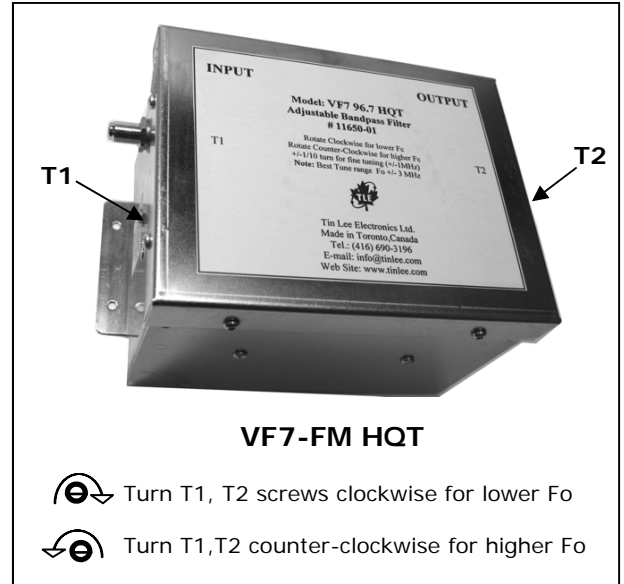




Description

Model VF7-FM HQT is a frequency tunable FM Narrow Band pass filter, designed to pass a specific FM signal, and reject adjacent signals as close as $F_o \pm 1$ MHz. Band pass default frequency is 98 MHz, or, User specified and optimized for thru loss and return loss at F_o . VF7-FM-HQT (F_o) is adjustable via High-Q trimmers: T1 and T2.

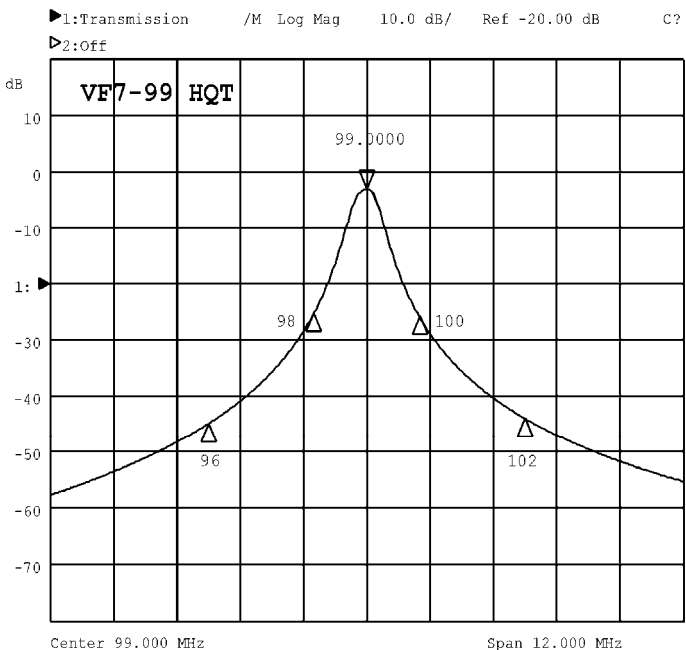
- Narrow Pass band: <0.25 MHz 3dB BW
- Pass band insertion loss 3.5 to 4.0 dB at F_o (88-108 MHz)
- Stop band >25dB: $F_o \pm 1.0$ MHz, >40 dB: $F_o \pm 3.0$ MHz
- Stop band >55 dB: 5 to 80 MHz, 116-400 MHz
- Frequency Tuning Range: 88 to 108MHz
- Connectors: F type, 75 ohms (BNC 75 optional)
- Connectors for 50 ohms option: BNC, N, or SMA



Specifications

Frequency	Insertion Loss	VSWR	Return Loss (dB)	Attenuation 25dB	-3dB Bandwidth
88	4.0 dB	1.67:1	>12	± 0.9 MHz	0.20 MHz
99	3.0 dB	1.22:1	>20	± 1.0 MHz	0.25 MHz
108	3.0 dB	1.50:1	>14	± 1.15 MHz	0.30 MHz
Tune Range		88 to 108 MHz (or optimize at $F_o \pm 3$ MHz)			
Attenuation (>50dB)		5 to 84MHz and 115 to 400MHz			
RF power: 1 Watts		Dimensions (l/w/h): 7.0 x 3.5 x 4.25 (in), 18 x 9 x 10.5 (cm)			
Connectors: 75 ohms Impedance		F-type female; BNC (female) optional			
Connectors: 50 ohms Impedance		BNC; N; SMA (female)			

Example Frequency Response



Bandpass Adjustments

To adjust frequency of band pass, use small flat head screwdriver to turn T1 or T2 screws . Use RF Network Analyzer or a spectrum analyzer with tracking generator to view frequency response of the filter: VF7 passband can be tuned to a higher or lower frequency by adjusting screw trimmers T1 or T2, turn one screw at a time, to desired frequency.

- Turn Screw T1/T2 clockwise for lower F_o
- Turn Screw T1/T2 counter-clockwise for higher F_o

Note: Adjust screws with small flathead screw driver. Frequency tune screw - in 1/4 turn increments. Fine tune using 1/10 turns.

Order as: VF7-FM(F_c)-HQT

Specify: Pre-set F_c , Connectors/Impedance, e.g., VF7-FM 99-HQT

