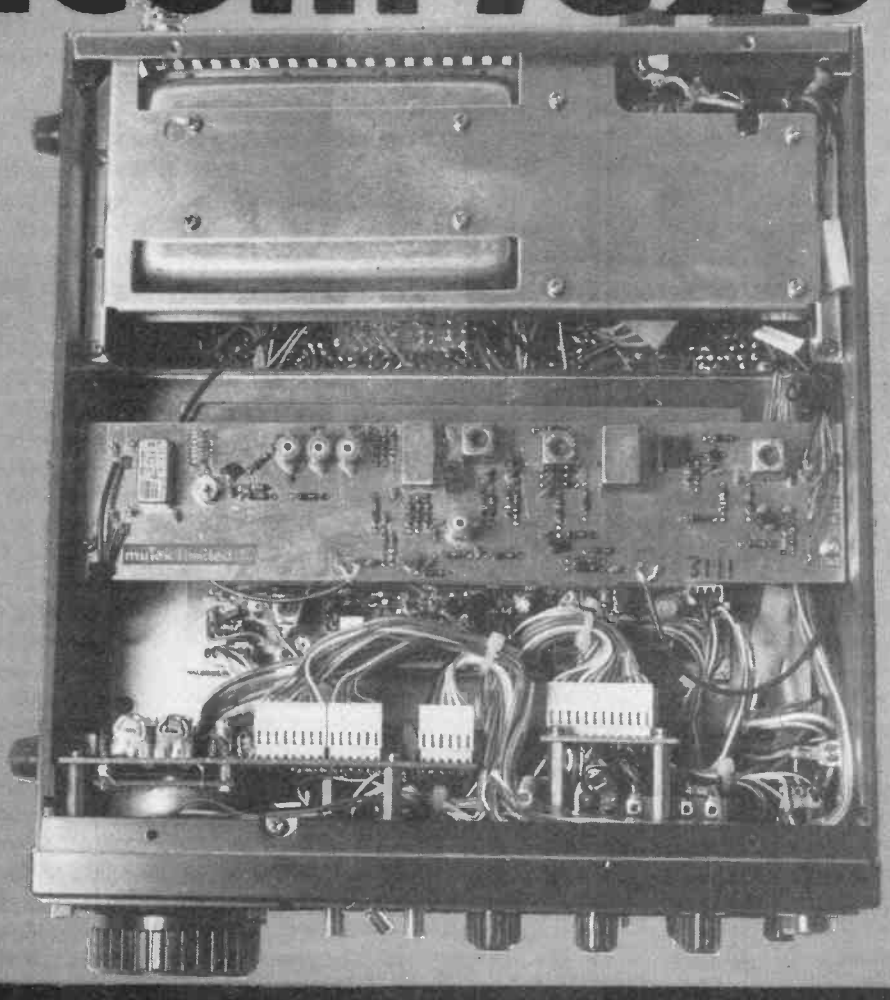
REVIEW:

Icom IC251



+ muTek front end

An investigation into a British front end which transforms this multimode

By Angus McKenzie G3OSS

Rather than being a complete review of this particular rig, the Editor and I decided that we should concentrate on the performance of the receiver section, and in particular on the Mutek front end board which is famed for making rather average receivers ones that can come up to 'state of the art' performance. We decided to use our normal test procedures, but to expand these in order to stretch the equipment to its limit and in doing so found that the rig was almost uniquely excellent in its front end performance. Let's have a look first at the relevance of some of the measured parameters and then see how this rig copes with them.

Front end sensitivity

You can measure front end sensitivity in two basic ways, the first being to attempt to measure the actual noise figure effective on the rig from the antenna socket to the IF or audio output. We were advised by Mutek that this method would be extremely difficult since it would mean opening up the rig and taking an output perhaps from IF, and further, disabling the AGC, so that the gain would not change as introduced noise was being increased on the noise source. We felt that this method would be impractical, but we were informed by Mutek that they had carried out this test on the review sample and had obtained a noise figure of approximately 2dB.

The alternative method is, in a way, more difficult but can be done without fiddling inside the box. This method involves the very careful measurement of sensitivity on SSB, using special leads and attenuators, and relating the sensitivity to the