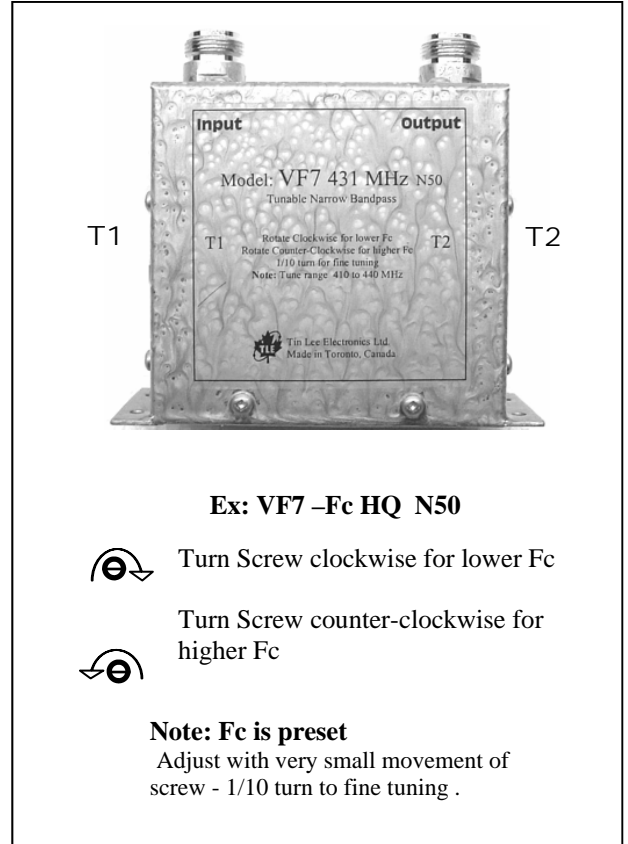




Description and Specifications

Model VF7- (Fc) HQ is a frequency tunable narrow bandpass filter. Bandpass resonators are preset at center frequency (Fc) and tunable via trimmers T1 and T2. Model VF7 is used to provide additional selectivity to a receiver or to reduce the sideband noise from low power transmitter (25 watt max).

- Passband: 1.5 MHz approx.
- Fc is user specified frequency (MHz)
- Fc is available from 400 to 800 MHz
- Best Tuning Range: Fc +/- 5 MHz (approx)
- Adjustable Trimmers are self-locking
- Operational bandwidth: 5 to 1000 MHz
- Passband Insertion Loss (I.L.) 2.5 or 3 dB
- Rejection (3 dB I.L.) : >20dB at ± 6 MHz (Fc @ 400 MHz); >20dB at ± 7.5 MHz (Fc @ 700 MHz)
- Connectors: F type, 75 ohms, BNC optional
Connector Options: BNC, N, or SMA 50 ohms



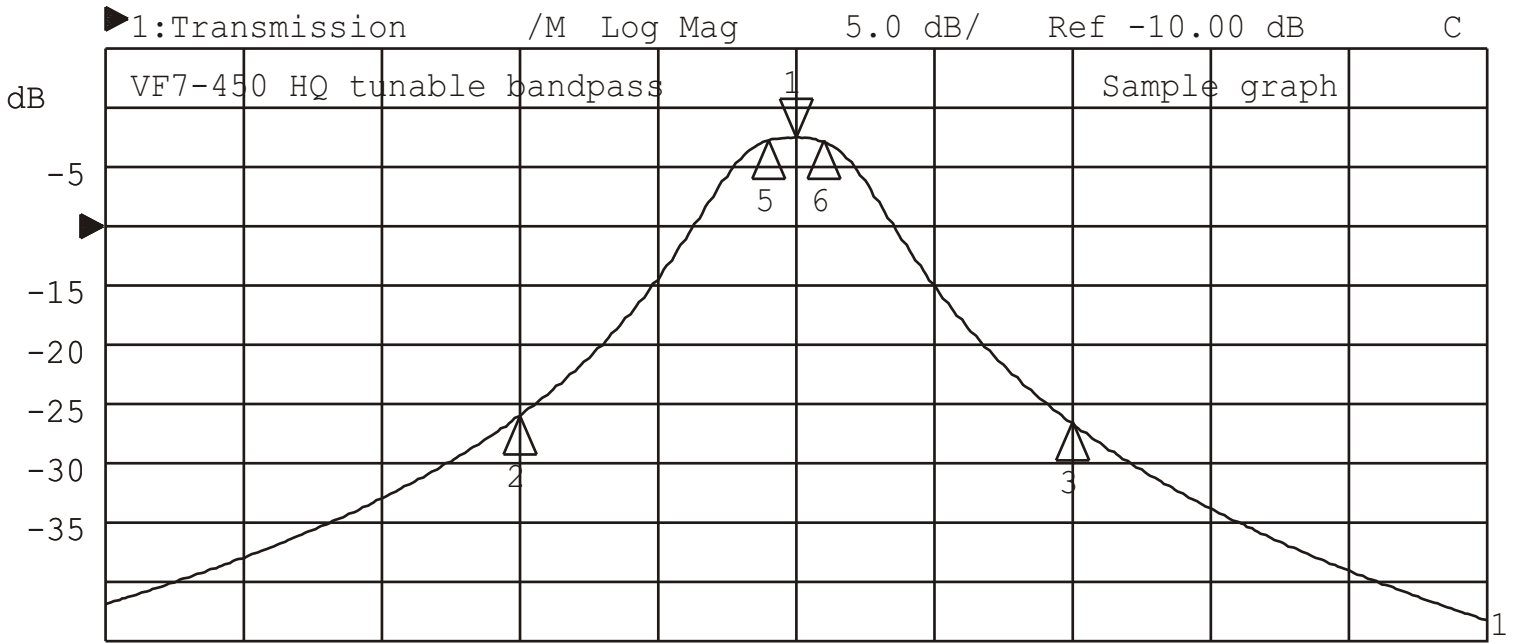
Example Bandpass Frequency Range	Insertion Loss (dB)	Return Loss (dB)	Attenuation (20dB)	-3dB Bandwidth (MHz)
400 to 450 MHz	2.5	18	± 5 MHz	2
575 to 625 MHz	3	16	± 6.5 MHz	2.5
675 to 725 MHz	3	16	± 7.5 MHz	3
Stopband Attenuation (>40dB)		± 18 MHz approx (selectivity can be trap enhanced)		

Adjustments - Adjust trimmers T1 and T2 with small flat head screwdriver (e.g., R3324 XCELITE)

For best results, adjust unit with instrumentation with view of frequency response. VF7 resonator can be tuned to a higher or lower (see photo). Best tuning range: Fc +/- 5 MHz (approx). Adjust one resonator at a time to desired frequency , then adjust second resonator to the same frequency. Optimal bandpass frequency response occurs when both resonators are tuned to same Fc.

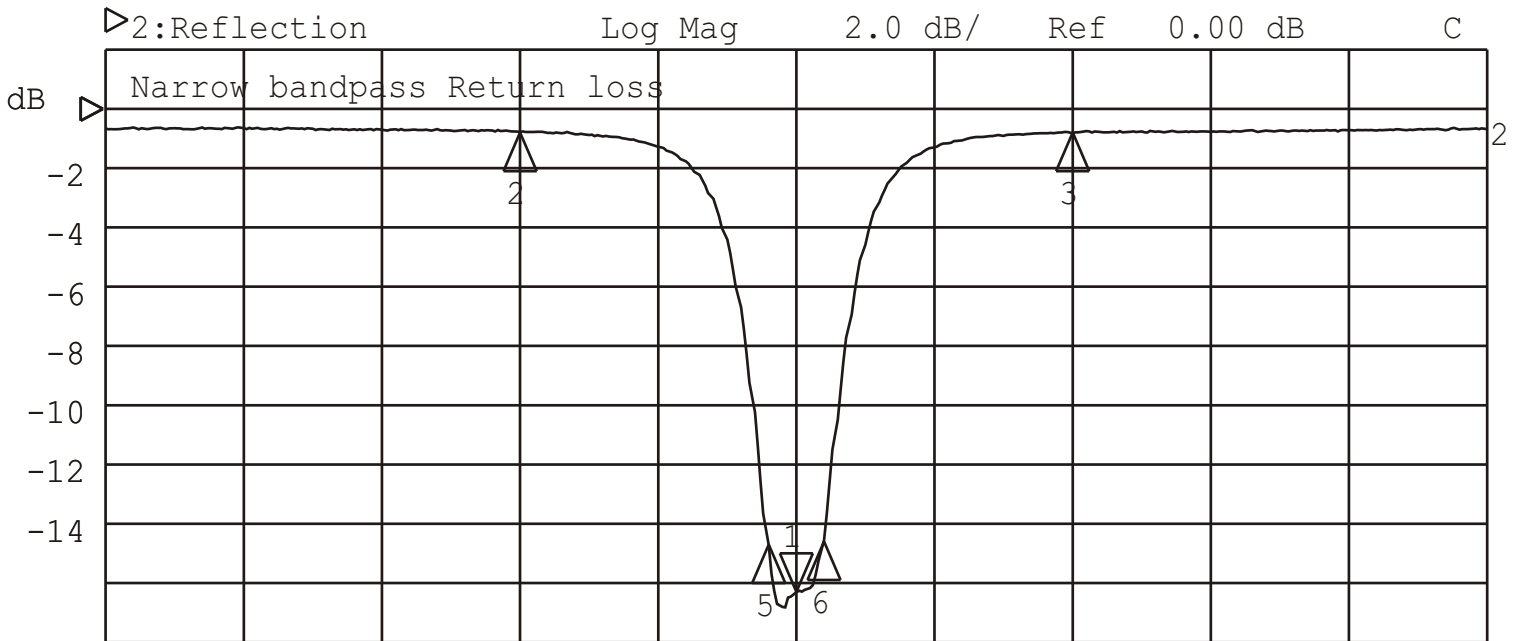
Bandpass Adjustment with RF Level Meter - Mark screw driver shaft with tape and reference the screw position (tape on screwdriver shaft) with respect to marking on the surface of the trap. When making adjustments note original tuning position and amount of adjustment made. Measure for optimal signal level.

Caution: Do not rotate trimmer screws beyond the max and min. range, the screw will be snug at max or lose contact at min..



Center 455.000 MHz

Span 25.000 MHz



Center 455.000 MHz

Span 25.000 MHz

1:Mkr (MHz)	dB	2:Mkr (MHz)	dB
1> 455.0000	-2.480	1> 455.0000	-16.310
2: 450.0000	-26.048	2: 450.0000	-0.766
3: 460.0000	-26.577	3: 460.0000	-0.818
5: 454.5000	-2.751	5: 454.5000	-14.721
6: 455.5000	-2.871	6: 455.5000	-14.557