AC coupling caps can be polarized electrolytics or film caps.
Make sure the polarity is right!

Filter Stages

3340 Output DC bias: typ = 6.5V @ VCC = 15V Vin = 0V

Input buffer

10Vpp Audio_in

U1A TL072

R1 100K

The chip can surprisingly handle 10Vpp audio signals!

3320 Stage 1: 3320_IN1, 3320_Out1
3320 Stage 2: 3320_IN2, 3320_Out2
3320 Stage 3: 3320_IN3, 3320_Out3
3320 Stage 4: 3320_IN4, 3320_Out4

R2 91K, R3 100K, R4 91K, R5 100K, R6 91K, R7 100K, R8 91K, R9 100K, C1 2.2uF

R13 220K, R14 220K, R12 220K → −12V

Filter stage capacitors: 3320_Cap1, 3320_Cap2, 3320_Cap3, 3320_Cap4

C3 270pF, C4 270pF, C5 270pF, C6 270pF → GND

Output Buffer (Sequential Pro One)

VppOut = VCC − 3V
9Vpp max

U1B TL072
Gain = 4.3

R11 68K → GND
R16 100K → GND
330K R15

Output amplitude trim
RV1 2K, R10 1K → 10Vpp Audio_out

C2 2.2uF
R17 51K → 3320_Vres
R18 3K3 → GND

Frequency Control Circuit

Freq CV gain Trim
RV2 50K, R19 68K

Freq_Control
RV3 100K, R20 100K, GND, −12V

U3A TL074

R21 100K → −102.28mV to 176.92mV 3320_Freq_control_in
R22 1K8 → GND

10Vpp Freq_CV_in
RV4 10K, R24 100K, GND
Freq CV Amount

U2 AS3320

3320_IN1	1	18	3320_IN4
3320_IN2	2	17	3320_IN3
GND	3	16	3320_Cap3
Cap2	4	15	3320_Out3
Cap1	5	14	VCC
Out2	6	13	VEE
Out1	7	12	3320_Freq_control_in
Vres	8	11	3320_Cap4
3320_Reso_control_in	9	10	3320_Out4

+12V
C7 100nF → GND
R23 1K2 REE = (VEE−2.7)/0.08
C8 100nF → −12V
GND

Resonance Control Circuit

Reso CV gain Trim
RV5 50K, R25 68K

Reso Control
+12V
RV6 100K, R27 100K, GND

U3B TL074

R28 100K

U3C TL074
R26 100K

R29 150K → −102.5mV to 215.3mV 3320_Reso_control_in
R30 3.3K → GND

10Vpp Reso_CV_In
RV7 10K, R31 100K, GND
Reso CV amount

Power

J1 EuroPower_JST_3P
+12v, GND, −12v
+12V_IN, GND, −12V_IN

PWR_FLAG

EURO_PWR_16P
J2
+12V_IN, −12V_IN
GATE, CV, +5V, +12V, GND, −12V

D1, D2
C9 22uF, C12 22uF

Op amp power and decoupling

U1C TL072, U3E TL074
C10 100nF, C11 100nF

U3D TL074

This version is a prototype
DIYSynthMNL
Sheet: /
File: 3320-VCF.kicad_sch

Title: Eurorack 3320 Low Pass VCF

Size: A3	Date: 2024-01-22	Rev: 0.1.2
KiCad E.D.A. kicad 7.0.9		Id: 1/1