

# Low Pass Filter

# SXLP-135+

50Ω DC to 135 MHz

## Maximum Ratings

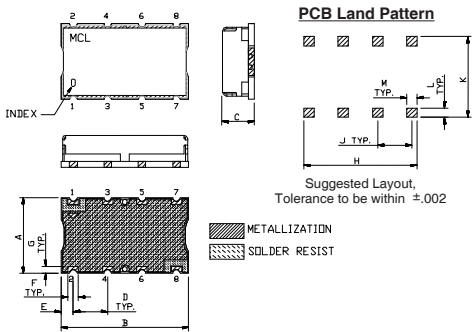
|                       |                |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C  |
| Storage Temperature   | -55°C to 100°C |
| RF Power Input        | 0.5W Max.      |

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

## Pin Connections

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

## Outline Drawing

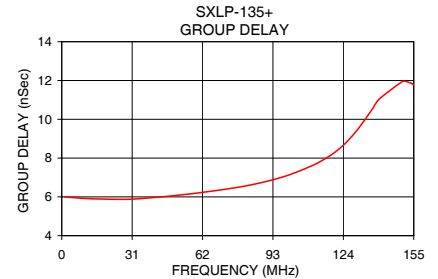
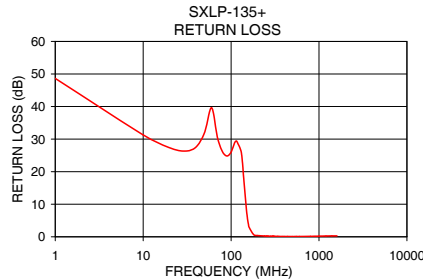
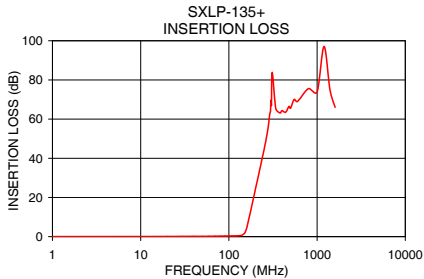
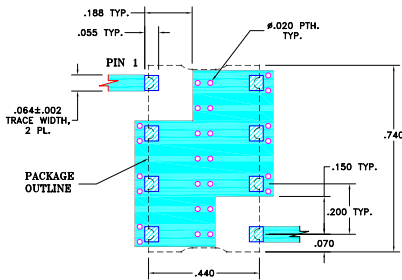


## Outline Dimensions (inch/mm)

| A     | B     | C    | D     | E    | F    |       |
|-------|-------|------|-------|------|------|-------|
| .44   | .74   | .27  | .200  | .07  | .060 |       |
| 11.18 | 18.80 | 6.86 | 5.08  | 1.78 | 1.52 |       |
| G     | H     | J    | K     | L    | M    | wt.   |
| .040  | .660  | .200 | .470  | .055 | .060 | grams |
| 1.02  | 16.76 | 5.08 | 11.94 | 1.40 | 1.52 | 3.0   |

Note: Please refer to case style drawing for details

**Demo Board MCL P/N: TB-368**  
**Suggested PCB Layout (PL-230)**

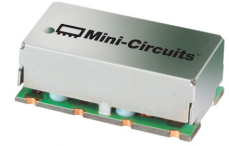


## Features

- high rejection
- sharp cut-off
- shielded package
- aqueous washable
- low cost

## Applications

- defense communications
- receivers / transmitters
- harmonic rejection



Generic photo used for illustration purposes only  
CASE STYLE: HF1139

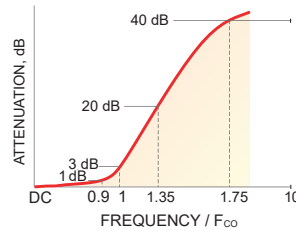
## +RoHS Compliant

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

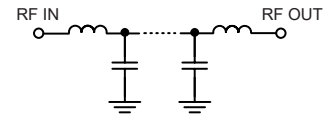
## Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

| PASSBAND (MHz) | f <sub>co</sub> , MHz Nom. | STOPBAND (MHz) |               | VSWR (:1)     |               |
|----------------|----------------------------|----------------|---------------|---------------|---------------|
|                |                            | (Loss > 20dB)  | (Loss > 40dB) | Passband Typ. | Stopband Typ. |
| DC - 135       | 155                        | 210 - 300      | 300 - 1600    | 1.3           | 18            |

## Typical Frequency Response



## Functional Schematic



## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) |          | Return Loss (dB) | Frequency (MHz) | Group Delay (nSec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
|                 | $\bar{x}$           | $\sigma$ |                  |                 |                    |
| 1.0             | 0.02                | 0.00     | 48.64            | 1.0             | 6.00               |
| 10.0            | 0.07                | 0.00     | 31.28            | 10.0            | 5.92               |
| 30.0            | 0.14                | 0.01     | 26.33            | 20.0            | 5.88               |
| 90.0            | 0.29                | 0.01     | 24.81            | 30.0            | 5.88               |
| 135.0           | 0.53                | 0.01     | 22.58            | 40.0            | 5.96               |
| 150.0           | 1.66                | 0.08     | 7.91             | 50.0            | 6.07               |
| 155.0           | 2.98                | 0.16     | 4.92             | 60.0            | 6.20               |
| 160.0           | 4.95                | 0.25     | 2.97             | 70.0            | 6.36               |
| 180.0           | 15.25               | 0.53     | 0.69             | 80.0            | 6.54               |
| 210.0           | 29.11               | 0.75     | 0.34             | 90.0            | 6.79               |
| 280.0           | 56.34               | 2.26     | 0.18             | 100.0           | 7.13               |
| 300.0           | 66.63               | 5.05     | 0.16             | 110.0           | 7.60               |
| 400.0           | 64.93               | 2.59     | 0.09             | 115.0           | 7.90               |
| 600.0           | 70.93               | 3.59     | 0.10             | 120.0           | 8.28               |
| 800.0           | 79.87               | 3.41     | 0.15             | 130.0           | 9.43               |
| 1000.0          | 79.15               | 5.76     | 0.19             | 135.0           | 10.24              |
| 1200.0          | 83.19               | 8.67     | 0.24             | 140.0           | 11.06              |
| 1400.0          | 75.49               | 3.01     | 0.27             | 150.0           | 11.95              |
| 1600.0          | 66.38               | 2.01     | 0.28             | 155.0           | 11.77              |

## 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.
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