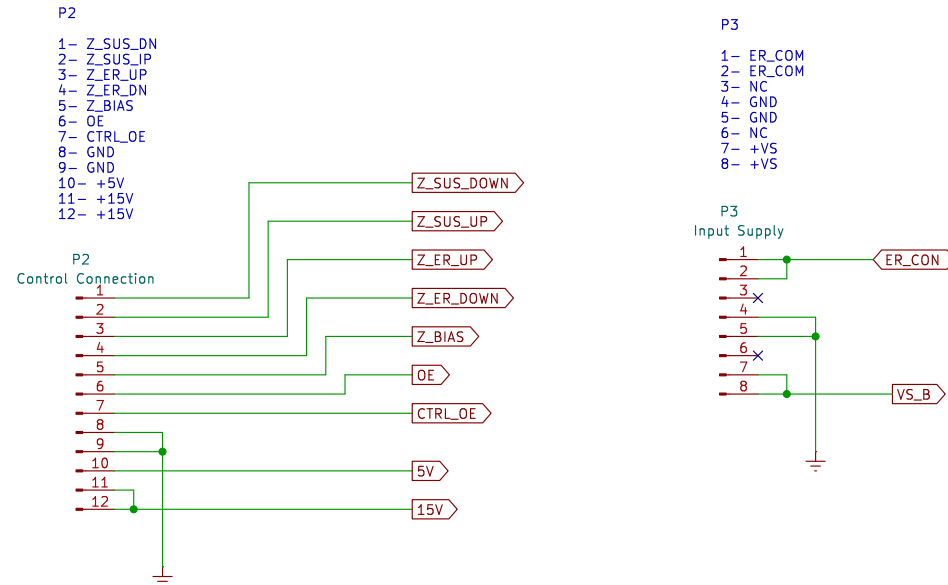


INPUT CONNECTORS



CONNECTIONS

Author: Fábio Pereira da Silva

Sheet: /

File: x_board.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4

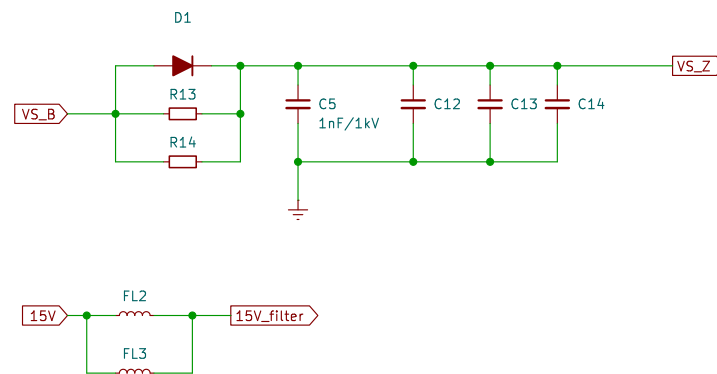
Date: 2025-04-03

Rev: 1.0

KiCad E.D.A. 8.0.9

Id: 1/11

Z POWER SUPPLY



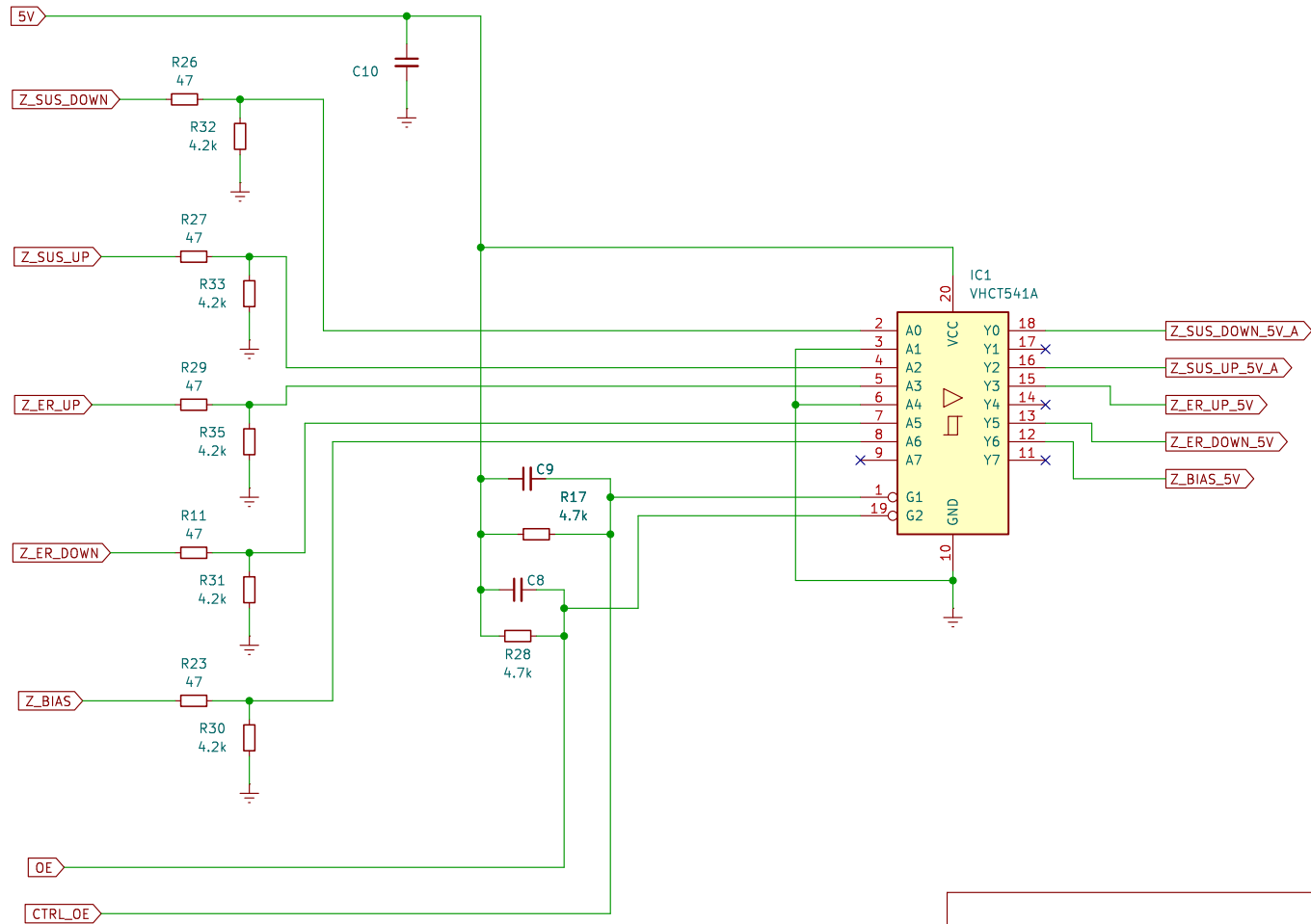
Z POWER SUPPLY
Author: Fábio Pereira da Silva

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Title: X BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-04-03	Rev: 1.0
KiCad E.D.A. 8.0.9		Id: 2/11

Z CONTROL



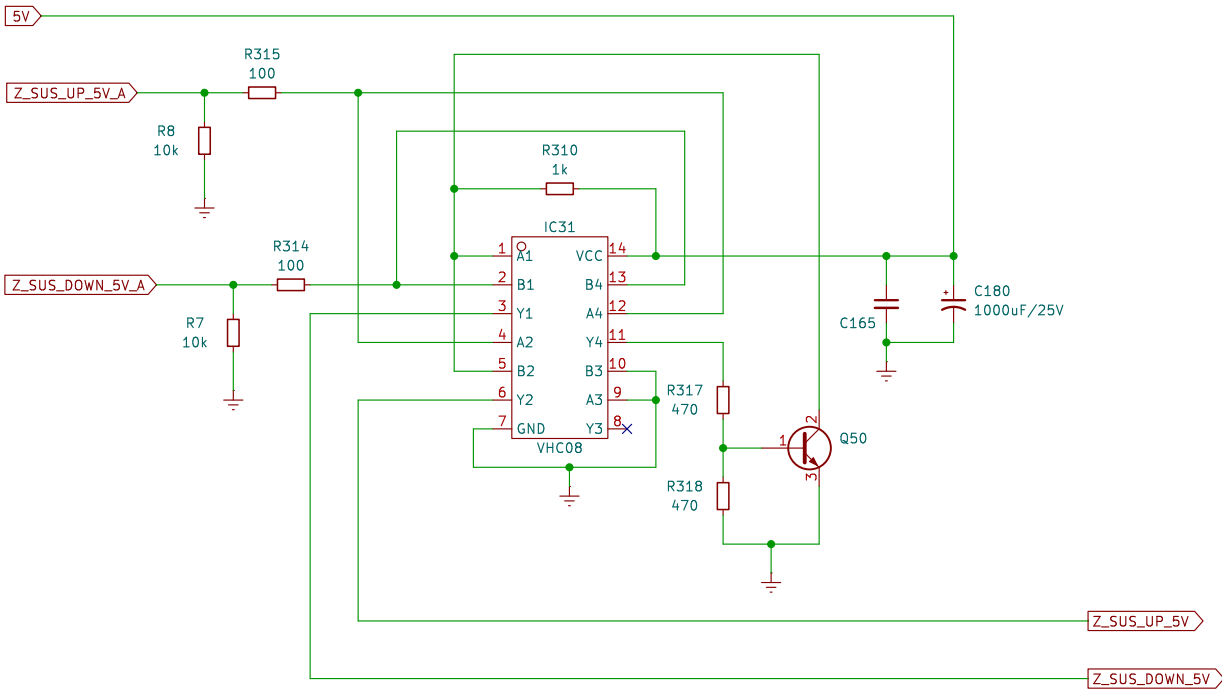
Z CONTROL
Author: Fábio Pereira da Silva

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File: z_ctrl.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-04-03	Rev: 1.0
KiCad E.D.A. 8.0.9		Id: 3/11

Z PROTECTION



The schematic diagram illustrates the Z Protection circuit. It features a central IC31 (VHC08) with pins 1 (A1), 2 (B1), 3 (Y1), 4 (A2), 5 (B2), 6 (Y2), 7 (GND), 8 (Y3), 9 (A3), 10 (B3), 11 (Y4), 12 (A4), 13 (B4), 14 (VCC), and 15 (Y3). The circuit includes a 5V supply, a Z_SUS_UP_5V_A input, and a Z_SUS_DOWN_5V_A input. Key components include resistors R8 (10k), R7 (10k), R315 (100), R314 (100), R310 (1k), R317 (470), and R318 (470). A transistor Q50 is connected to the output, and capacitors C165 and C180 (1000uF/25V) are used for filtering. The circuit is powered by a 5V supply and has two outputs: Z_SUS_UP_5V and Z_SUS_DOWN_5V.

Z PROTECTION		
Author: Fábio Pereira da Silva		
Sheet: /Z_PROTECTION/ File: z_protection.kicad_sch		
Title: X BOARD LG PLASMA TV PANEL		
Size: A4	Date: 2025-04-03	Rev: 1.0
KiCad E.D.A. 8.0.9		Id: 4/11

Author: Fábio Pereira da Silva

File: z_protection.kicad_sch

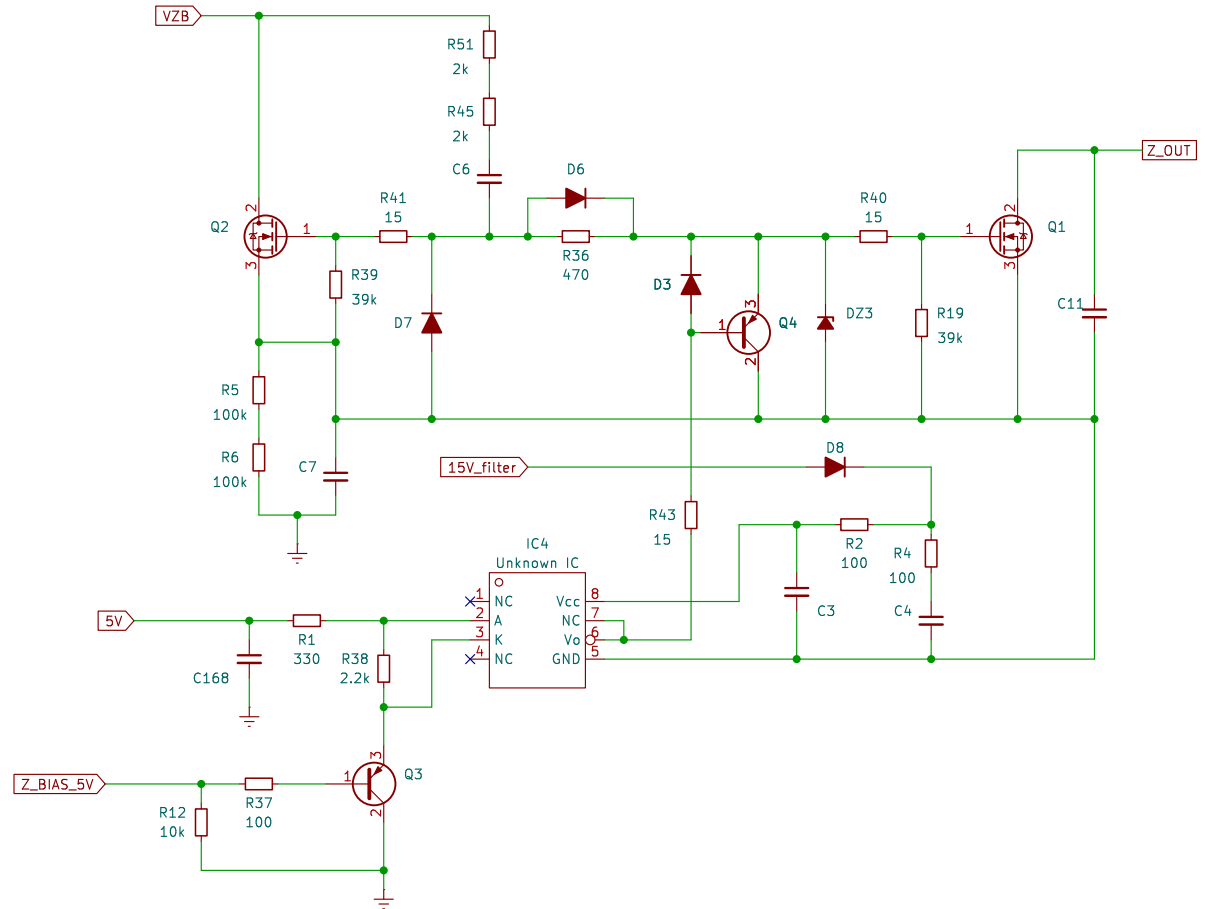
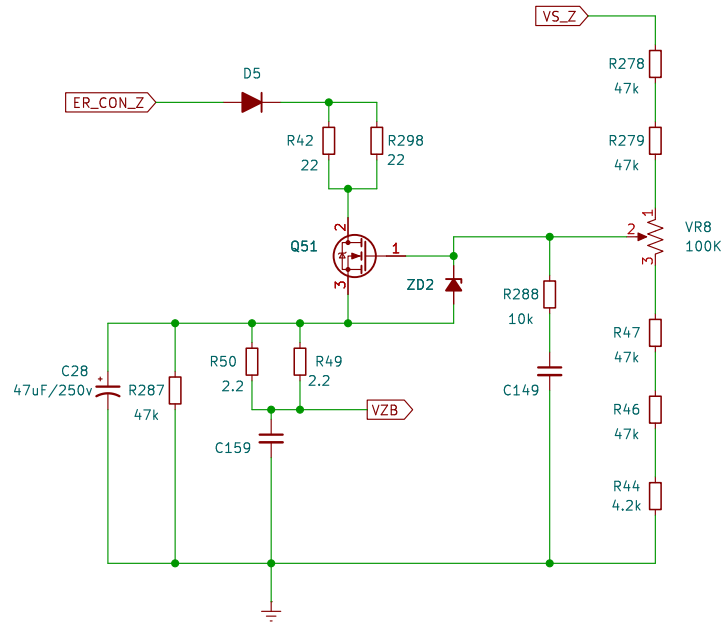
Size: A4	Date: 2025-04-03
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Date: 2025-04-03

Rev: 1.0

Id: 4/11

VZB



VZB
Author: Fábio Pereira da Silva

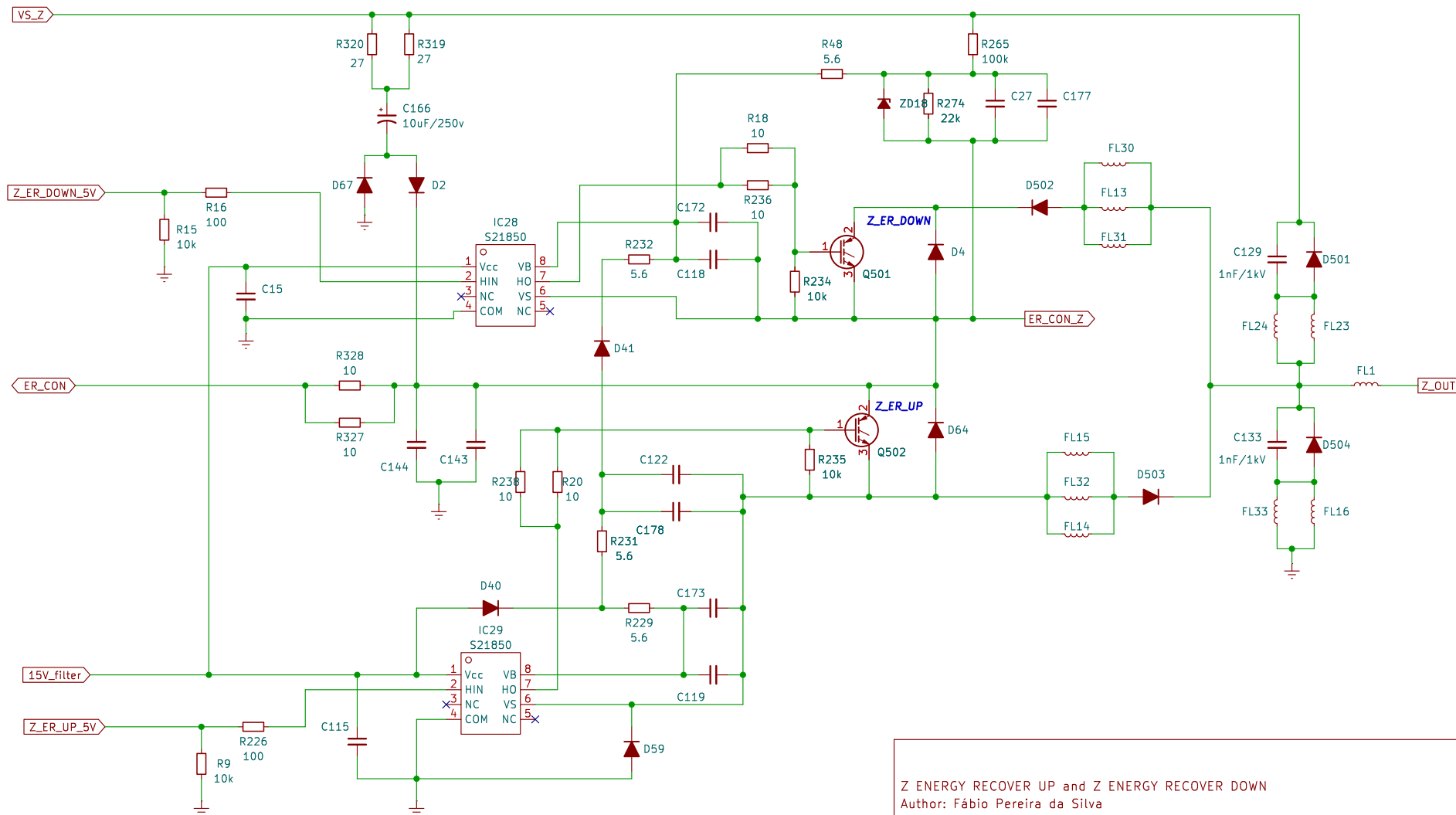
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Title: X BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-04-03
KiCad E.D.A. 8.0.9

Rev: 1.0
Id: 5/11

Z ENERGY RECOVER UP and Z ENERGY RECOVER DOWN



Z ENERGY RECOVER UP and Z ENERGY RECOVER DOWN
 Author: Fábio Pereira da Silva

Sheet: /Z_ER_UP_AND_Z_ER_DOWN/
 File: z_er_up_and_z_er_dn.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4

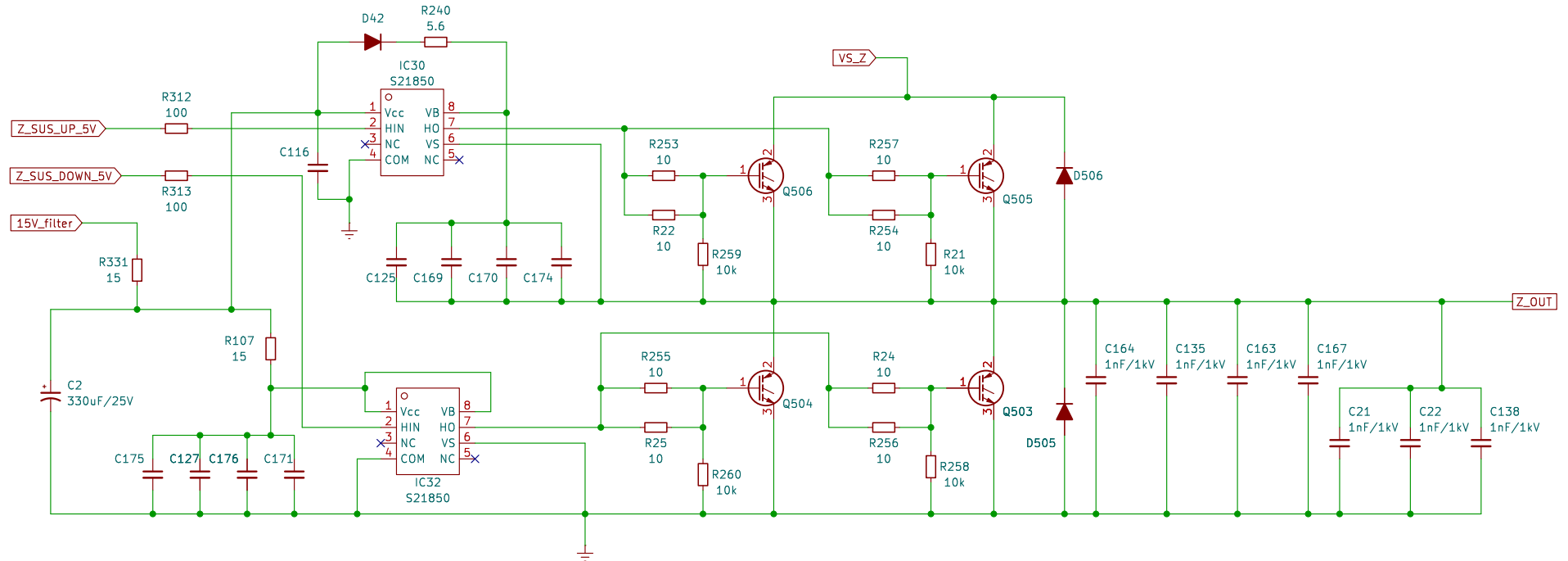
Date: 2025-04-03

Rev: 1.0

KiCad E.D.A. 8.0.9

Id: 6/11

Z SUS UP and Z SUS DOWN



Z SUS UP AND Z SUS DOWN
 Author: Fábio Pereira da Silva

Sheet: /Z SUS UP AND Z SUS DOWN/
 File: z_sus_up_and_z_sus_dn.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4

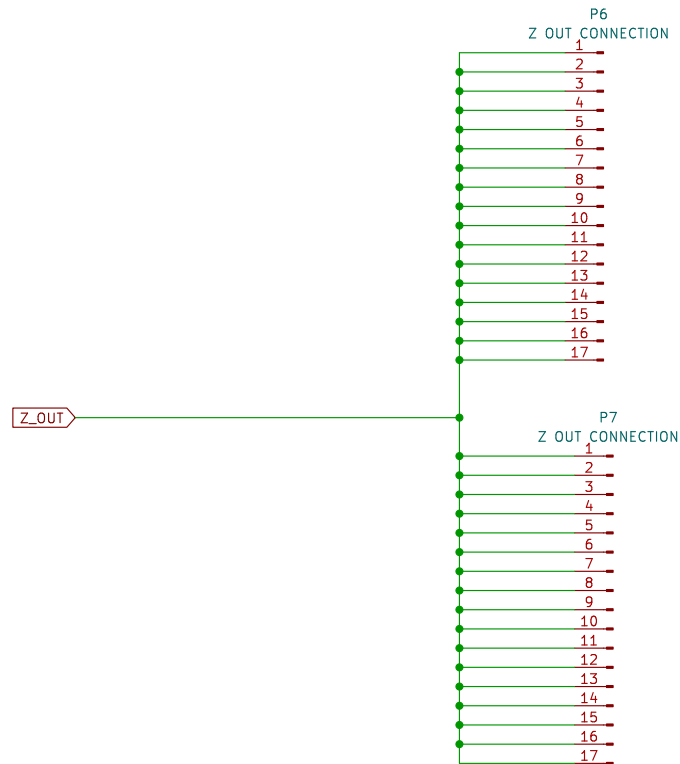
Date: 2025-04-03

Rev: 1.0

KiCad E.D.A. 8.0.9

Id: 7/11

Z OUT CONNECTORS



Z OUT CONNECTIONS
Author: Fábio Pereira da Silva

Sheet: /Z_OUT_CONNECTIONS/
File: z_out_conn.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-04-03	Rev: 1.0
KiCad E.D.A. 8.0.9		Id: 8/11

Measurements (P3)

P3

Res (OHMS)	Reverse bias (V)	Foward bias (V)
1– 246k	1– 0.501	1– OL
2– 246k	2– 0.501	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– 127k	7– 0.744	7– OL
8– 127k	8– 0.744	8– OL

Measurements (P3)
Author: Fábio Pereira da Silva

Sheet: /Measurements (P3)/
File: measurements_p3.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-04-03

KiCad E.D.A. 8.0.9

Rev: 1.0

Id: 9/11

Measurements (P2)

P2

Res (OHMS)	Reverse bias (V)	Foward bias (V)
1– 4.723k	1– 0.720	1– 2.727
2– 4.737k	2– 0.720	2– 2.729
3– 4.733k	3– 0.718	3– 2.729
4– 4.779k	4– 0.718	4– 2.737
5– 4.768k	5– 0.718	5– 2.736
6– 0L	6– 0.725	6– 0L
7– 0L	7– 0.722	7– 0L
8– 0	8– 0	8– 0
9– 0	9– 0	9– 0
10– 0L	10– 0.536	10– 0L
11– 0L	11– 0.524	11– 0L
12– 0L	12– 0.524	12– 0L

Measurements (P2)
Author: Fábio Pereira da Silva

Sheet: /Measurements (P2)/
File: measurements_p2.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4 Date: 2025-04-03

KiCad E.D.A. 8.0.9

Rev: 1.0

Id: 10/11

Measurements (P6) and (P7)

P6 and P7 (All pins with Ground reference)

Res (OHMS)	Reverse bias (V)	Foward bias (V)
183k	OL	0.372

P6 and P7 (All pins with VS reference)

Res (OHMS)	Reverse bias (V)	Foward bias (V)
—	OL	0.379

Measurements P6 and P7
Author: Fábio Pereira da Silva

Sheet: /Measurements (P6 and P7)/
File: measurements_p6_and_p7.kicad_sch

Title: X BOARD LG PLASMA TV PANEL

Size: A4	Date: 2025-04-03	Rev: 1.0
KiCad E.D.A. 8.0.9		Id: 11/11