

**Function button (IO VN)**

Is a momentary pushbutton, switching to ground.

The functions are:-

- One short press    Swap VFO A/B
- 2 short presses    Toggle split mode ON/OFF
- 3 short pushes    Set VFO A = B
- 4 short presses    Set VFO B = A
- Held down        Swap A - B until released

# ANALOG DIAL/VFO FOR FT-7

# DRAFT V2A SCH

pcb @ V2a Oct 2024

V1 pcb (V2a is OK) is missing 10k to 3V3 from CLAR\_SW and also CLAR\_ and CLAR\_B lines

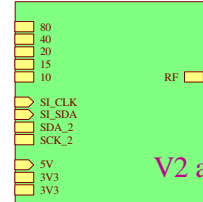
PTT OPTO COUPLER

\*\*\*\*clarify sw must go to a high.

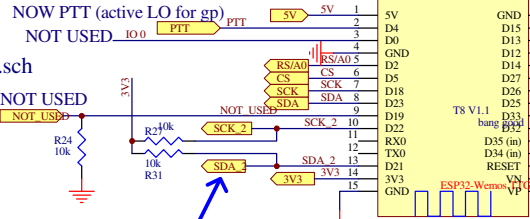
ESP32\_WEMOS (TTGO)

SHEET 2

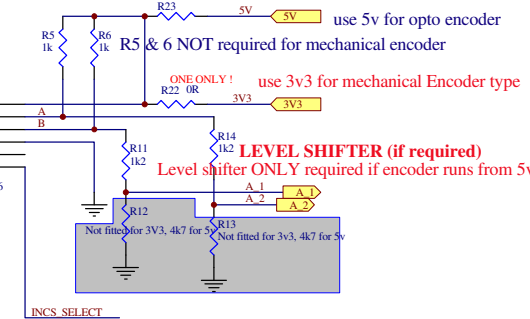
PCF8574\_Sht\_2  
TTGO\_PCF8574\_Sht\_2\_V2.sch



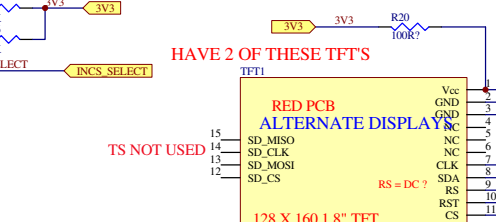
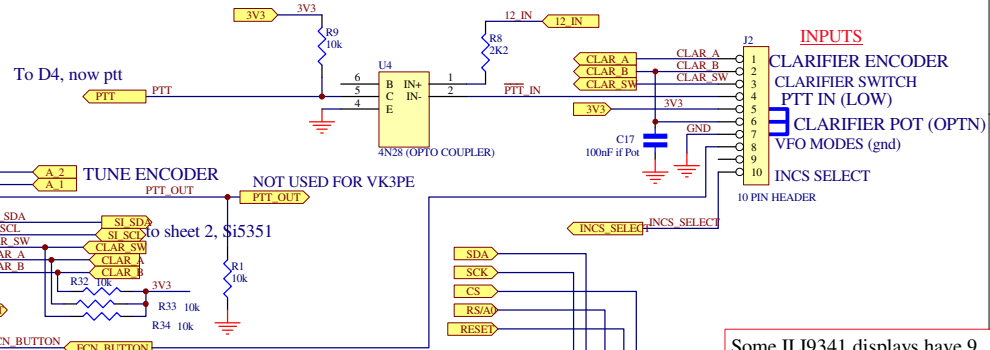
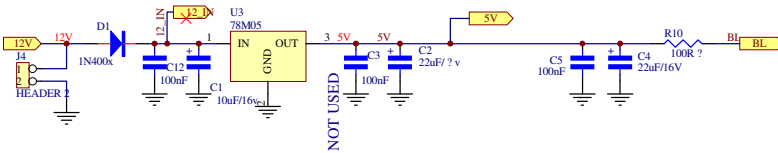
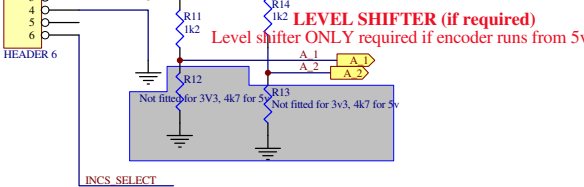
V2 add pull-ups to SCK\_2 & SDA\_2



CONNECTS TO BATTERY /2 ON TTGO

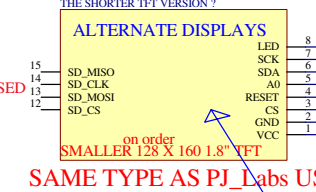


ENCODER



Some ILI9341 displays have 9 pins and 1 to 8 are the same as the ST7735 shown here.  
You MUST carefully check the data or back of display to confirm this!. If so you can use a 9 way cable to the Display, and be able to use either type.

NOTE: ST7735 DRIVER CHIPS ON TFT



SAME TYPE AS PJ\_Labs USED.

- 290919 V2 added inputs for LSB/USB and PTT
- 160719 V2 corrects add pullups on CLAR encoder and switch line
- add INCS\_SELECT net to JP2-6
- add pullups on the 12C lines (2)
- 100519 CORRECT NETS ON ttgo 21 & 22
- WAS 2A
- 120519 V3 with alt ESP32
- 090519 added R5 & R6 for opto encoder
- 280419 see text next to ESP32
- 280319

DISPLAY CONNECTOR

Original Software by TJ\_Labs, heavily modified by WA2FZW

REF: <https://tj-lab.org/2019/02/17/vfo5/>

Title		DRAWN BY:	
Date: 12-Sep-2025		VK3PE	
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