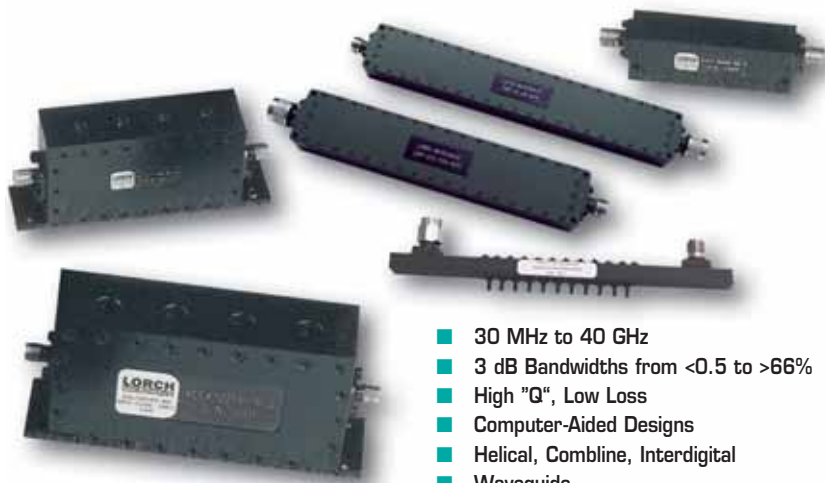


# LORCH MICROWAVE



- 30 MHz to 40 GHz
- 3 dB Bandwidths from <0.5 to >66%
- High "Q", Low Loss
- Computer-Aided Designs
- Helical, Combine, Interdigital
- Waveguide
- 12 Stock Series

## Cavity Filters

Lorch Microwave's cavity filter designs are available in the frequency range of 30 MHz to 40 GHz and with bandwidth options from less than 0.5% to over 66%. Cavity filters offer the user very low insertion loss, steep skirt selectivity, and narrower bandwidths than discrete component filters. Cavity filter performance is based on parts selection and physical layout of the helical coils, resonators, as well as the shape and size of the cavity housing. Lorch Microwave offers the user 12 unique stock designs to satisfy the majority of applications. At lower frequencies a helical coil is used to excite the electromagnetic field, while a 1/8 to 1/4 wave capacitively loaded design is used at higher frequencies. A cylindrical waveguide design is used to achieve narrow bandwidths and high power operation.

## Tubular Filters

Lorch Microwave tubular filters are available in bandpass and lowpass configurations. A low ripple Chebyshev transfer function is standard for both models. The bandpass units exhibit high side sharp attenuation characteristics. All tubular filters are available in diameters of .25, .5, .75, and 1.25 inches respectively. Tubular filters are an excellent choice when the designer has space available and needs a cost effective approach. The BC series (1/2 inch) diameter is the model most often selected as the best compromise between performance and cost with the fastest delivery. Units are of rugged construction and may be found in a variety of military and commercial applications.

## Discrete Filters

Lorch Microwave's filter designs are available to satisfy bandpass, lowpass, highpass, or bandreject applications. We have found through our years of service that one design does not fit all needs. In order to achieve today's required electrical performance, Lorch Microwave's engineers use a variety of electrical circuits ranging from coupled tank, mesh, resonant ladder, highpass/lowpass, or helical to achieve the desired performance. In some cases, a combination of circuit designs is used. This enables our engineers to provide you with the highest performance filters available.

### 5 Section Tunable Bandpass

P/N	Freq. Range (MHz)	% 3 db Bandwidth	VSWR (Nominal)	Number of Sections	Avg. Power (Watts)	Operating Temp. (Deg. C)	Impedance	Relative Humidity
BA	200-5000	5 - 50	1.5:1	2 - 10	2	-40 to +85	50	0 - 95%
BC	75-2500	5 - 50	1.5:1	2 - 10	15	-40 to +85	50	0 - 95%
BD	50-1500	5 - 50	1.5:1	2 - 10	40	-40 to +85	50	0 - 95%
BE	50-500	5 - 50	1.5:1	2 - 10	200	-40 to +85	50	0 - 95%

### Discrete Component Bandpass Filters

BP2	5 - 100	3 - 100	1.5:1	2 - 10	10	-55 to +85		95%
BP3	25 - 200	3 - 100	1.5:1	2 - 10	10	-55 to +85		95%
BP4	15 - 200	3 - 100	1.5:1	2 - 10	10	-55 to +85		95%
BP5	5 - 200	3 - 100	1.5:1	2 - 10	10	-55 to +85		95%
BP6	50 - 10000	3 - 100	1.5:1	2 - 10	1	-55 to +85		95%
BP7	50 - 10000	3 - 100	1.5:1	2 - 10	1	-55 to +85		95%
BP8	50 - 10000	3 - 100	1.5:1	2 - 10	1	-55 to +85		95%
BP9	25 - 5000	5 - 100	1.5:1	2 - 10	1	-55 to +85		95%
MH	60 - 3000	1 - 5	1.5:1	2 - 10	1	-55 to +85		95%
T8B	70 - 1000	5 - 30	1.5:1	2 - 4	1	-55 to +85		95%