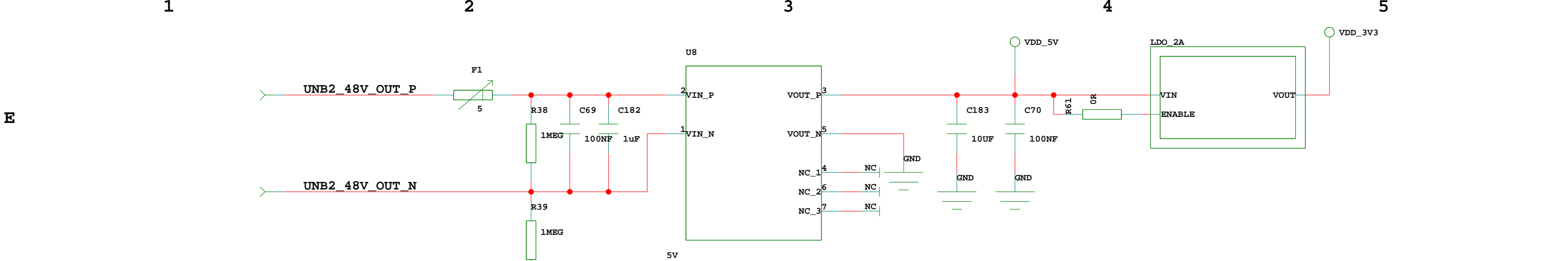
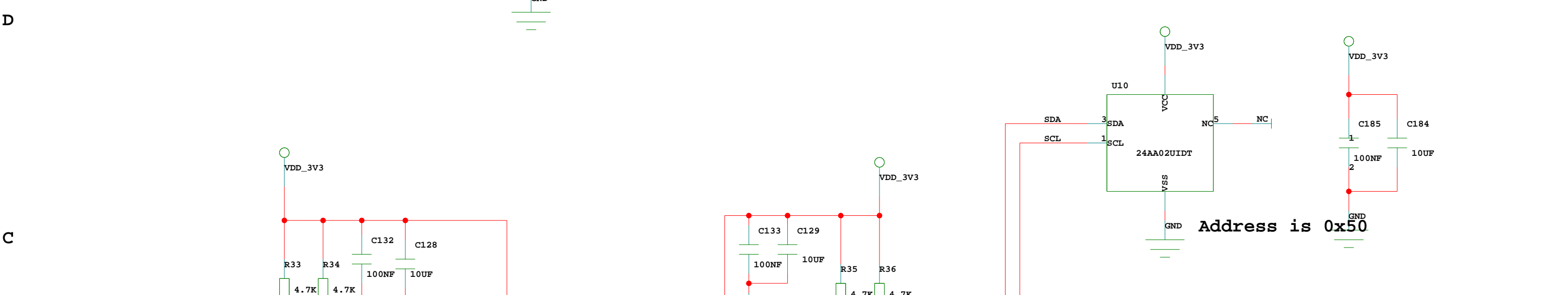


<h1>ASTRON</h1>		
DESIGN Antenna Processing Subrack Power Unit		
SIZE A3	Filename	REV 2.0
DRAWN BY Gijs / Sieds	SHEET 1 of 22	DATE 22/02/2022:13:35

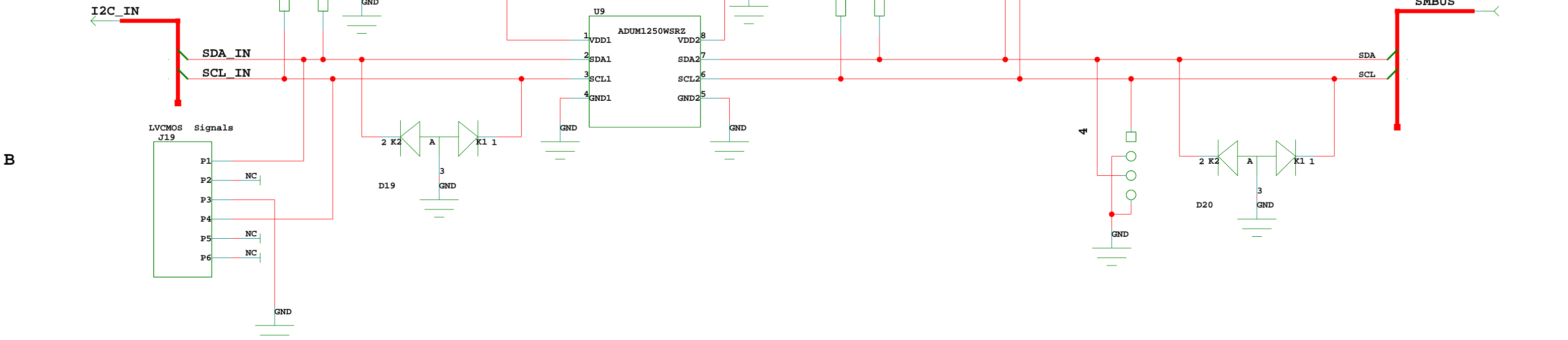
APSPU_TOP



1 MEG resistors to prevent lines to float to high voltages.



Address is 0x50



<h1>ASTRON</h1>			
DESIGN APSPU control circuit			
SIZE A3	Filename	CTRL	
DRAWN BY Gijs / Sieds		SHEET 2 of 22	REV 2.0
		DATE	22/02/2022:13:35

1

2

3

4

5

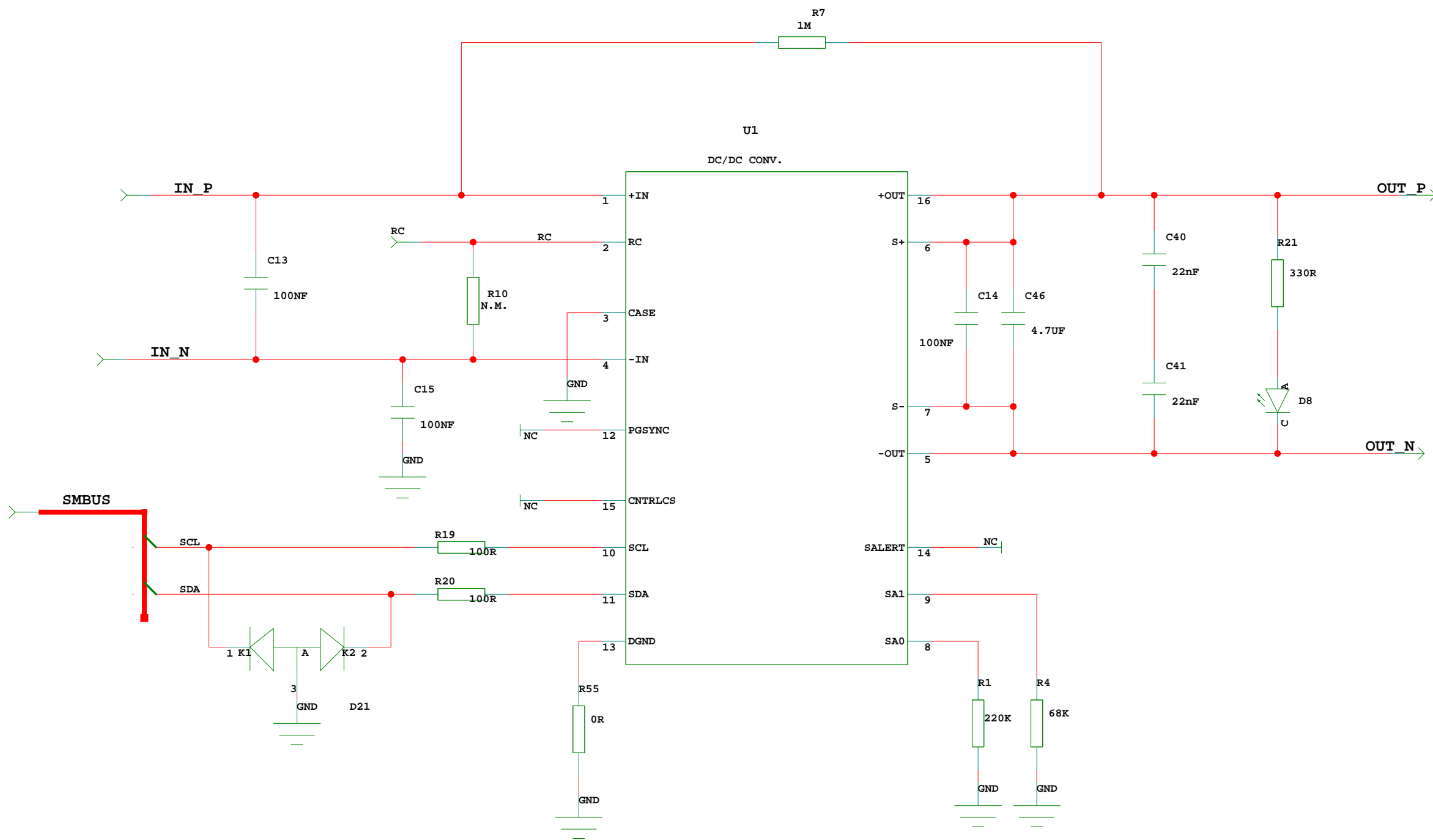
E

D

C

B

A



<h1>ASTRON</h1>			
DESIGN		DC/DC converter 48V to 8V	
SIZE	Filename	REV	
A3		DC_DC_CONVERTER	2.0
DRAWN BY	SHEET	DATE	
Gijs / Sieds	3 of 22		22/02/2022:13:35

1

2

3

4

5

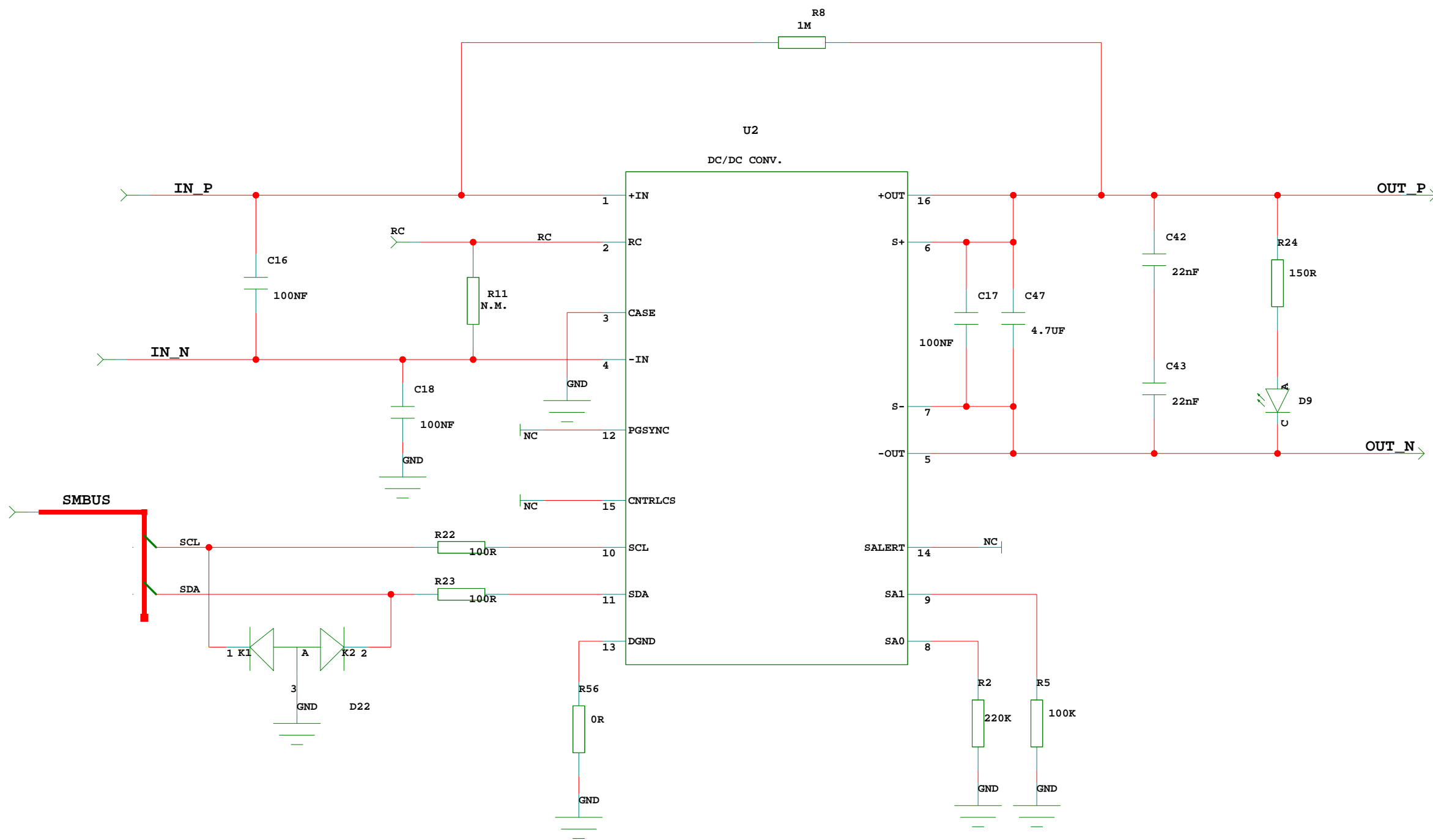
E

D

C

B

A



ASTRON

DESIGN		DC/DC converter 48V to 5V	
SIZE	Filename	REV	
A3		DC_DC_CONVERTER	2.0
DRAWN BY	SHEET	DATE	
Gijs / Sieds	4 of 22	22/02/2022:13:35	

1

2

3

4

5

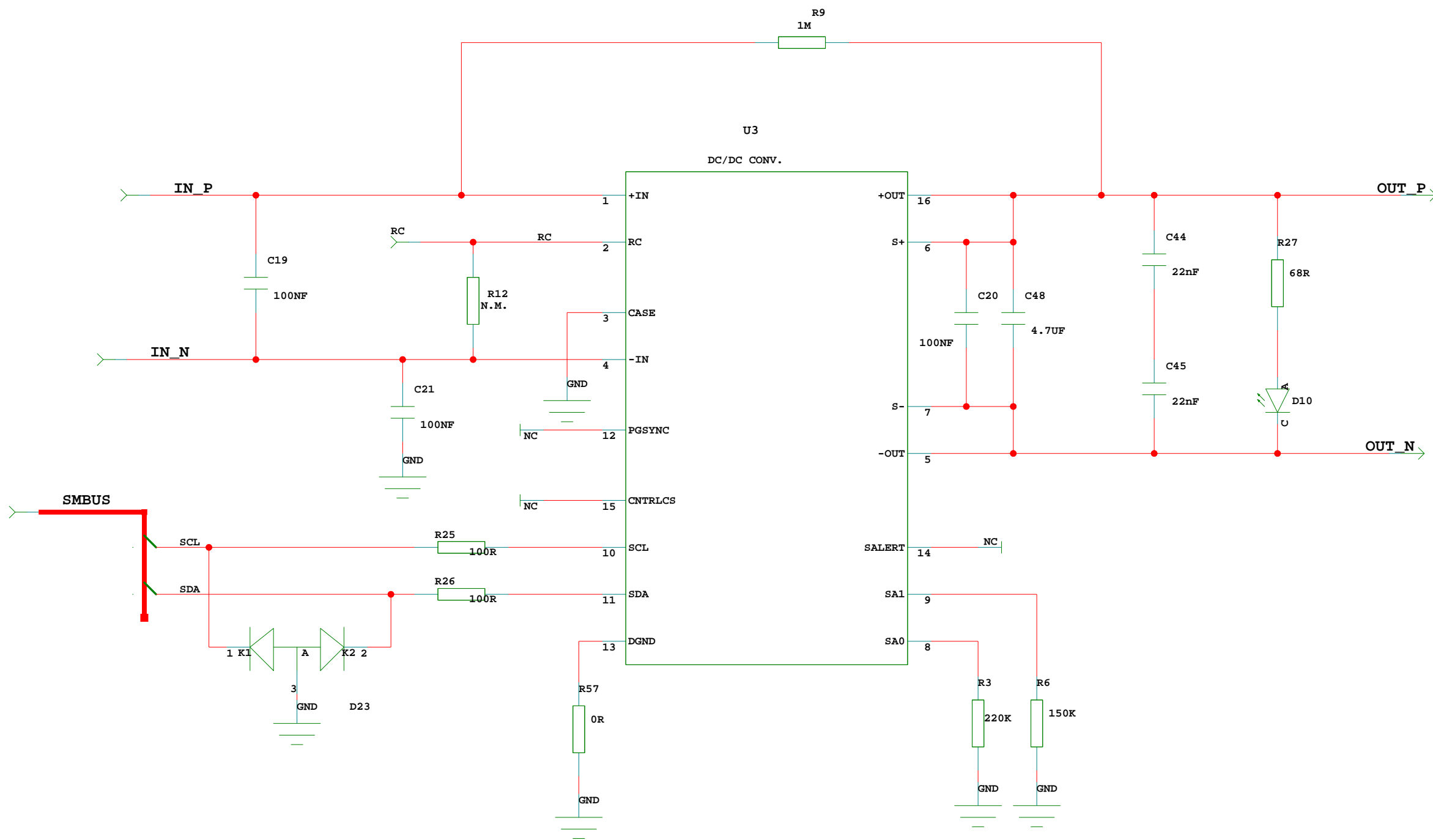
E

D

C

B

A



<h1>ASTRON</h1>			
DESIGN DC/DC converter 48V to 3.3V			
SIZE A3	Filename	DC_DC_CONVERTER	REV 2.0
DRAWN BY Gijs / Sieds	SHEET 5 of 22	DATE	22/02/2022:13:35

1

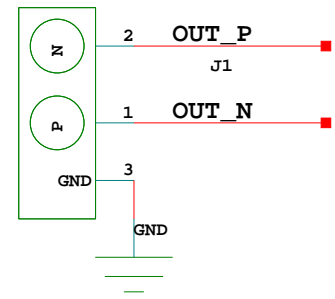
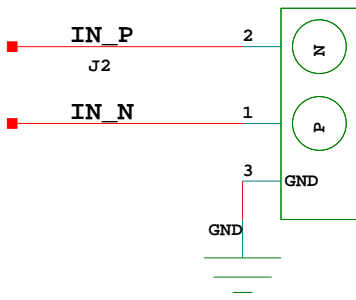
2

3

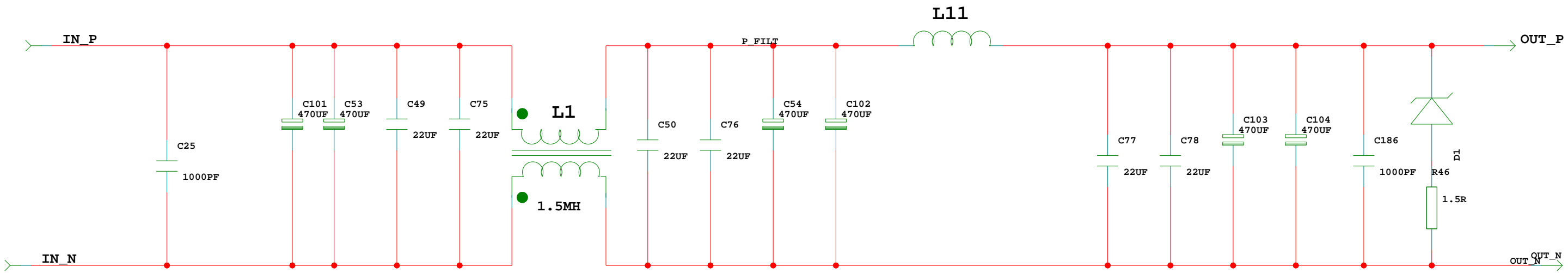
4

5

E

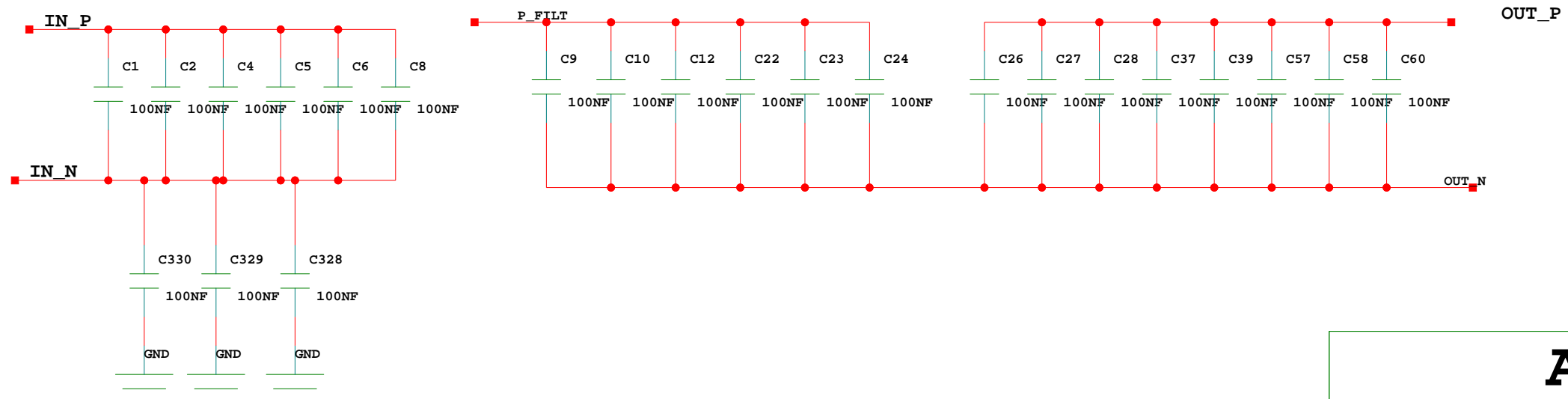


D



C

PLANE DECOUPLING



B

A

ASTRON

DESIGN			High Current Low Voltage EMI Filter		
SIZE	Filename	REV		2.0	
A3		EMI_FILTER_HCHV			
DRAWN BY Gijs / Sieds		SHEET 6 of 22		DATE 22/02/2022:13:35	

1

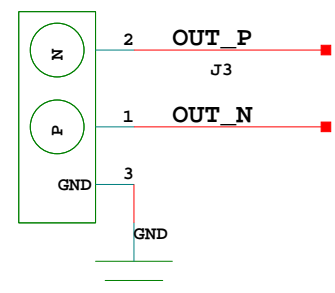
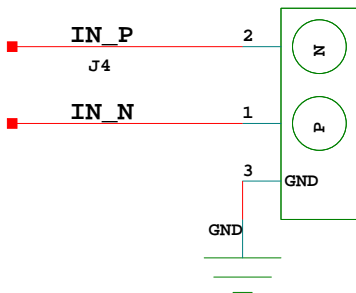
2

3

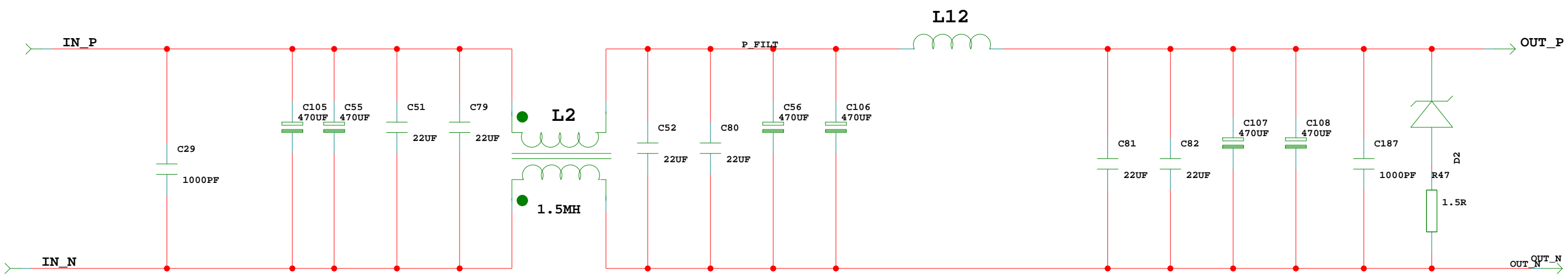
4

5

E



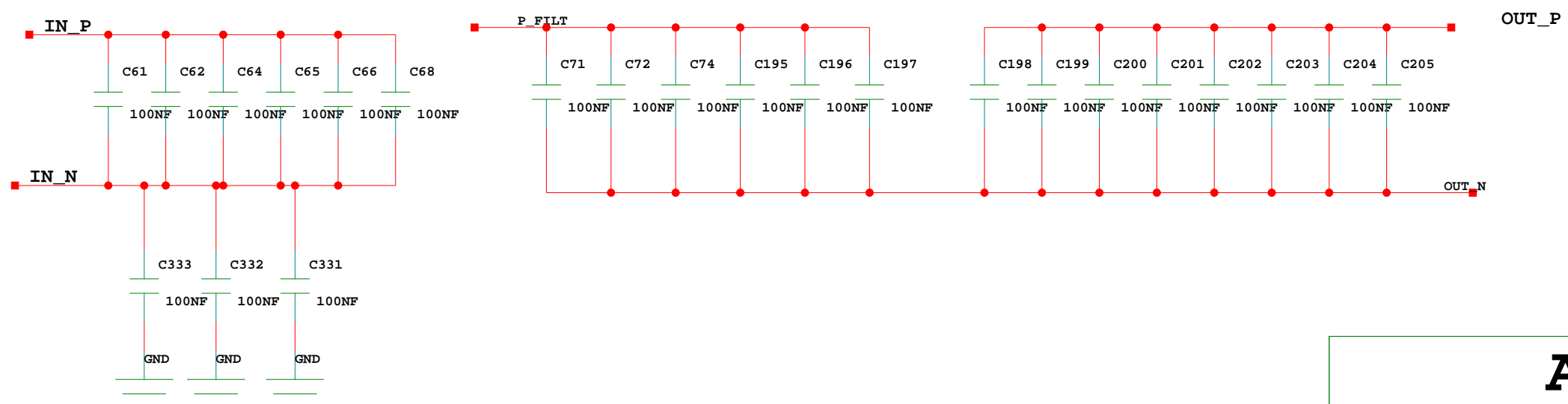
D



C

PLANE DECOUPLING

B



A

ASTRON

DESIGN High Current Low Voltage EMI Filter

SIZE A3	Filename EMI_FILTER_HCHV	REV 2.0
-------------------	------------------------------------	-------------------

1

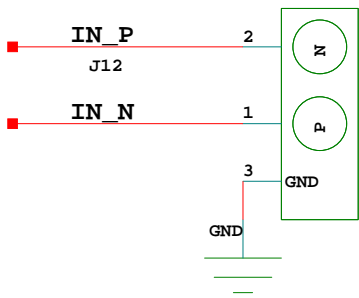
2

3

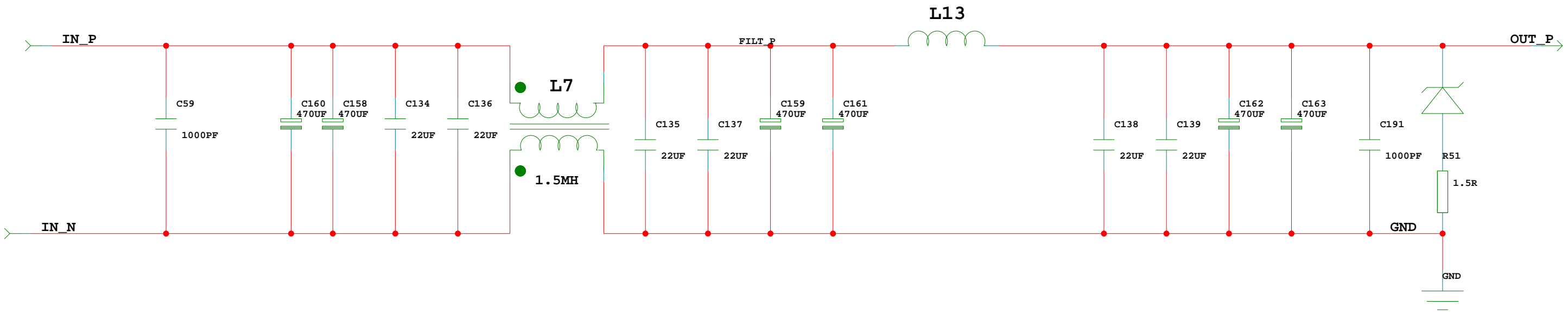
4

5

E

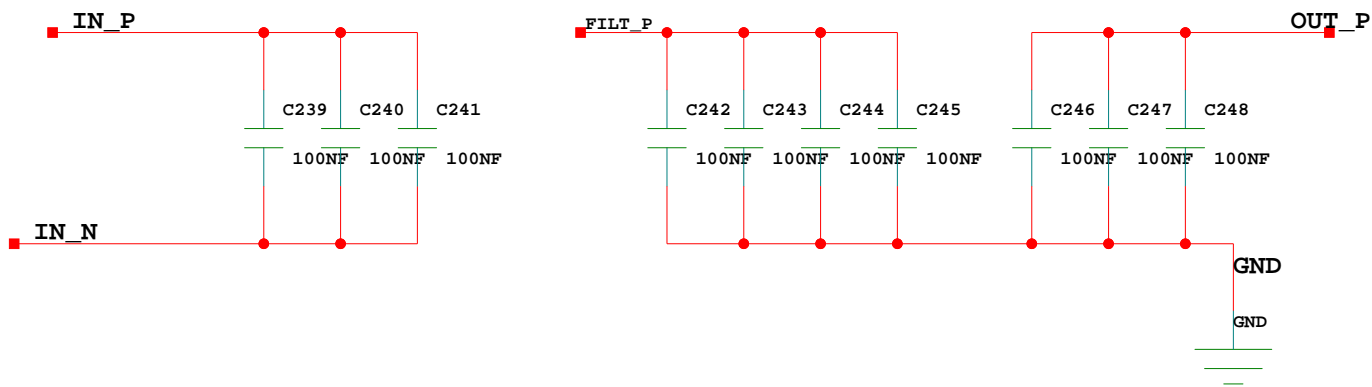


D



C

B



A

ASTRON

DESIGN EMI Filter for High Current Low Vo

SIZE A3	Filename EMI_FILTER_HCLV	REV 2.0
-------------------	------------------------------------	-------------------

DRAWN BY Gijs / Sieds	SHEET 8 of 22	DATE 22/02/2022:13:35
--------------------------	---------------	--------------------------

1

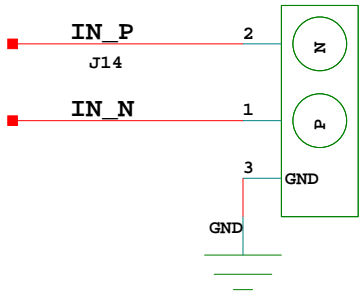
2

3

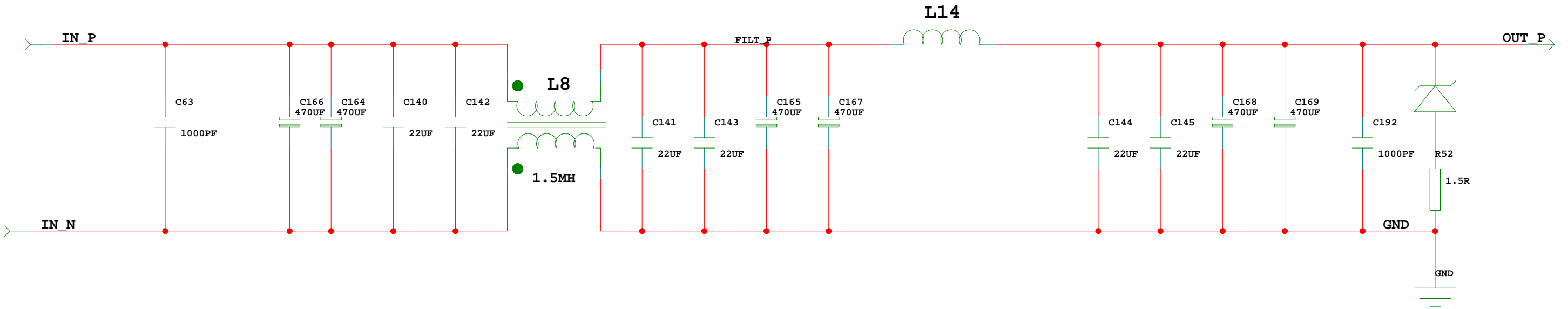
4

5

E

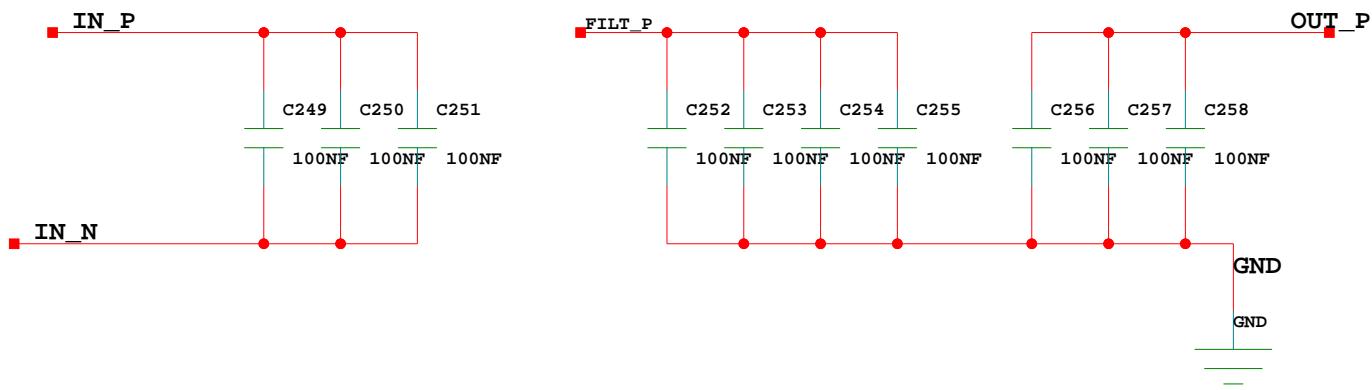


D



C

B



A

ASTRON

DESIGN EMI Filter for High Current Low Vo

SIZE A3	Filename EMI_FILTER_HCLV	REV 2.0
-------------------	------------------------------------	-------------------

DRAWN BY Gijs / Sieds	SHEET 9 of 22	DATE 22/02/2022:13:35
--------------------------	------------------	--------------------------

1

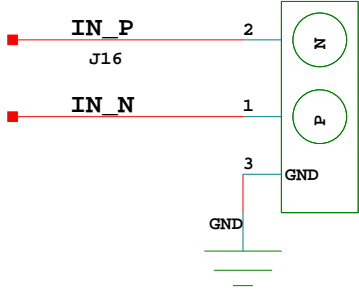
2

3

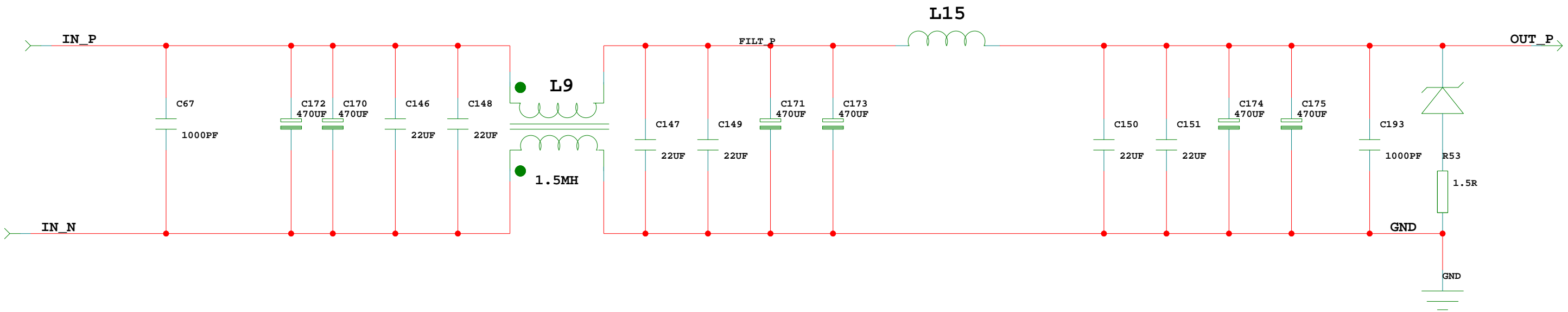
4

5

E

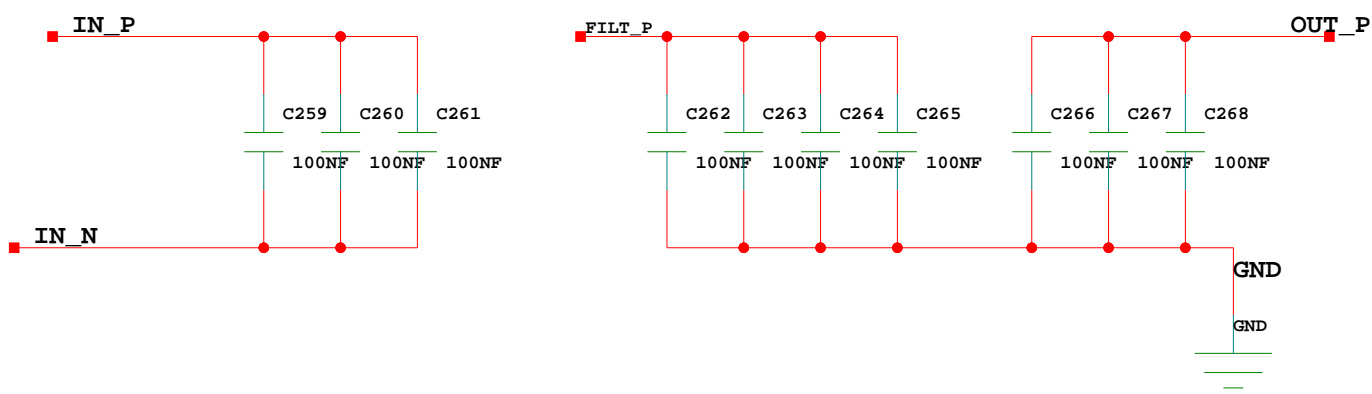


D



C

B



A

ASTRON

DESIGN EMI Filter for High Current Low Vo

SIZE A3	Filename	EMI_FILTER_HCLV	REV 2.0
-------------------	----------	------------------------	-------------------

DRAWN BY Gijs / Sieds	SHEET 10 of 22	DATE 22/02/2022:13:35
--------------------------	----------------	--------------------------

1

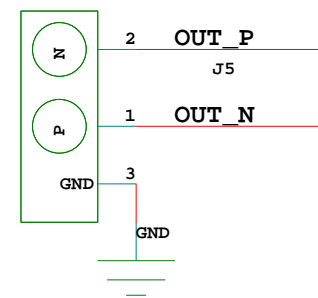
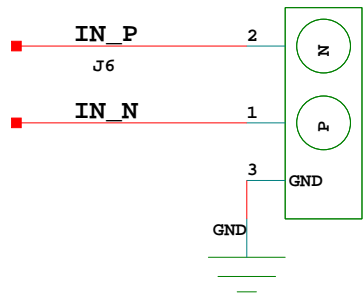
2

3

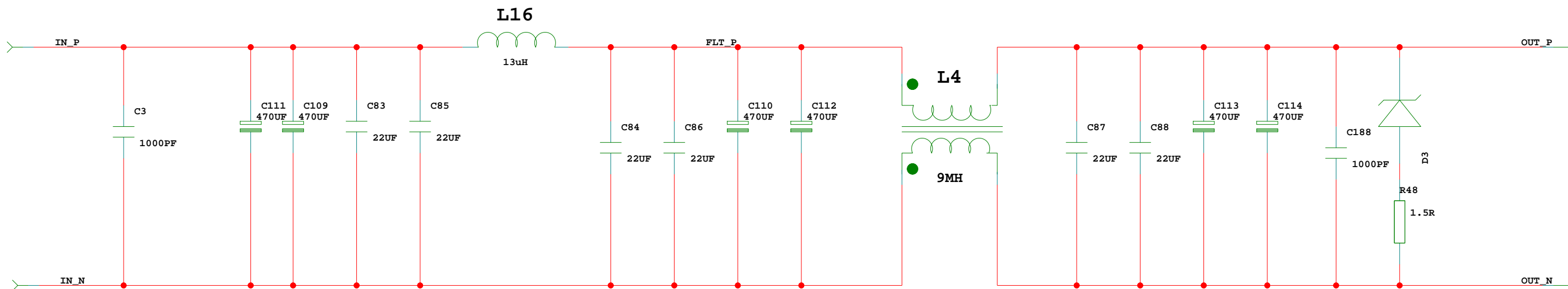
4

5

E

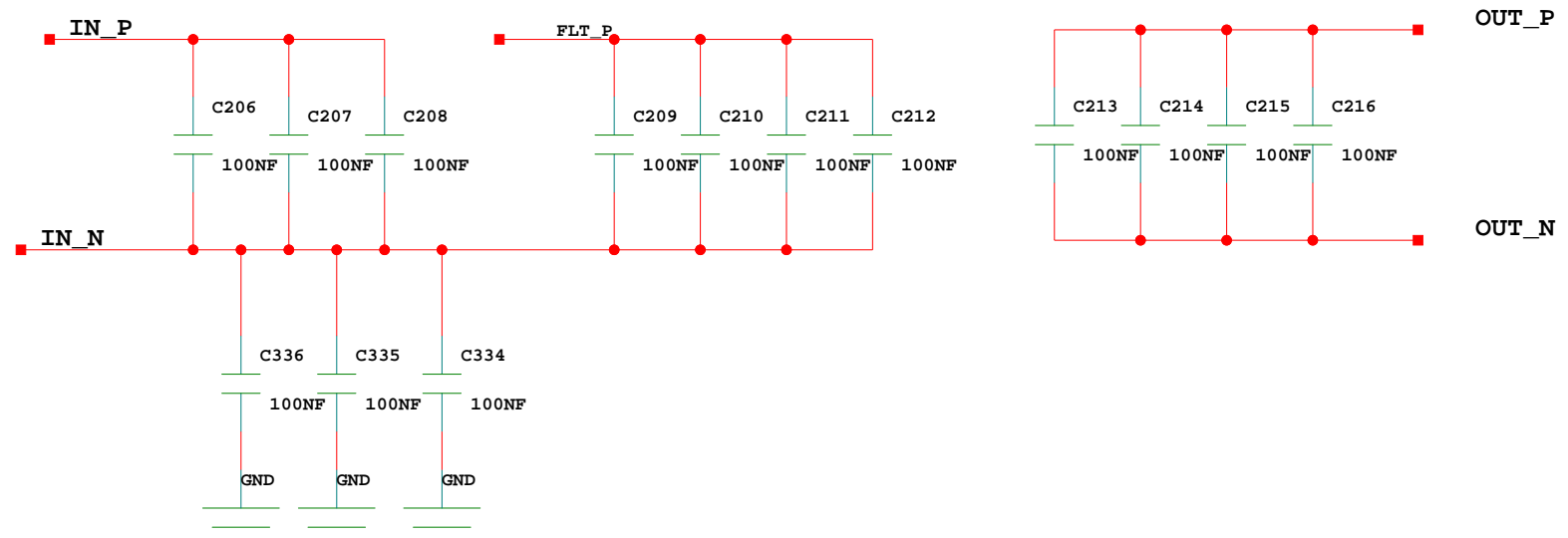


D



C

B



A

ASTRON

DESIGN		EMI Filter for Low Current High Vo	
SIZE	Filename	REV	
A3		2.0	
DRAWN BY Gijs / Sieds		SHEET 11 of 22	DATE 22/02/2022:13:35

1

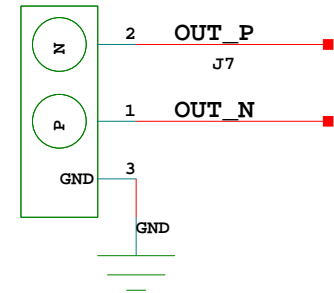
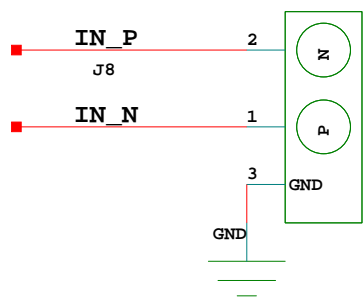
2

3

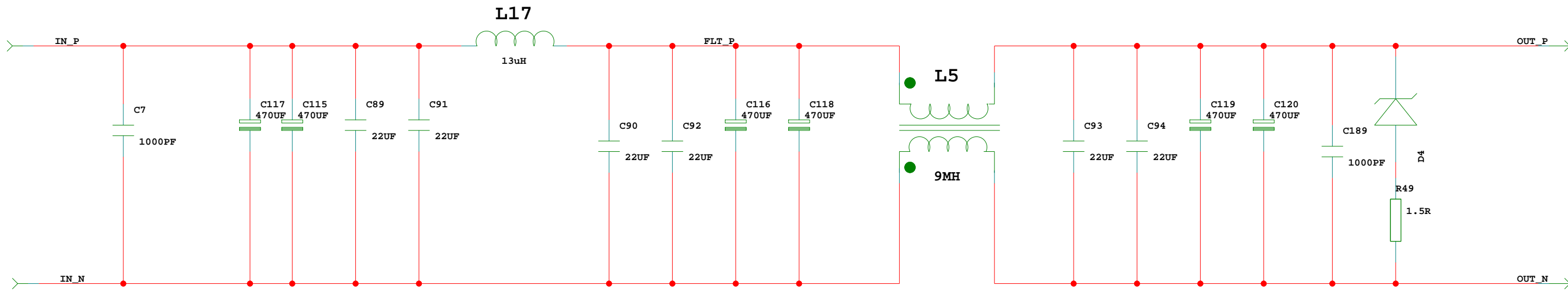
4

5

E

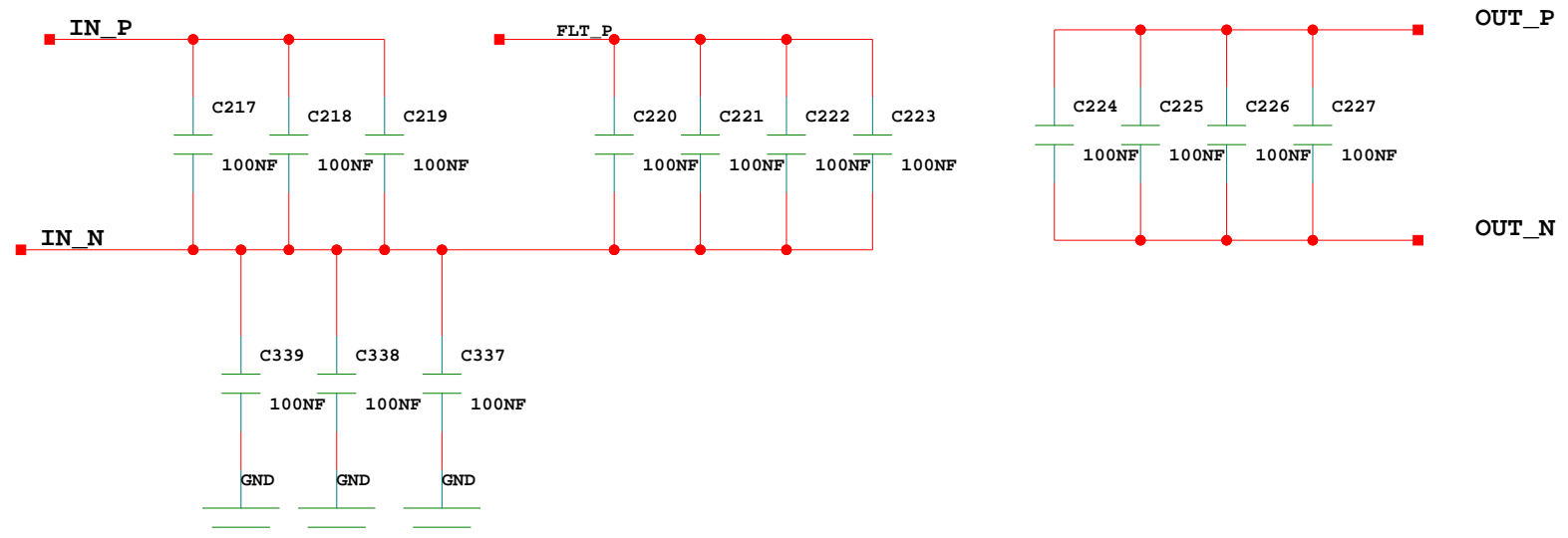


D



C

B



A

ASTRON

DESIGN EMI Filter for Low Current High Vo

SIZE A3	Filename EMI_FILTER_LCHV	REV 2.0
-------------------	------------------------------------	-------------------

1

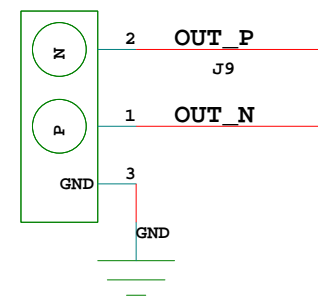
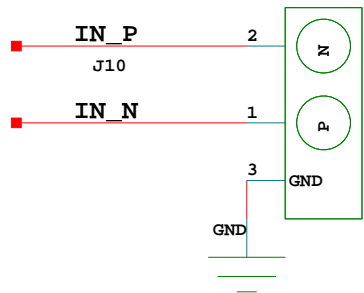
2

3

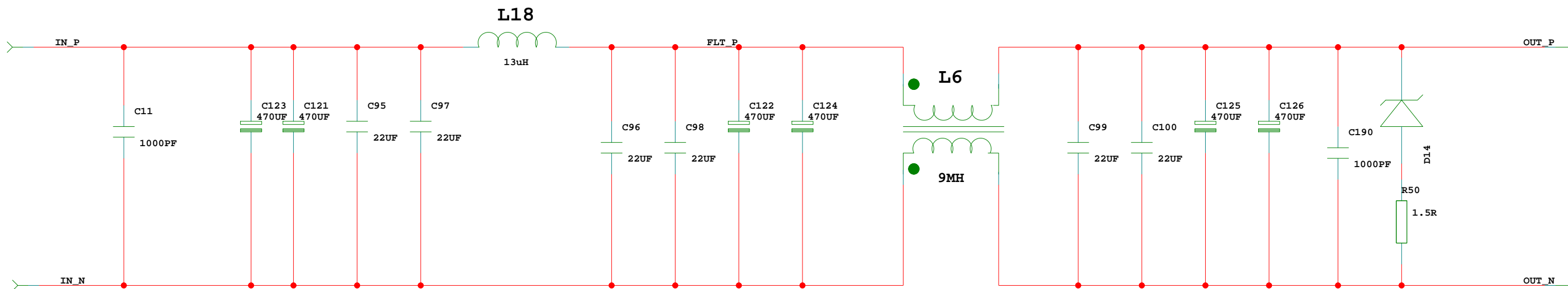
4

5

E

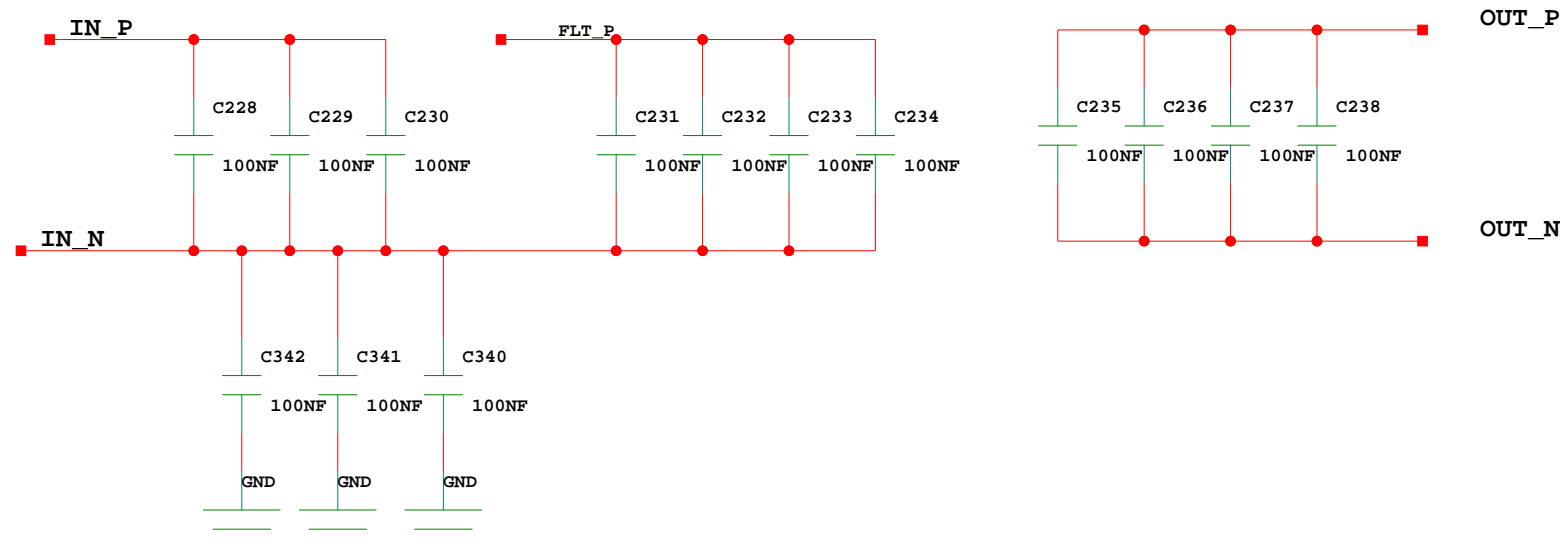


D



C

B



A

ASTRON

DESIGN EMI Filter for Low Current High Vo

SIZE A3	Filename EMI_FILTER_LCHV	REV 2.0
-------------------	------------------------------------	-------------------

DRAWN BY Gijs / Sieds	SHEET 13 of 22	DATE 22/02/2022:13:35
--------------------------	-------------------	--------------------------

1

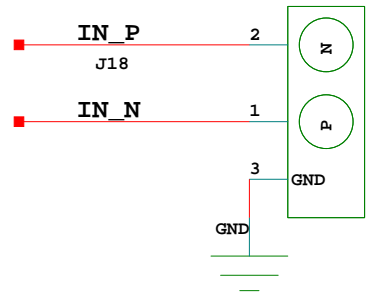
2

3

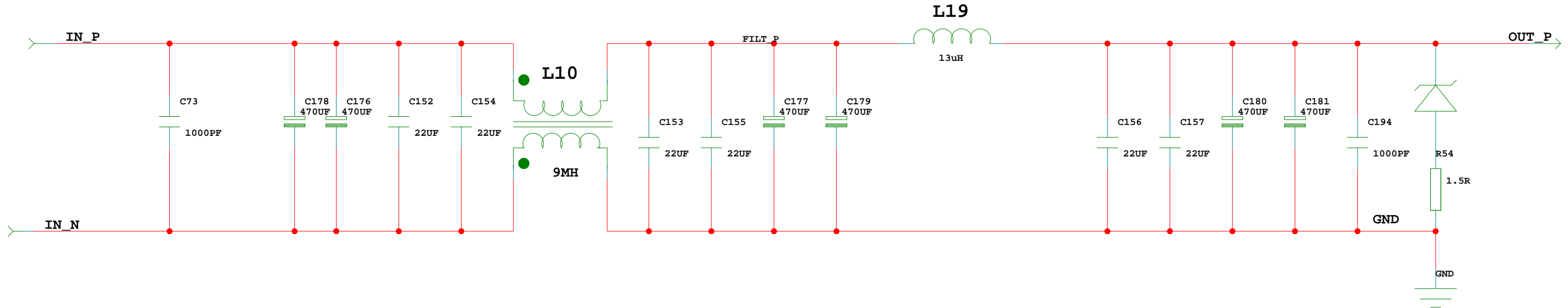
4

5

E

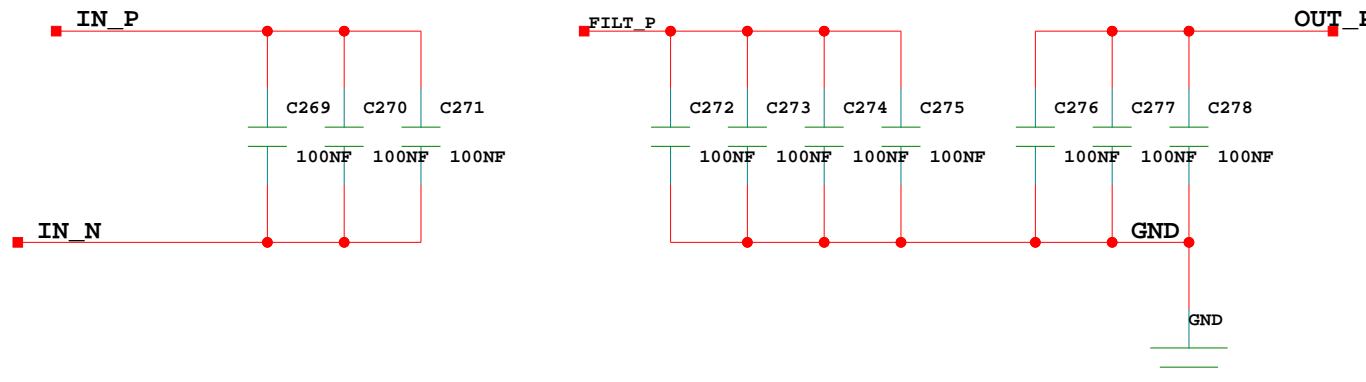


D



C

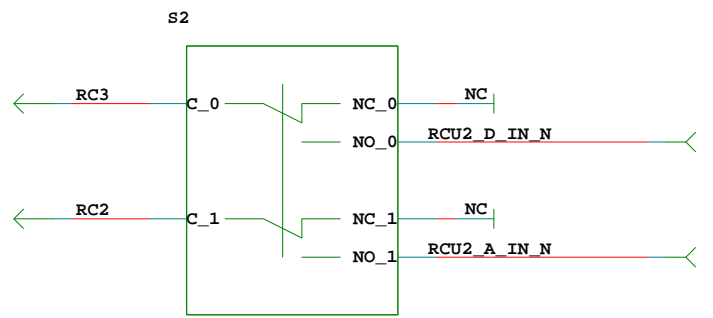
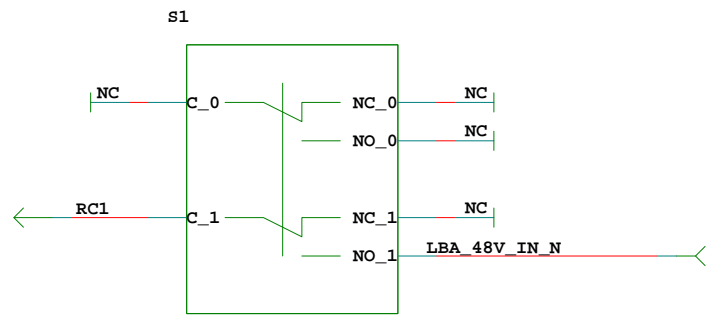
B



A

ASTRON

DESIGN			EMI filter for low currents low vo		
SIZE	Filename	REV			
A3		EMI_FILTER_LCLV		2.0	
DRAWN BY Gijs / Sieds		SHEET 14 of 22		DATE 22/02/2022:13:35	



ASTRON

DESIGN

ENDIS_PM

SIZE

A1

Filename

ENDIS_PM

REV

2.0

DRAWN BY

Gijs / Sieds

SHEET

15 of 22

DATE

22/02/2022:13:35

1

2

3

4

5

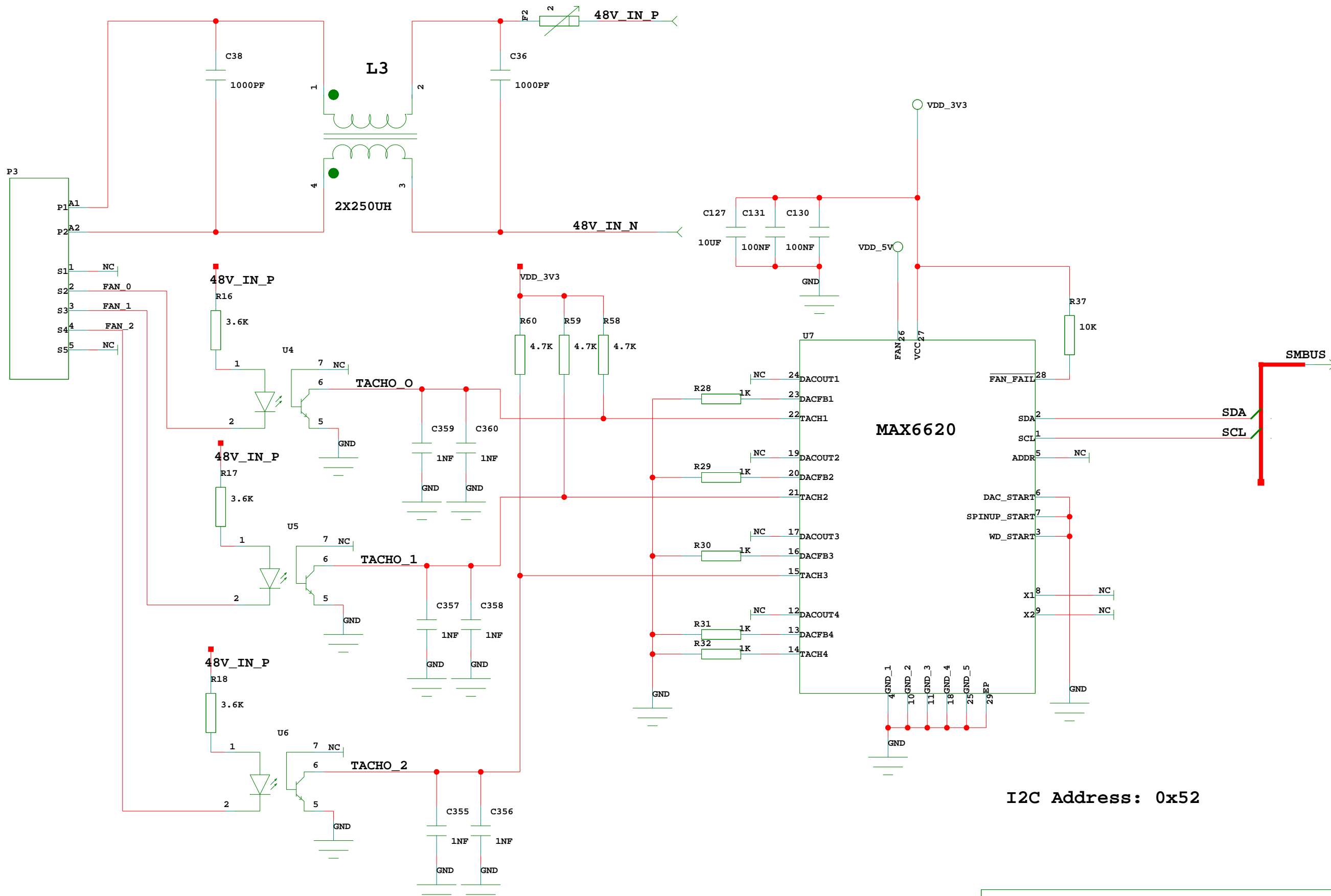
E

D

C

B

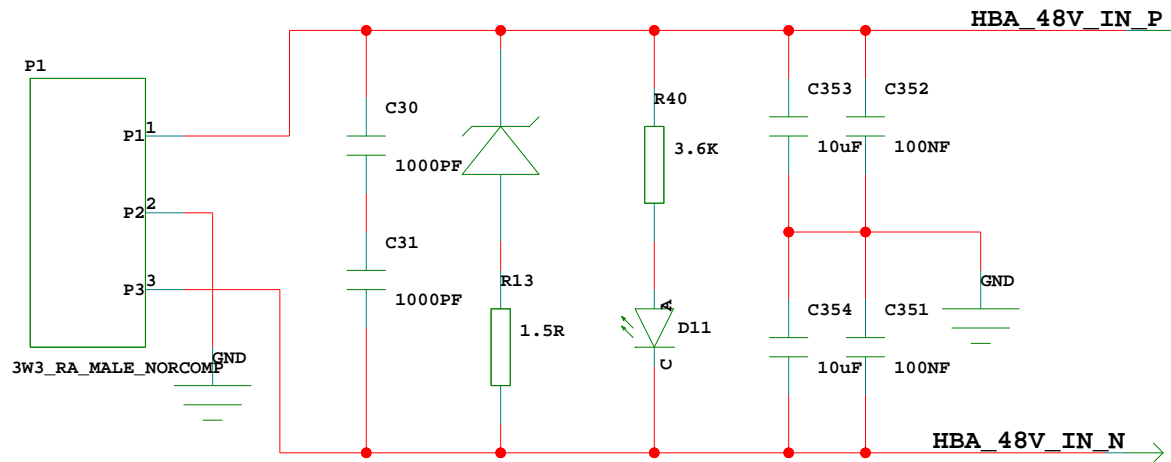
A



I2C Address: 0x52

ASTRON

DESIGN			Fan monitoring circuit		
SIZE	Filename	FAN_MONITOR		REV	2.0
DRAWN BY Gijs / Sieds		SHEET 16 of 22	DATE 22/02/2022:13:35		



GND is only used for shielding of the cable

ASTRON

DESIGN

HBA input power connector

SIZE

A1

Filename

HBA_PWR_INPUT

REV

2.0

DRAWN BY

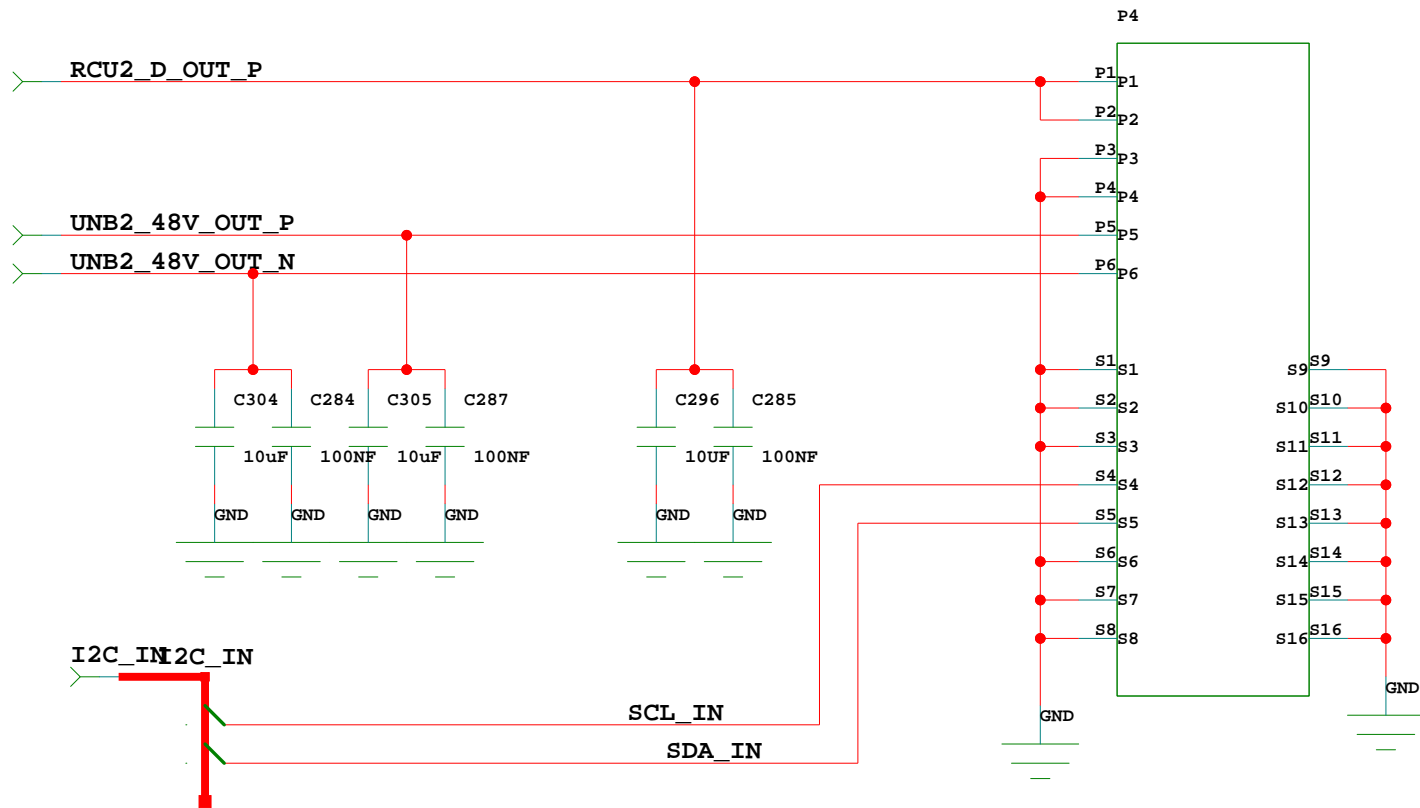
Gijs / Sieds

SHEET

17 of 22

DATE

22/02/2022:13:35



ASTRON

DESIGN

Midplane interface Digital conn

SIZE

A1

Filename

MIDPLANE_DIG

REV

2.0

DRAWN BY

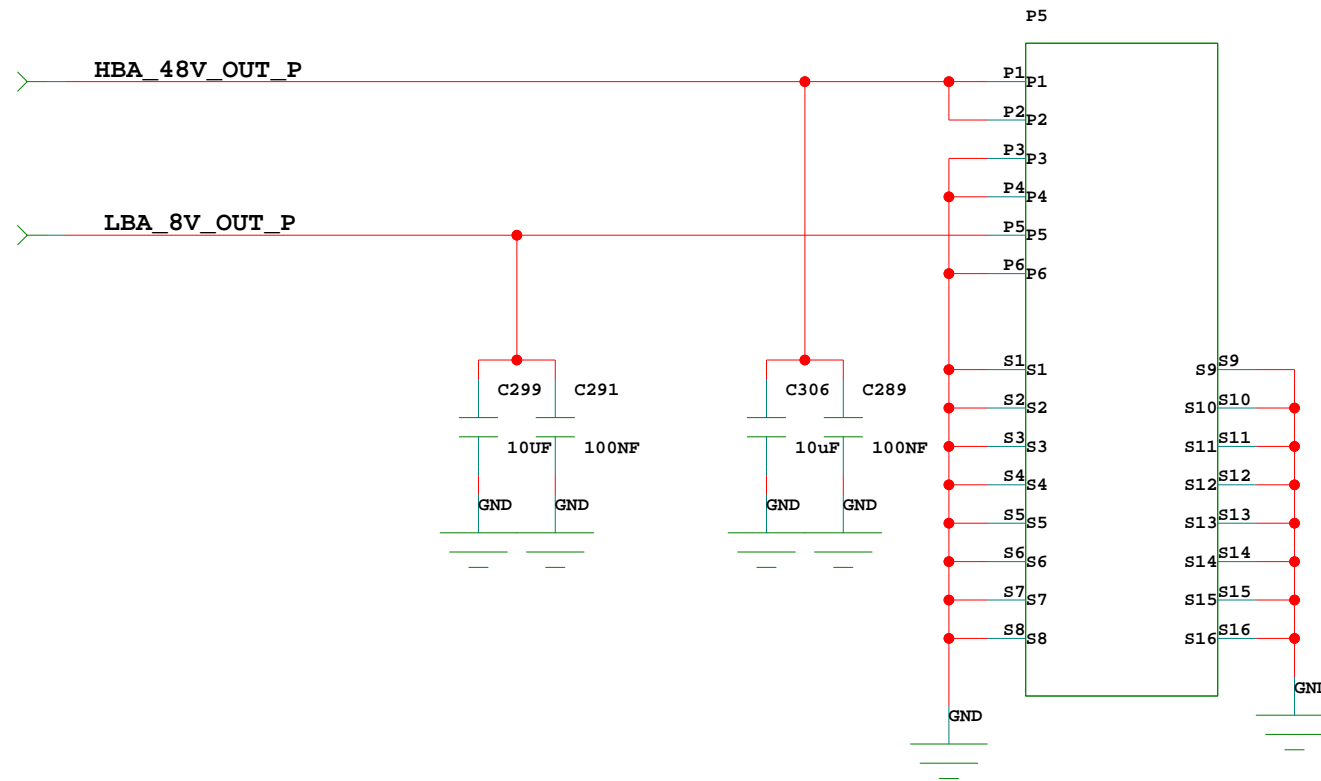
Gijs / Sieds

SHEET

18 of 22

DATE

22/02/2022:13:35



ASTRON

DESIGN

Midplane interfac with antenna

SIZE

A1

Filename

MIDPLANE_HBA

REV

2.0

DRAWN BY

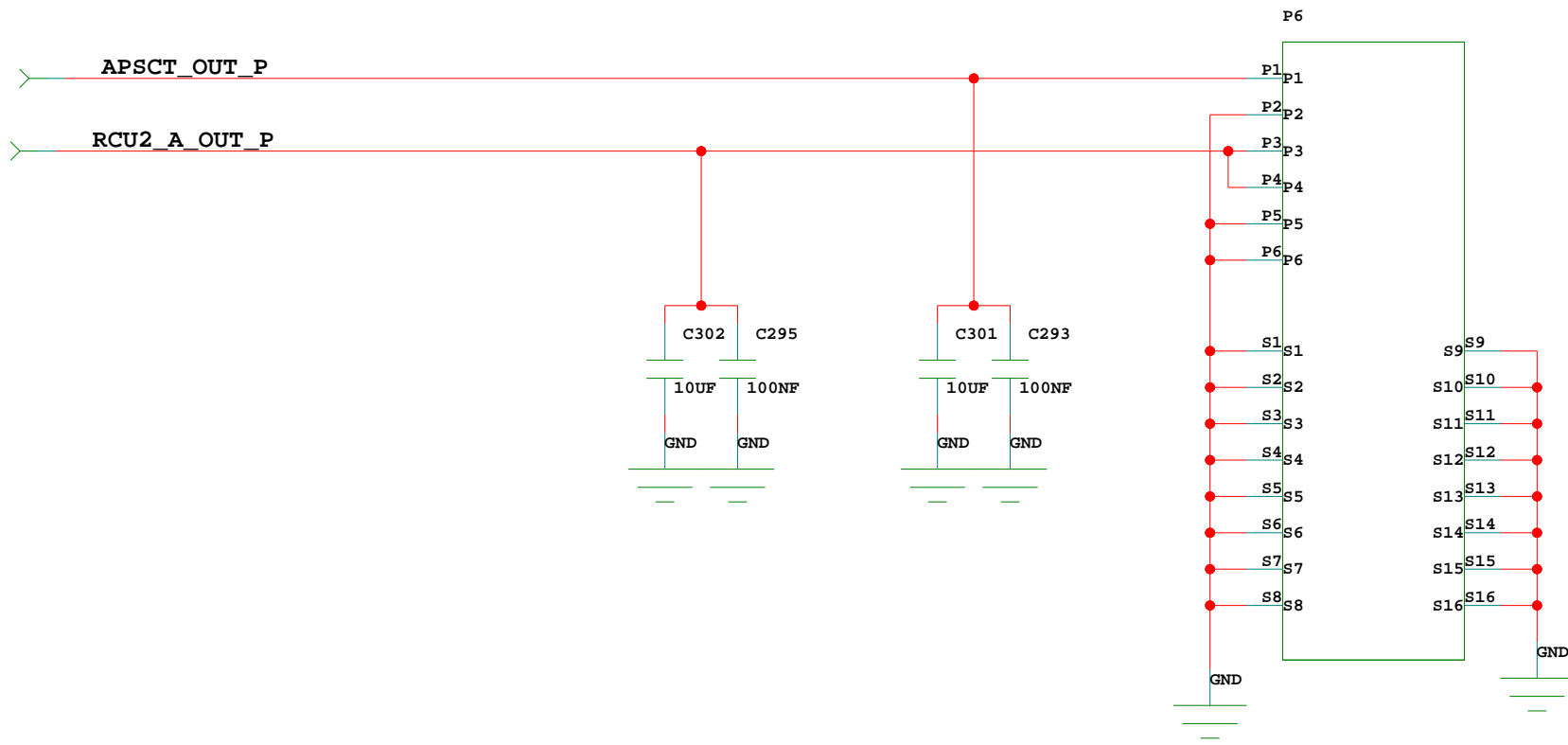
Gijs / Sieds

SHEET

19 of 22

DATE

22/02/2022:13:35



ASTRON

DESIGN Midplane interface with RCU2_AN

SIZE A1	Filename	MIDPLANE_RCU2	REV 2.0
-------------------	----------	----------------------	-------------------

1

2

3

4

5

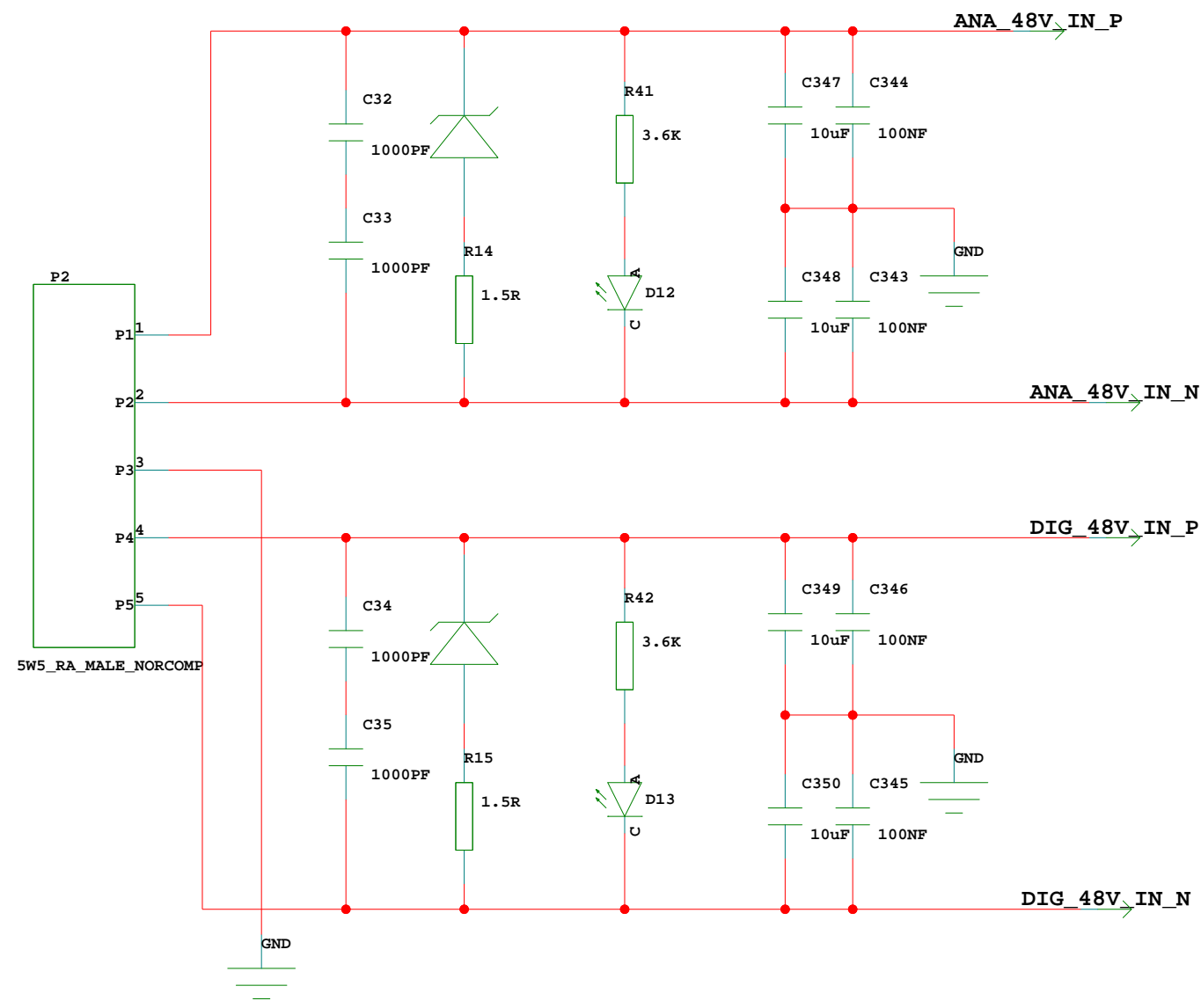
E

D

C

B

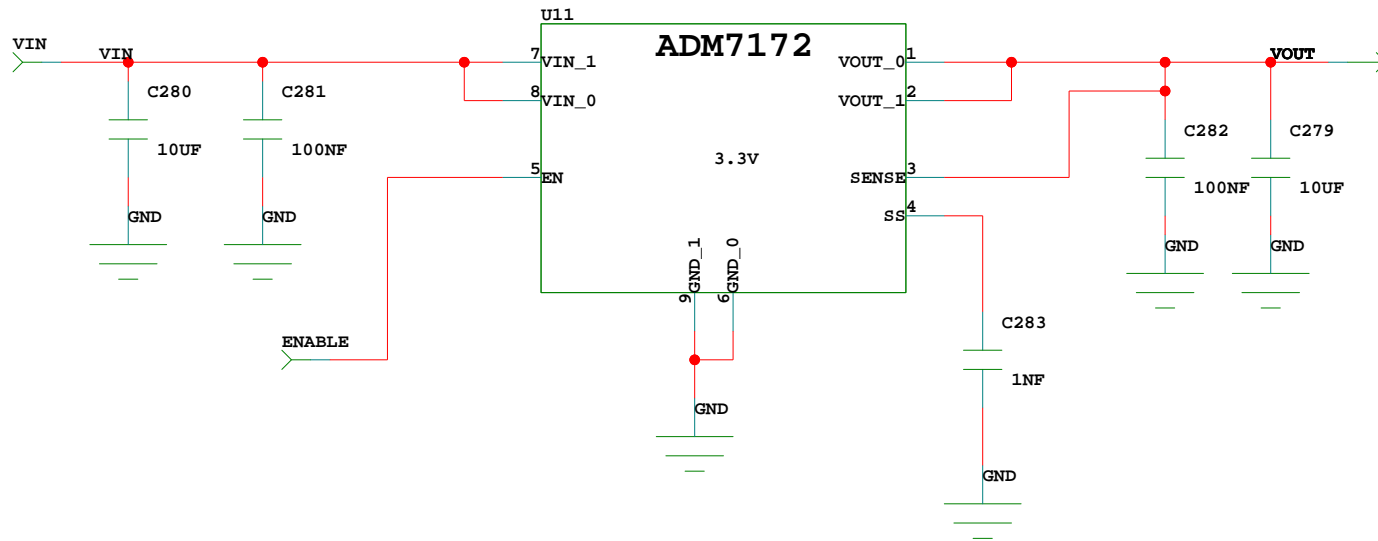
A



Light Pipe

Light Pipe

<h1>ASTRON</h1>			
DESIGN Subrack power input connector			
SIZE A3	Filename PWR_INPUT	REV 2.0	
DRAWN BY Gijs / Sieds	SHEET 21 of 22	DATE	22/02/2022:13:35



Fixed 3V3

ASTRON

DESIGN

2A Low Noise LDO Circuit

SIZE

A1

Filename

LDO_2A

REV
2.0

DRAWN BY / sieds

SHEET 22 of 22

DATE

22/02/2022:13:35