

Coaxial Low Pass Filter

NON-CATALOG

NBLP-117+
NBLP-117

50Ω Flat Time Delay DC to 65 MHz

Maximum Ratings

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

Features

- flat group delay for low pulse distortion
- rugged shielded case
- other NBLP models available with wide selection of cut-off frequencies

Applications

- linear modulation techniques
- voice transmission applications
- digital communications



CASE STYLE: FF57

| | | | |
|------------|-------------|---------------------|------|
| Connectors | Model | Price | Qty. |
| N-Type | NBLP-117(+) | Contact Sales Dept. | |

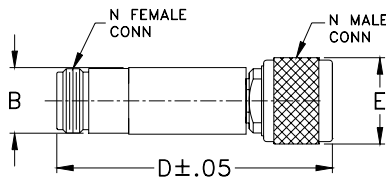
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

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

Low Pass Filter Electrical Specifications

| PASSBAND (MHz) (loss < 1.2 dB) Min. | fco, MHz Nom. (loss 3 dB) | STOPBAND (MHz) | | VSWR (:1) | | GROUP DELAY VARIATION (nsec) | | |
|---|---------------------------------|----------------|----------------|------------------------|------------------------|------------------------------|----------------------|-------------------------|
| | | (loss > 10 dB) | (loss > 20 dB) | DC-0.2fco \bar{X} | DC-0.6fco \bar{X} | DC-fco \bar{X} | DC-2fco \bar{X} | DC-2.67fco \bar{X} |
| DC-65 | 117 | 234-312 | 312 | 1.3:1 | 2.4:1 | 0.35 | 1.4 | 1.9 |

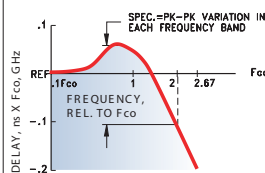
Outline Drawing



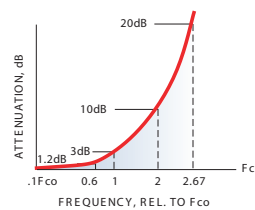
Outline Dimensions (inch/mm)

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

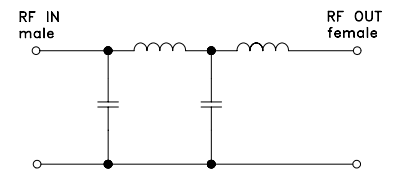
TYPICAL GROUP DELAY



TYPICAL FREQUENCY RESPONSE INSERTION LOSS

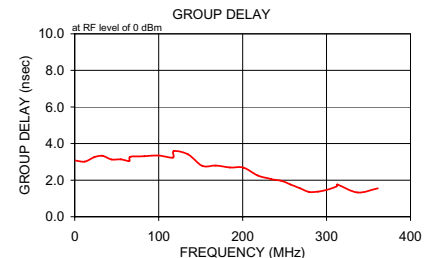
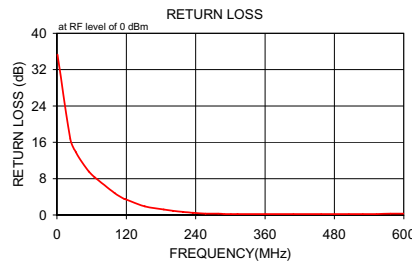
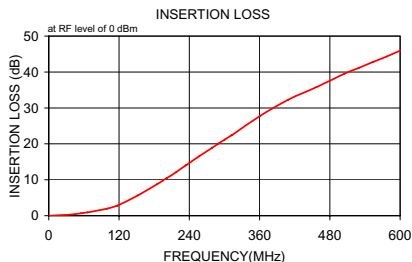


Electrical Schematic



Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | | Return Loss (dB) | Frequency (MHz) | Group Delay (nsec) |
|-----------------|---------------------|----------|------------------|-----------------|--------------------|
| | \bar{X} | σ | | | |
| 1.0 | 0.02 | 0.1 | 35.3 | 1.0 | 3.075 |
| 23.0 | 0.15 | 0.1 | 16.8 | 12.0 | 3.015 |
| 33.0 | 0.26 | 0.1 | 13.8 | 23.0 | 3.252 |
| 44.0 | 0.42 | 0.1 | 11.5 | 33.0 | 3.331 |
| 55.0 | 0.65 | 0.1 | 9.6 | 44.0 | 3.126 |
| 65.0 | 0.90 | 0.1 | 8.3 | 55.0 | 3.140 |
| 66.0 | 0.92 | 0.1 | 8.2 | 65.0 | 3.044 |
| 100.0 | 1.96 | 0.1 | 4.8 | 66.0 | 3.271 |
| 117.0 | 2.80 | 0.1 | 3.5 | 83.0 | 3.303 |
| 118.0 | 2.86 | 0.1 | 3.5 | 100.0 | 3.348 |
| 152.0 | 5.63 | 0.1 | 1.9 | 117.0 | 3.233 |
| 185.0 | 8.79 | 0.2 | 1.2 | 118.0 | 3.593 |
| 201.0 | 10.40 | 0.2 | 0.9 | 135.0 | 3.409 |
| 218.0 | 12.20 | 0.2 | 0.7 | 152.0 | 2.782 |
| 234.0 | 13.99 | 0.2 | 0.5 | 168.0 | 2.798 |
| 235.0 | 14.10 | 0.2 | 0.5 | 185.0 | 2.689 |
| 257.0 | 16.54 | 0.3 | 0.3 | 201.0 | 2.681 |
| 279.0 | 18.92 | 0.4 | 0.3 | 218.0 | 2.252 |
| 290.0 | 20.08 | 0.5 | 0.2 | 234.0 | 2.060 |
| 301.0 | 21.23 | 0.5 | 0.2 | 235.0 | 2.038 |
| 312.0 | 22.36 | 0.6 | 0.2 | 246.0 | 1.965 |
| 313.0 | 22.46 | 0.6 | 0.2 | 257.0 | 1.759 |
| 361.0 | 27.82 | 0.7 | 0.2 | 268.0 | 1.562 |
| 409.0 | 32.27 | 0.9 | 0.2 | 279.0 | 1.358 |
| 457.0 | 35.79 | 1.0 | 0.2 | 290.0 | 1.372 |
| 505.0 | 39.52 | 1.3 | 0.2 | 301.0 | 1.483 |
| 529.0 | 41.10 | 1.4 | 0.2 | 312.0 | 1.659 |
| 553.0 | 42.74 | 1.6 | 0.2 | 313.0 | 1.765 |
| 577.0 | 44.30 | 1.5 | 0.3 | 337.0 | 1.324 |
| 600.0 | 45.95 | 2.0 | 0.3 | 361.0 | 1.555 |



Mini-Circuits
ISO 9001 ISO 14001 AS 9100 CERTIFIED

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