

The Lowe Electronics HF-225 "Europa"

Background information

The HF-225 was designed to be as close to "all things to all men" as possible and the specification was carefully drawn to give a wide appeal, balancing features against retail price. The success of the HF-225 across a wide spectrum of users drew requests for special versions of the receiver for more dedicated applications, and amongst these requests was one from the DX club of Finland for a series of modifications to make the HF-225 fit their very specific needs. Although the modifications were quite costly, the new HF-225 "Finlandia" not only satisfied the members of the DX club, but also brought the "Finlandia" to the front in the European DX Council "Best DX receiver of the year" contest against the JRC NRD-535 and the ICOM R72E.

News of the award for "Best DX receiver of the year" spread around Europe and because of the widespread interest we decided to produce a "Special Edition" version of the HF-225 which we called the "Europa", drawing for its specification on the "Finlandia". So what are the differences between the standard HF-225 and the "Europa"?

1. The IF filter bank has been changed to include higher specification components around the filters than the original HF-225, including a new 3.3kHz filter (X3) following the second mixer. And we have replaced the original 10kHz filter with a 7kHz (X5).
2. The control software has been re-written to show the new tighter filter bandwidths and to select the filter configuration as follows:-

Bandwidth	Filters in use
2.2 kHz	X2 + X4 + X5
3.5 kHz	X3 + X4 + X5
4.5 kHz	X3 + X4 + X5
7.0 kHz	X3 + X5

3. To prevent unwanted leakage across the new filters, all filter select chokes are replaced by high quality magnetically shielded chokes
4. All filter selection diodes are replaced by low capacitance switching diodes.

The overall effect of these changes is a noticeable improvement in skirt selectivity and residual noise performance of the receiver, and the new filter bank is rather like having a close ratio gearbox in a car. When winking out the really weak stations, the closer selection of filter bandwidths allows the user to tailor the receiver bandwidth more closely to the transmitted signal and squeeze the last drop of information from it.

The complete "Europa" specification includes a factory fitted D-225 FM/synchronous AM detector option, and the famous KPAD 1 keypad frequency controller.

Remember.... The HF-225 in this format was voted a better DX receiver than the JRC NRD-535 and the ICOM R-72E.