

Surface Mount Low Pass Filter

50Ω DC to 45 MHz

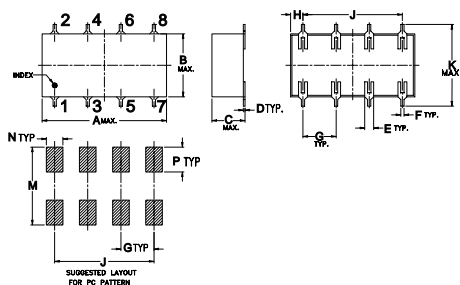
Maximum Ratings

| | |
|-----------------------|----------------|
| 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

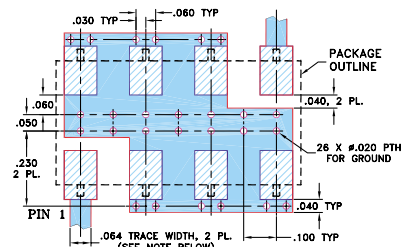


Outline Dimensions (inch/mm)

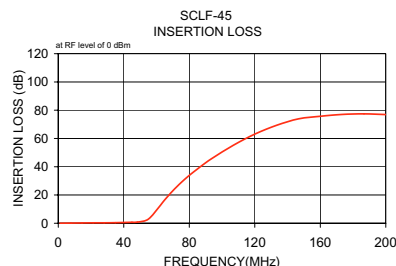
| A | B | C | D | E | F | G |
|-------|------|------|------|------|------|------|
| 0.75 | 0.38 | 0.28 | 0.01 | 0.05 | 0.02 | 0.2 |
| 19.05 | 9.65 | 7.11 | 0.25 | 1.27 | 0.51 | 5.08 |

| 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.
3. DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)
4. DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK



Features

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

Applications

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

SCLF-45+
SCLF-45



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

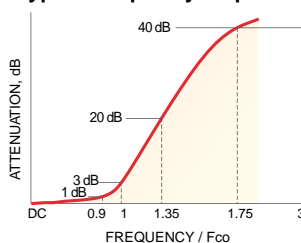
+ RoHS compliant in accordance
with EU Directive (2002/95/EC)

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

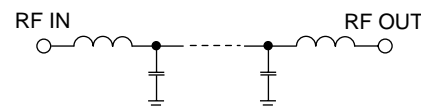
Low Pass Filter Electrical Specifications

| PASSBAND (MHz) | fco, (MHz) Nom. | STOPBAND (MHz) | VSWR (:1) |
|-------------------|--------------------|-------------------------------|-------------------------------|
| (loss < 1 dB) | (loss 3 dB) | (loss > 20 dB) (loss > 40 dB) | Pass band typ. Stop band typ. |
| DC-45 | 55 | 70-90 90-200 | 1.7 18 |

typical frequency response

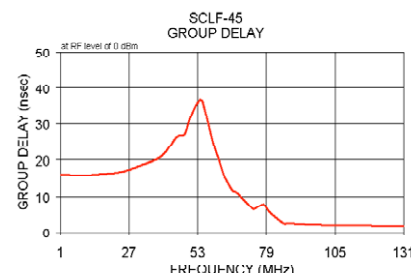
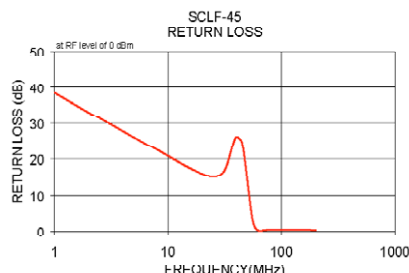


electrical schematic



Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|--------------------|------------------------|---------------------|--------------------|-----------------------|
| \bar{x} | σ | | | |
| 1.00 | 0.03 | 0.00 | 1.00 | 16.00 |
| 10.00 | 0.12 | 0.10 | 10.00 | 15.85 |
| 16.50 | 0.18 | 0.10 | 16.50 | 16.14 |
| 24.00 | 0.30 | 0.10 | 24.00 | 16.72 |
| 31.50 | 0.31 | 0.10 | 31.50 | 18.50 |
| 39.50 | 0.31 | 0.10 | 39.50 | 21.04 |
| 45.00 | 0.49 | 0.10 | 45.00 | 26.38 |
| 52.00 | 1.22 | 0.20 | 48.00 | 27.16 |
| 55.00 | 3.37 | 0.60 | 50.00 | 31.44 |
| 58.00 | 7.23 | 0.80 | 52.00 | 34.88 |
| 61.00 | 11.68 | 0.90 | 54.00 | 36.74 |
| 64.00 | 15.98 | 0.90 | 55.00 | 35.95 |
| 66.00 | 18.68 | 0.80 | 58.00 | 27.09 |
| 68.00 | 21.26 | 0.80 | 60.00 | 21.94 |
| 70.00 | 23.69 | 0.80 | 61.00 | 20.02 |
| 72.00 | 26.02 | 0.80 | 63.00 | 15.60 |
| 76.00 | 30.42 | 0.80 | 64.00 | 14.21 |
| 80.00 | 34.44 | 0.80 | 66.00 | 11.74 |
| 85.00 | 39.13 | 0.70 | 68.00 | 10.93 |
| 87.00 | 41.06 | 0.80 | 70.00 | 9.31 |
| 90.00 | 43.71 | 0.90 | 72.00 | 7.86 |
| 100.00 | 51.96 | 1.50 | 74.00 | 6.26 |
| 135.00 | 75.54 | 9.90 | 76.00 | 7.02 |
| 150.00 | 72.20 | 4.30 | 78.00 | 7.76 |
| 161.50 | 72.82 | 3.90 | 80.00 | 5.54 |
| 170.00 | 67.46 | 2.80 | 85.00 | 2.62 |
| 177.00 | 70.41 | 5.00 | 87.00 | 2.41 |
| 184.50 | 73.51 | 4.80 | 90.00 | 2.38 |
| 192.50 | 70.37 | 4.70 | 100.00 | 2.04 |
| 200.00 | 70.36 | 5.50 | 131.00 | 1.81 |



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