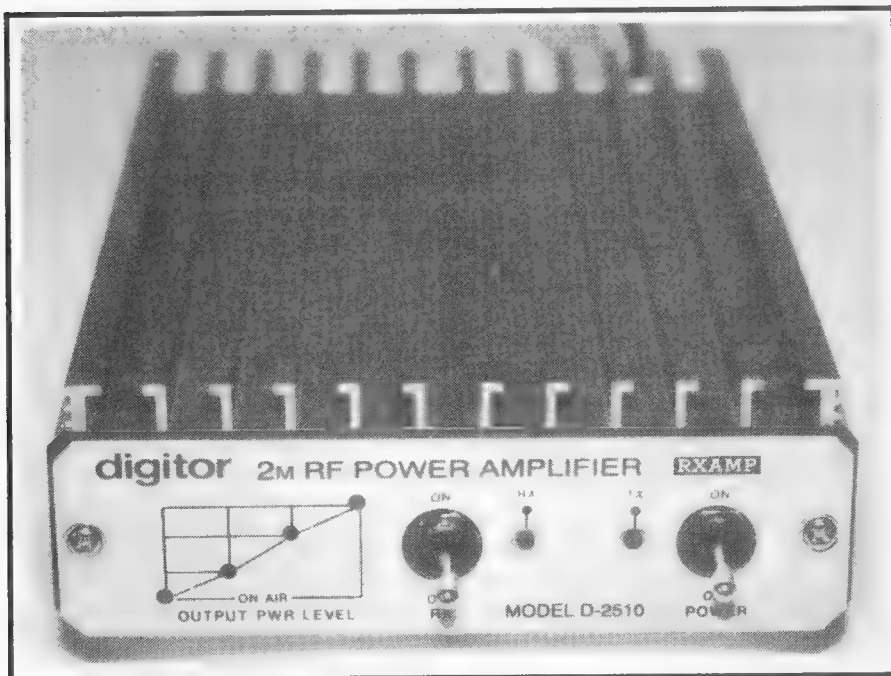


■ Equipment Review

Dick Smith DIGITOR D-2510 2 m RF Power Amplifier

Reviewed by Ron Fisher VK3OM



Do you ever get the idea that the power output from your two metre hand held transceiver is just not quite enough? If so, this little power amplifier from Dick Smith Electronics might be just what you need. It can boost the output of your two watt hand held up to around 30 watts. This is so close to the 45/50 watt output of most current two metre mobile transceivers that you won't pick the difference.

Features

This amplifier is compact and light weight. The overall measurements are 100 mm wide, 36 mm high and 175 mm deep. Weight is just 550 g. The case is well designed with no sharp corners and there are four rubber feet on the bottom so there is little chance of it scratching other

equipment. As well as providing a boost for your transmitted signal there is also a built in receiver pre-amp which gives about 13 dB of gain.

Input and output impedance is 50 ohms and standard SO-239 coaxial connectors are used. Transmit/receive switching is controlled via an RF sensing circuit so no external wiring is needed for operation of the amplifier. The D-2510 is designed for FM and CW operation only. It will not work on SSB and, with the relay switching used, it probably won't work with packet transmissions. Naturally, the unit operates from a 13.8 volt supply and requires about five amps. The attached DC lead is 720 mm long and is fused in the positive lead. A mobile mounting bracket is also included.

On Test

I used a variety of two metre hand held transceivers to drive the amplifier, including a Yaesu FT-23 and an FT-411. These were powered with 7.2 and 12 volt batteries to produce a typical range of output power and the following figures were obtained. All tests were carried out with 13.8 volts applied to the amplifier.

... boost the output of your handheld up to around 30 watts.

Drive Power	Output Power	Current Drain.
0.3 watt	11.0 watts	2.6 amps.
0.5 watt	21.5 watts	3.5 amps.
2.0 watts	30.0 watts	4.3 amps.
5.0 watts	37.0 watts	4.6 amps.

The input SWR to the amplifier was measured at 1.5:1 with the amp in operation and 1.6:1 in the through position (amplifier switched off).

For All Your Requirements

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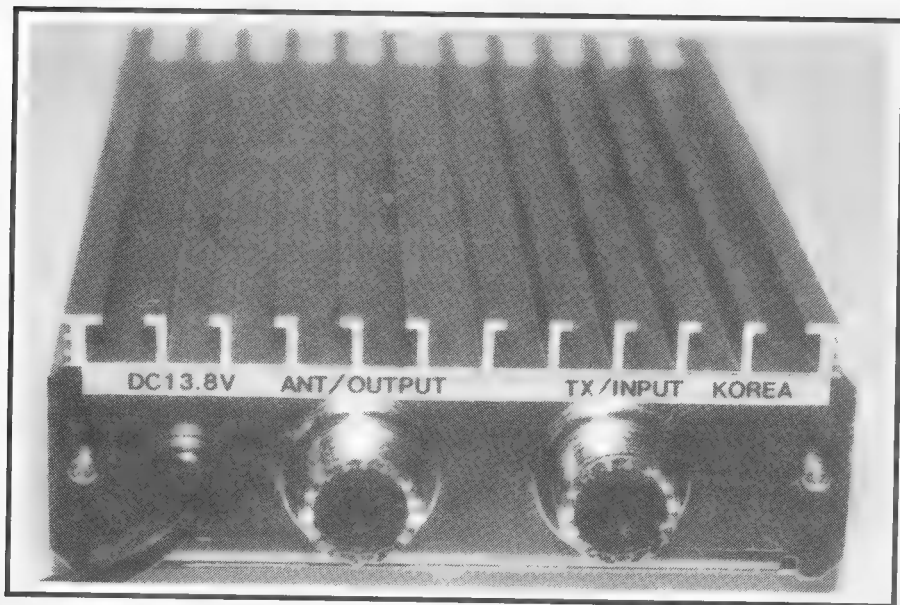
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Rear panel view of the compact amplifier.

Current drain with the pre-amp on but the amplifier off was 95 mA; and 110 mA with the amplifier on but with no drive.

The pre-amp was checked with several transceivers as noted above and was found to be very susceptible

to interference from out of band signals. It is worth noting that the instruction sheet states, *"When using the D-2510 in crowded RF areas and especially when used with handheld transceivers, it is recommended that the GaAs FET be left switched off*

unless receiving a weak signal as this will result in less interference from strong out of band signals".

Well, maybe out in the middle of the Simpson Desert it might be of use, but certainly nowhere near a big city. Unfortunately, no circuit diagram is supplied so it's hard to say what the pre-amp is and whether anything could be done to improve its performance.

Conclusions

No doubt about it, this is a very useful little amplifier. If you like to use your handheld in the car the extra power will make a big difference to your signals, especially if you are operating simplex.

The instruction sheet is short but covers most things quite well. However, there is no circuit. The catalogue price is \$169.95, but has been on special at \$149.95 and might still be available at this price. Check your local Dick Smith store.

Our review amplifier was supplied direct from the Dick Smith head office.