

# Low Pass Filter

50Ω DC to 225 MHz

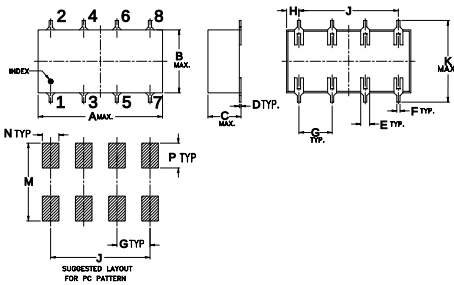
## Maximum Ratings

|                       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |
| Power Input           | 0.5W max.      |

## Pin Connections

|        |             |
|--------|-------------|
| INPUT  | 1           |
| OUTPUT | 8           |
| GROUND | 2,3,4,5,6,7 |

## Outline Drawing



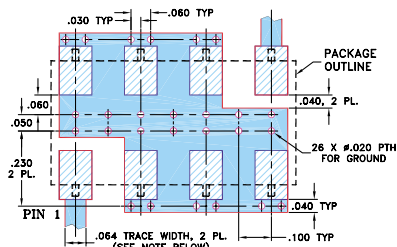
## Outline Dimensions (inch/mm)

| A     | B    | C    | D    | E    | F    | G    |
|-------|------|------|------|------|------|------|
| 0.75  | 0.38 | 0.28 | 0.01 | 0.05 | 0.02 | 0.2  |
| 19.05 | 9.65 | 7.11 | 0.25 | 1.27 | 0.51 | 5.08 |

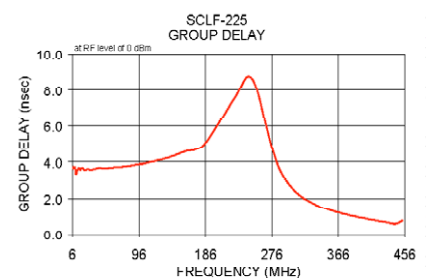
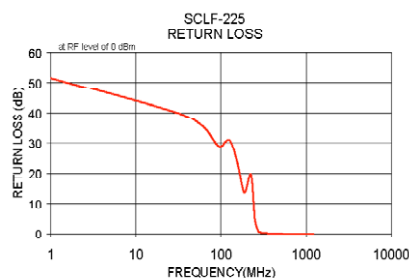
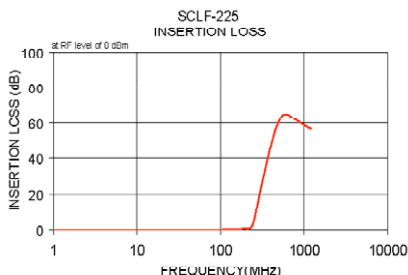
  

| H    | J     | K     | M     | N    | P    | wt    |
|------|-------|-------|-------|------|------|-------|
| 0.07 | 0.6   | 0.45  | 0.47  | 0.1  | 0.15 | grams |
| 1.91 | 15.24 | 11.43 | 11.94 | 2.54 | 3.81 | 1.60  |

## Demo Board MCL P/N: TB-187 Suggested PCB Layout (PL-049)



- NOTES: 1. TRACE WIDTH IS SHOWN FOR ROGERS RO4350B WITH DIELECTRIC THICKNESS .030" ± .002"; COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
- DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



# SCLF-225+ SCLF-225



CASE STYLE: YY161  
PRICE: \$11.45 ea. QTY (1-9)

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

The +Suffix identifies RoHS Compliance. See our web site  
for RoHS Compliance methodologies and qualifications.

## Features

- wide selection of cut-off frequencies
- excellent rejection
- custom models available

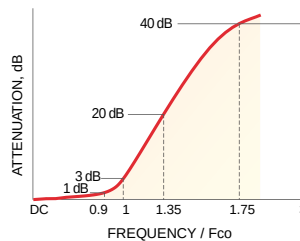
## Applications

- defense communications
- receivers/transmitters
- harmonic rejection of VCOs

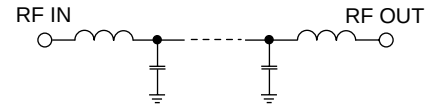
## Low Pass Filter Electrical Specifications

| PASSBAND<br>(MHz) | fco, (MHz)<br>Nom. | STOPBAND<br>(MHz)             | VSWR<br>(:1)                  |
|-------------------|--------------------|-------------------------------|-------------------------------|
| (loss < 1 dB)     | (loss 3 dB)        | (loss > 20 dB) (loss > 40 dB) | Pass band typ. Stop band typ. |
| DC-225            | 250                | 340-440 440-1200              | 1.7 18                        |

## typical frequency response



## electrical schematic



## Typical Performance Data

| Frequency<br>(MHz) | Insertion Loss<br>(dB) | Return Loss<br>(dB) | Frequency<br>(MHz) | Group Delay<br>(nsec) |
|--------------------|------------------------|---------------------|--------------------|-----------------------|
| $\bar{x}$          | $\sigma$               |                     |                    |                       |
| 1.00               | 0.02                   | 0.00                | 6.00               | 3.63                  |
| 32.10              | 0.09                   | 0.00                | 6.94               | 3.72                  |
| 63.30              | 0.13                   | 0.00                | 8.02               | 3.69                  |
| 94.40              | 0.18                   | 0.01                | 9.28               | 3.69                  |
| 125.50             | 0.24                   | 0.01                | 10.73              | 3.34                  |
| 156.60             | 0.34                   | 0.01                | 12.40              | 3.54                  |
| 187.80             | 0.63                   | 0.03                | 14.34              | 3.66                  |
| 225.00             | 0.85                   | 0.05                | 16.58              | 3.59                  |
| 250.00             | 4.47                   | 0.90                | 19.17              | 3.67                  |
| 275.00             | 13.44                  | 1.06                | 22.40              | 3.56                  |
| 288.00             | 18.01                  | 1.02                | 25.90              | 3.60                  |
| 301.00             | 22.28                  | 0.98                | 30.25              | 3.58                  |
| 314.00             | 26.30                  | 0.97                | 34.98              | 3.60                  |
| 327.00             | 30.03                  | 0.97                | 40.86              | 3.66                  |
| 340.00             | 33.46                  | 0.98                | 47.25              | 3.65                  |
| 353.00             | 36.62                  | 1.01                | 55.20              | 3.66                  |
| 370.40             | 40.58                  | 1.05                | 63.82              | 3.70                  |
| 387.80             | 44.45                  | 1.13                | 74.56              | 3.73                  |
| 405.20             | 48.13                  | 1.21                | 86.20              | 3.80                  |
| 422.60             | 51.39                  | 1.27                | 100.71             | 3.89                  |
| 440.00             | 54.18                  | 1.31                | 113.44             | 4.00                  |
| 457.00             | 56.71                  | 1.41                | 136.03             | 4.22                  |
| 549.90             | 64.60                  | 1.52                | 157.28             | 4.54                  |
| 642.80             | 65.09                  | 1.93                | 183.74             | 4.95                  |
| 735.60             | 62.97                  | 1.53                | 225.00             | 7.52                  |
| 828.50             | 61.45                  | 1.33                | 250.00             | 8.59                  |