RP2040 chord style VCO by Hagiwo
SMD version by BleepSound

H3 H4 MountingHole_Pad
H1 H2 SpacerHoles

U2 Seed_XIAO_RP2040
V/oct 1 D0 D7 8 SW_1
Tune 2 D1 D8 9 Out
Inv 3 D2 D9 10
Chord 4 D3 D10 11
Push_SW 5 D4
SW_0 6 D5
7 D6
3V3 12 +3V3
5V 14 +5V
GND 13 GND

+3V3 10k TUNE1 TunePot R5 1k Tune C4 100nF GND
+3V3 10k CHORD1 ChordPot R6 1k Chord C7 100nF GND
C5 100nF C6 10uF

Out R2 1k R3 1k C2 10nF C3 10nF GND
R1 6.8k U1A TL074
R4 330R C1 10nF OutJack J1 Out GND

SW1 SW_MEC_LOW_PROF_LED +3V3 R17 10k Push_SW GND +12V R7 2.2k L1 L2 GND

SW2 SW_SPDT GND SW_0 SW_1

J2 GND InvPot TunePot ChordPot +5V +3V3
J3 GND InvPot TunePot ChordPot +5V +3V3
J4 OutJack InvJack V/octJack GND SW_0 Push_SW SW_1 +12V
J5 OutJack InvJack V/octJack GND SW_0 Push_SW SW_1 +12V

J6 V/oct S SN TN GND V/octJack R9 220k +3V3 D1 BAT43 V/oct R11 330k D2 BAT43 C8 10nF GND

+5V 10k INV1 InvPot R8 10k U1B TL074 R10 10k GND
J7 Inv CV S SN TN GND InvJack
R12 10k U1C TL074 R14 10k R13 10k U1D TL074 GND
R15 22k +3V3 D3 BAT43 Inv R16 33k D4 BAT43 C9 10nF GND

Power Input J8 10 9 8 7 6 5 4 3 2 1
C10 10uF C11 100nF +12V GND C15 10uF C16 100nF -12V

+12V U1E TL074 V+ 4 V- 11 -12V

U3 AP2210K-5.0TRG1 VIN 1 EN 3 GND 2 VOUT 5 BYP 4 +5V
+12V C13 1uF C14 100pF C12 2.2uF GND

Sheet: /
File: RP2040-VCO.kicad_sch
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