

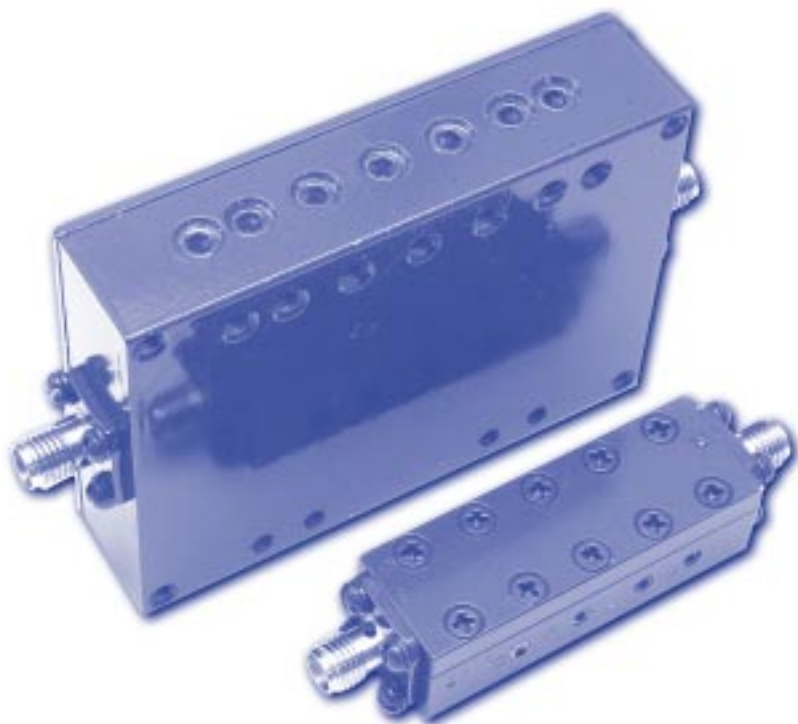


Comblines & Interdigital Filters

Reactel's Comblines and Interdigital Filters satisfy the need for moderate to wide band units over the 1 to 26 GHz frequency range. These filters are a 0.1 dB Chebyshev design and can have as many as 20 elements for extremely sharp selectivity.

All of Reactel's comblines and interdigital filters are designed using the latest in CAD/CAM equipment and machinery. This approach assures that accuracy and repeatability will be maintained throughout the manufacturing process regardless of quantity ordered, and also allows us to offer you the most cost efficient pricing available.

Since these units are designed to meet your exact requirements, please contact the factory with your electrical specifications.





Comblines & Interdigital Filters

Part Numbering System

7 C 11 — 8500 — 600 S 1 1
 1 2 3 4 5 6 7 8

Part Number Definition:

- 1- Number of Sections
- 2- Comblines Filter
- 3- Series Identification
- 4- Center Frequency
- 5- 3 dB Bandwidth
- 6- Connector Definition (See Page 16)
- 7- Input Connector Type
- 8- Output Connector Type

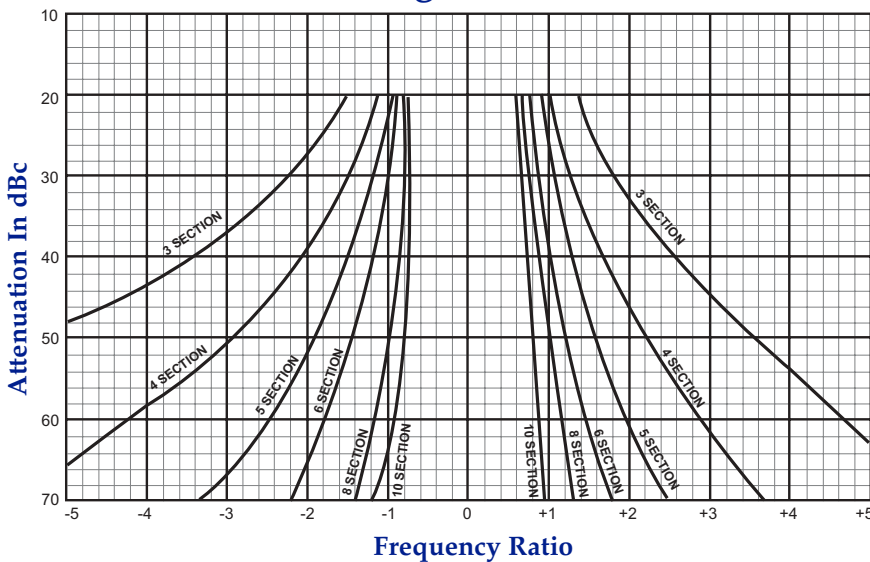


Series	Frequency Range	% 3 dB BW	Impedance	Maximum VSWR	* Standard Power
C11	1 to 26 GHz	3% to 1 octave	50Ω	1.5:1	10 Watts

* Higher power is available, please consult the factory.

Connector codes and sizes are the same as for the cavity filters.
 Please see page 16 for information.

Comblines & Interdigital Attenuation Curves



The rejection for Cavity & Interdigital filters can be determined from the curves. Calculate the frequency ratio as follows:

$$\text{Frequency Ratio} = \frac{\text{Rejection Frequency} - \text{Center Frequency}}{\text{3 dB Cutoff Frequency}}$$

Example:

- Center Frequency = 2500 MHz
- 3 dB Bandwidth = 200 MHz
- Number of Sections = 5
- Reject Frequencies = 2000 & 3000 MHz

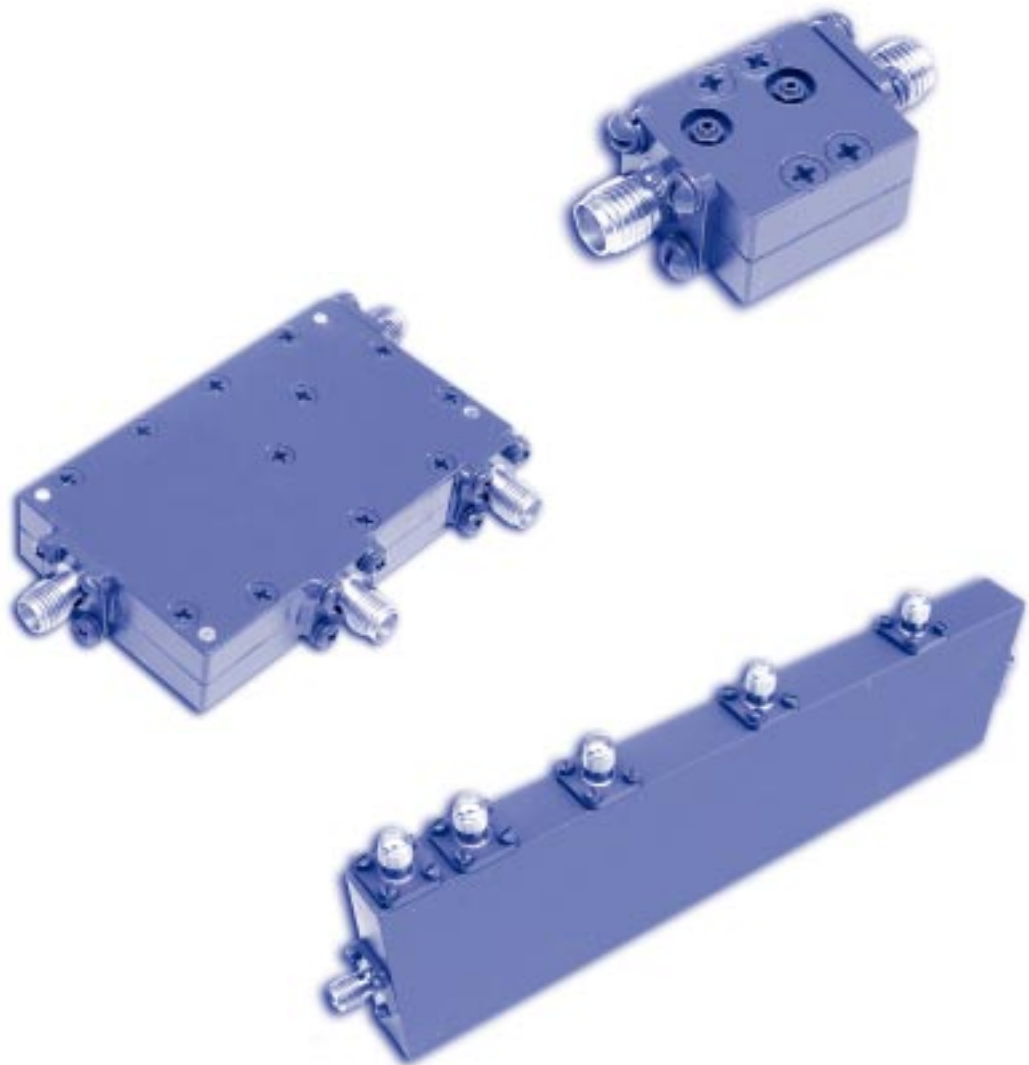
$$\text{Frequency Ratio} = \frac{2000 - 2500}{200} = -2.5$$

Rejection from Curve = 61.3 dB



Suspended Substrate Filters, Diplexers & Multiplexers

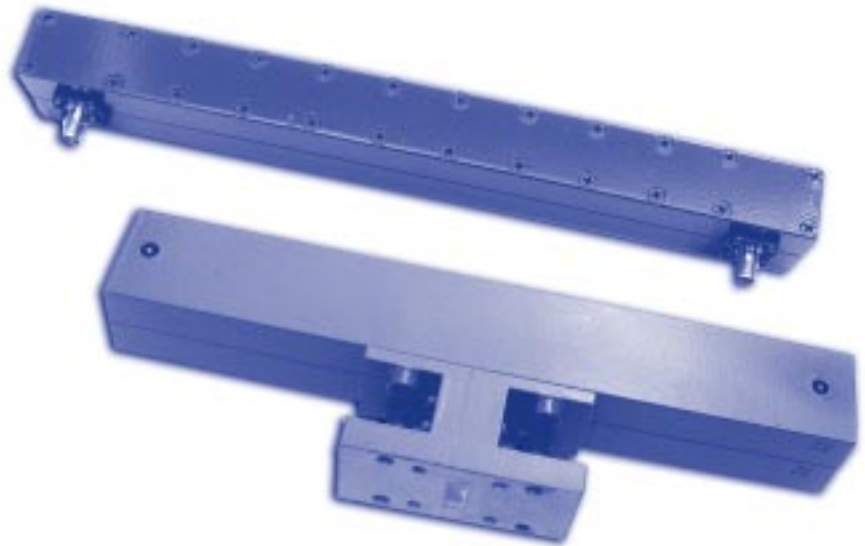
Reactel offers filters, diplexers and multiplexers utilizing Suspended Substrate Technology. This allows us to provide our customers with high performance units featuring low loss and high isolation. The diplexers and multiplexers are available with standard or custom crossovers using bandpass, lowpass, or highpass sections throughout and can have up to 8 outputs. Suspended Substrate Technology is a perfect choice for ultra wideband filter applications as a lowpass filter and highpass filter can be cascaded for percent bandwidths exceeding 150%. All of our Suspended Substrate products are available in the frequency range of 1 to 40 GHz. Please contact us so we may design the unit which is a perfect fit for your requirement.





Waveguide Filters

Reactel's Waveguide Filters utilize inductive irises in their design for ease of manufacture and to maintain reasonable prices. These robust units are available in both bandpass and lowpass configurations. Our waveguide filters are available in all waveguide sizes for both military and commercial applications. Typical bandwidths range from 0.1 to 25%. Please contact us so we may design the filter which is a perfect fit for your unique requirement.





Part Numbering System

3 W 8 — 2000 - 200 F

1 2 3 4 5 6

Part Number Definition:

- 1- Number of Sections
- 2- Waveguide Bandpass
- 3- Series Identification
- 4- Center Frequency (omit for lowpass)
- 5- 3 dB Bandwidth (bandpass) or
3 dB Cutoff (lowpass)
- 6- Connector Designation



These units can be supplied with any type of waveguide flange or SMA connectors. Please be aware that our standard unit is not suitable for pressurized applications. Pressurized units are available, so please contact the factory with your unique specification.