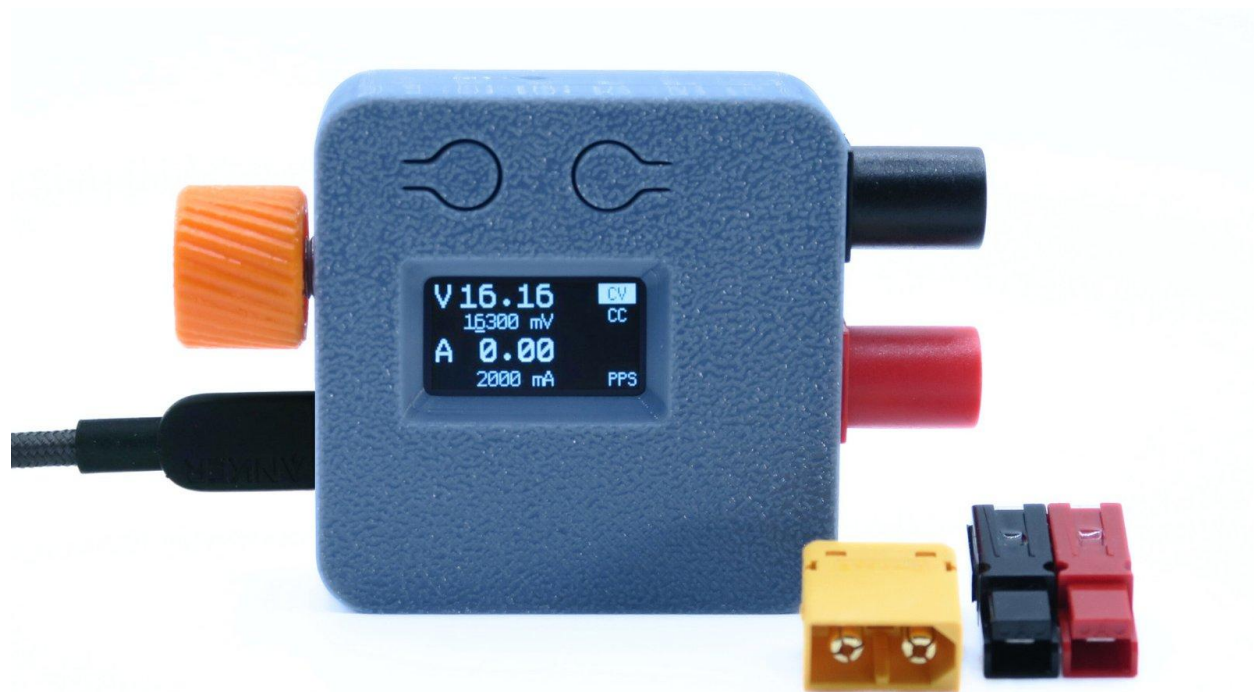


1. PocketPD is a USB Type-C powered bench power supply that fits inside your pocket. Paired with a modern USB Type-C charger or power bank, it is a full-featured power supply that can provide a wide range of voltage with built-in safety. It is equipped with an OLED display, current sensor, and banana jack output for all your standard equipment. It also serves as a Power Delivery 3.0 profile tester.

This unique power supply leverages the Programmable Power Supply (PPS) mode that's part of USB Power Delivery 3.0 and later versions. PPS lets you request voltage and current directly from the charger, and allows for a more compact, lightweight design. Whether you're a pro working in the field, learning about electrical engineering for the first time, or a DIY hobbyist who demands precise power control, PocketPD is a versatile addition to your tool kit. \$79

<https://www.crowdsupply.com/centylab/pocketpd>



2. The Malahit ATU-10 QRP Automatic Antenna Tuner is a compact and efficient device designed for matching antennas with low power (QRP) transceivers. This tuner features automatic tuning capabilities, a clear OLED display, and a built-in rechargeable battery, making it ideal for portable operations. This manual will guide you through the proper setup, operation, and maintenance of your ATU-10 tuner. \$118

<https://www.amazon.com/dp/B09PTC6DJ8?lv=shuf&channelId=510&plpRedirect=mhFallback>

ATU-10 by N7DDC



3. The "QMX" (QRP Labs Multimode Xcvr): a feature-packed, high performance, five-band (80, 60, 40, 30 and 20m --- or --- 20, 17, 15, 12, 11 and 10m -- or -- 60, 40, 30, 20, 17 and 15m) 3-5W CW, Digi and SSB-modes transceiver kit, including embedded SDR receiver, 24-bit 48 ksps USB sound card, CAT control, synthesized VFO with TCXO reference. QMX may be used in CW modes standalone, or with a single USB cable to a PC for digi mode operation, or SSB (USB/LSB). QMX also incorporates standalone CW, FSKCW and WSPR beacon functionality (no PC connection required). Kit is \$103 and assembled is \$153.

<https://www.qrp-labs.com/qmx.html>



4. Tab5 is a highly expandable, portable smart-IoT terminal development device for developers, integrating a dual-core architecture and rich hardware resources. The main controller adopts the ESP32-P4 SoC based on the RISC-V architecture, with 16MB Flash and 32MB PSRAM. The wireless module uses the ESP32-C6-MINI-1U, supporting Wi-Fi 6. Its antenna system can freely switch between the built-in 3D antenna and an external MMCX antenna interface, flexibly adapting to various deployment environments to ensure data throughput and low-latency control. \$55

<https://docs.m5stack.com/en/core/Tab5>



5. Charge laptops, tablets, and other mobile devices at anywhere and anytime you need to. No more finding wall plug for charging your devices when they are running out of power!

Charge the power bank via USB-C® 1st port with any PD power supply, highest power input support up to 100W. After the power bank is fully charged, single using USB-C® 1st port is also able to support PD charging to laptops up to 100W. The IC will smartly distribute power between the USB™ ports so other devices can be charge at the same time too.

The power bank is also implementing with short circuit, overcharge, discharge, and overcurrent protection to prevent damage to both power bank itself and connected devices.

If not available anything like it will do(PD capable). \$100

<https://en.j5create.com/products/jpb264100>



6. You will need 2 USB-C to USB-C cables and 1 USB-A to USB-C cable. These cables need to be data cables capable of doing PD(Power Distribution). I use Chubbycable 240W PD 3.1 SUPER-FAST CHARGING & STABLE DATA TRANSFER: Power your devices with ChubbyCable's USB PD 3.1 technology, supporting up to 240W fast charging for USB-C to USB-C devices. USB-A to USB-C variants support up to 120W depending on charger compatibility. Enjoy stable 480 Mbps USB 2.0 data transfer with reliable Android Auto & CarPlay connectivity for seamless charging, syncing, and on-the-go performance VELVETY-SMOOTH SILICONE & 45,000+ BEND DURABILITY: Built for everyday durability, this 6mm thick USB Type-C cable features a velvety-smooth, skin-friendly silicone exterior and a precision-engineered zinc alloy shell for enhanced strength and corrosion resistance. The ultra-thick design helps resist tangles, dust, and daily wear, while the UV-coated finish keeps it looking clean and premium over time. Tested to withstand 45,000+ bends for lasting reliability. You do not need to buy Chubbycable, just make sure whatever cable you buy is PD charge and data capable. \$22 to \$25 for Chubbycable.

https://www.amazon.com/s?k=chubbycable&adgrpid=1331510252516321&gb=2&hvadid=83219662249777&hvbmt=be&hvdev=c&hvexpln=0&hvlocphy=61616&hvnetw=o&hvocijid=3265131974727384117--&hvmqmt=e&hvtargid=kwd-83220414486922%3Aloc-190&hydadcr=1783_13434690&mcid=152ce458185432c9afb57b98db9aec49&tag=mh0b-20&ref=pd_sl_kdkqzp3q3_e



7. Depending on how you choose to power your QMX, it requires a 5.5x2.1mm male barrel connector on one end and whatever connector you choose for the other end. I use Anderson Power Pole for my power connector because it mates with the PocketPD. \$15

<https://www.impulseelectronics.com/power-adapter-cable-powerpole-to-dc-2-1mm-x-5-5mm-plug/>



8. CHA BLANK ADAPTER solves a deceptively important field problem: joining a selected RF connector to the proven 3/8-24 MPAS READY mounting ecosystem. Choose the BNC-to-3/8-24, SO-239-to-3/8-24, or SO-239-to-SO-239 format to create the exact interface your documented antenna build requires without replacing the mount already in the kit.

For the operator, that means a cleaner path from known equipment to a documented deployment—while preserving the electrical and mechanical limits of the completed antenna system. \$132

<https://chameleonantenna.com/products/cha-blank-adapter-1?variant=47738759217398>



9. Height, stability, wind area, and setup time all become part of antenna performance when the support travels with the station.

That is where CHA CARBON FIBER TRIPOD enters the kit. Introducing our Ultra-light Portable CARBON FIBER TRIPOD – a compact marvel designed for those on the move. Weighing just over 1lb and folding down to 8 1/2", it's your perfect outdoor companion.

The right infrastructure lets the operator choose the site for radio reasons, then raise a documented load with the required base, sleeve, guying, and power-line clearance.

\$99

<https://chameleonantenna.com/collections/all-products/products/carbon-fiber-tripod>



10. Modular field systems become valuable when one carefully chosen section can change what the complete antenna is able to do.

That is where CHA SINGLE-EXT (PACK OF 2) enters the kit. The CHA SINGLE-EXT (Length: 27" Each) is a modular extension component designed for Chameleon Antenna systems, specifically enhancing the versatility and range of antennas like the CHA BV (Basic Vertical) and other MPAS (Modular Portable Antenna System) configurations. This extension provides added length to improve resonance and efficiency across various HF bands, making it suitable for operators seeking enhanced performance in portable and field deployments.

Used in a documented configuration, the component gives the operator another practical build option while preserving the electrical, mechanical, and power limits of the complete system. \$116

<https://chameleonantenna.com/collections/all-products/products/cha-single-ext-pack-of-2>



11. The CHA MCC 2.0 (Multi Configuration Coil) is for operators who want the compact footprint and fast setup of a portable vertical without being locked into one fixed band or one radiator length. Its continuously adjustable coil lets you move between documented base-loaded and center-loaded arrangements in the field. 75 through 6 meters, depending on radiator and verified configuration

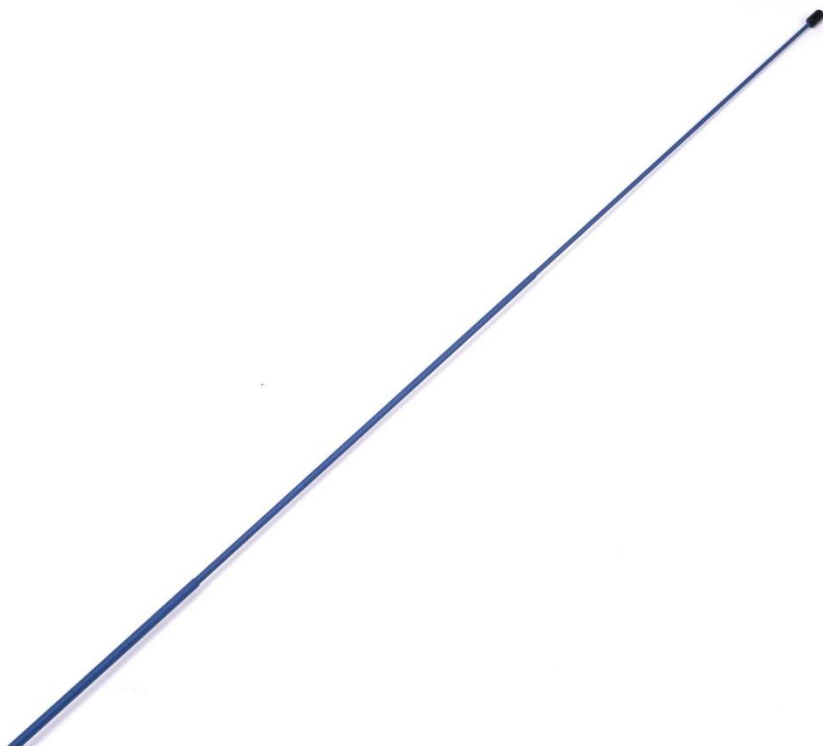
Pair it with the specified Chameleon radiator, feedpoint, mount, and radial system, then use an analyzer or SWR meter to find the operating point. For POTA, travel, emergency kits, and space-limited campsites, it makes one modular parts kit far more adaptable. \$250

https://chameleonantenna.com/products/cha-mcc-2-0?_pos=1&_sid=fa5f37cc5&_ss=r



12. Gabil GRA-CF2200 Carbon Fiber Telescopic Whip Antenna, 226cm Lightweight and compact 8-section carbon fiber whip antenna, collapsible to 40cm (15.7 in), extends to 226cm (89 in), with M10-1.0P to 3/8-24 adapter included. \$89

<https://www.gabilradio.com/product/19680/detail-aa638100-6ea8-11f0-bd32-b9b15a4627c9?page=1>



**13. Connector Type: BNC Male to BNC Male Low Loss RG316 Coaxial Cable Length: 1ft
Impedance: 50 ohm \$12**

https://www.amazon.com/dp/B0BVVWKZ68/ref=sspa_dk_rhf_search_pt_sub_1/?_encoding=UTF8&ie=UTF8&sp_csd=d2lkZ2V0TmFtZT1zcF9yaGZfc2VhcmNoX3BlcnNvbWFSaXplZA%3D%3D&pd_rd_w=SpX6H&content-id=amzn1.sym.ab00ff07-6892-4059-9aa5-22111804fd1e&pf_rd_p=ab00ff07-6892-4059-9aa5-22111804fd1e&pf_rd_r=NVANWV0NA9RAGF8P7B1K&pd_rd_wg=9wMRf&pd_rd_r=324ff966-7ac5-4f1a-904e-7d0aacdee8d7&ref_=sspa_dk_rhf_search_pt_sub&th=1



14. DX Engineering RG-174 50-ohm Hi-Viz Orange Mini Coaxial Assemblies DXE-174VDB025 \$25

<https://www.dxengineering.com/parts/DXE-174VDB025>



Total cost of everything is \$1318.

Total cost without Chameleon vertical antenna is \$632.

Keep in mind, my requirements may not be your requirements. I will use this setup for POTA so it needs to be portable.

There are other portable antennas available that might be a better fit. On the following pages are some of the alternatives. Keep in mind these portable antennas are not optimal antennas and Your Mileage May Vary but they do work pretty good. If you are in an HOA and your only choice is to put one of these verticals in your house if you have the room. You can find much cheaper portable antennas. Just do a Google search for portable HF antennas but remember you generally get what you pay for.

If you are not in an HOA and you have 66ft. of space, one of my EFHW (End Fed Half Wave) antennas work extremely well. \$70

15. JPC-12 HF Antennas for Ham Radio 7-50MHz All Band HF Vertical Antenna with Low SWR 40m-6m 8 Bands Easy Setup for POTA/Field Day for Outdoor 4.1 Meter(13.5Ft) . \$139

https://www.amazon.com/GOOZEEZOO-Shortwave-Regulator-7MHz-50MHz-Multi-Band/dp/B0BVB73JJD/ref=sr_1_4?adgrpid=1343605757652380&dib=eyJ2ljojMSJ9.2yv-dnGFoAf1_ZEuEJOE8tKnewEm79Xv7rGpjonBTNGzAY7I3w-M2sFjBOVs4pvEV9oAlm8cg8nw6KPRL-bqHMsinF316cN9q1clQgkS2lisc0Ydo2_uC5dmsgllLr3YZQ2EpZSiCs-o5o3wiLM-cKtPDpHGX-a42ynCcpNcwiarzeGtSPi_zyjXOx2RRjDbFgUNh0edD3HGIkTp-_Hf0MvyYvsJEd4lTSIqS8AOhlY.0SJtFxF3drjHe2svf7PUL96lc_d_JlEi5tligsqM9F8&dib_tag=se&gb=2&hvadid=83975640872123&hvbm=be&hvdev=c&hvexpln=0&hvlocphy=61616&hvnetw=o&hvocij=4806351667847131516--&hvqmt=e&hvtargid=kwd-83976552663510%3Aloc-190&hydadcr=2039_13434196&keywords=hf%2Bportable%2Bvertical%2Bantenna&mcid=86344a7318883a6393a4ebc265c383af&qid=1787247414&sr=8-4&th=1



16. GRA-7350TC Portable HF Telescopic Whip Antenna, 3/8"-24 Connector

Laser-engraved telescopic whip covering 3.5–50 MHz with 3/8"-24 connector for portable amateur radio operation. \$140

https://www.amazon.com/Gabil-GRA-7350TC-Portable-Telescopic-Antenna/dp/B0C81DJQYJ/ref=sr_1_2_sspa?adgrpid=1343605757652380&channelId=8&clpRedir=Y&dib=eyJ2ljojMSJ9.GqSqNmJpSD09a_AA1YH7KaOcvzF4ibnaGZP0TXeTliJ4-8rDFTZrbEmjG83Goc-cppfgwLW244TpbePw89X0LLoluuPoVLfq7tt1scBwFaCsc0Ydo2_uC5dmsglILr3YC4orpJRjYb xp5etlSqpwPzcumt231drTO7QQNS5z5ctix7WcqUu7vkRIRSgMLTpkmxjRBmhUiNmCFitFyQG5WWf5m7lw11aOIAi2vBqBW6k.hsQIIDIAYa7A6mTwvtAdVauzqsqkzl3oywlzZLuxZGk&dibtag=se&gb=2&hvadid=83975640872123&hvbm=be&hvdev=c&hvexpln=0&hvlocphy=61616&hvnetw=o&hvocij=4806351667847131516--&hvqmt=e&hvtargid=kwd-83976552663510%3Aloc-190&hydadcr=2039_13434196&keywords=hf%2Bportable%2Bvertical%2Bantenna&mcid=86344a7318883a6393a4ebc265c383af&plpRedirect=mhFallback&qid=1787249826&sr=8-2-spons&sp_csd=d2lkZ2V0TmFtZT1zcF9hdGY&th=1



**17. Radioddity HF-010 Portable HF Antenna, 10-Band Vertical Shortwave Antenna
80m-6m Multiband for Ham Radio & HF Transceivers, Upgraded 304 Stainless Steel
Connector with Tripod & Ground Spike for POTA. \$239**

<https://www.radioddity.com/products/radioddity-hf-010>



**18. Radioddity HF-009 Portable HF Antenna 5-50MHz Quick-Tuning Vertical Antenna
SWR 1.0-1.5, Compatible with Xiegu G90/X6100/X6200, Radioddity QT40/QT60/QT80,
for HF Transceivers & Mobile Radios, for POTA. \$160**

https://www.amazon.com/Radioddity-HF-009-Quick-Tuning-Compatible-Transceivers/dp/B0F4X4517J/ref=sr_1_15?adgrpid=1343605757652380&channelId=8&clpRedir=Y&dib=eyJ2ljojMSJ9.VCD-MO-b5CalHN7ENVnlx_jviOb7q55a4shmrjkiECJ9dJMK_ev39Eki9WFlepNPppfgwLW244TpbePw89X0lLoluuPoVLfq7tt1scBwFaCsc0Ydo2_uC5dmsglILr3YZQ2EpZSiCs-o5o3wiLM-ckTpdPHGX-a42ynCcpNcwiZix7WcqUu7vkRIRSgMLTpkmxjRBmhUiNmCFitFyQG5WWf5m7lw11aOIAi2vBqBW6k.ZhBqHJfTL3qtQX6KT7A4lkb7gDXULCDtK6Lr6sAA25g&dib_tag=se&gb=2&hvadid=83975640872123&hvbmmt=be&hvdev=c&hvexpln=0&hvlocphy=61616&hvnetw=o&hvocijid=4806351667847131516--&hvqmt=e&hvtargid=kwd-83976552663510%3Aloc-190&hydadcr=2039_13434196&keywords=hf%2Bportable%2Bvertical%2Bantenna&mcid=86344a7318883a6393a4ebc265c383af&plpRedirect=mhFallback&qid=1787250246&sr=8-15



19. JPC-350 Portable HF Vertical Antenna, 80m-6m 8-Band 100W SSB

100W SSB Power Rating, SWR $\leq$ 1.5, Lightweight 1.5KG, Easy to Setup, Portable for POTA, SOTA & Emergency Communication. \$219

https://www.amazon.com/GOOZEEZOO-Upgraded-JPC-350-Antennas-Portable/dp/B0DLGPX31J/ref=sr_1_19?adgrpid=1343605757652380&channelId=8&clpRedir=Y&dib=eyJ2ljojMSJ9.0l0HYa7aZj5bGiUdfz9VKU2DYy1haQvL_dBmYpqkX3d4-8rDFTZrbEmjG83Goc-cppfgwLW244TpbePw89X0LLfAuq4aNbw9M9zTBqTfFOyOBxHE3StKuJcaqqIRY5PB5Tzk6sGoObW9SrQIY4T5XzHZLxj_J7lY66ap7EhdUU1M5HqSe1mEieJBi452gfzXfs0TUy8KfS874m_cDFVoyyFjrjwRnnHVLg8HJcjBZks.QGlsmtPhBo5hrlq1ShmSwrc2_EO2gmzDWAjR346AmE&dib_tag=se&gb=2&hvadid=83975640872123&hvbmt=be&hvdev=c&hvexpln=0&hvlocphy=61616&hvnetw=o&hvocij=4806351667847131516--&hvqmt=e&hvtargid=kwd-83976552663510%3Aloc-190&hydadcr=2039_13434196&keywords=hf%2Bportable%2Bvertical%2Bantenna&mcid=86344a7318883a6393a4ebc265c383af&plpRedirect=mhFallback&qid=1787250487&sr=8-19&th=1



20. JNCRADIO MC-750 100-WATTS PORTABLE HF VERTICAL ANTENNA

Portable HF vertical antenna system for POTA, field days, and temporary HF operation. 2–5 minute tool-free setup with laser-etched whip markings for faster, repeatable tuning. Tuner-free operation on 20–6m in normal use; 40m operation with the included 7 MHz loading coil. Complete portable kit with radials and carry bag, plus accessory path for 80m coil, tripod, grounding plate, and replacement parts. Best for operators who want a practical field antenna system rather than a loose collection of parts.

<https://chelegance.com/products/jncradio-mc-750-100-watts-portable-hf-gp-antenna/>



21. Mini-Buddipole™

By popular demand we've taken the standard Buddipole™ and made it more compact. Now you can get the same quality and performance as the standard Buddipole™ in a compact package that measures only 13" in length. The difference here is that the 2 longer arms (22" each) of the standard Buddipole have been replaced by 4 smaller arms (11" each). This allows for a much more compact package which easily fits inside a small daypack or travel bag. \$275

<https://www.buddipole.com/minibuddipole.html>



22. The Buddistick PRO™

Product Details

DESCRIPTION

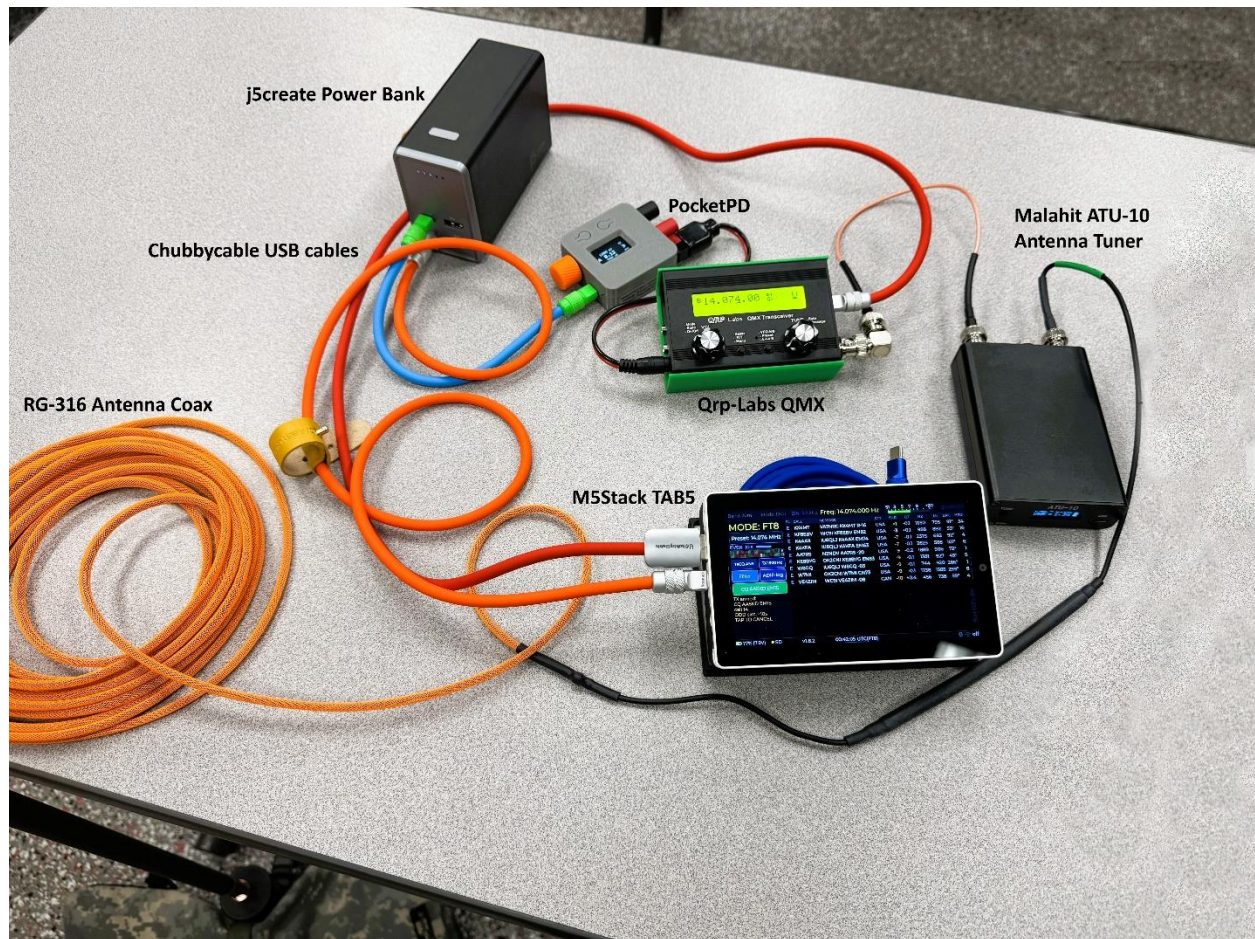
Designed as a multi-band, portable antenna for 40m - 6m, the Buddistick PRO™ is an excellent performer with any transceiver up to 250 watts.

The Buddistick PRO™ comes packaged in a compartmentalized 1000 denier Cordura™ portfolio bag and includes Versahub™ feed point, 2 aluminum arms, one standard telescopic whip, one adjustable coil, 3 coil clips, elevated radial system. \$200

<https://www.buddipole.com/buddistick.html>



A large, open-plan office or training room with several people working at desks. A large screen on the right wall displays a presentation. The room has a drop ceiling with fluorescent lights and a carpeted floor. In the foreground, a desk is cluttered with various items including a water bottle, a bag, and some electronic equipment. A person is sitting at the desk, and another person is standing nearby. In the background, more people are working at desks, and a large screen displays a presentation. The room has a drop ceiling with fluorescent lights and a carpeted floor.



Components in this image are as follows:

J5create PD Power Bank

5 to 20 volts output with E-Marker cable

PocketPD

This unique power supply leverages the Programmable Power Supply (PPS) mode that's part of USB Power Delivery 3.0 and later versions

Malahit ATU-10 Antenna Tuner

The Malahit ATU-10 QRP Automatic Antenna Tuner is a compact and efficient device designed for matching antennas with low power (QRP) transceivers

Qrp-Labs QMX

Versions: 80, 60, 40, 30 and 20m --- or --- 20, 17, 15, 12, 11 and 10m -- or -- 60, 40, 30, 20, 17 and 15m.

M5Stack TAB5

A standalone real-time panadapter — spectrum analyser and waterfall — for the [QRP Labs QMX/QMX+](#) HF transceiver with FT4/FT8.

Chubbycables USB cables

Cable material: Environmentally Friendly Silicone, Aluminum Alloy

Connector Types: USB-A, USB-C, Lightning

Current: 5A (Max)

Cable Power: USB-A to Type-C: 60-120W/ Type-C to Type-C: 240W / Type-C to Lightning: 27W / USB-A to Lightning: 12W

Data Transmission Rates: USB 2.0 (480 Mbps)

Cable Length: 1M (3.3ft), 2M (6.6ft), 3M (9.84ft)

Function: Fast Charge And Data Transmission; Support Carplay

Has E-Marker chipset

RG-316 Antenna Coax

BNC male to BNC male 25ft.