

Coaxial

# Bandpass Filter

**50Ω Constant Impedance 41 to 58 MHz**

## Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 0.5W max.      |

Permanent damage may occur if any of these limits are exceeded.

## Features

- low VSWR in pass- and stopbands, 1.3:1 typ
- rugged shielded case
- custom to models available

## Applications

- harmonic rejection
- lab use

**SIF-50+**


| CASE STYLE: FF99 |         |             |       |
|------------------|---------|-------------|-------|
| Connectors       | Model   | Price       | Qty.  |
| SMA              | SIF-50+ | \$38.95 ea. | (1-9) |

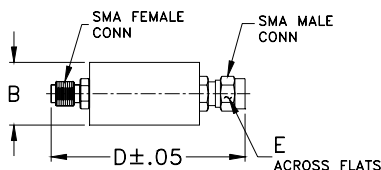
**+ RoHS compliant in accordance with EU Directive (2002/95/EC)**

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

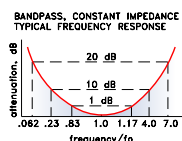
## Bandpass Filter Electrical Specifications

| CENTER FREQ. (MHz) | PASSBAND (MHz) | STOPBANDS             |                       | VSWR, 1.3:1 Typ. TOTAL BAND (MHz) |
|--------------------|----------------|-----------------------|-----------------------|-----------------------------------|
|                    |                | (loss > 10 dB) at MHz | (loss > 20 dB) at MHz |                                   |
| 50                 | 41-58          | 11.5 & 200            | 3.1 & 350             | DC-440                            |

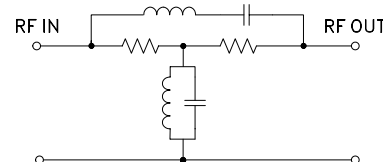
## Outline Drawing



## typical frequency response



## electrical schematic

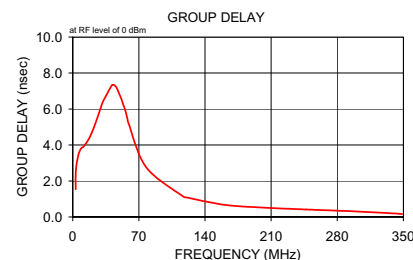
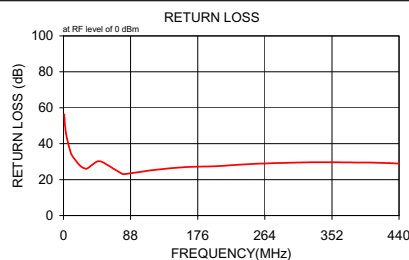


## Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) |          | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
|                 | $\bar{x}$           | $\sigma$ |                  |                 |                    |
| 1.0             | 33.62               | 0.2      | 56.3             | 3.1             | 1.540              |
| 1.4             | 30.60               | 0.2      | 53.5             | 3.2             | 2.572              |
| 1.8             | 28.39               | 0.2      | 51.1             | 5.9             | 3.434              |
| 2.3             | 26.60               | 0.2      | 49.3             | 8.7             | 3.800              |
| 2.7             | 25.16               | 0.2      | 47.6             | 11.4            | 3.893              |
| 3.1             | 23.91               | 0.2      | 46.4             | 11.6            | 3.910              |
| 4.0             | 21.72               | 0.3      | 43.9             | 18.2            | 4.448              |
| 9.0             | 14.63               | 0.2      | 35.6             | 24.4            | 5.257              |
| 11.5            | 12.44               | 0.2      | 33.2             | 31.1            | 6.290              |
| 20.0            | 7.25                | 0.2      | 28.5             | 32.2            | 6.428              |
| 23.7            | 5.61                | 0.2      | 27.1             | 41.0            | 7.293              |
| 27.3            | 4.18                | 0.2      | 26.3             | 41.7            | 7.342              |
| 31.0            | 2.95                | 0.2      | 26.2             | 43.9            | 7.325              |
| 41.0            | 0.70                | 0.1      | 29.3             | 46.2            | 7.197              |
| 45.5            | 0.28                | 0.1      | 30.2             | 48.7            | 6.905              |
| 50.0            | 0.21                | 0.1      | 30.0             | 51.3            | 6.571              |
| 53.0            | 0.34                | 0.1      | 29.3             | 53.1            | 6.309              |
| 77.0            | 3.12                | 0.1      | 23.2             | 55.9            | 5.874              |
| 80.0            | 3.52                | 0.1      | 23.1             | 57.9            | 5.441              |
| 120.0           | 7.84                | 0.1      | 25.4             | 58.9            | 5.242              |
| 160.0           | 10.99               | 0.2      | 27.0             | 77.6            | 2.769              |
| 200.0           | 13.61               | 0.2      | 27.5             | 117.5           | 1.114              |
| 250.0           | 16.51               | 0.2      | 28.8             | 119.5           | 1.093              |
| 316.7           | 20.38               | 0.4      | 29.6             | 160.3           | 0.679              |
| 350.0           | 22.46               | 0.4      | 29.7             | 200.7           | 0.525              |
| 390.0           | 25.29               | 0.6      | 29.5             | 246.9           | 0.414              |
| 402.5           | 26.25               | 0.7      | 29.5             | 251.2           | 0.408              |
| 415.0           | 27.29               | 0.8      | 29.3             | 298.5           | 0.306              |
| 427.5           | 28.35               | 0.9      | 29.2             | 342.8           | 0.185              |
| 440.0           | 29.49               | 1.0      | 28.9             | 348.7           | 0.163              |

## Outline Dimensions (inch/mm)

| B     | D     | E    | wt    |
|-------|-------|------|-------|
| .67   | 1.98  | .312 | grams |
| 17.02 | 50.29 | 7.92 | 42.0  |


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