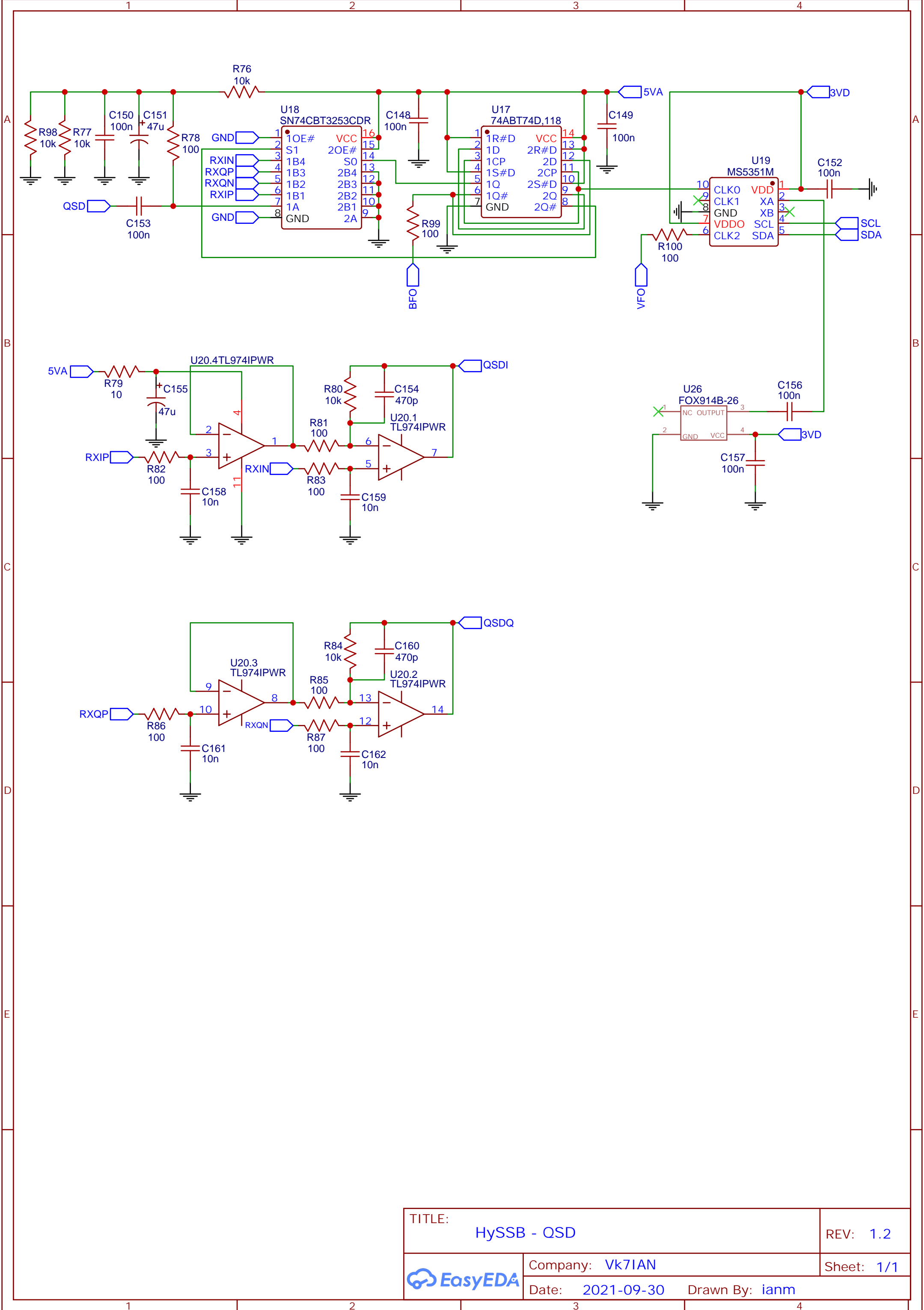
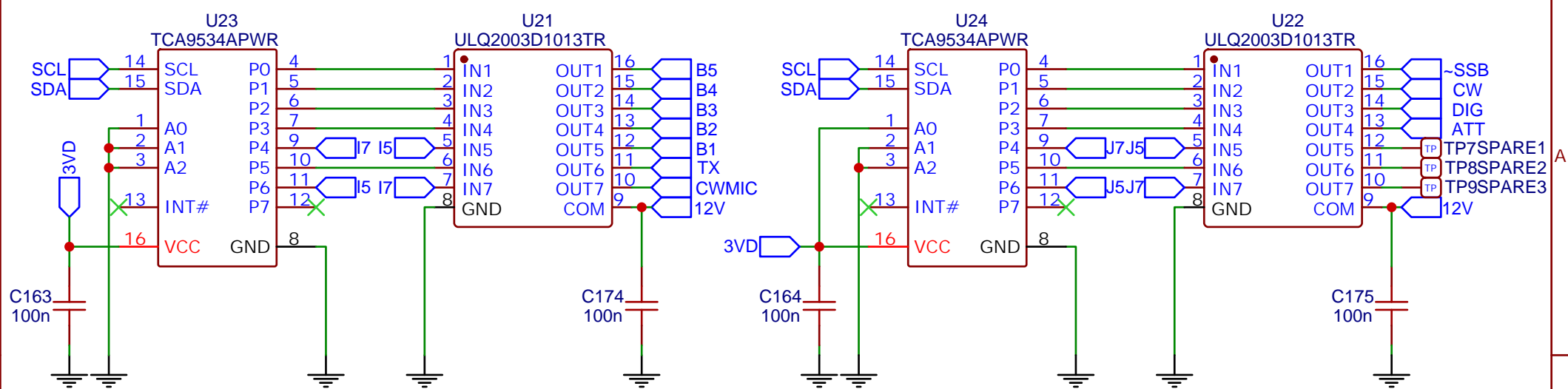


Notes:

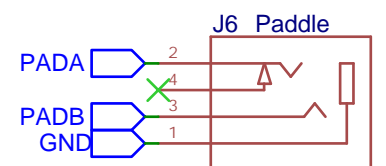
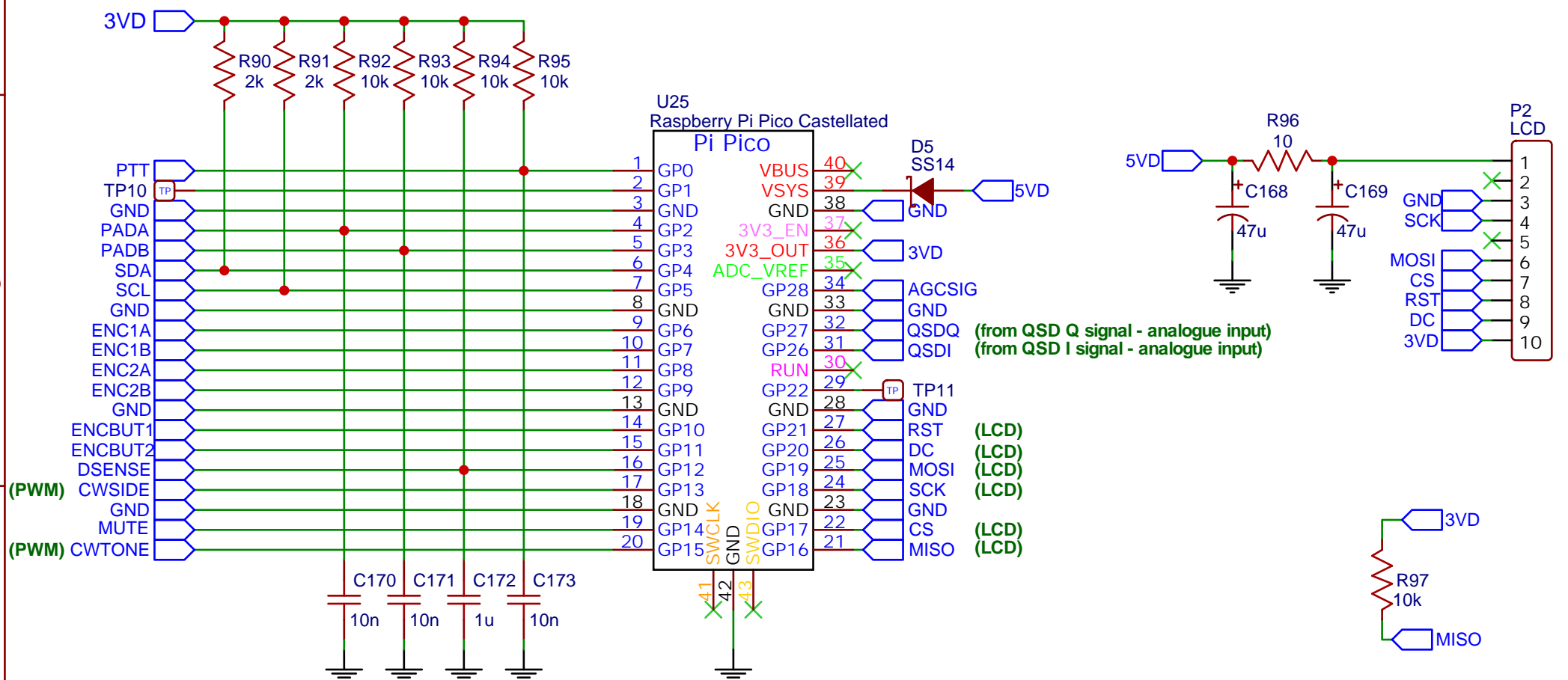
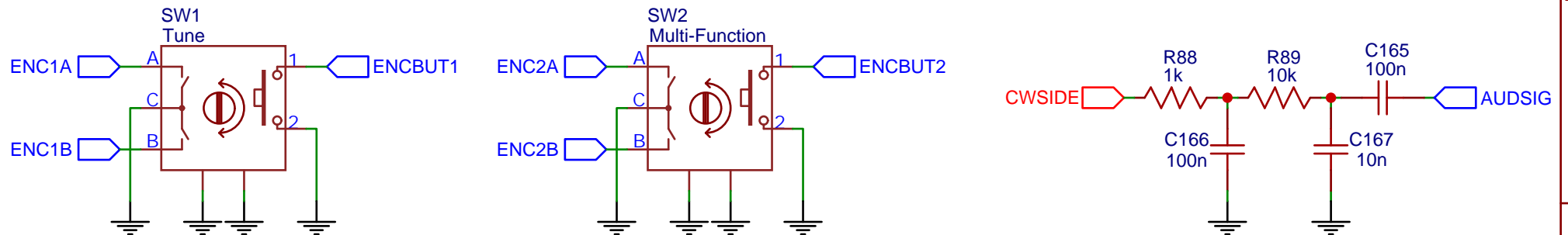
\* LM1117 output capacitance must be at least 10uF tantalum.

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(CWMIC = route CW tone to mic or mute mic)



Changes

V1.1:

- \* TX and CWMIC signals should go via relay drivers not directly from the Pico
- \* changed tantalum to VE-470M1CTR-0505 electro
- \* fixed relay footprint
- \* fixed phones footprint (was 2.5mm)
- \* changed volume to PCB mount footprint
- \* U6 was reversed!
- \* Added connector for paddle
- \* Added bypass caps to U21 and U22 (ULQ2003)
- \* Reversed B1-B5 for easier PCB layout
- \* Added connector for power switch
- \* Update bandpass filter inductor footprint to accept 0805 and 1206 devices

V1.2:

- \* Part number for VCXO was incorrect - should be FOX914 (not FOX924)
- \* Added R98 so that DC reference for ADC is 1.66V (instead of 2.5V)
- \* Updates to crystal filter capacitor values using LCSC crystals: SSB 82p, CW 330p, Dig 47p
- \* Added R99 and R100 to reduce potential ringing on VFO and BFO
- \* changed R29, R31 and R32 to 1M to improve AGC
- \* Added limiting diodes D6 and D7 to AGC
- \* Update to AGC based on a design idea in EDN August 2005
- \* Changed L3 to 15u SM inductor

V1.3:

- \* Added T50-6 winding details
- \* Change R44 to 0

TODO:

- \* power switch - done
- \* power on LED
- \* speaker connector?
- \* use PCB mount volume - done
- \* heatsink for Q2
- \* add I2C connector

[https://github.com/earlephilhower/arduino-pico/releases/download/global/package\\_rp2040\\_index.json](https://github.com/earlephilhower/arduino-pico/releases/download/global/package_rp2040_index.json)

<https://www.aliexpress.com/i/4000152810614.html>

<https://learn.adafruit.com/adafruit-1-14-240x135-color-tft-breakout/pinouts>

<https://github.com/hideakitai/TCA9534>

<https://github.com/etherkit/Si5351Arduino>

[https://github.com/Bodmer/TFT\\_eSPI](https://github.com/Bodmer/TFT_eSPI)

<https://github.com/brianlow/Rotary>

[https://github.com/adafruit/Adafruit\\_ZeroFFT](https://github.com/adafruit/Adafruit_ZeroFFT)

TITLE: HySSB - Notes		REV: 1.2
	Company: VK7IAN	Sheet: 1/1
	Date: 2021-10-29 Drawn By: ianm	