

Low Pass Filter

50Ω DC to 270 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-300+



Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors	Model
SMA	SLP-300+

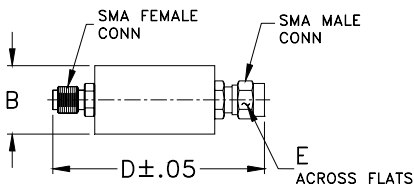
+RoHS Compliant

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-270	297	410-550	550-1200	1.7	18

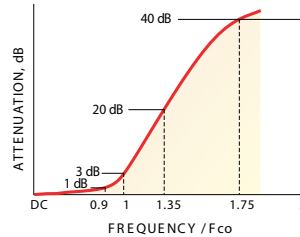
Outline Drawing



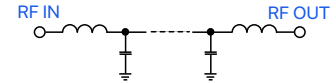
Outline Dimensions (inch/mm)

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

typical frequency response

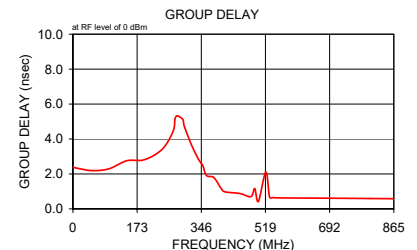
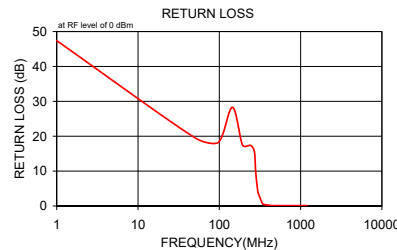
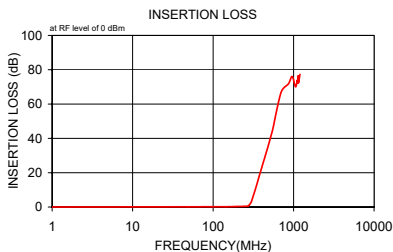


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)	Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
$\bar{x}$	σ			
1.00	0.02	0.1	1.00	2.37
49.00	0.13	0.1	49.00	2.20
97.00	0.17	0.1	97.00	2.29
145.00	0.15	0.1	145.00	2.76
193.00	0.28	0.1	193.00	2.82
241.00	0.36	0.1	241.00	3.42
270.00	0.53	0.1	270.00	4.45
280.00	1.00	0.1	275.00	5.14
297.00	2.83	0.2	280.00	5.33
300.00	3.29	0.2	290.00	5.24
340.00	11.27	0.3	297.00	5.08
360.00	15.31	0.3	300.00	4.75
380.00	19.09	0.4	320.00	3.64
400.00	22.62	0.4	340.00	2.79
410.00	24.31	0.4	350.00	2.49
450.00	30.64	0.6	360.00	1.91
490.00	36.51	0.9	380.00	1.79
520.00	40.88	1.2	400.00	1.15
530.00	42.34	1.3	410.00	0.98
540.00	43.72	1.3	450.00	0.88
550.00	45.07	1.5	480.00	0.70
700.00	66.82	5.7	490.00	1.16
864.00	71.78	6.6	500.00	0.43
960.00	76.06	6.9	520.00	2.11
1056.00	70.05	3.2	530.00	0.67
1110.00	73.87	7.7	540.00	0.65
1120.00	72.31	5.1	550.00	0.63
1140.00	76.33	5.1	700.00	0.61
1150.00	72.33	3.5	800.00	0.59
1200.00	77.29	5.8	864.00	0.58



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-300+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
10.0	0.08	40.06	10.0	2.640
50.0	0.13	26.79	25.0	2.850
100.0	0.19	35.34	50.0	2.940
150.0	0.26	22.73	75.0	2.990
200.0	0.32	23.36	100.0	3.060
250.0	0.44	21.32	125.0	3.130
280.0	0.56	25.10	150.0	3.230
290.0	0.64	23.20	175.0	3.340
300.0	1.00	12.93	200.0	3.570
310.0	1.96	7.17	225.0	3.880
320.0	3.82	3.87	250.0	4.280
325.0	5.04	2.84	275.0	5.050
330.0	6.40	2.13	280.0	5.340
335.0	7.84	1.62	285.0	5.680
350.0	12.26	0.84	290.0	6.110
370.0	17.84	0.52	300.0	6.950
375.0	19.15	0.49	305.0	7.290
379.0	20.18	0.46	310.0	7.410
400.0	25.25	0.38	320.0	6.900
420.0	29.58	0.29	325.0	6.370
440.0	33.61	0.27	330.0	5.760
460.0	37.34	0.27	350.0	3.690
475.0	40.00	0.27	370.0	2.590
500.0	44.15	0.27	379.0	2.270
1000.0	87.08	0.17	400.0	1.730
1500.0	84.58	0.24	440.0	1.200
2000.0	98.07	0.32	460.0	1.070
2500.0	77.04	0.31	500.0	0.840
3000.0	68.11	0.32	1000.0	0.110
3500.0	60.84	0.31	1500.0	0.230
4000.0	49.69	0.28	2500.0	0.240
4500.0	43.06	0.28	3000.0	0.190
5000.0	46.47	0.28	3500.0	0.200
5500.0	52.69	0.39	4500.0	0.340
6000.0	43.49	0.29	5000.0	1.510
6500.0	23.95	1.12	5500.0	1.040
7000.0	38.81	5.04	6000.0	0.320
7500.0	30.11	5.27	6500.0	0.720
8000.0	29.45	0.74	7500.0	1.620
8500.0	29.13	0.60	8000.0	0.410
9000.0	33.31	0.46	8500.0	0.180
9500.0	58.69	0.40	9000.0	0.560
10000.0	51.86	0.48	10000.0	0.870

REV. X1

SLP-300+

060921

Page 1 of 1



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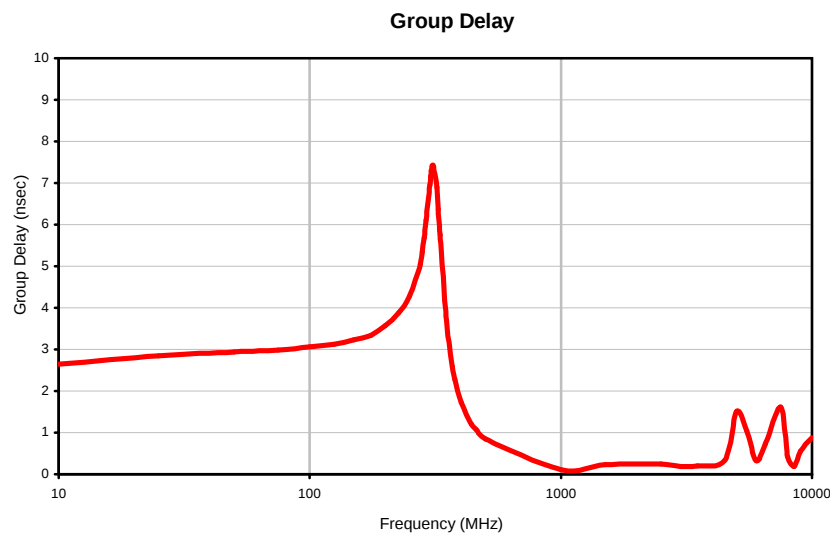
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Typical Performance Curves



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REV. X1
SLP-300+
060921
Page 1 of 1

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