Translated excerpt from "Yaesus FT-2000 – der FTDX9000 light",
"Funkamateur", January 2007

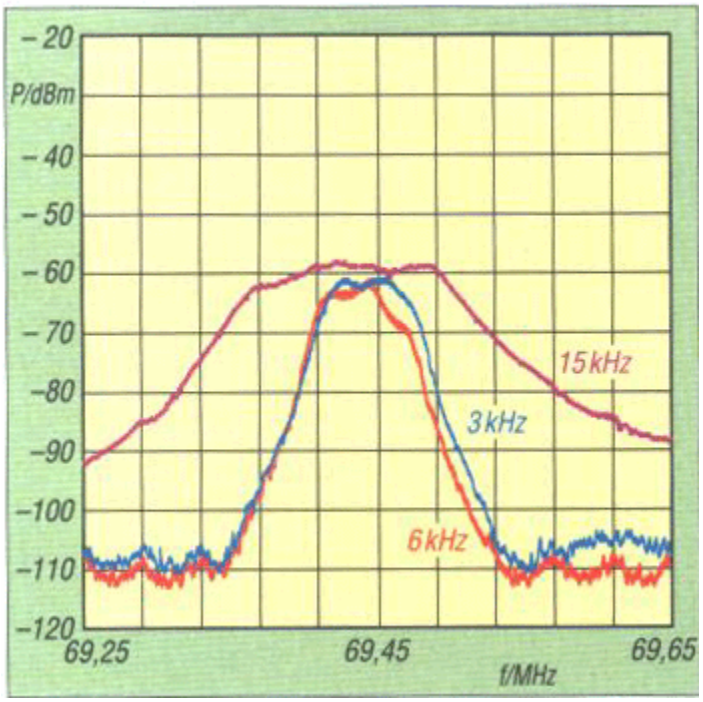

Fig. 11. The roofing-filter passband curves; the 15 kHz filter shows a 3 dB bandwidth of approx. 11 kHz. Those for 3 and 6 kHz are somewhat asymmetrical, and are very close in bandwidth (5 and 4.3 kHz respectively) - but are obviously switched!

Receiver Measurements

On receive, the IP3 behaviour at 5 kHz offset is of special interest. With Preamp off (IPO), and the 3 kHz roofing filter selected, one IMD product appears below **f** at +5.9 dBm and the other above $\mathbf{f_2}$ (very asymmetrically) at +11.9 dBm. These are not bad values at all; by way of comparison, a Rev. 2 IC-7800 with the 3 kHz roofing filter achieved + 28 dBm. All in all, the 3 kHz roofing filter does not significantly improve the IMD properties as compared to the 6 kHz filter (see Table 2.)

A look at the actual bandpass curves (Fig. 11) will explain these inconsistencies.

Table 2: IP3 vs. roofing-filter selection.

Roofing Filter	3 kHz	6 kHz	15 kHz
IP3 (below $\mathbf{f_1}$)	+5.9 dBm	+4.4 dBm	-22.9 dBm
IP3 (above $\mathbf{f_2}$)	+11.9 dBm	+19.4 dBm	-10.9 dBm