SDR – Part 7

Optical Encoder

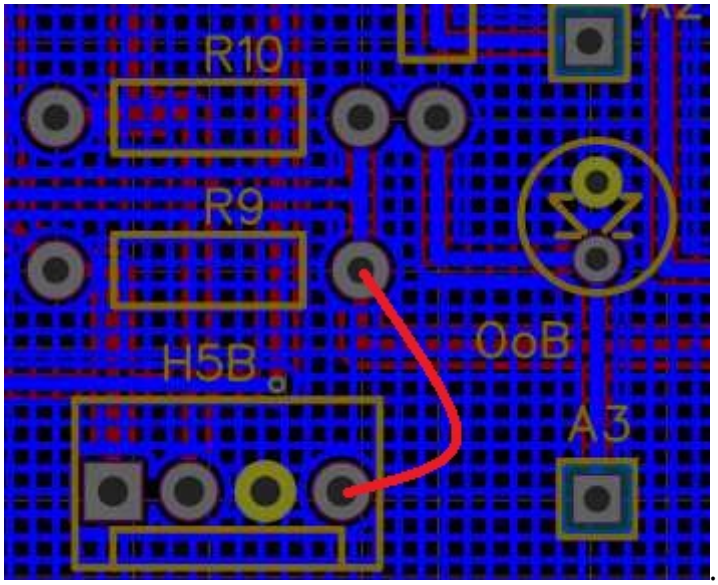
The PCB was designed with a mechanical rotary encoder in mind.

I initially used a mechanical rotary encoder as I have a handful from a previous project – these are Alps Alpine 24 Pulse Incremental Mechanical Rotary Encoders with the manufacturer part number EC12E2460802. These are available from Radionics under stock number 729-5851 for €2.00 each.

I then changed to an optical encoder and used a Bourns model number ENA1J-B20-L00128L – cost about €45 from Mouser. I see that Mouser no longer has this exact model and that prices have increased since mid-COVID days.

Changes to the PCB to add an optical encoder:

- Pull up resistors R9 and R10 should not be installed – the optical encoder has its own internal pull up resistors; and
- Add VCC to pin 4 on H5B – it currently is not connected to anything. I do this by running a short length of insulated wire from H5B pin 4 to one end of the not-installed empty R9.



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