

# Wiber Mini 1300

## Digital Antenna Analyser

Review



PHOTO 1: The Mini 1300, switched on, showing the large touch screen and the various functions it can do. Note the N type socket on the top of the unit.

**Every amateur should have an antenna analyser in the shack. Here's why it is useful.**

If there was an imaginary *Desert Island Discs*, but instead of records, it sought to discover the most important and useful pieces of amateur radio test equipment, I believe that an antenna analyser should be one of the eight pieces of kit that every amateur should have. It is essential for setting up aerials, checking the integrity of feeding cables as well as for the evaluation of experimental aerials.

The Wiber Mini 1300 digital antenna analyser is a versatile and impressive piece of kit that I have recently tested. It is compact and weighs only 550g. It has a clear LCD TFT screen and has an internal li-ion power source. As the name of the product implies, it is usable up to frequencies of 1300MHz and thus encompasses the 23cm amateur band.

### First impressions

On opening the box, I was struck by the quality of the build. The test port is a N-type socket. There is also a SMA socket and various adaptors to couple SMA to N-type UHF sockets (Photo 2). There is also a

calibration kit that requires soldering some resistors to the SMA sockets; as the unit was loaned to me, I did not undertake this.

The screen is a large capacitive TFT touch screen measuring 480 x 272mm and the display is bright and easy to read (Photo 1). The unit is powered by an integral li-ion battery that can be charged through a USB port; a cable is provided for this purpose.

The 1300 is packed with features: multi SWR measurement, 'Find Frequency', Tune SWR, and a useful RF generator to name but a few. Its display modes include the choice of a numerical display, a curve display and a Smith Chart. Test data can be stored and downloaded directly to a computer or via a memory card that can be inserted into a slot on the bottom of the unit. This can enable useful comparison to be made between various antenna systems.

### In use

The instruction manual is written in Chinese, English and German and not particularly easy to follow; but despite this, using the associated colour pictures and watching a number of online YouTube videos, including those produced by VK6CS, any prospective purchaser should have no difficulty in using this analyser and tapping into its many useful functions. VK6CS in his videos



PHOTO 2: The top of the Mini 1300 and the included accessories that comprise a calibration kit, sockets and a USB lead.

compares the 1300 with a Rohde and Schwarz antenna analyser and I must say, considering the price difference, the 1300 acquits itself well.

Readers of the *RadCom* VHF/UHF column will know that I was recently given a 6m magnetic loop antenna that I constructed, but had some difficulties getting it working satisfactorily. I took the opportunity of using the 1300 analyser to help me with this and I found it extremely useful. I was able to tune the loop effectively with low SWRs across the band. It also enabled me to find out that there was a partial break in the coaxial cable that was clearly one of the factors contributing to its poor initial performance. I also compared the operation of the 1300 with my own antenna analyser, an MFJ-259B, and I noted that the readings were very similar. Without the use of an analyser getting this antenna would have proved extremely difficult.

### Conclusion

The Mini 1300 digital antenna analyser is in an impressive piece of kit, and for the price it is excellent value at £199.99. It covers the LF, HF, VHF and UHF bands and being small is eminently suitable for portable or DXpedition use. The many YouTube videos that explain its features and complement the instruction manual, will enable any prospective owner to get the best out of it.

I would like to thank Moonraker (UK) Ltd for loan of the analyser, <https://moonrakeronline.com>.

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