



average domestic environment. A similar elaborate arrangement is used in the FT902 which does not seem very impressive either. Strangely the FT101XD uses a much simpler circuit arrangement, and the noise blander on this works wonders!

PB1183 is the low frequency IF amplifier and this contains the crystal filter which provides the receiver's selectivity. Prior to the crystal filter, most stages in the receiver have to handle the entire radio spectrum for a few hundred kilohertz either side of the wanted station. As well as ham stations running watts this will sometimes include broadcasting stations running mega-watts so that handling these extremes of signals without some cross modulation is an almost impossible task for the RF mixer and noise blander stages. Also contained on PB1183 are the AM and SSB/CW detector stages along with the automatic gain control rectifier.

AGC is applied to the IF amplifier integrated circuit on PB1183 and is also fed back to the RF stage, while detected audio is passed on to PB1315 for amplification prior to being fed by the loudspeaker.

The Transceiver Principle

From examination of the above and the block diagram, it will be seen that many transmit stages are turned round and used in the opposite direction on receive, allowing a very considerable cost saving. One has only to compare the number of parts in Yaesu's separate transmitter the FL101 with the FT101 transmitter/receiver to realise why it costs almost as much to build a transmitter as it does to build a complete transceiver. While separate transmitters and receivers do have some operational advantages, cost effectiveness has resulted in the almost complete domination of the

amateur radio market by the transceiver.

G3LLL asks us to point out that while he is happy to answer brief queries on the FT101 series, correspondence must contain a stamped, addressed envelope to obtain a reply.

FT101 INFORMATION

G3LLL will be covering servicing and modifications in future FT 101 articles. Alignment and fitting 10, 18 & 24 MHz will be covered, together with AGC modifications and other Receiver and Transmitter improvements. But what about you?

"Bright ideas" and servicing experiences should be shared around so let us know what you have done with your FT 101 — please type (or print CLEARLY) and send your contributions to the editor for possible inclusion in part 4 of G3LLL's article. The best contribution will receive 12 months' subscription to Ham Radio Today.

