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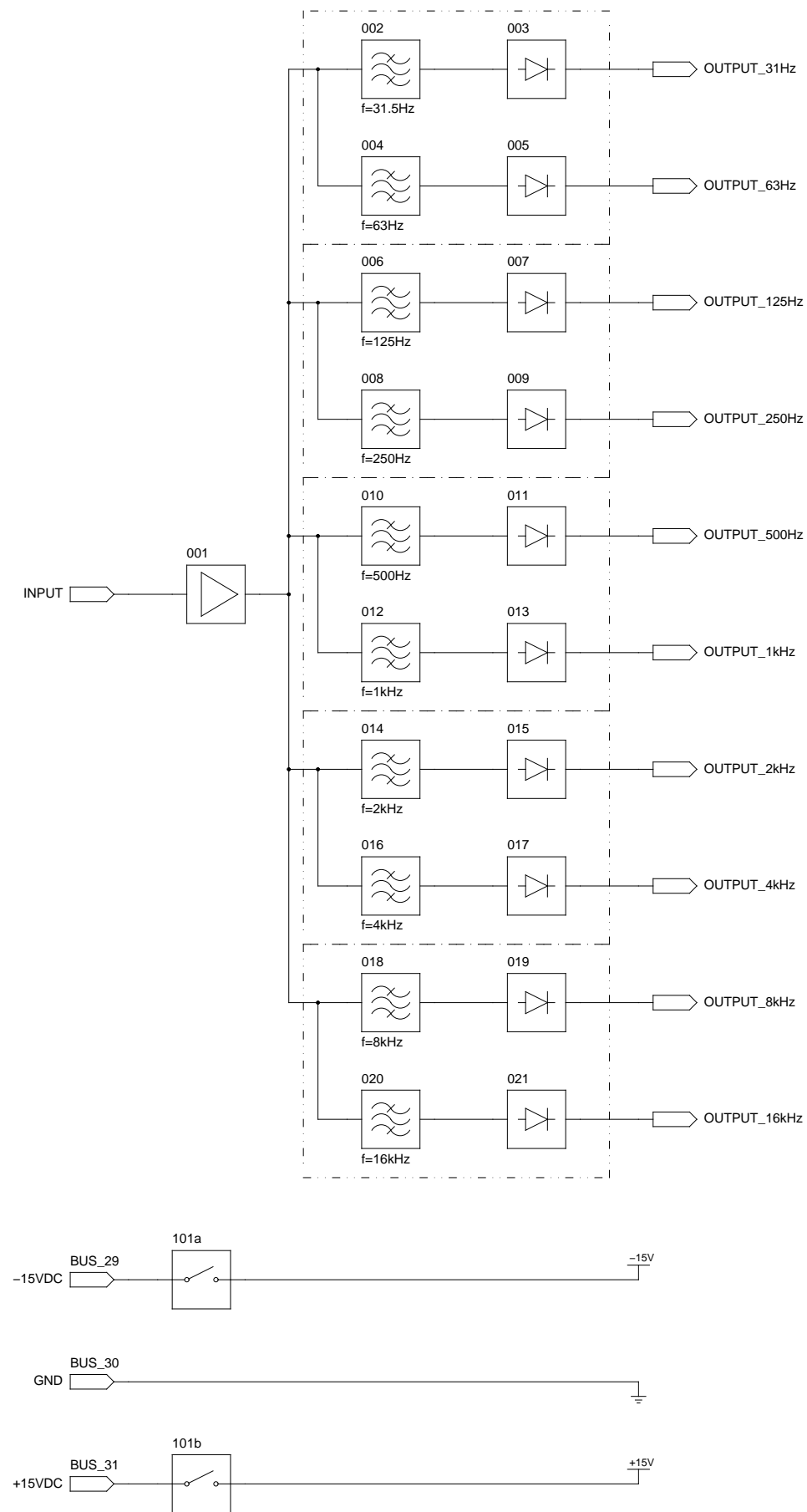
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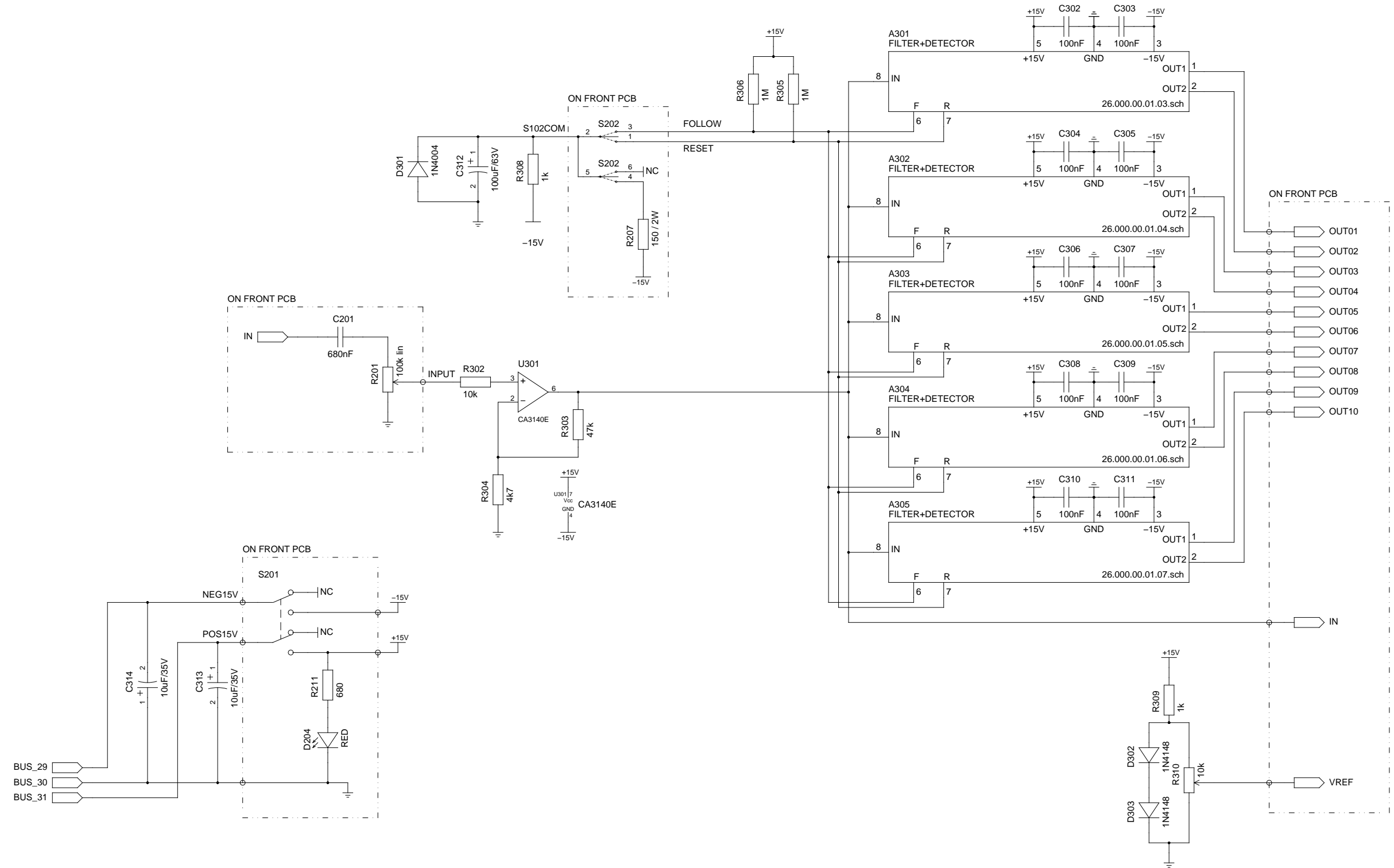
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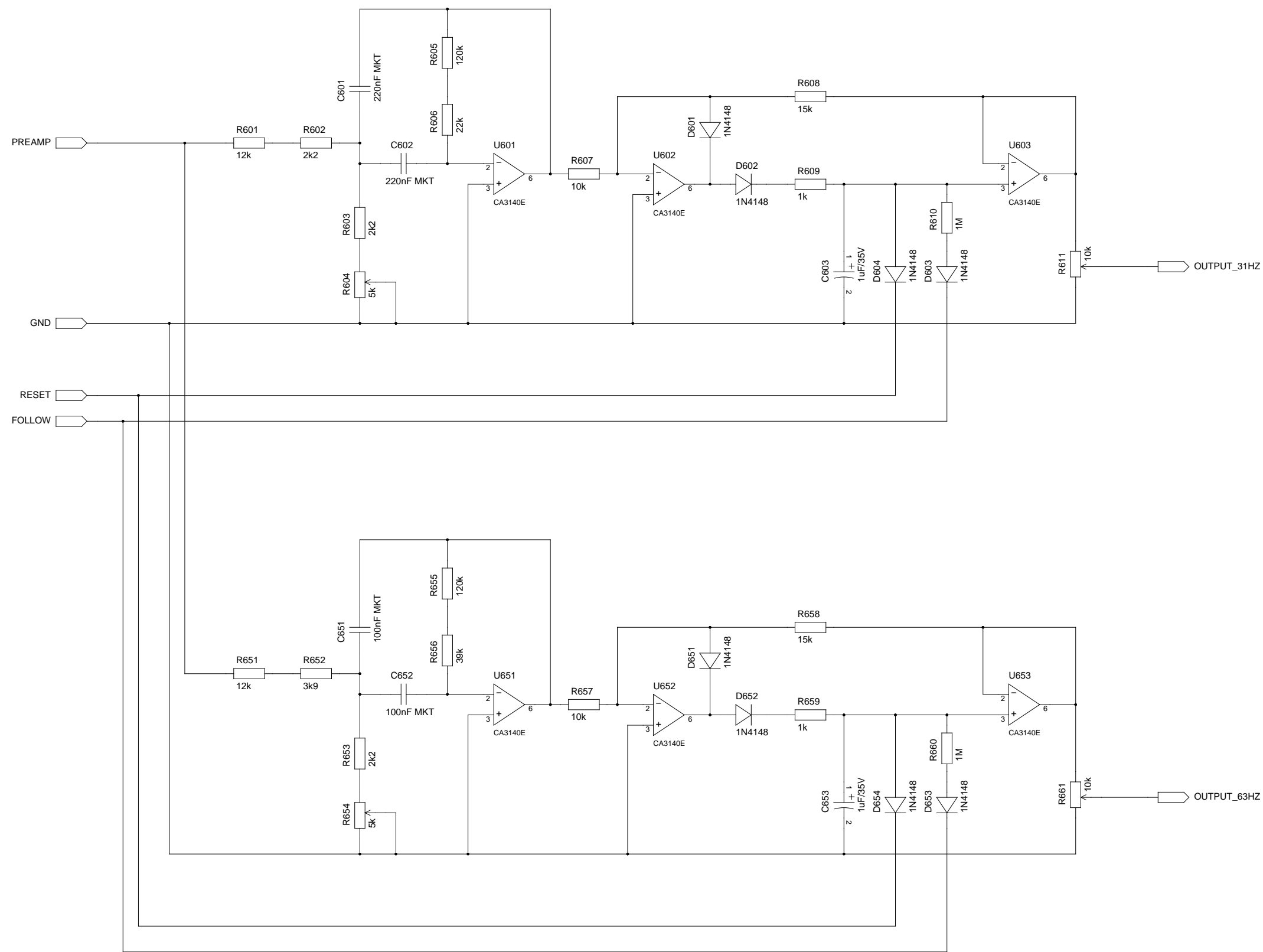
Octave Filter
Front Page
TITLE OCTAVE_FILTER

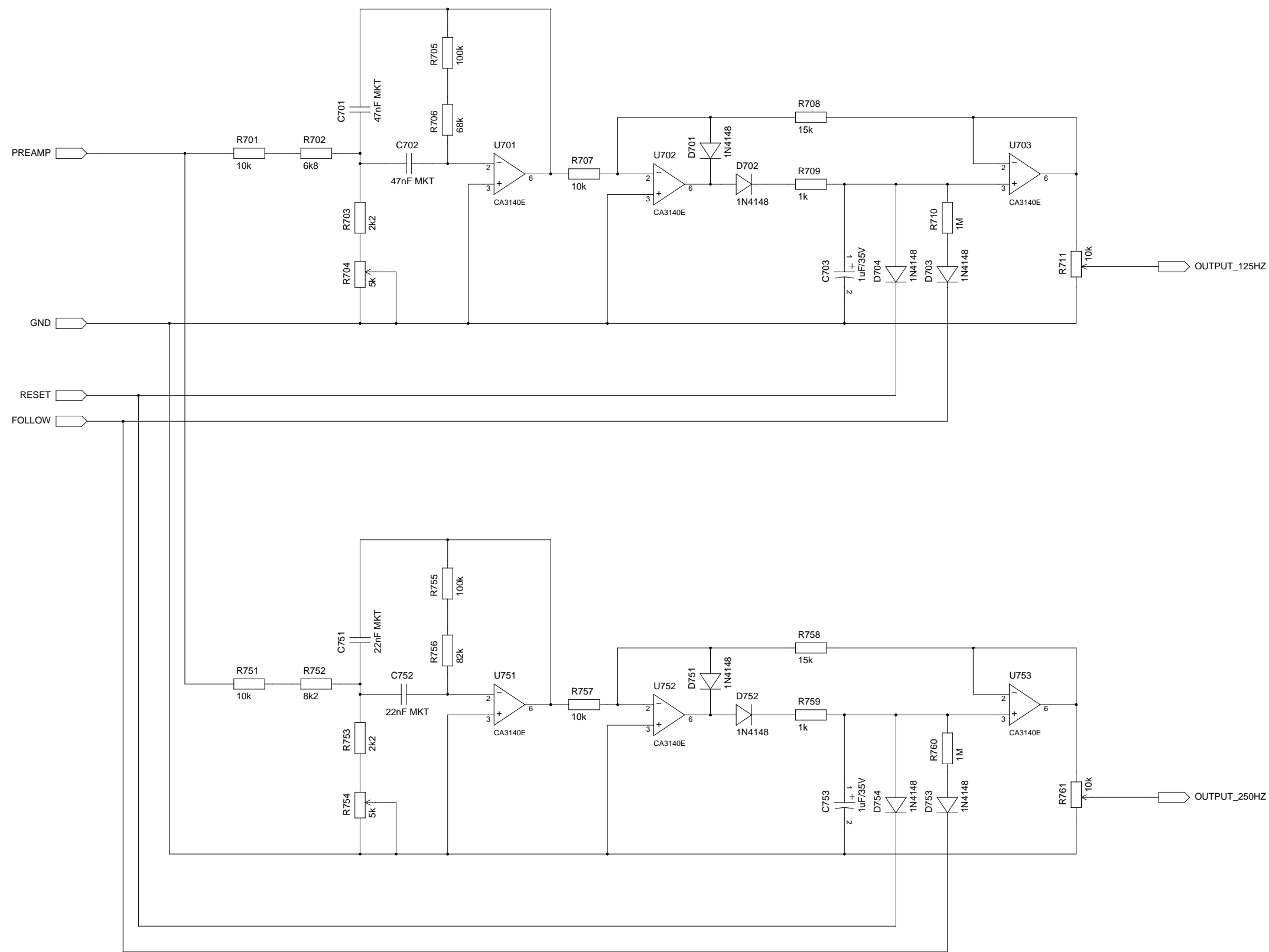
FILE: 26.000.00.00.01.sch
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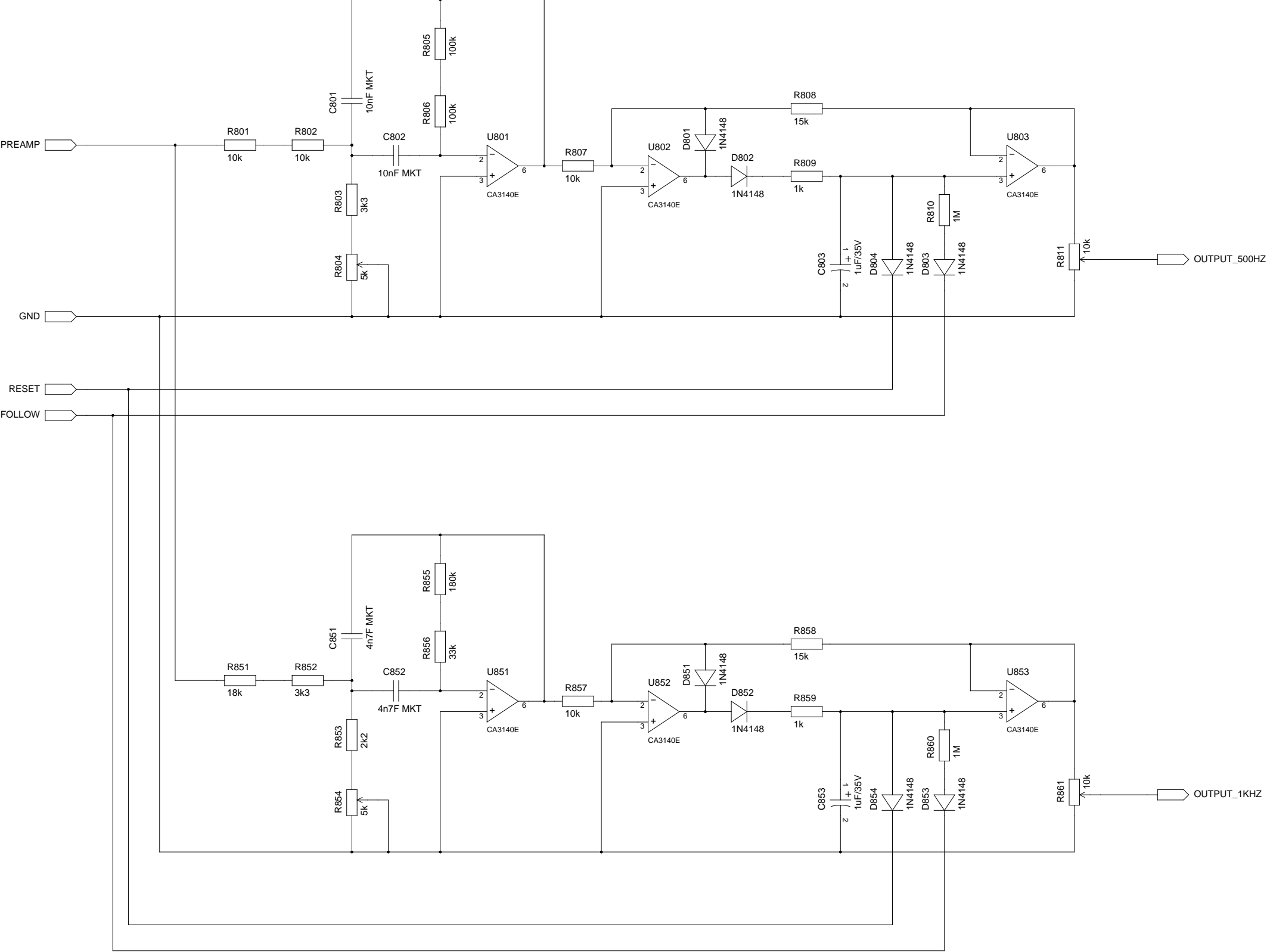
REVISION: 20180513
DRAWN BY: Bert Timmerman

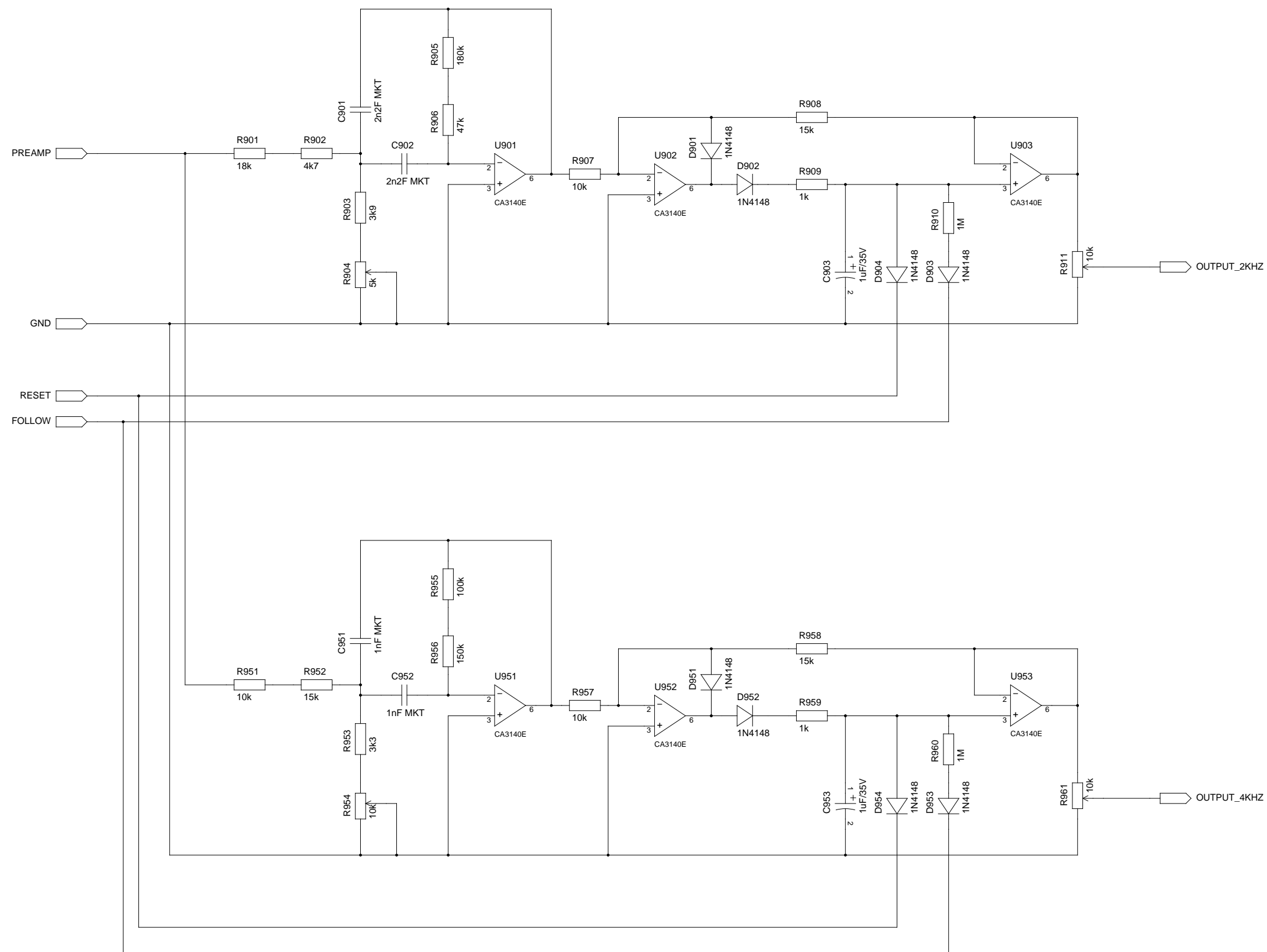


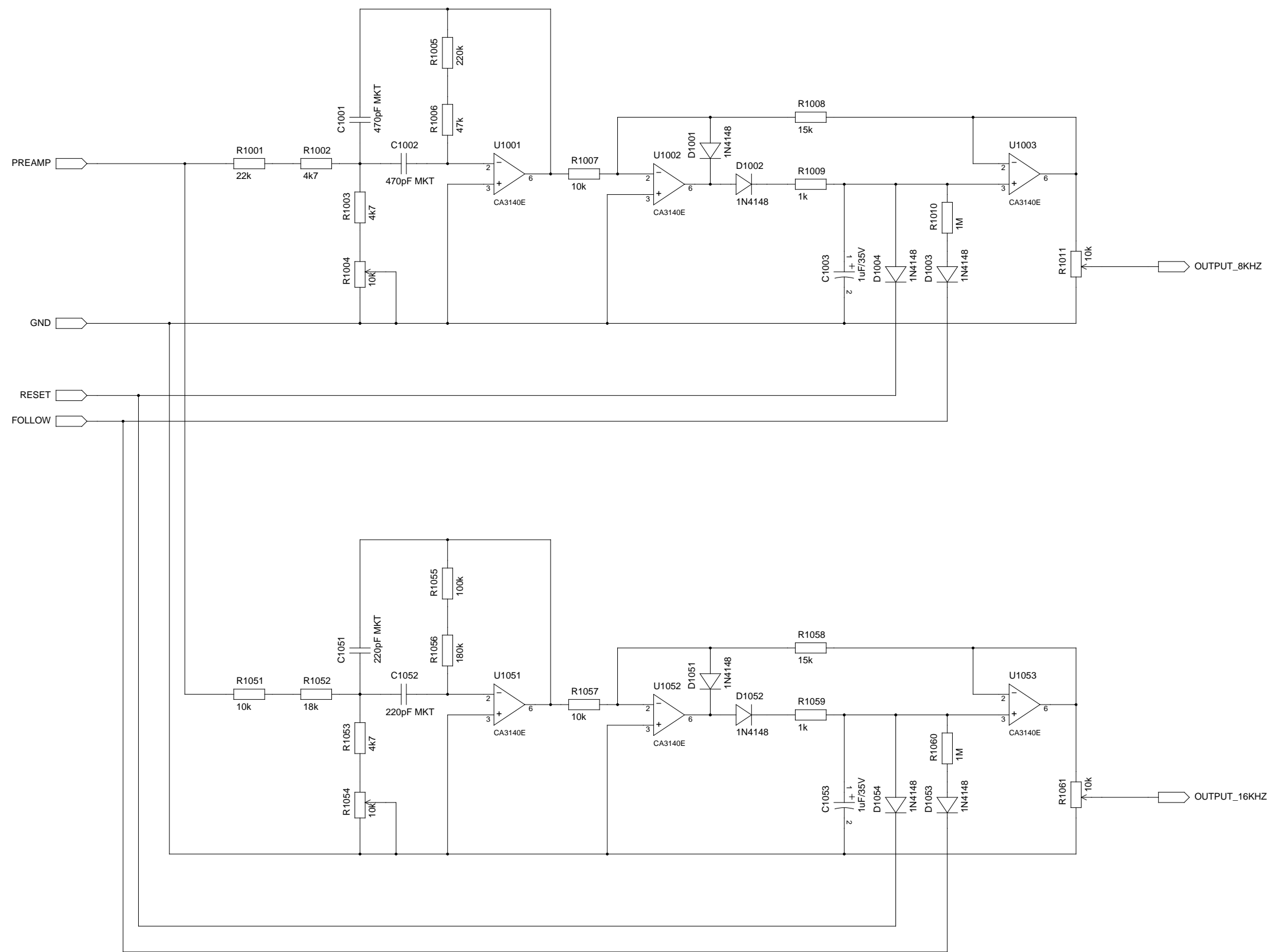












.TITLE OCTAVE FILTER – MAIN BOARD – INPUT STAGE – FREQUENCY RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 15
VEE 5 0 -15

VS 1 0 AC 1 SIN(0 0.1 100)
C1 1 2 680n
R1 0 2 100k
R2 2 6 10K
R3 3 7 47k
R4 7 0 4700
XOP1 6 7 0 4 5 3 UA741

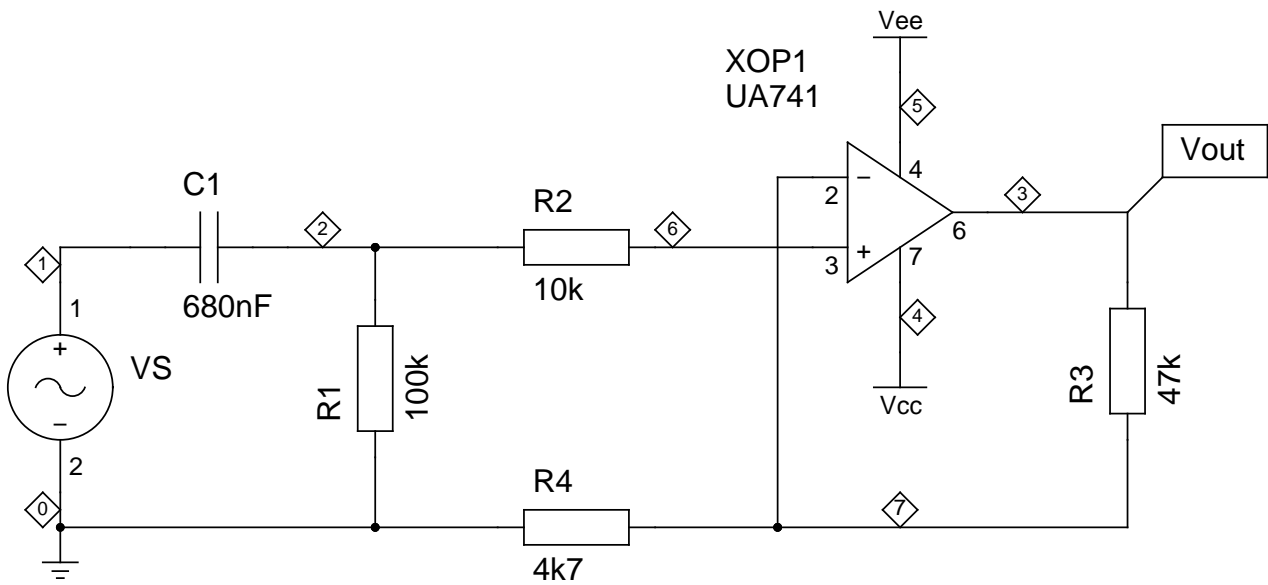
.PRINT OP Iter(0) V(3)

.PRINT AC VDB(3)

* FROM TO STEP
.TRAN 0.00001 0.2 0.0001

* #STEPS/DECADE FROM TO
.AC DEC 20 0.01 10Meg

.END



Octave Filter – Main board – Input stage (for simulation)
schematic

TITLE OCTAVE_FILTER

FILE: 26.000.00.02.01.sch

REVISION: 20200205

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – MAIN BOARD – INPUT STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

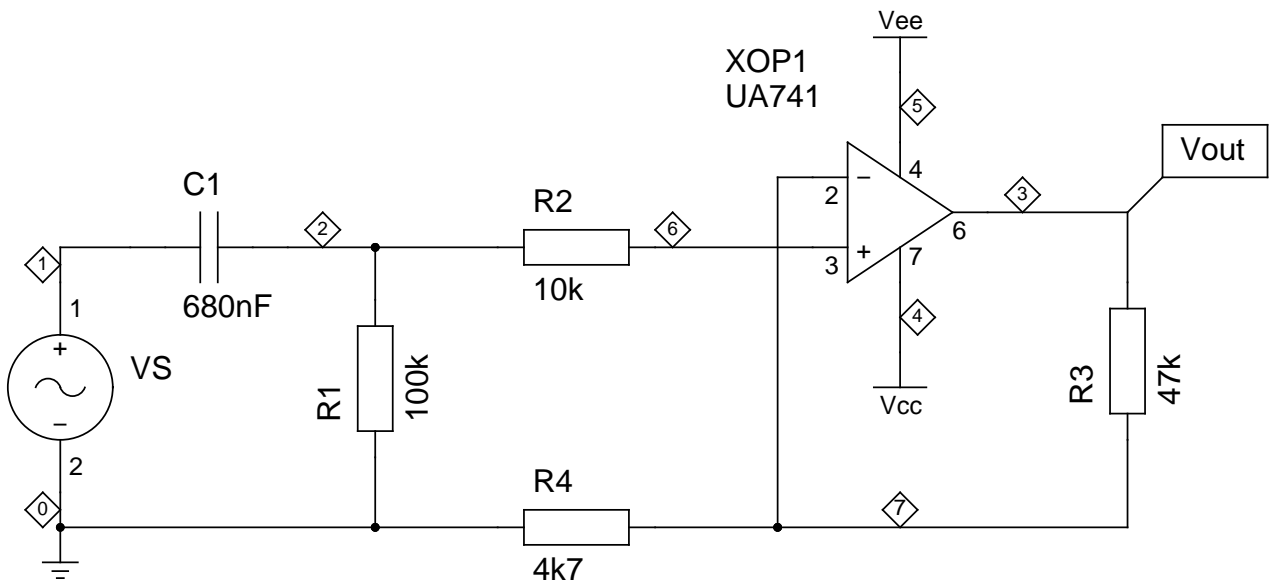
VCC 4 0 pulse(iv=0 pv=15 rise=.01)
VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 31.5)
C1 1 2 680n
R1 0 2 100k
R2 2 6 10K
R3 3 7 47k
R4 7 0 4700
XOP1 6 7 0 4 5 3 UA741

.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(4) V(5)

* FROM TO STEP
.TRAN 0 0.4 0.00001 TRACE ALL
.END



Octave Filter – Main board – Input stage (for simulation) schematic TITLE OCTAVE_FILTER		
FILE: 26.000.00.02.02.sch	REVISION: 20200207	A3
PAGE 01 OF 01	DRAWN BY: Bert Timmerman	

.TITLE OCTAVE FILTER – MAIN BOARD – INPUT STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1 16k)

C1 1 2 680n

R1 0 2 100k

R2 2 6 10K

R3 3 7 47k

R4 7 0 4700

XOP1 6 7 0 4 5 3 UA741

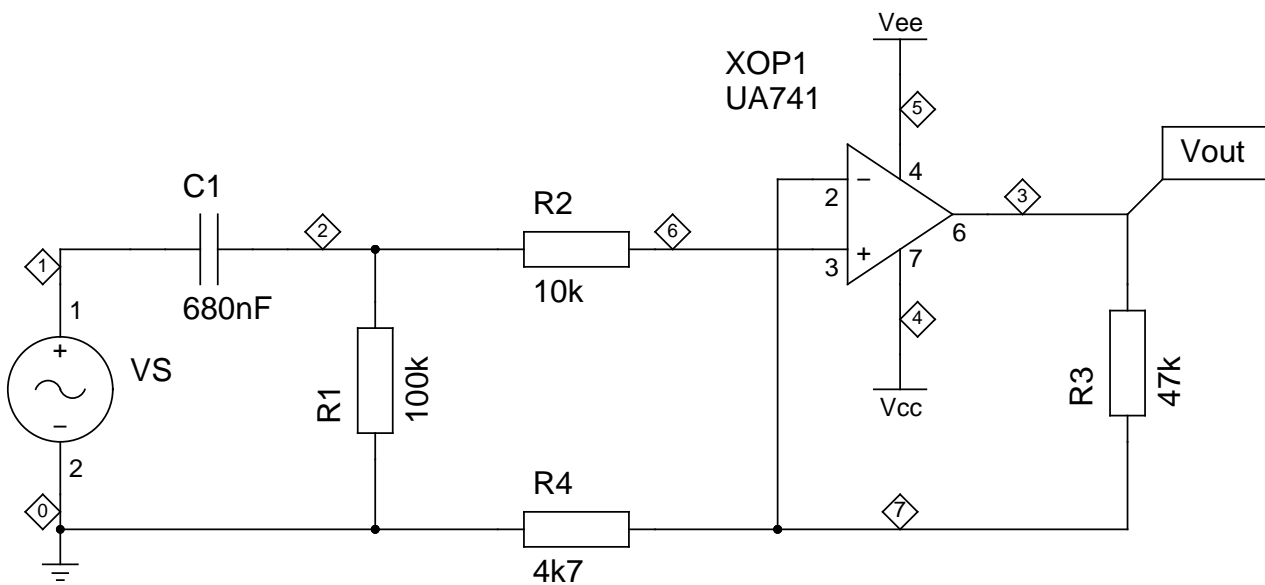
.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(4) V(5)

* FROM TO STEP

.TRAN 0 0.01 0.000001 TRACE ALL

.END



Octave Filter – Main board – Input stage (for simulation)
schematic

TITLE OCTAVE_FILTER

FILE: 26.000.00.02.03.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – MAIN BOARD – INPUT STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

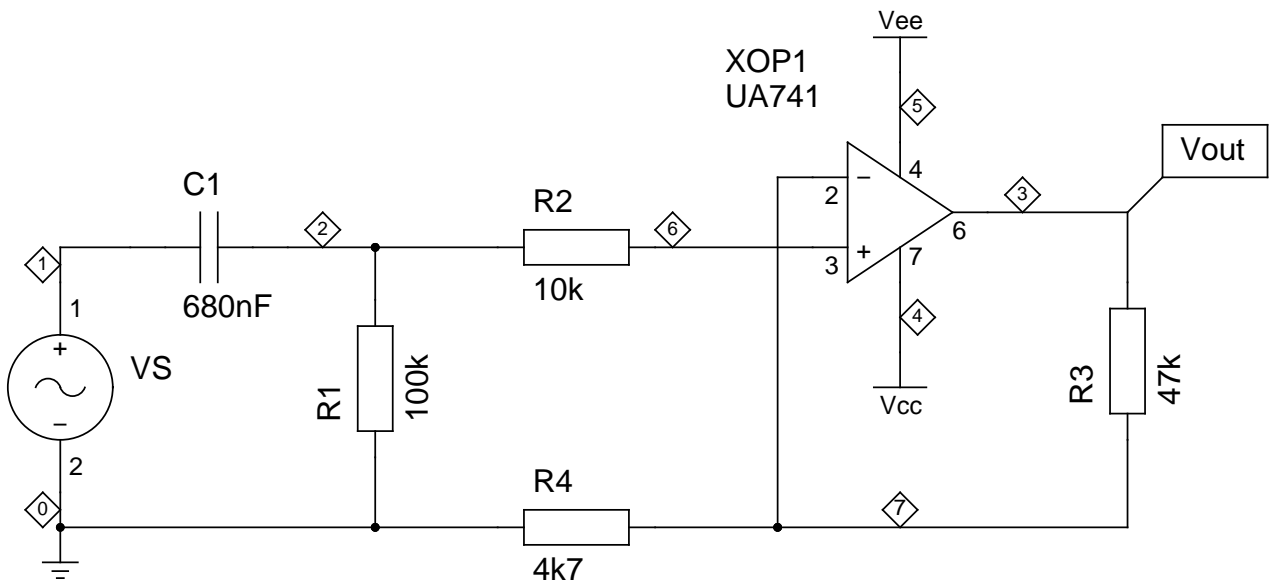
VCC 4 0 pulse(iv=0 pv=15 rise=.01)
VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 1k)
C1 1 2 680n
R1 0 2 100k
R2 2 6 10K
R3 3 7 47k
R4 7 0 4700
XOP1 6 7 0 4 5 3 UA741

.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(4) V(5)

* FROM TO STEP
.TRAN 0 0.02 0.000001 TRACE ALL
.END



Octave Filter – Main board – Input stage (for simulation) schematic		
TITLE OCTAVE_FILTER		
FILE: 26.000.00.02.04.sch	REVISION: 20200207	A3
PAGE 01 OF 01	DRAWN BY: Bert Timmerman	

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – BPF STAGE – FREQUENCY RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 15
VEE 5 0 -15

VS 1 0 AC 1 SIN(0 0.1 100)
R1 1 2 14200
R2 3 6 142K
R3 0 2 7200
C1 2 6 220nF
C2 3 2 220nF
XOP1 0 6 0 4 5 3 UA741

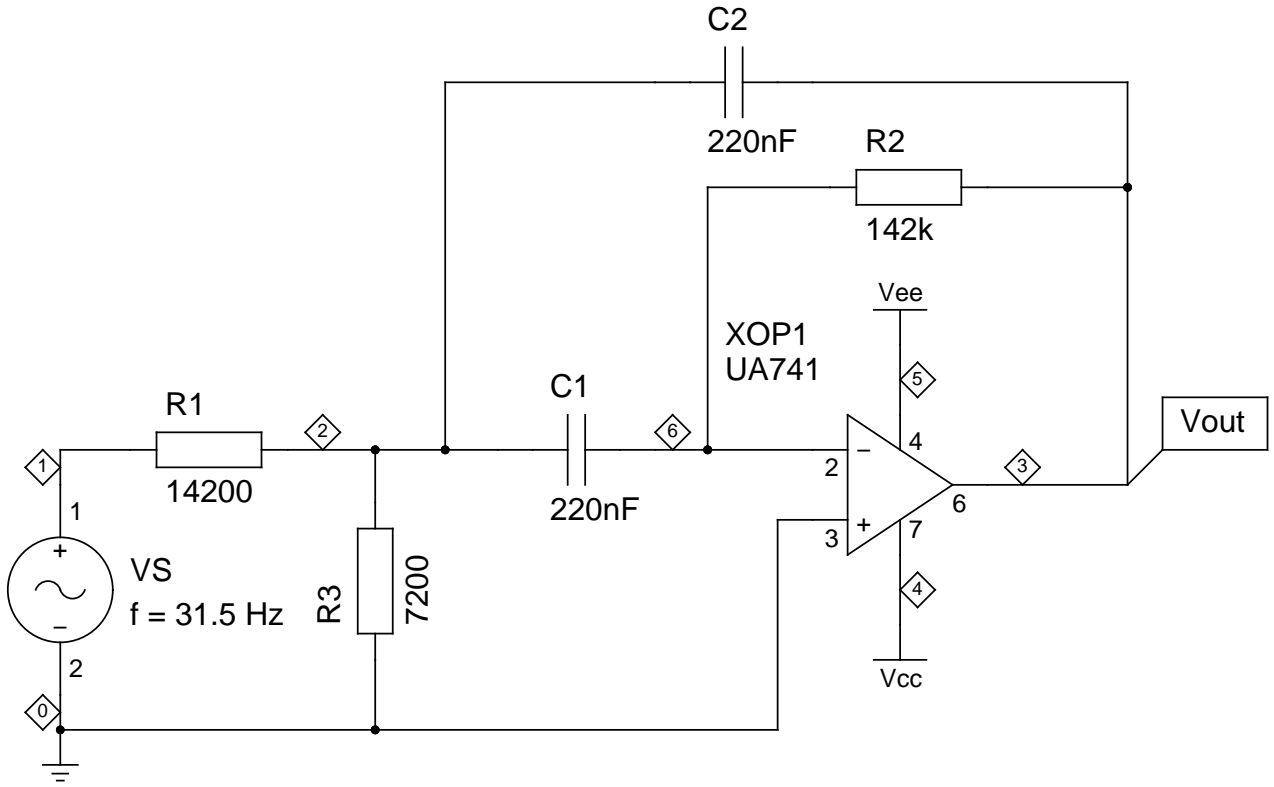
.PRINT OP Iter(0) V(3)

.PRINT AC VDB(3)

* FROM TO STEP
.TRAN 0.00001 0.2 0.0001

* #STEPS/DECADE FROM TO
.AC DEC 20 0.1 100k

.END



Octave Filter – First stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.05.sch
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REVISION: 20200205
DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 31.5)

R1 1 2 14200

R2 3 6 142K

R3 0 2 7200

C1 2 6 220nF

C2 3 2 220nF

XOP1 0 6 0 4 5 3 UA741

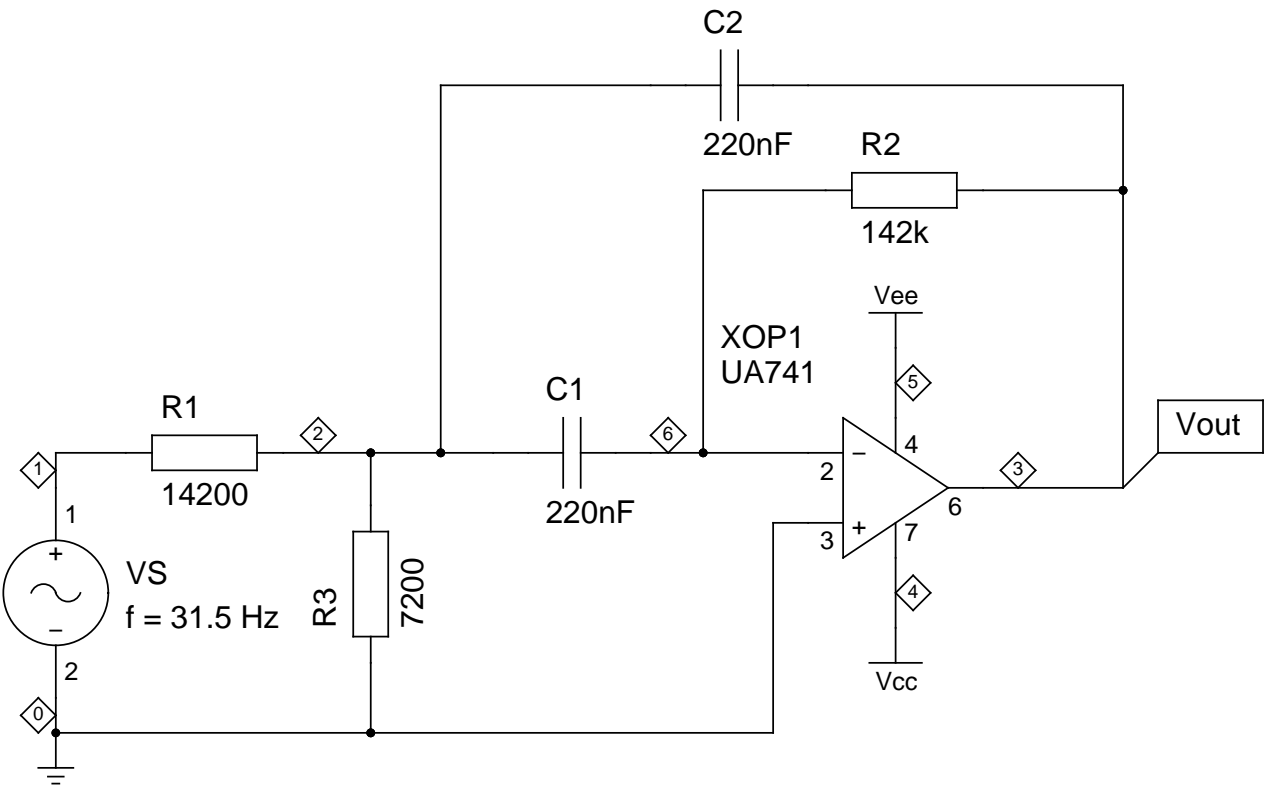
.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(4) V(5)

* FROM TO STEP

.TRAN 0 0.2 0.00001 TRACE ALL

.END



Octave Filter – First stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.06.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)
VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

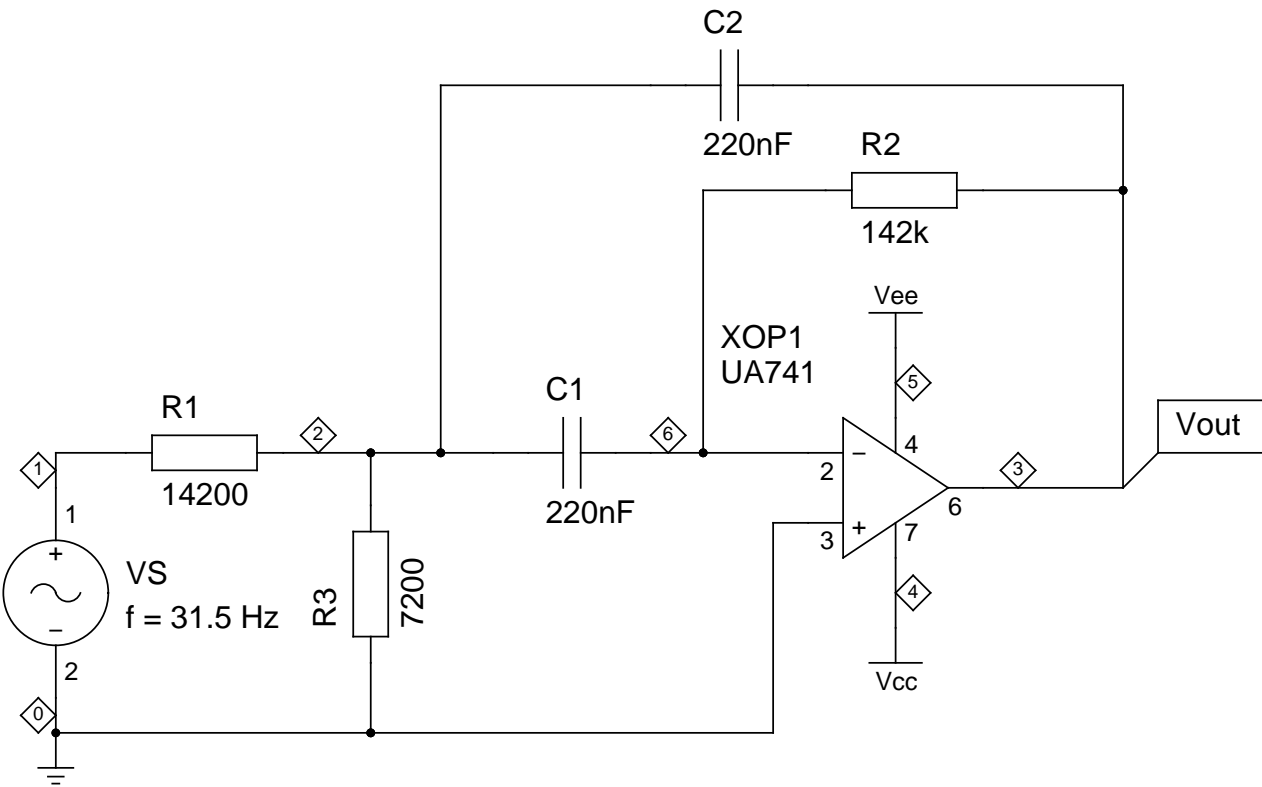
VS 1 0 AC 1 SIN(0 1.41 31.5)
R1 1 2 14200
R2 3 6 142K
R3 0 2 7200
C1 2 6 220nF
C2 3 2 220nF
XOP1 0 6 0 4 5 3 UA741

.PRINT OP Iter(0) V(3)

.PRINT TRAN I(R1) I(R2) I(R3)

* FROM TO STEP
.TRAN 0 0.2 0.00001 TRACE ALL

.END



Octave Filter – First stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.07.sch
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REVISION: 20200206
DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

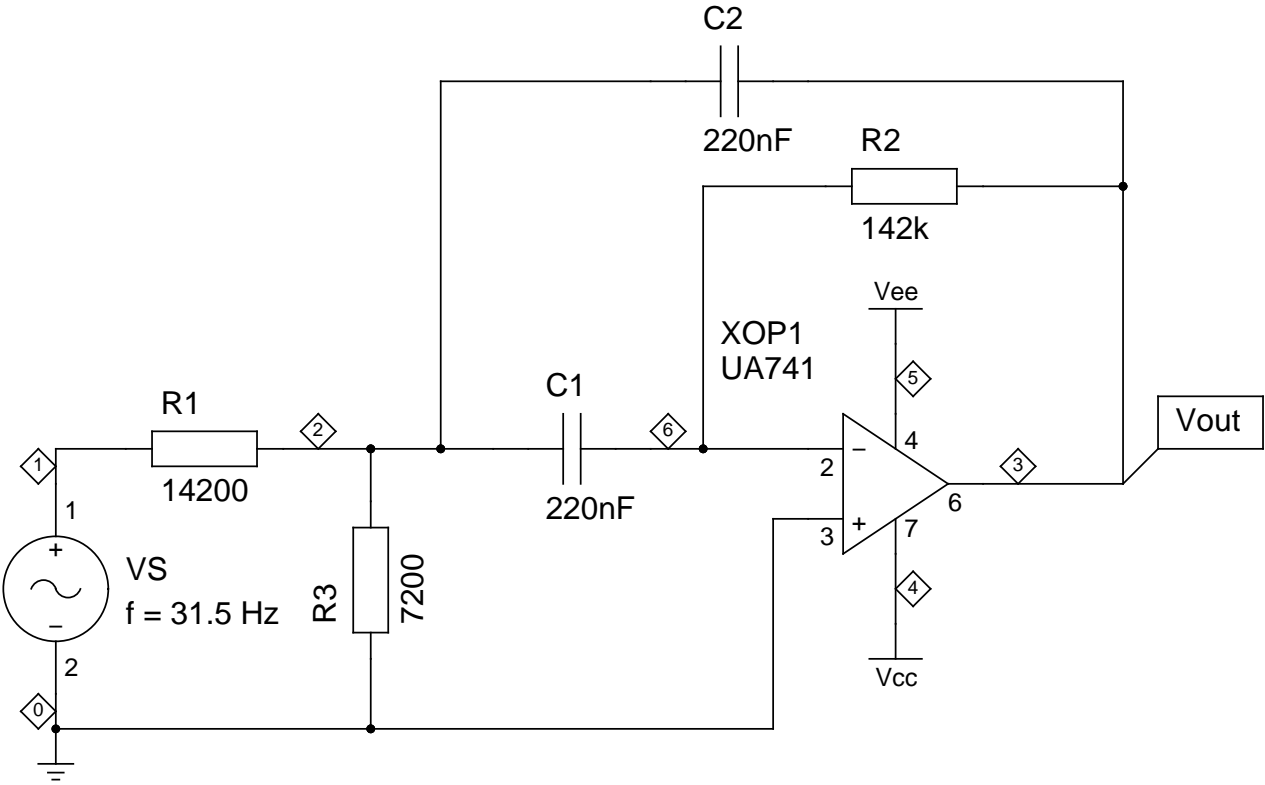
VCC 4 0 pulse(iv=0 pv=15 rise=.01)
VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 31.5)
R1 1 2 14200
R2 3 6 142K
R3 0 2 7200
C1 2 6 220nF
C2 3 2 220nF
XOP1 0 6 0 4 5 3 UA741

.PRINT OP Itr(0) V(3)

.PRINT TRAN P(R1) P(R2) P(R3)

* FROM TO STEP
.TRAN 0 0.2 0.00001 TRACE ALL
.END



Octave Filter – First stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.08.sch
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REVISION: 20200206
DRAWN BY: Bert Timmerman

<p>Octave Filter – First stage of the 31.5 Hz module (for simulation) schematic</p> <p>TITLE OCTAVE_FILTER</p>		
<p>FILE: 26.000.00.02.09.sch</p> <p>PAGE 01 OF 01</p>	<p>REVISION: 20200207</p> <p>DRAWN BY: Bert Timmerman</p>	<p>A3</p>

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)
VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

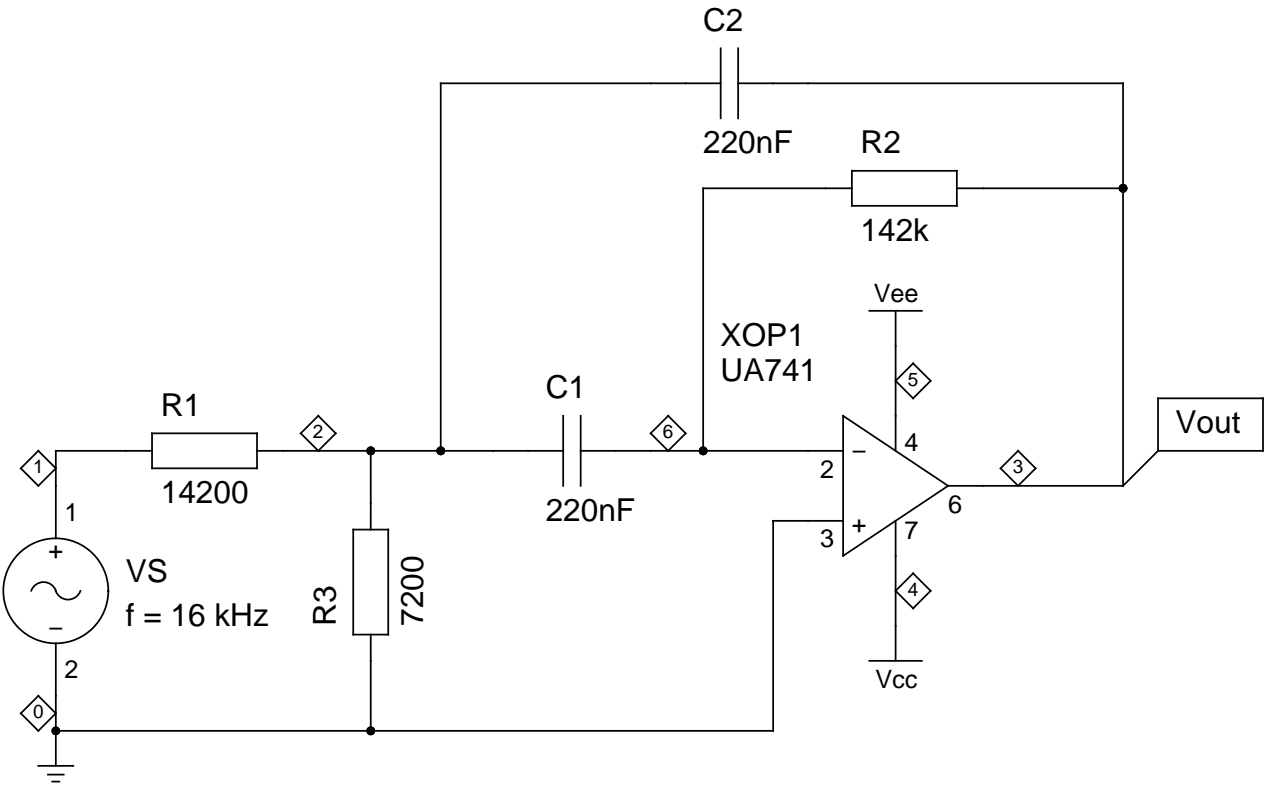
VS 1 0 AC 1 SIN(0 1.41 16k)
R1 1 2 14200
R2 3 6 142K
R3 0 2 7200
C1 2 6 220nF
C2 3 2 220nF
XOP1 0 6 0 4 5 3 UA741

.PRINT OP Itr(0) V(3)

.PRINT TRAN I(R1) I(R2) I(R3)

* FROM TO STEP
.TRAN 0 0.001 0.00001 TRACE ALL

.END



Octave Filter – First stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.10.sch
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REVISION: 20200206
DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 16k)

R1 1 2 14200

R2 3 6 142K

R3 0 2 7200

C1 2 6 220nF

C2 3 2 220nF

XOP1 0 6 0 4 5 3 UA741

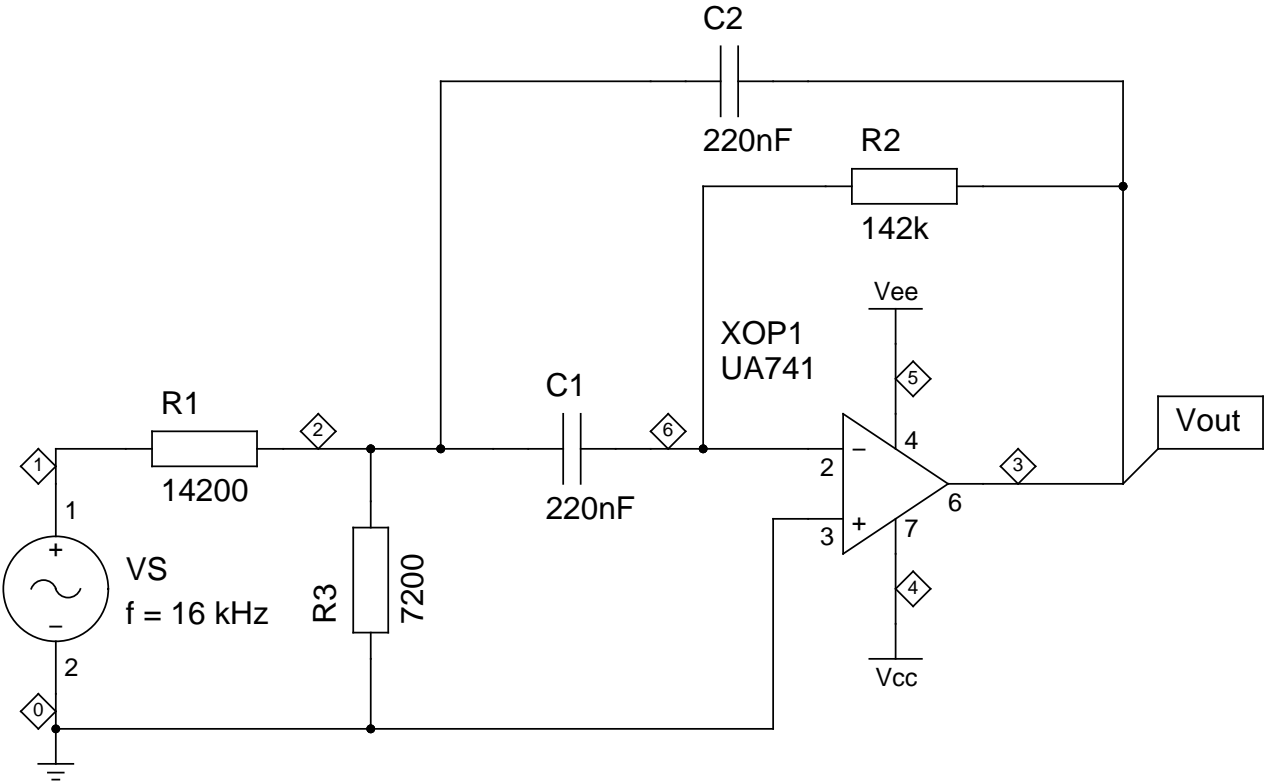
.PRINT OP Itr(0) V(3)

.PRINT TRAN P(R1) P(R2) P(R3)

* FROM TO STEP

.TRAN 0 0.001 0.00001 TRACE ALL

.END



Octave Filter – First stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.11.sch

REVISION: 20200206

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – DETECTOR STAGE – FREQUENCY RESPONSE

```
.INCLUDE UA741.subckt
```

```
.MODEL 1N4148 D IS=2e-14
```

VCC 4 0 15

VEE 50-15

VS 1 0 AC 1 SIN(0 0.1 100)

C1 07 1uF

D1 2 3 1N4148

D2 3 6 1N4148

R1 1 2 10000

R2 6 7 1000

R3 8 2 15000

R4 0 9 10000

R5 8 9 .001

XOP1 0 2 0 4 5 3 UA741

XOP2 7 8 0 4 5 9 UA741

```
.PRINT OP Iter(0) V(3)
```

```
.PRINT AC VDB(3) VDB(9)
```

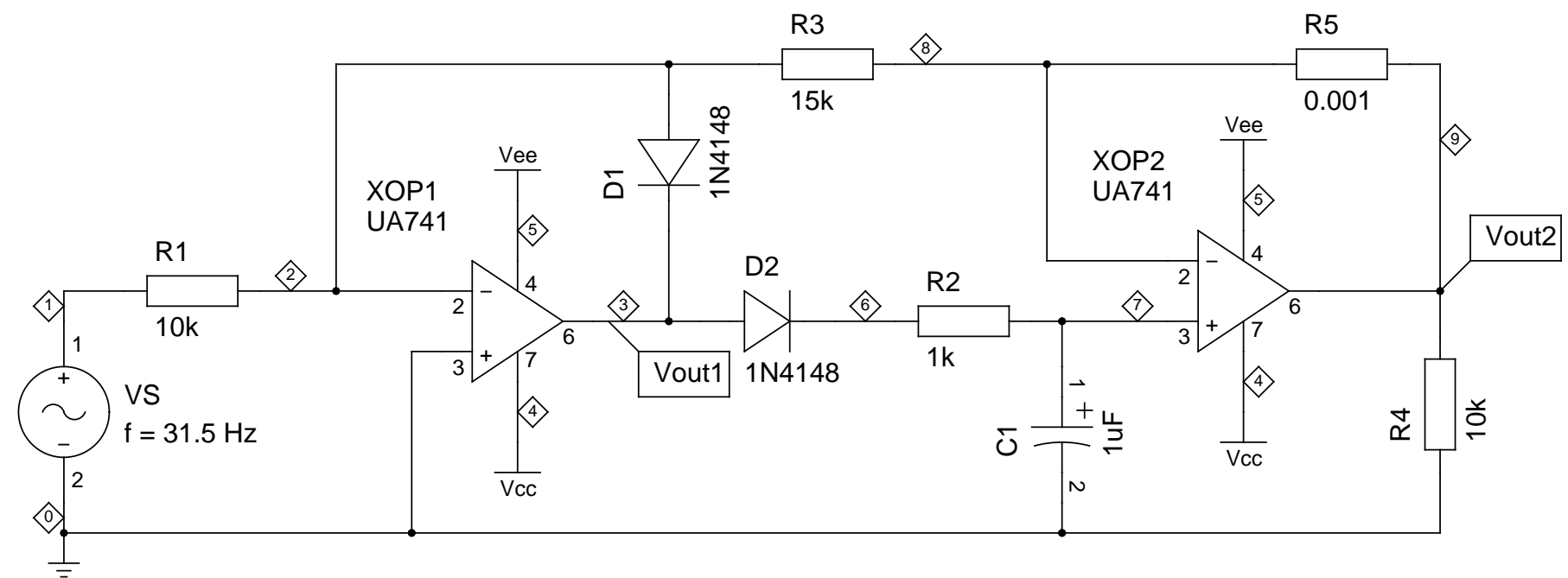
* FROM TO STEP

```
.TRAN 0.00001 0.2 0.0001
```

* #STEPS/DECADE FROM TO

```
.AC DEC 20      0.1  100k
```

.END



Octave Filter – Second stage of the 31.5 Hz module (for simulation) schematic

TITLE	OCTAVE_FILTER
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FILE: 26.000.00.02.12.sch

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REVISION:	20200206
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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – DETECTOR STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 31.5)

C1 0 7 1uF

D1 2 3 1N4148

D2 3 6 1N4148

R1 1 2 10000

R2 6 7 1000

R3 8 2 15000

R4 0 9 10000

R5 8 9 .001

XOP1 0 2 0 4 5 3 UA741

XOP2 7 8 0 4 5 9 UA741

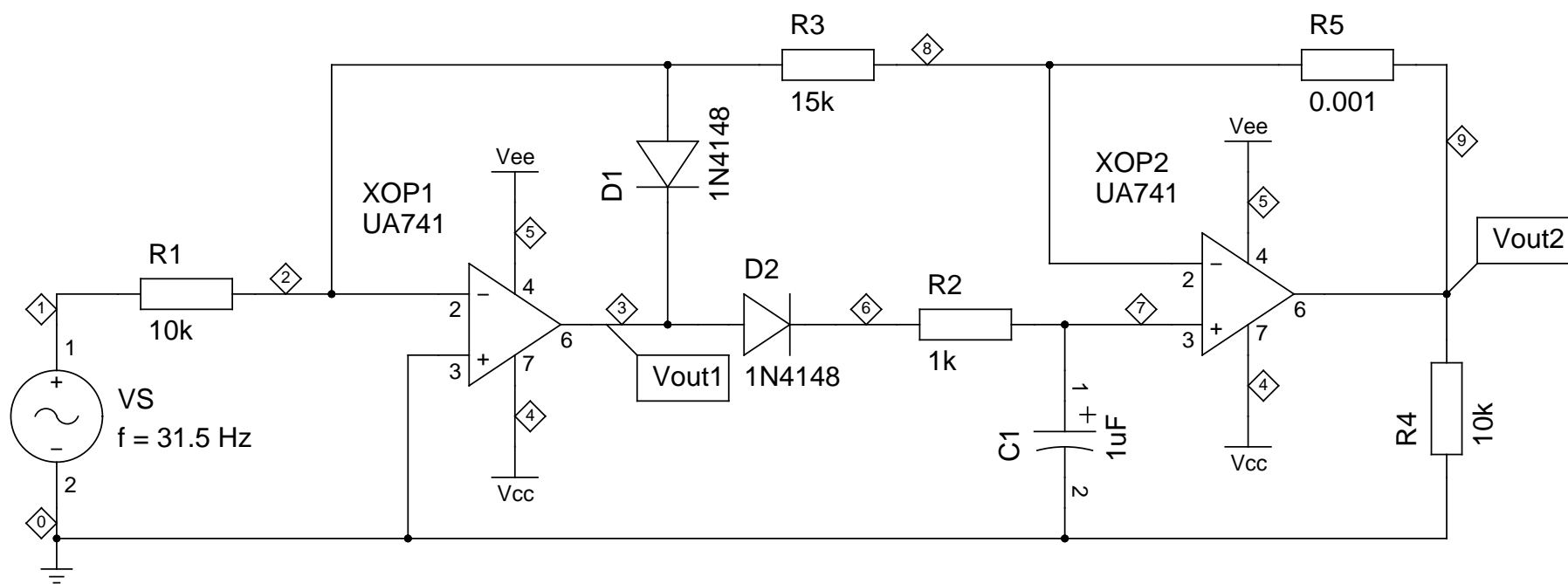
.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(9) V(4) V(5)

* FROM TO STEP

.TRAN 0 0.4 0.00001 TRACE ALL

.END



Octave Filter – Second stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.13.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – DETECTOR STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 31.5)

C1 0 7 1uF

D1 2 3 1N4148

D2 3 6 1N4148

R1 1 2 10000

R2 6 7 1000

R3 8 2 15000

R4 0 9 10000

R5 8 9 .001

XOP1 0 2 0 4 5 3 UA741

XOP2 7 8 0 4 5 9 UA741

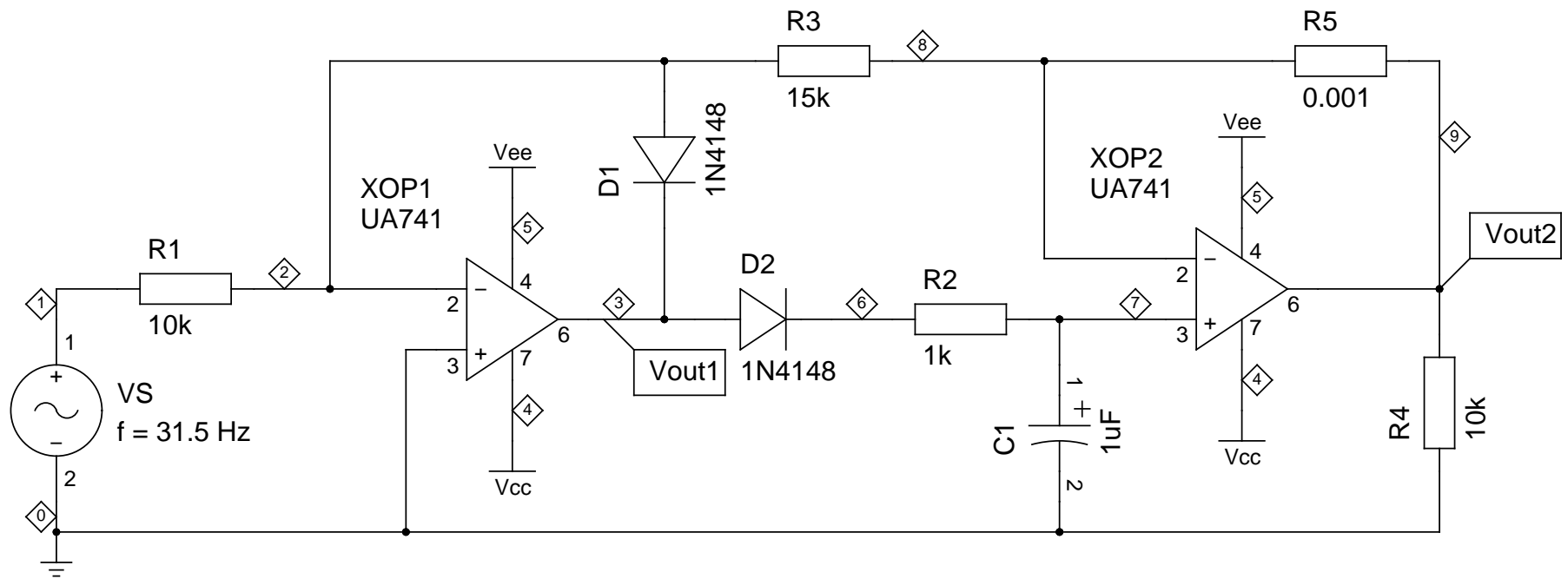
.PRINT OP Iter(0) V(3)

.PRINT TRAN I(R1) I(R2) I(R3) I(R4) I(R5)

* FROM TO STEP

.TRAN 0 0.4 0.00001 TRACE ALL

.END



Octave Filter – Second stage of the 31.5 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.14.sch

REVISION: 20200206

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 31.5 HZ SECTION – DETECTOR STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 31.5)

C1 0 7 1uF

D1 2 3 1N4148

D2 3 6 1N4148

R1 1 2 10000

R2 6 7 1000

R3 8 2 15000

R4 0 9 10000

R5 8 9 .001

XOP1 0 2 0 4 5 3 UA741

XOP2 7 8 0 4 5 9 UA741

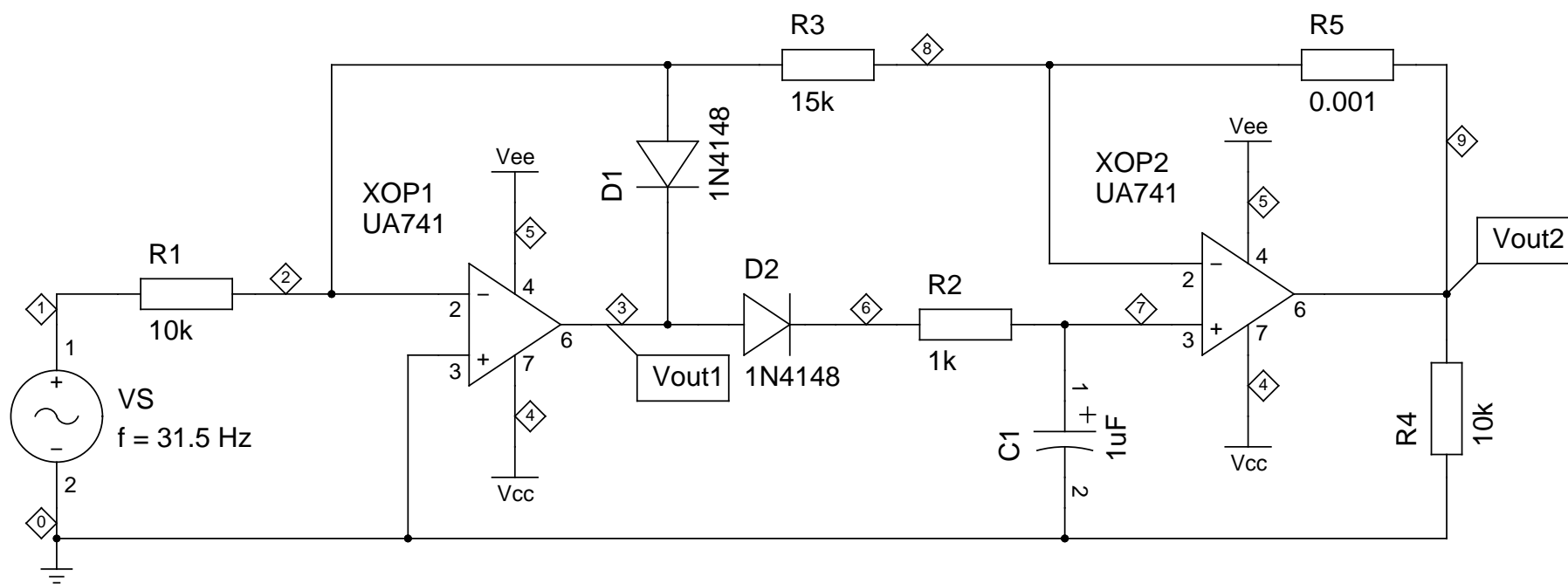
.PRINT OP Iter(0) V(3)

.PRINT TRAN P(R1) P(R2) P(R3) P(R4) P(R5) P(D1) P(D2)

* FROM TO STEP

.TRAN 0 0.4 0.00001 TRACE ALL

.END



Octave Filter – Second stage of the 31.5 Hz module (for simulation)
schematic

TITLE OCTAVE_FILTER

FILE: 26.000.00.02.15.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – FREQUENCY RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 15
VEE 5 0 -15

VS 1 0 AC 1 SIN(0 0.1 100)
R1 1 2 15900
R2 3 6 159K
R3 0 2 7200
C1 2 6 100nF
C2 3 2 100nF
XOP1 0 6 0 4 5 3 UA741

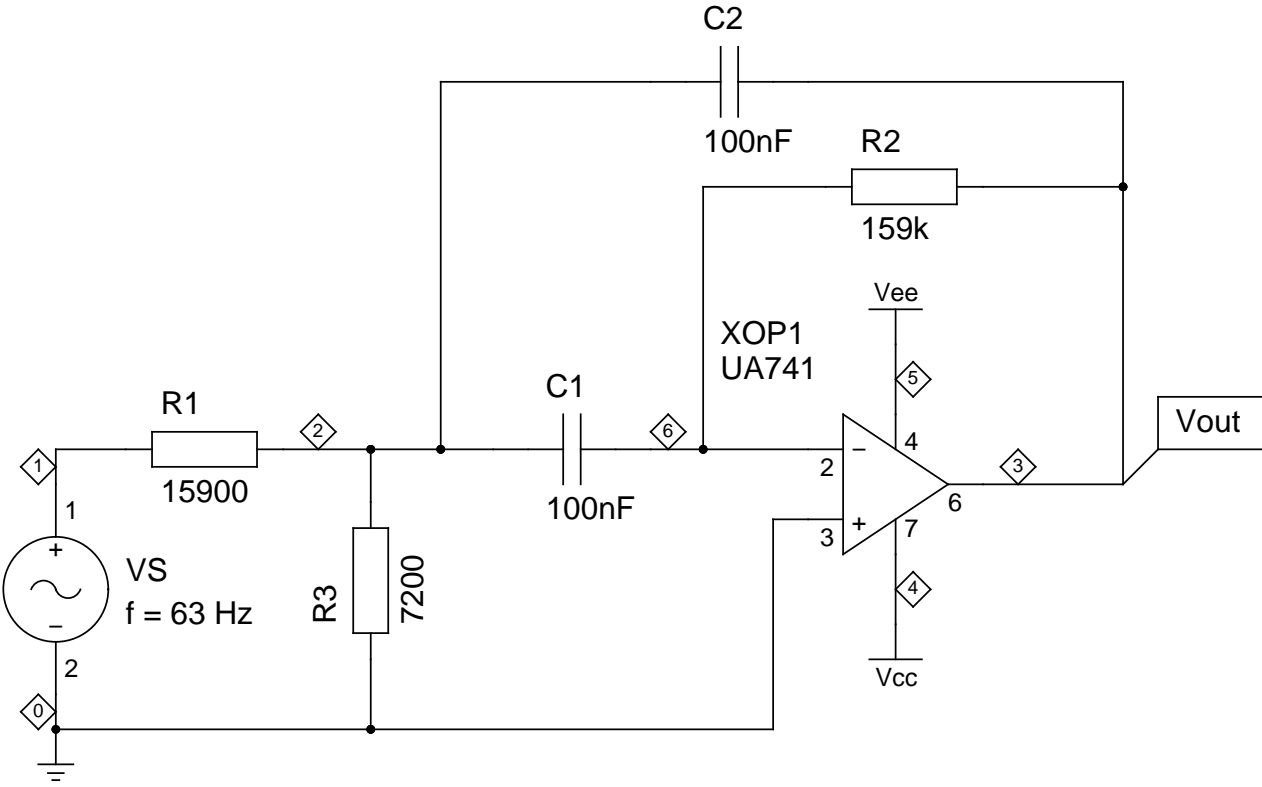
.PRINT OP Iter(0) V(3)

.PRINT AC VDB(3)

* FROM TO STEP
.TRAN 0.00001 0.2 0.0001

* #STEPS/DECADE FROM TO
.AC DEC 20 0.1 100k

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.16.sch
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REVISION: 20200207
DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 63)

R1 1 2 15900

R2 3 6 159K

R3 0 2 7200

C1 2 6 100nF

C2 3 2 100nF

XOP1 0 6 0 4 5 3 UA741

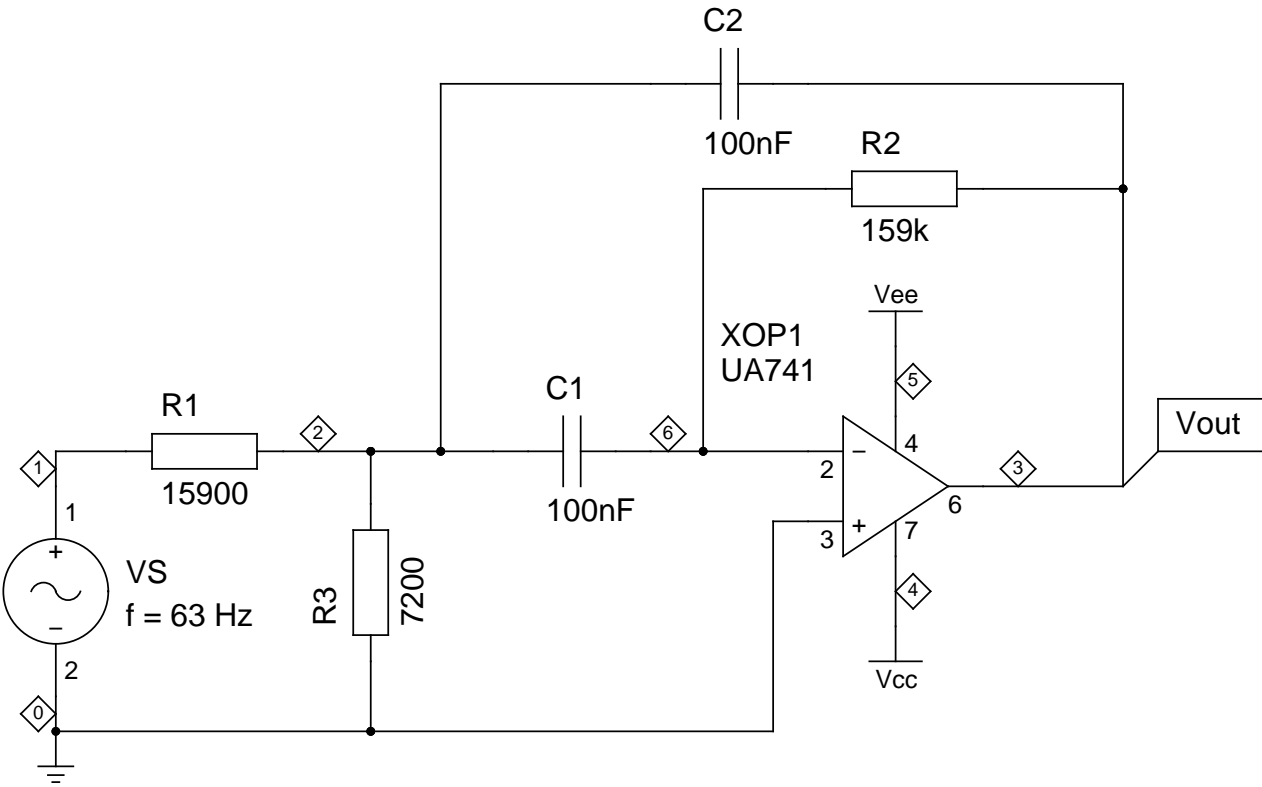
.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(4) V(5)

* FROM TO STEP

.TRAN 0 0.2 0.0001 TRACE ALL

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.17.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 63)

R1 1 2 15900

R2 3 6 159K

R3 0 2 7200

C1 2 6 100nF

C2 3 2 100nF

XOP1 0 6 0 4 5 3 UA741

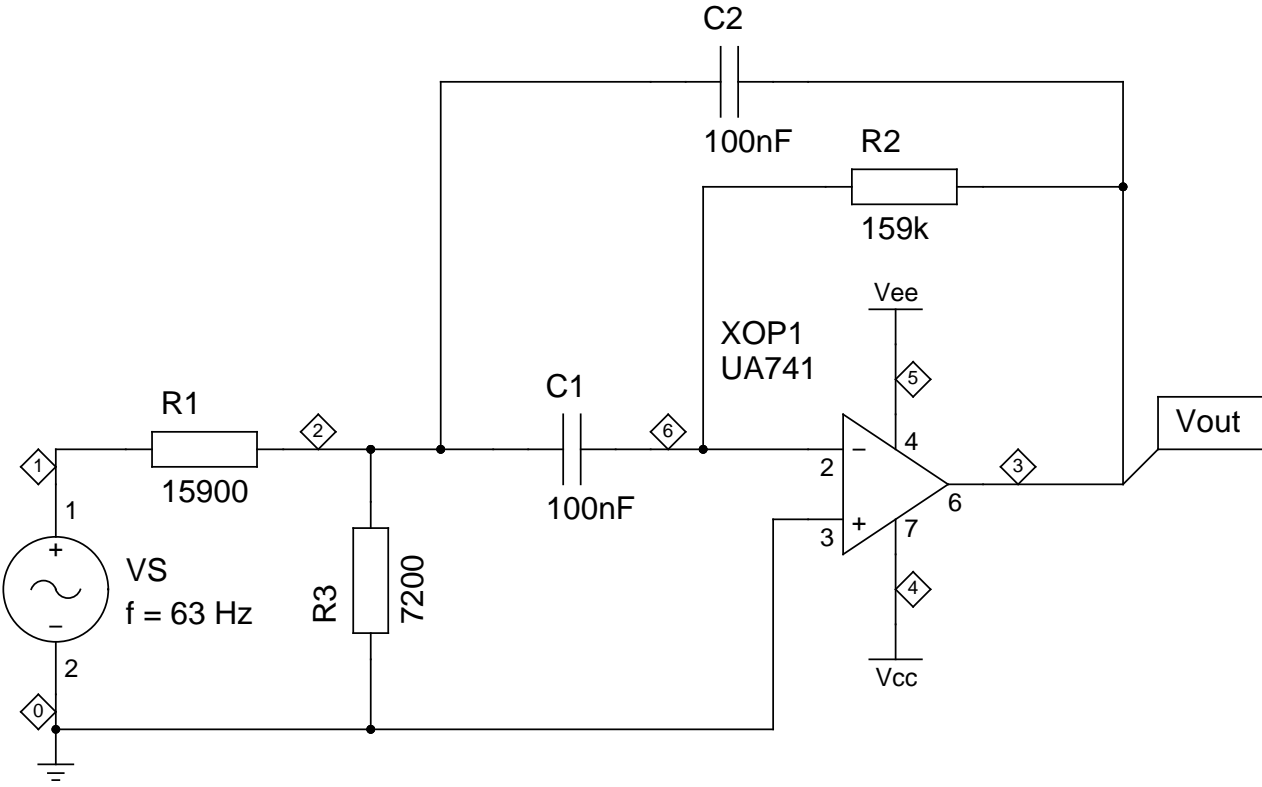
.PRINT OP Itr(0) V(3)

.PRINT TRAN I(R1) I(R2) I(R3)

* FROM TO STEP

.TRAN 0 0.2 0.0001 TRACE ALL

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.18.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 63)

R1 1 2 15900

R2 3 6 159K

R3 0 2 7200

C1 2 6 100nF

C2 3 2 100nF

XOP1 0 6 0 4 5 3 UA741

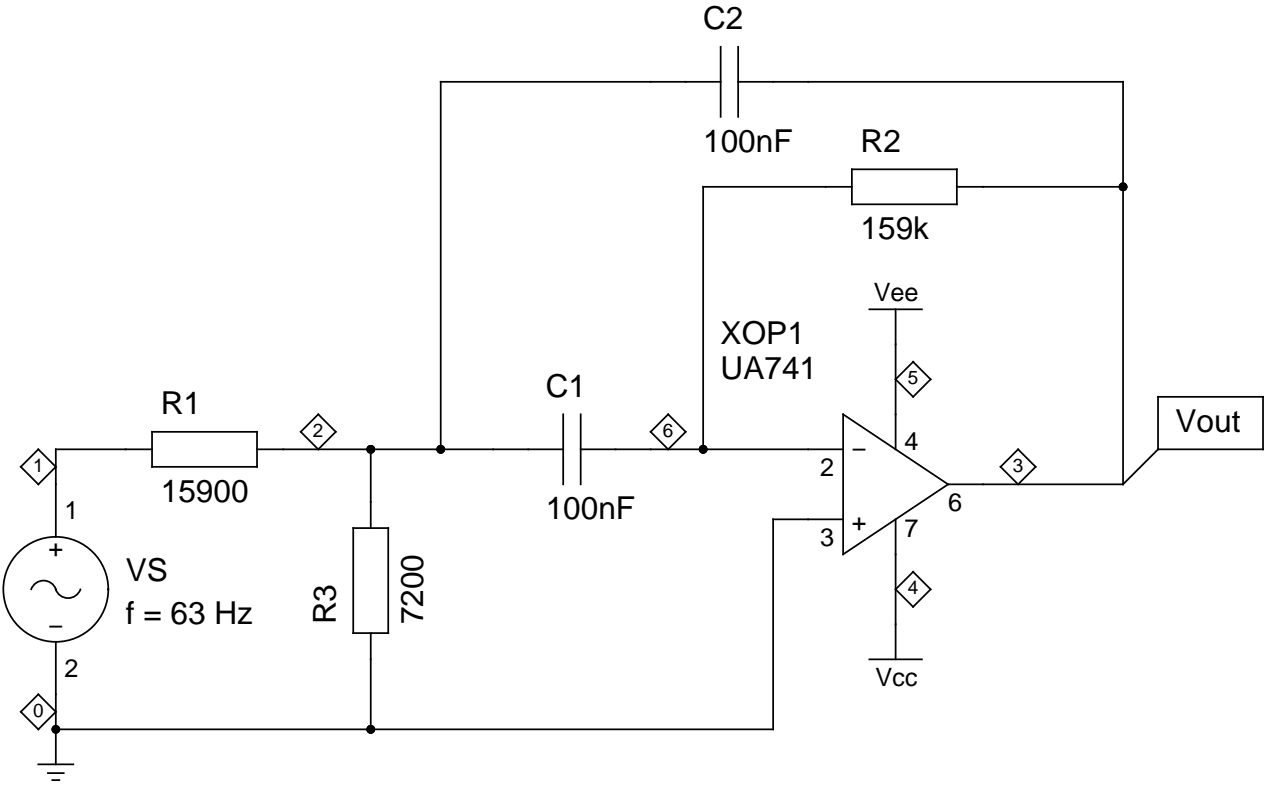
.PRINT OP Iiter(0) V(3)

.PRINT TRAN P(R1) P(R2) P(R3)

* FROM TO STEP

.TRAN 0 0.2 0.0001 TRACE ALL

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.19.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 16k)

R1 1 2 15900

R2 3 6 159K

R3 0 2 7200

C1 2 6 100nF

C2 3 2 100nF

XOP1 0 6 0 4 5 3 UA741

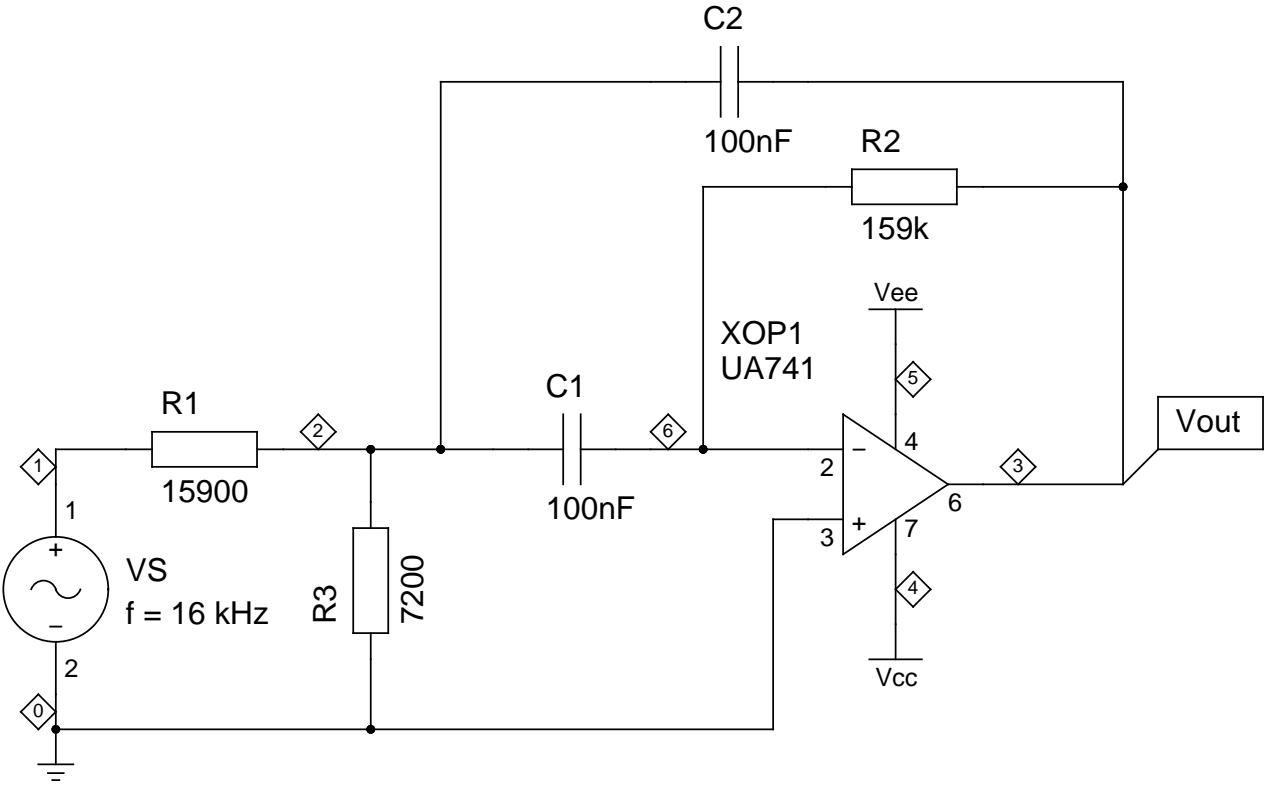
.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(4) V(5)

* FROM TO STEP

.TRAN 0 0.01 0.00001 TRACE ALL

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.20.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 16k)

R1 1 2 15900

R2 3 6 159K

R3 0 2 7200

C1 2 6 100nF

C2 3 2 100nF

XOP1 0 6 0 4 5 3 UA741

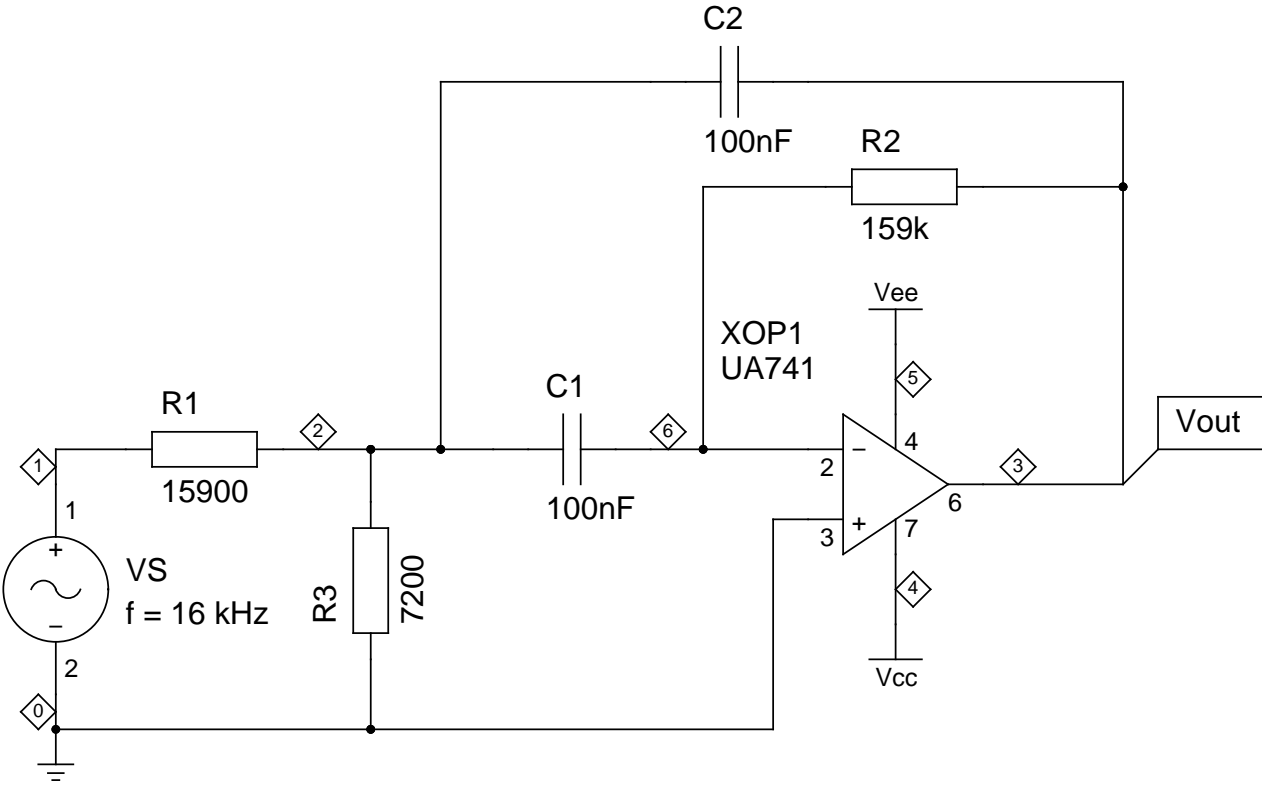
.PRINT OP Iiter(0) V(3)

.PRINT TRAN I(R1) I(R2) I(R3)

* FROM TO STEP

.TRAN 0 0.01 0.0001 TRACE ALL

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.21.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – BPF STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 0.141 16k)

R1 1 2 15900

R2 3 6 159K

R3 0 2 7200

C1 2 6 100nF

C2 3 2 100nF

XOP1 0 6 0 4 5 3 UA741

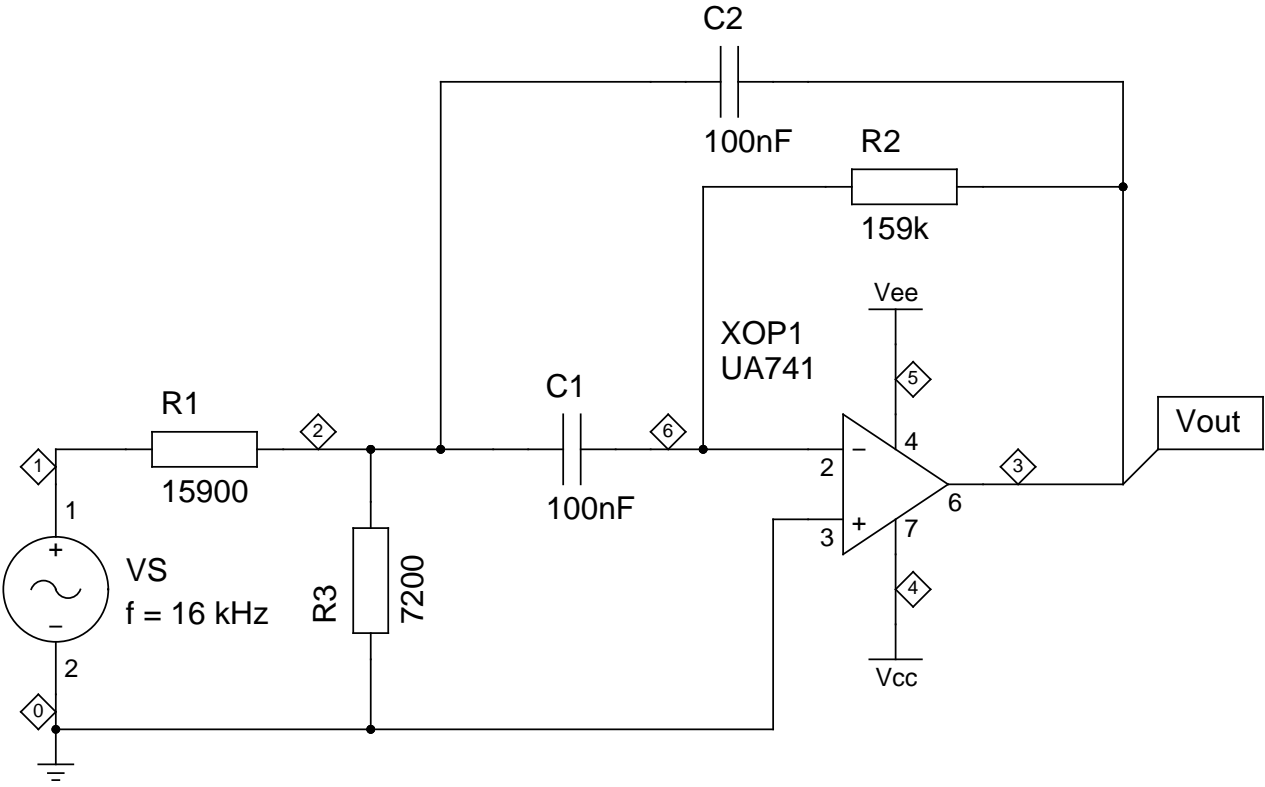
.PRINT OP Itr(0) V(3)

.PRINT TRAN P(R1) P(R2) P(R3)

* FROM TO STEP

.TRAN 0 0.01 0.0001 TRACE ALL

.END



Octave Filter – First stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.22.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – DETECTOR STAGE – FREQUENCY RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 15
VEE 5 0 -15

VS 1 0 AC 1 SIN(0 0.1 100)
C1 0 7 1uF
D1 2 3 1N4148
D2 3 6 1N4148
R1 1 2 10000
R2 6 7 1000
R3 8 2 15000
R4 0 9 10000
R5 8 9 .001
XOP1 0 2 0 4 5 3 UA741
XOP2 7 8 0 4 5 9 UA741

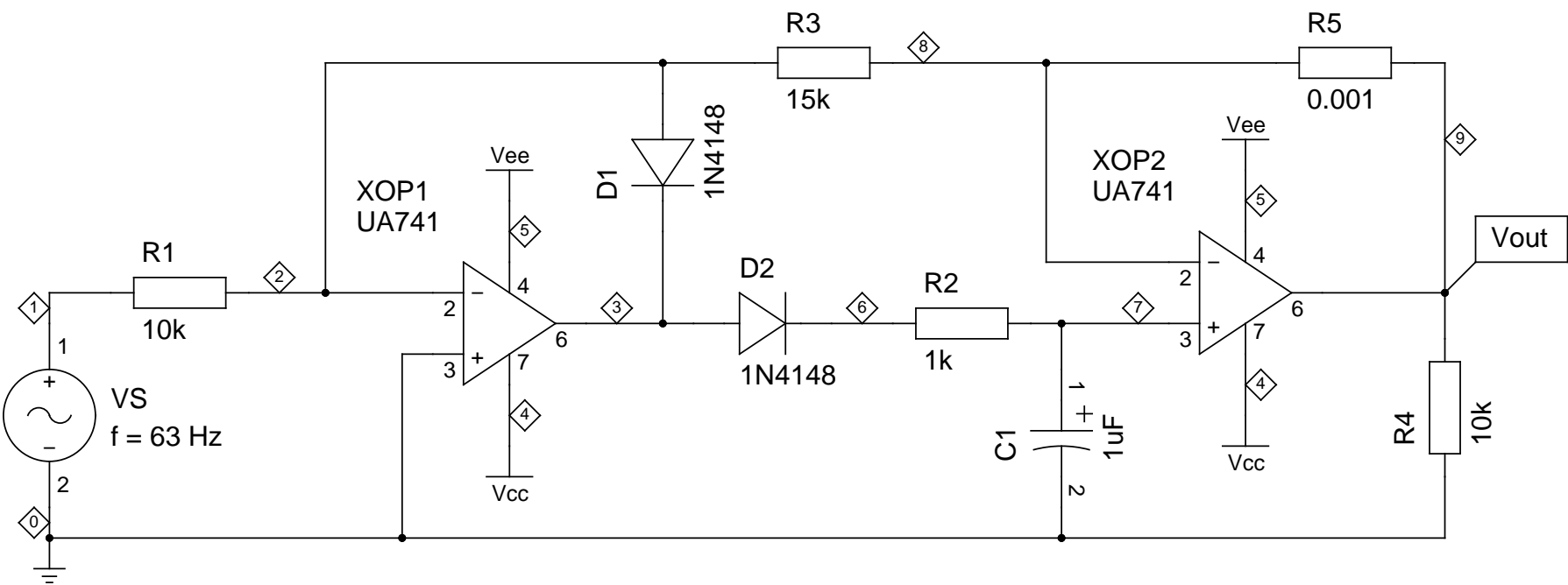
.PRINT OP Iter(0) V(3)

.PRINT AC VDB(3) VDB(9)

* FROM TO STEP
.TRAN 0.00001 0.2 0.0001

* #STEPS/DECADE FROM TO
.AC DEC 20 0.1 100k

.END



Octave Filter – Second stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.23.sch
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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 63 HZ SECTION – DETECTOR STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 pulse(iv=0 pv=15 rise=.01)
VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

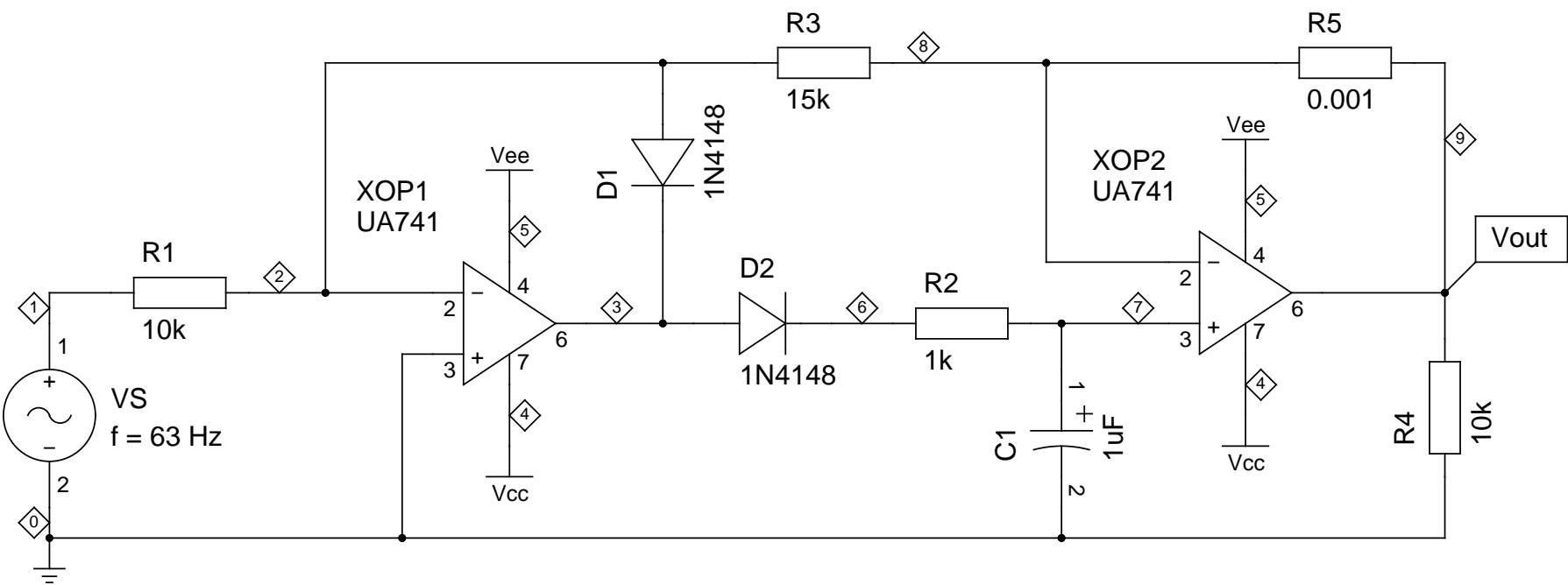
VS 1 0 AC 1 SIN(0 1.41 63)
C1 0 7 1uF
D1 2 3 1N4148
D2 3 6 1N4148
R1 1 2 10000
R2 6 7 1000
R3 8 2 15000
R4 0 9 10000
R5 8 9 .001
XOP1 0 2 0 4 5 3 UA741
XOP2 7 8 0 4 5 9 UA741

.PRINT OP Iter(0) V(3)

.PRINT TRAN V(1) V(3) V(9) V(4) V(5)

* FROM TO STEP
.TRAN 0 0.4 0.00001

.END



Octave Filter – Second stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.24.sch
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REVISION: 20200207
DRAWN BY: Bert Timmerman

.TITLE OCTAVE FILTER – 63 HZ SECTION – DETECTOR STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 63)

C1 0 7 1uF

D1 2 3 1N4148

D2 3 6 1N4148

R1 1 2 10000

R2 6 7 1000

R3 8 2 15000

R4 0 9 10000

R5 8 9 .001

XOP1 0 2 0 4 5 3 UA741

XOP2 7 8 0 4 5 9 UA741

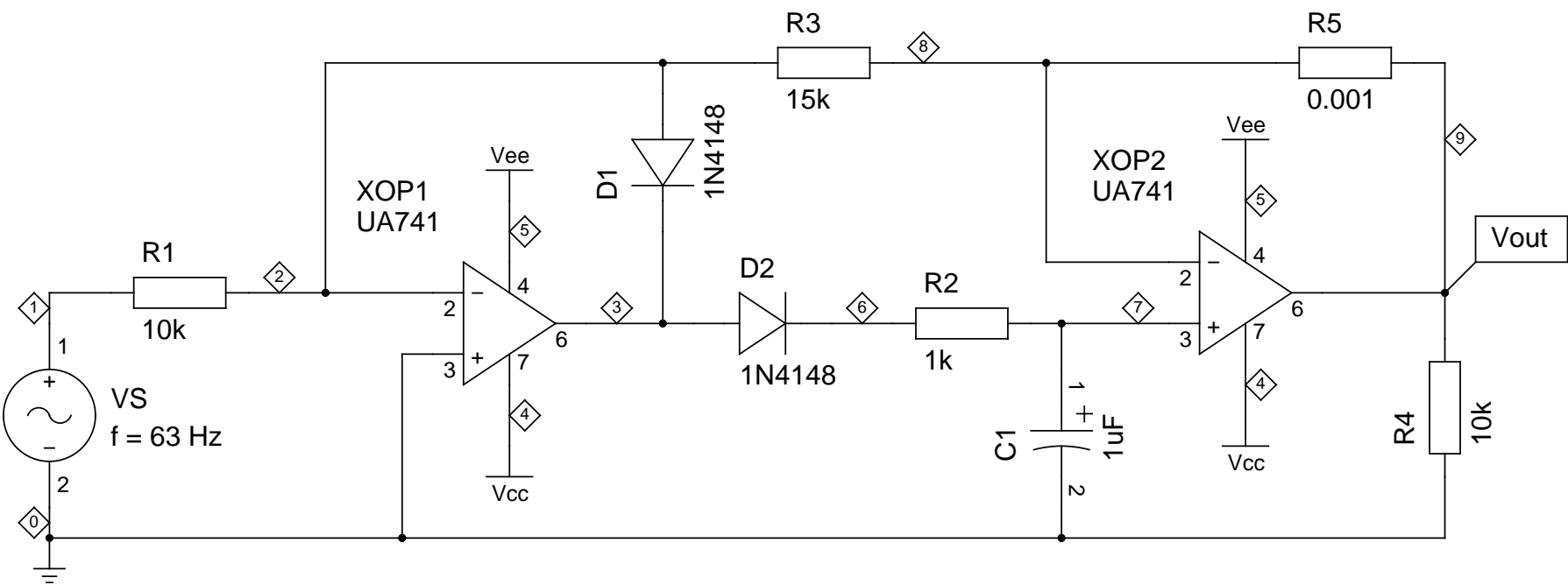
.PRINT OP Iter(0) V(3)

.PRINT TRAN I(R1) I(R2) I(R3) I(R4) I(R5) I(D1) I(D2)

* FROM TO STEP

.TRAN 0 0.1 0.00001

.END



Octave Filter – Second stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.25.sch

REVISION: 20200207

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DRAWN BY: Bert Timmerman

A3

.TITLE OCTAVE FILTER – 63 HZ SECTION – DETECTOR STAGE – TRANSIENT RESPONSE

.INCLUDE UA741.subckt

.MODEL 1N4148 D IS=2e-14

VCC 4 0 pulse(iv=0 pv=15 rise=.01)

VEE 5 0 pulse(iv=0 pv=-15 rise=.01)

VS 1 0 AC 1 SIN(0 1.41 63)

C1 0 7 1uF

D1 2 3 1N4148

D2 3 6 1N4148

R1 1 2 10000

R2 6 7 1000

R3 8 2 15000

R4 0 9 10000

R5 8 9 .001

XOP1 0 2 0 4 5 3 UA741

XOP2 7 8 0 4 5 9 UA741

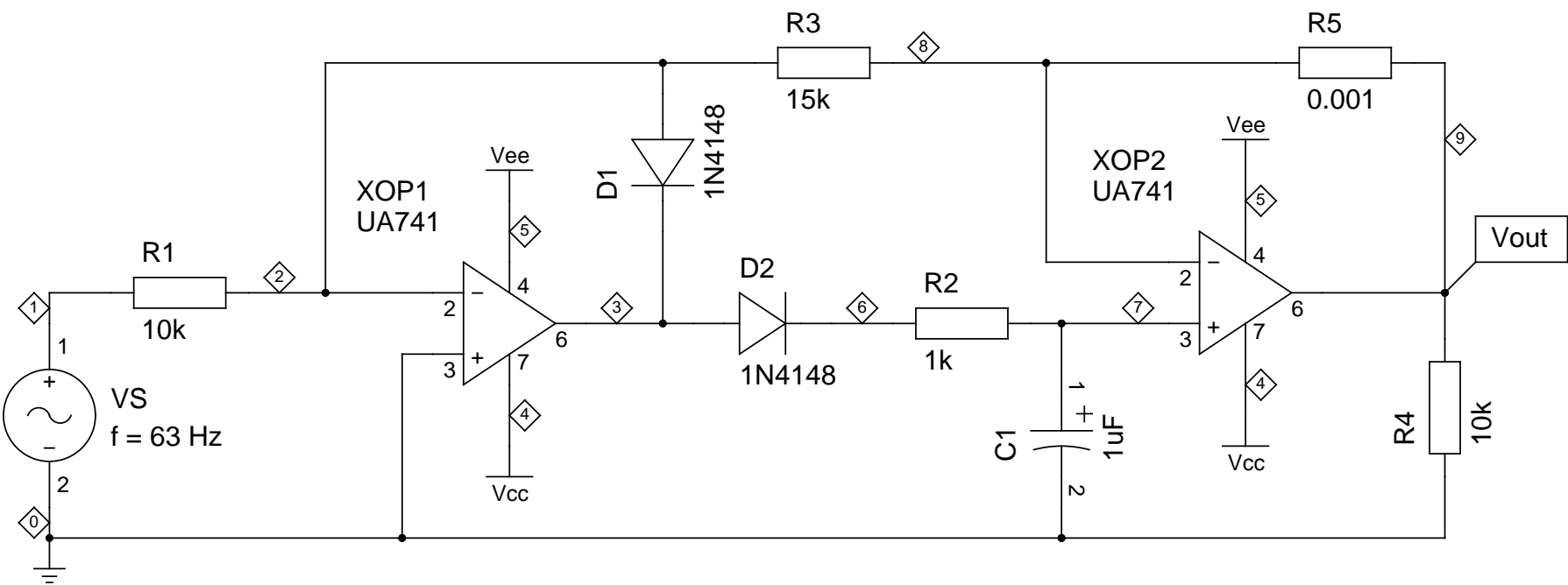
.PRINT OP Iter(0) V(3)

.PRINT TRAN P(R1) P(R2) P(R3) P(R4) P(R5) P(D1) P(D2)

* FROM TO STEP

.TRAN 0 0.1 0.00001

.END



Octave Filter – Second stage of the 63 Hz module (for simulation)
schematic
TITLE OCTAVE_FILTER

FILE: 26.000.00.02.26.sch

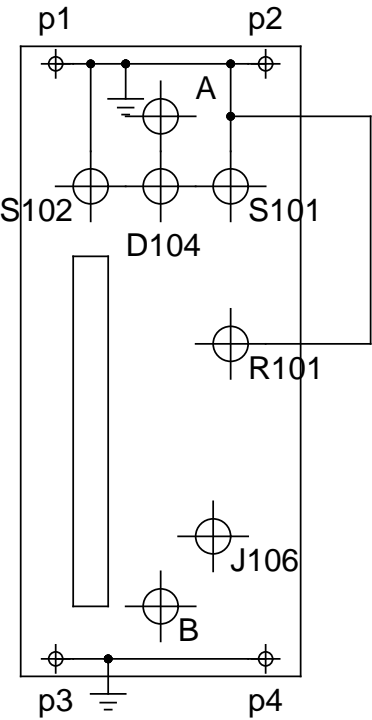
REVISION: 20200207

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A3

Mounting holes:



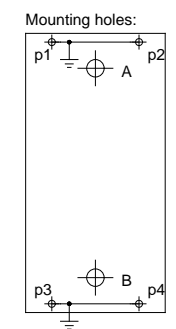
CC BY-SA

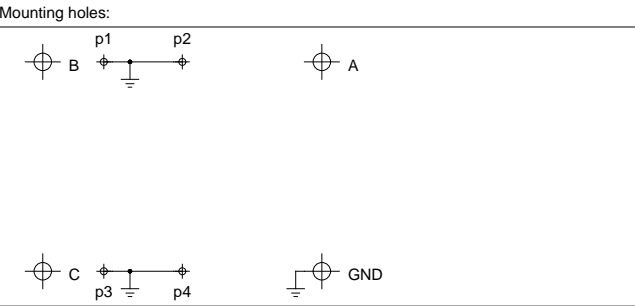
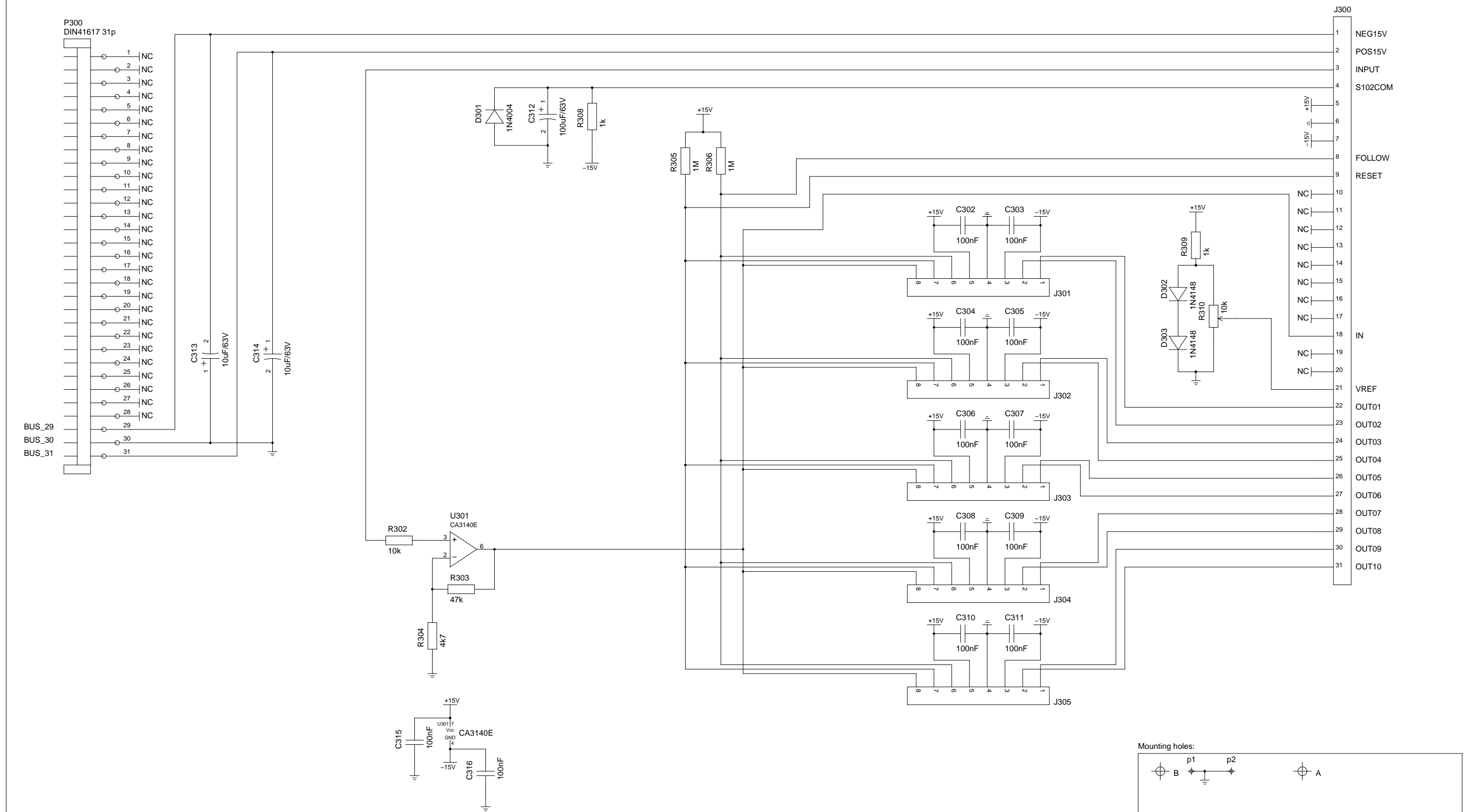
Made in NL

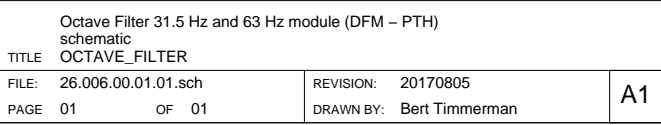
Octave Filter
Front Panel
TITLE OCTAVE_FILTER

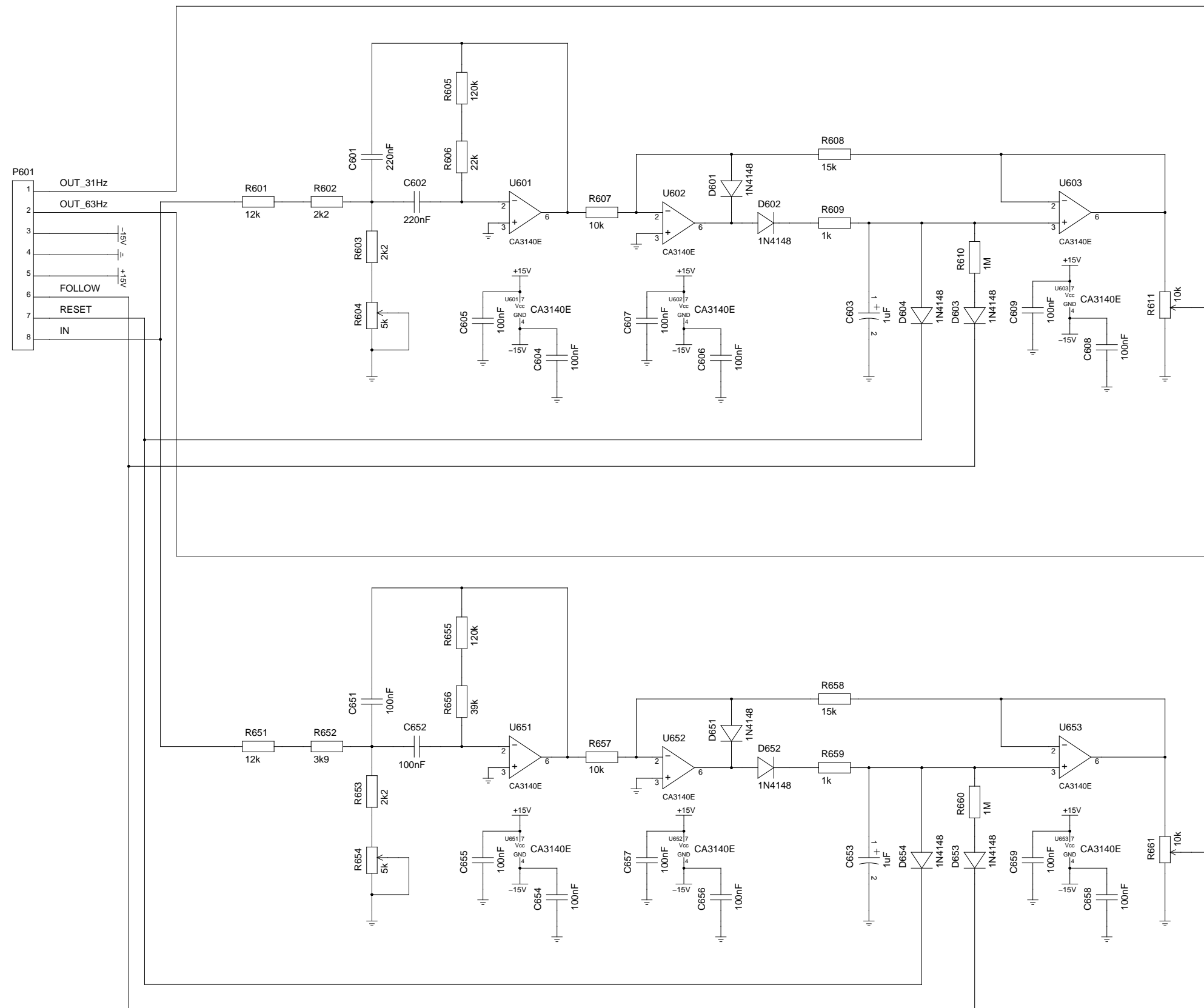
FILE: 26.001.00.01.01.sch
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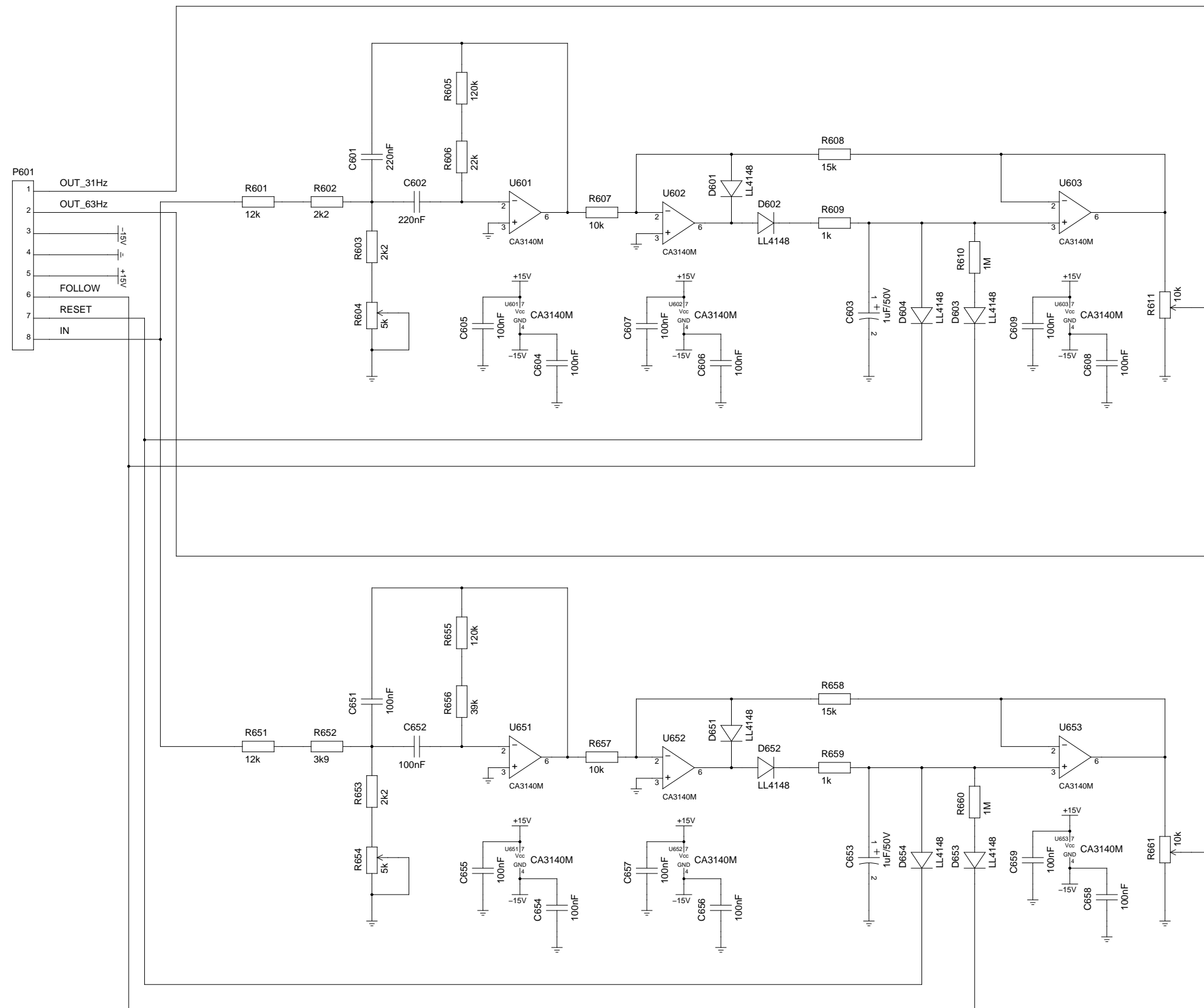
REVISION: 20200203
DRAWN BY: Bert Timmerman

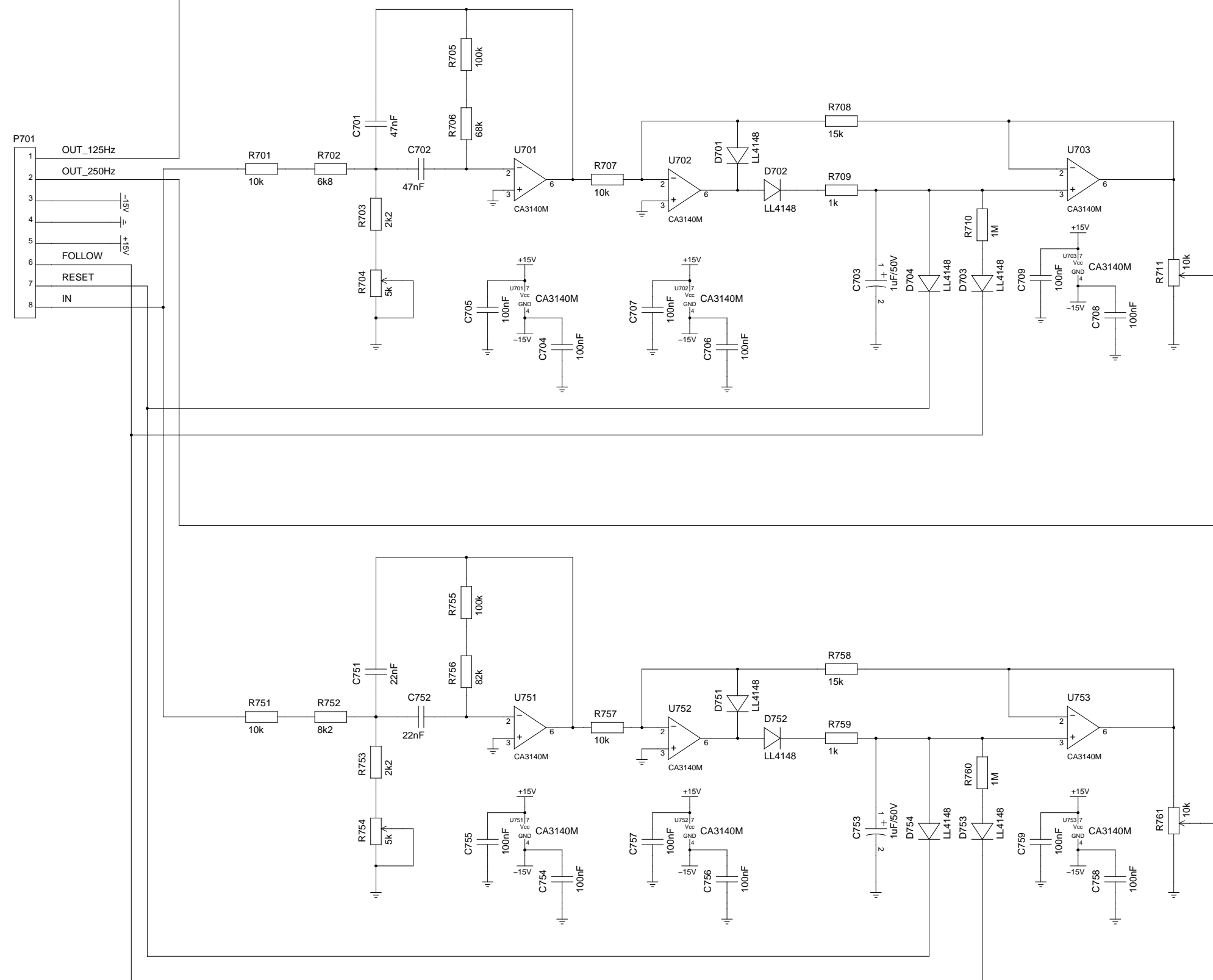


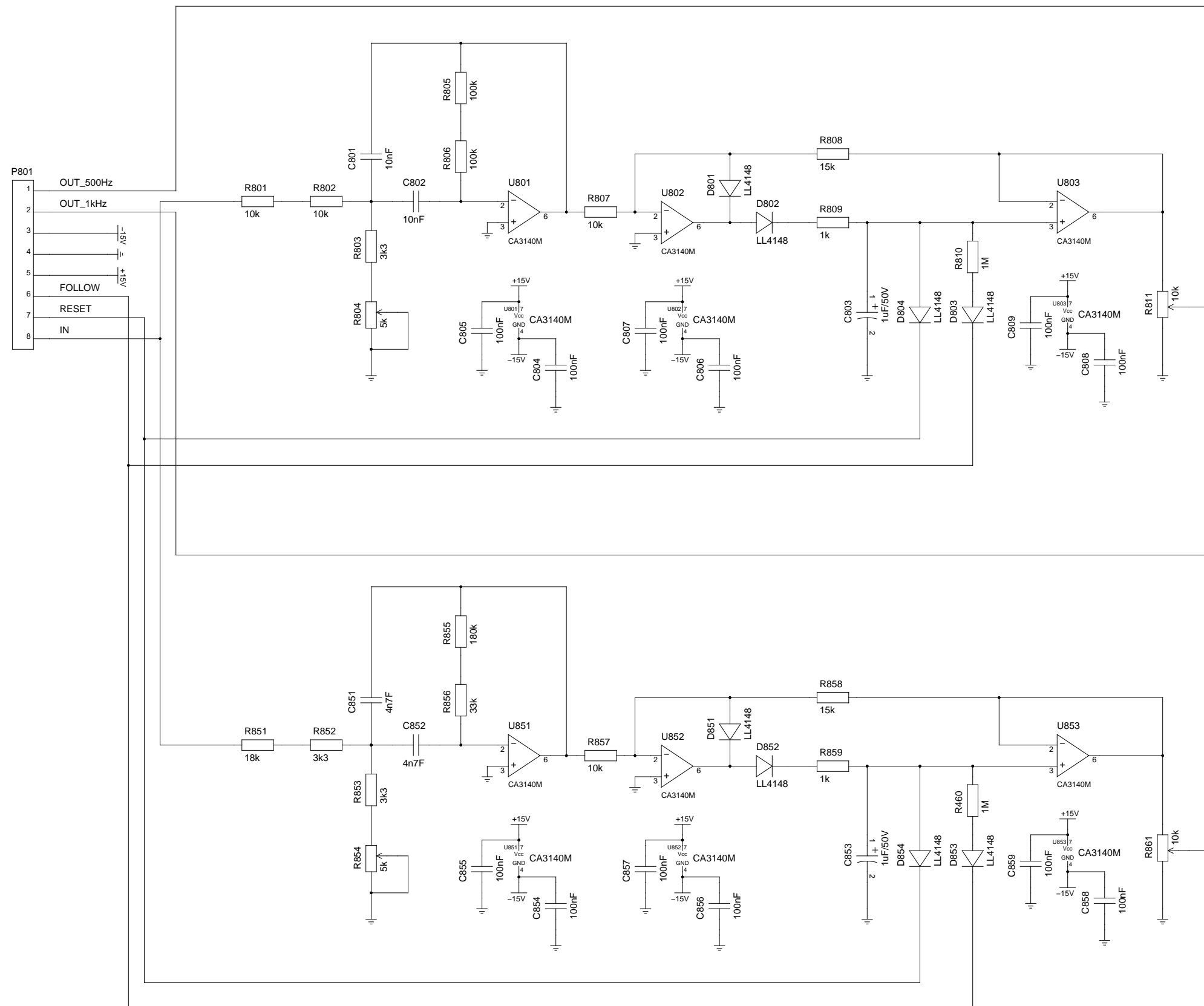


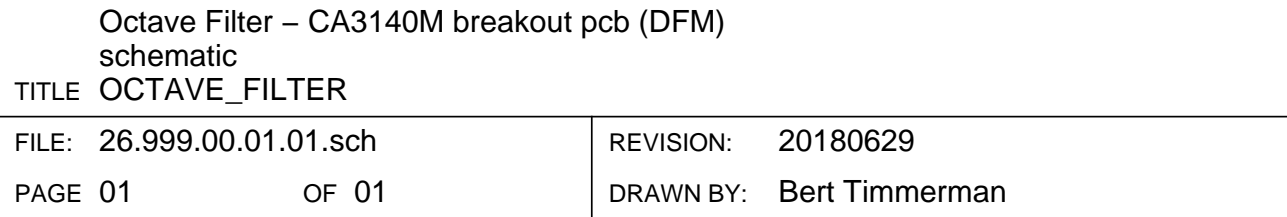


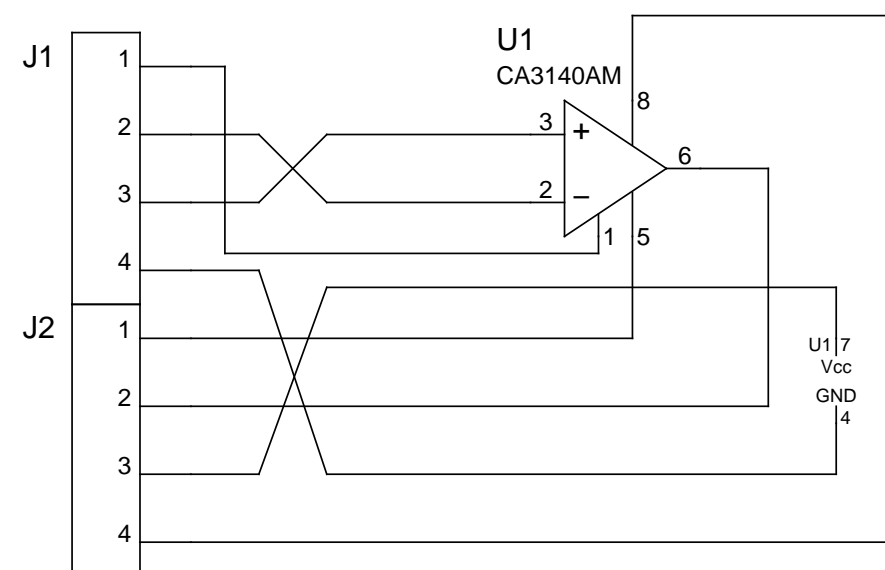












Octave Filter – CA3140M breakout pcb (DFM) schematic TITLE OCTAVE_FILTER		
FILE: 26.999.01.01.01.sch	REVISION: 20180728	
PAGE 01	OF 01	DRAWN BY: Bert Timmerman