

If you'd like to try operating QRP — low power — but don't feel confident with CW, then the MDT double-sideband voice QRP kit from "down under" may be just the ticket. W8TEE takes us through the process of building this little rig and getting it on the air.

Building the ozQRP MDT QRP DSB Transceiver

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There's nothing earth-shaking about a QRP transceiver these days. They're all over the place and at a wide range of price points. Most of these transceivers are CW kits, ranging from half-watt affairs for \$5 on the internet to multi-band rigs costing more than \$500. Now consider the MDT (Minimalist Double-sideband Transceiver) from Australian kitmaker ozQRP <<http://ozqrp.com/MDTindex.html>> with the specs shown in Table 1. (See sidebar for discussion of DSB vs. the much more common SSB.)

These are pretty good, and when you consider that the rig sells for a little over \$60 (US) at current exchange rates, you now have a low-cost QRP entry point for hams who don't use CW, or who want to add voice capabilities to their QRP stations. The MDT was designed and kitted by Leon Williams, VK2DOB. I have one of Leon's MST2 20-meter transceivers (which has been replaced with the MST3) and was impressed with it so much, I had to give the new younger brother a try. This article walks you through the process of building the MDT. The finished kit can be seen in Photo A. You can see a short video about the rig by Peter Parker, VK3YE, at: <<http://bit.ly/2adoxzS>>. The rig is about the size of a nice club sandwich and probably weighs less, so it would be a perfect candidate for SOTA (Summits on the Air) and backpacking.

Why QRP?

If you haven't used QRP methods, you might be asking yourself: "Why QRP?" After all, you could be saying: "I have a gallon and a half sitting in the corner and I do just fine." Probably true, but how

often have you used it just outside your tent next to a high mountain lake? Or thrown a long wire out the window of a hotel while on a business trip to grab a few QSOs? You might be surprised what a few watts from a long wire up 200 feet can do. Personally, I like the

challenge of operating QRP. Yes, not having balls of RF fire leaping from your antenna requires a tad more effort to make a contact, but I find that fun, challenging, and worthwhile. Also, my experience is that, when the ham on the other end finds out you're running QRP, the



Photo A. The MDT transceiver.

Double Sideband operation

Small size: 5.25" x 4" x 2"

Sensitive direct conversion receiver

2W output

Frequency range choices: 7.050-7.130, 7.215-7.300 MHz (Note that for U.S. hams, the 40-meter phone band begins at 7.125-7.175 for Generals — and that the QRP SSB calling frequency is 7.285 MHz)

Low impedance dynamic or Electret microphone

Stereo headphone jack, but enough power for external speaker

Carrier suppression up to 50dB; spurious outputs better than -46dBc

Low receive current of about 50 mA

Transmit current of about 250mA at max power

Polarity protection

Table 1. MDT Specifications

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