

Review: Yaesu



FRG 9600

Scanning receivers pack more and more facilities into less and less space. This latest offering from Yaesu appeared in the advertisements to be about the normal size or a receiver, but, actually measuring 180 x 80 x 220mm, it is a lot smaller than I expected!

Despite the sophistication of the facilities, when you actually look inside the receiver, there isn't a lot there! The reason is simple: the use of the latest technology, especially liberal use of chip resistors and capacitors on the underside of the PCB's, leaving only the inductors, ICs and other larger components on the top. The resultant saving in space leaves a lot of air in the case — the determining factor for size really being the front panel and display. I suspect it could have been made a lot smaller, but then one would have run into the usual problem of very closely spaced buttons and consequent operator inconvenience.

Before starting in earnest, I should mention that the normal licences you may hold only cover you for reception of broadcast and licensed amateur stations. Listening to anything else is illegal; although that doesn't seem to stop anyone listening to the police, air traffic, ambulance, PMR, radio-telephones etc.

Is this just another scanning receiver from Japan, or has it something more to offer?
Tony Bailey, G3WPO,
finds out...

The FRG9600 is a VHF/UHF scanning receiver with full coverage from 60 — 905MHz. It has the added facility of SSB and CW as well as the usual narrow and wide band FM and AM plus an optional video interface for output to a monitor. The manual claims that the SSB facility only extends as far as 460MHz but it appeared to work up to 900MHz in practice. However, I couldn't find any SSB stations above 460MHz, so it is almost certainly a question of stability above this frequency.

Basic Requirements

In an earlier article on scanning receivers (August 1984), I laid down the following basic requirements for a good scanning receiver.

1. Coverage of all desired frequencies in one receiver.
2. Minimum number of antennas needed for the frequencies covered.

3. Adequate sensitivity, bearing in mind the frequencies you need to receive and type of antennas to be used.

4. Lack of image response when wide spectrum coverages are planned.

5. Choice of scanning rates and steps — suitable for the frequencies and mode/channel spacings in use.

6. Selectable facilities for either continuously staying on a signal once found, or automatically continuing to scan after a predetermined period.

7. Choice of continuous frequency coverage, or programmable set of individual frequencies.

8. 12V operation for mobile or portable use (plus emergencies) with memory back up.

The first requirement is pretty well covered by the FRG 9600, with 60MHz being a bit higher than say the AOR2001 (it's a pity it doesn't cover our new 50MHz allocation!) and 905MHz well up on many including the AOR2001 which only goes to 550MHz. This extra UHF coverage is more of interest to the TV enthusiast, and (unfortunately) doesn't quite reach the 934MHz CB allocation. The optional video IF unit allows reception of NTSC format pictures on a video monitor. You can of course listen to TV sound without any problems (but do you need a TV licence for this?).

Antennas for this receiver, as per requirement 2, are a little more difficult. The ideal arrangement is a bank of switched beams for the spectrum, but I doubt that many listeners could run to this! The cheaper alternative is to use a wideband discone type of system which are obtainable from many of the distributors. A home made version was used for this review.

Sensitivity is good across the whole frequency range, with better than 1.0uV for 10dB S+N/N available in most modes. Squelch is provided for all modes, but was found to be poor on AM with perfectly readable signals refusing to open it at minimum threshold.

The image response is