

Low Pass Filter

75Ω DC to 22 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

Applications

- test equipment
- lab use
- video equipment

BLP-21.4-75+



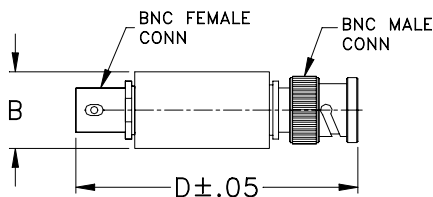
Generic photo used for illustration purposes only

CASE STYLE: FF55	
Connectors	Model
BNC	BLP-21.4-75+

+RoHS Compliant

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

Outline Drawing



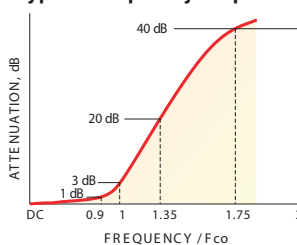
Outline Dimensions (inch/mm)

B	D	wt _{vt}
.54	2.59	grams
13.72	65.79	40.0

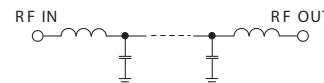
Low Pass Filter Electrical Specifications

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-22	24.5	32-41	41-200	1.7	18

typical frequency response

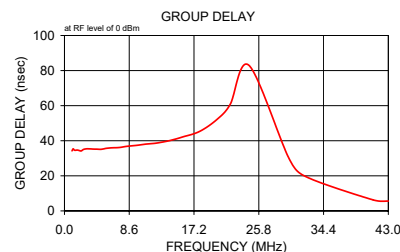
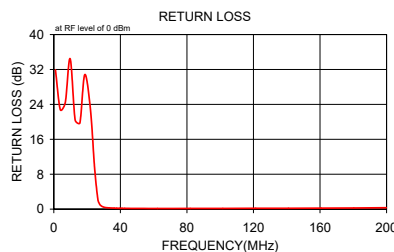


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
$\bar{x}$	σ			
1.00	0.03	0.02	1.00	34.25
3.90	0.08	0.02	1.15	35.37
6.90	0.10	0.02	1.31	34.65
9.80	0.12	0.02	1.49	34.57
12.80	0.21	0.03	1.70	34.69
15.70	0.28	0.04	1.94	34.46
18.60	0.33	0.03	2.22	34.18
22.00	0.57	0.05	2.53	35.06
24.50	1.68	0.34	2.89	35.37
26.50	6.69	0.88	3.30	35.39
27.60	10.63	0.91	3.76	35.25
28.70	14.56	0.86	4.29	35.22
29.80	18.27	0.80	4.90	35.14
30.90	21.71	0.76	5.59	35.69
32.00	24.92	0.72	6.38	35.99
33.10	27.92	0.68	7.28	36.15
34.70	31.99	0.65	8.31	36.84
36.30	35.75	0.64	9.48	37.34
37.80	39.04	0.63	10.82	38.10
39.40	42.36	0.66	12.22	38.68
41.00	45.59	0.70	13.94	40.03
42.60	48.48	0.68	15.74	42.23
62.30	86.22	7.37	17.96	45.34
82.00	84.27	2.85	20.27	52.21
101.60	80.44	2.15	22.00	60.69
121.30	85.58	2.35	24.50	82.98
141.00	83.93	5.17	29.79	30.12
160.70	87.05	7.84	32.00	19.62
180.30	84.80	4.04	41.00	6.24
200.00	86.54	5.90	43.00	5.59



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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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-21.4-75+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
1.0	0.03	31.92	1.0	34.250
3.9	0.08	22.80	1.2	35.370
6.9	0.10	24.45	1.3	34.650
9.8	0.12	34.47	1.5	34.570
12.8	0.21	20.46	1.7	34.690
15.7	0.28	19.77	1.9	34.460
18.6	0.33	30.82	2.2	34.180
22.0	0.57	22.89	2.5	35.060
24.5	1.68	9.60	2.9	35.370
26.5	6.69	2.21	3.3	35.390
27.6	10.63	1.11	3.8	35.250
28.7	14.56	0.68	4.3	35.220
29.8	18.27	0.48	4.9	35.140
30.9	21.71	0.38	5.6	35.690
32.0	24.92	0.33	6.4	35.990
33.1	27.92	0.29	7.3	36.150
34.7	31.99	0.26	8.3	36.840
36.3	35.75	0.23	9.5	37.340
37.8	39.04	0.21	10.8	38.100
39.4	42.36	0.20	12.2	38.680
41.0	45.59	0.19	13.9	40.030
42.6	48.48	0.18	15.7	42.230
62.3	86.22	0.15	18.0	45.340
82.0	84.27	0.16	20.3	52.210
101.6	80.44	0.17	22.0	60.690
121.3	85.58	0.19	24.5	82.980
141.0	83.93	0.20	29.8	30.120
160.7	87.05	0.23	32.0	19.620
180.3	84.80	0.26	41.0	6.240
200.0	86.54	0.32	43.0	5.590

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060724
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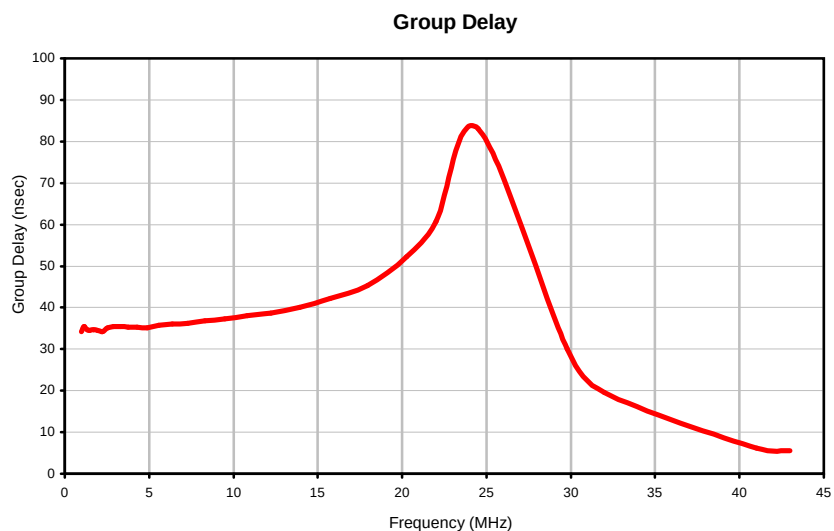
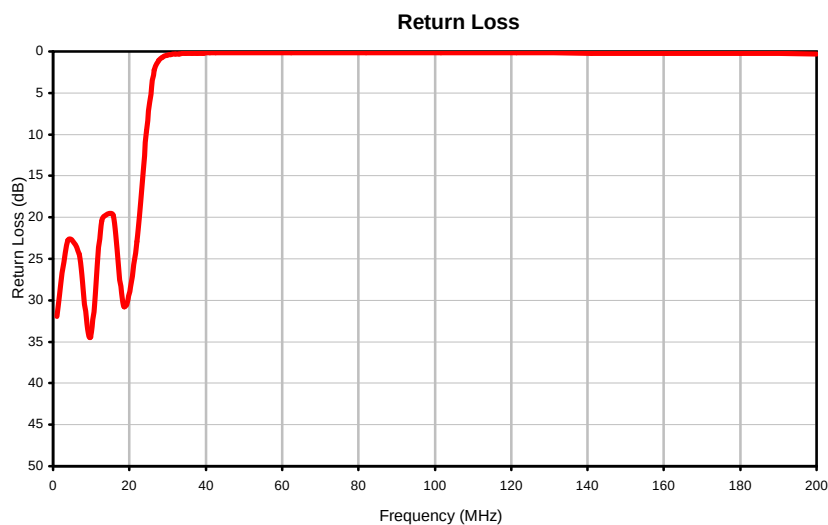
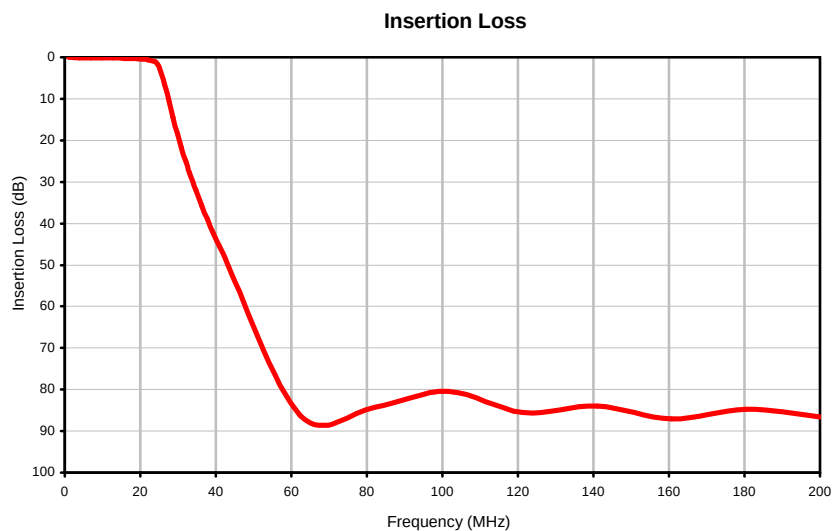
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Coaxial Low Pass Filter

Typical Performance Curves

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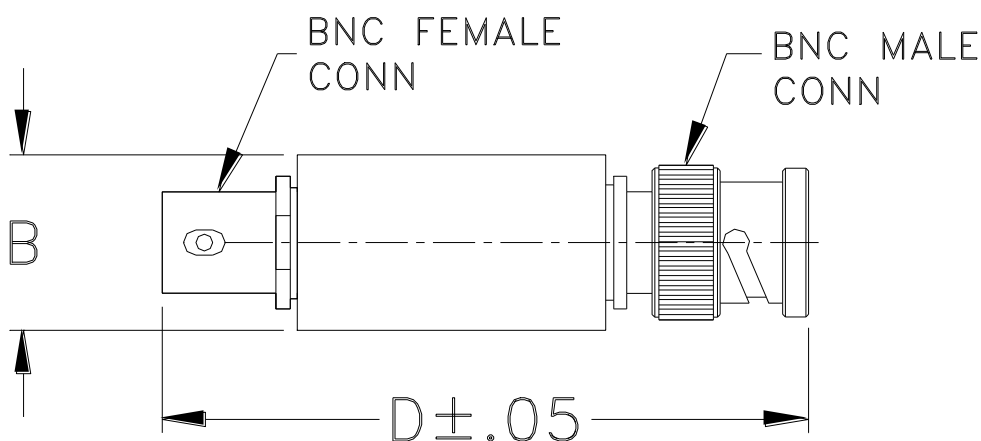


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Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF55	--	.57 (14.47)	--	2.59 (65.79)	--	40.0

Dimensions are in inches (mm). Tolerances: 2Pl. +.03/-.04; 3Pl. ± .015

Note:

1. Case material: Stainless steel.



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
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
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	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I