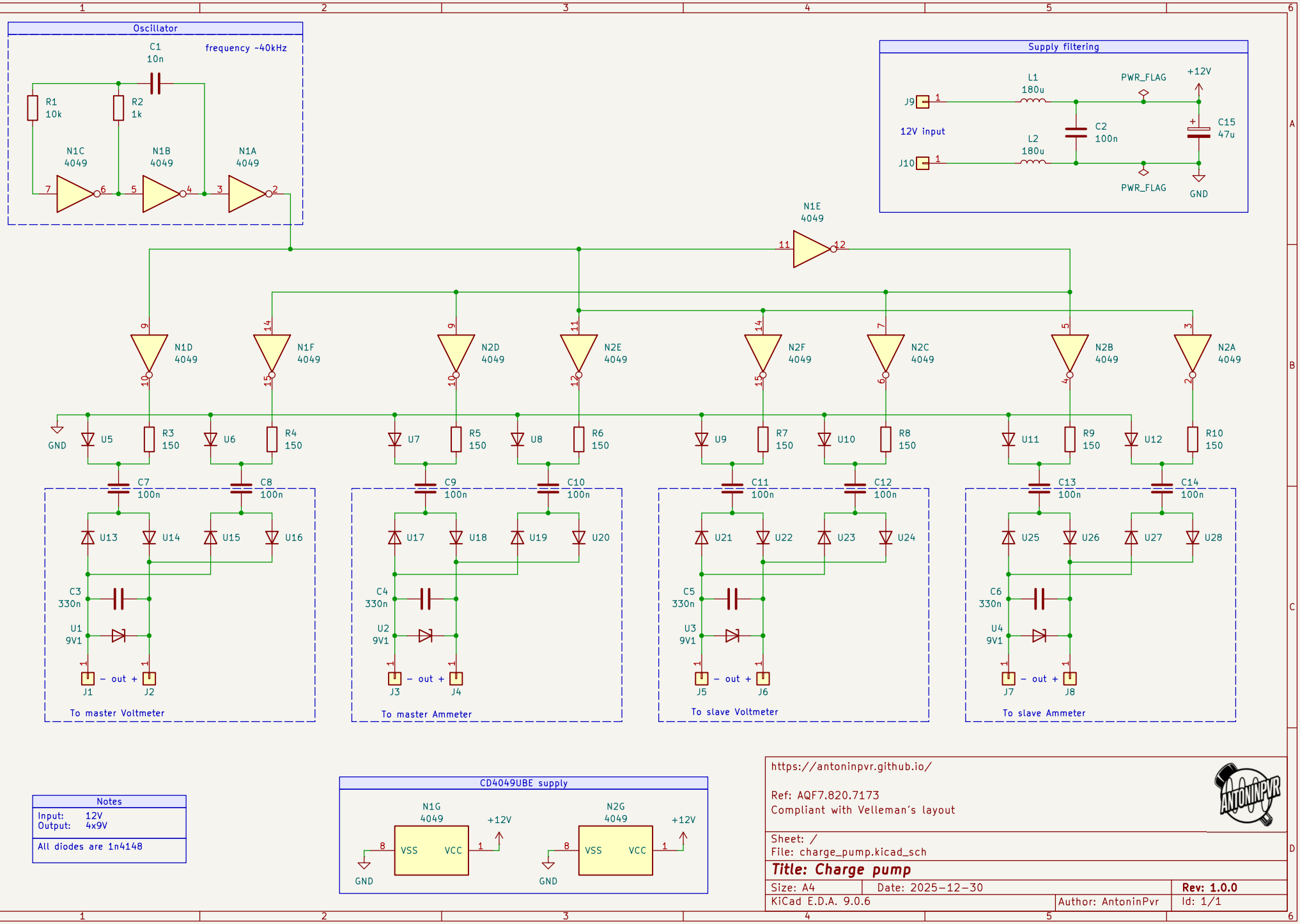
Oscillator
frequency ~40kHz
C1
10n
R1
10k
R2
1k
N1C
4049
N1B
4049
N1A
4049
Supply filtering
J9
J10
12V input
L1
180u
L2
180u
C2
100n
C15
47u
PWR_FLAG
PWR_FLAG
+12V
GND
N1E
4049
N1D
4049
N1F
4049
N2D
4049
N2E
4049
N2F
4049
N2C
4049
N2B
4049
N2A
4049
GND
U5
R3
150
U6
R4
150
U7
R5
150
U8
R6
150
U9
R7
150
U10
R8
150
U11
R9
150
U12
R10
150
C7
100n
C8
100n
C9
100n
C10
100n
C11
100n
C12
100n
C13
100n
C14
100n
U13
U14
U15
U16
U17
U18
U19
U20
U21
U22
U23
U24
U25
U26
U27
U28
C3
330n
U1
9V1
C4
330n
U2
9V1
C5
330n
U3
9V1
C6
330n
U4
9V1
– out +
J1
J2
To master Voltmeter
– out +
J3
J4
To master Ammeter
– out +
J5
J6
To slave Voltmeter
– out +
J7
J8
To slave Ammeter
Notes
Input: 12V
Output: 4x9V
All diodes are 1n4148
CD4049UBE supply
N1G
4049
N2G
4049
VSS
VCC
+12V
GND
https://antoninpvr.github.io/
Ref: AQF7.820.7173
Compliant with Velleman's layout
Sheet: /
File: charge_pump.kicad_sch
Title: Charge pump
Size: A4
Date: 2025-12-30
Rev: 1.0.0
KiCad E.D.A. 9.0.6
Author: AntoninPvr
Id: 1/1