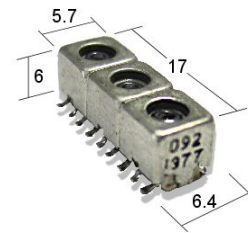
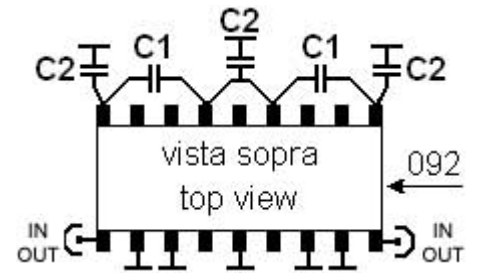
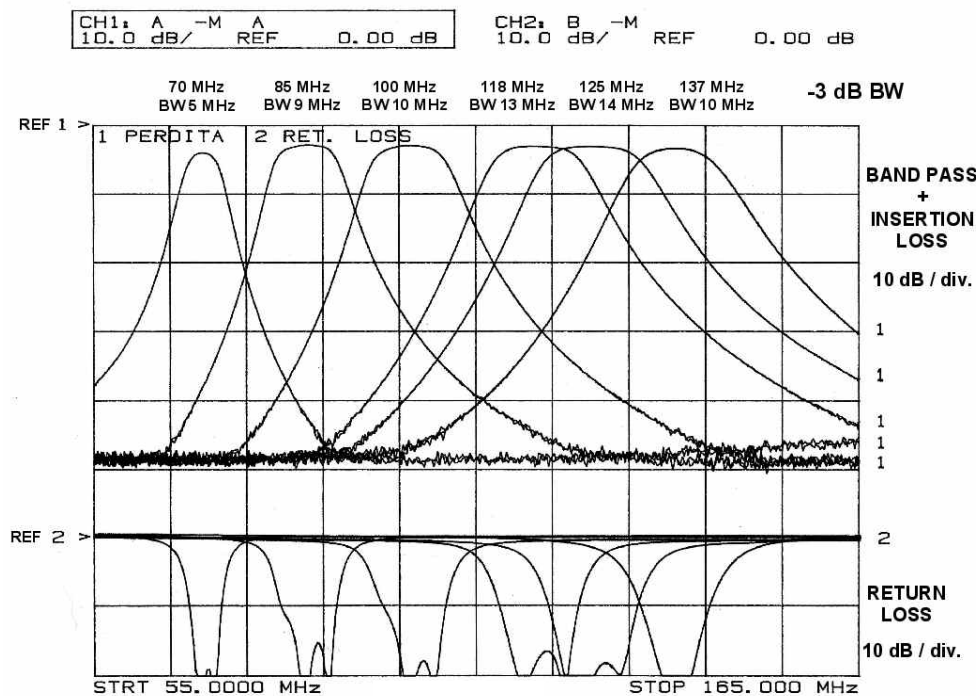


This particular component is used to build pass-band filters on custom frequencies that are not covered by the series production. In fact, in the manufacturers' catalogues, helical filters are often on frequencies normally used in radio services, amateur VHF UHF frequencies, mobile radio frequencies, 900 - 1800 MHz or 160 - 460 MHz mobile phones, GPS, etc..., but rarely VHF frequencies below 140 MHz.

In this filter all coils terminal are external and available for connection that's why it can be easily "trimmed" to lower frequencies up to about 60 MHz, it is no longer advisable to go down this frequency because of high loss and brief tune excursion. The filter is composed of three LC resonant circuits and by adding 5 capacitors as shown in the table, you will get the desired frequency and bandwidth.



Here an example of some tests on 15 different frequencies
 C1 affects the bandwidth -- C2 affects the tuning frequency



freq. MHz	-3 dB BW	C1 pF	C2 pF
60	4.5 MHz	4.7-5.6	56
62	5.5 MHz	4.7-5.6	47
65	7 MHz	4.7-5.6	39
70	5 MHz	3.9	33
	9 MHz	4.7	33
85	5.5 MHz	2.2	22
	9 MHz	2.7	22
100	6.5 MHz	2.2	15
	10 MHz	2.7	15
115	6 MHz	1 - 1.2	10
118	13 MHz	1.5-1.8	8.2
120	7.5 MHz	1 - 1.2	6.8
125	9 MHz	1.2	5.6
	14 MHz	1.5	5.6
130	9.5 MHz	1	4.7
137	10 MHz	1	3.9
140	10 MHz	0.82	2.2
145	16 MHz	1	--
150	12 MHz	0.82	--