

Low Pass Filter

50Ω DC to 15 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-15+



Generic photo used for illustration purposes only

CASE STYLE: FF99

Connectors Model
SMA SLP-15+

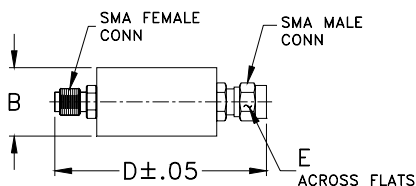
+RoHS Compliant

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 > 20 dB)	(loss > 40 dB)	Passband Typ.	Stopband Typ.
DC-15	17	23-32	32-200	1.7	18

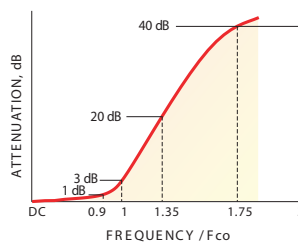
Outline Drawing



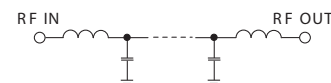
Outline Dimensions (inch/mm)

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

typical frequency response

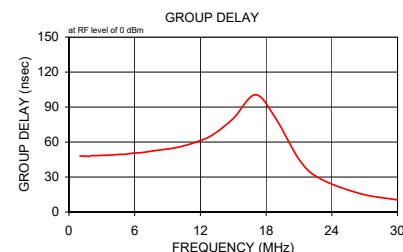
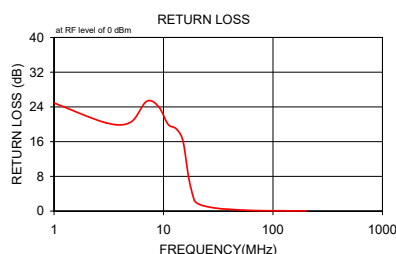


electrical schematic



Typical Performance Data

Frequency (MHz)	Insertion Loss (dB)		Return Loss (dB)	Frequency (MHz)	Group Delay (nsec)
	$\bar{x}$	σ			
1.00	0.21	0.04	24.91	1.00	48.07
3.00	0.26	0.04	20.32	1.10	47.91
5.00	0.30	0.04	20.46	1.30	48.21
7.00	0.33	0.05	25.27	1.40	47.67
9.00	0.38	0.05	24.09	1.60	48.07
11.00	0.47	0.07	20.00	1.80	47.68
13.00	0.58	0.07	19.00	2.00	48.30
15.00	0.81	0.06	16.36	2.30	48.44
17.00	2.32	0.37	7.61	2.50	48.37
19.00	8.82	0.63	2.63	2.90	48.63
19.80	12.25	0.57	2.04	3.20	48.63
20.60	15.66	0.53	1.72	3.60	48.80
21.40	18.93	0.50	1.51	4.00	48.88
22.20	22.02	0.48	1.36	4.60	49.48
23.00	24.94	0.48	1.25	5.10	49.49
23.80	27.72	0.47	1.15	5.80	50.43
25.40	32.87	0.50	0.99	6.50	50.77
27.10	37.90	0.60	0.86	7.30	51.87
28.70	42.24	0.70	0.76	8.20	53.05
30.40	46.55	0.86	0.67	9.30	54.47
32.00	50.45	1.02	0.60	10.40	56.61
33.60	54.18	1.48	0.55	11.70	60.33
54.40	77.82	6.04	0.22	13.10	66.08
75.20	77.17	4.69	0.12	15.00	80.27
96.00	81.80	4.39	0.09	17.00	100.53
116.80	80.95	4.80	0.08	18.80	81.42
137.60	80.75	3.87	0.07	21.10	43.84
158.40	83.26	4.95	0.07	23.00	28.31
179.20	79.58	3.64	0.06	26.60	15.72
200.00	80.96	5.21	0.06	30.00	10.37



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/MCStore/terms.jsp



Coaxial Low Pass Filter

SLP-15+

Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.30	0.05	36.33	0.30	52.410
1.00	0.07	26.83	1.00	52.030
5.00	0.14	22.22	5.00	53.290
10.00	0.31	16.53	10.00	60.070
15.00	0.52	18.51	15.00	85.120
20.00	16.66	0.44	20.00	54.210
21.00	21.17	0.31	21.00	39.360
22.00	25.32	0.25	22.00	30.210
24.00	32.83	0.18	24.00	19.920
25.00	36.32	0.17	25.00	16.880
27.00	43.03	0.15	27.00	12.400
30.00	53.65	0.12	30.00	7.800
40.00	60.98	0.09	40.00	6.900
50.00	60.02	0.08	50.00	2.050
60.00	60.91	0.07	60.00	1.770
70.00	61.99	0.07	70.00	1.450
80.00	62.99	0.07	80.00	0.290
90.00	63.94	0.08	90.00	0.510
150.00	67.69	0.08	150.00	1.650
300.00	72.04	0.08	300.00	1.470
500.00	71.82	0.08	500.00	4.150
1500.00	50.84	0.83	1500.00	0.730
2000.00	59.88	1.81	2000.00	0.180
3000.00	54.76	0.74	3000.00	0.320
4000.00	39.55	4.64	4000.00	0.720
4500.00	45.57	2.63	4500.00	0.290
5000.00	39.87	2.17	5000.00	1.150
5500.00	49.09	3.06	5500.00	0.610
6000.00	57.03	4.96	6000.00	1.630
6500.00	40.81	4.35	6500.00	0.500
7000.00	37.60	1.81	7000.00	0.690
7500.00	46.02	1.43	7500.00	0.110
8500.00	48.23	2.60	8500.00	0.120
9000.00	39.27	2.27	9000.00	0.200
9500.00	26.74	2.46	9500.00	0.580
10000.00	26.41	2.52	10000.00	0.370

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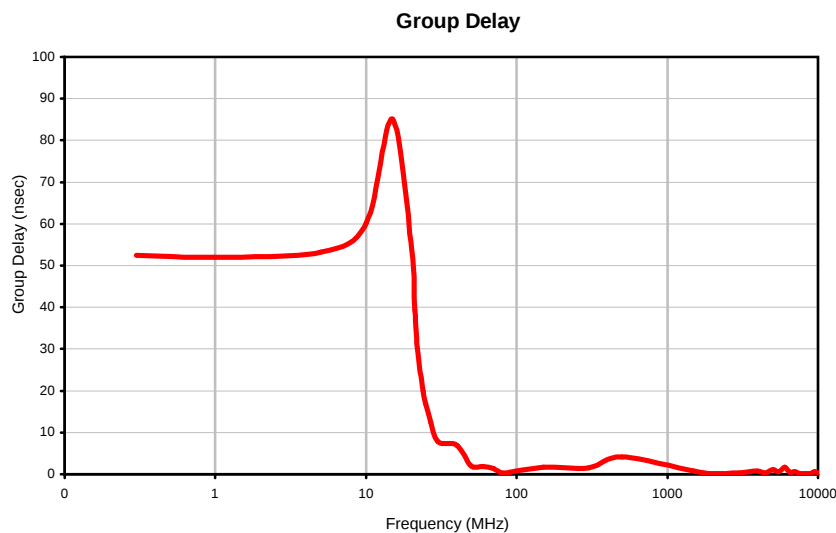


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Typical Performance Curves



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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