

Comet CAT-300

ATU



Front view of the Comet CAT-300 ATU.



Rear view of the Comet CAT-300 ATU.

Whilst taking the CAT-300 out of its box, the first impression I had was of a fairly chunky and well-built unit, which I find reassuring in an ATU.

The publicity material says of the unit: “The CAT-300 is a quality 300W antenna tuner which boasts 2x antenna inputs, a very useful frequency range of 1.8-60MHz, a smart, illuminated cross-needle display and even PEP/Average power reading”.

Interestingly, in some places the upper limit of the unit is quoted as 60MHz and in others as 50MHz. I've no reason to suppose you wouldn't be able to use it at 60MHz, which might be useful to amateurs who have access to the 60MHz band (available on a secondary basis to holders of a UK Full amateur licence).

ATU practicalities

The front panel consists of a dual needle meter, power range selection (30/300W), Transmitter (TR) Tune and Aerial Tune rotary controls, Band switch, AVG/PEP power selection, Tuner in/out switch and antenna selector. The back of the unit has a coax input socket (SO-239), two coax output sockets (also SO-239), a terminal for a wire antenna, a ground terminal and a 12V input socket (to light the meter).

The band switch does not have a position for the 60m band, however, I found I was able to tune my 80m dipole up quite easily

with the band switch in the 40m position.

The tuner claims to be able to match impedances between 10 and 600Ω. If you use a long wire, connect it up to the red terminal on the back panel and select Antenna 2 on the front panel switch. Bear in mind that, with an upper limit of 600Ω, you won't be able to tune 'absolutely anything', but it will give you a lot more latitude than the ATUs included in the majority of rigs (my FTDX-10, for example will cover impedances between 16.5 to 150Ω). The CAT-300 should tune most antennas that you are likely to throw at it but, if you're not sure, do a little research or chat to your dealer before you make a purchase.

A word, too, about power levels. The CAT-300 is rated at 300W. With CW/SSB it should be absolutely fine at these levels but bear in mind that FT8, FT4, RTTY etc have a much higher duty cycle so things can get quite hot. So, you'll need to drop the power to avoid damage to the ATU. The instructions point out the wisdom of tuning the antenna at low power – and not operating the band switch when you are transmitting. All good practice that you will undoubtedly be following anyway. It's probably worth saying that if you're considering running higher power, resonant antennas make your life a lot easier.

Easy to use

I found the tuner easy to use and provided a good deal of flexibility. The cross-needle meter was easy to read and I appreciated the ability to light the meter, ideal when it's a little dark in the shack. A power lead is provided to connect the ATU to your shack's 12V power

supply, although it was a little short to reach my PSU on the floor! Easily sorted, of course.

Where possible, I use resonant antennas, but using the CAT-300, I found I was able to tune up several of the antennas on bands that they were not designed for. Some of them even radiated as well!

6m / 50MHz Band

The CAT-300 covers the 50MHz band. Normally, it's easier to use a resonant antenna on 6m, so an ATU doesn't often come into play. Having said that, if you are generally an HF operator, but find yourself intrigued about 6m, you may be surprised at just what you can do with tuning up a 40m dipole or similar for the band! In the Sporadic-E season, this sort of configuration would easily make contacts around Europe and possibly further afield too.

Summary

If you enjoy playing around with antennas and you'd like an ATU which is rated at a little more than 100W, the CAT-300 could fit the bill. It's a chunky, well-built unit which looks like it should last many years.

Many thanks to Mike Devereux of Nevada Radio for the loan of the Comet CAT-300. It is available for £229.95.

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