

“FP”, “FR”, “FQ” Series Bandpass Filters

Description

The 7 and 10 inch diameter filters for installation and tuning instructions described on the following pages apply to all Bandpass, Notch, and Q circuit filters.

Typical models and electrical specifications are shown for reference only. Other models and additional specifications are available from Sinclair Radio Labs through their catalog or by contacting Sinclair Sales or Engineering Departments.

The instructions in this manual are for single cavity filters.

Filter cavities may be cascaded using quarter wavelength or three-quarter wavelength interconnecting cables for greater selectivity (bandpass) or notch rejection (reject and Q-circuit). The insertion loss of the cascaded filter is the sum of the individual insertion losses plus an allowance of approximately 0.1 dB for each interconnecting cable. For individual cavity skirt selectivities of 10 dB or more, the cascaded filter selectivity is the sum of the individual cavity selectivities plus a mismatch loss which is approximately 5 dB for each added cavity.

‘FP’ Bandpass Filters

- Protect one receiver further from front-end overload by carriers of co-located transmitters.
- Suppress IM generation in one transmitter by protecting it further from incoming carriers of co-located transmitter: (usually in conjunction with a ferrite isolator).
- Suppress sideband noise of a single transmitter on co-located receiver frequencies.
- Generally, “Protect One from Many.”

‘FR’ Notch Filters

- Suppress sideband noise from multicoupled transmitters on one co-located receiver frequency.
- Protect multicoupled receivers further from front-end overload by the carrier of one co-located transmitter.
- Generally, “Protect Many from One.”

‘FQ’ Q-Circuit Filters

- Suppress sideband noise of a single co-located transmitter on a closely-spaced receiver.
- Protect a closely-spaced receiver further from front-end overload by the carrier of co-located transmitter.
- Suppress IM generation in one transmitter by protecting it further from an incoming carrier of a closely-spaced co-located.
- Generally, “Protect One from One” at close frequency spacings.

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