

# Low Pass Filter

50Ω DC to 900 MHz

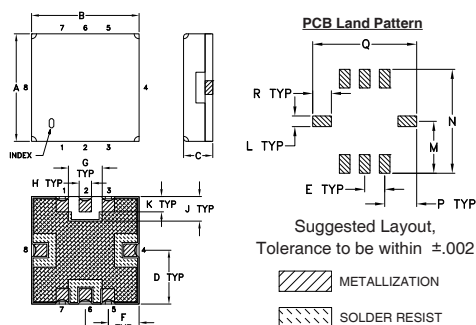
## Maximum Ratings

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

|        |                  |
|--------|------------------|
| RF IN  | 2                |
| RF OUT | 6                |
| GROUND | 1, 3, 4, 5, 7, 8 |

## Outline Drawing

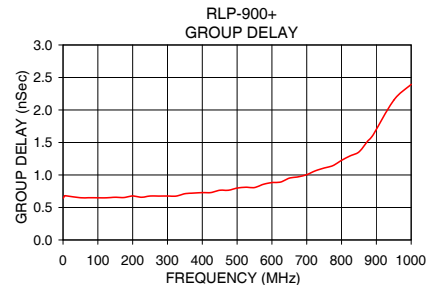
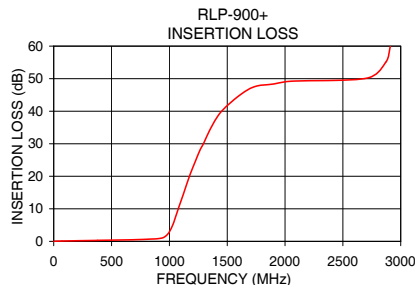
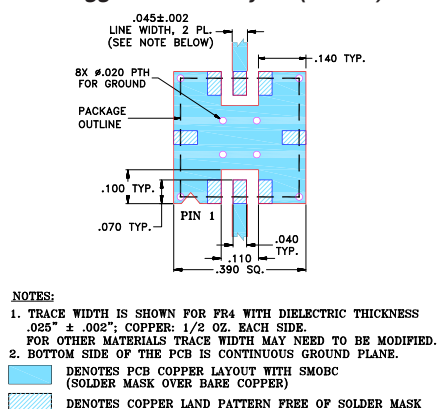


## Outline Dimensions (inch/mm)

| A    | B    | C    | D    | E    | F    | G    | H    | J     |
|------|------|------|------|------|------|------|------|-------|
| .350 | .350 | .100 | .175 | .075 | .100 | .110 | .040 | .080  |
| 8.89 | 8.89 | 2.54 | 4.45 | 1.91 | 2.54 | 2.79 | 1.02 | 2.03  |
| K    | L    | M    | N    | P    | Q    | R    |      |       |
| .050 | .040 | .195 | .390 | .120 | .390 | .070 |      | wt.   |
| 1.27 | 1.02 | 4.95 | 9.91 | 3.05 | 9.91 | 1.78 |      | grams |
|      |      |      |      |      |      |      |      | 0.25  |

Note: Please refer to case style drawing for details

## Demo Board MCL P/N: TB-332 Suggested PCB Layout (PL-176)



### Notes

- A. 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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RLP-900+



Generic photo used for illustration purposes only  
CASE STYLE: GP731

### +RoHS Compliant

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

| Reel Size | Devices/Reel         |
|-----------|----------------------|
| 7"        | 10, 20, 50, 100, 200 |
| 13"       | 500, 1000            |

## Features

- high rejection
- sharp insertion loss roll off
- excellent VSWR, 1.2:1 typ. @ passband
- aqueous washable

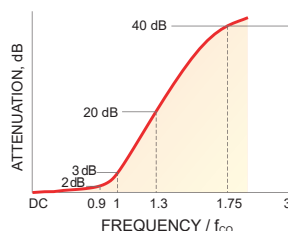
## Applications

- wireless communications
- receivers / transmitters

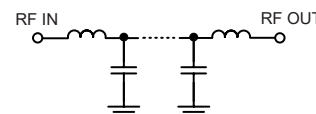
## Low Pass Filter Electrical Specifications (T<sub>AMB</sub> = 25°C)

| PASSBAND (MHz) | f <sub>co</sub> , MHz Nom. | STOPBAND (MHz)              | VSWR (:1)                   |
|----------------|----------------------------|-----------------------------|-----------------------------|
| (Loss < 2dB)   | (Loss 3dB)                 | (Loss > 20dB) (Loss > 40dB) | Passband Typ. Stopband Typ. |
| DC - 900       | 1000                       | 1300 - 1750 1750 - 2900     | 1.2 20                      |

## Typical Frequency Response



## Functional Schematic



## Typical Performance Data at 25°C

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | Frequency (MHz) | Group Delay (nSec) |
|-----------------|---------------------|------------------|-----------------|--------------------|
| $\bar{x}$       | $\sigma$            |                  |                 |                    |
| 0.5             | 0.02                | 0.00             | 1.0             | 0.64               |
| 50.0            | 0.08                | 0.00             | 50.0            | 0.65               |
| 250.0           | 0.21                | 0.01             | 100.0           | 0.65               |
| 400.0           | 0.31                | 0.01             | 150.0           | 0.66               |
| 600.0           | 0.44                | 0.01             | 200.0           | 0.68               |
| 800.0           | 0.62                | 0.02             | 300.0           | 0.68               |
| 900.0           | 0.82                | 0.02             | 350.0           | 0.71               |
| 960.0           | 1.40                | 0.08             | 400.0           | 0.73               |
| 1000.0          | 2.94                | 0.25             | 450.0           | 0.77               |
| 1040.0          | 6.07                | 0.38             | 500.0           | 0.80               |
| 1100.0          | 12.23               | 0.42             | 550.0           | 0.81               |
| 1200.0          | 22.10               | 0.36             | 650.0           | 0.95               |
| 1300.0          | 30.42               | 0.35             | 700.0           | 1.01               |
| 1400.0          | 36.91               | 0.35             | 750.0           | 1.11               |
| 1750.0          | 47.65               | 0.37             | 800.0           | 1.23               |
| 2000.0          | 48.61               | 0.31             | 850.0           | 1.35               |
| 2500.0          | 49.49               | 0.52             | 900.0           | 1.65               |
| 2900.0          | 58.98               | 3.62             | 1000.0          | 2.39               |

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