

Plug-In Low Pass Filter

PLP-100+

50Ω DC to 98 MHz

Maximum Ratings

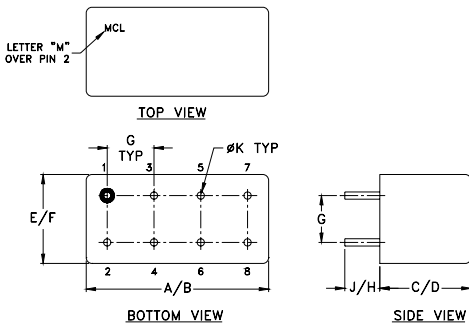
| | |
|-----------------------|----------------|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| RF Power Input | 0.5W max. |

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

Pin Connections

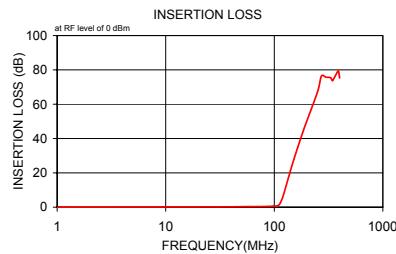
| | |
|-------------|-------------|
| INPUT | 1 |
| OUTPUT | 8 |
| GROUND | 2,3,4,5,6,7 |
| CASE GROUND | 2,3,4,5,6,7 |

Outline Drawing



Outline Dimensions (inch/mm)

| A | B | C | D | E | F |
|-------|-------|------|-------|-------|-------|
| .770 | .800 | .385 | .400 | .370 | .400 |
| 19.56 | 20.32 | 9.78 | 10.16 | 9.40 | 10.16 |
| G | H | J | K | wt | |
| .200 | .20 | .14 | .031 | grams | |
| 5.08 | 5.08 | 3.56 | 0.79 | 5.2 | |

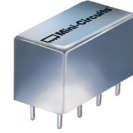


Features

- rugged welded case, hermetic
- other standard and custom PLP models available with wide selection of fco

Applications

- test equipment
- lab use
- transmitters/receivers
- military/hi-rel applications



CASE STYLE: A01

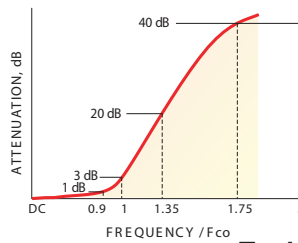
+RoHS Compliant

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

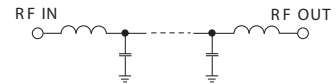
Low Pass Filter Electrical Specifications

| PASSBAND (MHz) | fco (MHz) Nom. | STOPBAND (MHz) | | VSWR (:1) | |
|----------------|----------------|----------------|----------------|---------------|---------------|
| | | (loss > 20 dB) | (loss > 40 dB) | Passband Typ. | Stopband Typ. |
| DC-98 | 108 | 146-189 | 189-400 | 1.7 | 18 |

typical frequency response

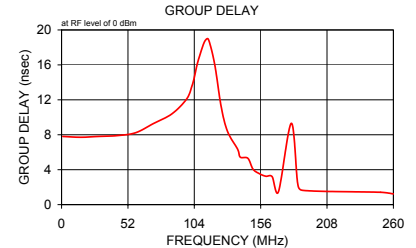
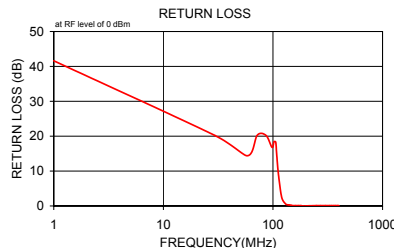


electrical schematic



Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
| | \bar{x} | σ | | | |
| 1.00 | 0.02 | 0.1 | 41.6 | 1.00 | 7.802 |
| 29.50 | 0.16 | 0.1 | 20.2 | 15.00 | 7.718 |
| 58.00 | 0.34 | 0.1 | 14.4 | 29.50 | 7.812 |
| 72.00 | 0.31 | 0.1 | 20.3 | 43.50 | 7.901 |
| 86.50 | 0.41 | 0.1 | 20.2 | 58.00 | 8.226 |
| 98.00 | 0.58 | 0.1 | 16.8 | 72.00 | 9.283 |
| 102.00 | 0.62 | 0.1 | 18.4 | 86.50 | 10.402 |
| 106.00 | 0.75 | 0.1 | 18.3 | 98.00 | 12.091 |
| 108.00 | 0.93 | 0.2 | 15.0 | 102.00 | 13.505 |
| 112.00 | 1.72 | 0.5 | 9.3 | 104.00 | 14.551 |
| 120.00 | 5.98 | 1.3 | 2.5 | 106.00 | 15.904 |
| 130.01 | 13.62 | 1.3 | 0.6 | 108.00 | 16.952 |
| 138.02 | 19.37 | 1.2 | 0.3 | 112.00 | 18.647 |
| 140.02 | 20.73 | 1.2 | 0.3 | 115.00 | 18.923 |
| 146.02 | 24.55 | 1.2 | 0.2 | 120.00 | 16.027 |
| 150.03 | 26.95 | 1.1 | 0.1 | 125.00 | 11.256 |
| 160.03 | 32.54 | 1.2 | 0.1 | 130.00 | 8.381 |
| 170.04 | 37.64 | 1.2 | 0.1 | 138.00 | 6.335 |
| 180.04 | 42.35 | 1.2 | 0.1 | 140.00 | 5.440 |
| 185.04 | 44.43 | 1.3 | 0.0 | 146.00 | 5.302 |
| 189.05 | 46.24 | 1.4 | 0.0 | 150.00 | 4.068 |
| 250.07 | 67.20 | 3.6 | 0.1 | 155.00 | 3.545 |
| 271.58 | 76.41 | 8.4 | 0.1 | 160.00 | 3.249 |
| 300.08 | 75.73 | 6.4 | 0.1 | 165.00 | 3.192 |
| 330.08 | 75.45 | 3.9 | 0.1 | 170.00 | 1.495 |
| 343.07 | 73.72 | 2.6 | 0.1 | 180.00 | 9.308 |
| 360.08 | 75.87 | 4.3 | 0.1 | 185.00 | 2.440 |
| 371.58 | 77.51 | 9.8 | 0.1 | 189.00 | 1.634 |
| 390.08 | 79.32 | 7.8 | 0.1 | 250.00 | 1.412 |
| 400.08 | 75.26 | 2.4 | 0.1 | 260.00 | 1.228 |



Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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