

10.7-MHz I.F. FILTERS FL2/4 AND FL2/4A

These are 50-ohm, 10.7-MHz bandpass filters, each of four sections which are constructed on separate printed cards. The four cards are contained in a copper screening box about 8 inches long by 3 inches square. Coaxial sockets for the input and output are mounted on the ends of the box. The circuit diagram is shown in Fig. 1 with tables giving the different capacitance values for the two filters.

The bandwidth of the FL2/4 is nominally  $\pm 100$  kHz at the 1 dB-down points, and the centre-frequency loss is 5 dB  $\pm$  1 dB. The corresponding figures for the FL2/4A are  $\pm 200$  kHz and 3 dB  $\pm$  1 dB. The minimum losses at spot frequencies

outside the pass band are given in the table.

Frequency (MHz)	9.5	9.9	10.1	10.3	11.1	11.3	11.5	12.0
Loss (dB relative to loss at 10.7 MHz)	60	60	50	34	31	43	53	53

Additionally, for the FL2/4A, the loss at 10.4 MHz should be not less than 14 dB relative to the loss at 10.7 MHz.

The return loss at either socket, with the other terminated by 50-ohms, should be more than 15 dB over the pass band.

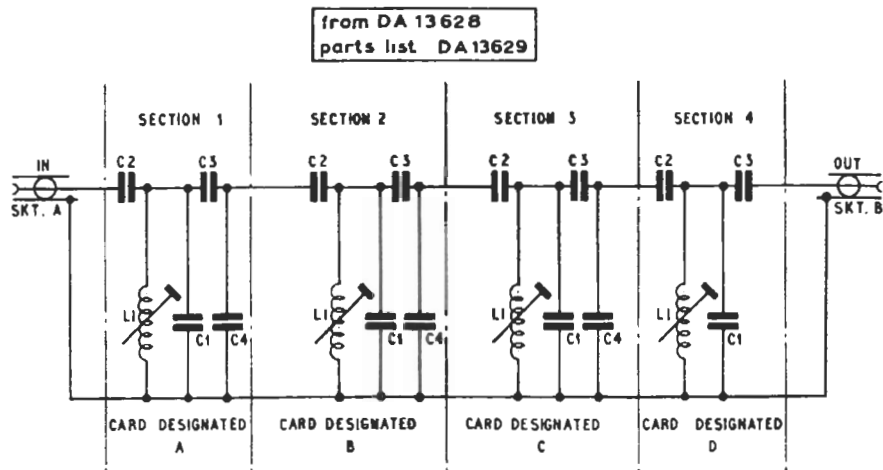


TABLE OF CAPACITORS (values in pF)

REF		A	B	C	D
FL2/4	C 1	225	264	264	225
	C 2	52.3	36.3	30.9	36.3
	C 3	36.3	30.9	36.3	52.2
	C 4	136	136	136	X
FL2/4A	C 1	160	220	220	160
	C 2	107	22	51	22
	C 3	S/C	51	S/C	107
	C 4	X	82	X	X

FL2/4/1

ALL INDUCTORS ARE 0.7  $\mu$ H

Fig. 1 Circuit and Component Details for the FL2/4 and FL2/4A