

# HT-1A dual band QRP Transceiver Kit



Portable setup at KH2SR using the dual band QRP transceiver in the backyard.

**T**he HT-1A is a compact 20/40m dual band CW QRP transceiver from CRKITS that comes in either kit form or fully assembled.

I received the fully assembled model, so this review won't cover the kit building process. Even though I didn't build this one, I did take a peek inside. SMD components are used, but not to worry. All the SMD parts are pre-mounted, and you will only have to solder through hole components.

## The radio features

Measuring 4.33 x 4.09 x 2.32in and weighing in at only 400g (14.12oz), the HT-1A is a great option for amateurs that enjoy portable operating in the great outdoors. It'd be a good fit for SOTA and POTA activations or even quick LTOTA deployments (Lunch Time On The Air).

It has a transmit range of 7.0-7.2MHz and 14.0-14.35MHz. Even though this rig only transmits CW, it does have the ability to listen to SSB signals. It also has an extended receive range, which covers everything between 5.9-16MHz, which means short wave broadcast reception while in SSB mode. Filter bandwidth is set at about 300Hz for CW and 1.8kHz for SSB. Spurious suppression is no worse than -50dBc.

I was impressed that the receiver is surprisingly sensitive considering the size and price of the radio. Using simple base loaded MFJ single band telescopic whip antennas with no counterpoise and no grounding, I was able to copy quite a few QSOs on 20m and 40m. RF power output is 5 watts with 12 volts input power, but it can handle up to 15 volts. However, the transceiver can be powered off a 9 volt battery in a pinch if needed.

Speaking of batteries, this little guy even has room to install an internal lithium ion battery pack! Current consumption during receive is about 60 milliamps with the display backlight on and only about 45 milliamps when the backlight is off. During transmit, the HT-1A draws 1 amp.

No internal speaker is provided with the HT-1A, however there is plenty of room inside the enclosure to install a small speaker and audio amplifier. I used a tiny external LiPo powered amplified speaker and a set of headphones to keep things simple.

## Using the radio

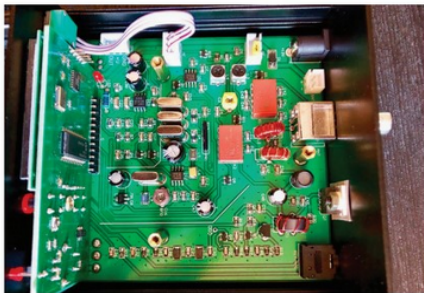
The HT-1A has some great features for such a small and affordable QRP transceiver. These include: 16 user programmable memory channels, built-

in keyer for iambic paddles, full break-in QSK, RIT, XIT, AGC, S-meter and even side tone selection.

The HT-1A can even automatically detect whether you are using paddles or a straight key. The built-in keyer is adjustable from 5-40 words per minutes and is set at 15wpm by default. I was able to easily fit it into a small rugged



I was able to easily fit it into a small rugged waterproof case along with a couple of single band telescopic whips for 20m/40m, a small 12V LiPo battery, headphones, a straightkey and a mini iambic key.



The internal view of the HT-1A showing how compact this 20/40m dual band CW QRP transceiver really is.



The front view of the HT-1A compact 20/40m dual band CW QRP transceiver.

**Specifications:**

- Chassis dimensions:** 110 x 59 x 104mm (not including protruding parts)
- Weight:** About 400g
- Power supply:** 9-15V DC
- Current consumption:**
  - During Rx: About 60mA when backlight is on and about 45mA when backlight is off.
  - During Tx: About 0.8A (at 12V)
- Local oscillator:** DDS, reference frequency 54MHz
- Display:** LCD
- RF output power:** About 5W (at 12V)
  - Rx: 5.9-16MHz continuous (peak sensitivity only in 40m and 20m bands)
  - Tx: 7.0-7.2MHz and 14.0-14.35MHz
- Side tone:** 600Hz
- Keyer:** Built-in, 5-40 wpm adjustable
- Memory:** 16 memories, user programmable
- Rx mode:** CW, SSB (LSB only if it is below 10MHz, and USB only if it is equal to or above 10MHz)
- AGC:** Audio derived AGC with S-meter to show relative strength just for reference
- QSK:** Full break-in
- Spurious suppression:** No worse than -50dBc
- Filter bandwidth:** about 300Hz for CW and 1.8kHz for SSB
- Antenna connector:** BNC
- Audio connector:** 3.5mm
- Key connector:** 3.5mm

waterproof case along with a couple of single band telescopic whips for 20m/40m, a small 12V LiPo battery, headphones, a MK-11 Pocket Spy Micro Straight Key and a bulldog BD6 Mini Iambic Key, see the Photo 2.

I had a blast with this compact QRP rig. It's just so easy and fun to use! With an interface consisting of only 2 buttons, 2 knobs and an on/off switch, you can learn to operate the HT-1A in just a couple of minutes and without ever reading the user manual. I think this ease of use makes it a great

option for 'preppers' who typically want a compact affordable emergency backup transceiver or those with an interest in emergency communications. I can also see this being a great holiday radio as it doesn't take up much space in your hand luggage. Plus, you don't have to take much time to relearn the interface if you haven't used it in a long time.

The HT-1A from CRKITS should appeal to a wide demographic of amateur enthusiasts, builders, beginners, 'preppers', SOTA and especially the budget savvy amateur crowd. If you fit into any of these categories, then I highly recommend you take a close look at this great little dual band 20m/40m CW transceiver.

The kit costs \$150, or \$175 fully assembled, although UK amateurs should note that buying the kit abroad can result in customs charges. It can be purchased from <http://crkits.com> and [https://qrvtrronics.com/CatHAM\\_Radio/Products/HT-1\\_CW.htm](https://qrvtrronics.com/CatHAM_Radio/Products/HT-1_CW.htm)

**James Hannibal, KH2SR**  
shootanyangle@yahoo.com

# RFinder - The World Wide Repeater Directory

## The official repeater directory APP of RSGB!

RFinder - The World Wide Repeater Directory now finds repeaters over routes worldwide using RT Systems! Support RSGB by choosing RFinder as your repeater directory. Whether you use Android, iOS, Web, RT Systems, CHIRP or RadioBuddy, access 50.000+ repeaters in 170+ countries worldwide with just one annual subscription of only ~£10! Fully integrated with UKRepeaters and BrandMeister. Find RFinder in Google Play or The Apple App Store. If you don't have a smart device, subscribe at [www.rfinder.net](http://www.rfinder.net).

