AC coupling caps can be polarized electrolytics or film caps. Make sure the polarity is right! Filter Stages 3340 Output DC bias: typ = $6.5V \otimes VCC = 15V Vin = 0V$ 3320 Stage 1 3320 Stage 2 3320_IN3 3320_Out3 3320_IN4 3320_Out4 Input buffer Output Buffer (Sequential Pro One) U1A TL072 10Vpp R1 100K R3 100K R4 91K R5 100K R8 91K R9 100K C1 2.2uF R2 91K R6 91K 100K VppOut = VCC - 3V 9Vpp max Output amplitude trim R10 R11 68K R12 220K R13 2.2uF 220K 220K R16 Sia Out 330K R17 100K R15 51K -12V -12V -120 3320_Vres Filter stage capacitors GND 3320 Cap1 R18 ☐ 3K3 _3320_Cap3 _3320_Cap4 \uparrow GND GND Frequency Control Circuit Freq CV gain Trim RV2 R19 50K 68K +12V U2 AS3320 IN4 18 3320_IN4 IN3 17 3320_IN3 3320_IN1 1 IN1 3320_IN2 2 IN2 U3A Freq_Control GND R20 TL074 Cap3 Out3 15 3320_Out3 3320_Cap2 4 3320_Cap1 5 Cap2 Cap1 100K 100nF -102.28mV to 176.92mV 3320_Freq_control_in 100K R23 1K2 REE = (VEE-2.7)/0.08 1K8 -12V 100nF GND 100K -12V GND Freq CV Amount Resonance Control Circuit Reso CV gain Trim RV5 R25 50K 68K R26 100K +12V U3B TL074 R27 Reso Control U3C TL074 RV6 100K R28 100K -102.5mV to 215.3mV 3320_Reso_control_in GND R30 3.3K GND ResCv - GND GND GND Reso CV amount Power Op amp power and decoupling EURO_PWR_16P PWR_FLAG J2 +12V_IN_ +12V +12V PWR_FLAG EuroPower_JST_3P PWR_FLAG +12v_IN +12v_IN 2 GND 3 GND -12v -12v_IN ÷u1c [‡] U3E C10 100nF GND _TL072 _ TL074 GND + C12 22uF TL074 This version is a prototype DIYSynthMNL -12V_IN_ Sheet: / File: 3320-VCF.kicad_sch D2 PWR_FLAG PWR_FLAG -12V Title: Eurorack 3320 Low Pass VCF Size: A3 Date: 2024-02-15 KiCad E.D.A. kicad 7.0.9 Rev: 0.1.3