

SDR – Part 5

Websites & Components

I published a construction article in the May 2022 publication of Practical Wireless Magazine.

Electronic viewing of the magazine, as part of a subscription, is here:
<https://pocketmags.com/eu/practical-wireless-magazine>

Here are links to the websites I quote and some information on the components I used.

Samuel

1. Websites

Javier Solans (EA3GCY)

<https://www.qrphamradiokits.com/>

The BP-1A 3 to 30 MHz continuous Variable Filter kit is found here-

<https://www.qrphamradiokits.com/miscellaneous/bp-1a-3-30mhz-filter/#cc-m-product-12129163149>

On 9 April 2022 it was on offer for €40.

QRP-Labs

<http://qrp-labs.com/>

The QRP-Labs ProgRock kit:- <http://qrp-labs.com/vfo.html>

On 9 April 2022 it was on offer for \$35.99, the GNSS/GPS receiver was an additional \$20 and the TCXO was offered at \$8.25. Also available are a knob and an enclosure kit. For Europe these items are posted from Turkey – I have always used the FedEx option.

2. Components

Wire.

I have been asked about the wire I use to connect things together. I did a four year apprenticeship was taught many things that were standard procedures in a large company that developed and manufactured equipment for telecommunications. I have continued using all those good habits in my own playing around.

For wiring I use “hook-up” wires that are colour coded so I can follow the resistor colour codes. Pin 1 of a connector is always connected using a black wire and is the ground wire. Pin 3 is always connected using a red wire and has the highest voltage use on it. Pin 2 is always connected using a brown wire, etc, etc.

I use what is called single core equipment or hook-up wire that is made up of 7 strands of 24 AWG tinned copper wire.

At Radionics the green coloured wire is part number 196-4215.

You have to buy a minimum of 25m but not all the colours are available and a purchase of 100m length may be required. I see there are suppliers on Amazon and EBay that supply selections of shorter lengths.

Lacing Twine.

I use wax impregnated nylon twine to lace together all the single core equipment wires.

Here is a guide to some techniques:

https://fulltrackproductions.com/service%20bulletins/Complete_guide_to_cable_lacing.pdf

My current roll came from Farnell part number 1704220 – Costs £52 for 450m but will last a lifetime. There are shorter lengths of 25m for £8 but only in black.

RF connections.

The VFO comes with SMA connectors and rather than make up my own cables I have a handful of short and longer ready-made cables that I use during playing around to connect things together.

Please be careful of just buying something of EBay – unless it is a reliable supplier you have no quality control and if you cannot test the cables this can be one area that will drive you mad when something does not work.

For SMA plug to SMA plug with 150 mm length cable I use Farnell part number 2532807

For SMA plug to SMA plug with 250 mm length cable I use Farnell part number 2848141

The coax used in these is RG-316 which is quiet stiff.

Endnote.

I have no personal connection with or financial interests in QRP Ham Radio Kits, QRP-Labs, Mouser, Radionics or any other software or components manufacturers mentioned in this document.