

Low Pass Filter

50Ω DC to 2.5 MHz

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

SLP-2.5+



Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors	Model
SMA	SLP-2.5+

+RoHS Compliant

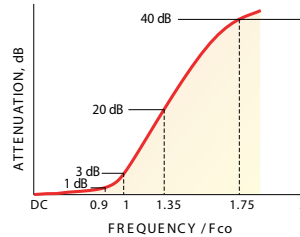
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Low Pass Filter Electrical Specifications

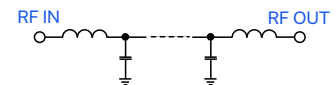
PASSBAND (MHz)	fco (MHz) Nom.	STOPBAND (MHz)		VSWR (:1)	
(loss < 1 dB)	(loss 3 dB)	(loss > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-2.5	2.75	3.8-5.0	5.0-200	1.7	18

1 dB compression at +13 dBm input power

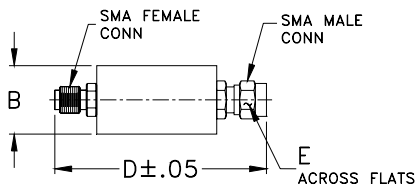
typical frequency response



electrical schematic



Outline Drawing

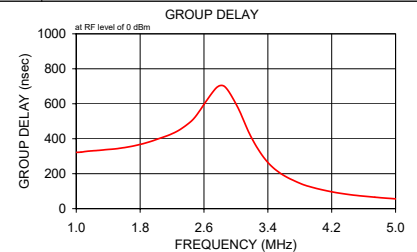
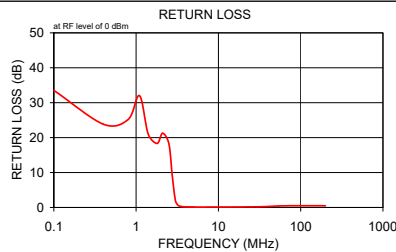


Outline Dimensions (inch/mm)

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)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
$\bar{x}$	σ			
0.10	0.06	0.00	1.00	321.99
0.40	0.08	0.01	1.06	323.09
0.80	0.10	0.01	1.12	327.26
1.10	0.12	0.00	1.18	330.19
1.40	0.17	0.01	1.25	332.28
1.80	0.24	0.01	1.32	334.96
2.10	0.28	0.04	1.40	338.56
2.50	0.45	0.07	1.48	341.36
2.75	1.34	0.45	1.56	346.34
3.00	5.99	1.21	1.65	352.96
3.20	11.74	1.32	1.74	360.97
3.30	14.61	1.31	1.84	372.10
3.50	19.96	1.23	1.94	385.34
3.60	22.44	1.20	2.05	402.77
3.80	27.02	1.14	2.17	422.48
4.00	31.16	1.09	2.29	449.68
4.20	34.94	1.06	2.42	492.19
4.40	38.42	1.03	2.50	530.37
4.60	41.65	1.00	2.75	689.14
4.80	44.65	0.98	2.86	697.89
5.00	47.46	0.98	3.02	582.03
5.20	50.11	0.99	3.19	410.17
29.60	89.73	3.84	3.37	280.46
53.90	87.32	1.38	3.56	201.19
78.30	89.67	4.26	3.80	145.71
102.60	86.70	3.08	3.98	119.20
127.00	88.19	4.27	4.20	96.41
151.30	90.79	3.34	4.44	79.41
175.70	90.31	4.10	4.74	65.38
200.00	93.47	9.35	5.01	55.83



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-Circuits' 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-2.5+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.30	0.08	26.86	0.30	292.490
0.50	0.10	24.13	0.50	292.620
1.00	0.13	29.75	1.00	303.880
1.50	0.21	26.53	1.50	323.080
2.00	0.32	28.39	2.00	362.600
2.50	0.55	30.16	2.50	457.610
3.00	4.32	3.54	3.00	637.080
3.50	16.94	0.64	3.10	567.990
3.60	19.34	0.56	3.20	475.990
3.80	23.82	0.47	3.30	390.380
3.90	25.89	0.43	3.40	320.870
4.00	27.88	0.41	3.50	267.980
4.10	29.79	0.39	3.60	227.340
4.20	31.62	0.38	3.70	195.470
4.30	33.38	0.37	3.80	173.200
4.40	35.06	0.36	3.90	153.790
4.50	36.69	0.35	4.00	136.120
4.60	38.25	0.34	4.10	123.630
4.70	39.76	0.33	4.20	109.860
4.80	41.21	0.32	4.30	102.620
10.00	78.24	0.22	4.40	92.910
100.00	95.12	0.19	4.50	87.840
500.00	64.64	0.18	4.60	79.060
1000.00	68.69	0.80	4.70	75.540
1500.00	64.00	2.21	4.80	70.080
2000.00	71.78	0.64	10.00	112.000
2500.00	65.32	2.00	500.00	1.150
3000.00	54.64	3.37	1000.00	1.340
3500.00	58.97	3.61	1500.00	0.560
4000.00	68.45	2.38	2500.00	0.750
4500.00	52.03	2.66	3000.00	0.750
5000.00	46.24	4.50	3500.00	0.240
5500.00	54.61	5.30	4500.00	0.510
6000.00	48.03	4.12	5000.00	0.760
6500.00	43.47	3.72	5500.00	0.050
7000.00	52.72	4.05	6000.00	0.600
7500.00	49.64	3.47	6500.00	1.040
8000.00	54.14	3.11	7500.00	0.260
8500.00	83.62	3.27	8000.00	0.220
9000.00	48.92	3.30	9000.00	0.190
9500.00	39.38	3.28	9500.00	0.310
10000.00	36.14	3.35	10000.00	0.130

REV. X1
SLP-2.5+
060929
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IF/RF MICROWAVE COMPONENTS • ISO 9001 ISO 14001 AS9100 CERTIFIED • RoHS compliant

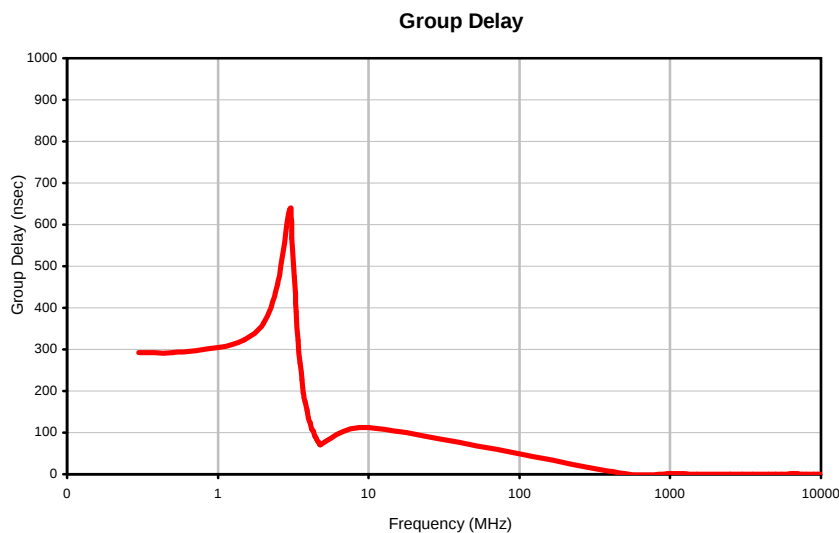
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Typical Performance Curves



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REV. X1
SLP-2.5+
060929
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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