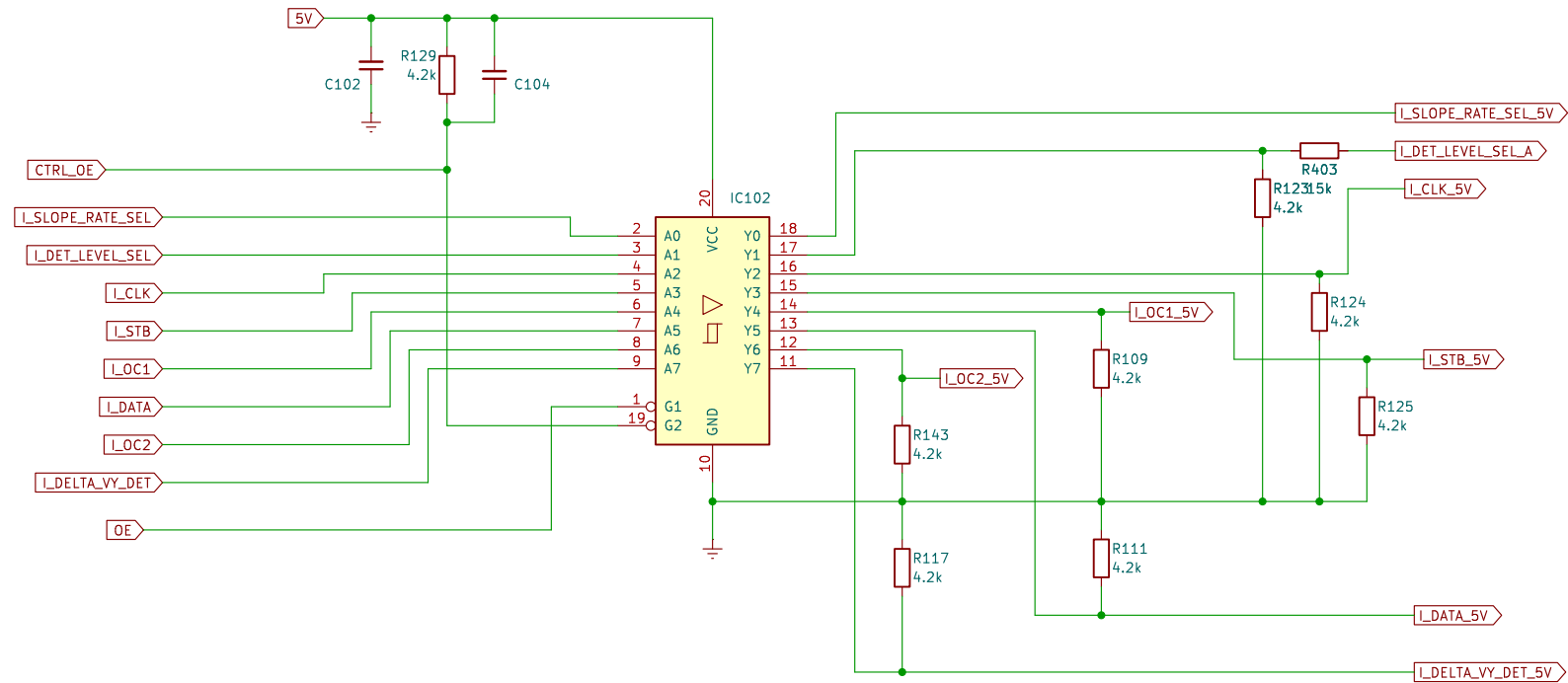
Title: Y BOARD LG PLASMA TV PANEL

Size: A4
KiCad E.D.A. 8.0.9

Date: 2025-03-24

Rev: 1.0
Id: 2/23

Input Control (Part 2 of 3)



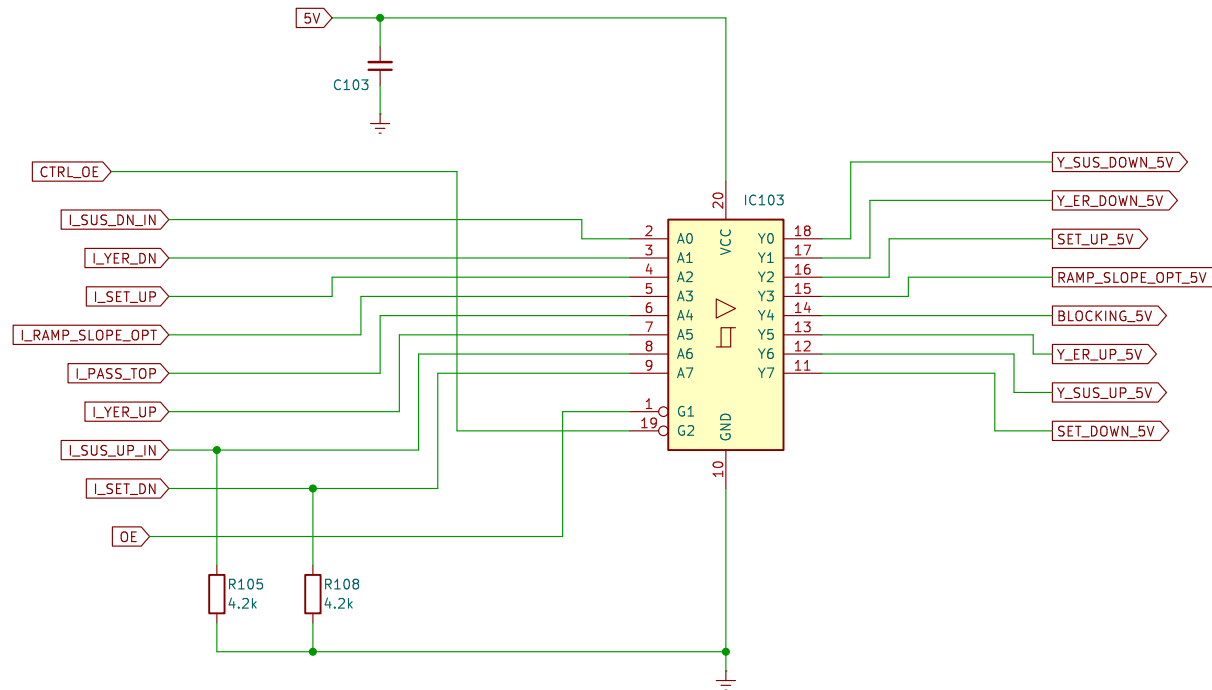
Input Control (Part 2 of 3)
Author: Fábio Pereira da Silva

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

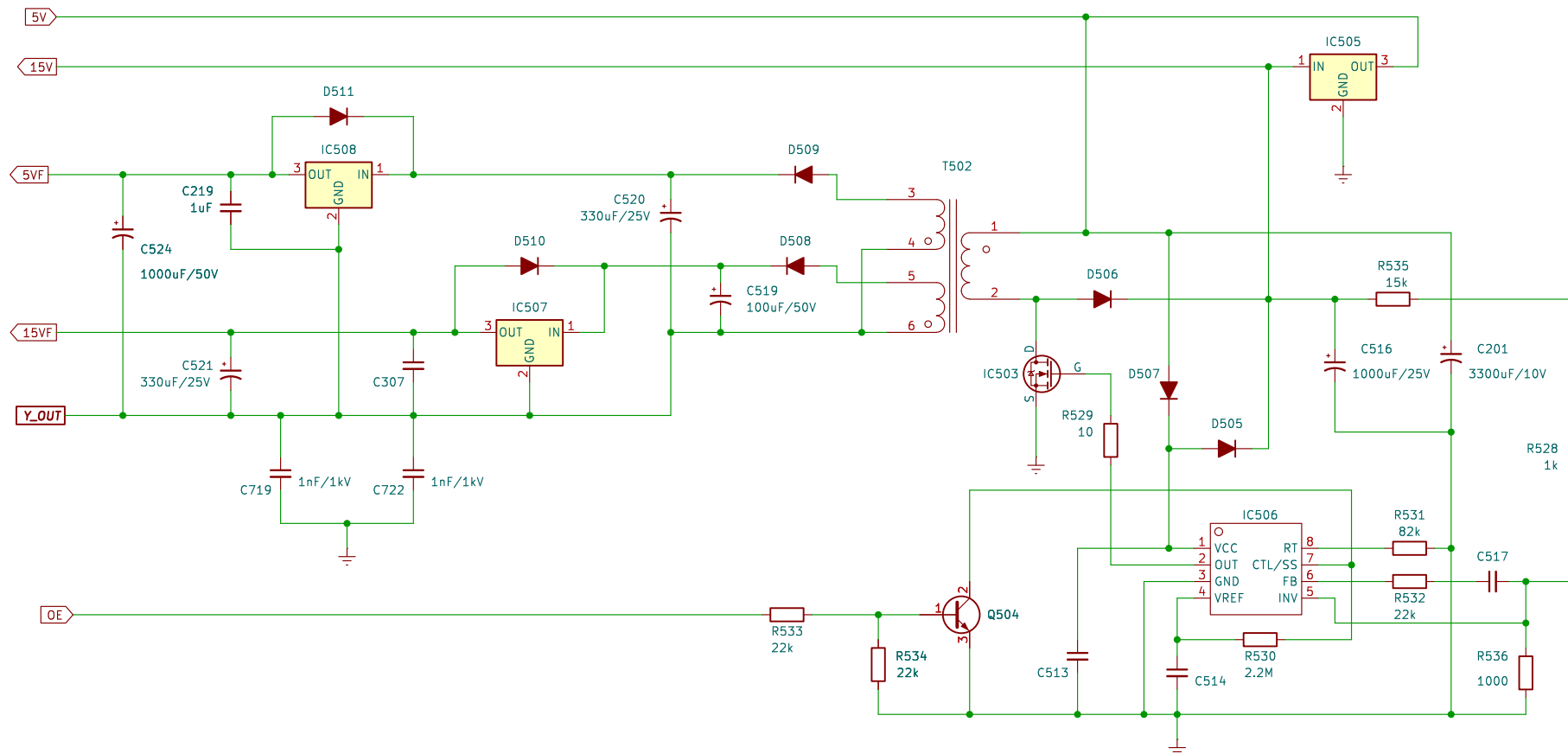
Date: 2025-03-24

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

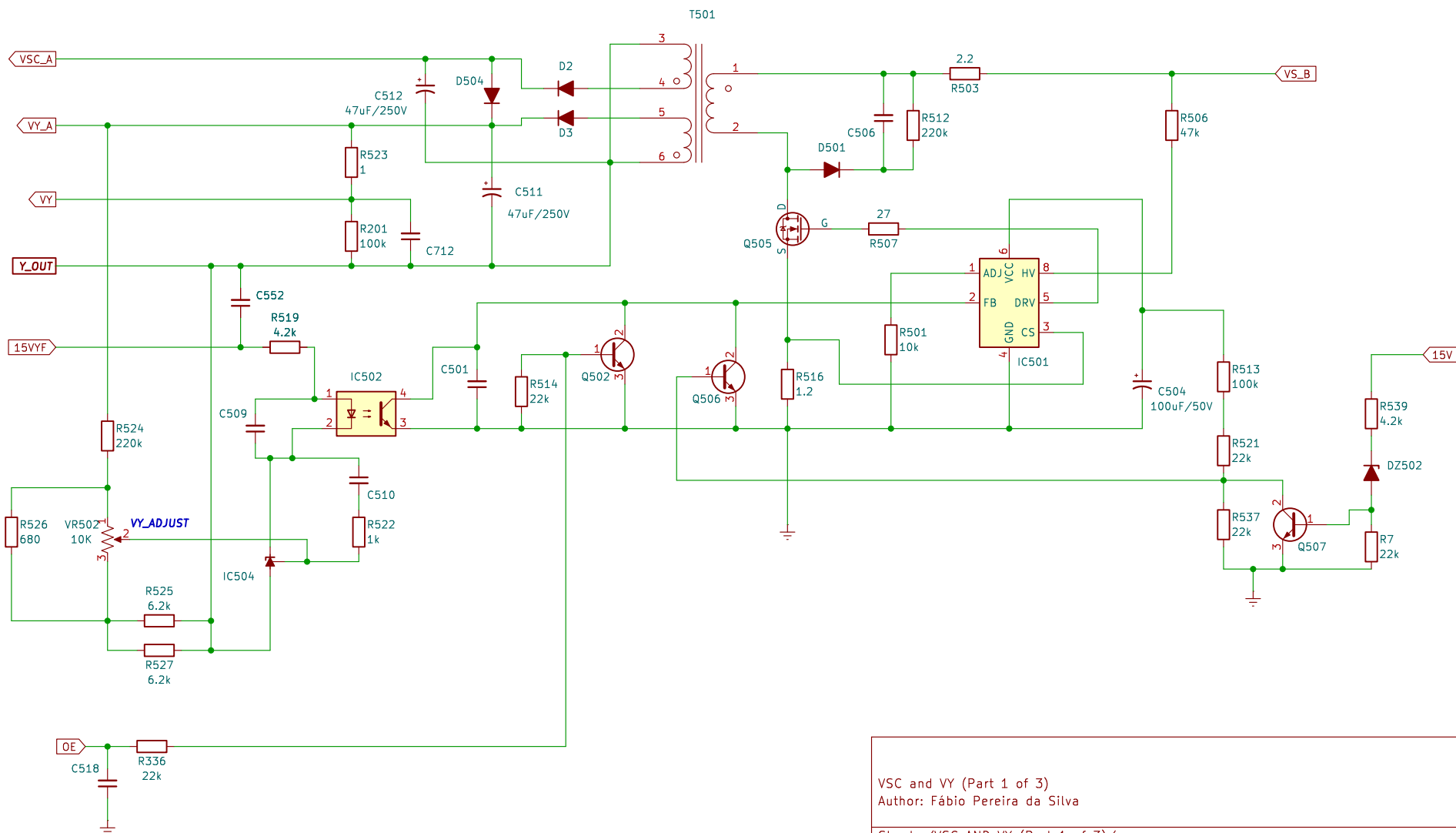
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 File: 5VF_15VF_15V.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-03-24
 KiCad E.D.A. 8.0.9

Rev: 1.0
 Id: 5/23

VSC and VY (Part 1 of 3)



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

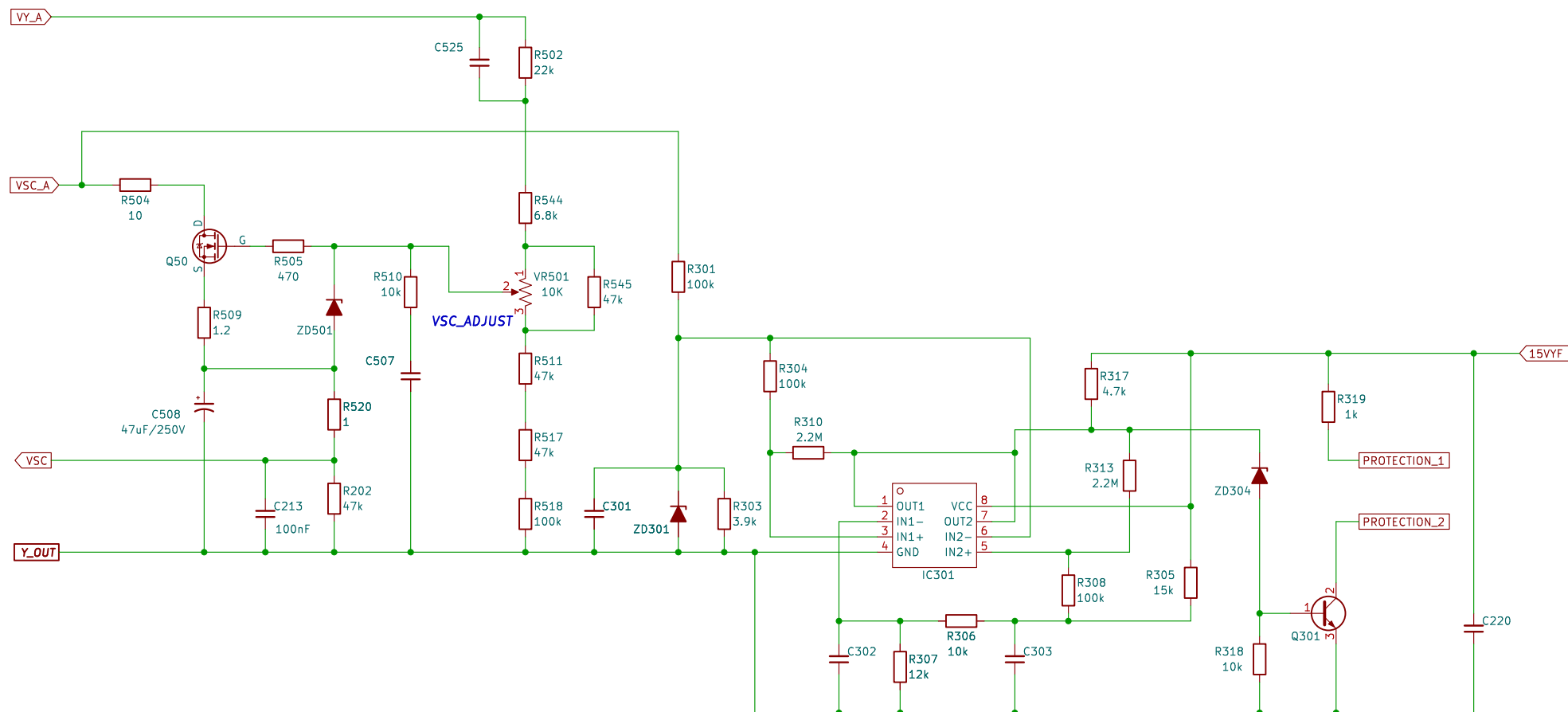
Sheet: /VSC AND VY (Part 1 of 3)/
File: vsc_and_vy.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-03-24
KiCad E.D.A. 8.0.9

Rev: 1.0
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

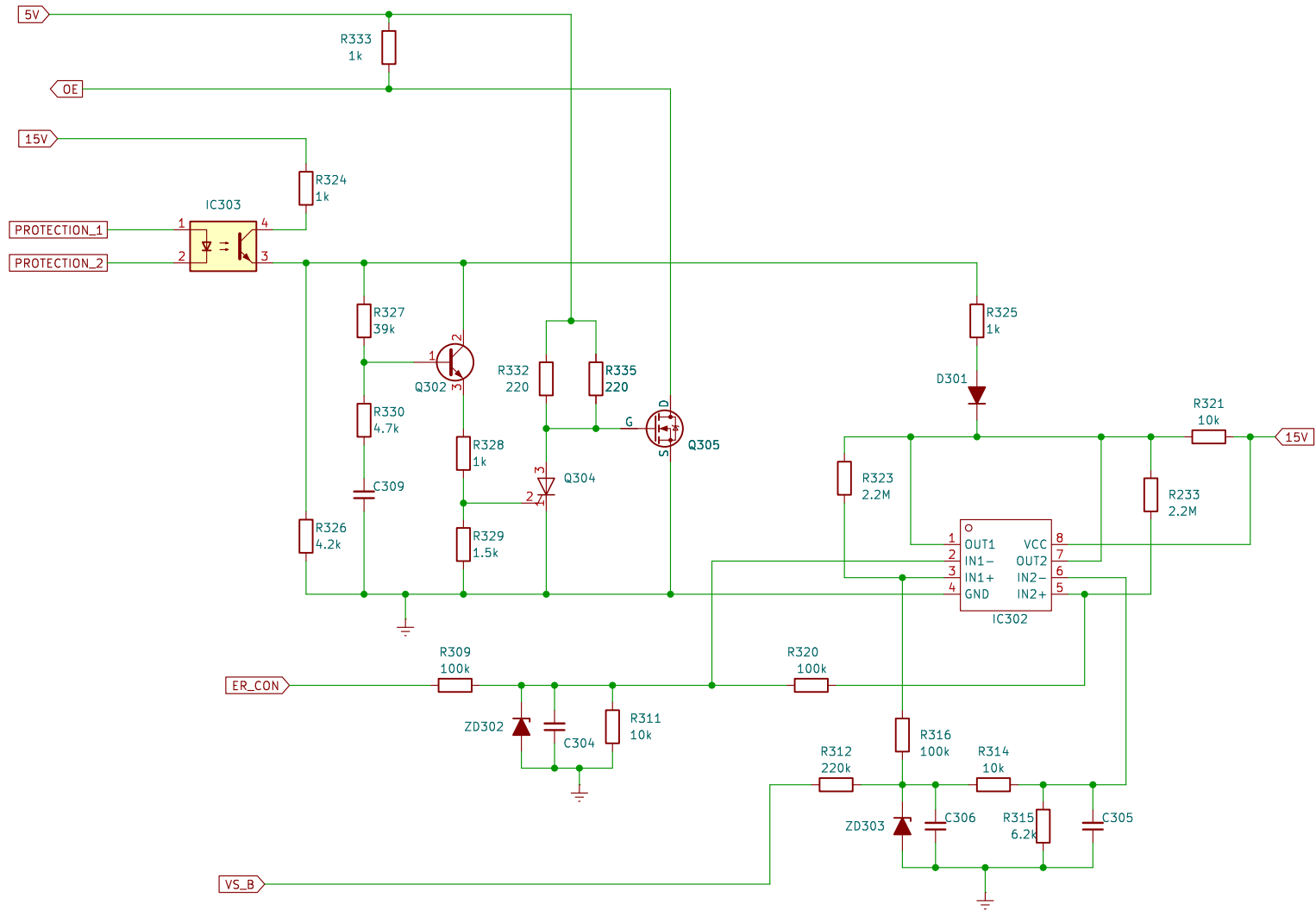
Date: 2025-03-24

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

The circuit schematic is divided into several functional blocks. At the top left, a 15V supply is connected to a network of resistors (R540, R541, R542, R543) and a capacitor (C202). A 5V supply is connected to a network of resistors (R603, R606, R608, R118) and a capacitor (C603). A 15VVF supply is connected to a network of resistors (R614, R615) and capacitors (C605, C606, C608). The central part of the circuit features two integrated circuits: IC703 and IC601. IC703 is connected to a 15V supply and a 5V supply. IC601 is connected to a 15VVF supply and a 5V supply. Transistors Q16, Q15, and Q601 are used for signal processing. Diodes D12, D608, and D603 are also present. The output is labeled Y_OUT.

Y_BLOCKING | Y_SUS_DOWN
Author: Fábio Pereira da Silva

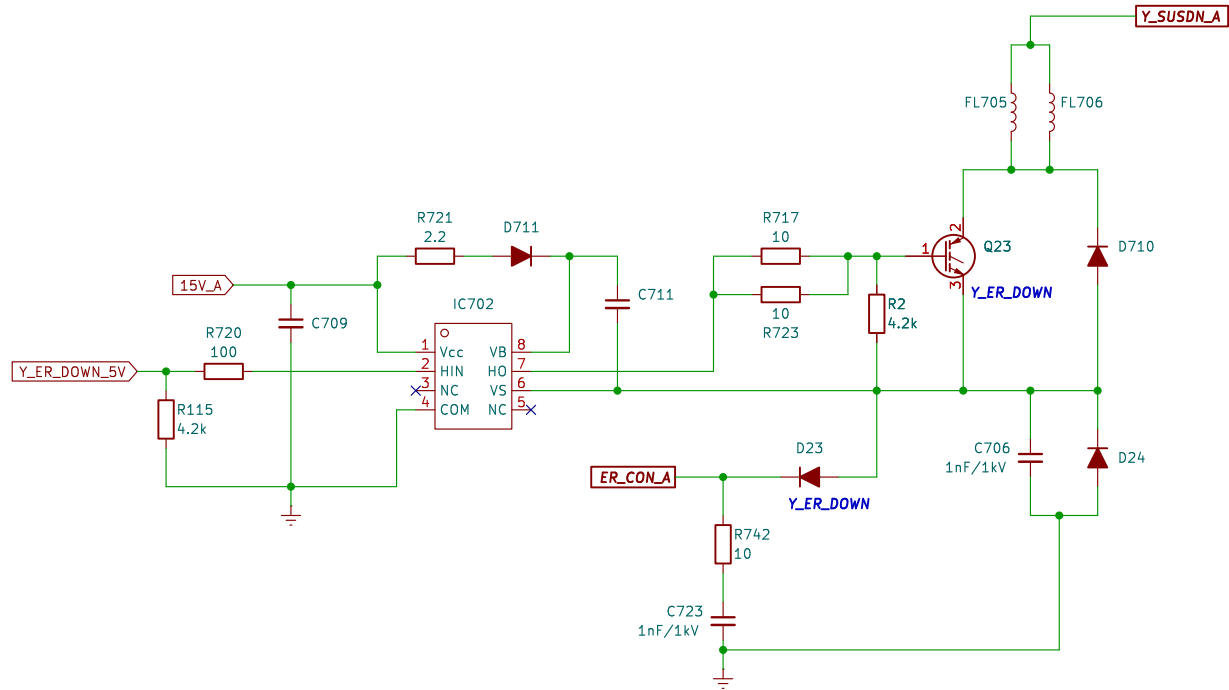
Sheet: /Y_SUS_DOWN_AND_Y_BLOCKING/
File: y_sus_dn_and_blocking.kicad_sch

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

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

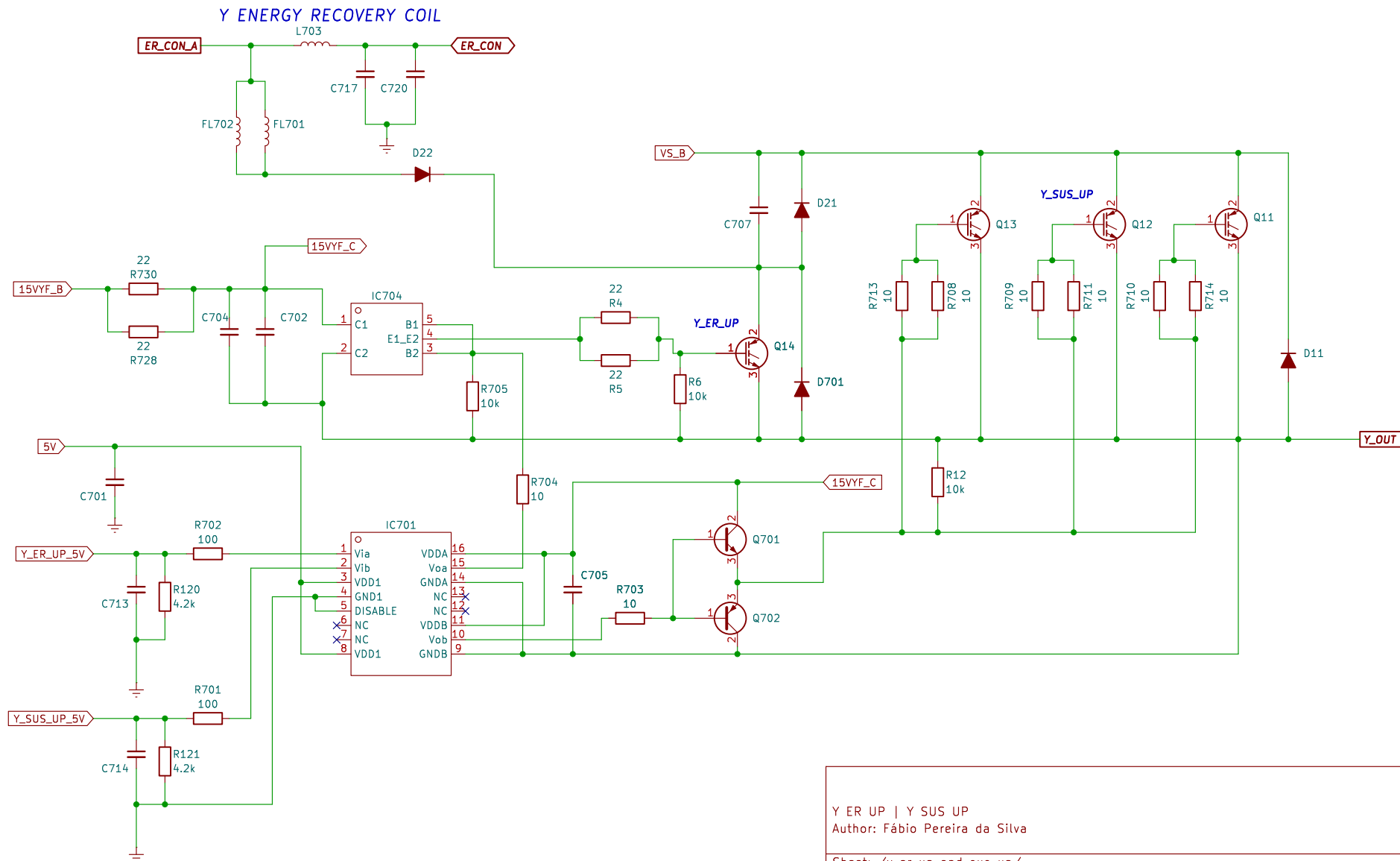
Sheet: /y_er_down/
File: y_er_down.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-03-24
KiCad E.D.A. 8.0.9

Rev: 1.0
Id: 10/23

Y ENERGY RECOVERY UP AND Y SUS UP



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

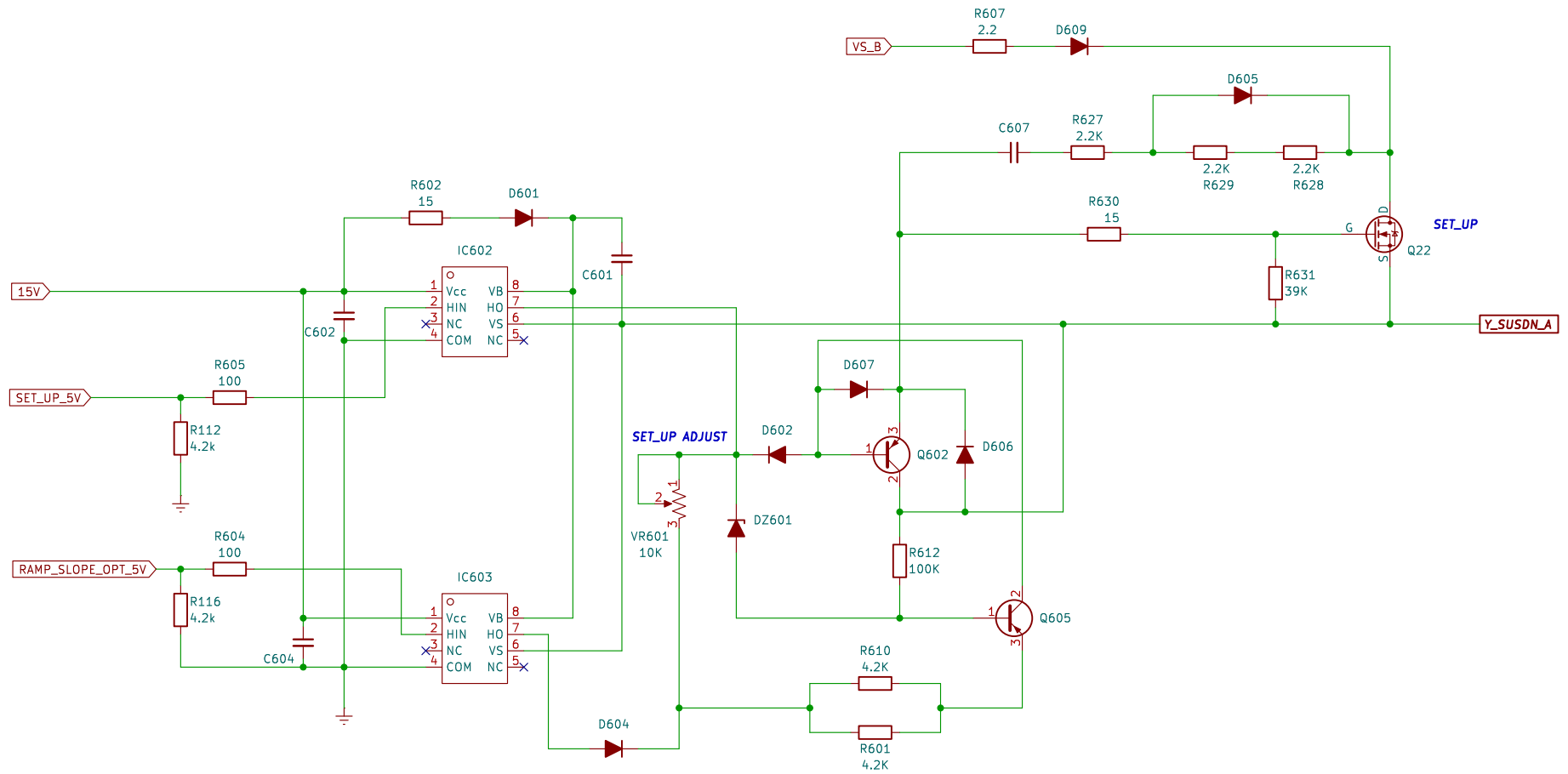
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 File: y_er_up_and_sus_up.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-03-24
 KiCad E.D.A. 8.0.9

Rev: 1.0
 Id: 11/23

SET UP



Set Up
Author: Fábio Pereira da Silva

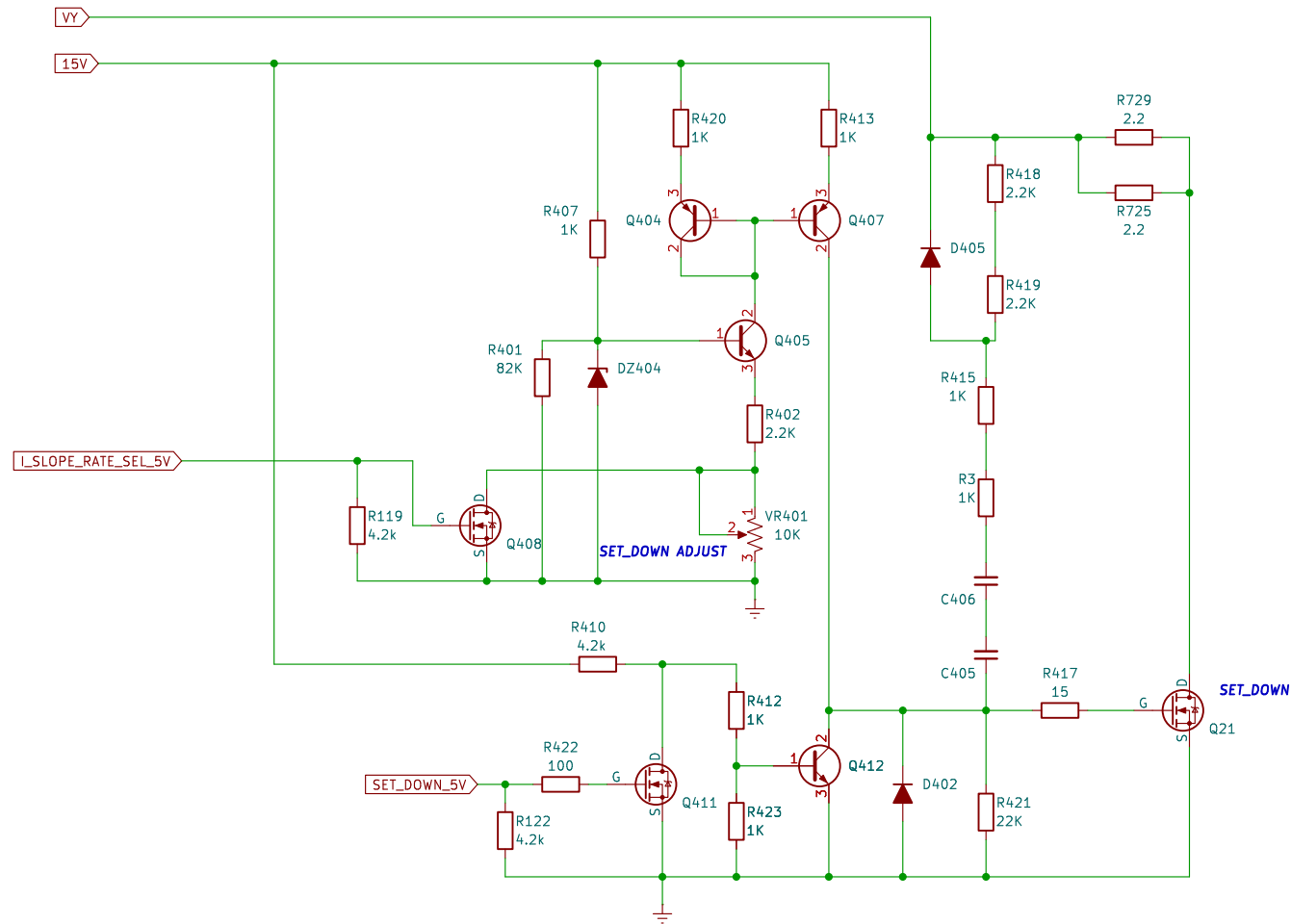
Sheet: /SetUp/
File: set_up.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4
Date: 2025-03-24
KiCad E.D.A. 8.0.9

Rev: 1.0
Id: 12/23

SET DOWN



Author: Fábio Pereira da Silva

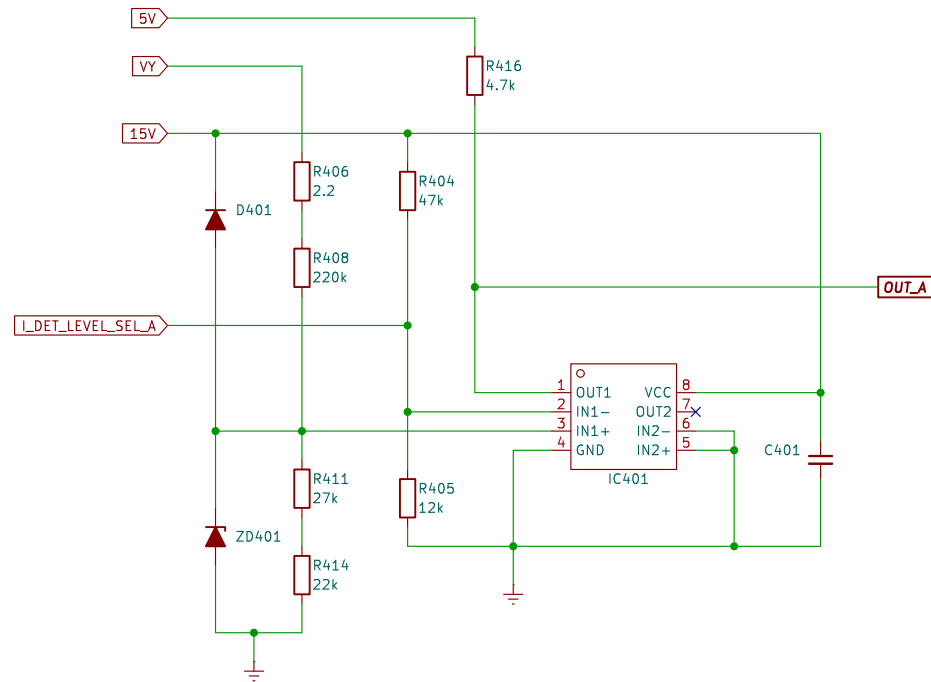
Sheet: /SetDown/
File: set_down.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-03-24
KiCad E.D.A. 8.0.9

Rev: 1.0
Id: 13/23

OUTPUT 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

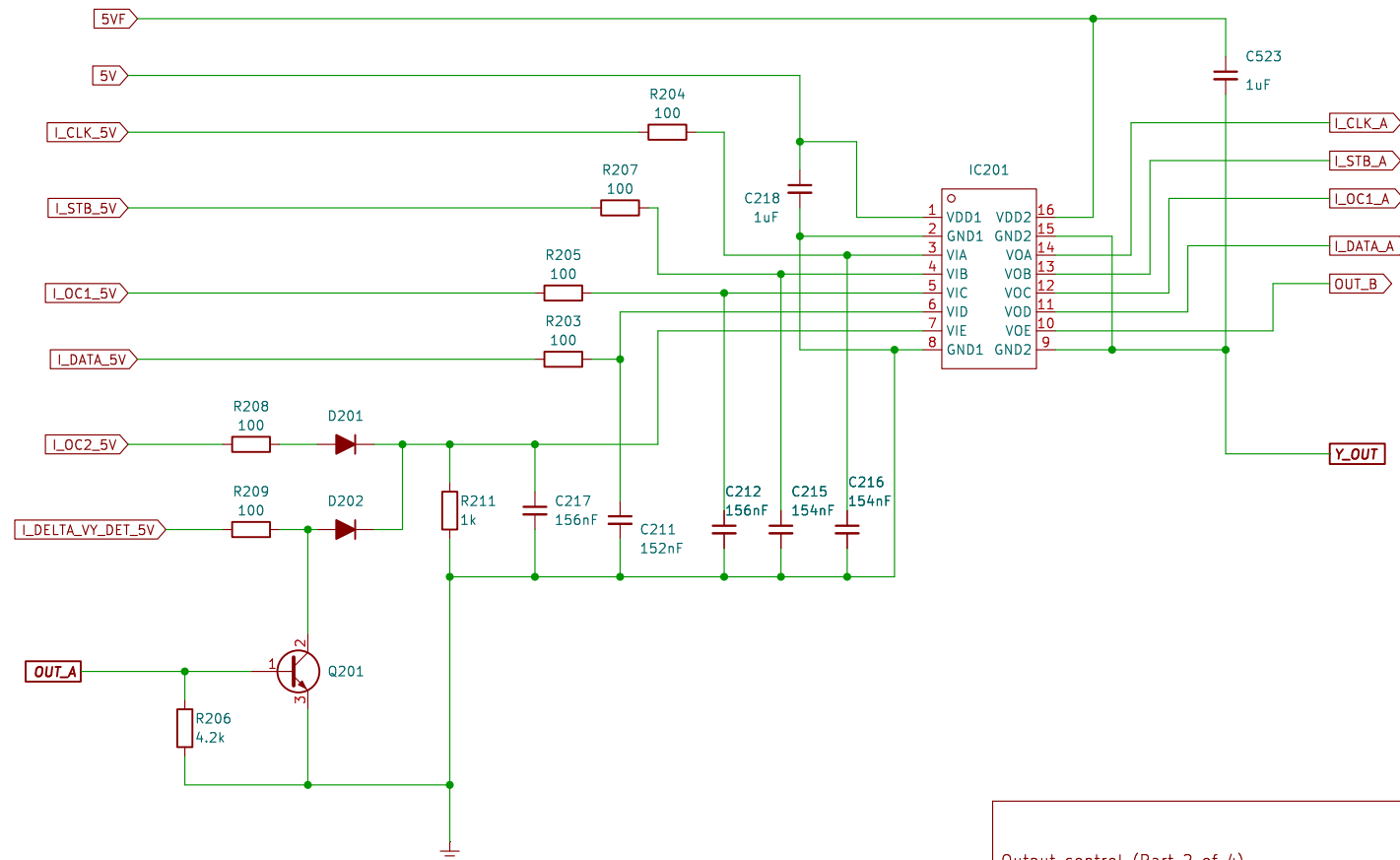
Date: 2025-03-24

Rev: 1.0

KiCad E.D.A. 8.0.9

Id: 14/23

OUTPUT CONTROL (Part 2 of 4)



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

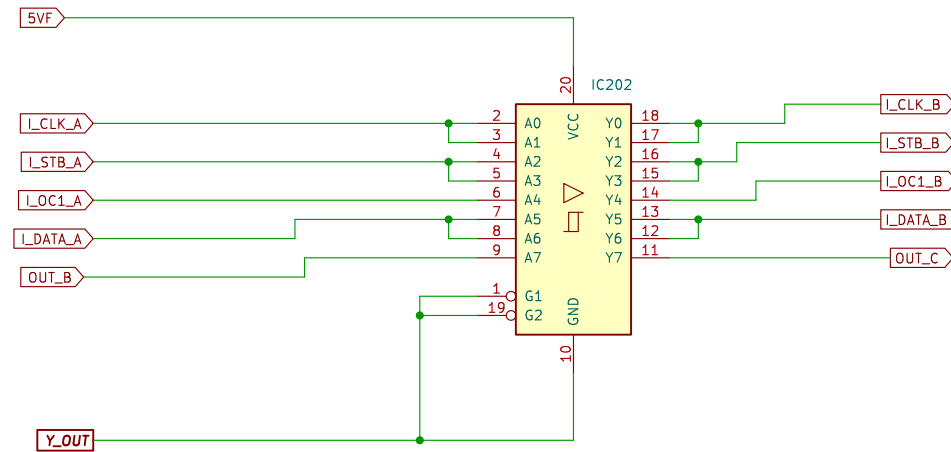
Sheet: /Output Control (Part 2 of 4)/
File: output_control2.kicad_sch

Title: Y BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-03-24
KiCad E.D.A. 8.0.9

Rev: 1.0
Id: 15/23

OUTPUT 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

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)

1- 110k
2- 110k
3- OL
4- 0
5- 0
6- OL
7- OL
8- OL

Reverse bias (V)

1- 0.769
2- 0.769
3- OL
4- 0
5- 0
6- OL
7- 0.550
8- 0.550

Foward bias (V)

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

1 0
2 0
3- 0
4- 0L
5- >50M
6- >50M
7- >50M

Reverse bias (V)

1- 0
2- 0
3- 0
4- 0L
5- 0L
6- 0L
7- 0L

Foward bias (V)

1- 0
2- 0
3- 0
4- 0L
5- 0L
6- 0L
7- 0L

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)

1- 29.2k

2- 29.2k

3- 0L

4- 5.97k

5- 5.97k

6- 0

7- 744k

8- 742k

9- 795k

10- 740k

11- 790k

12- 0

Reverse bias (V)

1- 3.209

2- 3.209

3- 0L

4- 0.590

5- 0.590

6- 0

7- 0.609

8- 0.600

9- 0.641

10- 0.601

11- 0.659

12- 0

Foward bias (V)

1- 0L

2- 0L

3- 0L

4- 1.916

5- 1.916

6- 0

7- 1.464

8- 1.466

9- 1.576

10- 1.490

11- 1.561

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