



Notch filters are designed for elimination of the many specific interference problems that may be experienced at radio sites. When used in conjunction with other products, DrawCom Notch Reject Filters facilitate incorporation of combination pass and reject band response curves for a system. Notch frequencies are adjusted at the factory to customers' requirements.

There are three types of Notch Reject Filters, helical type, offering a higher Q. a tubular cavity version for narrower notch bandwidth, designed for solution of the more difficult interference problems, and compact combine form of line resonator for operation up to 2GHz. Depending on product category, stop to pass frequencies range from 500kHz to 4MHz.

The main application of the helical version will be for sites where interference spacing is of the order of 1MHz, but such a bandwidth is at some cost to insertion loss. Where a greater notch bandwidth is possible for given situations the insertion loss will correspondingly improve.

- Range covers 68-2000 MHz
- High rejection
- Low loss
- Tuneable
- High Q

## Notch Reject Filters

**Specifications: Tubular Cavity Notch Reject Filters**

Type	2 Section	2 Section	2 section	4 section
<b>Within The Range</b>	60-1800MHz	180-500MHz	800-1000MHz	800-1000MHz
<b>Notch Bandwidth</b>	200 kHz	200 kHz	500kHz	1MHz
<b>Insertion Loss</b>	0.5 dB max	0.5 dB max	0.5 dB	1.0 dB
<b>Isolation</b>	>40 dB	>40 dB	35dB	80dB
<b>VSWR (in Passband)</b>	< 1.2:1	< 1.2:1	< 1.2: 1	< 1.2:1
<b>Impedance</b>	50 ohms	50 ohms	50 ohms	50 ohms
<b>Power Rating (CW)</b>	100 Watts	100 Watts	100 Watts	100 Watts
<b>Temperature Range</b>	-20° to +55 °C	-20° to +55 °C	-20° to +55°C	-20° to +55°C
<b>Connectors</b>	Type-N F-F	Type-N F-F	Type-N F-F	Type-N F-F

## Notch Reject Filters (cont.)

### Specifications: Helical Notch Reject Filters

Type	2 Section	2 Section	2 Section	2 Section
<b>Within The Range</b>	60-180MHz	180-500MHz	180-500MHz	60-180MHz
<b>Notch Bandwidth</b>	2MHz	2MHz	500 kHz	500 kHz
<b>Insertion Loss</b>	0.5 dB max	0.5 dB max	0.5 dB max	0.5 dB max
<b>Rejection</b>	>40 dB	>40 dB	>40 dB	>40 dB
<b>VSWR (in Passband)</b>	1-2:1	1-2:1	1-2:1	1-2:1
<b>Impedance</b>	50 ohms	50 ohms	50 ohms	50 ohms
<b>Power Rating (CW)</b>	100 Watts	100 Watts	400 Watts	400 Watts
<b>Temperature Range</b>	-20° to +55 °C	-20° to +55 °C	-20° to +55 °C	-20° to +55 °C
<b>Connectors</b>	N type F-F	N type F-F	N type F-F	N type F-F

### Specifications: Helical Notch Reject Filters (High Power)

Type	1 section	2 section	3 section	4 section
<b>Within The Range</b>	450-470 MHz	450-470 MHz	450-470 MHz	450-470 MHz
<b>Notch Bandwidth</b>	200 kHz	350 kHz	350 kHz	200 kHz
<b>Insertion Loss</b>	0.2 dB	0.4 dB	0.6 dB	0.9 dB
<b>Isolation</b>	25 dB	47 dB	75 dB	>90 dB
<b>VSWR (in Passband)</b>	1-2: 1	1-2: 1	1- 2: 1	1-2: 1
<b>Impedance</b>	50 ohms	50 ohms	50 ohms	50 ohms
<b>Power Rating (CW)</b>	500 W	500 W	500 W	500 W
<b>Temperature Range</b>	-20° to +55 °C	-20° to +55 °C	-20° to +55 °C	-20° to +55 °C
<b>Connectors</b>	N type F-F	N type F-F	N type F-F	N type F-F