

Using a PAT as 2nd RX on the TS2000 HF stream

Since the TS2k uses different first IF's for different bands (HF & 50MHz, 144/432MHz and 1.3GHz) there is no common location where either RF signal, or the 1st IF can be picked up, to give full coverage of all frequency options on the rig. Hence, the 2nd IF at 10.695MHz, which is the first common point for all bands, has been the recognised place to pick up the IF tap signals.

Increasingly, there is a need for 2nd independent Rx functions – and on this rig that means separate PAT's for each range. The HF and 50MHz range can be covered with one PAT V, while the 144 and 432 bands can be covered with another one. The problem is not so easy at 1.3GHz, as the PAT board has significant loss at that frequency – it may be better here to pick up the 1st IF for 1.3GHz (135MHz).

Installing PAT V for HF/50MHz

The RF Front End architecture is shown in Fig 1. Two IF's are used, but picking up the signals before the mixer avoids the complexity of those.

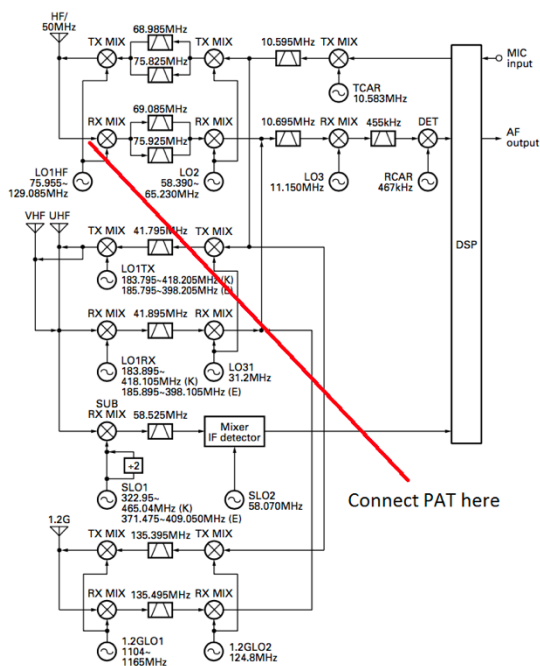


Fig. 1 Frequency configuration

Connecting a PAT V just before the 1st HF mixer allows the RF signals to be safely extracted to your SDR, and will give coverage of all the HF bands and 50MHz.

You can take full advantage of all of the band pass filters, the pre-amps and attenuators in the rig – by connecting at this point, they will also have their benefit on the signals you see on the SDR display.

The actual connection point can be found from Fig 2 – Kenwood have thoughtfully provided a test point, CN5, which is exactly in the right place. To make a good connection to this will require a short coax cable terminated in a Taiko-Denki TMP plug – these are available from hupRF.

