

## Low-Cost Ideas to Start Home RF Lab

Commissions earned on Amazon links – **No extra cost to you!**

### **Bench Power Supplies:**

- **Variable; Regulated Voltage and Current:** KORAD KD3005D – Precision Variable Adjustable 30V, 5A DC Linear Power Supply Digital Regulated Lab Grade: <https://amzn.to/3U5QxZj>
- **13.8V Only; Higher Power:** Sky TopPower STP-1330 13.8V 30A DC Power Supply, Analog Bench Regulated Home Lab Benchtop AC to DC Converter for HAM Radio Amateur, CB, with Car Cigarette Lighter Socket, Cooling Fan: <https://amzn.to/4nxU1l7>

### **Bench Signal Generator:**

- Koolertron Upgraded 60MHz DDS Signal Generator Counter, High Precision Dual-Channel Arbitrary Waveform Function Generator Frequency Meter 200MSa/s (60MHz): <https://amzn.to/45ZiKZk>

### **Battery Powered Spectrum Analyzers/Signal Generators:**

- **Inexpensive:** Portable Tinsy Spectrum Analyzer, AURSINC V0.3.1 Handheld Frequency Analyzer, Signal Generator 100kHz to 960MHz MF/HF/VHF UHF Input ESD Protected Function with 2.8 inch Touchscreen: <https://amzn.to/4nwl1MV>
- **Wide Frequency Range:** SeeSii TinySA Ultra+ ZS406 Spectrum Analyzer, 4.0 Inch 100kHz to 5.4GHz Handheld Tiny Frequency Analyzer with 32Gb Card, 2-in-1 Signal Generator MF/HF/VHF UHF Input, V0.4.6.1, 2025 Upgraded: <https://amzn.to/45TabPy>
- **Wide Frequency Range:** AURSINC TinySA Ultra+ ZS406 Spectrum Analyzer, 2025 Upgraded 4.0 Inch 100kHz-5.4GHz HW V0.4.6 Handheld Frequency Analyzer with 32Gb Card, 2-in-1 Signal Generator MF/HF/VHF UHF Input: <https://amzn.to/4nJt8uD>
- **Wide Frequency Range, Incl. 50dB, 50W, DC-to-3 GHz Attenuator & Adapters:** AURSINC TinySA Ultra+ ZS406 Spectrum Analyzer with 50W Attenuator, 2025 Upgraded 100kHz-5.4GHz V0.4.6 Portable Frequency Analyzer with 32Gb Card, 2-in-1 Signal Generator 100kHz to 900MHz Input: <https://amzn.to/46vGfJv>

### **RF Attenuators:**

- **10W Attenuator, Available in Multiple dB Attenuation Values:** BECEN 10W SMA Attenuator, 40dB, DC to 3GHz, 50 Ohm: <https://amzn.to/3TpciDI>
- **Set of 2W Fixed Attenuators:** Nooelec SMA Attenuator Kit - Bundle of 6pc 2W 50 Ohm SMA in-Line Attenuators Provides Highly Linear Attenuation from 1dB to 42dB in 1dB Increments. 1dB, 2dB, 3dB, 6dB, 10dB: <https://amzn.to/44S08co>

### **Soldering Equipment [Potential Fire Hazard – Learn to Use Safely!]**

- **8-piece Education Kit (includes solder):** Weller Soldering Education Kit | 8 piece kit | WE1010EDU: <https://amzn.to/4nwlRcZ>
- **5-piece Kit:** Weller 70 Watt Digital Soldering Station | WE1010NA: <https://amzn.to/44Qt11Z>
- **Smoke Absorber:** Weller Genuine 120v Bench Top Smoke Absorber | WSA350: <https://amzn.to/4kKnGFb>
- **Tip Cleaner:** Weller Soldering Brass Sponge Tip Cleaner with Silicone Holder | WLACCBSh-02: <https://amzn.to/44QxpVq>

Nooelec RTL-SDR v5 Bundle (100kHz-1.75GHz, 0.5PPM TCXO): <https://amzn.to/44ywt6P>

**Not included (and generally more expensive): Oscilloscopes that work at RF frequencies**

**Additional Sources:** <https://www.ebay.com>, <https://randl.com>, <https://www.w5swl.com/>, <https://www.dxengineering.com>, <https://www.gigaparts.com>, etc.