

SqueezeAmpToo V2

by David Viberg, Aug 6, 2020

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In collaboration with Chuck Rohs / Zethus Information Systems

This is fork of philippe44/SqueezeAMP to reduce cost, reduce heat and add functionality

The 16V/3 cell option does not make sense, imho, for a battery powered amplifier as it increases power at the cost of battery life so this version is 16V-12V/2 cell only

The board has been increased in size from 5x4cm to 7.5x4cm to add a better performing heat sink for 16V operation, the board is the size of a dual 18650 battery pack

This has a cost reduced charger and buck regulator and adds a USB to serial interface for easy initial programming and JTAG port as well a IR remote control

V2 fixes charger wiring error, low voltage cutoff for 3.3V buck, headphone jack footprint and power jack footprint

V2adds optional spi display and adds encoder and buttons (manual volume is important imho) and a board that bucks battery to 5V to drive WS2812 vu meter light show

V2adds battery pack thermistor board for safety at 1-2A charge rates (also the charger generates enough heat that it affects a local thermistor)

18Vmax !!!

12V power barrel connector

alt. screw terminals for power

Charge 2 Li ion

2 Cell Li ion

High Side Switch

Buck 3.3V

ESP-32-wrover-8M

ws2812

10W Stereo Amp

Speakers 4 or 8 ohm

Headphone

CP2102 serial

USB

SH1106 i2c OLED display

i2c expand

SPI display

External IR remote control receiver

SPDIF TX

J1 POWERJACKCOAX

D3 SCHOTTKY 30V 3A

J10 CON2

J11 CON6

J12 CON2

J13 CON5

J14 CON7

J15 CON4

J16 CON3

J17 CON1

J18 CON4

J19 CON2

J20 CON1

J21 CON2

J22 CON1

J23 CON2

J24 CON1

J25 CON2

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J263 CON2

J264 CON1

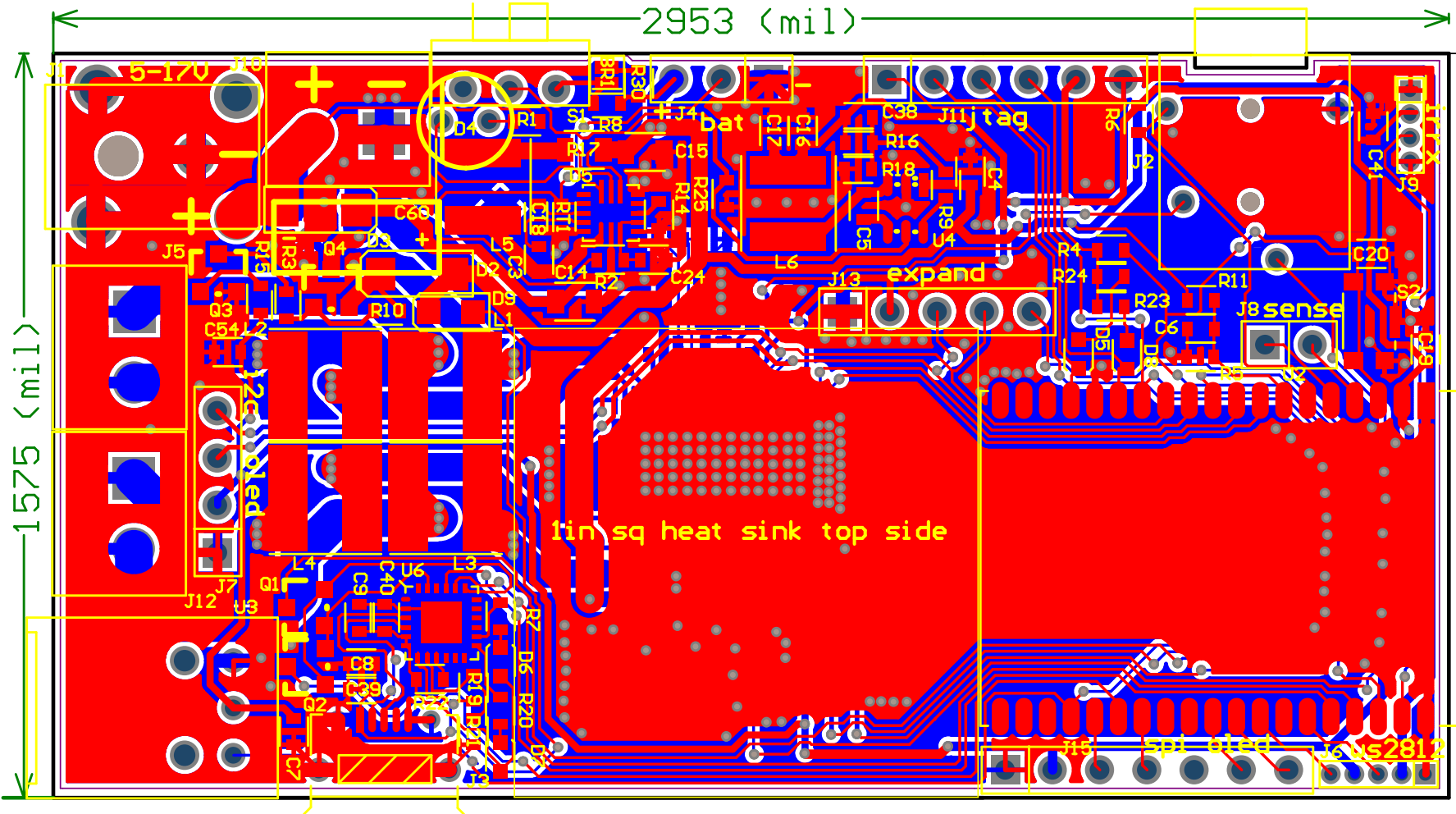
J265 CON2

J266 CON1

J267 CON2

J268 CON1

J269 CON2



SqueezeAmpToolV2

