

Coaxial

# Low Pass Filter

50Ω DC to 81 MHz

**NLP-90+**  
**NLP-90**

## 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. |                |

## Features

- rugged shielded case
- other NLP models available with wide selection of cut-off frequencies

## Applications

- lab use
- test equipment
- video equipment



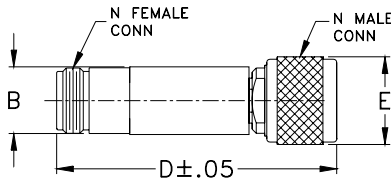
CASE STYLE: FF57

| Connectors | Model     | Price       | Qty.  |
|------------|-----------|-------------|-------|
| N-Type     | NLP-90(+) | \$35.95 ea. | (1-9) |

**+RoHS Compliant**

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

## Outline Drawing



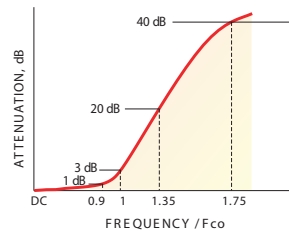
## Outline Dimensions (inch/mm)

| B     | D     | E     | wt    |
|-------|-------|-------|-------|
| .67   | 2.90  | .82   | grams |
| 17.02 | 73.66 | 20.83 | 90.0  |

## 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) | Passband Typ. | Stopband Typ. |
| DC-81          | 90             | 121-157        | 157-400        | 1.7           | 18            |

## typical frequency response

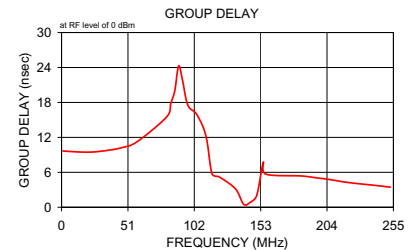
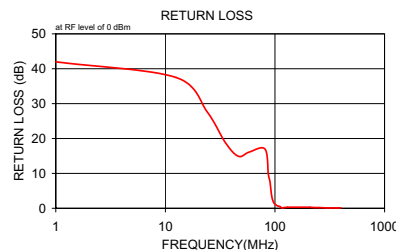


## electrical schematic



## Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|------------------|-----------------|--------------------|
|                 | $\bar{x}$           | $\sigma$         |                 |                    |
| 1.00            | 0.05                | 0.1              | 1.00            | 9.672              |
| 12.50           | 0.14                | 0.1              | 12.50           | 9.503              |
| 24.00           | 0.18                | 0.1              | 24.00           | 9.491              |
| 35.50           | 0.31                | 0.1              | 35.50           | 9.776              |
| 46.50           | 0.42                | 0.1              | 46.50           | 10.240             |
| 58.00           | 0.43                | 0.1              | 58.00           | 11.244             |
| 81.00           | 0.69                | 0.1              | 81.00           | 15.573             |
| 87.00           | 1.28                | 0.4              | 84.00           | 17.894             |
| 90.00           | 2.01                | 0.5              | 87.00           | 19.997             |
| 93.00           | 6.43                | 0.9              | 90.00           | 24.263             |
| 97.00           | 8.74                | 1.0              | 93.00           | 21.734             |
| 104.01          | 12.94               | 1.1              | 97.00           | 17.532             |
| 111.00          | 16.72               | 1.2              | 104.00          | 15.893             |
| 115.52          | 21.91               | 1.2              | 111.00          | 12.218             |
| 121.03          | 26.16               | 1.2              | 115.50          | 5.804              |
| 130.03          | 32.40               | 1.3              | 121.00          | 5.229              |
| 140.04          | 38.50               | 1.4              | 130.00          | 3.892              |
| 145.04          | 41.31               | 1.4              | 135.00          | 2.740              |
| 150.04          | 43.98               | 1.5              | 140.00          | 0.487              |
| 155.05          | 46.76               | 1.7              | 145.00          | 0.841              |
| 157.05          | 47.69               | 1.8              | 150.00          | 2.060              |
| 184.06          | 60.11               | 2.9              | 155.00          | 7.687              |
| 206.57          | 66.87               | 1.4              | 157.00          | 5.680              |
| 229.58          | 75.03               | 5.6              | 184.00          | 5.380              |
| 252.57          | 74.83               | 7.6              | 195.50          | 5.060              |
| 298.08          | 76.96               | 7.1              | 206.50          | 4.740              |
| 321.08          | 75.07               | 4.9              | 218.00          | 4.320              |
| 355.57          | 73.10               | 4.4              | 229.50          | 4.010              |
| 378.08          | 75.50               | 4.8              | 241.00          | 3.760              |
| 400.07          | 74.56               | 6.3              | 252.50          | 3.450              |



## 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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 NLP-90  
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