Coaxial

Low Pass Filter

SLP-100+

50Ω DC to 98 MHz

Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors	Model
SMA	SLP-100+

+RoHS Compliant

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

Maximum Ratings

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

Permanent damage may occur if any of these limits are exceeded.

Features

- Good Attenuation Rate, 1.35 Typ. 20 dB / 3 dB BW Ratio
- Rugged Shielded Case
- Other SLP Models Available with Wide Selection of Cut-Off Frequencies

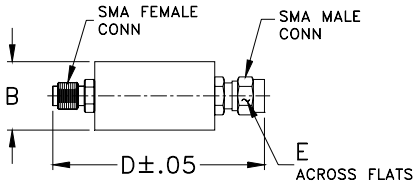
Applications

- Lab Use
- Test Equipment
- Video Equipment

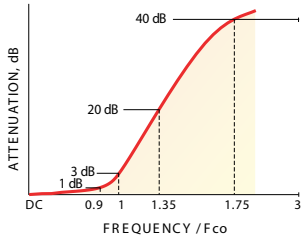
Low Pass Filter Electrical Specifications

PASSBAND (MHz) (loss < 1 dB)	fco (MHz) Nom. (loss 3 dB)	STOPBAND (MHz) (loss > 20 dB)	STOPBAND (MHz) (loss > 40 dB)	VSWR (:1) Passband Typ.	VSWR (:1) Stopband Typ.
DC-98	108	146-189	189-400	1.7	18

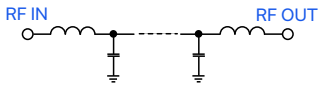
Outline Drawing



typical frequency response



electrical schematic

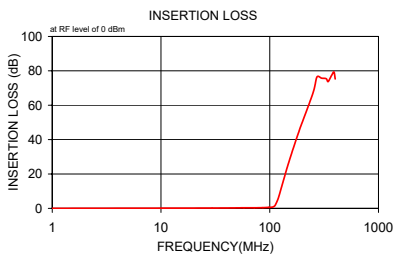


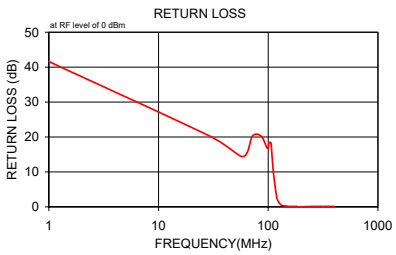
Outline Dimensions (inch / mm)

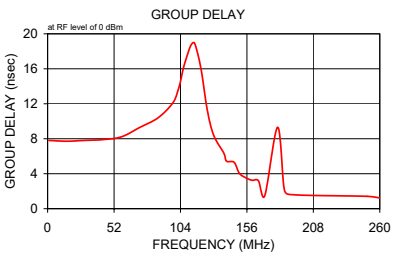
B	D	E	WT GRAMS
.70	1.98	.312	42.0
(17.78)	(50.29)	(7.92)	

Typical Performance Data

Frequency (MHz)	Insertion Loss (dB) x̄	Insertion Loss (dB) σ	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
1.00	0.02	0.1	41.6	1.00	7.802
29.50	0.16	0.1	20.2	15.00	7.718
58.00	0.34	0.1	14.4	29.50	7.812
72.00	0.31	0.1	20.3	43.50	7.901
86.50	0.41	0.1	20.2	58.00	8.226
98.00	0.58	0.1	16.8	72.00	9.283
102.00	0.62	0.1	18.4	86.50	10.402
106.00	0.75	0.1	18.3	98.00	12.091
108.00	0.93	0.2	15.0	102.00	13.505
112.00	1.72	0.5	9.3	104.00	14.551
120.00	5.98	1.3	2.5	106.00	15.904
130.01	13.62	1.3	0.6	108.00	16.952
138.02	19.37	1.2	0.3	112.00	18.647
140.02	20.73	1.2	0.3	115.00	18.923
146.02	24.55	1.2	0.2	120.00	16.027
150.03	26.95	1.1	0.1	125.00	11.256
160.03	32.54	1.2	0.1	130.00	8.381
170.04	37.64	1.2	0.1	138.00	6.335
180.04	42.35	1.2	0.1	140.00	5.440
185.04	44.43	1.3	0.0	146.00	5.302
189.05	46.24	1.4	0.0	150.00	4.068
250.07	67.20	3.6	0.1	155.00	3.545
271.58	76.41	8.4	0.1	160.00	3.249
300.08	75.73	6.4	0.1	165.00	3.192
330.08	75.45	3.9	0.1	170.00	1.495
343.07	73.72	2.6	0.1	180.00	9.308
360.08	75.87	4.3	0.1	185.00	2.440
371.58	77.51	9.8	0.1	189.00	1.634
390.08	79.32	7.8	0.1	250.00	1.412
400.08	75.26	2.4	0.1	260.00	1.228







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 SLP-100+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)
10.00	0.15	26.96
20.00	0.20	21.94
25.00	0.24	21.82
30.00	0.24	22.21
35.00	0.29	23.91
40.00	0.28	27.14
50.00	0.27	39.46
55.00	0.30	39.81
60.00	0.32	34.60
65.00	0.28	32.24
70.00	0.33	30.16
80.00	0.44	22.13
85.00	0.48	19.80
90.00	0.53	18.91
95.00	0.59	19.55
100.00	0.76	16.25
105.00	1.43	9.08
110.00	3.33	4.31
120.00	10.34	1.06
125.00	14.11	0.68
130.00	17.69	0.50
140.00	24.23	0.37
145.00	27.16	0.33
150.00	29.99	0.30
160.00	35.25	0.31
170.00	39.97	0.29
200.00	52.67	0.22
250.00	77.12	0.19
500.00	72.72	0.16
1000.00	74.22	0.15
1500.00	68.27	0.23
2500.00	56.98	0.29
3000.00	56.83	0.32
3500.00	41.98	0.48
4000.00	38.36	0.31
4500.00	20.27	0.78
5000.00	34.19	5.62
5500.00	35.42	0.55
6500.00	39.24	0.41
7500.00	34.14	13.21
8000.00	22.11	4.70
8500.00	23.73	0.79
9000.00	45.67	0.46
9500.00	37.31	0.86
10000.00	26.58	1.58

FREQUENCY (MHz)	GROUP DELAY (nsec)
10.00	7.940
20.00	8.000
25.00	8.050
30.00	8.180
35.00	8.300
40.00	8.480
50.00	8.780
55.00	9.030
60.00	9.210
65.00	9.500
70.00	9.880
80.00	10.770
85.00	11.440
90.00	12.320
95.00	13.820
100.00	16.170
105.00	18.400
110.00	18.110
120.00	11.270
125.00	8.590
130.00	6.760
140.00	4.690
145.00	4.070
150.00	3.510
160.00	2.840
170.00	2.330
200.00	1.360
250.00	2.740
500.00	0.390
1000.00	0.310
1500.00	0.250
2500.00	0.230
3000.00	0.570
3500.00	0.710
4000.00	0.330
4500.00	1.320
5000.00	3.060
5500.00	1.290
6500.00	0.620
7500.00	1.420
8000.00	1.350
8500.00	0.530
9000.00	1.090
9500.00	0.550
10000.00	0.550

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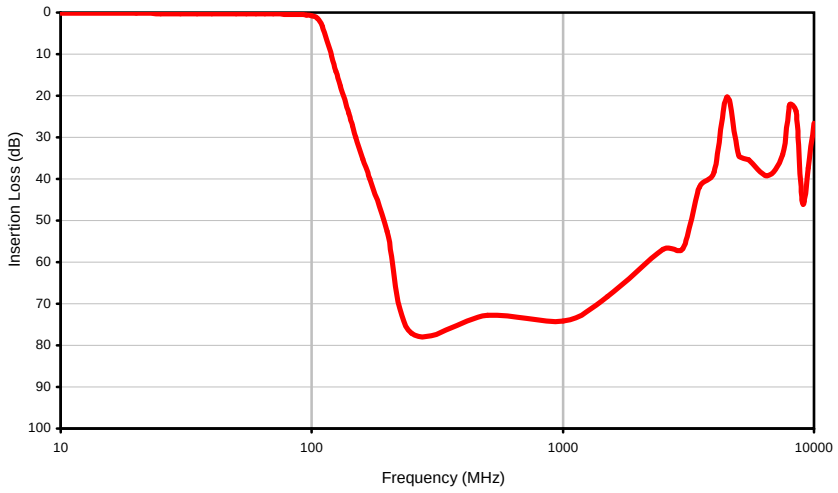
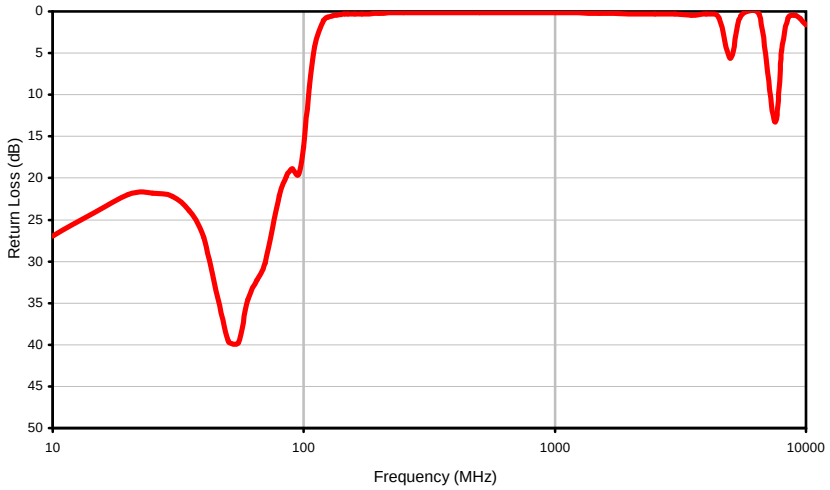
Typical Performance Curves

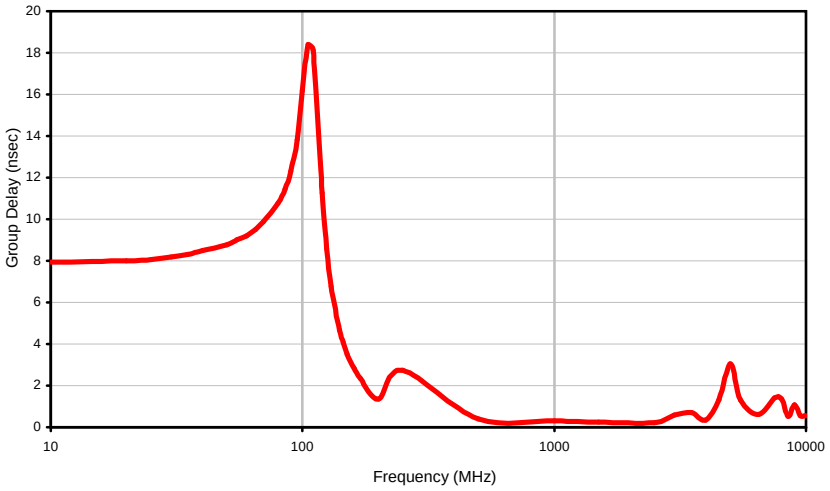
Insertion Loss



Return Loss

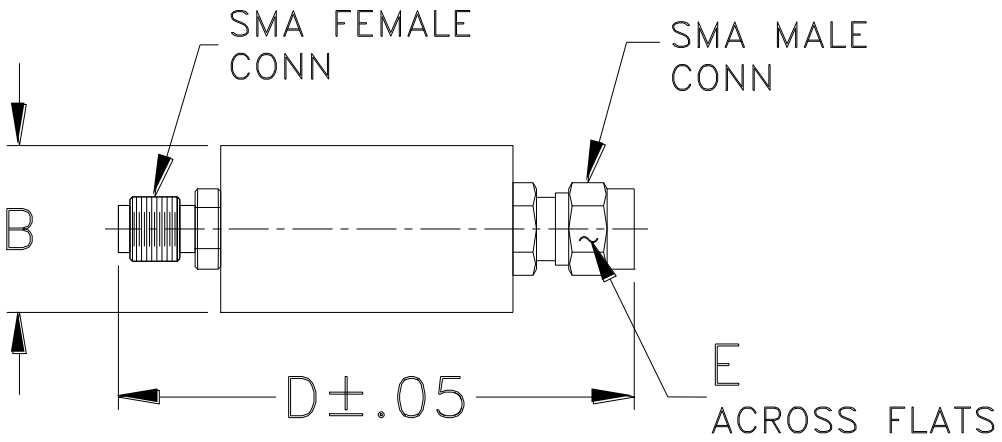


Group Delay



FF56
FF99

Outline Dimensions



CASE #.	A	B	C	D	E	WT GRAMS
FF56	--	.46 (11.68)	--	1.70 (43.18)	.312 (7.92)	18.0
FF99	--	.70 (17.78)	--	1.98 (50.29)		42.0

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

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

Mini-Circuits

Environmental Specifications ENV28

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