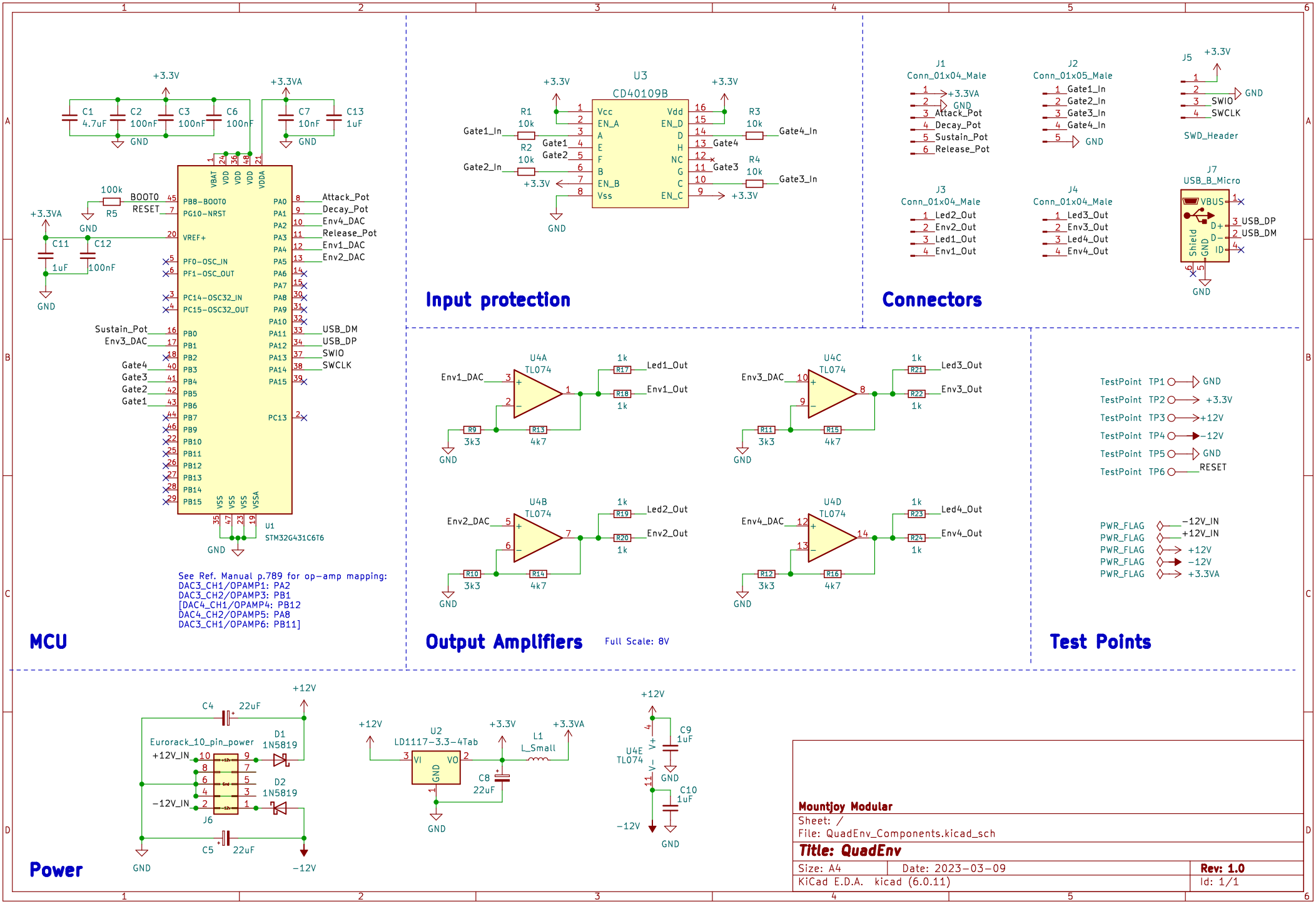
MCU
U1
STM32G431C6T6
PB8-BOOT0
PG10-NRST
VREF+
PF0-OSC_IN
PF1-OSC_OUT
PC14-OSC32_IN
PC15-OSC32_OUT
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB9
PB10
PB11
PB12
PB13
PB14
PB15
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
PA9
PA10
PA11
PA12
PA13
PA14
PA15
PC13
VBAT
VDD
VDDA
VSS
VSSA
BOOT0
RESET
R5
100k
C1 4.7uF
C2 100nF
C3 100nF
C6 100nF
C7 10nF
C13 1uF
C11 1uF
C12 100nF
+3.3V
+3.3VA
GND
Attack_Pot
Decay_Pot
Env4_DAC
Release_Pot
Env1_DAC
Env2_DAC
USB_DM
USB_DP
SWIO
SWCLK
Sustain_Pot
Env3_DAC
Gate4
Gate3
Gate2
Gate1
See Ref. Manual p.789 for op-amp mapping:
DAC3_CH1/OPAMP1: PA2
DAC3_CH2/OPAMP3: PB1
[DAC4_CH1/OPAMP4: PB12
DAC4_CH2/OPAMP5: PA8
DAC3_CH1/OPAMP6: PB11]
Input protection
U3
CD40109B
Vcc
EN_A
A
E
F
B
EN_B
Vss
Vdd
EN_D
D
H
NC
G
C
EN_C
R1 10k
R2 10k
R3 10k
R4 10k
Gate1_In
Gate2_In
Gate4_In
Gate3_In
Gate1
Gate2
Gate4
Gate3
Connectors
J1
Conn_01x04_Male
Attack_Pot
Decay_Pot
Sustain_Pot
Release_Pot
J2
Conn_01x05_Male
Gate1_In
Gate2_In
Gate3_In
Gate4_In
J5
SWIO
SWCLK
SWD_Header
J3
Conn_01x04_Male
Led2_Out
Env2_Out
Led1_Out
Env1_Out
J4
Conn_01x04_Male
Led3_Out
Env3_Out
Led4_Out
Env4_Out
J7
USB_B_Micro
VBUS
D+
D-
ID
GND
Shield
USB_DP
USB_DM
Output Amplifiers
Full Scale: 8V
U4A TL074
U4B TL074
U4C TL074
U4D TL074
Env1_DAC
Env2_DAC
Env3_DAC
Env4_DAC
Led1_Out
Led2_Out
Led3_Out
Led4_Out
R9 3k3
R10 3k3
R11 3k3
R12 3k3
R13 4k7
R14 4k7
R15 4k7
R16 4k7
R17 1k
R18 1k
R19 1k
R20 1k
R21 1k
R22 1k
R23 1k
R24 1k
Test Points
TestPoint TP1 GND
TestPoint TP2 +3.3V
TestPoint TP3 +12V
TestPoint TP4 -12V
TestPoint TP5 GND
TestPoint TP6 RESET
PWR_FLAG -12V_IN
PWR_FLAG +12V_IN
PWR_FLAG +12V
PWR_FLAG -12V
PWR_FLAG +3.3VA
Power
Eurorack_10_pin_power
J6
+12V_IN
-12V_IN
D1 1N5819
D2 1N5819
C4 22uF
C5 22uF
+12V
-12V
U2
LD1117-3.3-4Tab
VI
VO
GND
C8 22uF
L1 L_Small
U4E TL074
V+
V-
C9 1uF
C10 1uF
Mountjoy Modular
Sheet: /
File: QuadEnv_Components.kicad_sch
Title: QuadEnv
Size: A4
Date: 2023-03-09
Rev: 1.0
KiCad E.D.A. kicad (6.0.11)
Id: 1/1