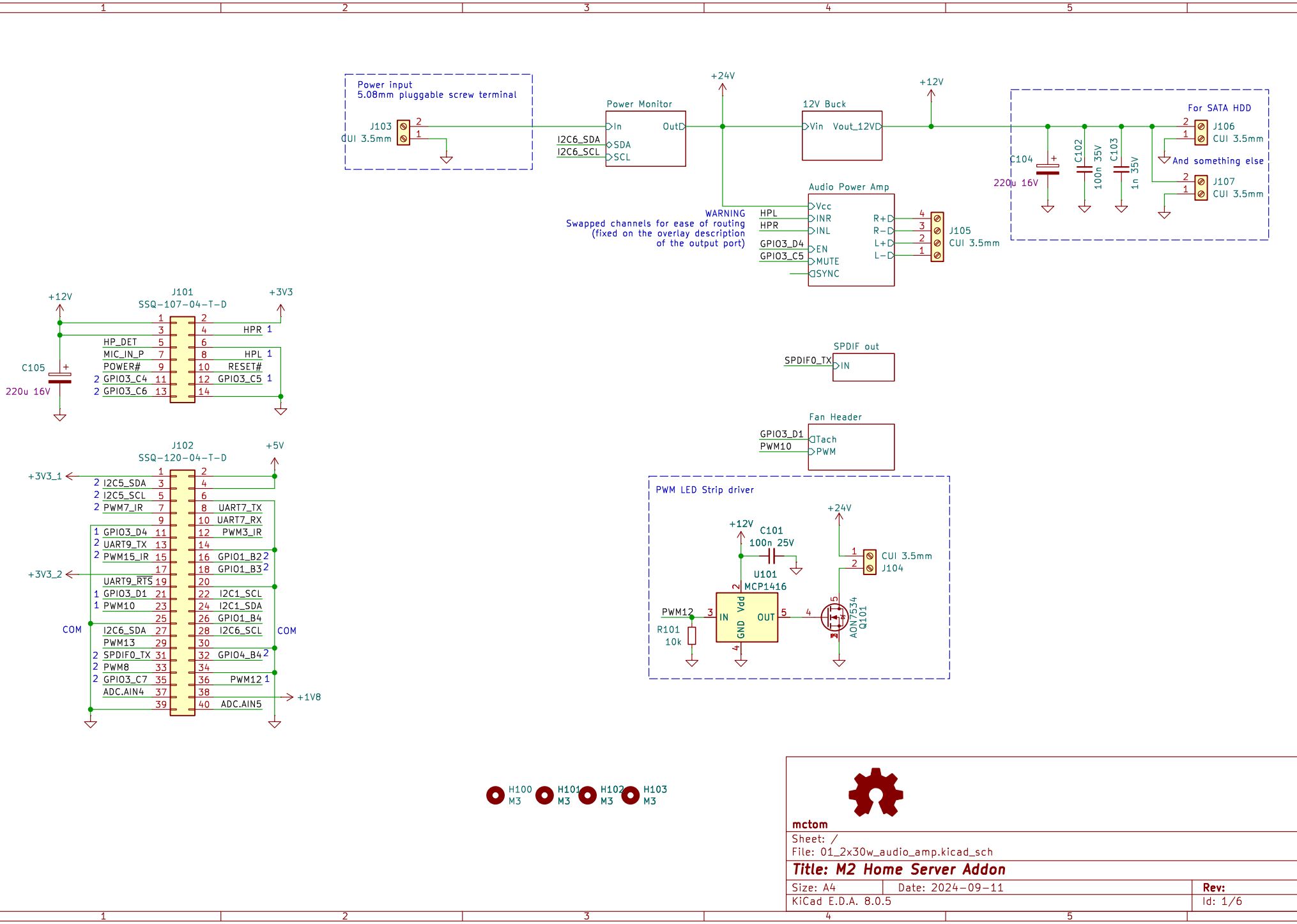
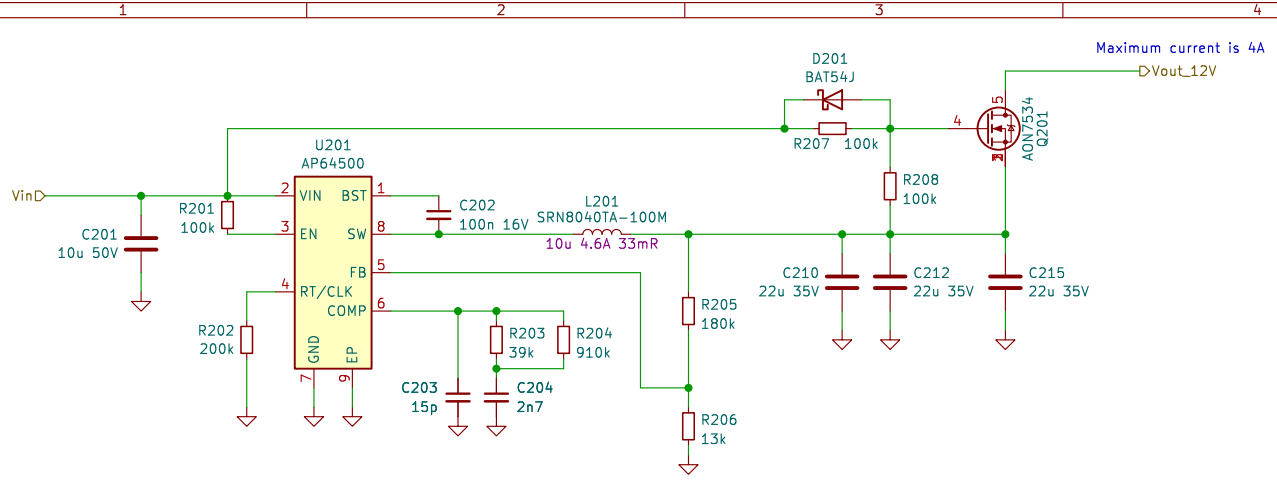
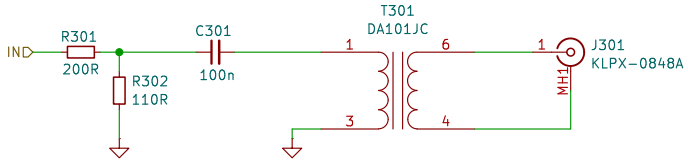
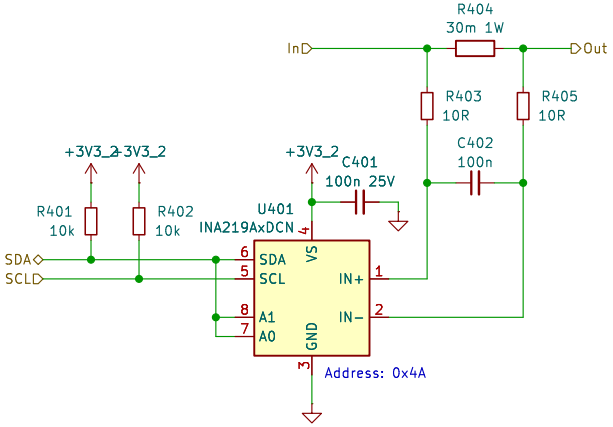

Power input
5.08mm pluggable screw terminal
J103
CUI 3.5mm
Power Monitor
I2C6_SDA
I2C6_SCL
In
Out
SDA
SCL
+24V
12V Buck
Vin
Vout_12V
+12V
For SATA HDD
C104
220u 16V
C102
100n 35V
C103
1n 35V
J106
CUI 3.5mm
And something else
J107
CUI 3.5mm
Audio Power Amp
WARNING
Swapped channels for ease of routing
(fixed on the overlay description
of the output port)
HPL
HPR
GPIO3_D4
GPIO3_C5
Vcc
INR
INL
EN
MUTE
SYNC
R+
R−
L+
L−
J105
CUI 3.5mm
J101
SSQ-107-04-T-D
+12V
+3V3
C105
220u 16V
HP_DET
MIC_IN_P
POWER#
GPIO3_C4
GPIO3_C6
HPR
HPL
RESET#
GPIO3_C5
SPDIF out
SPDIF0_TX
IN
Fan Header
GPIO3_D1
PWM10
Tach
PWM
J102
SSQ-120-04-T-D
+5V
+3V3_1
+3V3_2
I2C5_SDA
I2C5_SCL
PWM7_IR
GPIO3_D4
UART9_TX
PWM15_IR
UART9_RTS
GPIO3_D1
PWM10
COM
I2C6_SDA
PWM13
SPDIF0_TX
PWM8
GPIO3_C7
ADC.AIN4
UART7_TX
UART7_RX
PWM3_IR
GPIO1_B2
GPIO1_B3
I2C1_SCL
I2C1_SDA
GPIO1_B4
I2C6_SCL
GPIO4_B4
PWM12
ADC.AIN5
+1V8
PWM LED Strip driver
+12V
C101
100n 25V
+24V
U101
MCP1416
PWM12
R101
10k
IN
OUT
GND
Vdd
CUI 3.5mm
J104
AON7534
Q101
H100
M3
H101
M3
H102
M3
H103
M3
mctom
Sheet: /
File: 01_2x30w_audio_amp.kicad_sch
Title: M2 Home Server Addon
Size: A4
Date: 2024-09-11
Rev:
KiCad E.D.A. 8.0.5
Id: 1/6



Sheet: /12V Buck/		
File: 12V_Buck.kicad_sch		
Title:		
Size: A5	Date:	**Rev:**
KiCad E.D.A. 8.0.5		Id: 2/6



Sheet: /SPDIF out/ File: spdif_out.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.5		Id: 3/6



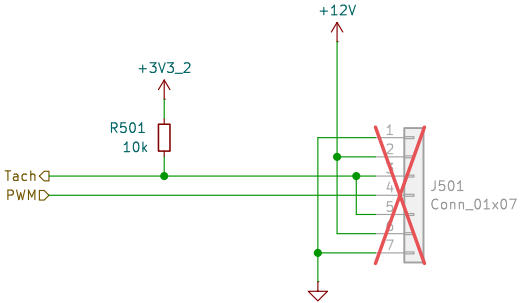
See datasheet to configure this chip properly.
Linux driver exists (INA2xx), however it's been updated in mainline in 2024.

Sense resistor selected for the maximum current of 5A and 160mV sense range.

Sheet: /Power Monitor/
File: power_monitor.kicad_sch

Title:

Size: A5	Date:	**Rev:**
KiCad E.D.A. 8.0.5		Id: 4/6



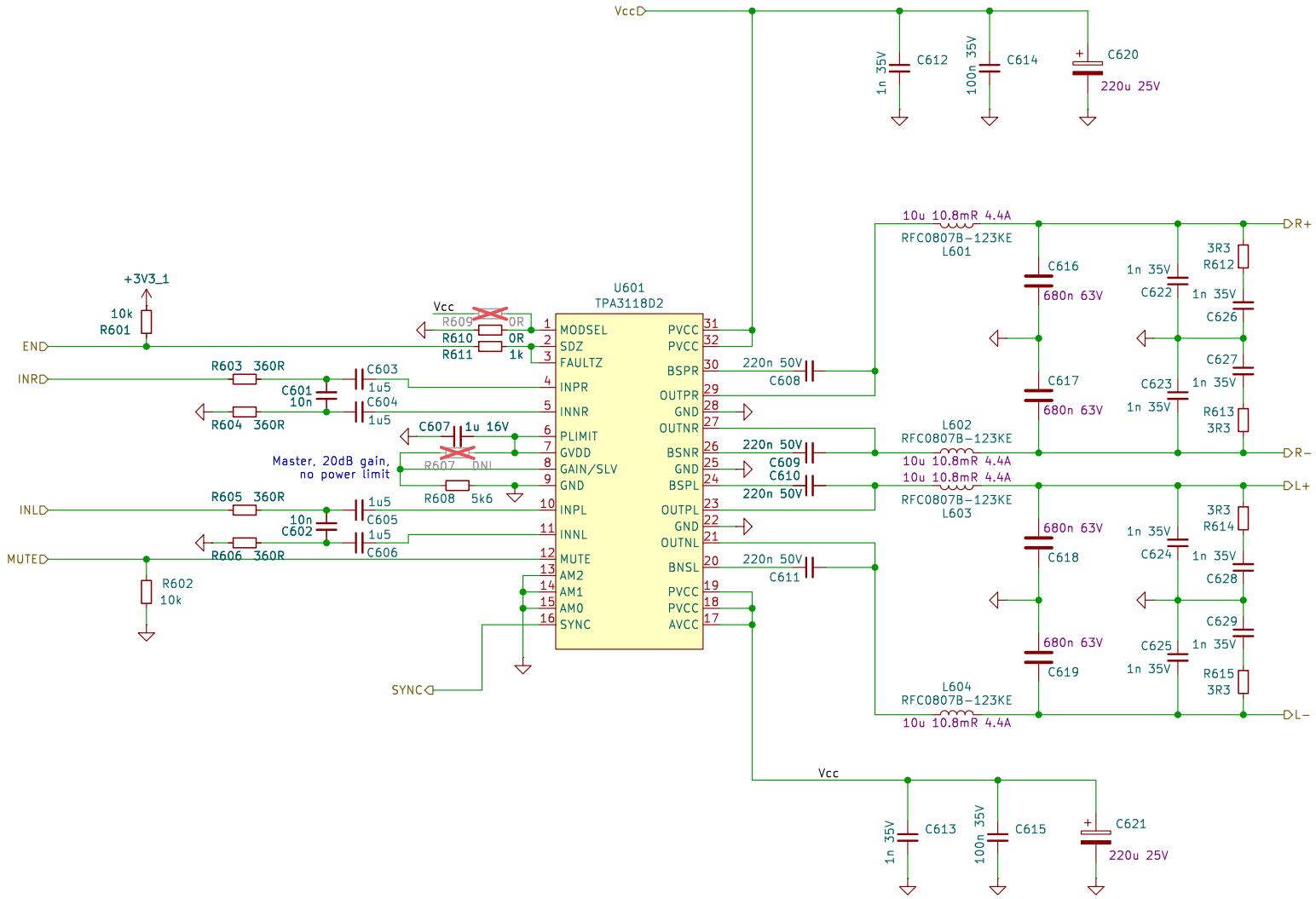
I couldn't find any horizontal fan connector
from a reputable vendor.
For this reason, I placed this footprint
that allows for mounting any fan connector on the market
and in any orientation.

3-pin fans won't have RPM control though.

Sheet: /Fan Header/
File: fan_header.kicad_sch

Title:

Size: A5	Date:	**Rev:**
KiCad E.D.A. 8.0.5		Id: 5/6



Sheet: /Audio Power Amp/
File: audio_power_amp.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. 8.0.5		Id: 7/6