Coaxial

Low Pass Filter

BLP-70-75+

75Ω DC to 60 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.

Features

- rugged shielded case
- other standard and custom BLP models available with wide selection of fco

Application

- test equipment
- lab use
- video equipment

Generic photo used for illustration purposes only

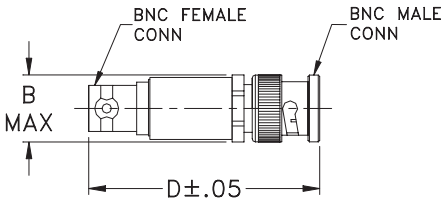
CASE STYLE: FF968

Connectors	Model
BNC	BLP-70-75+

+RoHS Compliant

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

Outline Drawing



Outline Dimensions (inch / mm)

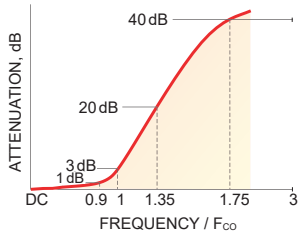
B	D	wt.
.62	**2.27**	grams
15.75	57.65	30.8

Note: Please refer to case style drawing for details

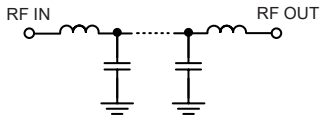
Low Pass Filter Electrical Specifications

PASSBAND (MHz) (Loss < 1dB)	fco, MHz Nom. (Loss 3dB)	STOPBAND (MHz) (Loss > 20dB)	STOPBAND (MHz) (Loss > 40dB)	VSWR (:1) Passband Typ.	VSWR (:1) Stopband Typ.
DC - 60	67	90 - 117	117 - 300	1.7	18

typical frequency response

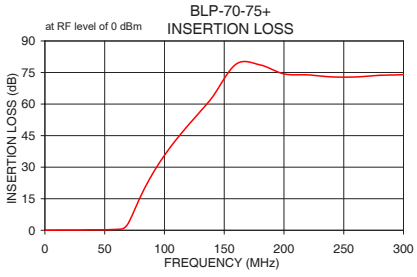


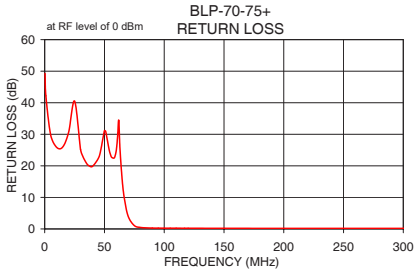
functional schematic

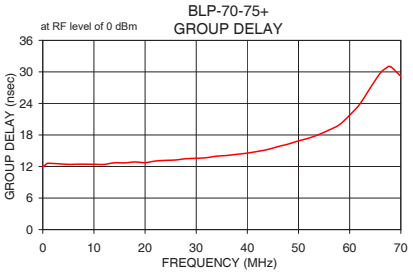


Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
0.3	0.02	0.00	49.3	0.03	12.00
20.0	0.08	0.00	30.6	0.10	12.05
30.0	0.13	0.01	25.2	0.50	12.29
40.0	0.20	0.04	19.8	1.00	12.62
50.0	0.24	0.01	31.1	5.00	12.41
60.0	0.43	0.02	25.2	10.00	12.42
65.0	0.76	0.14	14.8	14.00	12.71
67.0	1.40	0.30	8.9	18.00	12.87
70.0	3.55	0.58	3.9	20.00	12.73
73.0	7.01	0.71	1.7	24.00	13.17
78.0	13.52	0.66	0.6	28.00	13.49
90.0	26.80	0.59	0.3	30.00	13.56
100.0	35.62	0.64	0.3	34.00	13.97
117.0	48.03	0.79	0.2	40.00	14.54
130.0	56.51	1.05	0.2	44.00	15.25
150.0	71.39	3.91	0.2	50.00	16.88
200.0	74.34	3.05	0.2	54.00	18.10
230.0	73.44	1.87	0.2	60.00	21.76
250.0	72.96	1.54	0.2	64.00	26.90
280.0	73.66	1.86	0.2	67.00	30.61
300.0	73.99	1.39	0.2	70.00	29.17







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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

Coaxial Low Pass Filter BLP-70-75+

Typical Performance Data

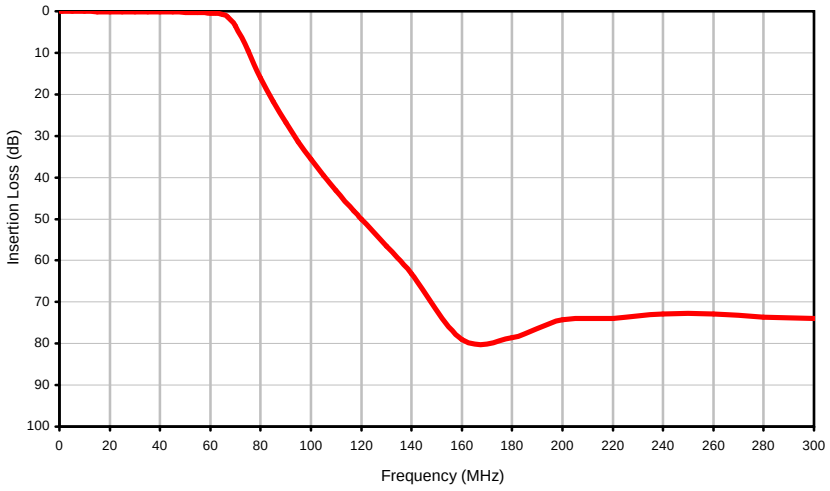
FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
0.3	0.02	49.30
20.0	0.08	30.62
30.0	0.13	25.23
40.0	0.20	19.83
50.0	0.24	31.13
60.0	0.43	25.21
65.0	0.76	14.82
67.0	1.40	8.88
70.0	3.55	3.86
73.0	7.01	1.70
78.0	13.52	0.63
90.0	26.80	0.29
100.0	35.62	0.25
117.0	48.03	0.23
130.0	56.51	0.22
150.0	71.39	0.20
200.0	74.34	0.19
230.0	73.44	0.19
250.0	72.96	0.19
280.0	73.66	0.19
300.0	73.99	0.19

FREQUENCY (MHz)	GROUP DELAY (nsec)
0.0	12.00
0.1	12.05
0.5	12.29
1.0	12.62
5.0	12.41
10.0	12.42
14.0	12.71
18.0	12.87
20.0	12.73
24.0	13.17
28.0	13.49
30.0	13.56
34.0	13.97
40.0	14.54
44.0	15.25
50.0	16.88
54.0	18.10
60.0	21.76
64.0	26.90
67.0	30.61
70.0	29.17

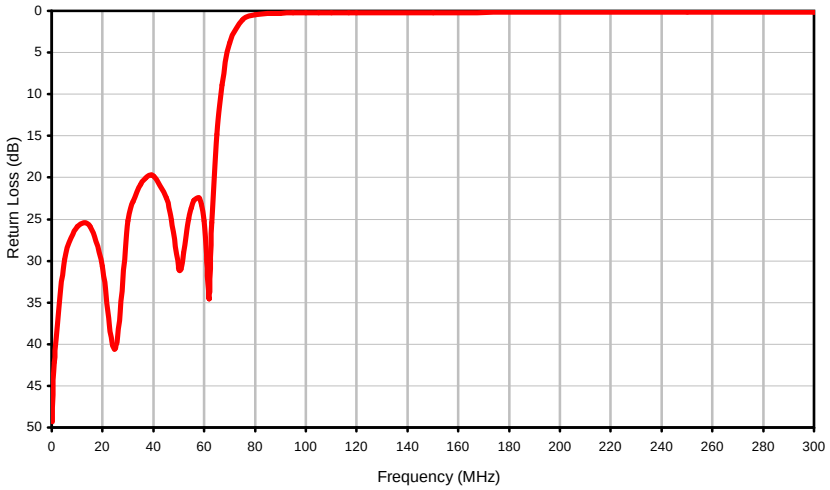
Coaxial Low Pass Filter BLP-70-75+

Typical Performance Curves

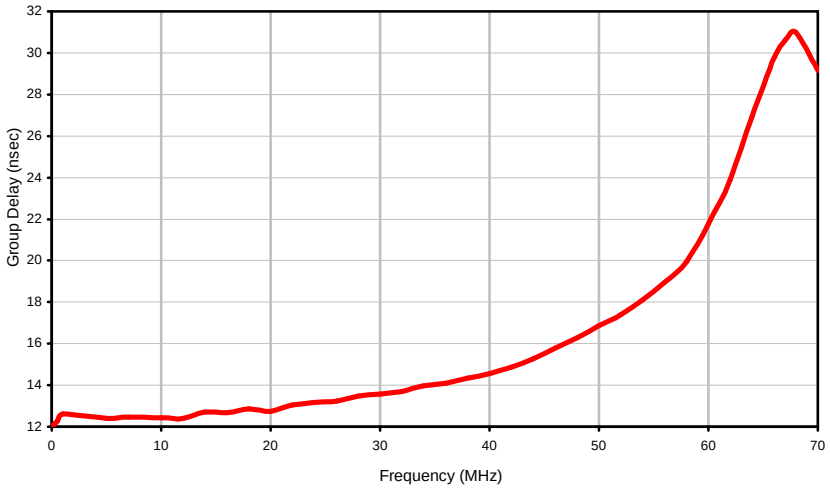
Insertion Loss



Return Loss

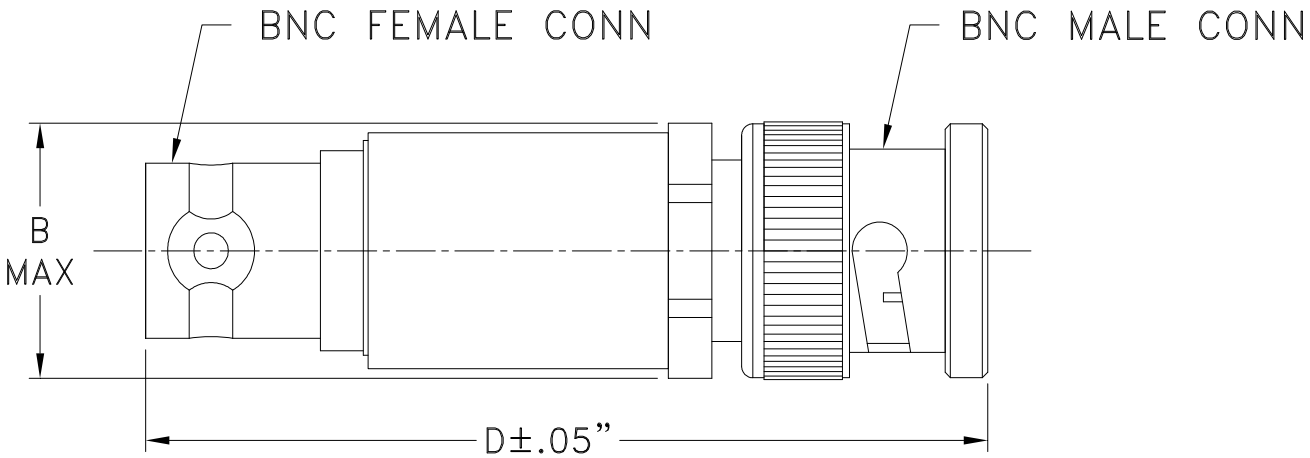


Group Delay



Case Style FF

Outline Dimensions FF968



CASE #.	A	B	C	D	E	WT GRAMS
FF968	-- --	.62 (15.75)	-- --	2.27 (57.65)	-- --	30.8

Dimensions are in inches (mm). Tolerances: 2Pl. ± .04; 3Pl. ± .030

Notes:

1. Case material: Brass.
2. Case finish: Nickel plate.

Mini-Circuits

Environmental Specifications ENV01

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Moisture Resistance	10 cycles, 24 hours per cycle	MIL-STD-202, Method 106, Condition A, except 50°C and end point electrical test done within 12 hours
Solderability	10X Magnification	J-STD-002, 95% Coverage
Resistance to Solder Heat	260°C for 10 seconds	MIL-STD-202, Method 210, Condition B
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215
Terminal Strength	4 1/2 Pound Pull	MIL-STD-202, Method 211, Condition A

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Gross Leak	125°C Bubble Test	MIL-STD-202, Method 112, Condition D
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D