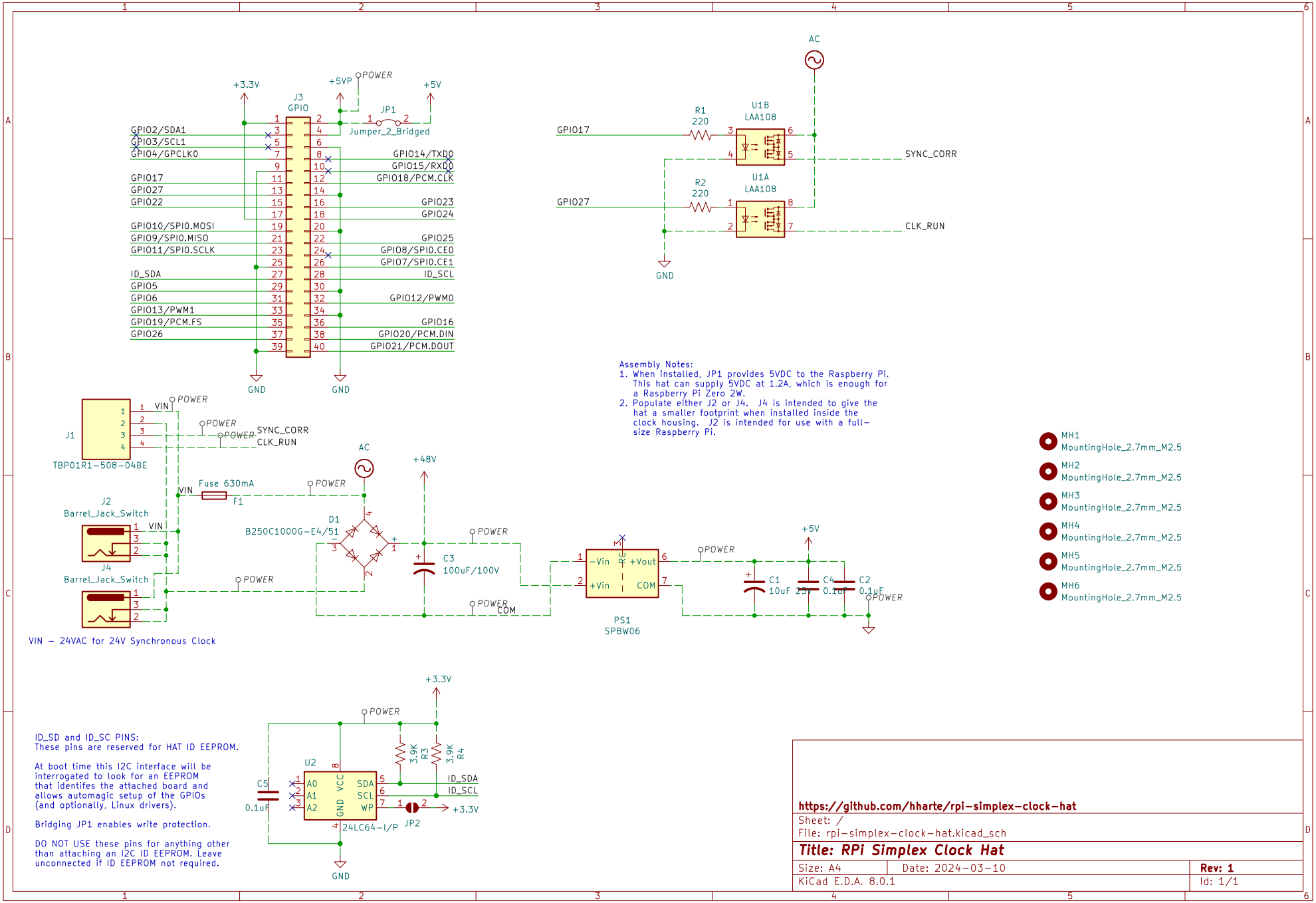
+3.3V
+5VP
POWER
+5V
J3
GPIO
JP1
Jumper_2_Bridged
GPIO2/SDA1
GPIO3/SCL1
GPIO4/GPCLK0
GPIO14/TXD0
GPIO15/RXD0
GPIO17
GPIO18/PCM.CLK
GPIO27
GPIO22
GPIO23
GPIO24
GPIO10/SPI0.MOSI
GPIO9/SPI0.MISO
GPIO11/SPI0.SCLK
GPIO25
GPIO8/SPI0.CE0
GPIO7/SPI0.CE1
ID_SDA
ID_SCL
GPIO5
GPIO6
GPIO12/PWM0
GPIO13/PWM1
GPIO19/PCM.FS
GPIO16
GPIO26
GPIO20/PCM.DIN
GPIO21/PCM.DOUT
GND
GND
AC
R1
220
U1B
LAA108
GPIO17
SYNC_CORR
R2
220
U1A
LAA108
GPIO27
CLK_RUN
GND
Assembly Notes:
1. When installed, JP1 provides 5VDC to the Raspberry Pi. This hat can supply 5VDC at 1.2A, which is enough for a Raspberry Pi Zero 2W.
2. Populate either J2 or J4. J4 is intended to give the hat a smaller footprint when installed inside the clock housing. J2 is intended for use with a full-size Raspberry Pi.
MH1
MountingHole_2.7mm_M2.5
MH2
MountingHole_2.7mm_M2.5
MH3
MountingHole_2.7mm_M2.5
MH4
MountingHole_2.7mm_M2.5
MH5
MountingHole_2.7mm_M2.5
MH6
MountingHole_2.7mm_M2.5
J1
TBP01R1-508-04BE
VIN
POWER
SYNC_CORR
CLK_RUN
J2
Barrel_Jack_Switch
J4
Barrel_Jack_Switch
Fuse 630mA
F1
AC
+48V
D1
B250C1000G-E4/51
C3
100uF/100V
PS1
SPBW06
-Vin
+Vin
+Vout
COM
C1
10uF 25V
C4
0.1uF
C2
0.1uF
+5V
COM
VIN – 24VAC for 24V Synchronous Clock
ID_SD and ID_SC PINS:
These pins are reserved for HAT ID EEPROM.
At boot time this I2C interface will be interrogated to look for an EEPROM that identifes the attached board and allows automagic setup of the GPIOs (and optionally, Linux drivers).
Bridging JP1 enables write protection.
DO NOT USE these pins for anything other than attaching an I2C ID EEPROM. Leave unconnected if ID EEPROM not required.
U2
A0
A1
A2
GND
VCC
SDA
SCL
WP
24LC64-I/P
C5
0.1uF
3.9K
R3
3.9K
R4
ID_SDA
ID_SCL
JP2
https://github.com/hharte/rpi-simplex-clock-hat
Sheet: /
File: rpi-simplex-clock-hat.kicad_sch
Title: RPi Simplex Clock Hat
Size: A4
Date: 2024-03-10
Rev: 1
KiCad E.D.A. 8.0.1
Id: 1/1