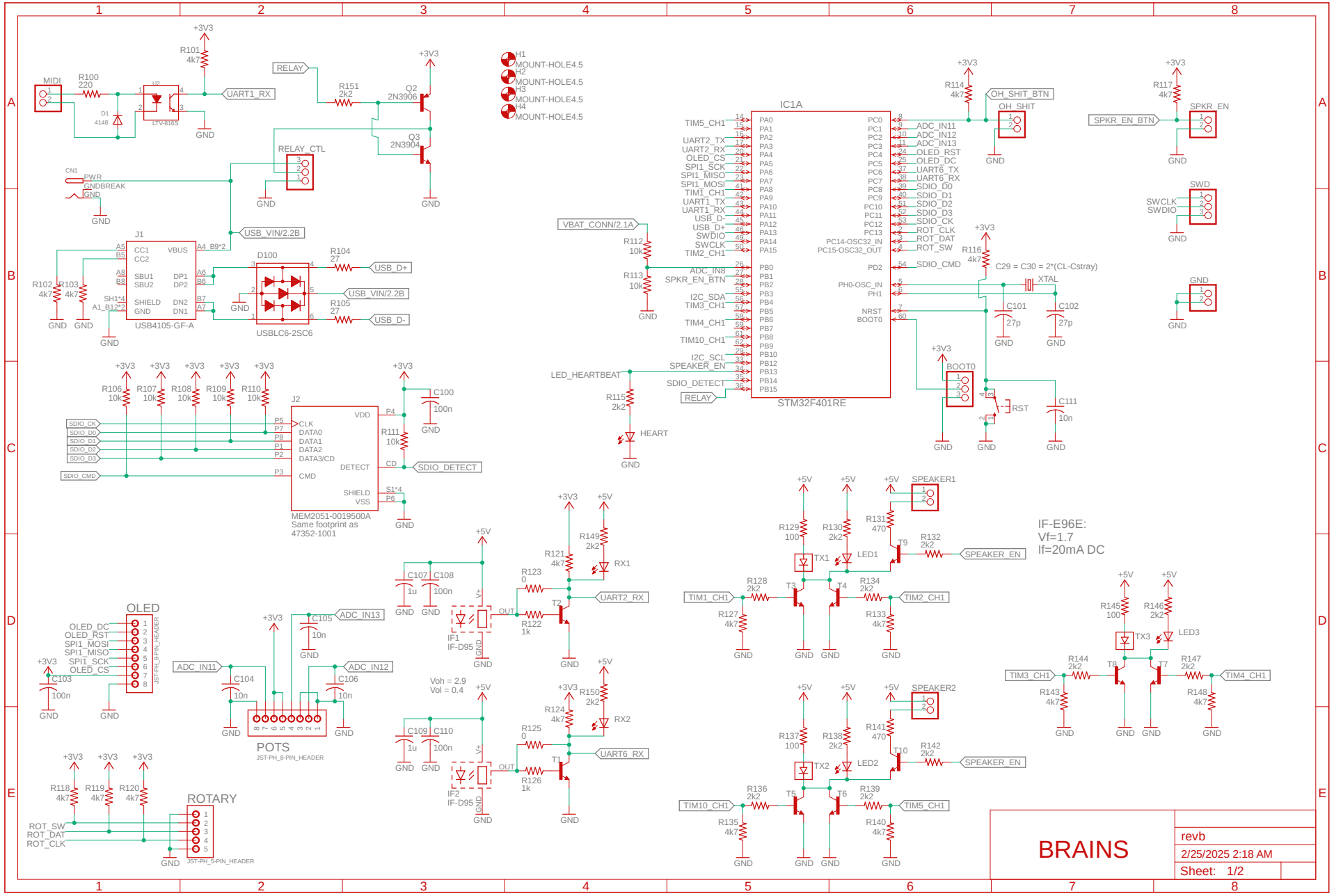
MIDI
R100 220
D1 4148
U2 LTV-816S
R101 4k7
+3V3
UART1_RX
GND
RELAY
R151 2k2
Q2 2N3906
Q3 2N3904
RELAY_CTL
CN1
PWR
GNDBREAK
J1
USB4105-GF-A
R102 4k7
R103 4k7
D100
USBLC6-2SC6
R104 27
R105 27
USB_D+
USB_D-
USB_VIN/2.2B
H1 MOUNT-HOLE4.5
H2 MOUNT-HOLE4.5
H3 MOUNT-HOLE4.5
H4 MOUNT-HOLE4.5
IC1A
STM32F401RE
TIM5_CH1
UART2_TX
UART2_RX
OLED_CS
SPI1_SCK
SPI1_MISO
SPI1_MOSI
TIM1_CH1
UART1_TX
UART1_RX
USB_D-
USB_D+
SWDIO
SWCLK
TIM2_CH1
ADC_IN8
SPKR_EN_BTN
I2C_SDA
TIM3_CH1
TIM4_CH1
TIM10_CH1
I2C_SCL
SPEAKER_EN
SDIO_DETECT
RELAY
ADC_IN11
ADC_IN12
ADC_IN13
OLED_RST
OLED_DC
UART6_TX
UART6_RX
SDIO_D0
SDIO_D1
SDIO_D2
SDIO_D3
SDIO_CK
ROT_CLK
ROT_DAT
ROT_SW
SDIO_CMD
PC14-OSC32_IN
PC15-OSC32_OUT
PH0-OSC_IN
PH1
NRST
BOOT0
VBAT_CONN/2.1A
R112 10k
R113 10k
LED_HEARTBEAT
R115 2k2
HEART
R114 4k7
OH_SHIT_BTN
OH_SHIT
R116 4k7
C29 = C30 = 2*(CL-Cstray)
XTAL
C101 27p
C102 27p
C111 10n
RST
R117 4k7
SPKR_EN
SPKR_EN_BTN
SWD
SWCLK
SWDIO
J2
MEM2051-0019500A
Same footprint as
47352-1001
R106 10k
R107 10k
R108 10k
R109 10k
R110 10k
R111 10k
C100 100n
SDIO_DETECT
OLED
JST-PH_8-PIN_HEADER
C103 100n
POTS
JST-PH_8-PIN_HEADER
C104 10n
C105 10n
C106 10n
ROTARY
JST-PH_5-PIN_HEADER
R118 4k7
R119 4k7
R120 4k7
C107 1u
C108 100n
C109 1u
C110 100n
IF1
IF2
IF-D95
Voh = 2.9
Vol = 0.4
OUT
V+
R121 4k7
R122 1k
R123 0
R124 4k7
R125 0
R126 1k
R149 2k2
R150 2k2
RX1
RX2
T1
T2
SPEAKER1
SPEAKER2
R129 100
R130 2k2
R131 470
R132 2k2
TX1
LED1
T9
R128 2k2
R127 4k7
T3
T4
R134 2k2
R133 4k7
R137 100
R138 2k2
R141 470
R142 2k2
TX2
LED2
T10
R136 2k2
R135 4k7
T5
T6
R139 2k2
R140 4k7
IF-E96E:
Vf=1.7
If=20mA DC
R145 100
R146 2k2
TX3
LED3
R144 2k2
R143 4k7
T8
T7
R147 2k2
R148 4k7
TIM3_CH1
TIM4_CH1
BRAINS
revb
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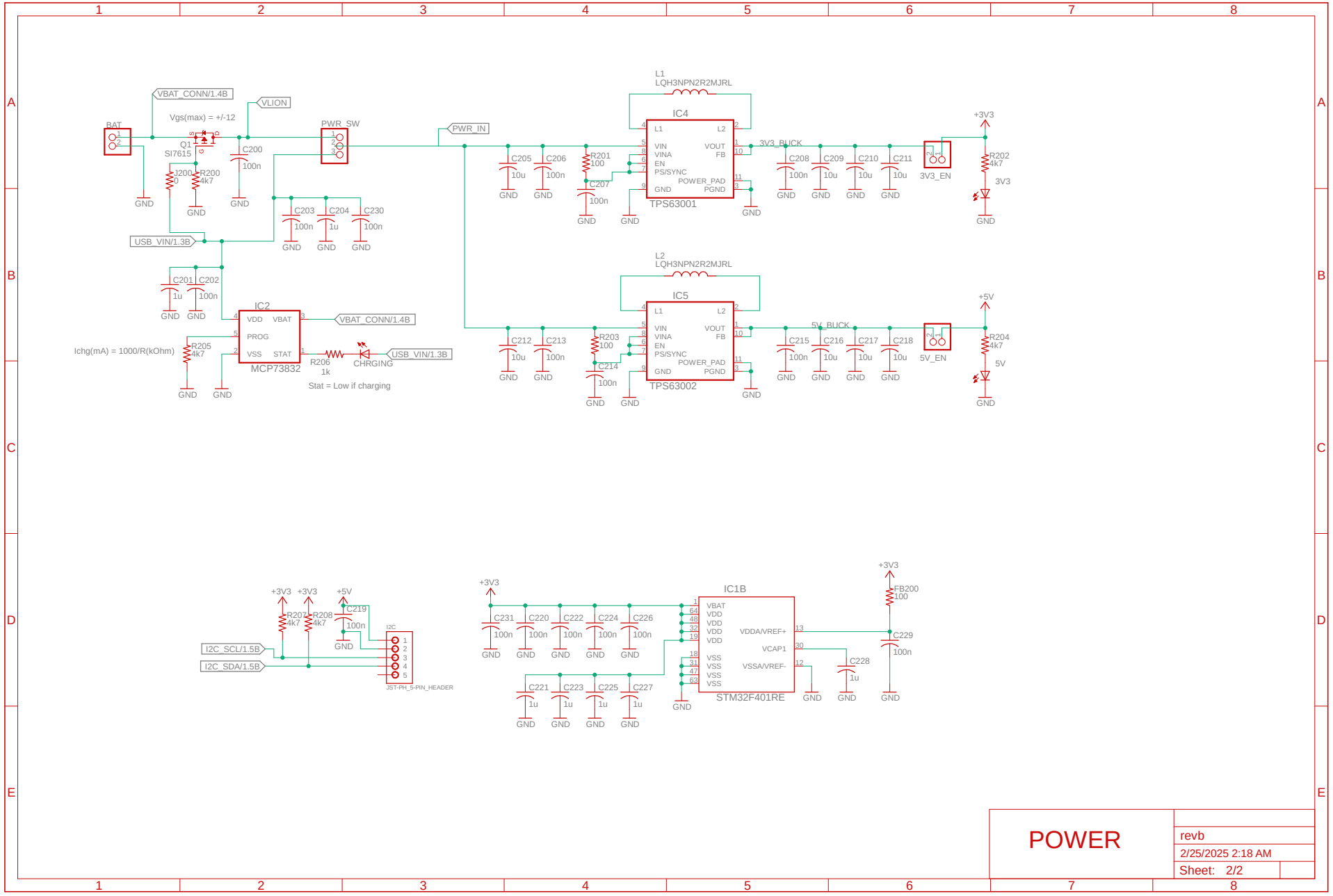
Sheet: 1/2



POWER

revb

2/25/2025 2:18 AM

Sheet: 2/2