

Coaxial Low Pass Filter

50Ω DC to 2700 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

- good attenuation rate, 1.35 typ. 20dB/ 3dB BW ratio
- rugged shielded case
- other SLP models available with wide selection of cut-off frequencies

Applications

- lab use
- test equipment
- video equipment

SLP-2950+



Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors Model
SMA SLP-2950+

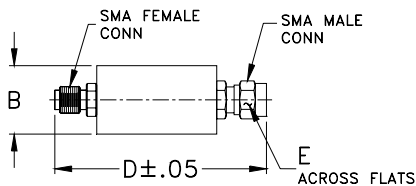
+RoHS Compliant

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

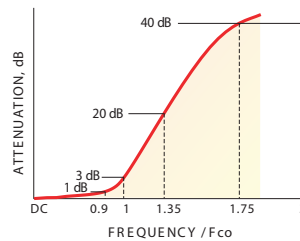
Low Pass Filter Electrical Specifications

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-2700	2950	3700-4500 4500-6000	1.3 18

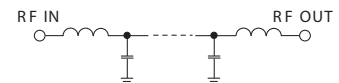
Outline Drawing



typical frequency response



electrical schematic

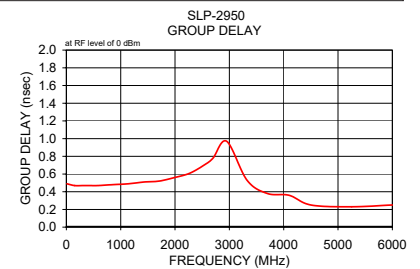
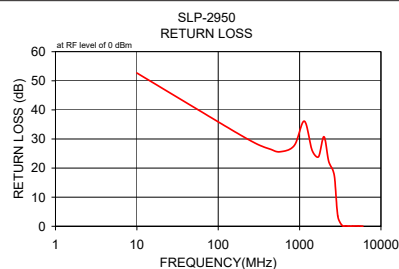
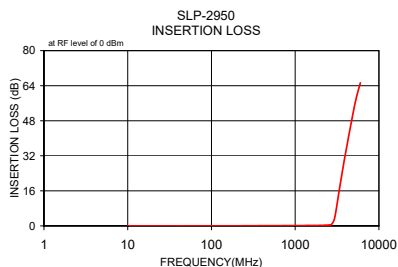


Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$ σ			
10.00	0.01 0.00	52.68	10.00	0.49
151.57	0.04 0.00	32.88	151.57	0.47
293.15	0.07 0.00	28.39	293.15	0.47
434.73	0.09 0.01	26.51	434.73	0.47
576.31	0.10 0.01	25.60	576.31	0.47
859.47	0.12 0.01	27.73	859.47	0.48
1142.63	0.14 0.01	36.13	1142.63	0.49
1425.78	0.19 0.02	26.10	1425.78	0.51
1708.94	0.21 0.02	23.87	1708.94	0.52
1992.10	0.23 0.01	30.78	1992.10	0.56
2275.26	0.30 0.02	22.41	2275.26	0.61
2558.42	0.41 0.04	19.38	2558.42	0.71
2700.00	0.58 0.12	16.56	2700.00	0.78
2950.00	3.40 0.95	3.51	2950.00	0.97
3325.00	15.26 1.29	0.29	3325.00	0.53
3700.00	26.05 1.34	0.14	3700.00	0.38
4100.00	35.49 1.43	0.03	4100.00	0.36
4500.00	43.92 1.60	0.07	4500.00	0.25
5250.00	56.88 1.91	0.10	5250.00	0.23
6000.00	65.29 2.87	0.03	6000.00	0.25

Outline Dimensions (inch mm)

B	D	E	wt
.67	1.98	.312	grams
17.02	50.29	7.92	42.0



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-Circuits' 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/MCStore/terms.jsp



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REV. B
M108294
SLP-2950+
090821

Coaxial Low Pass Filter

SLP-2950+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.12	30.57	10.0	0.740
100.0	0.08	31.91	100.0	0.510
500.0	0.16	22.17	500.0	0.500
1000.0	0.19	32.03	1000.0	0.510
1500.0	0.28	19.74	1500.0	0.530
1600.0	0.29	19.08	1600.0	0.540
1700.0	0.30	19.17	1700.0	0.550
1800.0	0.30	19.96	1800.0	0.560
1900.0	0.30	21.87	1900.0	0.570
2000.0	0.30	25.59	2000.0	0.590
2100.0	0.31	28.76	2100.0	0.610
2200.0	0.34	24.49	2200.0	0.630
2300.0	0.38	20.87	2300.0	0.650
2400.0	0.41	19.51	2400.0	0.690
2500.0	0.43	20.74	2500.0	0.730
2600.0	0.47	26.25	2600.0	0.820
2700.0	0.67	15.08	2700.0	0.950
2800.0	1.56	7.35	2800.0	1.030
2900.0	3.66	3.38	2900.0	0.970
3000.0	6.80	1.59	3000.0	0.810
3300.0	17.06	0.38	3300.0	0.460
3400.0	20.16	0.32	3400.0	0.410
3500.0	23.07	0.27	3500.0	0.380
3600.0	25.84	0.23	3600.0	0.360
3700.0	28.47	0.19	3700.0	0.330
3800.0	30.92	0.18	3800.0	0.300
3900.0	33.33	0.20	3900.0	0.290
4000.0	35.63	0.24	4000.0	0.280
5000.0	54.11	0.18	4100.0	0.270
6000.0	62.53	0.21	4200.0	0.270
6500.0	63.95	0.21	4500.0	0.240
7000.0	64.74	0.21	5000.0	0.220
7500.0	59.52	0.19	6000.0	0.490
8000.0	69.07	0.21	6500.0	0.120
8500.0	59.98	0.21	7500.0	0.290
9000.0	67.12	0.18	8500.0	0.440
9500.0	55.36	0.19	9500.0	0.150
10000.0	48.24	0.23	10000.0	0.160

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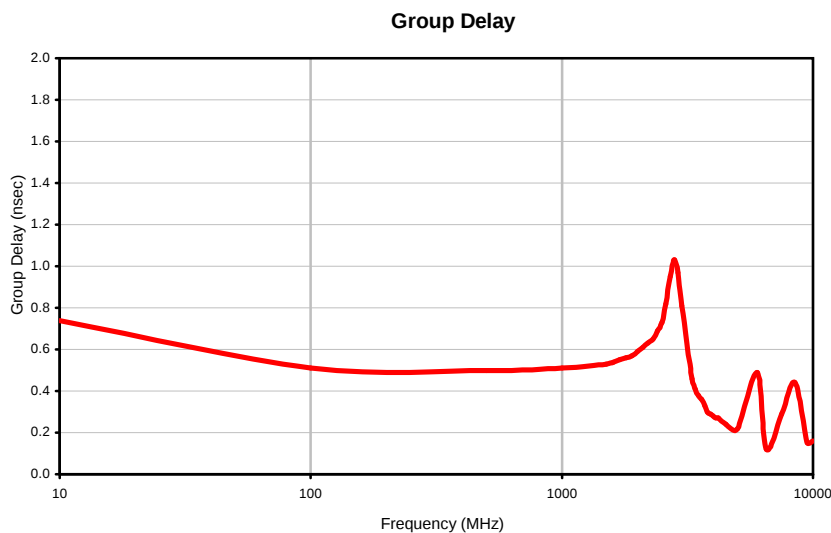


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Typical Performance Curves



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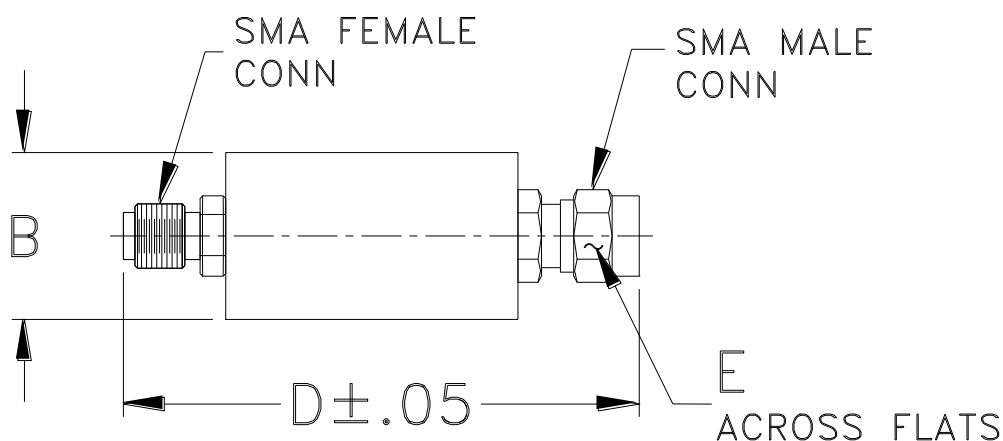
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FF56
FF99

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.



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